Form OGC-1a

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

1a. Type of Work
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

7. Unit Agreement Name
Fawcett and Sons Inc

b. Type of Well
Oil Well [X] Gas Well [ ] Other Single Zone [ ] Multiple Zone [ ]

8. Farm or Lease Name

2. Name of Operator
Amoco Production Company

9. Well No.
1

3. Address of Operator
P. O. Box 1400, Riverton, Wyoming 82501

10. Field and Pool, or Wildcat
Wildcat Madison

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface
2159' FWL, 694' FNL, NE/4 NW/4 Section 36
At proposed prod. zone

11. Sec., T., R., M., or Blk. and Survey or Area
Section 36-T5N-R7E

14. Distance in miles and direction from nearest town or post office*
10 miles South of Wahsatch, Utah

12. County or Parrish: Summit
13. State: Utah

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)

16. No. of acres in lease: 5760

17. No. of acres assigned to this well

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.

19. Proposed depth: 15500

20. Rotary or cable tools: Rotary

21. Elevations (Show whether DF, RT, GR, etc.)
6834 GR

22. Approx. date work will start*
When Approved

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
26	20	94	1500	2000 Sx Cl G
17-1/2	13-3/8	54.5	1500	900 Sx Gl G
12-1/4	9-5/8	40.5	11600	Cl G as required
8-3/4	7	29	11400-15500	Cl G as required

Propose to test paleozoic rocks for commercial accumulation of hydrocarbons.

RECEIVED JUN 23 1978 DIVISION OF OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
Signed K. G. Kapp Title Area Adm. Supervisor Date June 20, 1978

(This space for Federal or State office use)

Permit No. Approval Date

Approved by Title Date
Conditions of approval, if any:

*See Instructions On Reverse Side

Form OGC-1a

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

Amended

5. Lease Designation and Serial No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. If Indian, Allottee or Tribe Name

1a. Type of Work
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

7. Unit Agreement Name
Fawcett and Sons Inc

b. Type of Well
Oil Well [X] Gas Well [ ] Other Single Zone [ ] Multiple Zone [ ]

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Amoco Production Company

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Wildcat - Madison

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At surface
2159' FWL, 694' FNL, NE/4 NW/4 Section 36
At proposed prod. zone

11. Sec., T., R., M., or Blk. and Survey or Area
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14. Distance in miles and direction from nearest town or post office*
10 miles South of Wahsatch, Utah

12. County or Parrish: Summit
13. State: Utah

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)

16. No. of acres in lease
5760

17. No. of acres assigned to this well

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.

19. Proposed depth
15500 Mad.

20. Rotary or cable tools
Rotary

21. Elevations (Show whether DF, RT, GR, etc.)
6834 GR

22. Approx. date work will start*
When Approved

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
26	20	94	1500	2000 Sx Cl G
17-1/2	13-3/8	54.5	5800	900 Sx Cl G
12-1/4	9-5/8	40.5	11600	Cl G as required
8-3/4	7	29	11400-15500	Cl G as required

Propose to test paleozoic rocks for commercial accumulation of hydrocarbons.

Amended APD due to location change.
Location moved 136' East, 30' South
of center due to terrain.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
Signed K. A. Duff Title Area Adm. Supervisor Date July 5, 1978

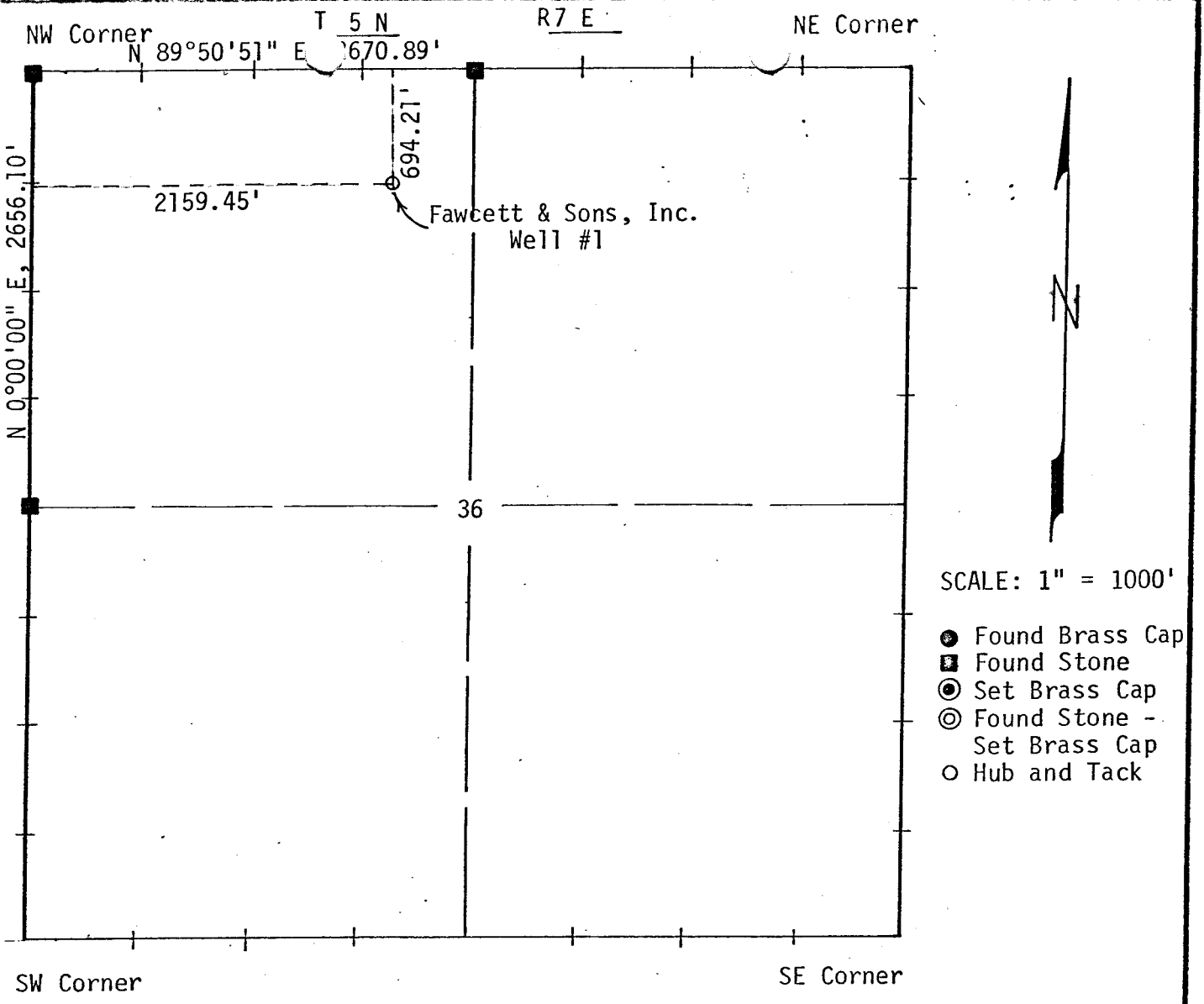
(This space for Federal or State office use)

Permit No. 43-043-30078 Approval Date

Approved by Title Date
Conditions of approval, if any:

RECEIVED JUL 10 1978 DIVISION OF OIL, GAS, & MINING

*See Instructions On Reverse Side



I, John A. Proffit of Evanston, Wyoming certify that in accordance with a request from Harvey Howard of Riverton, Wyoming for Amoco Production Company I made a survey on the 11,16 day of May, 19 78 for Location and Elevation of the Fawcett & Sons, Inc. #1 Well as shown on the above map, the wellsite is in the NE¼NW¼ of Section 36, Township 5 N, Range 7 E of the Salt Lake Base & Merid., Summit County, State of Utah, Elevation is 6834 Feet top of hub Datum U.S.G.S. Quadrangle - Wahsatch, Utah-Wyo., Spot elev. in SW¼ Sec. 25, T 5 N, R 7 E

Reference point	299.9' East	2" Alum. cap on 5/8" Rebar	Elev. on cap	6860'
Reference point	200' South	"	"	6839'
Reference point	450' South	"	"	6847.5'
Reference point	199.9' West	"	"	6813'

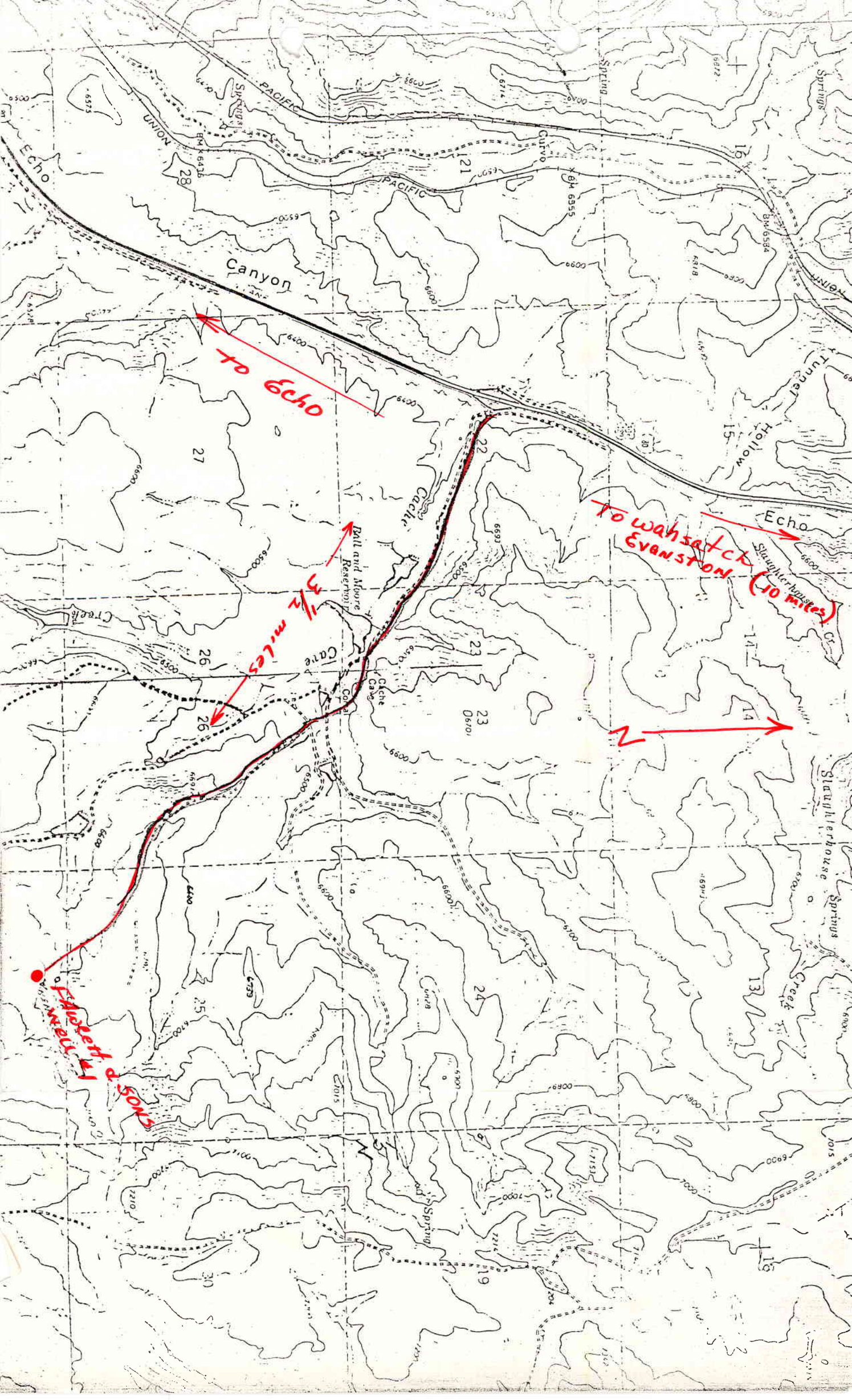
JUL 10 1978

John A. Proffit 6/9/78

JOHN A. PROFFIT UTAH R.L.S. NO. 2860

DATE: 6-8-78
JOB NO.: 78-10-5

UINTA ENGINEERING & SURVEYING, INC.
808 MAIN STREET, EVANSTON, WYOMING



Echo
Canyon
UNION
PACIFIC
Curvo
Tunnel
Hollow
Echo
Slaughterhouse
Cr.
Cache
Cave
Coal
Cache Cave
Ball and Moore Reservoir
Creek
Slaughterhouse
Springs
Creek
Spring
to Echo
to wahsatch
Evanston (10 miles)
3 1/2 miles
N
Hewlett & Sons
well #1

D. Stimulation and Fracture Program:

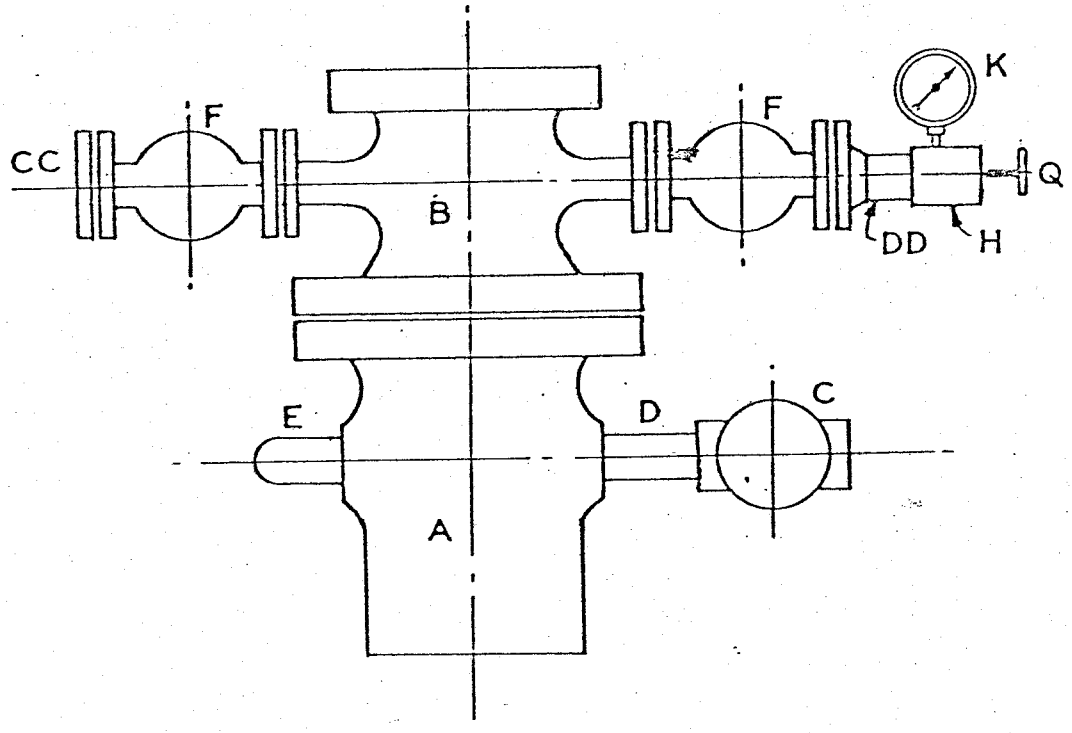
Perforate Madison formation and acidize W/12000 gals. 15% HCL acid at a maximum pressure of 8000 psi.

9. Anticipated abnormal pressures, temperatures, or hydrogen sulfide gas, or any other potential hazards, and plans to counter act same:

No abnormal pressures or temperatures are expected. H2S gas could be encountered in the Phosphoria formation. Mud loggers are to be used during this period. H2S detectors will be in use, and Iron-ite Sponge will be used if necessary.

10. Anticipated starting date and duration of operations.

The starting date will be after approved.
Duration will be approximately 120 days.



FOR 2,000# W. P. PRIMARY CASINGHEAD
AND 3,000# W. P. SECONDARY CASINGHEAD.

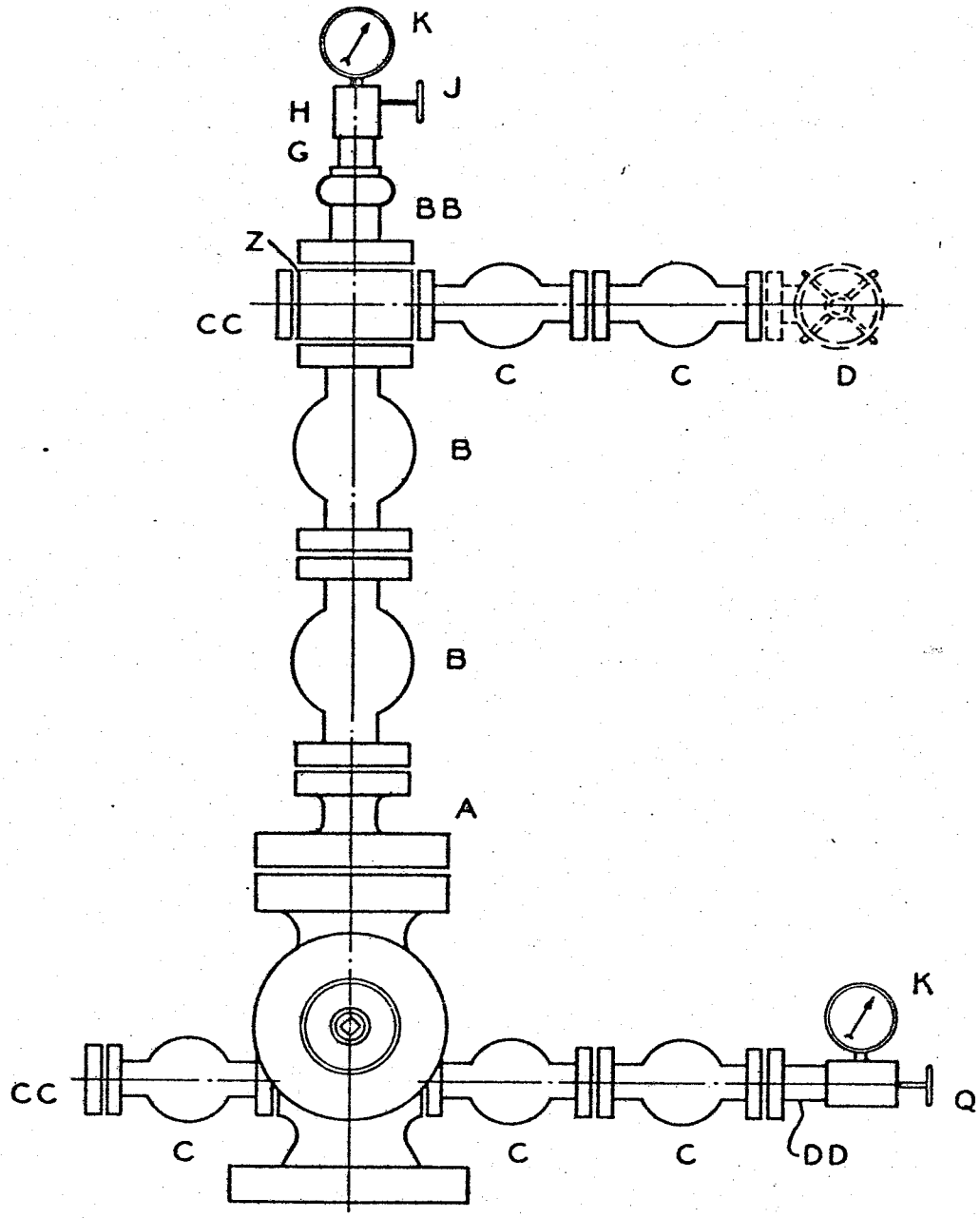
OR 3,000# W. P. PRIMARY CASINGHEAD
AND 3,000# W. P. SECONDARY CASINGHEAD.

OR 3,000# W. P. PRIMARY CASINGHEAD
AND 5,000# W. P. SECONDARY CASINGHEAD.

IF INTERMEDIATE STRING OF CASING NOT REQUIRED,
LOWER (PRIMARY) HEAD WILL BE ONLY CASINGHEAD USED.

Amoco Production Company	SCALE: NONE
STANDARD BASIC CASINGHEAD HOOK-UP	DR. MSB AP.
2000# TO 5000# W. P.	DRG. NO. A-834

Refers to Specification No. W-8
Effective Date: June 1, 1973



Amoco Production Company

STANDARD BASIC WELL HEAD HOOK-UP
10,000# W.P.
(CHOKE STEM UP STREAM)

SCALE: NONE
DR. W.J.F. AP. Blo/cf
DRG. No. A-8080

NTL - 6
10 Point Program

Fawcett & Sons Well #1

1. Geologic name of surface formation:

   Tertiary Wasatch

2. Estimated formation tops:

Formation	Depth
Twin Creek	5800
Nugget	7400
Thaynes	9200
Dinwoody	11300
Phpsphoria	11600
Weber	12300
Madison	13400

3. Estimated depths at which anticipated water, oil, gas, or other mineral-bearing formations are expected to be encountered:

Subtances	Depth
Water	5800 - 7400
Water, Oil, Gas	9200 - T.D.

4. A. Casing Program:

Purpose	Footage	Size	Wt.	Grade	Condition	Thread
Surface	1500	13-3/8	54.4	K-55	New	LT&C
Production	11600	9-5/8	40.5	N-80	New	LT&C
Liner	4100 (11400 - 15500)	7	29	S-95	New	LT&C

B. Cement Program

Surface	Type and amount of cement
	900 Sx Cl G W/2% CaCl to surface

Production	Type and amount of cement
	Cl G as required W/dispersant and retardant above any productive zones.

4. A. Casing Program - Cont'd

Liner	Type and amount of cement
	Cl G as required W/dispersant and retardant above any productive zones.

5. A. Operators minimum specifications for pressure control equipment are explained on attached schematic diagram. After running surface casing and prior to drilling out, Blow out preventors and related equipment will be tested to the full working pressure rating as shown on the attached diagram. Thereafter the BOP will be checked daily for mechanical operations only and will be noted on the IADC Daily Drilling Report.

   B. Casing Head: 13-3/8 ", 3000 WP.

6. Drilling mud program, type and characteristics, weight, viscosity, fluidloss, % oil:
   0-1500' - Native state mud, 1500 - 5800 LSND 8.8-9.0#/gal, 5800 - 7400 - Drill W/air, 7400 - 11600 LSND, 11600 - 15500 LSND may increase mud weight if condition so dictate, will monitor PH, may use Ironite Sponge if H2S is encountered. Except through air drill section, viscosity 30-35, WL 15-20.

7. Auxiliary Equipment:
   A. Kelly Cock:
   B. No bit floats:
   C. Sub with full opening valve. 2 " choke manifold with remote control choke 5000 # WP.
   D. Monitor system on pit level:
   E. Mud Logger - 7400 thru Total Depth.

8. A. Testing Program:

   3 DST - zones to be determined by Denver exploration

   B. Logging Program:

GR	Surface to bottom of surface casing
DIL - GR	Base of surface casing to total depth.
BHC - Sonic/GR	Base of surface casing to total depth.
FDC - CNL/GR	Base of surface casing to total depth.
Velocity Survey	Over zones of interest.

   C. Coring Program:

   None

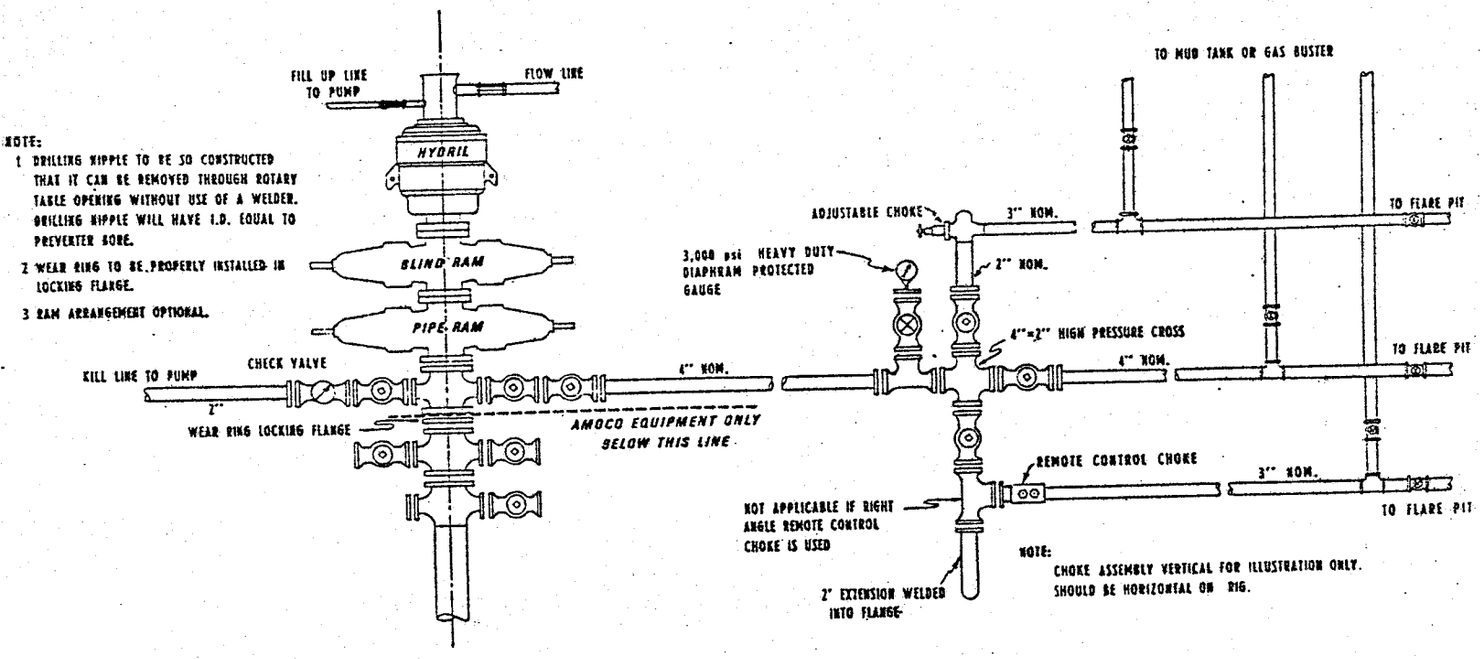
Amoco Production Company

MINIMUM BLOW-OUT PREVENTER REQUIRMENTS

5,000 psi W.P.

2/76

ARRANGEMENT IF MANIFOLD IS ON SIDE OF RIG



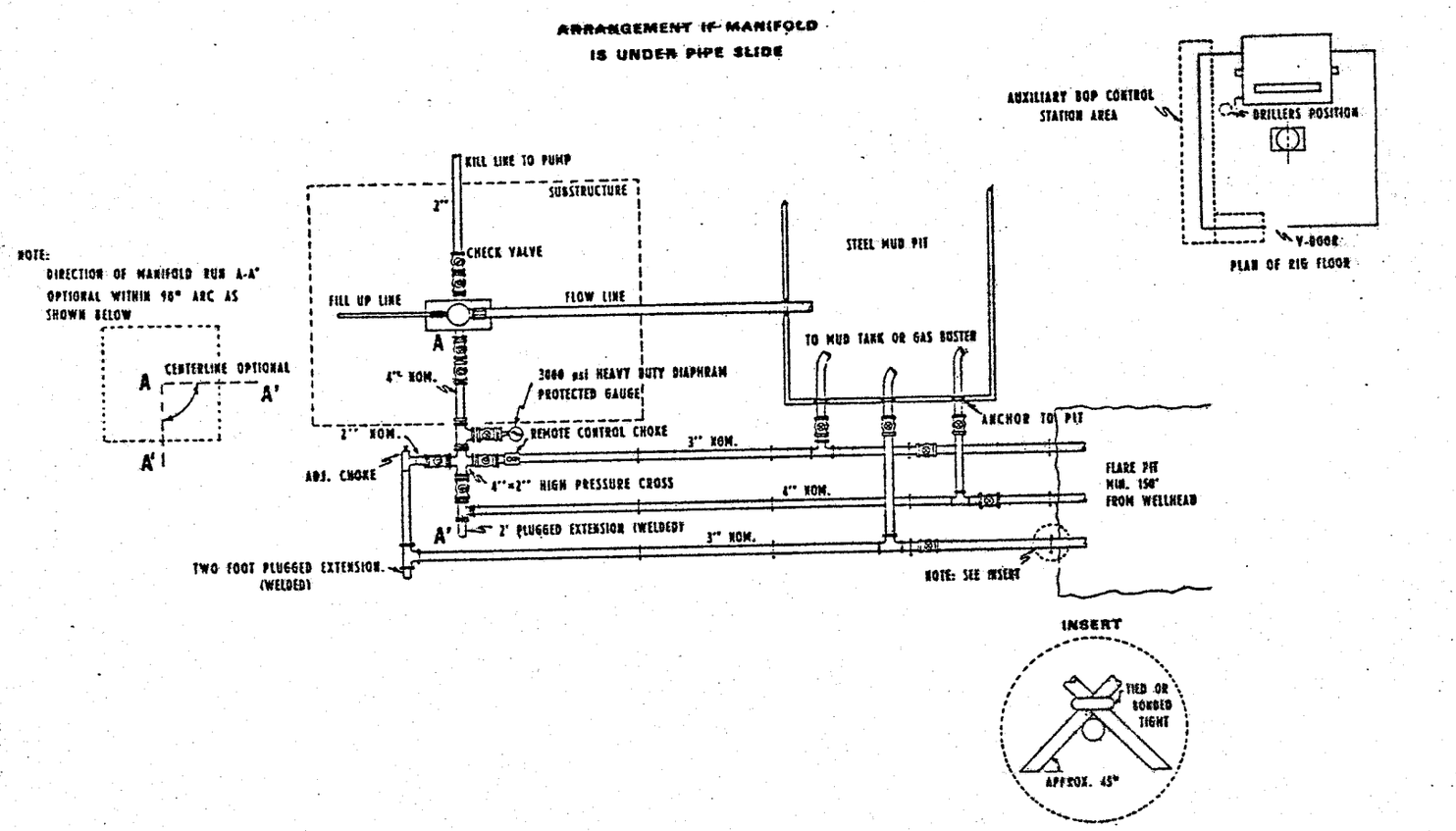
NOTE:

1 DRILLING NIPPLE TO BE SO CONSTRUCTED THAT IT CAN BE REMOVED THROUGH ROTARY TABLE OPENING WITHOUT USE OF A WELDER. DRILLING NIPPLE WILL HAVE I.D. EQUAL TO PREVENTER BORE.

2 WEAR RING TO BE PROPERLY INSTALLED IN LOCKING FLANGE.

3 RAM ARRANGEMENT OPTIONAL.

ARRANGEMENT IF MANIFOLD IS UNDER PIPE SLIDE



NOTE:
DIRECTION OF MANIFOLD RUN A-A' OPTIONAL WITHIN 90° ARC AS SHOWN BELOW

NOTE:

1 BLOW-OUT PREVENTERS, ALL FITTINGS AND PIPE MUST BE 3,000 psi W.P. MINIMUM.

2 ALL FITTINGS UPSTREAM OF MANIFOLD TO BE FLANGED, SCREWED OR WELDED CONNECTIONS DOWNSTREAM FROM CHOKES PERMISSIBLE. ADJUSTABLE CHOKE MAY HAVE SCREWED CONNECTIONS.

3 ALL VALVES TO BE FULL OPENING, PLUG OR GATE METAL TO METAL SEAL, AND 3,000 psi W.P. MINIMUM.

4 SAFETY VALVE MUST BE AVAILABLE ON RIG FLOOR AT ALL TIMES WITH PROPER CONNECTION. VALVE TO BE FULL BORE 5,000 psi W.P. MINIMUM.

5 ALL LINES DOWNSTREAM OF CHOKE TO BE SECURELY ANCHORED EVERY 30' AND NEAR END OF CHOKE LINES.

6 EQUIPMENT THROUGH WHICH BIT MUST PASS SHALL BE AS LARGE AS INSIDE DIAMETER OF THE CASING BEING DRILLED THROUGH.

7 KELLY COCK ON KELLY.

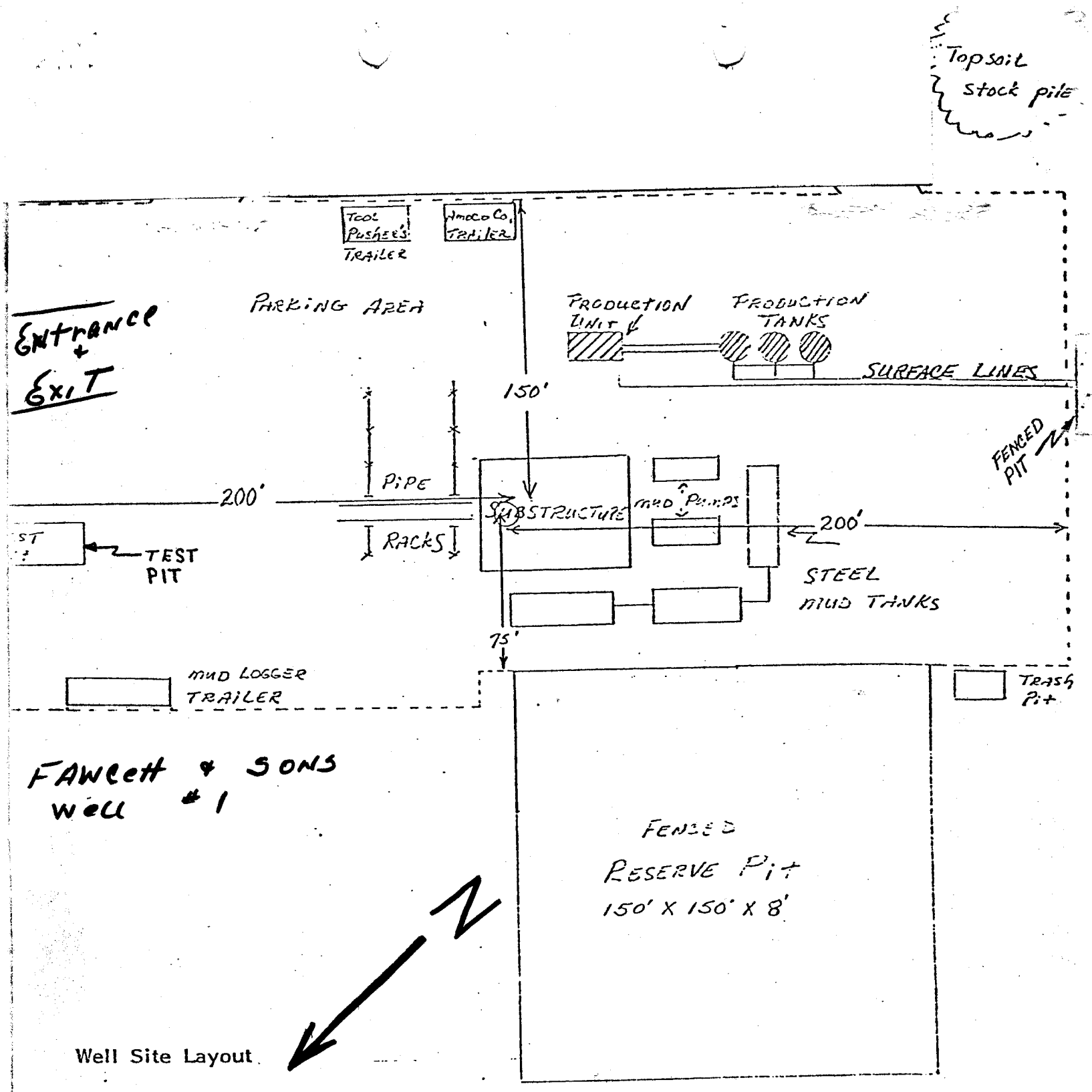
8 EXTENSION WRENCHES AND HAND WHEELS TO BE PROPERLY INSTALLED AND BRACED AT ALL TIMES.

9 AUXILIARY BLOW-OUT PREVENTER CONTROL STATION TO BE LOCATED AS CLOSE TO DRILLERS POSITION AS FEASIBLE.

10 BLOW-OUT PREVENTER CLOSING EQUIPMENT TO INCLUDE 80 GALLON ACCUMULATOR, AND TWO INDEPENDENT SOURCES OF PUMP POWER ON EACH CLOSING UNIT. INSTALLATION TO BE LOCATED AT LEAST 75' FROM STACK ON DRILLERS' SIDE OF RIG.

11 ALL UNMARKED PIPE MINIMUM 3" O.D. NOM. GRADE J-55 TUBING OR MIN. 3,000 psi W.P. LINE PIPE.

12 REMOTE CONTROL CHOKE INSTALLATION AND LINE TO BE STRAIGHT AS POSSIBLE WITH NO 90° TURNS BELOW CHOKE.



Well Site Layout

cale 1" = 50' = Shows permanent production equipment to be installed after drilling rig moved out. The fenced pit used for production will be covered if any fluid is present.
he drilling and production pads will be constructed with dozers and graders using native materia
otted lines indicates perimeter of leveled location.

TYPICAL LOCATION LAYOUT	AMOCO PRODUCTION CO. P.O. Box 1400 Riverton Wyoming	EXHIBIT D

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

** FILE NOTATIONS **

Date: June 26 -

Operator: Amoco Prod. Co.

Well No: Jarlett & Sons #1

Location: Sec. 36 T. 5N R. 7E County: Summit

File Prepared: [✓] *Entered on N.I.D.:* [✓]

Card Indexed: [✓] *Completion Sheet:* [ ]

API NUMBER: 43-043-30078

CHECKED BY:

Administrative Assistant

Remarks: No other wells in Township

Petroleum Engineer

Remarks:

Director

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required: [ ] Filed *Survey Plat Required:* [ ]

Order No. [ ] *Surface Casing Change to* [ ]

Rule C-3(c), Topographic exception/company owns or controls acreage within a 660' radius of proposed site [✓]

O.K. Rule C-3 [ ] *O.K. In* _____ *Unit* [ ]

Other:

[✓] *Letter Written/Approved*

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 WEST NORTH TEMPLE
SALT LAKE CITY, UTAH 84116

July 13, 1978

Amoco Production Company
P.O. Box 1400
Riverton, Wyoming 82501

Re: Well No. Fawcett & Sons No. 1
Sec. 36, T. 5 N, R. 7 E,
Summit County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

PATRICK L. DRISCOLL - Chief Petroleum Engineer
HOME: 582-7247
OFFICE: 533-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-043-30078.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

CLEON B. FEIGHT
Director

October 1, 1978

MEMO TO FILE

Re: AMACO PRODUCTION COMPANY
Well No. Fawcett and Son #1
Sec. 36, T. 5N, R. 7E
Summit County, Utah

A telephone call was received on September 30, 1978 informing this office that the above well was spudded-in on September 30, 1978 at 2:00 PM. Noble was the contractor and Rig #116 was used.

CLEON B. FEIGHT
DIRECTOR

CBF/lw
cc: State Indurstrial Commission

TA CE & SONS WI UNIT #1
3 -5N-7E

DATE	REMARKS
9-30-78	Prep to spud. PU DC x DP. Will spud this am.
10-1-78	TD 432, Ø, sh. Spud 2 pm 9-30-78.
10-2-78	TD 723, TI w/bit, sn sh. MW 8.9 Vis 28 WL 42. Dev .5 deg @ 496; .2 deg @ 588 x 678.
10-3-78	TD 991, Ø, sn sh. MW 9 Vis 31 WL 30. Dev .5 deg @ 803; 895' x 985'. Inadequate shake capacity.
10-4-78	TD 1256, Ø, sn sh. MW 8.9 Vis 30 WL 31. Dev .5 deg @ 1136; .2 deg @ 1196; x .5 deg @ 1256. Change screen 50 on bariod shaker to 30 mesh. Hooking up drilco ezy-torque. WO hole openers. Totco vista logger.
10-5-78	TD 1524, Ø, sn sh. MW 8.9 Vis 30 WL 2.8. Dev .2 deg @ 1316; .1 deg @ 1376; .1 deg @ 1435; .5 deg @ 1496.
10-6-78	TD 1540, open hole x 320, sn sh. MW 9 Vis 30 WL 34. Dev .2 deg @ 1484. Hole tit x 1306 x 1230.
10-7-78	TD 1540, open hole to 583, sn sh. MW 9.1 Vis 34 WL 34. Torque excessive limiting . WO bit x mud.
10-8-78	TD 762, drl 26 inch hole, sn sh. MW 8.9 Vis 31 WL 44.8. 235 bbl tank from 3-U x centrifuge from solids control due 10-9-78. Changed rumba screen from 82 to 60-24.
10-9-78	TD 1540, open hole @ 951, sn sh. MW 9.1 Vis 29 WL 36.3.
10-10-78	TD 1540, POH @ 1119 w/rmr, sn sh. MW 9 Vis 30 WL 28.8. Twisted off btm pins of grant rmr @ 1:30 am. Top of fish @ 1062'. Length of fish 57.5. Prep to TIH w/overshot.
10-11-78	TD 1540, WO fish tools, sn sh. MW 9 Vis 30 WL 34.6. Twist off on top of shock sub. TI x overshot x got over fish x picked up w/no drag. TO x fish #1. Ream 45'to btm. Drl 4 hrs while working on auto driller. Driller set 35M# on bit x twist off. - 27 ft fish x 1118.
10-12-78	TD 5140, open hole @ 1147, sn sh. MW 8.9 Vis 31 WL 18.6. TI w/9" grapple 20" x 10" guid. Shows mark on inside of 10" guide. TI w/9" grapple, 15-1/2" OD x 10-1/4" guide. No catch. TO. TI w/9" grapple x bent jt. No catch. TO. Wear maks on grapple control. TI w/8-3/4" grapple w/15-1/2" skirt. Catch fish x retrieve same. Lay dwn fishing tools. TI. Inspect DC x subs. No bad connection.
10-13-78	TD 1540, open hole @ 1224, sn sh. MW 8.9 Vis 30 WL 26.6.
10-14-78	TD 1540, prep to run csg, MW 9, Vis 36, WL 14, open hole to 26" X 1530, circ X short trip X circ X TO to run csg, csg crew to be on locn X midnight, Weatherford X lamb.
10-15-78	TD 1540, open hole @ 1472, sn, sh, MW 9, Vis 30, WL 14.4, rabbit 20" csg, 1 jt wouldn't go thru.
10-16-78	TD 1540, open hole @ 1332, sn, sh, MW 8.9, Vis 30, WL 17.4, Wash & ream to btm.
10-17-78	TD 1540, cmt 20" csg, WO csg crews X RU 3 hrs, run 37 jts 20" 94# csg to 1525', strapped shoe X 2 collars, circ X run DP X stab in X cmt.
10-18-78	TD 1540, NU, sn sh. Pmp 30 BW ahead. Pmp 1250 sx 65:35 poz x 6% gel x 2% cacl x 1/4#/sx celloflake. Circ out 125 bbl slurry. Good returns thruout displ w/17 BW. Bump plug @ 0730 10-17-78. Unstung x TO w/DP. WOC.
10-19-78	TD 1810, Ø, sn sh. MW 8.9 Vis 32 WL 22. Finish TI x tag cmt @ 1524'. Tst csg 1000 psi for 30 min. OK. Drl cmt x plug. Drl 17.5 hrs.
10-20-78	TD 2075, Ø, sn sh. MW 9.2 Vis 37 WL 23.8. Dev .5 deg @ 1903; .5 deg @ 1994; .7 deg @ 2061. Drl x survey 17-1/2 hole to 2061'. Trip for bit x drl to 2075.

RECEIVED
OCT 26 1978
DIVISION OF O
GAS & MINING

1 W

RECEIVED
JAN 22 1979
DIVISION OF OIL, GAS, & MINING

Amoco Production Compa

SCOUT TICKET (Supplement)

SHEET ___ OF ___ SHEETS

STATE UTAH COUNTY PARISH MORGAN AREA FIELD OVERTHRUST

SECTION 36 BLOCK TWP 5 N SURVEY RANGE 7 E

COMPANY AMOCO PRODUCTION COMPANY

LEASE FAWCETT & SONS INC. WELL NO. #1

DATE	REMARKS
12-29-78	TD 8052' Ø, sn, MW 8.6, Vis 36, WL 8.2, took wt @ 5000' while TI, in 13 3/8" csg, rm thru tite spot 2 hrs, rm 20' btm on TI, trip for hole in DP @ 2000 hrs, found hole above pin 10 stds above HWDP, BGG 4 units, TG 6 units.
12-30-78	TD 8117', Ø sn, MW 8.7, Vis 36, WL 10, lost 600# in 30 min, pmp 50' line x trip for hole, pull 30 stds, no hole, PU Kelly x pmp w/full press, GIH x drl 6 hrs, lost 500# in 30 min, pmp 50' line 2½ min x pull for hole in DP, pull 35 stds, found no hole, GIH x drl, lost 500# x TOOH, no soft line pmpd this time, 2 units BGG x 6 units trip gas.
12-31-78	TD 8176' Ø sn, MW 8.7, Vis 37, WL 9.8, pmp carbide x TO for hole in DP, LD 1st jt HWDP, hole 20" above pin, pull bit x chk shock sub, OK, BGG 4 units, TG 10 units.
1-1-79	TD 8220' Ø slt x sh, MW 8.7, Vis 37, BGG 2 units, 6 units trip gas, trip for bit #29, drl 1½ hr, TO for hole, pipe has never been inspected, Ankerah form @ 8201'.
1-2-79	TD 8314' Ø Ankarah, MW 8.8, Vis 39, BGG 2 units.
1-3-79	TD 8371' Ø, sn slt, MW 8.8, Vis 39, WL 9, 3 PM TO x hold in DP, found hole 16" below box 57 stds x 1 DBL-BGG 2 units, trip gas 6 units.
1-4-79	TD 8415' Ø sh, MW 8.8, Vis 37, BGG 2, trip gas 10, 1st survey misrun.
1-5-79	TD 8521' Ø sh, MW 8.8, Vis 36, WL 10, BGG 2 units, insp DP RA, all 30 jts OK
1/6/79	TD 8640 Drilling
	Survey 8624 Misrun-Drlg. Break @ 8558 from 3 ft to ft per hr BGG 2 units
1/7/79	TD 8785, drlg. BGG 2-4 MW 9 Vis 36, W.L. 11,8 PH 10
1/8/79	TD 8860 tripping
	MW 9.1 Vis 36, W.L. 12.6 PH 9
	Mud 1954 Cum 74211, cum well 1680712 est 0 BGG 4 units
1/9/79	TD 8874, drlg. progress 353, Ankerah
	Cleanshale pit chg out shock sub string rmr X top rubber stabilizer-PU 14 jts of type G Drl pipe tag bridge @ 8550 - Rmd 8 hrs to 8580 raise vec to 40 X Rmd 3 hrs TO 8740 X 1 hr to btm @ 8860. BGG 5 on trip 10 units.
1-10-79	TD 8976' Ø Ankareh, MW 9.0, Vis 35, WL 11.6, BGG 5 units.
1-11-79	TD 9037', Ø Ankerah, MW 9.1, Vis 40, WL 12.2, BGG 5, trip gas 10 units.
1-12-79	TD 9095', TO Ankerah, trip for hole w/DP, lost 700#, couldn't find hole, changed out jars.
1-13-79	TD 9098' TOOH in DP, Ank, MW 8.8, Vis 34, WL 13.8, wash & ream 60 1.5 hrs, change out shock sub 2 hrs, DC's checked OK, drilled 1 hr, press dropped from 2200 to 1200#, TO, change out shock sub, TI, press still 1200#, still have hole in DP pmping Carbite log checking for leak.
1-14-79	TD 9161' Ø Ank, MW 8.7, Vis 34, WL 23, found 2 holes in, 88 stds out, 8200 holes in, drill pipebody, changed out shock side x jars.
1-15-79	TD 9227', Ø Ank, MW 8.8, Vis 35, WL 10.2, Ank, BGG 5 units.
1-16-79	TD 9278' Ø sn & shale, MW 8.8, Vis 35, WL 9.2.
1-17-79	TD 9315' Ø , MW 8.8, Vis 35, WL 11.8, BGG 5 units, trip 12 units, bit 33 was pulled due to losing pmp press, found hole in DP 79 stds dwn.
1-18-79	TD 9385', Ø, lime, MW 8.9, Vis 35, WL 11.8, trip for hole 5225 tube area.

Form 998 2-71

FAWCETT & SONS, Inc #1
Sec 36-5N-7E

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DATE	REMARKS
12-14-78	TD 7021', GIH, displace w/mud, MW 8.4, Vis 37, WL 20. At 4:15 PM, PU x tried to work pr off; pr up to 500# w/small flame, @ 5:30 pulled 3 stds x tried to unload, flame 7' plus past bloody line, broke Kelly, unloaded DP for 15 min, put Kelly back on, PU Kelly & RU for 1000#, small flame, W/O air circ, PR up to 1000#, pull 18 stds x unload hole w/small flame, return for soap & wtr, RU flowline x GIH to displace w/mud.
12-15-78	TD 7021', cond mud, Twin Creek, spud 9-30-78, MW 8.4, Vis 37, WL 20, disp air hole w/mud 80' from btm, returns w/2600 str, total to disp 5206, POOH x chk DCs, w/Allen ultrasonic, LD 1-8" DC w/cracked box, RMR 1/8" out of gauge, bit x RWP 1/16 out of gauge, PPU x run csg inspection w/dialog, remaining wall thickness, some wian @ 5055 x 5310, RU x run caliper w/Dresser, tag fill @ 6966, 12" hole @ 6950, good PKR 6936960, RD x run in to mix mud, will tst AM 12-16-78, after cond inc mud x clean out fill.
12-16-78	TD 7021', run DST #1, MW 8.5, Vis 35, WL 9, DST interval 6950-7021', 65' fill on trip to btm, 10' fill on short trip, ran 2 high vis sweeps & cleaned up.
12-17-78	TD 7021', Prep for DST #2, MW 8.5, Vis 35, WL 9, DST #1 tag btm x 411 holw Z hook up line.
12-18-78	TD 7021', cut drlg line, TI, 1m, TO for DST #2, thaw tools, set PKR @ 6920, pkr did not hold during initial open or shut in, slide dwn hole 15', pmp 22 bbls mud dwn backside, PKR held for final open, rel PKR, pull 39 stds, dry rev out x caught 3 samples, POOH, BD tools, test only good on FO x FSI.
12-19-78	TD 7033, WO Johnston, progress 12, Lm. MW 8.4 Vis 34 WL 10.2. TG 36 units. Johnston truck broke dwn. Being towed to site from east of Evanston.
12-20-78	TD 7038' LD tst tools, WO DST tools, 3½ hrs, TO for DST #3, PU tools x TI to 7038', set btm PKR x 6940', IO 10 min, strong blow from btm bucket in ½ min, surface PR 4# x end of IO, ISI 60 min, FO 60 min, open x 2" blow, incr to ST blow in ½ min, surf PR 17# after 35 min, turn to pit on ¼" choke, surf PR 6# @ end of flow, no GTS, FSI 120 min, rel PKR x pull 7 stds to fluid, rev out, rec'd 111 bbls, fresh wtr, SL-OIL-WT, wtr, or cond x salty wtr, pull x LD test tools.
12-21-78	TD 7107', Ø, MW 8.4, Vis 34, WL 9, LD tst tools 1 hr, 4 hrs work on pmps x boiler while WOO, 3½ TI w/bit 24, LD one 8" DC x 1 XO, 4½ IF x 6-5/8 H-90 bad threads, lost 300# pmp press, pmp soft line press back to normal, TO hole in 64th stand, TI resume Ø, TG 40 units, no mud log report.
12-22-78	TD 7324' trip, MW 8.6, Vis 39, WL 9.2, drl 7107-7200, x lost 150 bbls mud between 7200 x 7283, mixed 30 sx nut plug x 5 sx Kwikseal in 50 bbls mud x pmp to bit x full returns, drl 7283-7324' x lost 300# pmp press , pmp soft line x drop survey x prep TO.
12-23-78	TD 7505' Ø Nugget, TO hole for hole in DP, found hole 67 stds off btm, TO x PU new bit #25 x 1-8" DC, losing mud @ slow rate, no gas shows, MW 8.6, Vis 37.
12-24-78	TD 7634', trip for hole in DP, Nugget, MW 8.7, Vis 39, WL 9.8, trip out for holes in DP, found 2 holes in gre DP right above HWDP, TI x drill, lost pmp press again, TO for hole in DP, BGG 0, TG 10 units.
12-25-78	TD 7709' Ø Nugget, MW 8.6, Vis 37, WL 9, trip for hole in DP, hole 18" above pin, 7 stds above WT pipe, TI drl 1-½, trip for hole, hole 18" above in 6 stds x single above WT pipe, BGG2, TG 6.
12-26-78	TD 7766', TI Nugget, MW 8.6, Vis 36, WL 8.2, trip for hole in DP, found hole above pin, 3 stds above HWDP, change out jt, PU shock sub, RWP 3/16" out of gauge x string reamer ¼" out of gauge, cut drlg line x change DP rubbers while TI, BGG 2 units.
12-27-78	TD 7885' Ø Nugget, MW 8.7, Vis 37, RM 60' to btm on TI, BHA bit RWP 5 DC, string rmr shock sub 1-9" DC, str rmr 2-9" 1 non rot stab 5-9" DC, XO 3-8" DC XO, Daly jars, XO, 2-8 DC, XO, 13 jts HWDP, BGG 2 units.
12-28-78	TD 7954' trip, sn xsh, MW 8.7, Vis 37, WL 8.4, losing 2 bbls mud/hr, last 20 BM in drlg break @ 7941-7948', nogas in break, spot LCM pill on btm before TO, inspect DC, no bad collars, re dress RWP x btm stringer reamer, change out top string reamer w/non-rotating rubber sleeve stab, BGG 2 units.

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Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ____ OF ____ SHEETS

STATE UTAH COUNTY PARISH MORGAN AREA FIELD OVERTHRUST

SECTION 36 BLOCK TWP 5N SURVEY RANGE 7E

COMPANY AMOCO PRODUCTION COMPANY

LEASE FAWCETT & SONS INC. WELL NO. 1

DATE	REMARKS
11/27/78	TD 5488, Trip, QTXSLT. Mud wt 9.5, Visc 30, Wl 64. Survey: 5404, 1.5 Deg. (Short trip 15 stds X hole good at 5465' - trip for washout at 5488 X LD JT 115 X hole 18 inch above pin. Changed out shock sub. - BGG 6 units.)
11/28/78	TD 5571, trip for hole, LM. - Mud weight 9.6, Visc 30, WL 84. Survey 5496, 1.7 DEG. Top of Twin Creek @ 5498'. - BGG 6 units. - TG 10 units.
11/29/78	TD 5592, Logging, LMXTC. Mud weight 9.8, Visc 30, WL 78. Survey: 5592, 1.7 DEG. Strap out of hole 11 ft depth correction; 5581 ft corrected to 5592. RU loggers. Loggers TD at 5582 ft. Repair bridle 4-5 hrs. Running DLL-GR. Hole in good shape.
11/30/78	TD 5592, Rig Dn Schlumberger. LM. Trouble w/ DDL X CAL LOG. Required new tools. Got Logs. Pred TO TI X Cond for Csg.
12/1/78	TD 5592, run csg, LM. Run 13-5/8 inch csg. 40 ft of fill after logging. Circ 3 hrs. Cleaned up OK.
12-2-78	TD 5592', WOC, LM, broke air slips, mash 1 jt csg, tried to run w/Spider x crushed 2nd jt, ran ball in x floated csg in, circ @ 5535 deg, wash 57' to btm; circ & RU x cmt 3000 sx G 18% salt, set .2% D-45, PD 11:32 PM, RU & cmt, dwn backside w/1" pipe, 300 sx G w/2% KCL wtr, comp @ 2:19 AM, will WOC 8 hrs, cut off.
12-3-78	Test Bradenhead to 1500# for 15 min, BHA bit, near bit, rmr 3 pt, short DC, 3 pt rmr, DC, 3 pt rmr.
12-4-78	TD 5592', logging, tst BOP equipt to 3000 x Hydril to 1500#, RUWL unit , running CBL-VDL log.
12-5-78	TD 5593', RU to air drill, Ls, MW 9.8, Vis 30, Tag up x 5055 x rm through x bit in 2 hrs x RWP x 1 ram, 3 hrs, tag cmt 5500 x drl FC x FS x 1' hole, RU Blooey line, BHA bit, RWP, SDC, 3 pt rmr, DC, 3 pt rmr, 7-9" DC, XO, 3-8" DC, XO, DOT jars, XO, 2-8" DC, XO, 9 jts HWDP.
12-6-78	TD 5593', staging pipe in, Lm, look for hole, weekly well cost $261,827. Check BHA 1½ hrs, blow dwn hole 8 hrs, RU bloody line w/sample catcher, de duster x air jet, attempt to blow dwn hole, air press stops @ 800#, unload hole x blowman hole cover off flow line, SD & repair, air press will not exceed 350#, possible hole in DP, trip for same, no holes, check BHA, all gage OK, thaw Hydramatic x wtr lines, stage in hole w/30 stds, circ air, run 16 more stds.
12-7-78	TD 5593', drying hole, ls, unload hole x 5000' x TI to 5593', unloaded remainder of hole, added soap x 0430 in attempt to dry up hole.
12-8-78	TD 5602', dry hole w/air, lm, hole giving up small stream of wtr, added 20 gals soap, 4 bags Microsel, 1 bbl plus 20 gel alcohol, drl 4' @ 9 AM x 3' @ 3 PM, did not dust, no returns.
12-9-78	TD 5700', dry hole x air, Ls, cln mud pits x build mud volume, Ø x drying hole x air, drl 15' x had 4' fill x hole tite, Ø x working pipe x pressure dropping.
12-10-78	TD 5944', Ø w/mist, Ls, attempt survey @ 5700, instrument wet inside, RU x circ foam, commence mist Ø @ 3:00 PM, air press stayed @ 240#, incr @ 9 PM 4' fill after connections.
12-11-78	TD 6358', mist Ø lm x sn, 1.2 deg @ 5972', 1 deg @ 6214', 5 units BGG.

Form 998 2-71

AMOCO-CHAMPLIN-FAWCETT & SONS #1
36-5N-7E

DATE	REMARKS
11-9-78	TD 4186, Ø, sh. MW 8.8 Vis 31 WL 13.5. TOH for hole in DC. LD 8 inch DC w/cracked box x Christensen bit sub x cracked box. BGG 2 units. TG 4 units.
11-10-78	TD 4257, rm, sh x silt. MW 8.7 Vis 28 WL 36. Drlg rough x no shock sub. TO for washout. Tight from 3930-3550. LD 9 inch DC x cracked box. TI x rm to 3550 ft. Washed x reamed from 3550 ft to TD.
11-11-78	TD 4283, magnaflux wt pipe, sn sh. Pull 35 stds. LD 1 jt DP w/hole right above pin. TI x drl 4 hrs TD for hole in DP x prep to magnaflux. Tite hole for 8-9 stds 2-8 inch DC. Wshd out washout box x cracked pin, XO, sub w/cracked box x 9 inch DC w/cracked box x 11 inch DC w/cracked pin.
11-12-78	TD 4317, Ø, sn sh. MW 8.8 Vis 32 WL 28.6. WO DC x tools 9.5 hrs. WO DC x shock sub. PU tools x TI hole. Hydromatic froze. BGG 4 units. TG 15 units.
11-13-78	TD 4386, Ø, slt sh. MW 8.8 Vis 30 WL 46. Trip for hole in slip area. -- Hole @ first jt DP above hydp. No abnormal hole drag.
11-14-78	TD 4459, trip, sn ls. MW 8.8 Vis 30 WL 38. Dev .2 deg @ 4435 ft. Trip for washout in DP 2 ft above pin 8 stds x 1 single from top. 1 tight stand No. 4. Work through in 10 min. Washout from inside out. Trip for second washout x 9 pm. Found hole in 37th std - 1-1/2 ft above pin. Finish TO x found crack in t box of bit sub. Pin face of shock sub galled. BGG 2 units. TG 6 units.
11-15-78	TD 4497, trip, sh x ls. MW 8.8 Vis 31 WL 30. TI x bit 18. Wash x ream. Drl x TO. Bit sub galled x LD 11 inch DC. BGG 4 units.
11-16-78	TD 4598, Ø, sn sh, x ls. MW 8.9 Vis 31 WL 30. Dev .7 deg @ 4525 ft. Finish TI x wash to btm. Drlg 17-1/2 hole. BGG 2 units. TG 8 units.
11-17-78	TD 4657, Trip, SN SH LS, Spud 48, Mud Wt 9, Visc 32, WL 28, 4618, 1 DEG, DRL X Surv X Trip for Cracked pin on XO between 8-X9 Inch Dcs Ti X Drl to 4657 - Tril for crack 14 below box on top 9 inch DC - 1 inch above hard band - CLN sand trap X cut DRL line BGG 4 units.
11-18-78	TD 4710', trip sn x sh x lms, MW 8.6, Vis 31, WL 34, chk DC x KD 1-8 " DC, PU shock sub x TI Ø x TO for washout, found 2 cracked, XO subs, 1-8" DC box.
11-19-78	TD 4740', TO w/fish, sn x sh x lms, MW 8.8, Vis 33, WL 26, TI hole drill 30' twisted off & TO , twisted off @ XO pin between 11" x 9" DC, WO fishing tools 3 ½ hrs, TI w/OS, twist off @ XO between 8 x 9" DC in rotary table while making connection, TI w/OS, work over fish x engage, TO w/fish.
11-20-78	TD 4800', Ø, sh x sn x lms, MW 8.8, Vis 29, WL 22.6, 1 deg @ 4764', WO welder to pull Dutchman in 11" DC, LD 2-11" DC, TI w/bit, 2 shock subs, 3-9" DC, XO, 6-8" DC, XO, X DP, go back to Ø, BGG 4 units.
11-21-78	TD 4890', Ø, slt x sn, MW 8.8, Vis 31, WL 27, Ø 17 ½ hole, BGG 4 units. Weekly well cost $10,016.
11-22-78	TD 4921', TO x fish, sn, MW 8.8, Vis 31, WL 32, trip for hole in DP x 2' above pin in 96th jt, twist off pin on XO between 8" & 9" DC's, WO Dotco fishing tools 4 hrs x TI x fishing tools, engage fish x TO x LD fish, BGG 4 units.

Amoco Production Compar

SCOUT TICKET

API WELL NO.			
State	County	Unique	S/T

RECEIVED OCT 5 1978 U.G.M.S.

STATE UTAH COUNTY PARISH MORGAN AREA FIELD OVERTHRUST

SECTION 36 BLOCK TWP 5N SURVEY RANGE 7E

COMPANY AMOCO PRODUCTION COMPANY

LEASE FAWCETT & SONS INC WELL NO. #1

AFE NO. & TYPE WILDCAT

LOCATION NW C

FEET FROM LINE: N 694 E S W 2159

WI	☐	RI	☐
OWWO	☐	AFE	☐
OFFSET WI	☐	OFFSET RI	☐
OTHER	☐		
WC	☐	IMP	☐

PROPERTY NO.

QTR

MAP NO.

DATE SPUDDED 9-30-78 PROPOSED DEPTH 15,500' ELEV 6834', graded

DATE COMPLETED TD

PFS IP

CH TP GOR GTY

PFS IP

CH TP GOR GTY

CASING: @ WITH SX

@ WITH SX

@ WITH SX

OTHER

SAMPLE TOPS		ELECTRIC LOG TOPS		
FORMATION	DEPTH	FORMATION	DEPTH OPERATOR	DEPTH PAN AM

DATE	REMARKS
7-11-78	BR x loc.
7-12 -7-13	BR x loc.
7-14-78	BR x loc. 4 days till loc ready.
7-15 -7-27	BR x loc.
7-28-78	WOCR.
9-22-78	Prep to MIRT. Will repair crown x work on motor before starting move. Est start moving Monday or Tuesday.
9-23-78	Lay mats tomorrow. Spud Thursday or Friday.
9-24-78	MIRT.
9-25-78	MIRT.

Form 984 2-71

Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ____ OF ____ SHEETS

STATE: UTAH | COUNTY PARISH: MORGAN | AREA FIELD: OVERTHRUST

SECTION: 36 | BLOCK TWP: 5N | SURVEY RANGE: 7E

COMPANY: AMOCO PRODUCTION COMPANY

LEASE: FAWCETT & SONS INC | WELL NO. 1

DATE	REMARKS
10-24-78	TD 2745, Ø, sn sh. MW 9.2 Vis 30 WL 21. Dev .5 deg @ 2665.
10-25-78	TD 3094, Ø, sn sh. MW 9.2 Vis 34 WL 21.8. Dev .5 deg @ 2684; .2 deg @ 286
10-26-78	TD 3291, trip, sn sh. MW 9.2 Vis 31 WL 23.6. Sh trip x install corrosion ring. Ream 60 ft back to btm.
10-27-78	TD 3321, Ø, sn sh. MW 9.1 Vis 31 WL 22.6. WO sub 5 hrs. Pull out for DC inspection. Lay dwn 1 each 8 inch, 9 inch, x 11 inch , x 1 cross over sub. Blacklite failed on 3rd conn. Used mag particle to inspect for rest.
10-28-78	TD 3522, Ø, sn sh. MW 9 Vis 33 WL 19.8. Dev 1 deg @ 3353'. Start H2S. Set up training crews.
10-29-78	TD 3636, Ø, sn sh. MW 9.1 Vis 34 WL 10. Dev .7 deg @ 3535. Tite hole 1 hr for last connection. Possible bentonite stringers.
10-30-78	TD 3709, work pipe, sn sh. MW 9.1 Vis 40 WL 6.8. Pmp2 vis pills. Start TO x pull 2 singles x kelly then pull 1 stnd. Drug 70M then free. Pull 2nd std x stuck 2104 off btm. Can not go up or down but have full circ. WO jars, shock sub, x fishing tools.
10-31-78	TD 3709, inspect BHA. MW 9.1 Vis 35 WL 7. Circ x work stuck pipe x WO dialog x free point x backoff x top of btm collar. LD dialog x TO. LD 11 inch DC. PU bit sub, jars, and accelerator x TI x screw into fish. Bump dwn 10 min x fish loose. Work fish out of hole 3 hrs; 4 stds. TO x LD tools x inspect BHA.
11-1-78	TD 3739, trip, sn sh. MW 9.1 Vis 34 WL 7.8. PU 11 inch shock sub x galled face on 11 inch DC x LD both items. PU 3 9-inch DC x Johnston jars. Set 83M up x 54M dwn. Wash x rm bridges from 3100 to TD. Drlg smooth to very rough. Trip for shock sub x tight first 2 stds.
11-2-78	TD 3818, sh trip, sn x ch. MW 9.1 Vis 33. Short trip. Drag x tight 170 ft off btm. 2 units BGG. TG 6 units.
11-3-78	TD 3912, Ø, sn slt MW 9 Vis 33 WL 10. Dev 1.7 deg @ 3838 ft. Trip tight first 2 stds. PU 1-11 inch x 1- 9-1/2 inch DC. LD 2 9-1/2 inch DC for refacing. Wash x rm 120 ft to btm - bridges. First conn tight x pmp high vis pill. BGG 2 units. TG 4 units.
11-4-78	TD 3995, Ø, sn slt. MW 9 Vis 33 WL 9.6. Dev 1deg @ 3945 ft. 1-1/2 hrs pull 1st 4 stds tight. Wash x ream 120 ft of bridges to btm. BGG 2 units. TG 4 units.
11-5-78	TD 4002, go in hole, sn sh. MW 8.9 Vis 34 WL 9.6. LD fish 2 hrs. DP washed out while working in pmps 1 jt above wt pipe. POOH. WO tools. PU bumper sub. Tag x could not go over w/millcontrol. POOH. Order 5 inch mill control w/cut rite JD. While waiting mill on fish pulled grapple. Trip for control x grapple caught fish. Pull 250M x work tight hole w/jars. Tight first 10-15 ft off btm. Change out shock sub x jars in hole without jars x on next trip.
11-6-78	TD 4043, trip, sn. MW 8.9 Vis 34 WL 10.8. Wash through bridges 120 ft to btm. Ream out of gauge hole loosing pmp press. Pull out to look for hole. Tite @ 3990 ft x 3650 ft. LD 2 jts w/holes, magnaflux pipe x DCs. LD XO, 7-5/8 inch reg x 8-5/8 inch reg cracked pin. Gas 2 units BGG.
11-7-78	TD 4083, Ø, sn sh. MW 9 Vis 37 WL 16. Dev 1 deg @ 4073 ft. Change #2 pmp liner to 7 inch. No trouble on TO or TI.
11-8-78	TD 4166, Ø, sn. MW 8.8 Vis 32 WL 36.8. Tite hole @ 3930 ft x 3860 ft.

Form 998 2-71

FAWCETT & SONS, INC.
Sec 36-5N-7E

DATE	REMARKS
1-20-79	TD 9424' Ø Thaynes, MW 9, Vis 38, WL 10.2, ream to btm 1/2 hrs BGG 5 units trip 12 units, changed out Daley jars, had no fill when going back to btm.
1-21-79	TD 9468' WO tubescope, Thaynes, MW 9, Vis 36, WL 13, 5 deg dev @ 9442', LD DP 4 hrs, WO tubescope 1 hr, hole in DP @ 9:30 PM, LD DP to tst, tubescope on location mow, cal con black light collars, well tst BOP's while dwn, also manifold.
1-22-79	TD 9468' TI hole, Thaynes, tubescope 117 jts 5" grade up DP, 1 jt class #2 cracked pin end, magnaflux wt pipe x DC checked OK, black light tst BOP x manifold to 3000#, hydril to 1500#, PU BHA, BHA bit RWP short DC, RWP, DC RWP shock sub, DC, stabilizer, no rotating rubber, 2 DC stabilizers 4 DC.
1-23-79	TD 9468' TIH, Thaynes, tagged tite spot in csg @ 5055, ream RWP thru tite spot, have had to do this each time when running new RWP, does not seem to be getting worse, this has happened since 6000.
1-24-79	TD 9531' Ø Thaynes MW 8.9, Vis 36, WL 10, 4½ deg @ 9503', 7½ hrs reaming tite spot@ 5055 w/RWP, no hole problem on TO btm BGG 5 units trip 15 units. DST #4 9390-9420' interval, Thaynes form, csg type none, test times IO-10, ISI-60, FO-60, FSI-120, drl pipe rec IO open w/1 blow incr to 2 in 1 min, 3 in 5 min, FO open w/1/8blw incr to 1 in 1 min, 2 in 9 min, 6 in 33 min, 1 in 43 min, 2 in 58 min, rec 577 10.1 bbls mud cut wtr, slightly gas cut, chk squ btm 5/16, top 1/8 sampler rec'y 300 CC mud, 1420 CC wtr @ 150#, .32' 3 gas press data top ch IHP clock stopped, btm chart IHP-4383, IOP-87 end-124, ISIP 125, end 3822, FOP 138, end 240, FSIP 240, end 3771, FHP 4383. BHT 154 deg F fluid data MW 8.9, RM-10 @ 60 F, 900 PPM CL, rec top RW-9, @65 F, 1000 PPM CL rec mdle RW-2.1 @ 67 F, 13,000 PPM CL rec btm RW 1.7 @ 68 F, 16,200 PPM CL sample RM RW 1.7 @ 68 F, 16,200 PPM CL tool did not plug pcks did not leak, did charts look good? yes-no no-1 clock stopped, DST was a good test.
1-25-79	TD 9617' Ø Thaynes, MW 8.9, Vis 37, WL 12, 5 deg dev @ 9573', changed out Kelly & sleeves in KB, BGG 5 units, hi 50 units,@ 9597 no Ø break,@ 9610' Ø break for 4 4-5 min/ft.
1-26-79	TD 9631' DST Thaynes, short trip, no problem, started loosing pmp press, back on btm lost 500, bumped soft line, 2nd 8 DC cracked & washed @ box DST 6, btm PKR @ 9594-9594-9631 blow thru IO, died during last of final open no wt incr.
1-27-79	TD 9637' Ø Thaynes, MW 8.9, Vis 36, WL 12.8, LD 2 8" DC's, one w/cracked box, one w/washed pin, PU 2 8" DC's, checked RWP's, TIH to install rubber on DP, now have rubber on every jt to 5100, wash & ream to btm, DST data from 1-25-79: interval 9594-9631' Thaynes form, cush type-none, tst times IO-10, ISI 60, FO 60, FSI 120, DP rec, rec 90 GCM IF open w/2" blow, went to btm of bucket in 4 min x ½ PSI on 1/8" ck, FF open x ½" blow built to 3" blow in 5 min, decr to 2" blow in 15 min, decr to 1 ½" blw in 40 min, 1/8" ck, no gas to surface, ck size btm 3/4", top 1/8", sampler rec'y trace of mud/05 cubic ft of gas @ 60 PSI, press data: top chart, IHP 4707, IOP 69 end 69, ISIP 69 end 210, FOP 69 end 82, FSIP 82 end 197, FHP 4707, btm chart IHP 4533, IOP 82 end 95, ISIP 95 end 235, FOP 82 end 95, FSIP 95 end 222, FHP 4532, MW 8.9, RM 9.8 @ 58 deg F, 1000 PPM CL, rec top RW 9.4 @ 60 deg F, 1000 PPM CL, tool did not plug, PKR's did not leak, charts looked good, DST was a good tst.
1-28-79	TD 9767' Ø Thaynes, MW 8.7, Vis 33, WL 11.6, BGG 5 units, trip 30 units.
1-29-79	TD 9939' Ø Thaynes, MW 8.9, Vis 35, WL 12.8, no show on gas in Ø break 9677-82 9682-92, BGG 5 units.
1-30-79	TD 10,051' trip for hole, Thaynes, MW 8.8, Vis 34, WL 13.4, 5 deg @ 9942', 5.2 deg @ 10,035' pmp soft line to check for hole in DP, 9 DC box cracked.

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FEB 2 1979
DIV. OF OIL, GAS & MINING

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Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ___ OF ___ SHEETS

STATE UTAH COUNTY PARISH MORGAN AREA FIELD OVERTHRUST

SECTION 36 BLOCK TWP 5 N SURVEY RANGE 7 E

COMPANY AMOCO PRODUCTION COMPANY

LEASE FAWCETT & SONS, INC. WELL NO. #1

DATE	REMARKS
2-1-79	TD 10,214' TO for hole, Thaynes, 5.2 deg @ 10,009' 5 deg @ 10,193' wkly well cost $97,854 Cum Cost $208,220, BGG 5 units, tite conn @ 10,159' survey @ 10,193' good, circ ½ hr before survey lost 500 PSI pmp press, TO for hole, cracked box on crossover sub @ top of jars, check DC w/Allen inspector , tite hole @ 6000' on to stabilizer, rubbers worn out, will replace this trip.
2-2-79	TD 10,270' Ø Thaynes, MW 8.9, Vis 34, WL 12.2, Change DC's x dwn hole tools w/Allen Ultrasonic x mag particles for backup, LD top 9" DC w/cracked box, bit #37 had seals out of 2 cones, took some wt @ 6000, but bit went thru OK, rig repair 2½ hrs, mud line valves & suction valves 3½, work on pmp, weld Hydril, BGG 5 units, trip gas 15 units.
2-3-79	TD 10,472' Ø, Thaynes, MW 9.0, Vis 39, WL 12.8, 5.2 deg @ 10,282', 4.5 deg @ 10,378' & 10,408', BGG 5 units BHA bit RWP 10x2-15/16x18.45 6 5/8 reg SDC 7 5/8, reg x 6 5/8 reg 8 7/8 x 2 13/16 x 7.99 RWP 7 5/8 reg 10 x 2 15/6 x 9 .15 1-DC 7-5/8 reg 9-1/8x2-13/16x31.11 RWP 7-5/8 reg 10 x 2-15/16 x 8.8, shock sub 7-5/8 reg 9-7/8 x 2-1/4 x 11.51, DC 7 5/8 reg 8-7/8 x 2-13/16 x 30.97 NR stab 7-5/8 reg w/6 5/8 inher con 8-7/8 x 3 x 7.21 2 DC 7 5/8 reg, 8 7/8 x 2-13/16 x 9 x 2-13/16 x 62.26 NR stab 7 5/8 reg w/6 5/8 IC 8 7/8 x 3 x 7.5 4 DC 7 5/8 reg 8 7/8 x 2-13/16 9 x 2-13/16 8-7/8 x 2-13/16 9 x 2 13/16 124.56, X over 6 5/8 H90 x 7-5/8 reg, 8-5/8 x 2-7/8 x 2.42, 3 DC 6 5/8 H90 7 3/4 x 3 7 3/4 x 3 1/8 8X3 87.94, X over 6 5/8 reg x 6 5/8 H90 7-7/8 x 2 5/8 x 2.2, jars 6 5/8 reg x 6 5/8 H90 7 7/8 x 2 5/8 36.42, X over 6 5/8 H90 x 6 5/8 reg 7 3/8 x 2-3/4 x 1.26, 2 DC 6 5/8 H90 7-7/8 x 2 7/8 8X3 59.02, X over 6 5/8 H90 x 4½ IF 7 3/8 x 2 3/4 x 2.54, 13 jts HWDP, 396.84 total 898.17, Kelly ordered have WOB can't cock jars.
2-4-79	TD 10,635' Ø Thaynes, MW 9, Vis 38, WL 10.4, 4.7 deg @ 10,500'; 4.7 deg @ 10,594' adding Ironite 70 sx tour will go to 10 PPB gas.
2-5-79	TD 10,805' Ø Thaynes, MW 9, Vis 36, WL 10, 4.5 deg @ 10,718', BGG 5 units.
2-6-79	TD 10,847', TI w/bit #39, Thaynes, MW 9.1, Vis 35, WL 11.8, 4.5 deg @ 10,843', BGG 5 units, LD 60 jts of E DP x PU 60 jts E DP w/new plastic application.
2-7-79	TD 10,931', Ø Thaynes, MW 9.1, Vis 38, WL 8.4, BGG 5 units, TG 20 units.
2-8-79	TD 10,997' Ø Thaynes, MW 9.1, Vis 37, wkly well cost $115,986 Cum well cost $2,198,006 1 picture off chart on 1 survey, 2nd picture had 1 picture off chart, BGG 5 units after running 9 5/8" there will be no spool to hang another string, will require liner.
2-9-79	TD 11,062' Ø Woodside, MW 9.2, Vis 38, WL 6.2, 4.5 deg dev @ 11,055', BGG 5 units.
2-10-79	TD 11,151' Ø Woodside, MW 9.2, Vis 37, WL 6.8, BGG 5 units, trip gas 25 units.
2-11-79	TD 11,330' Ø MW 9.1, Vis 35, WL 7.8, 4 deg @ 11,174' 4.5 deg @ 11,320', Dinwoody top 11,257' BGG 5 units.
2-12-79	TD 11,356' circ & cond for DST, MW 9.3, Vis 37, WL 7, drl to 11,356' x had good Ø break 11,329-11,341' from 10 min/ft to 3 min/ft mud gas cut from 9.2 to 8.3 PPG x had 400 units gas, max scale circ & cond mud for DST.
2-13-79	TD 11,356' DST #6, Dinwoody MW 9.3, Vis 37, WL 7, DST #6, IO 10 min, 6" blow 1/8 surface ck, build to btm of bucket in 1 min stab to 2 PSI, FO 60 min, btm of bucket 1 PSI, 35 min-7 PSI, 45 min-12 PSI, 50 min-16 PSI, 55 min-20 PSI tool SI GTS in 3 min after final SI, sweet gas.

Form 998 2-71

FAWCETT & SONS, INC.
Sec 36-5N-7E

RECEIVED
FEB 8 1979
DIVISION OF
GAS & MINING

DATE	REMARKS
1-20-79	TD 9424' Ø Thaynes, MW 9, Vis 38, WL 10.2, ream to btm 1½ hrs, BGG 5 units trip 12 units, changed out Daley jars, had no fill when going back to btm.
1-21-79	TD 9468' WO tubescope, Thaynes, MW 9, Vis 36, WL 13, 5 deg dev @ 9442', LD DP 4 hrs, WO tubescope 1 hr, hole in DP @ 9:30 PM, LD DP to tst, tubescope on location now, cal con black light collars, well tst BOP's while dwn, also manifold.
1-22-79	TD 9468' TI hole, Thaynes, tubescope 117 jts 5" grade up DP, 1 jt class #2 cracked pin end, magnaflux wt pipe x DC checked OK, black light tst BOP x manifold to 3000#, hydril to 1500#, PU BHA, BHA bit RWP short DC, RWP, DC RWP shock sub, DC, stabilizer, no rotating rubber, 2 DC stabilizers 4 DC.
1-23-79	TD 9468' TIH, Thaynes, tagged tite spot in csg @ 5055, ream RWP thru tite spot, have had to do this each time when running new RWP, does not seem to be getting worse, this has happened since 6000.
1-24-79	TD 9531' Ø Thaynes MW 8.9, Vis 36, WL 10, 4½ deg @ 9503', 7½ hrs reaming tite spot@ 5055 w/RWP, no hole problem on TO btm BGG 5 units trip 15 units. DST #4 9390-9420' interval, Thaynes form, csg type none, test times IO-10, ISI-60, FO-60, FSI-120, drl pipe rec IO open w/1 blow incr to 2 in 1 min, 3 in 5 min, FO open w/1/8blw incr to 1 in 1 min, 2 in 9 min, 6 in 33 min, 1 in 43 min, 2 in 58 min, rec 577 10.1 bbls mud cut wtr, slightly gas cut, chk squ btm 5/16, top 1/8 sampler rec'y 300 CC mud, 1420 CC wtr @ 150#, .32' 3 gas press data top ch IHP clock stopped, btm chart IHP-4383, IOP-87 end-124, ISIP 125, end 3822, FOP 138, end 240, FSIP 240, end 3771, FHP 4383. BHT 154 deg F fluid data MW 8.9, RM-10 @ 60 F, 900 PPM CL, rec top RW-9, @65 F, 1000 PPM CL rec mdle RW-2.1 @ 67 F, 13,000 PPM CL rec btm RW 1.7 @ 68 F, 16,200 PPM CL sample RM RW 1.7 @ 68 F, 16,200 PPM CL tool did not plug pcks did not leak, did charts look good? yes-no no-1 clock stopped, DST was a good test.
1-25-79	TD 9617' Ø Thaynes, MW 8.9, Vis 37, WL 12, 5 deg dev @ 9573', changed out Kelly & sleeves in KB, BGG 5 units, hi 50 units,@ 9597 no Ø break,@ 9610' Ø break for 4 4-5 min/ft.
1-26-79	TD 9631' DST Thaynes, short trip, no problem, started loosing pmp press, back on btm lost 500, bumped soft line, 2nd 8 DC cracked & washed @ box DST 6, btm PKR @ 9594-9594-9631 blow thru IO, died during last of final open no wt incr.
1-27-79	TD 9637' Ø Thaynes, MW 8.9, Vis 36, WL 12.8, LD 2 8" DC's, one w/cracked box, one w/washed pin, PU 2 8" DC's, checked RWP's, TIH to install rubber on DP, now have rubber on every jt to 5100, wash & ream to btm, DST data from 1-25-79: interval 9594-9631' Thaynes form, cush type-none, tst times IO-10, ISI 60, FO 60, FSI 120, DP rec, rec 90 GCM IF open w/2" blow, went to btm of bucket in 4 min x ½ PSI on 1/8" ck, FF open x ½" blow built to 3" blow in 5 min, decr to 2" blow in 15 min, decr to 1 ½" blw in 40 min, 1/8" ck, no gas to surface, ck size btm 3/4", top 1/8", sampler rec'y trace of mud/05 cubic ft of gas @ 60 PSI, press data: top chart, IHP 4707, IOP 69 end 69, ISIP 69 end 210, FOP 69 end 82, FSIP 82 end 197, FHP 4707, btm chart IHP 4533, IOP 82 end 95, ISIP 95 end 235, FOP 82 end 95, FSIP 95 end 222, FHP 4532, MW 8.9, RM 9.8 @ 58 deg F, 1000 PPM CL, rec top RW 9.4 @ 60 deg F, 1000 PPM CL, tool did not plug, PKR's did not leak, charts looked good, DST was a good tst.
1-28-79	TD 9767' Ø Thaynes, MW 8.7, Vis 33, WL 11.6, BGG 5 units, trip 30 units.
1-29-79	TD 9939' Ø Thaynes, MW 8.9, Vis 35, WL 12.8, no show on gas in Ø break 9677-82 9682-92, BGG 5 units.
1-30-79	TD 10,051' trip for hole, Thaynes, MW 8.8, Vis 34, WL 13.4, 5 deg @ 9942', 5.2 deg @ 10,035' pmp soft line to check for hole in DP, 9 DC box cracked.
1-31-79	TD 10,095'Ø Thaynes, MW 8.9, Vis 34, WL 14.2, LD 2nd 9" DC w/cracked box, PU new 9" DC, ream 2 hrs from 6000-6060', hit another tite spot @ 6300-6305' ream ½ hr, ream 2 hrs 56 to btm, BGG 5 units, TG 12 units, install rotating head.

FAWCETT & SONS, INC. #1
SEC 36-5N-7E

DATE	REMARKS
2-14-79	TD 11,356' TO w/DST #6, Dinwoody, DST #6 11,327-11,356'(29')form Dinwoody, cush type fresh wtr, 3900' PPM CL 200 RW 4.2 @ 55 deg F PSI N2 1728, tst times -IO 10 min, ISI 60, FO 60, FSI 120, drill pipe rec-IF open w/6" blow to btm of bucket in 1 min w/2 PSI on 1/8" surf ck, stabilize @ 2 PSI thru out rest of IF on final went to btm of bucket immediatley w/1 PSI on 1/8" ck 20 min 4 PSI, 35 min 7 PSI, 45 12 PSI, 50 min 16 PSI, 55 min 20 PSI, open to pit 60 min 18 PSI x decreasing, SI 3 min, GTS @ 55 min into SI H2S to surf, rev out, lost 700 bbls to form, PU Kelly, no drl pipe rec, choke size btm 15/16" top 1/8 x 1/4" sampler rec'y 2400 CC chamb 800 CC highly concentrated H2S, Ø mud 2.73 CU FT gas @ 1100 PSI, MW #/gal-pit9.3 RM-8.6 @ 60 deg F, 200 PPM CL, gas buster 8.2 @ 60 deg F, 200 PPM CL, tool did not plug, PKR's did not leak, charts looked good, DST was a good tst.
2-15-79	TD 11,356' circ to log, Dinwoody, MW 9.4, Vis 39, WL 14, wkly well cost $118,378 Cum well cost $2,316,384 incr ironite to 20 PPB x incr mud volume no BGG.
2-16-79	TD 11,388' Logging Dinwoody, SLM correction 32' loggers TD 11,407', ran DIL BHC, SONIC, x DIPMETER, valves against BOP not H2S, trim reserve pit, filling 3'-4' from top.
2-17-79	TD 11,388' circ for csg, Dinwoody, MW 9.3, Vis 33, WL 13.2, tag bridge @ 5850-5890 on TI after logging ream 40' to btm, no gas.
2-18-79	TD 11,388' RU to run csg, Dinwoody, MW 9.3, Vis 40, WL 13, made short trip hole looks good, TOOH, looks good, TO, LD DC x tools, change rams in BOP, RU to run csg w/Baker torque turn.
2-19-79	TD 11,388' run 9 5/8" csg, Dinwoody, MW 9.3, Vis 37, RU Bakerline torque, turn 2 hrs, run 9 5/8" csg 15 hrs, jt in top of stage collar did not fit torque, turn specs back out x had galled threads, LD stage collar x 2 jts 9 5/8" csg, no sucess in locating replacement stage collar, finish running csg, hoisting cable on stabbing board broke, dropping cage the distance of track est 12', stabber injured x took to hospital, not seriously injured, repair stabbing board 4 hrs.
2-20-79	TD 11,388' NU BOP's, Dinwoody, MWnd csg x 2 PM 2-18-79, ran 267 jts 9 5/8" 47#-43.5# x 40# L-80 SS95, lost mud x 240 jts in RU x circ 4 hrs x 8 BPM x lost approx 100 BM, cmt x 1325 sx class G .75 D 65 2 D 13, 1#/sx D-29 3 D 108, full returns until cmt x shoe x partial returns there after x 100 bbl loss, PD 10:10 PM 2-18-79 x 1000 PSI, floats held bled x WOC x set slips x cut off csg, NU BOP's.
2-21-79	TD 11,388' test BOP's, Dinwoody, Change 2 BOP valves, new ones are H2S trim, install ware ring flange, GIH w/McCullough bond log, TO to work on tools 5½ hrs, run logs, set dwn @ 11,113' Did not PU any collars from 11,100-10,910' tool dragging 10,998' on 1st run, log from 11,100-8050' good cmt to 8570', top of cmt @ 8300', run repeat 11,100-10,830', plan to run V2H, WO/jets, 20 DC's, jars, 2 DC's, 9 jts, weight pipe, raise wt to 10 PPG, ironite to 20#/bbl, drl float collar 90, cmt test csg to 1000 PSI, drl shoe x 30' of hole x test form to breakdown.
2-22-79	TD 11,388' drlg cmt, Dinwoody, MW 9.9, Vis 41, WL 13.6, wkly well cost $208,368 test BOP x manifold to 3000 PSI, blind rams & hydril to 1500 PSI, PU 6 3/4" DC x TI, tag cmt @ 11,200', drl to float collar @ 11,289', mix bar to 10 PPG, iron to 20#/bbl, drl FC x cmt, RU bar hopper 1hr.
2-23-79	TD 11,405' TI w/bit #42, Dinwoody, MW 10, Vis 38, WL 12.8, cut line 1 hr, drl shoe @ 11,388', tst form @ 11,400' to 1450 PSI w/4 bbls, TO for bit, change out DP for inspected X plastic coated pipe, put on new DP rubbers while TI, BGG 5 units, Ø w/no de-gasser, hole inside of de-gasser, line up crane to change out.

RECEIVED
FEB 15 1979
DIVISION OF OIL,
GAS, & MINING

JOHNSTON

Schlumberger

technical report

SALT LAKE CITY DIST.
RECEIVED
FEB 9 '79
ROUTE AS FOLLOWS
D. SUPT.
D. A. SUPV. JS 2/9/79
D. ENGR.
SUPV.
D. FORE
1 JM B 02/12/79
2 DLL DLL 2/12/79
CONT MAIL FILE
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F.R. #16450 D

COMPANY AMOCO PRODUCTION COMPANY WELL FAWCETT & SONS #1 TEST NO. 5 COUNTY SUMMIT STATE UTAH

JOHNSTON
Schlumberger

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	0752	–	1/8''
BLOW, 2'' IN WATER			
BLOW OFF BOTTOM OF BUCKET	0756	.5	''
	0802	.5	''
CLOSED FOR INITIAL SHUT-IN	0802	–	''
FINISHED SHUT-IN	0902	–	''
RE-OPENED TOOL	0903	–	''
BLOW, 1/2'' IN WATER			
BLOW, 3'' IN WATER	0911	–	''
BLOW, 3'' IN WATER	0916	–	''
BLOW, 2'' IN WATER	0926	–	''
BLOW, 2'' IN WATER	0936	–	''
BLOW, 2'' IN WATER	0946	–	''
BLOW, 1 1/2'' IN WATER	0956	–	''
BLOW, 1 1/2'' IN WATER	1003	–	''
CLOSED FOR FINAL SHUT-IN	1003	–	''
FINISHED SHUT-IN	1203	–	''
PULLED PACKER LOOSE	1204	–	–

Cushion Type	Amount	Pressure	Bottom Choke Size
	–		3/4''

MUD DATA

Mud Type: L.S.N.D. Wt.: 8.9
Viscosity: 37 Water Loss: 12.0 C.C.
Resist: of Mud: 9.8 @ 58 °F; of Filtrate: 9.2 @ 58 °F
Chloride Content: 1000 PPM

EQUIPMENT & HOLE DATA

Type Test: M.F.E. OPEN HOLE
Formation Tested: THAYNES
Elevation: 6728 K.B. Ft.
Net Productive Interval: 14 Ft.
Estimated Porosity: 10 %
All Depths Measured From: KELLY BUSHING
Total Depth: 9631 Ft.
Main Hole/Casing Size: 12 1/4''
Rat Hole/Liner Size: –
Drill Collar Length: 180' I.D. 2.6''
Drill Pipe Length: 9374' I.D. 3.8''
Packer Depth(s): 9590 & 9594 Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure: 60 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas: .05
cc. Oil: –
cc. Water: –
cc. Mud: (TRACE)
Tot. Liquid cc.: –
Gravity: – °API @ °F.
Gas/Oil Ratio: – cu. ft./bbl.

	Resistivity		Chloride Content
Recovery Water	– @ – °F.		– ppm
Recovery Mud	– @ – °F.		
Recovery Mud Filtrate	– @ – °F.		– ppm
Mud Pit Sample	9.8 @ 58 °F.		
Mud Pit Sample Filtrate	9.2 @ 58 °F.		1000 ppm

Recovery Description	Feet	Barrels	% Oil	% Water	% Others	API Gravity	Resistivity	Chl. PPM
GAS CUT DRILLING MUD	90	0.59				@ °F.	9.4 @ 60 °F.	1000
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks: MUD LOSS – 10 FT. PER HOUR.

Address: P.O. BOX 17675; SALT LAKE CITY, UTAH 84117

Company: AMOCO PRODUCTION COMPANY Field: WILD CAT
Well: FAWCETT & SONS #1 Location: SEC. 26 – 5N – 7E
Test Interval: 9594' TO 9631' Test #: 5 Date: 1-25-79

County: SUMMIT State: UTAH
Technician: WHEELER (ROCK SPRINGS) – Field Report No.: 16450 D
No. Recorders Connected: 5 (2X'S)

JOHNSTON
Schlumberger

PAGE NO. 2

FIELD REPORT NO.: 16450 D

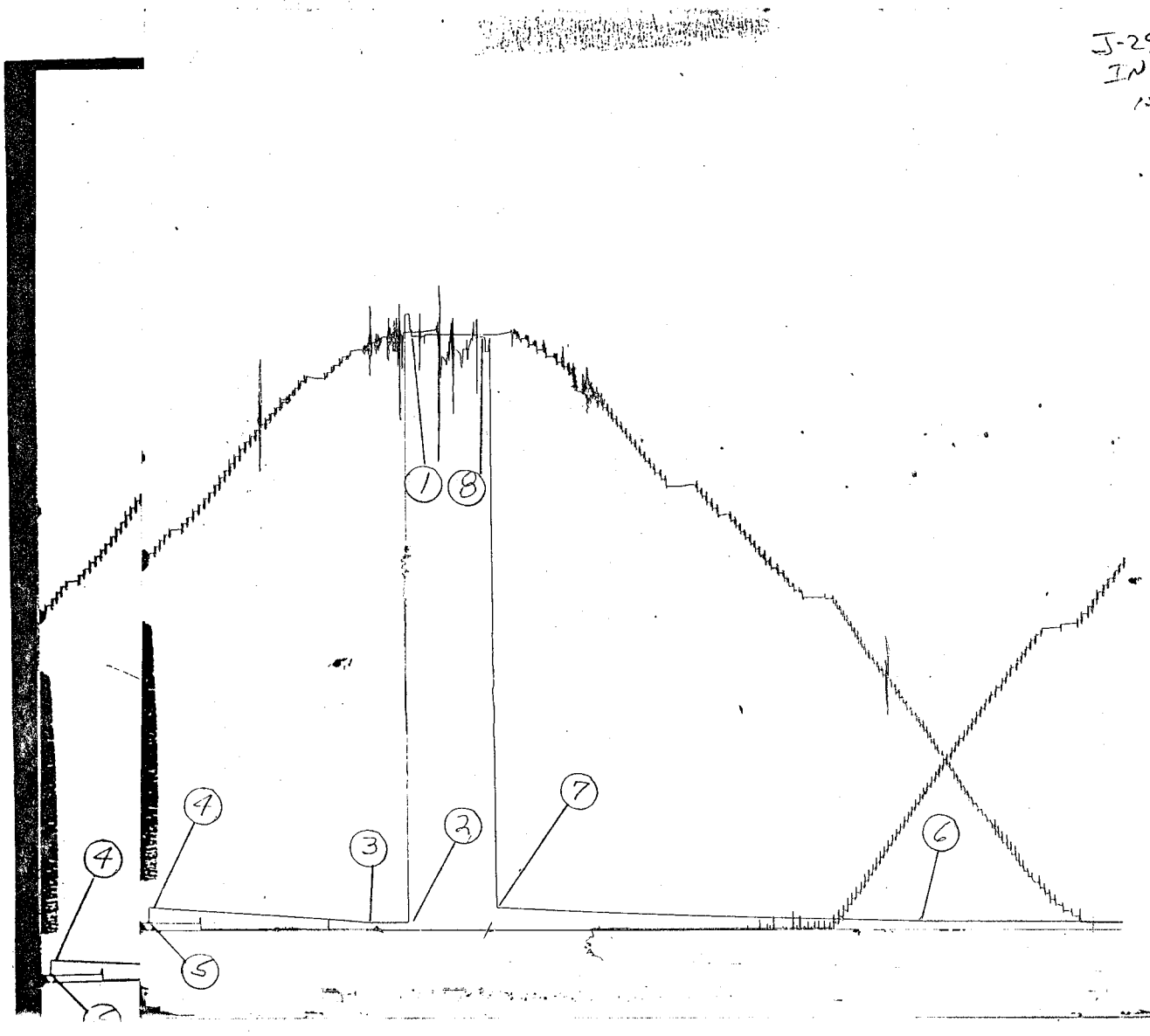
INSTRUMENT NO.: J-292

CAPACITY: 6400#

NO. OF REPORTS: 5-

PRESSURE DATA FROM THIS CHART IS PRESENTED ON NEXT PAGE

J-292
INSIDE
15.1 oF



BOTTOM HOLE PRESSURE AND TIME DATA

JOHNSTON Schlumberger

INSTRUMENT NO.: J-292 CAPACITY(P.S.I.): 6400 DEPTH: 9606 FT.

PORT OPENING: INSIDE BOTTOM HOLE TEMP.: 158

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	4494.5		
INITIAL FLOW(1)	2	77.2		
INITIAL FLOW(2)	3	75.9	10	12
INITIAL SHUT-IN	4	186.4	60	60
FINAL FLOW(1)	5	75.9		
FINAL FLOW(2)	6	83.6	60	59
FINAL SHUT-IN	7	185.1	120	119
FINAL HYDROSTATIC MUD	8	4489.4		

INCREMENTAL READINGS

LABEL POINT	DELTA TIME	PRESSURE (P.S.I.)	T + DT/DT	LOG	PW - PF (P.S.I.)	COMMENTS
1		4494.5				HYDROSTATIC MUD
2	0	77.2				INITIAL FLOW(1)
	5	75.9				
	10	75.9				
3	12	75.9				INITIAL FLOW(2)
3	0	75.9				STARTED SHUT-IN
	5	88.6	3.400	0.531	12.7	
	10	100.1	2.200	0.342	24.1	
	15	108.9	1.800	0.255	33.0	
	20	116.6	1.600	0.204	40.6	
	25	125.5	1.480	0.170	49.5	
	30	134.3	1.400	0.146	58.4	
	35	142.0	1.343	0.128	66.0	
	40	150.8	1.300	0.114	74.9	
	45	158.5	1.267	0.103	82.5	
	50	167.4	1.240	0.093	91.4	
	55	176.2	1.218	0.086	100.3	
4	60	186.4	1.200	0.079	110.5	INITIAL SHUT-IN
5	0	75.9				FINAL FLOW(1)
	5	77.2				
	10	79.7				
	15	82.3				
	20	82.3				
	25	82.3				
	30	82.3				
	35	83.6				
	40	83.6				
	45	83.6				
	50	83.6				
	55	83.6				
6	59	83.6				FINAL FLOW(2)
6	0	83.6				STARTED SHUT-IN
	1	84.8	72.000	1.857	1.3	
	2	86.1	36.500	1.562	2.5	
	3	86.1	24.667	1.392	2.5	

LABEL POINT	DELTA TIME	PRESSURE (P.S.I.)	T + DT/DT	LOG	PW - PF (P.S.I.)	COMMENTS
	4	87.4	18.750	1.273	3.8	
	5	88.6	15.200	1.182	5.1	
	6	88.6	12.833	1.108	5.1	
	7	88.6	11.143	1.047	5.1	
	8	89.9	9.875	0.995	6.3	
	9	89.9	8.889	0.949	6.3	
	10	91.2	8.100	0.908	7.6	
	12	92.4	6.917	0.840	8.9	
	14	93.7	6.071	0.783	10.2	
	16	95.0	5.438	0.735	11.4	
	18	96.3	4.944	0.694	12.7	
	20	96.3	4.550	0.658	12.7	
	22	97.5	4.227	0.626	14.0	
	24	98.8	3.958	0.598	15.2	
	26	100.1	3.731	0.572	16.5	
	28	101.3	3.536	0.548	17.8	
	30	102.6	3.367	0.527	19.0	
	35	105.1	3.029	0.481	21.6	
	40	107.7	2.775	0.443	24.1	
	45	111.5	2.578	0.411	27.9	
	50	115.3	2.420	0.384	31.7	
	55	119.1	2.291	0.360	35.6	
	60	121.6	2.183	0.339	38.1	
	65	125.5	2.092	0.321	41.9	
	70	130.5	2.014	0.304	47.0	
	75	134.3	1.947	0.289	50.8	
	80	139.4	1.888	0.276	55.9	
	85	144.5	1.835	0.264	60.9	
	90	149.6	1.789	0.253	66.0	
	95	155.9	1.747	0.242	72.4	
	100	161.0	1.710	0.233	77.5	
	105	167.4	1.676	0.224	83.8	
	110	173.7	1.645	0.216	90.1	
	115	181.3	1.617	0.209	97.8	
7	119	185.1	1.597	0.203	101.6	FINAL SHUT-IN
8		4489.4				HYDROSTATIC MUD

COMPANY AMOCO PRODUCTION COMPANY

WELL FAWCETT & SONS #1

TEST NO. 4

COUNTY SUMMIT

STATE UTAH

JOHNSTON

Schlumberger

technical report

F.R. # 13702 D

JOHNSTON
Schlumberger

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	0758	–	1/8''
BLOW, 1'' IN WATER			
BLOW, 2'' IN WATER	0759	–	''
BLOW, 3'' IN WATER	0802	–	''
CLOSED FOR INITIAL SHUT-IN	0808	–	''
FINISHED SHUT-IN	0908	–	''
RE-OPENED TOOL	0911	–	''
BLOW, 1/8'' IN WATER			
BLOW, 1'' IN WATER	0912	–	''
BLOW, 2'' IN WATER	0920	–	''
BLOW, 2 1/2'' IN WATER	0934	–	''
BLOW, 6'' IN WATER	0944	–	''
	0948	3/4	''
	0954	1	''
	0958	1 1/2	''
	1009	2	''
CLOSED FOR FINAL SHUT-IN	1011	–	''
FINISHED SHUT-IN	1211	–	''
PULLED PACKER LOOSE	1213	–	–

Cushion Type	Amount	Pressure	Bottom Choke
	–		Size 15/16''

MUD DATA

Mud Type: L.S.N.D. Wt.: 8.9
Viscosity: 35 Water Loss: 12.8 C.C.
Resist: of Mud: 10.0 @ 60 °F; of Filtrate: 9.5 @ 61 °F
Chloride Content: 900 PPM

EQUIPMENT & HOLE DATA

Type Test: M.F.E. OPEN HOLE
Formation Tested: THAYNES
Elevation: 6700 GRD.; 6728 K.B. Ft.
Net Productive Interval: 3 Ft.
Estimated Porosity: 5 %
All Depths Measured From: KELLY BUSHING
Total Depth: 9420 Ft.
Main Hole/Casing Size: 12 1/4''
Rat Hole/Liner Size: –
Drill Collar Length: 90' I.D. 3''
Drill Pipe Length: 8869', 397' I.D. 4.2'', 3.6'
Packer Depth(s): 9386 & 9390 Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure: 150 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas: .32
cc. Oil: –
cc. Water: 1420
cc. Mud: 300
Tot. Liquid cc.: 1720
Gravity: – °API @ – °F.
Gas/Oil Ratio: – cu. ft./bbl.

	RESISTIVITY		CHLORIDE CONTENT
Recovery Water	1.7 @ 68 °F.		16,200 ppm
Recovery Mud	9.0 @ 65 °F.		
Recovery Mud Filtrate	9.0 @ 64 °F.		1,000 ppm
Mud Pit Sample	10.0 @ 60 °F.		
Mud Pit Sample Filtrate	9.5 @ 61 °F.		900 ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL. PPM
SLIGHTLY GAS CUT MUD &	577	7.06				@ °F.	@ °F.	
WATER						@ °F.	@ °F.	
TOP SAMPLE						@ °F.	9.0 @ 65 °F.	1,000
MIDDLE SAMPLE						@ °F.	2.1 @ 67 °F.	13,000
BOTTOM SAMPLE						@ °F.	1.7 @ 68 °F.	16,200
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks: MUD LOSS 6 FEET PER HOUR.

Address: P.O. BOX 17675; SALT LAKE CITY, UTAH 84117

Company: AMOCO PRODUCTION COMPANY Field: WILD CAT
Well: FAWCETT & SONS #1 Location: SEC. 36 - 5N - 7E
Test Interval: 9390' TO 9420' Test #: 4 Date: 1-19-79

County: SUMMIT State: UTAH Field Report No.: 13702 D
Technician: SIMPER (ROCK SPRINGS) Test Approved By: MR. GORDON FOWLER No. Reports Requested: 5 (2X)

JOHNSTON Schlumberger

FIELD REPORT NO.: 13702 D

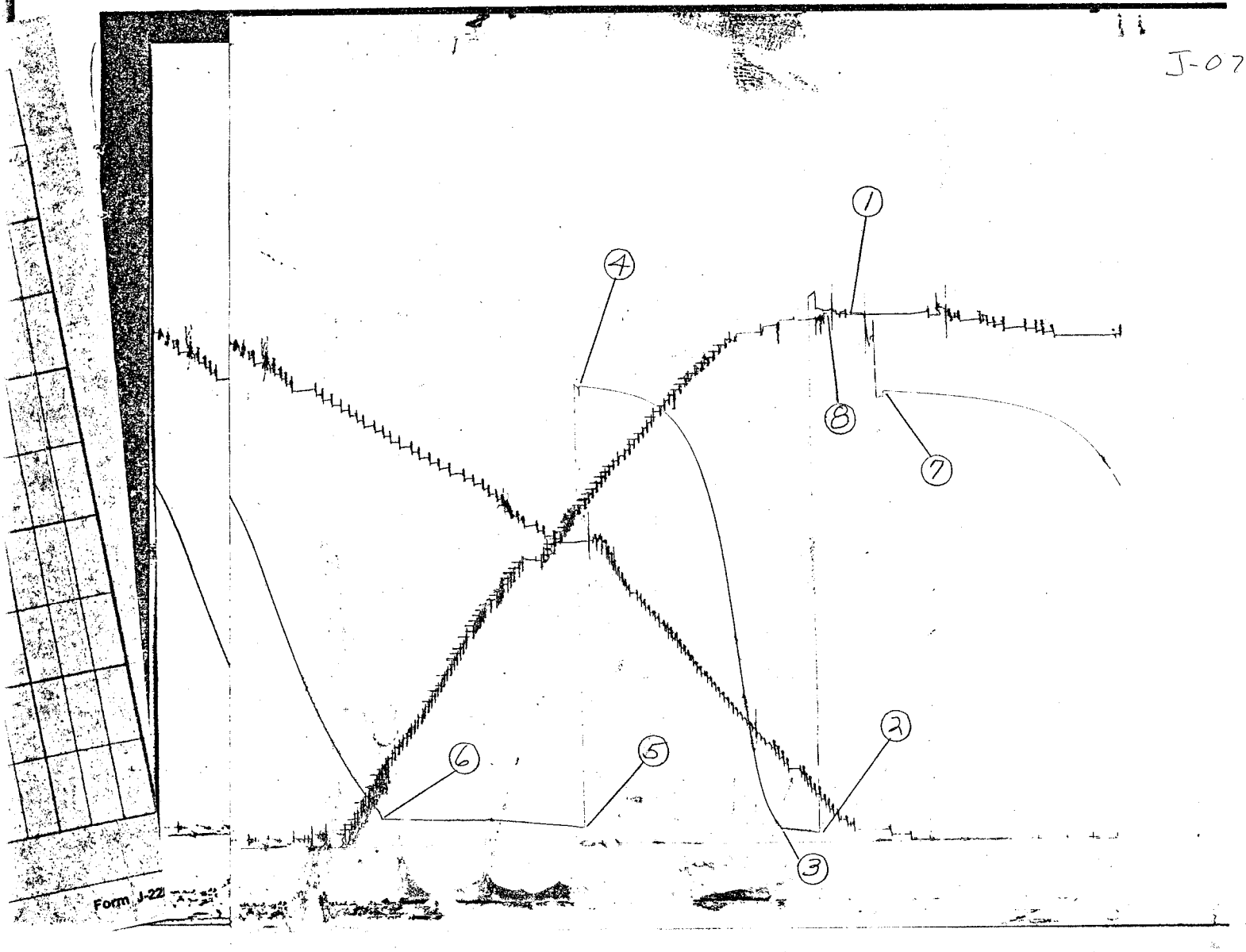
INSTRUMENT NO.: J-073

CAPACITY: 6400#

NO. OF REPORTS: 5-

PRESSURE DATA FROM THIS CHART IS PRESENTED ON NEXT PAGE

J-073



Form J-22

BOTTOM HOLE PRESSURE AND TIME DATA

JOHNSTON Schlumberger

INSTRUMENT NO.: J-073 CAPACITY(P.S.I.): 6400 DEPTH: 9414 FT.

PORT OPENING: INSIDE BOTTOM HOLE TEMP.: 154

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	4392.9		
INITIAL FLOW(1)	2	79.5		
INITIAL FLOW(2)	3	115.2	10	12
INITIAL SHUT-IN	4	3823.5	60	60
FINAL FLOW(1)	5	141.9		
FINAL FLOW(2)	6	227.3	60	61
FINAL SHUT-IN	7	3763.6	120	118
FINAL HYDROSTATIC MUD	8	4404.4		

INCREMENTAL READINGS

LABEL POINT	DELTA TIME	PRESSURE (P.S.I.)	T + DT/DT	LOG	PW - PF (P.S.I.)	COMMENTS
1		4392.9				HYDROSTATIC MUD
2	0	79.5				INITIAL FLOW(1)
	5	98.6				
	10	111.3				
3	12	115.2				INITIAL FLOW(2)
3	0	115.2				STARTED SHUT-IN
	5	372.5	3.400	0.531	257.3	
	10	1026.0	2.200	0.342	910.8	
	15	2005.6	1.800	0.255	1890.5	
	20	2759.8	1.600	0.204	2644.6	
	25	3195.4	1.480	0.170	3080.3	
	30	3452.8	1.400	0.146	3337.6	
	35	3609.5	1.343	0.128	3494.3	
	40	3697.4	1.300	0.114	3582.2	
	45	3749.6	1.267	0.103	3634.4	
	50	3782.7	1.240	0.093	3667.6	
	55	3805.6	1.218	0.086	3690.5	
4	60	3823.5	1.200	0.079	3708.3	INITIAL SHUT-IN
5	0	141.9				FINAL FLOW(1)
	5	157.2				
	10	168.7				
	15	180.1				
	20	194.1				
	25	205.6				
	30	210.7				
	35	210.7				
	40	210.7				
	45	212.0				
	50	217.1				
	55	222.2				
	60	227.3				
6	61	227.3				FINAL FLOW(2)
6	0	227.3				STARTED SHUT-IN
	1	288.4	74.000	1.869	61.1	
	2	322.8	37.500	1.574	95.5	

LABEL POINT	DELTA TIME	PRESSURE (P.S.I.)	T + DT/DT	LOG	Pw - PF (P.S.I.)	COMMENTS
	3	355.9	25.333	1.404	128.7	
	4	389.0	19.250	1.284	161.8	
	5	426.0	15.600	1.193	198.7	
	6	461.7	13.167	1.119	234.4	
	7	501.2	11.429	1.058	273.9	
	8	543.2	10.125	1.005	315.9	
	9	584.0	9.111	0.960	356.7	
	10	628.5	8.300	0.919	401.3	
	12	721.5	7.083	0.850	494.3	
	14	819.6	6.214	0.793	592.4	
	16	925.4	5.562	0.745	698.1	
	18	1034.9	5.056	0.704	807.7	
	20	1150.8	4.650	0.667	923.6	
	22	1275.7	4.318	0.635	1048.4	
	24	1412.0	4.042	0.607	1184.7	
	26	1552.1	3.808	0.581	1324.9	
	28	1694.8	3.607	0.557	1467.5	
	30	1846.4	3.433	0.536	1619.1	
	35	2231.1	3.086	0.489	2003.8	
	40	2603.1	2.825	0.451	2375.8	
	45	2902.5	2.622	0.419	2675.2	
	50	3129.2	2.460	0.391	2901.9	
	55	3302.5	2.327	0.367	3075.2	
	60	3424.8	2.217	0.346	3197.5	
	65	3511.4	2.123	0.327	3284.1	
	70	3571.3	2.043	0.310	3344.0	
	75	3613.3	1.973	0.295	3386.0	
	80	3646.4	1.912	0.282	3419.1	
	85	3673.2	1.859	0.269	3445.9	
	90	3693.5	1.811	0.258	3466.3	
	95	3711.4	1.768	0.248	3484.1	
	100	3726.7	1.730	0.238	3499.4	
	105	3739.4	1.695	0.229	3512.1	
	110	3748.3	1.664	0.221	3521.1	
	115	3758.5	1.635	0.213	3531.3	
7	118	3763.6	1.619	0.209	3536.3	FINAL SHUT-IN
8		4404.4				HYDROSTATIC MUD

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

TIGHT HOLE

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED MAR 8 1979 DIVISION OF OIL, GAS, & MINING

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL ☐ GAS WELL ☐ OTHER WILDCAT

7. UNIT AGREEMENT NAME: Amoco-Champlin Fawcett & Sons Inc. WI Unit

2. NAME OF OPERATOR: Amoco Production Company

8. FARM OR LEASE NAME:

3. ADDRESS OF OPERATOR: P. O. Box 17675 Salt Lake City, Utah 84117

9. WELL NO.: 1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface: NE/4 NW/4 Section 36, 2159' FWL 694' FNL

10. FIELD AND POOL, OR WILDCAT: Wildcat - Madison

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 36-T5N-R7E

14. PERMIT NO.: 43-043-30078

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6833.2' GR

12. COUNTY OR PARISH: Summit

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
(Other)			XX	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Please consider this Sundry Notice as Amoco Prodution Company's notification of our intention to declare subject well a TIGHT HOLE as of March 1, 1979. We further request that information subsequent to the above date be released to the public in accordance with your established procedure for releasing confidential information on wells classified as TIGHT HOLES.

18. I hereby certify that the foregoing is true and correct

SIGNED D. L. Davidson TITLE District Adm. Supervisor DATE March 5, 1979

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ____ OF ____ SHEETS

STATE UTAH COUNTY PARISH MORGAN AREA FIELD OVERTHRUST

SECTION 36 BLOCK TWP 5 N SURVEY RANGE 7 E

COMPANY AMOCO PRODUCTION COMPANY

LEASE FAWCETT & SONS, INC. WELL NO. #1

DATE	REMARKS
2-24-79	11,493' Ø Dinwoody, MW 9.8, Vis 41, WL 12, BGG 5 units.
2-25-79	11,600' Circ for DST #7, Phosphoria, MW 9.5, Vis 42, WL 10.8, 5 deg @ 11,490' 5 deg @ 11,584'- Ø break 11,515-20', 5 min/ft, 18 units, Ø break 11,560-67' 1-2 min/ft, 40 units, Phosphoria top 11,520-30' circ for closed chamber, DST w/Johnston teleflow, no mud loss after 8 AM, mix ironite to 20 PPB, BGG 5 units, high 40.
2-26-79	11,600' DST #7, Phosphoria, MW 10.1, Vis 38, WL 11.8, wtr cush 3000', 25 bbls amino, 30 BW, DST #7 X cleared chamber w/teleflow 15 min, IO attempt to bleed DP, press during ISI, and lost some wtr cush thru flare line, DST #7 interval 11,353-11,600'.
2-27-79	TD 11,600' TI w/bit #43, Phos, MW 10.1, Vis 37, WL 11.4, DST #7 bled off press x flare same during FSI, drop bar x reverse circ, RD, tst head, pull 3 stds in to csg, circ out, LD tools, sent sampler to lab for analysis.
2-28-79	11,743' Ø Phosphoria, MW 9.9, Vis 37, WL 11.2, 5 deg @ 11,490' & 5 deg @ 11,584', finish TI, SLM, no correction, circ btms up, 450 units gas going thru gas buster w/12-15' flare, no indication of H2S @ SFC btms up.mud, PH from 12 to 11, BGG 5 units.
3-1-79	TD 11,848' TO Phos, MW 9.7, Vis 40, WL 8, 4 deg @ 11,780' wkly well cost $119,950 Cum well cost $2,813,494 slight loss of mud 50 bbls, Ø break @ 11,770-775', 305 MPF decr MW slowly from 9.9 to 9.7 PPG, TO for new bit H2S alarm sounded, check for gas, no gas present, found wet sensor in H2S alarm, BGG 5 units.
3-2-79	TD 11,974' Ø Phos, MW 9.5, Vis 38, WL 10.2, 3 deg dev @ 11,848' TI W&R 10' to btm 11,848' Ø X has gas incr from 5-12 units on break 11,889-11,894', trip gas 20 units, BGG 5 units, lost 25 bbls mud this AM, several small Ø breaks, pmp LCM pills & cured.
3-3-79	TD 12,124'.
3-4-79	TD 12,266'.
3-5-79	TD 12,375'.
3-6-79	TD 12,533'.

RECEIVED MAR 8 1979 DIVISION OF OIL GAS & MINING

Form 998 2-71

RECEIVED
MAR 8 1979
DIVISION OF OIL, GAS, & MINING

PDWC 974742017 022379 030579

DRILLING WIRE TRANSACTION RPOT STARTED AT 1454

AMOCO PRODUCTION COMPANY DAILY DRILLING WIRE - CUMULATIVE REPORT

DENVER REGION *** SALT LAKE CITY DISTRICT*** 03-06-79

*** COMPANY OPERATED - DRILLING -EXPLORATORY ***

*** 02-28-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP,
TD 11743, DRLG, PROGRESS 143, PHOS, DAYS: SPUD 151, OPER 151
MUD WT 9.9, VISC 37, WL 11.2, PH 12, PV 10, YP 13, GELS 1/6, % SOLIDS 8
CHLORIDE 350, CALCIUM 80, IRON-20, MBT 11.5 HT-HP-WL DEG(F) 300, CC 19
PMP PRES 2100, GPM 301, BIT 43, AN VEL 277, PMP1 6X18X44
BIT 43, 8.5, F4, JETS 13/13, DEPTH FT 143, HRS 21, FT/HR 6.8, WT M 45
RPM 50
SURVEY: 11490, 5 DEG, 11534, 5 DEG
TIME DRILL 21, TRIP .5, REPAIR .5, CIRC 1.5, LUB RIG .5
COSTS: MUD 5938, CUM 185264, CUM WELL 2524752, AUTH 0, EST 0
RMKS: FINISH T.I. SLM TO CORRECTION CIRC BTMS UP 450 UNITS GAS GAINS
THRU GAS BUSTER W/12-15 FT FLARE NO INDICATION OF H2S 0 SFC
BTMS UP MUD PH FROM 12 TO 11 BGG 5 UNITS

*** 03-01-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP,
TD 11848, T.I. :, PROGRESS 105, PHOS, DAYS: SPUD 152, OPER 152
MUD WT 9.7, VISC 40, WL 8, PH 11.5, PV 11, YP 12, GELS 2/17, % SOLIDS 8
CHLORIDE 300, CALCIUM 120, IRON-18, MBT 13.8 HT-HP-WL DEG(F) 300
CC 15
PMP PRES 2100, GPM 301, BIT 43, AN VEL 277, PMP1 6X18X44
BIT 43, 8.5, F4, JETS 13/13, DEPTH OUT 11848, FT 248, HRS 37, FT/HR 6.7
WT M 45, RPM 50, COND 8-6-1/4
BIT 44, 8.5, J55
SURVEY: 11780, 4 DEG
TIME DRILL 16, TRIP 5.7, SURVEY 1.2, H2S-.5, LUB RIG .5
COSTS: MUD 2389, CUM 187653, CUM WELL 2524752, AUTH 0, EST 0
RMKS: WKLY WELL COST 119950 CUM WELL COST 2313494 SLIGHT LOSS OF
MUD 50 BBLS 9 DRLG BREAK 11770-775 FT 305 MPF DECREASE MUD WT
SLOWLY FROM 9.9-9.7 PPG T.I. FOR NEW BIT H2S ALARM SOUNDED
CHECK FOR GAS NO GAS PRESENT FOUND WET SENSOR IN H2S ALARM
BGG 5 UNITS

*** 03-02-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP,
TD 11974, DRLG, PROGRESS 126, PHOS, DAYS: SPUD 153, OPER 153
MUD WT 9.5, VISC 38, WL 10.2, PH 11.5, PV 10, YP 12, GELS 1/10, % SOLIDS 6

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 03-13-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 03-07-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 12591, N

*** 03-08-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 12752, N

*** 03-09-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 12837, N

*** 03-10-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 12965

*** 03-11-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 13141

*** 03-12-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 13295
-END-

RECEIVED
MAR 15 1979
MINING

CHLORIDE 360, CALCIUM 30, % OIL 0, IRON-15, MBT 12.5
HT-HP-WL DEG(F) 300, CC 19
PMP PRES 2100, SPM 320, BIT 44, AN VEL 294, PMP2 7X16X37
BIT 44, 8.5, J55, JETS 13/13/DEPTH OUT DRL, FT 126, HRS 17.5
SURVEY: 11848, 3 DEG
TIME DRILL 17.5, TRIP 5.5, LINE-1
COSTS: MUD 3792, CUM 196445, CUM WELL 2524752, AUTH 0, EST 0
RMKS: T.I. 4X8 10 FT TO BTM 11848 DRLG X HAD GAS INCR FROM 5-12
UNITS AT BREAK 11889-11894 TRIP GAS 20 UNITS BGG 5 UNITS LOST
25 BBLS MUD THIS AM SEVERAL SMALL DRLG BREAKS PMP LCM PILLS
X CURED
-END-

Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ____ OF ____ SHEETS

STATE UTAH COUNTY PARISH MORGAN AREA FIELD OVERTHRUST

SECTION 36 BLOCK TWP 5 N SURVEY RANGE 7 E

COMPANY AMOCO PRODUCTION COMPANY

LEASE FAWCETT & SONS, INC. WELL NO. #1

RECEIVED MAR 21 1979

CONFIDENTIAL

DATE	REMARKS
2-24-79	11,403' Ø Dinwoody, MW 9.8, Vis 41, WL 12, BGG 5 units.
2-25-79	11,600' Circ for DST #7, Phosphoria, MW 9.5, Vis 42, WL 10.8, 5 deg @ 11,490' 5 deg @ 11,584'- Ø break 11,515-20', 5 min/ft, 18 units, Ø break 11,560-67' 1-2 min/ft, 40 units, Phosphoria top 11,520-30' circ for closed chamber, DST w/Johnston teleflow, no mud loss after 8 AM, mix ironite to 20 PPB, BGG 5 units, high 40.
2-26-79	11,600' DST #7, Phosphoria, MW 10.1, Vis 38, WL 11.8, wtr cush 3000', 25 bbls amono, 30 BW, DST #7 X cleared chamber w/teleflow 15 min, IO attempt to bleed DP, press during ISI, and lost some wtr cush thru flare line, DST #7 interval 11,353-11,600'.
2-27-79	TD 11,600' TI w/bit #43, Phos, MW 10.1, Vis 37, WL 11.4, DST #7 bled off press x flare same during FSI, drop bar x reverse circ, RD, tst head, pull 3 stds in to csg, circ out, LD tools, sent sampler to lab for analysis.
2-28-79	11,743' Ø Phosphoria, MW 9.9, Vis 37, WL 11.2, 5 deg @ 11,490' & 5 deg @ 11,584', finish TI, SLM, no correction, circ btms up, 450 units gas going thru gas buster w/12-15' flare, no indication of H2S @ SFC btms up.mud, PH from 12 to 11, BGG 5 units.
3-1-79	TD 11,848' TO Phos, MW 9.7, Vis 40, WL 8, 4 deg @ 11,780' wkly well cost $119,950 Cum well cost $2,813,494 slight loss of mud 50 bbls, Ø break @ 11,770-775', 305 MPF decr MW slowly from 9.9 to 9.7 PPG, TO for new bit H2S alarm sounded, check for gas, no gas present, found wet sensor in H2S alarm, BGG 5 units.
3-2-79	TD 11,974' Ø Phos, MW 9.5, Vis 38, WL 10.2, 3 deg dev @ 11,848' TI W&R 10' to btm 11,848' Ø X has gas incr from 5-12 units on break 11,889-11,894', trip gas 20 units, BGG 5 units, lost 25 bbls mud this AM, several small Ø breaks, pmp LCM pills & cured.
3-3-79	TD 12,124'.
3-4-79	TD 12,266'.
3-5-79	TD 12,375'.
3-6-79	TD 12,506 3 units BGG, MW 9.6, Vis 36, 3 3/4 deg dev @ 12,436'.
3-7-79	TD 12,580' reaming, trip for bit @ 12,580', 20 units trip gas, 3 units BGG, MW 9.5, Vis 36.
3-8-79	12,724' Ø made 144' in last 24 hrs, 0-2 units BGG, MW 9.4, Vis 38, Ø break 12,626-633' no gas, 8 min to 2-3 min/ft, 12,657' 4 units connection gas, Ø break 12,666-678' 6 units gas 3 min/ft, 12,718' connection gas of 5 units.
3-9-79	12,800' made 76' in last 24 hrs, trip for bit 12,752', new button bit # 48 is F-7, 5 units trip gas, 0-2 units BGG, MW 9.4, Vis 38, carrying 20#/bbl ironite sponge.
3-10-79	12,964' Tripping, made 164' in last 24 hrs, 0-2 units BGG, MW 9.6, Vis 42.
3-11-79	PD 13,101' Ø made 137', TG 4 units, BGG 2 units, MW 9.5, Vis 35, WL 11.4.
3-12-79	PD 13,295' Tripping, BGG 0-2 units, MW 9.5, Vis 36, WL 10.6.
3-13-79	PD 13,370' Ø made 75', TG 4 units, BGG 2-4 units, MW 9.5, Vis 36, WL 10.8.
3-14-79	PD 13,547' Ø made 177', MW 9.5, Vis 38, WL 9.0, BGG 0-2 units.
3-15-79	PD 13,775' Ø made 228' BGG 2 units, MW 9.6, Vis 41, WL 9.0, no surveys.

Form 998 2-71

#1 Fawcett & Sons, Inc.
Sec 36-5N-7E

DATE	REMARKS
3-16-79	13,955' Ø made 180', BGG 2 units, 5-8 units conn gas, MW 9.4, Vis 45, WL 11.6, no surveys.
	14,115' Ø made 160', BGG 2 units, conn gas 5 units, MW 9.3, Vis 38, WL 12.4, no surveys.

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 03-20-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 03-14-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 13589

*** 03-15-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 13818

*** 03-16-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 13993

*** 03-17-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 14149

*** 03-18-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 14202

*** 03-19-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 14343
-END-

RECEIVED
MAR 23 1979
DIV.
GAS,

CONFIDENTIAL

#1 Fawcett & sons Inc.
Sec 36-5N-7E

DATE	REMARKS
3-16-79	13,955' Ø made 180', BGG 2 units, 5-8 units conn gas, MW 9.4, Vis 45, WL 11.6, no surveys.
	14,115' Ø made 160', BGG 2 units, conn gas 5 units, MW 9.3, Vis 38, WL 12.4, no surveys.
3-17-79	14,175' Ø trip @ 14,160' BGG 2 units, TG 4 units MW 9.4, Vis 38, WL 12.4.
3-18-79	14,310' Ø made 135' BGG 2 units, MW 9.5, Vis 38, WL 10.6.
3-19-7914	14,443' Ø made 133' BGG 2 units, MW 9.4, Vis 38, WL 11.2.
3-20-79	14,586' Ø made 143' BGG 2 units, MW 9.3, Vis 38, WL 11.2.
3-21-79	14,724' Ø made 138' BGG 2 units, MW 9.4, Vis 38, WL 10.0.
3-22-79	14,791' tripping, made 57' MW 9.5, Vis 43, WL 12.0.
3-23-79	14,840' Tripping, made 49' TG 12 units, BGG 2 units, MW 9.4, Vis 38, WL12.0.
3-24-79	14,905' Ø made 65' TG 0, 2 shakers, 1 burnt motor, while change out lost TG, 2 units BGG, MW 9.4, Vis 38, WL 12.0, 3½ deg @ 14,840'.
3-25-79	14,980' Tripping, made 75', BGG 2 units, MW 9.4, Vis 38, WL 10.0,
3-26-79	15,102' Ø made 122' MW 9.4, Vis 39, WL 10.0, 5 units TG, BGG 0-2 units.
3-27-79	15,178' Tripping, made 76', BGG 0-2 units, MW 9.4, Vis 37, WL 10.8.
3-28-79	15,258' Ø made 80', yesterday lost 3 cones, 2¼ deg @ 15,178' TG 10 units, BGG 0-2 units MW 9.4, Vis 36, WL 9.6.
3-29-79	15,425' Tripping, made 167' MW 9.5, Vis 41, WL 11.8.
3-30-79	15,462' Ø made 37', TG 35 units, BGG 2 units, MW 9.5, Vis 42, WL 11.8, 1 3/4 deg @ 15,425'.
3-31-79	15,709' Ø made 225' BGG 5 units, MW 9.4, Vis 37, WL 10.6.
4-1-79	15,888' Ø made 6-8 min/ft.
4-2-79	15,905' Tripping, made 197' MW 9.8, Vis 41, BGG 10 units, connection gas 20 units, no breaks , no more shows.
4-3-79	16,171' Ø made 166', MW 9.6, Vis 38, WL 10.4, BGG 2-4 units, CG 5-6 units, no shows.
4-4-79	16,331' Ø made 160', MW 9.6, Vis 37, WL 12.0, BGG 2-4 units, CG 6-8 units, snowing.
4-5-79	16,334' re log, made 3', no mud report, ran DIL-SFL & BHC Sonic GR, drlers depth 16,334' Schlumberger's depth 16,357', drlers csg depth 11,388', Schlumberger's csg depth 11,411' now running FDC-CNL, will repeat part of FDC-CNL, tentative tops: Phosphoria 11,460'; Weber 11,912'; Madison 13,067'; sn & dolo in Darby ? 14,777'; end of sn 15,258'; possible repeat w/15,890' to PD equiv to 14,100' - 14,690' correlation not real good very little character on GR, some indication of porosity on sonic, need to check w/FDC-CNL which is not out yet.
4-6-79	16,334' work stuck HDT Sondo, stuck on wat out @ 11,794' Milligan bringing in logs & HDT tape from btm to 11,794' don't know if plan to strip DP over Schlumberger line or what, 1300 hrs-strip over Schlumberger lines to fish for HDT Soudo, only calculated pay in Phosphoria, Weber & Madison tite, possible fractures in Big Horn.
4-7-79	16,334' TI, rec fish, 1800 hrs PD 16,347' TG 400 units, some big cavings, TG definitley below zone tstd.
4-8-79	16,485' Ø made 145', BGG 5 untts (5-8 units), conn gas 8-12 units, MW 9.6, Vis 45, WL 12.4,.
4-9-79	16,653' Ø made 168', MW 9.8, Vis 39, WL 12.6, BGG 4-5 units, conn gas 15-20 units .
4-10-79	16,687' Ø made 34', TG 300 units @ 16,673', BGG 5 units, MW 9.7, Vis 38, WL 11.6, mud engineer says 1% oil in mud from retort for hot mud characteristics, ¼ deg dev @ 16,673'.
4-11-79	16,857' Ø made 170' MW 9.8, Vis 38, WL 10.2 BGG 4-8 units, conn gas 10-12 units.
4-12-79	PD 16,955' tripping, made 98', MW 9.7, Vis 44, WL 10.6, BGG 5 units, CG 8 units
4-13-79	PD 17,016' Ø made 61', had 150 units TG, 1¼ deg dev @ 16,955' MW 9.8, Vis 41, WL 10.8, BGG 5 units, CG 8 units.
4-14-79	PD 17,096' Ø made 80' MW 9.8, Vis 40, WL 10.8, no oil, 4 units BGG, 6 units CG.

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 03-27-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 03-21-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 14621

*** 03-22-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 14751

*** 03-23-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 14791

*** 03-24-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 14840

*** 03-25-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 14934

*** 03-26-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 14998

-END-

RECEIVED
MAR 29 1979
DIVISION OF
OIL, GAS, & MINING

Form OGC-1b

CONFIDENTIAL

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

TIGHT HOLE

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED APR 17 1979 DIV. OF OIL, GAS, & MINING

1. OIL WELL [X] GAS WELL [ ] OTHER Change of Plans

2. NAME OF OPERATOR: Amoco Production Company

3. ADDRESS OF OPERATOR: P. O. Box 17675 Salt Lake City, UT 84117

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: NE/4 NW/4 Section 36, 2159' FWL 694' FNL

5. LEASE DESIGNATION AND SERIAL NO.: FEE

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: Amoco-Champlin-Fawcett and Sons WI Unit

8. FARM OR LEASE NAME:

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Wildcat-Overthrust

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 36, T5N R7E

12. COUNTY OR PARISH: Summit

13. STATE: Utah

14. PERMIT NO.: 43-043-30078

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6833.2' GR

CONFIDENTIAL

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[X]	(Other)			[ ]
(Other)		Drill deeper	[ ]				

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Change program previously approved on subject well to indicate our plan to continue drilling to a total depth of 17,200'. Provided below is the casing program set in hole to date as well as the proposed program to be run to the revised total depth of 17,200'.

Set 37 joints 20", 94#, conductor casing @ 1525', cement w/1850 sx 65/35 POZ x 6% Gel.
Set 135 joints 13 5/8", 66 x 88# Surface casing @ 5592', cement w/3000 sx Cl "G"w/18% salt, cement down back side w/1" pipe x 300 sx Cl "G".
Set 267 joints 9 5/8", 47, 43.5 x 40#, intermediate casing @ 11,388 cement w/1325 sx Cl "G".
Propose to set 7", 35, 32,29,26,& 25#, Production casing from surface to total depth of 17,200', cement w/600 sx Cl "G" w/additives

Drilling operations are continuing. All other information remains unchanged from that previously reported.

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
DATE: 5-7-79
BY: M. J. Minder

18. I hereby certify that the foregoing is true and correct

SIGNED D. S. Davidson MB TITLE Dist. Adm. Supervisor DATE April 10, 1979

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

AMØCØ PRØDUCTIØN CØMPAN DAILY DRILLING WIRE - C ULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 04-17-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 04-10-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 16673

*** 04-11-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 16717

*** 04-12-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 16903

*** 04-13-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 16957

*** 04-14-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17028

*** 04-15-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17117

*** 04-16-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17180
-END-

CSSF GØØD
SIGN ØFF IS CØMPLETE 14:09 79/107

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APR 20 1979
DIVISION OF
OIL, GAS, & MINING

7E1767

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 04-24-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 04-17-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17273, RDRE

*** 04-18-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17349

*** 04-19-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17454, N

*** 04-20-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17514

*** 04-21-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17514

*** 04-22-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17514, E

*** 04-23-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17514
-END-

RECEIVED
APR 25 1979
DIVISION OF OIL, GAS, & MINING

PDWC 973406010 0417 042379

DRILLING WIRE TRANSACTIØN PDWT STARTED AT 1343

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 04-24-79

*** CØMPANY ØPERATED - DRILLING -EXPLØRATØRY ***

*** 04-17-79***

AMØCØ-MTN. FUEL-CHEVRØN #1 DESERET, ØVERTHRUST,,
IDENT 973406-01-0, AUTH TD 16400, DRL-EXP,
SI, DAYS: SPUD 582, ØPER 582

*** 04-18-79***

AMØCØ-MTN. FUEL-CHEVRØN #1 DESERET, ØVERTHRUST,,
IDENT 973406-01-0, AUTH TD 16400, DRL-EXP,
SI, DAYS: SPUD 583, ØPER 583

*** 04-19-79***

AMØCØ-MTN. FUEL-CHEVRØN #1 DESERET, ØVERTHRUST,,
IDENT 973406-01-0, AUTH TD 16400, DRL-EXP,
SI, DAYS: SPUD 584, ØPER 584

*** 04-20-79***

AMØCØ-MTN. FUEL-CHEVRØN #1 DESERET, ØVERTHRUST,,
IDENT 973406-01-0, AUTH TD 16400, DRL-EXP,
SI, DAYS: SPUD 585, ØPER 585

*** 04-21-79***

AMØCØ-MTN. FUEL-CHEVRØN #1 DESERET, ØVERTHRUST,,
IDENT 973406-01-0, AUTH TD 16400, DRL-EXP,
SI, DAYS: SPUD 586, ØPER 586

*** 04-22-79***

AMØCØ-MTN. FUEL-CHEVRØN #1 DESERET, ØVERTHRUST,,
IDENT 973406-01-0, AUTH TD 16400, DRL-EXP,
SI, DAYS: SPUD 587, ØPER 587

*** 04-23-79***

AMØCØ-MTN. FUEL-CHEVRØN #1 DESERET, ØVERTHRUST,,
IDENT 973406-01-0, AUTH TD 16400, DRL-EXP,
SI, DAYS: SPUD 588, ØPER 588
-END-

RECEIVED MAY 2 1979 DIVISION OF OIL GAS, & MINING

Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ____ OF ____ SHEETS

STATE Utah COUNTY PARISH Morgan AREA FIELD Overthrust

SECTION 36 BLOCK TWP 5 N SURVEY RANGE 7 E

COMPANY Amoco Production Company

LEASE Fawcett & Sons, Inc. WELL NO. #1

DATE	REMARKS
4-15-79	PD 17,180' Tripping, made 84', MW 9.8, Vis 39, WL 11.8, BGG 4 units, CG 8 units.
4-16-79	PD 17,256' Ø made 76', MW 9.8, Vis 40, WL 11.8, TG @ 17,190' 110 units, 1¼ deg dev @ ?, BGG 2-4 units, CG 4-8 units.
4-17-79	17,349' tripping, made 93', MW 9.7, Vis 44, WL 10.4, BGG 2 units, CG 4 units.
4-18-79	17,409' Ø made 60' in last 24 hrs, MW 9.7, Vis 42, 100 units trip gas, 6 units connection gas, 1 ¼ deg dev @ 17,409', 2 units BGG.
4-19-79	PD 17,514'Tripping. Made 105'. MW 9.8 Vis 43, WL 11.4-11.0-CI-1450' Solids 9%. Ironite 18# (bb). BGG 2 units. CG 6 units. No H2s. Lite 17,400' 17,400'-17'490'. Dolomite, med dk gry, Firm to hard dense, Micro-Xln to UF Xln, blocley, sdy,calc in part w/sn, Tan, UF-Fgr, sub-ang to sub-rd. Firm to Fria, dolomitic, No flour. No cut. 17,490-17,505. Dolomite became Lt-med gry, silty in part w/Tr sn , Tan, Med gry, firm, vfgr, sub-ang, dolomitic. No flour, no cut. Now on bank WOO.
4-20-79	PD 17,514'' TO for Relog. On bank about noon. Had 62 units TG. Mud report NA.
4-21-79	PD 17,514'. Prop to make wiper trip.Relog. HDT hung @ 11,794'. Came loose ok.
4-22-79	PD 17,514'. Finish logs. Prop run check shot. Caliper on HDT would not go thruogh tite spot . Cut out caliper ran ok. Logs in via Jeff Barndt on IT FLG 393 @ 1410 hrs.
4-23-79	PD 17,536'. Ø made 22'. NB# 63 F-7. MW 9.8,Vis 46, WL 11.5 - 10.5 CI-1500 ppm. Solids 9%, Ironite 20# (bbl. BGG 2-4 units. CG 6 units. TG 150 units. Lith 17,514'-17,520' sh,lt-med gry, Firm to hard, smooth to silty in part, Calc in part w/few pieces pyrite & Tr Dolomite, brn,tan, firm to hard, dense, micro-Xln, fractured, Tr, Sn, clear to transl wh, Vfgr to cgr, sub-ang to well rdd, gutzitic inpart. No flour, No cut ratty spls.
4-24-79	PD 17,644', Ø Made 108', Mud 9.9-45-11,6-11.0-CI-1600 ppm. Solids 9%, Ironite 18# /bbl. BGG-0- 2 units. CG 6 units. Lith 17,520', 17,600' sn, clear, Transl wh, brick red , lt gry, Vfgr-Cgr, Sub-rdd to well rdd, firm to h hard, Calc in part, Sl quartzitic in part. No flour. No cut. 17,600-17,630 sn, Lt-med gry, dk brn, Tan , Vf-Fgr, Occ Acgr, Sub-ang to well-rdd, Fria to hard, tite in part, Ab flour no cut, w/Tr dolomite, dk brn, dk gry-grn, firm to hard, dense, Micro-Xln, fraced in part sdy w/occ pyrite thru out.
4-25-79	PD 17,682', Tripping. Made 38'. Mud 9.7., 40,12.0. Cl- 1450 ppm, solids 9%, inronite 20# bbl. BGG 0-2 units. CG 4-6 units. Lith 17,630'-17,670' sn, lt gry x Ct brn, Vfgr- fgr, sub-ang to well rdd, hard, tite, calc. in part. No flour, no cut.
4-26-79	PD 17,712', PD 17,712'Ø Made 30'. NB#64-14,100. TG 35 units. MW 9.8 Vis 44,-11.8-11.5 CI -1600 ppm solids 9% ironite 20# /bbl. BGG 4 units. No conn yet. Lith 17,670' -17,700 sn, clear-transl wh. smokey, lt gry, vf-fgr, sub -ang to ang, hard, tite , quartzitic in part w/ clear trausl - wh , v cgr will edd sn interbeded. No flour, no cat. Tr dolo, lt gry- tan, firm to hard, dense, micro x ln, Flaky, fract. sdy (1% oil in mud" preveously reported is #2 Diesel)
4-27-79	

Form 993 2-71

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 04-10-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 04-04-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 16210

*** 04-05-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 16334

*** 04-06-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 16334

*** 04-07-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 16334

*** 04-08-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 16337

*** 04-09-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 16536
-END-

CONFIDENTIAL

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 05-01-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 04-24-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17564

*** 04-25-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17674, D

*** 04-26-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17699, D

*** 04-27-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17759, D

*** 04-28-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17869, D

*** 04-29-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17937, AD

*** 04-30-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 17964, D
-END-

#1 Hawcett + Sons
Sec 36-5N-7E

DATE	REMARKS
4-27-79	

Hawcett (Cave Creek): @ 17,848. MW 9.8, vis 44, filt 11.0, pH 11.5, Cl 1550, solids 9 ironite sponge 20#/bbl. 2 units BGG, 4 units connection gas, no H_2S.
17,700-720 - SS, smokey white, tan, lt gray, vfg-large grained, subangular to well rounded, firm to friable, hard, tite, siliceous in part, quartzitic in part, limey in part, with no fluor or cut; traces dolomite, med gray and lt brown, firm, hard, dense, microxln, blocky, fractured with traces shale, med gray, firm, smooth to silty, flakey, blocky, brittle.
17,720-800 - Dolo, tan and lt brown, firm, hard, dense, microxln to vf xln, blocky, fractured, sandy with shale, dk green, firm-hard, smooth to silty in part, brittle, non-calcareous, micaceous; traces SS, smokey white and clear, translucent white, vfg to large grained, subrounded to well rounded, quartzitic in part with no fluor or cut.
17,800-810 - Siltstone, lt gray and brown, firm-soft, limey, with ss, white and lt gray, vfg, subangular, friable, limey, no fluor or cut; with dolo and shale as.
17,810-840 - Shale, lt-med green, brown, and med gray, firm to hard, smooth to silty, sandy, blocky, brittle, noncalc with few pieces dolo and SS as.

4-28-79	PTD 17,925 drilling made 77' MW 9.8 Vis 43 WL 14.4 - CL 1699 solids 9% BGG 12 units CG 20 units lith 17840-17880 sd, white smoky gry & tan, vfgr-fgrn sub-ang-subrdd, firm to hard, tite, dolo, no fluor no cut. w/sh dk gry & dk grn, firm to hard, smooth to silty, blocky, brittle, non calc. 17880-17920 sd, clear, white, vfgr to cgr, sub-ang-sub-rdd, quartzitic in part friable to hard, sli calc, tr-fair poros w/heavy dk brn stain, no fluor. Slow stream blue-wh cut. Down to 17880 had 0-2 units BGG @ 17888 had sli Ø brk to 925. incr to 8 units built to 12 units, 12 units hot wire C1 38; C2 18; C3 8, C4 tr
4-29-79	PD 17,952' drilling. made 27'. Tripped @ 17,938 Mud 9.9 vis 46 WL 10.4-10.5 GL-16 solids 9% Ironite 20#/bbl. TG 70 units. BGG 4 units. C9-8 units. lith - 17920-17940 sd, wht & smoky gry, vf-CFR, sub ang-sub & firm to hard, quartzitic no fluor. slow stream blue wh cut, brn stain, w/sh, dk gry & blakc, firm slickensided, brittle, flakey, non calc. (could be fault zone??)
4/30/79	PTD 18,013 drilling. Made 61' Mud 9.9 Vis 48 10.4 10.5 CL 1600 ppm solids 9% Ironite 20#/bbl BGG 4 units. CG -6-8 units Lith 17,940-17980 sd, smoky wh w/sl grn cast, vf-cfr sub-ang to sub-rdd, firm to hard, tite, silic in part clac in part, sli macaceous-no fluor, no cut w/sh, black, firm, smooth to silty, non-calc, sli micaceous. 17980-18000 sd, wht-lt brn, vfgrn-fgrn, sub-ang to sub-rdd, firm to hard, tite, silic in part, quartzitic, sli calc, No fluor, no cut. Few pieces silt, brick-red to lt brn. tr sh, dk gry & dk brn, firm, smooth to silty in part, blocky, dolomitic. 18000-18,010 sd s/s w/sh, dk gry & black firm, smooth to silty, flaky, brittle, sli calc w/few pieces glossy black coal, less than 1% Metal frags in spls-bit gone? Torquing some.
5-1-79	PD 18,024' Ø. Made 11' NB #66 J-77 . Dev. @ 18,013-2 deg. Mud 9.8 -49-10.6 - 11.0 CI - 1600r ppm Solids 9%; Ironite 20# / bbl. TG 48 units. BGG 4 units. No CG yet. Lith 18,010',18,020' sh, Pred black, firm , smooth to silty in part, blocky. non- calc, v carbonaceous w/abdn't slicken sides, w/sn, lt gry-tan, vf -med gr, sub-rdd to round firm to fria, Calc, micaceors (copper colored mica). No flour, no cut 3% glossy black coal . Circhoforc trip 10% coal.
5-2-79	

RECEIVED MAY 10 1979 DIVISION OF MINES & MINERALS

1D
1W

Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ____ OF ____ SHEETS

STATE Utah COUNTY PARISH Morgan AREA FIELD Overthrust

SECTION 36 BLOCK TWP 5N SURVEY RANGE 7E

COMPANY Amoco Production Co.

LEASE Fawcett & Sons, Inc. WELL NO. #1

DATE	REMARKS
5-2-79	PD 18,042', SD rig rop, Made 18', Mud 9.8, Vis 46, WL 10.0-11.0. CI -1600 ppm. Solids 9%. Ironite 18# (bbl BGG - 6 units. CG 20 units. Lith 18,020' -18,040'. sn, wh-lt gry & tan, Vf- fgr, Sub-ang to sub-rdd, Firm to hard, Calc in part, quartzitic, Micaceors, No show, w/sh, black, firm to hard, slickonside in part, carb, non calc. Repair chain & sprocket on rotary, Plan to go in w/slick BHA & mill -tooth bit because of excessive torque.
5-3-79	PD 18,054'Ø Made 12: NB#67 J-7. MW 9.8, Vis 49-11.0 - 11.0-CI 1600 ppm Solids 9%. Ironite 18#/bbl. TG 200 units. Mostly Cl 2000 on Chromat BGG - 5 units . CG 8 units. Lith 18,040-18,050' . Sn,WH & Lt gry Vfgr - Fgr, Sub-ang to Sub-rdd. Firm to hard, Fria in part, Tite Quartzitic in part, Micacoons, Non. calc. Imbedded w/black Carbonaceous Sh. Some gh, prod black, some brn , took 15 min to get back to bottom, Fill on bottom ?? Some large pieces shale coming over shaker.
5-4-79	PD 18,055', Con hole. Made 0'. Mud 8.9, Vis 59, WL 8.6-11.0 CI-1650 ppm. Solids 10%. Ironite 20# bbl. Short trip 36 units. BGG 8-10 units. 18,050-55'. Lith AA 50% sn & 50% black Carbonacaus sh. Pumped hi vis pills, Getting large chunks shale.
5-5-79	18,055' relog, now TO w/Sonic GR out w/DIL, major change @ 17,820', sn w/ show @ 17,908-954' has high resistivity.
5-6-79	PD 18,055' TI to cond hole for csg, finished relog, bad washouts in lower parts of hole, had fire on rig, roughneck burning trash, set mud house afire, burned mud house & two other buildings, "scorched" mixing pmps.
5-7-79	PD 18,055' cond hole for 7" csg, will probably have to PU 13 3/8" csg about 5", location very "sloppy", snowed Fri & Sat.
5-8-79	PD 18,055' prep ND BOP's & change out 9 5/8" spool, BP @ 11,000'.
5-9-79	TD 18,055' NU 9 5/8" BOP stack, unable to PU 9 5/8" csg, worked 5 3/4" extension on csg, will run full string 7" csg.
5-10-79	18,055' TO w/BP, finish NU BOP's, TI X retrieve BP @ 11,400' circ up gas bubble, 400 units, lasted 4 hrs, lronite cut from 18#/bbl to 16#/bbl initially, then leveled out, will TI w/bit to TD, come out LDDP & run 7" csg.
5-11-79	TD 18,055' Circ X cond for 7" csg, had max 850 units TG, lagged to approx 17,000', MW 9.8, Vis 64, WL 8.6.

RECEIVED
MAY 17 1979
DIVISION OF OIL, GAS, & MINING

Form 998 2-71

AMOCO PRODUCTION COMPANY DAILY DRILLING WIRE - CUMULATIVE REPORT

DENVER REGION *** SALT LAKE CITY DISTRICT*** 05-22-79

*** COMPANY OPERATED - TIGHT-HOLE ***

*** 05-15-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

RECEIVED
MAY 24 1979
DIVISION OF OIL
GAS, & MINING

*** 05-16-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-17-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-18-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-19-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-20-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-21-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055
-END-

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 05-15-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 05-08-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-09-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-10-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-11-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-12-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-13-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-14-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055
-END-

1 Fawcett & Sons Inc.
Sec. 36 - 5N 7E

DATE	REMARKS
5-16-79	TD 18,005', RD Schlum, had full returns after 9 hrs circ, ran spinner survey (think 2nd stage cmt went dwn hole, DV tool @ 12,400' - too high)
5-17-79	18,055' circ & cond mud, ran spinner survey, tag up @ 12,405', fluid moving dwn ward, TO X spinner survey, ran sinker bar, tag up @ 251', pmp in 14 bbls, annulus FL dropped, fill annulus, well flow back while filling annulus, flowed DV tool plug to surface, has some scars, but apparently intact, now circ & loosing small amount of mud, will run sinker bar to see if goes by DV tool.
5-18-79	TD 18,055' WOC, circ 2½ BPM @ 700#, above this rate loosing mud, ran CCL tag @ 12,376', (wireline) pmp 50 bbls Pronto Plug + 20 bbls FW, pmp 50 sx 50-50 Posmix + 400 sx Class G, displaced w/454 bbl wtr @ 5 BPM @ 1000#, full returns, max cmting press 2200# @ 4 BPM, over displaced 5 bbls, did not bump plug, ISIP 1900#, bled back 5 bbls, held 1600# on csg, cmt in place 0500 hrs 5-18-79.
5-19-79	TD 18,055' WOC.
5-20-79	TD 18,055' Set csg in slips, ran CBL, tag cmt @ 7890'.
5-21-79	TD 18,055' Tripping, PU 3½" DP, tag cmt @ 12,175' (DV tool @ 12,400'), drl cmt to 12,268', carbide lag @ 12,268', 61 min.
5-22-79	TD 18,055' Ø cmt, TO bit, tst BOP's & csg, OK, Ø cmt below 12,350'.

Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ____ OF ____ SHEETS

STATE Utah COUNTY PARISH Morgan AREA FIELD Overthrust

SECTION 36 BLOCK TWP 5N SURVEY RANGE 7E

COMPANY Amoco Production Co.

LEASE Fawcett & Sons, Inc. WELL NO. #1

DATE	REMARKS
	PD 18,042', SD rig rop, Made 18', Mud 9.8, Vis 46, WL 10.0-11.0.
5-2-79	CI -1600 ppm. Solids 9%. Ironite 18# (bbl BGG - 6 units. CG 20 units.
	Lith 18,020' -18,040'. sn, wh-lt gry & tan, Vf- fgr, Sub-ang to sub-rdd,
	Firm to hard, Calc in part, quartzitic, Micaceors, No show, w/sh, black,
	firm to hard, slickonside in part, carb, non calc. Repair chain & sprocket
	on rotary, Plan to go in w/slick BHA & mill -tooth bit because of excessive
	torque.
5-3-79	PD 18,054'Ø Made 12: NB#67 J-7. MW 9.8, Vis 49-11.0 - 11.0-CI 1600 ppm
	Solids 9%. Ironite 18#/bbl. TG 200 units. Mostly Cl 2000 on Chromat
	BGG - 5 units . CG 8 units. Lith 18,040-18,050' . Sn,WH & Lt gry
	Vfgr - Fgr, Sub-ang to Sub-rdd. Firm to hard, Fria in part, Tite
	Quartzitic in part, Micacoons, Non. calc. Imbedded w/black
	Carbonaceous Sh. Some gh, prod black, some brn , took 15 min to get
	back to bottom, Fill on bottom ?? Some large pieces shale coming over
	shaker.
5-4-79	PD 18,055', Con hole. Made 0'. Mud 8.9, Vis 59, WL 8.6-11.0 CI-1650 ppm.
	Solids 10%. Ironite 20# bbl. Short trip 36 units. BGG 8-10 units.
	18,050-55'. Lith AA 50% sn & 50% black Carbonacaus sh. Pumped hi vis
	pills, Getting large chunks shale.
5-5-79	18,055' relog, now TO w/Sonic GR out w/DIL, major change @ 17,820', sn w/
	show @ 17,908-954' has high resistivity.
5-6-79	PD 18,055' TI to cond hole for csg, finished relog, bad washouts in
	lower parts of hole, had fire on rig, roughneck burning trash, set mud
	house afire, burned mud house & two other buildings, "scorched" mixing
	pmps.
5-7-79	PD 18,055' cond hole for 7" csg, will probably have to PU 13 3/8" csg
	about 5", location very "sloppy", snowed Fri & Sat.
5-8-79	PD 18,055' prep ND BOP's & change out 9 5/8" spool, BP @ 11,000'.
5-9-79	TD 18,055' NU 9 5/8" BOP stack, unable to PU 9 5/8" csg, worked 5 3/4"
	extension on csg, will run full string 7" csg.
5-10-79	18,055' TO w/BP, finish NU BOP's, TI X retrieve BP @ 11,400' circ up gas
	bubble, 400 units, lasted 4 hrs, lronite cut from 18#/bbl to 16#/bbl
	initially, then leveled out, will TI w/bit to TD, come out LDDP & run
	7" csg.
5-11-79	TD 18,055' Circ X cond for 7" csg, had max 850 units TG, lagged to approx
	17,000', MW 9.8, Vis 64, WL 8.6.
5-14-79	18,055' WOC, ran 7" csg to btm, cmted 1st stage, dwn @ 0230 hrs 5-14-79
	started pmpg 2nd stage (DV tool about 15,000 ?) lost partial retirns,
	fluid in annulus @ surface, will wait a few minutes.
5-15-79	TD 18,055' Circ thru DV tool @ 12,700', tag btm w/csg, PU 10', try to
	break circ 500-700# @ 28 SPM, work csg, FL in BOP's, no circ, pmp 200 bbls
	mud, no returns, PU 50' off btm, RU cmt head, start cmt & lwr csg to 10'
	off btm, had some returns after 30 min, pmp 650 sx, PD @ 0215 hrs 5-14-79
	Bump plug w/2100#, bled off, press to 2500#, bled to 2000# X held, dropped
	DV toolplug, bumped w/1000#, pmp 20 bbl w/Dowell, start pmp w/rig @ 500#
	@ 20 SPM, no returns, ran 10-60 SPM, slight returns w/60 SPM, mud "out
	of sight" 1 hr, lost 765 BM, drop plug X displace 400 sx cmt, start displace
	w/no returns, FL 80', partial returns in 40 min, pmp 130 bbls mud X SI,
	1st stage displaced w/200 BW X 462 BM calculated, bump plug w/200 BW X 500
	BM, 2nd stage pmp 510 BM, no press incr, think dropped wrong plug, RU
	Schlum spinner survey.

Form 998 2-71

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 05-30-79

*** COMPANY ØPERATED - TIGHT-HØLE ***

*** 05-22-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-23-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-24-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055, SPUD 09-30-78

*** 05-25-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

RECEIVED JUN 1 1979

*** 05-26-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-27-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-28-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055
-END-

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 06-05-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 05-29-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-30-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 05-31-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT, NE116,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 06-01-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055
PERT DATA: RIG RELEASED 05-30-79

*** 06-02-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-03-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-04-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
-END-

RECEIVED
JUN 7 1979

RECEIVED
JUN 20 1979
DIVISION OF
GAS. & MINING

AMØCØ PRØDUCTIØN COMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 06-19-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 06-13-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-14-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-15-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-16-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-17-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-18-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
-END-

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 06-26-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 06-19-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-20-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-21-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-22-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-23-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-24-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-25-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
-END-

RECEIVED
JUN 28 1979
DIVISION OF OIL
GAS, & MINING

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 07-10-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

RECEIVED
JUL 13 1979
DIVISION OF OIL, GAS, & MINING

*** 06-26-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-27-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-28-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 06-29-79***

Cont

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055

*** 06-30-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-01-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-02-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-04-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-07-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT-TIGHT HØLES

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 07-31-79
*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 07-24-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-25-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-26-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-27-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-28-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-29-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-30-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
-END-

RECEIVED
AUG 6 1979
DIVISION OF OIL, GAS, & MINING

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT-TIGHT HØLES

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 07-17-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 07-10-79***
AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
SWAB TESTING, DAYS: SPUD 283, ØPER 283
RMKS: RU WIRELINE X PERF. 16465FT-600FT W/ 2JSPF UNING A 1 9/16IN GUN. PERF DEPTHS CØRRALATE. TØ SCHLUMBERGER FDL CNL X GR LØG X RD WIRELINE X RU SWAB X IFL 6600 W/ THREE RUNS. FFL 7200 SWAB FRØM 10200 X REC 15 BBLS 2% KCL WTR SIFN.

*** 07-11-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
SWAB TESTING, DAYS: SPUD 284, ØPER 284
RMKS: SITP 25PSI RUN FL SWAB DEPTH REC BBS WTR RUN 1 6600FL 8400 REC 2 BBS WTR RUN 2 7500FL 10800 REC 6BBS WTR RUN 3 9000FL 11346 REC 6 BBS WTR RUN 4 9800FL 11346 REC 5 BBS WTR W/ 9700 CHLØRIDES RUN 5 10600FL 11346 REC 0 BBS WTR RUN 6 10600FL 11346 REC 3 BBS WTR

*** 07-12-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PREP TØ ACIDIZE, DAYS: SPUD 285, ØPER 285
RMKS: SITP 20PSI GØING TØ RØCKPØRT TØMØRRØW SWABBING RUN 1 95FL 11347 REC 9WTR CUT MUD 9740 CHLØR. RUN 2 10800FL 11347 3WTR CUT MUD 8990CHLØR. RUN 3 10900 11347FT 2WTR CUT MUD 7930CHLØR RUN 4 11000FL 11347FT 1/2 WTR CUT MUD. RUN 5 11000FL 11347FT 1WTR CUT MUD.

*** 07-13-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055, FLØW ØR SWAB TST, DAYS: SPUD 286, ØPER 286
RMKS: 7:00AM SITP 25PSI 3-4FT FLARE RAN SWAB TØ 9500FT FLD. PULL FRØM 11347FT CØTCH 2 SAMPLES RIG UP X PUMP 30BBLS INTØ FØRMATIØN @ 3BPM 6000# MIX ACID START ACID 2 1/2 TØ 3BPM MAX 6200# @ END ØF JØB 5400# DISPLACE W/ 102BBLS 2% KCL. ISIP 4000# 45MIN 2400# ØPEN TØ TANK FLØWED BACK 60 BBLS IN 50MIN TURN TØ PIT 42BBLS IN 30MIN DISPLACEMENT REC ACID TØ FURFACE RIG UP TØ SWAB AS FØLLØWS: 3:15 IST RUN PULL FRØM 1800FT SWAB

X FLØW 10BBLS GAS CUT. 2RUN PULL FRØM 1800FT SWAB X FLØW 7BBLS. 3RUN FLD 700FT PULL FRØM 2700FT REC 9BBLS. 4RUN FLD 1100FT PULL FRØM 4500FT REC 12BBLS. 3RUN SHØWED 20PPM H2S. 4TH RUN SHØWED ØVER 2% 20000PPM SHUT WELL IN TØ RIG UP LUB.ETC TØ SWAB H2S 4:45PM CHKED LUB. GØT ØVER 4% 40000PPM H2S TØTAL REC 102BBLS 2% KCL X 38BBLS ACID WTR GAS CUT ACID. TØTAL TØ REC BEFØRE NEW FØRM. WTR TØ SURFACE 377BBLS PRESS ØN TBG AFTER 30MIN 25PSI WTR SAMPLES 071179 3PM RUN 8000 PPM/D 071179 5PM RUN 7700PPM CACL ØNE RUN TØP 071279 TØP ØF RUN RUN 8230PPM CACL 071279 BTM ØF RUN 11250PPM CACL

*** 07-14-79***

AMØCO-CHAMPLIN-FANCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW ØR SWAB TEST, DAYS: SPUD 287, ØPER 287
RMKS: 7:00AM TBG PRES 340# AFTER 14HRS ØPEN TØ PIT SMALL BLØW X FLARE DEAD IN 1MIN. RIG UP LIBRICATØR X SPRAY RING CTC TØ SWAB. START @ 1:00PM RUN #1 FL 500FT PULL FRØM 2000FT REC 7 BLW #2 FL 600 FT PULL FRØM 4000FT REC 15BLW. #3 FL 1000FT PULL FRØM 5500FT REC 20BLW.#4 FL 2600FT PULL FRØM 5500FT REC 16BLW. #5 FL 2600 FT PULL FRØM 6300FT REC 16BLW.#6 FL 1500FT PULL FRØM 5100FT REC 16BLW. #7 FL 2900FT PULL FRØM 6000FT REC 15 SMALL FLARE. #8 FL 1500FT PULL FRØM 5500FT REC 16 4-5FT FLARE. RAN ØUT ØF CHEM FØR SWAB LINE 6:15PM SHUT WELL IN FØR NIGHT CATCH SAMPLE ØN LAST RUN H2S 7% FLUID PH 5.5 CL 55000PPM TØTAL FLD TØ REC BEFØRE FØRMATIØN TØ SURFACE 377BBLS. TØTAL REC TØDAY 121 VERY GAS CUT HARD TØ EST. TØTAL REC SØ FØR 261BBLS. 116BLWTR.

*** 07-15-79***

AMØCØ-CHAMPLIN-FANCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW TEST ØR SWAB, DAYS: SPUD 288, ØPER 288
RMKS: 7:00AM TBG PRESS 750# CSG 0# ØPEN TØ PIT GØØD BIG FLARE FØR 2-3MIN PRESS DRØPPED TØ 0# W/ 2FT FLARE RIG UP TØ SWAB FLD LV 700FT H2Ø SAMPLE ØN 1ST RUN PH 4.7 70000PPM CL MADE 8 SWAB RUNS FLD LV AVG 1700FT PULLED SWAB FRØM 5700FT REC APPRØX 150 BBLS LAXW WELL STARTED KICKING X FLØWING @ 2:15PM WELL SLØWLY CLEANED UP UNTIL MAX PRESS ØF 370# WASREACHED @ 3:30PM STAYED LAIRLY STEADY UNTIL 4:30PM FLØW WAS THRU 2IN LINE FRØM WELL HEAD @ 4:30PM WELL STARTED TØ LØAD FLARE UP W/ H2Ø X WØULD NØT STAY LITE BURNING ØNLY ØNCE IN AWHILE ABØUT 6:00PM GØT GØØD SLUG ØF CØNDENSATE IN PIT GØØD FIRE SAMPLES SHØWING SØME CØNDENSATE WELL SLØWLY LØØSING PRESS @ 7:00PM TBG PRESS GAS CUT HARD TØ EST. TØTAL REC SØ FØR 261BBLS. 116BLWTR.

*** 07-16-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055, SWAB, DAYS: SPUD 289, ØPER 289
RMKS: 7:COAM TBG PRESS 1010# CSG 0# ØPEN TØ PIT GØØD FLARE 10MIN PRES
WAS 50# 30MIN PRES WAS 0# RIG UP TØ SWAB 1ST RUN PULLED FRØM
4000FT NØ FLD 2ND RUN PULLED FRØM 7500FT NO FLD. 3RD RUN
PULLED FRØM 9500FT REC 1500FT ØIL X WTR GØØD BØLCK SMØKE PRØB
10% ØIL SAMPLES SHØULED BLØCK ØIL X SØME BLACKE SEDIMENT IN BTM
4TH RUN PULLED FRØM 10500. REC 2300FT MUDDY WTR X GAS 5TH RUN
PULLED FRØM 10500FT REC 1500FT GAS CUT WTR X 1-2BBLS PINK
MUDDY STUFF ØN TØP ØF RUN FLØATS 6TH RUN PULLED FRØM 5800 REC
600FT 7TH PULL FRØM 7200FT REC 700FT SØME EMULSIØN 8TH PULLED
FRØM 9100FT REC 1600FT 9TH PULLED FRØM 7800FT REC 1300FT 10TH
RUN PULL FRØM 8600FT REC 19800FT RUN 78910 ØIL HAD EMULSIØN
THAT IS GRAY TØ PINK IN CØLØR LØØK AT MØST LIKE BREAD DØUGH
FLD MOVING UP X DN HØLE HARD TØ TELL WHERE IT IS AT NØT AS MUCH
GAS AT END ØF DAY AS THERE WAS IN AM TØTAL FLD REC ØN SWAB RUN
X 50BBLS WTR X EMULSIØN. H2S 5% TØØK SAMPLE ØF EMULSIØN TØ
HALIBURTØN SENT TØ RØCK SPRINGS.
-END-

GRAY IN COLOR GREASY FEELING. AFTER SETTING SHOWS TRACE OF OIL X HAS WHITE STREAKS THRU IT X SAME SMALL DARK SPECKS. NOT ABLE TO GET A QUANUTAB TO EXPOSE OFR CHLORIDES. COULD NOT GET A CHLORIDES BY TITRATION BECAUSE WHEN THE EMULSION FLUID IS ADDED TO THE DISH IT BALLS UP LIKE OIL X A SINGEL DROP OF SILVER NITRATE THEN TURNS THE SOLUTION BRICK RED. WILL PULL 1 SAMPLE TOMORROW BEFORE SDF RIG REPAIR.

-END-

ND BØP NU TREE HØØK UP BJ TØ TREE LIFT TREE X UNSTING FRØM PKR PMP 82BBLS DEMULSIFIER STING BACK INTØ PKR BUTTØN UP TREE PRES TEST LINES TØ 10000# FINISH PMPNG DEMULSIFIER 100BBL TØTAL 2% KCL H2Ø W/ 30GAL 1000 ØF J-47 X 5GAL/1000ØF J-7 STAND 160BBLS ØIL PRES ANNULUS TØ 2500# TBG 2000# 3BPM W/ 73BBLS ØF ACID IN RATE 2.5BBLS/MIN 4800# ACID ØN PERF PRES DRØP FRØM 4800 TØ 4600 W/ 160 BBLS IN PRES 4950# @ 2.5BPM. START FLUCH 2% KCL WTR PRES HAD STEADY INC FRØM 4950 TØ 5400# PMP 102BBLS FLUSH ACID CØNTAINED 15% HCL 20#/1000GAL ISZ 5GAL/1000J-47 3GAL 1000 J-7 ISIP 4650# 5MIN 4000# 30MIN 3100# ØPEN TØ PIT @ 2:30PM FLØW GØØD 3:25PM 102BBLS 1120 BACK GØT ACID X ACID GAS. FLØWED TØ 4:45 WELL DEAD RIG TØ SWAB MADE 3 SWAB RUNS FRØM 4000FT SWABED 35BBLS TØTAL FLØWED APPRØX 125BBLS TØTAL 160BBLS TØTAL TØ REC 362 LEFT TØ REC 202 SHUT WELL IN 6:00PM

*** 07-21-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PREP TØ SWAB, DAYS: SPUD 294, ØPER 294
RMKS: 7:00AM TBG PRES 250# CSG 300# HAD TØ PØUR NEW RØPE SØCKET ØN SWAB. FLUID LUB @ 800FT MADE 16 SWAB RUNS SLØWLY DECLINED LØST 4 RUNS FLD LUB 4000FT SWABING FRØM 6300FT. REC 115BBLS LØAD ACID X WTR PH H8-5.1 CL 68000-85000PPM TØTAL REC 275. TØTAL TØ REC 362. LEFT TØ REC 87 H2S 7% NØT ENØUGHT GAS TØ FLARE.

*** 07-22-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
SWAB SITP 150PSI., DAYS: SPUD 295, ØPER 295
RMKS: INITIAL FL 2000 RAKE 15 SWAB RUNS. FINAL SWAB FLAT 4400. PULL FRØM 6900FT REC 87BLW TØTAL LW REC 362 TØTAL LEFT TØ REC 0 REC 28BBL NEW WTR. H2S 7% TRACE ØF FLARE IN SWAB FLUID. ALSØ REC THICK EMULSIØN.

*** 07-23-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
SD FØR RIG REPAIR, DAYS: SPUD 296, ØPER 296
RMKS: SITP 50PSI. FLUID LEVEL 2500FT WEATHER BAD FØR SWB SDF BREAK IN WEATHER MAKE 8SWB RUNS. FINAL FL 3800FT PULL FRØM 5700. REC 54DBL NW H2S 7% TRACE ØF FLARE IN SWAB FLUID. WTR SAMPLE FRØM LAST RUN YESTERDAY PH 6 CHLØRIDES 63000PPM. TØDAY SAMPLE. EMULSION WTR SAMPLE WT. 8.2#/GAL CØULD NØT GET PH METER TØ READ THRU EMULSIØN. PH 7 FRØM PH PAPER STRIP. FLUID WILL NØT FILTER THRU PAPER TØWELL WILL NØT BURN. FLUID IS SUSPENSIØN LIGHT

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT-TIGHT HØLES

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 07-24-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 07-17-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 10055, PREP TØ CIRC, DAYS: SPUD 290, ØPER 290
RMKS: 7:00AM TBG 250# CSG 0# FLARE TØ PIT 20MIN WELL WAS DEAD. RAN SWAB TAG FLUID @ 7000FT PULLED FRØM 9000FT REC 5-6BBLS. WTR W/ SCAN ØF GRØC EMULSIØN ØN SAMPLE MADE 2 RUNS TØ 11347FT NØ FLUID WAIT 1 1/2HRS MADE SWAB RUN FRØM 1134FT STILL NØ FLUID 2:00PM MADE ANØTHER SWAB RUN @ 3:30PM STILL NØ FLUID SWI

*** 07-18-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TØØH/TBG, DAYS: SPUD 291, ØPER 291
RMKS: 7:00AM TBG 100# CSG 0# FLARE TØ PIT HØØK UP TØ TBG TØ FILL PIPE CIRC ØUT CSG PUTTING CSG. CIRC ØUT TBG ND TREE NØ CUT ØN TBG. NU BØP TBG PØRTED 1JT X 4FT ØF A 10FT SUB DN FISH 34.06FT LØNG SUB PØRTED IN SLIP ØVER. RUN ØVERSHØT CATCH 2 7/8 TUBE TØØH W/ 2 7/8IN 179 STAND. HØLE TØØK 62BBLS TØ FILL X CIRC. HØLE SEEMS TØ BE DRINKING QUITE A BIT ØF WTR HAVE NØT FILLED HØLE. PUMPED APPRØX 100BBLS IN HØLE WHILE TRIPPING ØUT. TØP ØF FISH WAS @ 63.33FT FILL 29.27FT PRØBABLY CØRK SCREWED 2 3/8 INCH TBG. SUB WAS PØRTED 4FT DN IN SLIP ØVER X BRØKEN ALMØST SQUARE ACRØSSED H2S EMBRITTLEMENT.

*** 07-19-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
ACIDIZE, DAYS: SPUD 292, ØPER 292
RMKS: FINISH TØØH W/ 2 3/8IN TBG. HAD 11BAD JTS LAYED DN. REDRESS STINGER ASSEMBLE TIH. REPLACED THE 11BAD JTS ØF 2 3/8 IN 2/ 16STNDS ØUT SLIP DIE WAS FØUND MISSING PIN WAS FØUND ØN GRØUND DIE IS EVIDENTLY DN HØLE. THEY RAN 6 MØRE STNDS WHILE PUSHER LØØKED FØR DIE. W/ 10 STNDS ØUT SDØN.

*** 07-20-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
SWAB X FLØW TST, DAYS: SPUD 293, ØPER 293
RMKS: 7:00AM TIH W/ 10STNDS 2 7/8 STING INTØ PKR PRES TST TØ 1200#

Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ____ OF ____ SHEETS

COUNTY PARISH: Morgan
AREA FIELD: Overthrust
BLOCK TWP: 5N
SURVEY RANGE: 7E
Amoco Production Company
Barrett & Sons Inc
WELL NO. #1

DATE	REMARKS
7-16-79	PBD 17,733' tsting, on Saturday had 750# SITP, blew to 0# in 5 min, made 8 swb runs, IFL 700', avg depth swb 1700', last run from 5700', rec 150 bbl gas cut wtr & acid @ 1415 hrs kicked off & started flwg, FTP went to max of 370# @ 1530 hrs, 1" ck @ 1630 hrs, flare started to die, would not stay lit(if dry gas 370# would be about 9.2 MMCFGPD, however had a lot of liquids) est rec all load & 34 BNW, 66,000 PPM CL , H2S on gas 7% to 5%, fluid rec'd before SDFN Saturday, appeared to be emulsion of oil , Ø mud, & wtr, shkle out 30% oil, swb to 11,000', very little fluid entry, will try to break emulsion in sub surface???.
7-17-79	PBD 17,733', prep unsting PKR & circ hole,,will attempt clean emulsion from tbg, sting back into PKR & retreat Fm w/acid & surfacetant, ONSITP 250#, bled to pits in 20 min, FL 7000', sbb to 11,349' rec 5-6 BF, think tbg plugged.
7-18-79	PBD 17,733' TO X tbg, ONSITP 100#, bled to 0# in 1 min, PU tbg, circ out, tbg parted 34' from surface, fished 2 7/8" tbg (tbg fell 29').
7-19-79	17,733' PBD, acidizing, LD 11 bad jts tbg, lost slip die.
7-20-79	PBD 17,733' acidized, ISIP 4650#, 3100 PSI in 30 min, bled, swb 160 bbls BLW, 202 BLWTR.
7-23-79	PBTD 17,733' SD for rig repair, SITP 50#, swb 8 runs, IFL 2500', FFL 3860', rec 54 BNW X trace of gas,.
7-24-79	PBD 17,733' SD rig repair, ONSITP 25#, swb 1 run from 4200', FL 3500', rec 7 BW, trace of gas.
7-25-79	PBD 17,733' SD rig repair.
7-26-79	PBD 17,733' prep to run tracer survey,
7-27-79	17,733' running tracer.
7-30-79	PBTD 17,733' evaluate tracer survey, indicated fluid in perfs, about middle 1/3, plan to move up hole.
7-31-79	PBD 17,733' Run CIBP (will run BH Gravimeter)
8-1-79	PBD 16,423' Run BH Gravimeter, Baker "D" PKR @ 16.170'.
8-2-79	PBD 16,423', Run BH Gravimeter
8-3-79	Running borehole Gravimeter.
8-6-79	PBTD 16,423' swb tsting, perf 16,270-410' w/2 JSPF, could not BD perfs w/6875# w/2% KCL wtr.
8-7-79	PBD 16,423' prep to acidize, ran 6 swb runs, IFL 6000', FFL 11,100', rec 30 BLW, 30 BLWTR.
8-8-79	PBD 16,423' swbbing, acidize w/7000 gal 7%, MP 7650# @ 1½ BPM, avg 4000# @ 2 BPM, ISIP 3900#, in 5 min 3450#, 10 min 3270#, 30 min 2770#, flw back X swb 210 BLW, 92 BLWTR.
8-9-79	PBD 16,423' swbbing, made 15 runs, IFL 2000', FFL 3400', rec 92 BLW, 40 BNW, slight flare each swb run,.
8/10/79	NR from Cliff Bruce
8/11/79	PBD 16,423' Swabbing. Made 12 runs. IFL 300', FFL 4400'. Rec 143 BNW. Total 183 BNW (over calc load). 5-10' flare after swab run. H_2S 10%. Cl^- 40,000 ppm.
8-13-79	PBD 16,157' prep to perf, PKR @ 15,744'.
8-14-79	No report, not on Ø wire, unable to contact Salt Lake City.
8/15/79	PBD 16,157 prep to swb Perfs 15,825-15885 w/WSPF swb down to 11,200 before perfing. After perfs FL rose to 8000. swab 3 runs. had good blow gas 2000 ppm H2s. SDFN SITP 900#
8/16/79	PBD 16,157 ND sxmas tree. on SITP 900 on 8/15. bled to pits. flw for 45" on

Form 998 2-71

Fawcett & Sons Inc #1
Sec 36-5N-7E

DATE	REMARKS
5-16-79	TD 18,005', RD Schlum, had full returns after 9 hrs circ, ran spinner survey(think 2nd stage cmt went dwn hole, DV tool @ 12,400' - too high)
5-17-79	18,055' circ & cond mud, ran spinner survey, tag up @ 12,405', fluid moving dwn ward, TO X spinner survey, ran sinker bar, tag up @ 251', pmp in 14 bbls, annulus FL dropped, fill annulus, well flow back while filling annulus, flowed DV tool plug to surface, has some scars, but apparently intact, now circ & loosing small amount of mud, will run sinker bar to see if goes by DV tool.
5-18-79	TD 18,055' WOC, circ 2½ BPM @ 700#, above this rate loosing mud, ran CCL tag @ 12,376', (wireline) pmp 50 bbls Pronto Plug + 20 bbls FW, pmp 50 sx 50-50 Posmix + 400 sx Class G, displaced w/454 bbl wtr @ 5 BPM @ 1000#, full returns , max cmting press 2200# @ 4 BPM, over displaced 5 bbls, did not bump plug, ISIP 1900#, bled back 5 bbls, held 1600# on csg, cmt in place 0500 hrs 5-18-79.
5-19-79	TD 18,055' WOC.
5-20-79	TD 18,055' Set csg in slips, ran CBL, tag cmt @ 7890'.
5-21-79	TD 18,055' Tripping, PU 3½" DP, tag cmt @ 12,175' (DV tool @ 12,400'), drl cmt to 12,268', carbide lag @ 12,268', 61 min.
5-22-79	TD 18,055' Ø cmt, TO bit, tst BOP's & csg, OK, Ø cmt below 12,350'.
5-23-79	TD 18,055' TI w/bit X csg scraper, drl out to 12,500', press tst to 2200#. bled bled off, displaced fresh wtr displacement fluid below DV tool, had max 15 units gas, lagged to DV tool.
5-24-79	18,055' evaluate CBL, ran csg scraper to 17,945' ran CBL, top 1st stage cmt 15,030', good bond except spot @ 16,000', will run in RTTS too & check flow across DV collar.
5-25-79	18,055' PBD 17,945', TI w/Baker retainer, set RTTS PKR @ 12,450', pressure below to 2000# OK, set PKR @ 12,290', tst backside to 1000# OK, pressure tbg, inj rate of 4 BPM @ 2700#, ISI 600#, decr to 200# in 15 min, DV tool @ 12,392', plan to squeeze thru DV tool, then re-cmt below tool?.
5-29-79	18,055', PBD 17,945', TI w/csg scraper, cmt DV tool w/200 sx, no squeeze , held 1000# & WOC16 hrs, drl DV tool & retainer, tst to 1500#, OK, plan to go to btm & displace w/KCL wtr, had no gas while Ø DV tool & retainer, mud logger released this AM.
5-30-79	No report.
5-31-79	TD 18,055' PBD 17,945' RDRT. Rig will move to Champlin 323-B (Whitney Canyon Rig rel 0800 hrs 5/29/79.
6-27-79	Rigging up Service Unit.
6-29-79	18,055' TD, 17,972' PBTD, prep run GR-CCL.
7-2-79	PBD 17,972' run tbg, Baker Model "D" @ 17,743'.
7-3-79	PBD 17,972' testing, swb to 8200', perf 17,850-930' w/2 JSPF, no press incr.
7-5-79	No report.
7-6-79	PBD 17,974' pull tbg, swb dwn to 11,000', rec wtr PH 7.8, CL 6000 PPM, SI 36 hrs, FL 9600', volume-NR.
7-9-79	17,733' PBD, Prep to perf.
7-10-79	PBD 17,733' swbbing, swb tbg to 11,000' , perf 16,465-16,600' w/2 JSPF, swb 3 runs, IFL 6600', FFL 7200', rec'd 15 BLW.
7-11-79	17,733' PBD, swbbing, swb 8 runs, IFL 6600', FFL 11,347', rec'd 23 BLW, 9700 PPM CL.
7-12-79	PBD 17,733' prep to acidize, made 5 swb runs, rec 15½ BF, wtr cut mud, will run 50 gal/ft acid job.

IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-08-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 07-09-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055
-END-

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT-TIGHT HØLES

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 08-07-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 07-31-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 08-01-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 08-02-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 08-03-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 08-04-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 08-05-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

*** 08-06-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

-END-

RECEIVED
AUG 9 1979
DIVISION OF O
GAS, & MINING

CONFIDENTIAL

7

August 29, 1979

MEMORANDUM

TO: File

FROM: Frank M. Hamner
Chief Petroleum Engineer
Division of Oil, Gas
and Mining

Re: Amoco Production Company
Well No. Fawcett & Sons #1
Sec. 36, T. 5N, R. 7E.,
Summit County, Utah

Red H_2S flag was out. Amoco would not let us onto the location. Men from Evanston were on their way out. There was a 1½ hour delay which was needless. The H_2S was not coming out of the well bore but from the oil inpit.

PBTD 15,570' with temporary plug. Were logging at this time - have two different sizes of DP. BOP checks out alright; two sets of rams. The valves and Christmas tree were H_2S treated. Wind stacks were on, but the stack they were venting to didn't have a flare on it.

cc

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPORT-TIGHT HØLES

DENVER REGIØN *** SALT LAKE CITY DISTRICT *** 08-28-79

RECEIVED
AUG 30 1979
DIVISION OF OIL
GAS & MINING

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 08-14-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TESTING, DAYS: SPUD 318, ØPER 318
RMKS: RIGGED UP PETRØ LØG AND PERFØRATE THE FISH HAVEN INTERVAL-
15825-885 2 JSPF W/1 9/16 TBG GUN DECENTRALIZED. RIG DØWN
PETRØ LØG FL AT 8000 FT. SWABBED FØR 3HRS REC 25 BBLS WTR
FL AT 10000 W/GAS INCREASING TØ STRØNG BLØW. 2000 PPP
H2S. SHUT DØWN FØR NIGHT. 12HRS SHUT IN ØF 900 PSI THIS MØRN.
BLEEDING ØF WELL TØ PIT. FLUID LEVEL BEFØR PERFERATING 11200

*** 08-15-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
SWABBING, DAYS: SPUD 319, ØPER 319
RMKS: 12HR SITP 900 PSI. FLØWED GAS 45 MIN. 50/64 CK WELL DEAD.
FL 10000 FT. SWABBED 10HRS. 8 SWB RUNS. REC 61 BBLS LW X 37
BBL NW LW SEFT-0. UNABLE TØ SWAB W REGULAR CUPS DUE TØ CUPS
SWELLING. HAD FLARE ALL DAY BUT NØ PRESS.

*** 08-16-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
ND TREE, DAYS: SPUD 320, ØPER 320
RMKS: SITP 700# BLED ØFF 10 MIN. RU SWB. INFL 1000 FT. MADE 11 RUNS
REC 101 BBL NW. FILL TBG 27 BBL 2% KCL. PMP 34 BBL 2% KCL @
3 BPM @1000 PSI. PH-6.5 CL-60000 PPM.

*** 08-17-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
KILL WELL, DAYS: SPUD 321, ØPER 321
RMKS: SITP 0 SICP 50-75#. TBG FULL PMP 30 BBL INTØ TBG. 3 BPM @
1500 PSI. TBG FLØWED BACK 32-35 BBL. THEN DIED. BLED CSG TØ
0. CSG WAS FULL. ND TREE. NU BØP. PU ØUT ØF PKR.TBG STARTED
FLØW. HØØK UP LINE FRØM TBG TØ CSG X LET WELL U-TUBE UNTIL
EQUALIZED. CSG-400 PSI. BLED CSG TØ PIT-ALL SWEET GAS. IN 5
MIN. FLØWED ØIL FØR 1/2 MIN. CSG DIED. TBG-350 PSI. FLARE TBG
TØ PIT BLED ØFF IN 2 MIN. SØUR GAS. BUT TBG KEPT FLØWING.
PMP DØWN CSG X UP TBG. 35 BBL TØ FILL.

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT-TIGHT HØLES

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 09-05-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

RECEIVED SEP 6 1979 DIVISION OF OIL, GAS, & MINING

*** 08-28-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055, PREP TØ SQUEEZE, DAYS: SPUD 332, ØPER 332
RMKS: TRIP IN HØLE X TBG X STINGER. STUNG INTØ RETAINER @ 155
RIG UP DØWELL. PRESS TEST ANNULUS. 1500PSI. ESTABLISHED
INJECTIØN RATE X 24BBLS KCL WTR 3BPM 1100PSI MIXED X PMPED
100 SXS CLASS G CMT W/ .50% FLARED LØSS ADDITIVE .50%
DISPERSANT. START STAGING W/ 50 SKS IN FØRMATIØN IN 3 STAGES
FØR TØTAL ØF 90MIN. MAX PRESS 400PSI ØVERFLUSHED 15BBLS @ 4BPM
AT 2200PSI. PICKED TBG UP ØUT ØF RETAINER REVERSED 90BBLS 2%
KCL WTR. PULLED 6STDS TBG SHUT IN FØR NIGHT.

*** 08-29-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055, PREPARING TØ LØG, DAYS: SPUD 333, ØPER 333
RMKS: RAN 6STDS TBG. STUNG INTØ CMT RETAINER 15570FT. PRESS ANNULUS
TØ 1500PSI ØK. EST INJ RATE 2BPM 3200# MIX X PMP 100SKS CLASS
G .5% D65 .4% D13 .3GAL PER SK 2BPM 2600PSI. CØMMENCE STAGING
W/ 50 SKS IN FØRMATIØN STAGE 3TIMES TØTAL 1HR 40MIN TØ 2500
PSI STANDING PRESS W/ 51SKS IN FØRMATIØN 18 IN CSG X 31IN TBG
HAD TØ WØRK 50MIN PULLING STINGER ØUT ØF CR UNABLE TØ RUS PØH
HAD 52JTS 2 3/8 W/ CMT. CIW SIFN.

*** 08-30-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055, LØGGING, DAYS: SPUD 334, ØPER 334
RMKS: PRESS TESTED CSG TØ 1500PSI ØK. RIGGED UP SCHLUMBERGER X AMØCØ
RESEARCH LØGGING TRUCK RAN TEMP LØG 8000-14000FT. TEMP 15500
225 DEG. TEMP 14000FT 220 DEG. LØGGING W/ BØRE HØLE FRØM 15500
PRESENTLY AT 13000FT.

*** 08-31-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055, PREP TØ SET MØD D PKR, DAYS: SPUD 335, ØPER 335
RMKS: RESEARCH FINISHED RUNNING LØGS AT 3:00AM THIS MØRNING.
PREPARING TØ RUN GAUGE RING X SET MØDEL D PKR.

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
SITP 400# SICP, DAYS: SPUD 329, ØPER 329
RMKS: O ØPEN TBG TØ PIT. BLED ØFF 1MIN. FILL TBG W/ 2% KCL APPRØX 4BBL FL APPRØX 700FT. PMP 130BBL DN TBG 1200 PSI @ 2.3BPM. WELL FLØWED BACK 6BBL THEN DIED. ND THEN NU BØP WELL DEAD. PU SET UP PKR. WELL ØN VERY SLIGHT U-TUB DN CSG X UP TBG. LAY DN 1JT X WATCH WELL. U-TUBE INC. REVERSE CIRC 100BBL 2% KCL 300# @ 2BPM LØST 25BBL FRØM PIT DURING REVERSE CIRC TBG ØN VACCUM CSG ØN BLØW. LET WELL U-TUBE THRU PMP MANIFØLD. FRØM 4:00PM UNTIL 6:30PM NØ SHØW ØF GAS. ØR BUBBLE SIFN.

*** 08-26-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
KILL WELL, DAYS: SPUD 330, ØPER 330
RMKS: SITP O TBG ØN VAC SICP O CSG FLØW PMP 180BBL DN TBG UP CSG. SD TBG X CSG ØN FLØW. CSG DIED IN 5MIN X WENT ØN VAC W/ TBG STILL ØN FLØW APPRØX 1/3BPM. PMP 621BBL DN TBG. X UP CSG. LØST 126BBL DURING CIRC. SD TBG X CSG BØTH FLØWING APPRØX 1/3BPM. FLØWED BACK 30BBL STILL FLØWING WHEN SIFN.

*** 08-27-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TD 18055, TIH TØ SQU, DAYS: SPUD 331, ØPER 331
RMKS: SITP O SICP TØ SMALL TØ MEASURE W/ GAUGE AVAILABLE WELL FLØWING 2BBLS WTR PER HR. PØH W/ TBG X BAKER MØDEL D SEAL ASSY RIGGED UP PETRØ LØG RAN X SET BAKER CMT RETAINER 15570FT. KB BPH X RIG DN PETRØ LØG. CIW.
-END-

FLØW TEST, DAYS: SPUD 325, ØPER 325
RMKS: SITP 4000 AFTER 15HRS. SICP 150 ØPEN TØ PRØD UNIT ØN 20/64IN X INC CHØKE EVERY 5 MIN PRESS DRØPPED 2100 IN 30MIN TØ 900PSI. THEN CØNTINUED DRØPPING UNTIL STABLE @ 103PSI. 56 DEG. IN 12 HRS PRØD 374MCF H2S 11.5% CØ2 3.75% PH 11 CL 12000PPM. PLAN TØ PMP 2% KCL INTØ WELL ABØUT NØØN TUE X ACD WED.

*** 08-22-79***

AMØGØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PREP TØ ACD., DAYS: SPUD 326, ØPER 326
RMKS: FLØWED WELL FRØM 17:00 AUG 20 TØ 12:00 AUG 21 582MCF TØTAL WTR X CØNDS 03BL 11.5% H2S 3.75% CØ2. SI @ 12:00 W/ 109PSI. RU BJ 4 1/2 HR SITP 1680PSI. PMP 53 BBL 2% KCL. AUG RATE 1BPM C 8200PSI. MAX RATE AT END. 1BPM @ 8450PSI. ISIP 8050 5 MIN 6100 10MIN 5200 1HR 2200 ØPEN TØ PIT WELL BLEW APPRØX 2 BBL BACK IN 3MIN X DIED ØFF. SI 30MIN PRESS BUILD TØ 1700PSI. ØPEN TØ PIT ØN 1/2IN CK BLED TØ 1200# IN 5MIN GAS TØ SURF IMMEDIATELY FLARE TØ PIT FØR 1HR. X REC 20BLW LN LEFT TØ REC 31 BBL.

*** 08-23-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW ØR SWAB, DAYS: SPUD 327, ØPER 327
RMKS: SITP 1200 SICP 350 ØPEN TØ PIT ØN 35/64. FLARE GAS 5MIN ØIL 10MIN. WTR 1HR. RU BJ TEST LINES 9000. SITP 590. PMP 3050 GAL 15% MCA W/ 4GPT J4-5 10GPT J7 4GPT C-15. 10#PT SA-10. FLUSH W/ 92BBL 2% KCL. MAX TREATING PRESS 4830 C 4.5BPM. AVG 4650 @ 4.5BPM MIN 3640 @ 3.4BPM. ISIP 2100 5MIN 1130. 10MIN 670 15 MIN 450 1 1/2HRS SITP 0 ØPEN TØ PIT. TRACE ØF FLARE. SI 1HR SITP 0. RU SWB INFL @ SURFACE FIFL 1100 MADE 5 SWB RUNS LAST 3 SWB RUNS VERY GAS CUT X WELL FLØW APPRØX 3MIN AFTER SWB. BLW REC TØDAY 75 TØTAL REC 75 LEFT TØ REC 90 SIFN @ 7:45PM.

*** 08-24-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW ØR SWAB, DAYS: SPUD 328, ØPER 328
RMKS: SITP 400# SICP 0 BLED TØ PIT 1MIN NØ FLARE. MADE 10SWB RUNS INFL 1500 FIFL 1300 BLW REC TØDAY 90 TØTAL REC 165 LEFT TØ REC 0. BNW REC TØDAY 100 TØTAL REC 100. LAST 3 RUNS SHØWED 3FT FLARE FØR APPRØX 2MIN AFTER SWB. CL 62000. PH 6

*** 08-25-79***

PMPED ANØTHER 45 BBL CSG DEAD. TBG STILL GASSY X FLØWING. PMPED ANØTHER 60 BBL DN CSG X UP TBG. CSG X TBG FLØWED BACK FØR 15 MIN. TBG DIED. CSG FLØWED FØR 25 MIN. W/TBG STILL DEAD. TBG X CSG BØTH FLØWED FØR 10 MIN. TBG DIED X CSG STILL FLØWED FØR ANØTHER 15 MIN. BØTH TBG X CSG DIED. CSG FLØWED BACK TØTAL ØF 36 BBL. TBG FLØWED TØ FLARE PIT. STING BACK INTO PKR. CSG FULL. PUT 700 PSI ØN CSG-HEAD. BLED PRESS ØFF. SIFN.

*** 08-18-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
TI W/ BAKER MØDEL D, DAYS: SPUD 322, ØPER 322
RMKS: PKR. SITP VAC SICP 100 PMP 100BBLS 2% KCL WTR. DN TBG 2400#. FLØWED BACK 76BBLS WTR TØ W/ TBG X BAKER SEAL ASSY. RU PETRØ LØG TI W/ GØ INTERNATIØNAL CIBP LET BTM ØF BP @ 15743 CI ABØVE TØP ØF PKR. TØ W/ SETTING TØØL. PRESS TEST CIPB TØ 1500# HELD ØK. DUMPED 2 SX CMT ØN TØP ØF SIBP SIFN.

*** 08-19-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PREP TØ PERF, DAYS: SPUD 323, ØPER 323
RMKS: SITP 0 SICP 0 GIH W/ BAKER MØDEL D. SIZE B2-26 2.688IN BØRE PKR SA 15610. TØ W/ SETTING TØØL. TIH W/ 22FT PREMIUM SEAL ASSY. 1FT 2 3/8 TBG. F NIPPLE 134JTS 2 3/8 TBG 366JTS 2 7/8IN TBG. 10FT PUP 8FT PUP. SPACE ØUT X LAND TBG 1FT ØUT ØF PKR. PRESS TEST CSG TØ 1500PSI. ND BØP NU TREE. SIFN.

*** 08-20-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PREP TØ FLØW TST, DAYS: SPUD 324, ØPER 324
RMKS: SITP 0 SICP 0 SWB TØ 11300 RU PETRØ LØG GIH W/ 1 9/16IN TBG GUNS X PERF 15663-724 FDC-CNL W/ 2 JSPF. AFTER LAST PERF RUN HAD 300# ØN WELL. PRESS TØ 500# IN 45MIN. ØPEN TØ PIT. GØØD SHØW ØF GAS. PRESS DN TØ 150# IN 5MIN X UNLØADING WTR. PRESS CØNTINUED TØ DRØP IN 1HR HAD STEADY FLARE 10FT W/ WTR. FLØWED 2HRS REC 20BBL WL. LY LEFT TØ REC 0 SIC8PM WTR HAS SØME ØIL IN IT. BLACK IN COLOR X FAST TØ BURN.

*** 08-21-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT-TIGHT HØLES

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 09-12-79

RECEIVED SEP 17 1979 DIVISION OF OIL, GAS, & MINING

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 09-05-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW TEST, DAYS: SPUD 340, ØPER 340
RMKS: RU PETRØLØG GIH W/ 1 9/16IN THRU TBG GUN. FL @ 11300 PERF INTERVALS 15396-15435 X 15460-15490 W/ 2JSPF. NØ PRESS ØR H2S AFTER PERF SI 3 1/2HRS PRESS ØN TBG 200PSI ØPEN TØ PIT ØN 1IN CK. WELL UNLØADED IN 1/2HR THEN HAD STEADY FLARE FØR 30MIN W/ STEADY DECREASE IN PRESS. SI W/ 25-30PSI. 1HR SI TP 450PSI. ØPEN TØ PIT X WELL UNLØADED WTR FØR 1/2HR THEN STEADY FLARE 1/2HR W/ STEADY DEC IN TBG PRESS TØ FINAL ØF 25-30PSI. SI @ 6:30PM TØ FLØW THRU PØRTA TEST SEPARATØR. NØT ABLE TØ IGNITE FLARE PILØT ØN FLARE STACK. SIFN. LW REC TØDAY 19BBL TØTAL REC 19BBL LEFT TØ REC 0. NW REC TØDAY 2BBL TØTAL REC 2BBL LEFT TØ REC ?.

*** 09-06-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW TEST, DAYS: SPUD 341, ØPER 341
RMKS: SITP 4400 SICP 600 ØPEN TØ PIT ØN 20/64 X INC CK GRADUALLY TØ 64/64 WELL BLED DN IN 1/2HR. REC SØME CØND X VERY LITTLE WTR 9AM BLED ØFF CSG HAD FLARE X 4% X H2S. CSG TØ 1450#. NØ CØMMUNICATIØN. 3PM 6HR SI CSL 120#. BLED ØFF TRACE ØF GAS BLED ØFF 1MIN. MØSTLY WTR FLØW WELL TRU PØRTA TEST SEPARATER AT 9:30AM FRØM 09:30 090579 TØ 04:00 090679. GAS 494MCF CØNDS 6.84BBL WTR 3.13BBL APPRØX 7% H2S TUTWILER BRØKEN.

*** 09-07-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW TEST., DAYS: SPUD 342, ØPER 342
RMKS: FLØW THRU PØRTA TEST FRØM 04:00 090679 TØ 16:50 090679. PRØD 9.55BBL CØND 3.42BBL H2Ø. .310MMCF. SI TØ RJ X ØBTAIN BREAK DN W/ 2% KCL RU BJ 1 1/2HR SITP 1640PSI. STARTED PMPNG X PRESS DEC FØR 1ST 18BBL TØ 1460 @ 2.1BPM. THEN PRESS STARTED INCNG 20BBL PUMPED PRESS 1550 @ 2.1BPM. 22BBL PUMPED PRESS 1660 @ 2.1BPM. PUMPED 54BBL TØTAL. BREAK DN RATE 8170PSI. @ 1.5BPM. ISIP 7500 25MIN SI 3450 55MIN. 2800. ØPEN TØ PIT WELL UNLØADED IN 1HR X 5MIN. FLØW THRU PØRTA TEST FRØM 21:45 090679 TØ 05:00 090779. GAS 138MMCF CØNDS .57BBL 2TR 1.71BBL. GAS PRØD

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET CLEAN-UP COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 2 Job No. 103 WEBER WELL NO. FAWCETT & SONS #1 STATE UTAH DATE MARCH 23, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
OPENING PRODUCTION			2.408		140.43		139.83		280.26				
01:00	6.300	0.263	2.671	0.00	140.43	31.40	171.23	31.40	311.66	00.000	52.576	119.392	116.683
02:00	6.420	0.268	2.939	3.43	143.86	25.69	196.92	29.12	340.78	12.799	48.949	108.657	115.951
03:00	6.600	0.271	3.210	3.99	147.85	38.24	235.16	42.23	383.01	14.723	46.059	155.830	119.318
04:00	6.750	0.278	3.488	3.43	151.28	29.40	264.56	32.83	415.84	12.338	43.372	118.094	119.220
05:00	6.600	0.275	3.763	3.99	155.27	39.38	303.94	43.37	459.21	14.509	41.262	157.709	122.033
06:00	7.200	0.295	4.058	3.99	159.26	29.11	333.05	33.10	492.31	13.525	39.246	112.203	121.318
07:00	7.200	0.295	4.353	0.00	159.26	40.53	373.58	40.53	532.84	00.000	36.586	137.390	122.408
08:00	7.500	0.311	4.664	5.14	164.40	29.11	402.69	34.25	567.09	16.528	35.249	110.129	121.589
09:00	7.420	0.311	4.975	0.00	164.40	36.53	439.22	36.53	603.62	00.000	33.045	117.460	121.331
* 10:00	3.000	0.217	5.192	* 1.71	166.11	* 36.69	475.91	38.40	642.02	07.880	31.993	176.959	123.656
11:00	7.100	0.311	5.503	2.29	168.40	26.25	502.16	28.54	670.56	07.363	30.601	091.768	121.854
12:00	8.350	0.345	5.848	9.41	177.81	38.52	540.68	47.93	718.49	27.275	30.405	138.928	122.861

* INDICATE APPROXIMATIONS TABULATED AS PRE - BY - PASS AND POST - BY -PAST

10:00 FLOW RATE FO 3.00 MMCF IS ONLY AN ESTIMATE

TIGHT HOLE

RECEIVED SEP 19 1979 DIVISION OF OIL, GAS, & MINING

DATE	REMARKS
	50/64" choke. Well died. FL 10,000'. swab 10 hrs, 8 runs. Rec. 5 BLW 37 BNW, had flare, but 0# pressure. On 8/16 onsitp 700# flw 10 min rec, 5 gal oil on top of water IFL 1000 swab 12 runs. FFL 3000-3500. Rec 90 BW. 1' flare going in. 12' flare behind swab.
8/17/79	PBD 16,157', prep kill well .
8/18/79	NR
8/19/79	NR
8/20/79	PBD 15,731', prep flow tst. CIBP 15,743', capped. Model "D" @ 15,610'. Perf 15663-15724, 2JSPF. IP 300 psi. 500 psi in 45 min. Bled to 150 psi. Flowed wtr and gas. Rec 20 BLW in 2 hrs. All load rec. SI.
8-21-79	15,131' flw tsting, SITP 15 hrs 4000#, SICP 150#, opened to PU on 40/64" ck, incr choke every 5 min, press drop 2100# in 30 min to 900#, continued to drop until stabilized @ 300# in 12 hrs, pred 374 MCFD on 30/64" choke, well dried up-no wtr, plan to acidize w/50 gal/ft 15% HCL.
8-22-79	PBTD 15,731' prep to acidize, flwd 19 hrs, avg 582 MCFD, no liquid, FTP 109#, H2S 11.5%, CO2 3.75%, SI @ noon, RU BJ, 4½ hrs SI, 1680 PSI, pmpd 53 bbls 2% KCL to est rate avg 1 BPM @ 8200 PSI, ISIP 8050#, 6100# in 5 min, 5200# in 10 min, 2200# in 1 hr, opened well, SI 30 min, 1700 PSI, open to pit, 1/2" choke , 1200#, gas to surf immed, flared 1 hr, rec 20 bbls load, 31 BLTR.
8-23-79	PBTD 15,731' testing, SI 1200#, csg 350#, open to pit on 35/64" ck, flared 5 min, RU BJ, SITP 590#-1 hr, acidized w/3050 gal MCA, flush w/92 bbls KCL wtr, avg 4650# @ 4.5 BPM, max 4830#, ISIP 2100#, in 1-1/4 hrs, 0 PSI, open to pit, small flare, SI, swb, ISFL surface, FFL 1100', 5 runs, rec gas cut wtr, rec 75 bbls LW, 90 BLTR, SI for night.
8-24-79	PBD 15,731' testing, SITP 400#, csg 0#, bled dwb 1 min, no gas, 10 swbs, IFL 1500', FFL 1300', ?, rec 90 bbl LW, 100 BNW, 8' flare for 2 min, CL 62,000 PPM.
8-27-79	15,740' trip to squeeze, set ret 15,570'.
8-28-79	PB 15,740', prep to squeeze, ran tbg, stung in, rate 3 BPM @ 1100 PSI, pmpd 100 sx Class G, 0.5% dispersant, 0.5% FL additive, max 400 PSI, over displace 15 bbls @ 4 BPM @ 2200 PSI.
8-29-79	PBD 15,570. Prep to log BH gravimeter. Ran 6 stands tubing and stung into retainer. Pressured annulus to 1500#. Estab. rate 2 BPM @ 3200#. Sqz. w/100 sx class G @ 2 BPM and 2600#. Staged to 2500#. Unsting and TO. unable to reverse. 51 sacks in formation, 18 sx under retainer.
8/30/79	PB 15,570, Logging BH Gravimeter, Test casing to 1500 psi. RU Schlumberger Run temp. log
8/31/79	15,570 PBD, Prep to set packer.
9-4-79	PBTD 15,563' Prep to perf.
9-5-79	PBD 15,563 ' Flw testing. Perf 15,396 - 435 & 15,460 - 490'. No pressure increase. SI 3½ hrs SITD 200#. Unloaded on 1" Ch. SI 1 hr 30 min. SITF 450#. Open to pit. Bled to 25#.
9-6-79	PBD 15,563' testing. (Not on wire 9/5). On 9/5 SI @1830 hrs. to flow through soporator. Unable ignite flare pilot. SIFN. On SITF 4400# SICF 600#. Open to pits 20/64" Ch, inter to 1" Ch. Bled down in ½hr. ROC some condensate & little water. @ 0900 hrs 9/5 bled off csg. Had flare plus 4% H_2S. CP bled down in 2-3 min. Press CSG side to 1450#. No communication. @ 1500 hrs had 120# on csg. Bled off w/tr gas. From 0930 9/5 to 0400 9/6 flw through soporator 494 MCFGPD @84 BBLS cond. 3.13 BBLS wtr. Approx. 7% H_2S. Choke XFTY hr.
9-7-79	PBTD 15,563' flw tst, flw 12 hrs 50 min, 9.5 BC, 3.4 BW, 310 MCFGPD, had SITP 1640# in 1½ hrs, pmp into perfs, 1½ BPM @ 8170#, ISIP 7500# in 25 min had 3450#, in 55 min 2800#, now flw back load.
9-10-79	PBTD 16,553' flw tsting, flw 24 hrs, 32/64" ck, FTP 190#, rec 2.26 MMCFGPD, 46.7 BC, 7.4 BW, H2S 8.3%, acidized Saturday. (No report on acid job).
9-11-79	15,563' flw tst , ck 56/64", TP 199#, 2214 MCFD, 57 BC, 9 BW, 8.4% H2S.
9-12-79	15,563' RU for BHP, ck 56/64", TP 202#, 2310 MCFD, 62 BC, 4½ BW, 8.4% H2S.

*** 09-01-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
RU PETRØ LØG, DAYS: SPUD 336, ØPER 336
RMKS: GIH W/ WL GAUGE RING 5.637IN ØD JUNK BASKET X CCL. TAG PBTD @ 15563 GØØH W/ WL. GIH W/ BAKER MØD D PKR 2.688 BØRE RUN CCL PKR WØULD NØT SET GØØH W/ WL X PKR. Ø RING ØN CCL HAD LEAKED CAUSING MIS-FIRE. GIH W/ PKR RUN CCL PKR SA 15310. SIFN

*** 09-02-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
SI FØR WEEKEND, DAYS: SPUD 337, ØPER 337
RMKS: TIH W/ 22FT SEAL ASSY W/ LØCATING HEAD. 1EA 8FT PUP 2 3/8 1JT 31.31FT 2 3/8IN TBG. BAKER F NIPPLE .93FT 126JTS 2 3/8 TBG 3944.88FT 2 3/8 X 2 7/8 XØ SUB .77FT 363JTS 2 7/8IN TBG 11229.93FT 4PUPJTS 2 7/8IN TBG 4 6 8 X 10 28.66FT 1JT 2 7/8IN TBG 30.94FT BØ2 CPLG .80FT TBG TALLY W/ KB 15302.22FT LAND TBG 1FT ØUT ØF PKR ND BØP NU TREE. SWB TØ 11300. SI

*** 09-03-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
SI FØR WEEKEND, DAYS: SPUD 338, ØPER 338

*** 09-04-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PREP TØ PERF, DAYS: SPUD 339, ØPER 339
RMKS: SI FØR WEEKEND
-END-

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT-TIGHT HØLES

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 09-18-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 09-12-79***

AMØCØ-CHAMPLIN-FANCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
RIGGING UP TØ RUN BHP, DAYS: SPUD 347, ØPER 347
RMKS: FLØW TESTED 24HRS. 56/64CK 202# FTP. REVRD 2310MCFD 62BBLS CØND
4 1/2BW. 8.4% H2S.

*** 09-13-79***

AMØCØ-CHAMPLIN-FANCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW TESTED., DAYS: SPUD 348, ØPER 348
RMKS: 24HRS. 56/64CK. REVRD 2440MCFD. 78BBLS CØND. BW4. 8.4% H2S.
WAITING ØN C. A. WHITE WIRE LINE TRUCK TØ RUN BHP SURVEY.

*** 09-14-79***

AMØCØ-CHAMPLIN-FANCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
RUNNING BHP SURV., DAYS: SPUD 349, ØPER 349
RMKS: CLØSE WELL IN AT 9AM 091379. RIG UP C. A. WHITE WIRE LINE
TRUCK. MADE ØNE RUN TØ F NIPPLE 15270FT. TØ CHECK TBG DRIFT
PØH RAN 3 BHP INSTRUMENTS S/N 9586 11900# CMT W/ 24HR
CLØCK S/N 32406 12000PSI ELEMENT W/ 90HR CLØCK. S/N 15253
10200PSI ELEMENT W/ 120HR CLØCK. HUNG BØMBS IN F NIPPLE 15270FT
4PM SITP 3120 ØPENED WELL X FLØWED 6HRS TØ STABILIZE. SHUT WELL
IN 10PM FØR BUILD UP.

*** 09-15-79***

AMØCØ-CHAMPLIN-FANCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PRESS SURVEY., DAYS: SPUD 350, ØPER 350
RMKS: WELL SHUT IN FØR 72HRS BHP BUILDUP. SITP 10:40AM 091479.
3450PSI.

*** 09-16-79***

AMØCØ-CHAMPLIN-FANCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PULL BHP BØMBS., DAYS: SPUD 351, ØPER 351
RMKS: WELL SI FØR 92HRS. BUILDUP.

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*** 09-17-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PRESS SURVEY., DAYS: SPUD 352, OPER 352
RMKS: WELL SHUT IN FOR 92HRS BHP BUILDUP. WILL PULL MON. MORNING.
-END-

AMØCØ PRØDUCTIØN CØMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT-TIGHT HØLES

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 09-25-79

*** CØMPANY ØPERATED - TIGHT-HØLE ***

*** 09-18-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
RU C. A. WHITE., DAYS: SPUD 353, ØPER 353
RMKS: GIH W/ WL X 2IN ØTIS RB FISHING TØØLS. HAD DRAG ØN ALMØST EVERY JT ØF TBG. SAT DN @ 8042 WL MEAS. WØRKED THRU TAGGED FISH @ 15304 WL MEAS. GAINED 20# WT. CØØH W/ WL HAD DRAG ØN ALMØST EVERY JT. DID NØT HAVE FISH PØØ PULLING TØØL WØRKS ØK ØN SURF. HAD MARKS ØN BTM ØF PULLING TØØL. GIH W/ WL X FISHING TØØLS. TIGHT @ 60FT 90FT X 120FT. WØRKED THRU. HAD DRAG ØN ALMØST EVERY CØLLAR SØME DRAG @ 8042 BUT NØT NEARLY SØ MUCH AS ØN 1ST RUN. TAG FISH @ 15360 WL MEAS. GAINED 75# CØØH W/ WL HAD DRAG ØN ALMØST EVERY JT. GØT STUCK @ 258FT WØRKED THRU. DID NØT HAVE FISH. HAD MARKS ØN BTM ØF PULLING TØØL X ØN TØP ØF PULLING TØØLS X ØN TØP ØF ØIL JARS. PULLING TØØL WØRKS ØK ØN SURFACE. SIFN.

*** 09-19-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
SITP 4100., DAYS: SPUD 354, ØPER 354
RMKS: SICP 4100 BLED CSG TØ PIT. CSG X TBG BØTH BLED TØ 3000 IN 1/2HR. RU BJ PUMP DN TBG. HAD WTR ØUT CSG IN LESS THAN 1BBL. SHUT CSG. PUMP 120BBL 9.5# BRINE. MAX CSG PRESS 4090. 30MIN SI. 40 ØN TBG. 0 ØN CSG. SIFN.

*** 09-20-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
CHECK WELL., DAYS: SPUD 355, ØPER 355
RMKS: SITP 200 SICP 200. ØPEN TBG TØ PIT. PRESS INCR ØN TBG X CSG. TØ 400 PSI IN 2HRS BLED TØ 0 ØN BØTH SIDES IN 4 MIN. TBG CØNT. W/ SMALL FLARE 1FT. SI RU BJ PUMP DN TBG A 2.4BPM OPSI 22BBL TØ FILL HØLE UNTIL WTR CAME ØUT CSG. SD TØ PUT PAINT IN TØP MASTER VALVE. WELL ØN VAC ØN CSG X TBG. PUMP 12BBL TØ GET PAINT ØUT ØF CSG. PART APPRØX 360FT. SD. CSG X TBG ØN VAC. 45MIN AFTER CIRC. CSG 0 TBG ØN VERY SLIGHT BLØW. NØ H2S 1HR AFTER CIRC. CSG 0 TBG ØN VERY SLIGHT BLØW 600PPM H2S 2HR AFTER CIRC. CSG X TBG ØN VERY SLIGHT BLØW 600PPM H2S 2 1/2HR AFTER CIRC. SI 1HR AFTER SI CSG X TBG HAD 50# BUILDUP. ØPEN TØ PIT BLED ØFF 1/2MIN. CSG X TBG ØN SLIGHT BLØW W/ 10000PPM H2S. WHEN FIRST ØPENED

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X 1000PPM AFTER PRESS BLED OFF. LEFT WELL OPEN 2HRS. TBG X CSG CONT. W/ VERY SLIGHT BLOW NOT ENOUGHT TO SEE ANY FLARE OTHER THAN FLARE BUCKET. H2S INC. SLIGHTLY TO 1200PPM. PUMP INTO TBG. TOOK 18BBL TO FILL CATCH PRESS PUMPED 48BBL TOTAL. FINAL RATE .5BPM @ 3770 PSI SD. BROKE OUT LINES 4 HAD 120PPM H2S IN LINES WE HAD PUMPED THRU ISIP 3650. 5MIN 3110. SIFN.

*** 09-21-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PTG, DAYS: SPUD 356, OPER 356
RMKS: TPC 200 CPC 200 BLED OFF 1MIN. FILL TBG 12BW CIRC 24BW RD TREE INSTALL BOP PTG REC 43.44FT. PARTED IN TUBE BODY OF 8FT PUP JT TI TAG T OF FISH AT 58.5FT. TO X LD 15FT PUP JTS.

*** 09-22-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
PULL TBG., DAYS: SPUD 357, OPER 357
RMKS: TP CP BOTM 0. PMP 12BBLS 2% KCL WTR X FILL CSG. SENT TREE TO EMC. FOR REPAIR ON MASTER VALVES. TO X PLAN TO PU SEAL ASSY X TI HYDROTESTING X 8000PSI. 30JTS 2 3/8IN L-80 COMING FROM GREEN RIVER. NO SUBS.

*** 09-23-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
RTG., DAYS: SPUD 358, OPER 358
RMKS: TPC 0 CPC 0. PTG 363JTS 2 7/8 127JTS 2 3/8 22FT SEAL ASSY. BHP BOMBS WERE IN F NIPPLE. 12JTS 2 3/8 CORK SCREWED. HAVE 5JTS 2 3/8 X 6JTS 2 7/8 ON LOC FOR REPLACEMENT. RTG 57 STDS. 2 3/8 83 STDS 2 7/8 ONE BOMB DID NOT WORK NO 2 6364 NO 3 6269 2.5PSI 1HR BUILD AT END OF 76HRS.

*** 09-24-79***

AMOCO-CHAMPLIN-FAWCETT & SONS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
RUNNING TBG., DAYS: SPUD 359, OPER 359
RMKS: SI PRESS 0. PULLED TBG RIGGED UP HYDROTESTER. PU BAKER SEAL ASSY 23 1/2FT AVER ALL 1.937ID X 1JT 2 3/8IN TBG. F NIPPLE 28STDS 2 3/8IN TBG HYDRO TESTING ABOVE SLIPS TO 8000PSI. ABD HYDRO TESTING DUE TO BACK OF WELL CONTROL. RIGGED DN DYDRO TESTER. RAN 70JTS 2 3/8IN 8RT 327JTS 2 7/8IN 8RT. SHUT IN FOR NIGHT.

-END-

Fawcett & Sons, Inc #1

DATE	REMARKS
10-16-79	PBTD 15,563' SI BHP survey, SITP 3917# this AM.
10-17-79	PBTD 15,563' SI BHP survey, SITP this AM 3969#.
10-18-79	PBTD 15,563' pull BHP bombs, SITP 3999#.
10-19-79	PBTD 15,563' WOO (?) pulled BHP bombs, had 6401# @ 15,271' (total Gibbons, falls right on gradient).
10/22/79	PBD 15,563, pull tbg Ran ret BP stopped @ 14,520 worked loose.
10/23/79	PBTD 15,563' inspect tbg, LD 250 jts have 8725' tbg in hole, will LD 8 round & PU 2 7/8", plan to drl up Model "D" & set CIBP.
10-24-79	15,563' PBTD, TO X tbg, inspect 2 7/8" 8.7#/ft hydril PH 6 (288 jts).
10-25-79	PBTD 15,563' change out tbg.
10/26/79	PBD 15,563 run tbg. Baker BP @ 14,250 Baker Mod D @ 15320
10/27/79	NR
10/28/79	NR
10/29/79	PBD 15,563', pull tbg, lost plug, found @ 13,860.
10/30/79	PBD 15,563', Fish for RTBP, Pulled tbg, left RTBP. Running OS to fish for same.
10/31/79	PBD 15,563', Pull tbg. RBP hung @ 9374', Rel OS.
11/1/79	PBD 15,563 Pull tbg. Bowl & overshot parted 3" below threads. Left 9" bowl in hole.
11/2/79	PBD 15,563', fish for RBP.
11/5/79 weekend summ.	TD 18,055', PBD 15,563', PU DP to fish for RBP
11/6/79	TD 18,055' PBD 15, 563' TO w/BP
11/7/79	PBD 15,563', TI x pkr plucker.
11/8/11/11	NR
11/12/79	PBD 15,563, T.O. w/DP. Rec modol D pkr (15,310)
11/13/79	PBD 15,563', Tripping
11/14/79	PBTD 15372 , Set CIBP @ 15372
11/15/79	NR
11/16/79	PD 15,372' LDDP, press test BP 1000#, LD 29 jts DP, Will PU tubing & set pkr
11/17/11/19 weekend Rep.	Perf today, 5372' , trip in w/tbg.
11/20/79	PBD 15,372', trip in w/tbg.
11/21/79	PBD 15,392' prip tst csg. Hydrotest in w/tbg. Set pkr @ 13,187', perf 13,278-13,280. Checking for cmt.
11/22/11/25	NR
11/26/79	PBD 15,372', WOC. Cmt csg thru retainer @ 13,290'.
11/27/79	NR
11/28/79	NR
11/29/79	PBD 15,372', pull tbg, squeezed perfs 13278-80 w/125 sx class G. Final press 300 sx. Put approx 96 sx thru perfs.

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RECEIVED DEC 5 1979 DIVISION OF GAS & MINING

Fawcett & Sons, Inc #1

DATE	REMARKS
10-16-79	PBTD 15,563' SI BHP survey, SITP 3917# this AM.
10-17-79	PBTD 15,563' SI BHP survey, SITP this AM 3969#.
10-18-79	PBTD 15,563' pull BHP bombs, SITP 3999#.
10-19-79	PBTD 15,563' WOO (?) pulled BHP bombs, had 6401# @ 15,271' (total Gibbons, falls right on gradient).
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10-24-79	15,563' PBTD, TO X tbg, inspect 2 7/8" 8.7#/ft hydril PH 6 (288 jts).
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10/28/79	NR
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11/1/79	PBD 15,563 Pull tbg, Bowl & overshot parted 3" below threads. Left 9" bowl in hole
11/2/79	PBD 15,563', fish for RBP.
11/5/79	TD 18,055', PBD 15,563', PU DP to fish for RBP
weekend summ.	
11/6/79	TD 18,055' PBD 15, 563' TO w/BP
11/7/79	PBD 15,563', TI x pkr plucker
11/8/11/11	NR
11/12/79	PBD 15,563, T.O. w/DP. Rec modol D pkr (15,310)
11/13/79	PBD 15,563', Tripping
11/14/79	PBTD 15372 , Set CIBP @ 15372
11/15/79	NR
11/16/79	PD 15,372' LDDP, press test BP 1000#, LD 29 jts DP, Will PU tubing & set pkr
11/17/11/19	Perf today, 5372' , trip in w/tbg.
weekend Rep.	
11/20/79	PBD 15,372', trip in w/tbg.
11/21/79	PBD 15,392' prip tst csg. Hydrotest in w/tbg. Set pkr @ 13,187', perf 13,278-13,280. Checking for cmt.
11/22/11/25	NR.
11/26/79	PBD 15,372', WOC. Cmt csg thru retainer @ 13,290'.
11/27/79	NR
11/28/79	NR
11/29/79	PBD 15,372', pull tbg, squeezed perfs 13278-80 w/125 sx class G. Final press 300 sx. Put approx 96 sx thru perfs.
11/30/79	PBD 15,372', TI to drill cmt & retainer.
12/3/79	PBD 15,375', trip for bit. Drilled out retainer @ 13,920'.
12/4/79	PBD 15,372', Trip for bit (Ø out retainer & cast)

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DEC 10 1979
DIVISION OF
OIL, GAS & MINING

JOB NUMBE
SPG-11538

DATE OF JOB
OCTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

AMOCO PRODUCTION COMPANY

WELL NAME/NUMBER	FAWCETT AND SONS NUMBER ONE
FIELD/AREA	WILDCAT
COUNTY/PARISH	SUMMIT
STATE	UTAH
TYPE OF TEST	THREE POINT ISOCHRONAL
REFERENCE ELEV	GROUND LEVEL

DUPLICATE

ADDITIONAL INFORMATION

GAUGE NUMBER 481

10,000 PSI ELEMENT SERIAL NUMBER 43166

GAUGE WAS SET AT 15,270 FEET

MAXIMUM TEMPERATURE RECORDED WAS 222 DEG F.

GAUGE WAS INSTALLED AT 1530 HOURS ON 10/9/79

GAUGE WAS RELEASED AT 1030 HOURS ON 10/14/79

FIELD OPERATOR WAS T. BURTON

CHART READ BY TOM GAILEY

746 POINTS REPORTED THIS JOB

JOB NUMBE
SPG-11538

DATE OF JOB
OCTOBER 9-14, 1979

GAUGE/RUN NUMBER
GAUGE NUMBER 481 RUN NUMBER

DATE OF RUN
OCTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	4011.845	0.1609E+08	18	20	OCT 09,1979	BEGIN FLOW
0.134	3918.010	0.1535E+08	18	28	OCT 09,1979	
0.267	3887.513	0.1511E+08	18	36	OCT 09,1979	
0.401	3864.289	0.1493E+08	18	44	OCT 09,1979	
0.535	3846.930	0.1480E+08	18	52	OCT 09,1979	
0.669	3836.342	0.1472E+08	19	00	OCT 09,1979	
0.802	3831.681	0.1468E+08	19	08	OCT 09,1979	
0.936	3826.520	0.1464E+08	19	16	OCT 09,1979	
1.070	3821.125	0.1460E+08	19	24	OCT 09,1979	
1.203	3816.199	0.1456E+08	19	32	OCT 09,1979	
1.337	3813.853	0.1455E+08	19	40	OCT 09,1979	
1.471	3813.384	0.1454E+08	19	48	OCT 09,1979	END FLOW

12 POINTS REPORTED THIS RUN

JOB NUMBE
SPG-11538

DATE OF JOB
OCTOBER 9-14, 1979

GAUGE/RUN NUMBER
GAUGE NUMBER 481 RUN NUMBER

DATE OF RUN
OTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	3813.384	0.1454E+08	19	48	OCT 09,1979	SHUT-IN
0.134	3816.199	0.1456E+08	19	56	OCT 09,1979	
0.267	3819.483	0.1459E+08	20	04	OCT 09,1979	
0.401	3823.471	0.1462E+08	20	12	OCT 09,1979	
0.535	3827.459	0.1465E+08	20	20	OCT 09,1979	
0.669	3831.212	0.1468E+08	20	28	OCT 09,1979	
0.802	3835.200	0.1471E+08	20	36	OCT 09,1979	
0.936	3838.484	0.1473E+08	20	44	OCT 09,1979	
1.070	3842.707	0.1477E+08	20	52	OCT 09,1979	
1.204	3846.460	0.1480E+08	21	00	OCT 09,1979	
1.337	3850.683	0.1483E+08	21	08	OCT 09,1979	
1.471	3854.202	0.1485E+08	21	16	OCT 09,1979	
1.605	3858.190	0.1489E+08	21	24	OCT 09,1979	
1.739	3863.116	0.1492E+08	21	32	OCT 09,1979	
1.872	3867.339	0.1496E+08	21	40	OCT 09,1979	
2.006	3871.796	0.1499E+08	21	48	OCT 09,1979	
2.140	3875.784	0.1502E+08	21	56	OCT 09,1979	
2.273	3881.179	0.1506E+08	22	04	OCT 09,1979	
2.407	3884.464	0.1509E+08	22	12	OCT 09,1979	
2.541	3889.155	0.1513E+08	22	20	OCT 09,1979	
2.675	3896.193	0.1518E+08	22	28	OCT 09,1979	
2.808	3906.984	0.1526E+08	22	37	OCT 09,1979	
2.942	3913.787	0.1532E+08	22	45	OCT 09,1979	
3.076	3918.244	0.1535E+08	22	53	OCT 09,1979	
3.210	3927.862	0.1543E+08	23	01	OCT 09,1979	
3.343	3934.665	0.1548E+08	23	09	OCT 09,1979	
3.477	3939.592	0.1552E+08	23	17	OCT 09,1979	
3.611	3944.284	0.1556E+08	23	25	OCT 09,1979	
3.745	3948.506	0.1559E+08	23	33	OCT 09,1979	
3.878	3958.328	0.1567E+08	23	41	OCT 09,1979	
4.012	3974.780	0.1580E+08	23	49	OCT 09,1979	
4.146	3974.545	0.1580E+08	23	57	OCT 09,1979	
4.280	3981.583	0.1585E+08	00	05	OCT 10,1979	
4.413	3990.263	0.1592E+08	00	13	OCT 10,1979	
4.547	3998.708	0.1599E+08	00	21	OCT 10,1979	
4.681	4004.807	0.1604E+08	00	29	OCT 10,1979	
4.814	4010.437	0.1608E+08	00	37	OCT 10,1979	

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SPG-11533

DATE OF JOB
OCTOBER 9-14, 1979

GAUGE/RUN NUMBER
GAUGE NUMBER 481 RUN NUMBER

DATE OF RUN
OTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
4.948	4016.537	0.1613E+08	00	45	OCT 10,1979	
5.082	4023.105	0.1619E+08	00	53	OCT 10,1979	
5.216	4031.081	0.1625E+08	01	01	OCT 10,1979	
5.349	4046.564	0.1637E+08	01	09	OCT 10,1979	
5.483	4047.268	0.1638E+08	01	17	OCT 10,1979	
5.617	4051.959	0.1642E+08	01	25	OCT 10,1979	
5.751	4063.454	0.1651E+08	01	33	OCT 10,1979	
5.884	4065.566	0.1653E+08	01	41	OCT 10,1979	
6.018	4070.961	0.1657E+08	01	49	OCT 10,1979	
6.152	4072.603	0.1659E+08	01	57	OCT 10,1979	
6.286	4072.603	0.1659E+08	02	05	OCT 10,1979	
6.419	4273.410	0.1826E+08	02	13	OCT 10,1979	
6.553	4360.912	0.1902E+08	02	21	OCT 10,1979	
6.687	4443.956	0.1975E+08	02	29	OCT 10,1979	
6.820	4519.962	0.2043E+08	02	37	OCT 10,1979	
6.954	4592.215	0.2109E+08	02	45	OCT 10,1979	
7.088	4658.135	0.2170E+08	02	53	OCT 10,1979	
7.222	4720.770	0.2229E+08	03	01	OCT 10,1979	
7.355	4780.355	0.2285E+08	03	09	OCT 10,1979	
7.489	4837.360	0.2340E+08	03	17	OCT 10,1979	
7.623	4890.611	0.2392E+08	03	25	OCT 10,1979	
7.757	4940.578	0.2441E+08	03	33	OCT 10,1979	
7.890	4989.138	0.2489E+08	03	41	OCT 10,1979	
8.024	5033.944	0.2534E+08	03	49	OCT 10,1979	
8.158	5075.467	0.2576E+08	03	57	OCT 10,1979	
8.292	5115.867	0.2617E+08	04	05	OCT 10,1979	
8.425	5154.475	0.2657E+08	04	14	OCT 10,1979	
8.559	5189.551	0.2693E+08	04	22	OCT 10,1979	
8.693	5222.274	0.2727E+08	04	30	OCT 10,1979	
8.827	5254.526	0.2761E+08	04	38	OCT 10,1979	
8.960	5284.659	0.2793E+08	04	46	OCT 10,1979	
9.094	5312.673	0.2822E+08	04	54	OCT 10,1979	
9.228	5339.746	0.2851E+08	05	02	OCT 10,1979	
9.361	5364.935	0.2878E+08	05	10	OCT 10,1979	
9.495	5387.299	0.2902E+08	05	18	OCT 10,1979	
9.629	5410.605	0.2927E+08	05	26	OCT 10,1979	
9.763	5431.793	0.2950E+08	05	34	OCT 10,1979	

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DATE OF JOB
OCTOBER 9-14, 1979

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GAUGE NUMBER 481 RUN NUMBER

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DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
9.896	5451.332	0.2972E+08	05	42	OCT 10,1979	
10.030	5470.636	0.2993E+08	05	50	OCT 10,1979	
10.164	5488.527	0.3012E+08	05	58	OCT 10,1979	
10.298	5505.242	0.3031E+08	06	06	OCT 10,1979	
10.431	5520.779	0.3048E+08	06	14	OCT 10,1979	
10.565	5536.787	0.3066E+08	06	22	OCT 10,1979	
10.699	5551.148	0.3082E+08	06	30	OCT 10,1979	
10.833	5565.037	0.3097E+08	06	38	OCT 10,1979	
10.966	5577.749	0.3111E+08	06	46	OCT 10,1979	
11.100	5590.462	0.3125E+08	06	54	OCT 10,1979	
11.234	5601.997	0.3138E+08	07	02	OCT 10,1979	
11.367	5613.061	0.3151E+08	07	10	OCT 10,1979	
11.501	5623.420	0.3162E+08	07	18	OCT 10,1979	
11.635	5633.542	0.3174E+08	07	26	OCT 10,1979	
11.769	5642.724	0.3184E+08	07	34	OCT 10,1979	
11.902	5651.669	0.3194E+08	07	42	OCT 10,1979	
12.036	5660.380	0.3204E+08	07	50	OCT 10,1979	
12.170	5668.619	0.3213E+08	07	58	OCT 10,1979	
12.304	5676.152	0.3222E+08	08	06	OCT 10,1979	
12.437	5683.686	0.3230E+08	08	14	OCT 10,1979	
12.571	5691.454	0.3239E+08	08	22	OCT 10,1979	
12.705	5699.223	0.3248E+08	08	30	OCT 10,1979	
12.839	5706.285	0.3256E+08	08	38	OCT 10,1979	
12.972	5712.877	0.3264E+08	08	46	OCT 10,1979	
13.106	5718.998	0.3271E+08	08	54	OCT 10,1979	
13.240	5724.412	0.3277E+08	09	02	OCT 10,1979	
13.373	5729.356	0.3283E+08	09	10	OCT 10,1979	
13.507	5735.241	0.3289E+08	09	18	OCT 10,1979	
13.641	5741.127	0.3296E+08	09	26	OCT 10,1979	
13.775	5746.070	0.3302E+08	09	34	OCT 10,1979	
13.908	5751.014	0.3307E+08	09	43	OCT 10,1979	
14.042	5755.722	0.3313E+08	09	51	OCT 10,1979	
14.176	5760.431	0.3318E+08	09	59	OCT 10,1979	
14.310	5764.904	0.3323E+08	10	07	OCT 10,1979	
14.443	5769.141	0.3328E+08	10	15	OCT 10,1979	
14.577	5773.614	0.3333E+08	10	23	OCT 10,1979	
14.711	5777.616	0.3338E+08	10	31	OCT 10,1979	

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DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
14.845	5781.618	0.3343E+08	10	39	OCT 10,1979	
14.978	5785.385	0.3347E+08	10	47	OCT 10,1979	
15.112	5788.916	0.3351E+08	10	55	OCT 10,1979	
15.246	5793.153	0.3356E+08	11	03	OCT 10,1979	
15.380	5796.920	0.3360E+08	11	11	OCT 10,1979	
15.513	5800.687	0.3365E+08	11	19	OCT 10,1979	
15.647	5803.747	0.3368E+08	11	27	OCT 10,1979	
15.781	5807.514	0.3373E+08	11	35	OCT 10,1979	
15.914	5811.045	0.3377E+08	11	43	OCT 10,1979	
16.048	5813.870	0.3380E+08	11	51	OCT 10,1979	
16.182	5817.166	0.3384E+08	11	59	OCT 10,1979	
16.316	5820.697	0.3388E+08	12	07	OCT 10,1979	
16.449	5823.522	0.3391E+08	12	15	OCT 10,1979	
16.583	5826.582	0.3395E+08	12	23	OCT 10,1979	
16.717	5829.878	0.3399E+08	12	31	OCT 10,1979	
16.851	5832.938	0.3402E+08	12	39	OCT 10,1979	
16.984	5835.999	0.3406E+08	12	47	OCT 10,1979	
17.118	5838.824	0.3409E+08	12	55	OCT 10,1979	
17.252	5841.649	0.3412E+08	13	03	OCT 10,1979	
17.386	5844.474	0.3416E+08	13	11	OCT 10,1979	
17.519	5846.592	0.3418E+08	13	19	OCT 10,1979	
17.653	5849.653	0.3422E+08	13	27	OCT 10,1979	
17.787	5852.713	0.3425E+08	13	35	OCT 10,1979	
17.920	5855.303	0.3428E+08	13	43	OCT 10,1979	
18.054	5858.128	0.3432E+08	13	51	OCT 10,1979	
18.188	5860.717	0.3435E+08	13	59	OCT 10,1979	
18.322	5863.071	0.3438E+08	14	07	OCT 10,1979	
18.455	5865.896	0.3441E+08	14	15	OCT 10,1979	
18.589	5868.250	0.3444E+08	14	23	OCT 10,1979	
18.723	5871.075	0.3447E+08	14	31	OCT 10,1979	
18.857	5873.430	0.3450E+08	14	39	OCT 10,1979	
18.990	5875.548	0.3452E+08	14	47	OCT 10,1979	
19.124	5878.138	0.3455E+08	14	55	OCT 10,1979	
19.258	5880.492	0.3458E+08	15	03	OCT 10,1979	
19.392	5882.611	0.3461E+08	15	11	OCT 10,1979	
19.525	5885.200	0.3464E+08	15	20	OCT 10,1979	
19.659	5887.319	0.3466E+08	15	28	OCT 10,1979	

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DATE OF JOB
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GAUGE NUMBER 431 RUN NUMBER

DATE OF RUN
OTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
19.793	5889.673	0.3469E+08	15	36	OCT 10,1979	
19.927	5892.027	0.3472E+08	15	44	OCT 10,1979	
20.060	5894.381	0.3474E+08	15	52	OCT 10,1979	
20.194	5896.736	0.3477E+08	16	00	OCT 10,1979	
20.328	5898.854	0.3480E+08	16	08	OCT 10,1979	
20.461	5901.208	0.3482E+08	16	16	OCT 10,1979	
20.595	5903.562	0.3485E+08	16	24	OCT 10,1979	
20.729	5905.681	0.3488E+08	16	32	OCT 10,1979	
20.863	5908.035	0.3490E+08	16	40	OCT 10,1979	
20.996	5910.154	0.3493E+08	16	48	OCT 10,1979	
21.130	5912.508	0.3496E+08	16	56	OCT 10,1979	
21.264	5913.921	0.3497E+08	17	04	OCT 10,1979	
21.398	5915.804	0.3500E+08	17	12	OCT 10,1979	
21.531	5918.158	0.3502E+08	17	20	OCT 10,1979	
21.665	5916.746	0.3501E+08	17	28	OCT 10,1979	
21.799	5917.217	0.3501E+08	17	36	OCT 10,1979	
21.933	5920.743	0.3506E+08	17	44	OCT 10,1979	
22.066	5923.573	0.3509E+08	17	52	OCT 10,1979	
22.200	5925.927	0.3512E+08	18	00	OCT 10,1979	END SHUT-I

167 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11538

DATE OF JOB
OCTOBER 9-14, 1979

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GAUGE NO. 481 RUN NO. ONE

DATE OF RUN
OCTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR MIN	DATE	COMMENTS
0.	5925.927	0.3512E+03	18 00	OCT 10,1979	BEGIN FLOW
0.136	5652.140	0.3195E+03	18 08	OCT 10,1979	
0.271	5380.472	0.2895E+03	18 16	OCT 10,1979	
0.407	5112.336	0.2614E+03	18 24	OCT 10,1979	
0.542	4984.445	0.2484E+03	18 33	OCT 10,1979	
0.678	4714.435	0.2223E+03	18 41	OCT 10,1979	
0.814	4549.989	0.2070E+03	18 49	OCT 10,1979	
0.949	4385.073	0.1923E+03	18 57	OCT 10,1979	
1.085	4255.112	0.1811E+03	19 05	OCT 10,1979	
1.220	4093.481	0.1676E+03	19 13	OCT 10,1979	
1.356	3975.483	0.1580E+03	19 21	OCT 10,1979	
1.492	3879.067	0.1505E+03	19 29	OCT 10,1979	
1.627	3827.458	0.1465E+03	19 38	OCT 10,1979	
1.763	3739.487	0.1398E+03	19 46	OCT 10,1979	
1.898	3640.960	0.1326E+03	19 54	OCT 10,1979	
2.034	3557.213	0.1265E+03	20 02	OCT 10,1979	
2.169	3516.160	0.1236E+03	20 10	OCT 10,1979	
2.305	3463.377	0.1199E+03	20 18	OCT 10,1979	
2.441	3376.111	0.1140E+03	20 26	OCT 10,1979	
2.576	3296.116	0.1086E+03	20 35	OCT 10,1979	
2.712	3238.877	0.1049E+03	20 43	OCT 10,1979	
2.847	3177.415	0.1010E+03	20 51	OCT 10,1979	
2.983	3125.102	0.9765E+07	20 59	OCT 10,1979	
3.119	3083.814	0.9510E+07	21 07	OCT 10,1979	
3.254	3042.057	0.9254E+07	21 15	OCT 10,1979	
3.390	3016.018	0.9096E+07	21 23	OCT 10,1979	
3.525	2986.695	0.8920E+07	21 32	OCT 10,1979	
3.661	2940.715	0.8643E+07	21 40	OCT 10,1979	
3.797	2912.300	0.8484E+07	21 48	OCT 10,1979	
3.932	2884.384	0.8323E+07	21 56	OCT 10,1979	
4.068	2854.622	0.8149E+07	22 04	OCT 10,1979	
4.203	2844.300	0.8090E+07	22 12	OCT 10,1979	
4.339	2802.778	0.7856E+07	22 20	OCT 10,1979	
4.475	2780.492	0.7731E+07	22 28	OCT 10,1979	
4.610	2758.675	0.7610E+07	22 37	OCT 10,1979	
4.746	2746.711	0.7544E+07	22 45	OCT 10,1979	
4.381	2728.883	0.7447E+07	22 53	OCT 10,1979	

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
5.017	2735.920	0.7485E+07	23	01	OCT 10,1979	
5.153	2729.586	0.7451E+07	23	09	OCT 10,1979	
5.288	2728.883	0.7447E+07	23	17	OCT 10,1979	
5.424	2722.549	0.7412E+07	23	25	OCT 10,1979	
5.559	2730.290	0.7454E+07	23	34	OCT 10,1979	
5.695	2693.694	0.7256E+07	23	42	OCT 10,1979	
5.831	2682.434	0.7195E+07	23	50	OCT 10,1979	
5.966	2653.111	0.7039E+07	23	58	OCT 10,1979	
6.102	2628.948	0.6911E+07	00	06	OCT 11,1979	
6.237	2612.058	0.6823E+07	00	14	OCT 11,1979	
6.373	2595.637	0.6737E+07	00	22	OCT 11,1979	
6.508	2589.537	0.6706E+07	00	31	OCT 11,1979	
6.644	2579.450	0.6654E+07	00	39	OCT 11,1979	
6.780	2569.832	0.6604E+07	00	47	OCT 11,1979	
6.915	2563.967	0.6574E+07	00	55	OCT 11,1979	
7.051	2556.460	0.6535E+07	01	03	OCT 11,1979	
7.186	2541.681	0.6460E+07	01	11	OCT 11,1979	
7.322	2529.014	0.6396E+07	01	19	OCT 11,1979	
7.458	2507.901	0.6290E+07	01	27	OCT 11,1979	
7.593	2490.307	0.6202E+07	01	36	OCT 11,1979	
7.729	2437.022	0.6135E+07	01	44	OCT 11,1979	
7.864	2480.923	0.6155E+07	01	52	OCT 11,1979	
8.000	2466.613	0.6084E+07	02	00	OCT 11,1979	END FLOW

60 POINTS REPORTED THIS RUN

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DATE OF JOB
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OCTOBER 9-14, 1979

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	2466.613	0.6084E+07	02	00	OCT 11,1979	SHUT-IN
0.132	2431.862	0.6160E+07	02	08	OCT 11,1979	
0.264	2650.765	0.7027E+07	02	16	OCT 11,1979	
0.397	2799.963	0.7840E+07	02	24	OCT 11,1979	
0.529	2940.950	0.8649E+07	02	32	OCT 11,1979	
0.661	3073.727	0.9448E+07	02	40	OCT 11,1979	
0.793	3198.762	0.1023E+08	02	48	OCT 11,1979	
0.926	3318.637	0.1101E+08	02	56	OCT 11,1979	
1.058	3438.511	0.1182E+08	03	03	OCT 11,1979	
1.190	3551.348	0.1261E+08	03	11	OCT 11,1979	
1.322	3662.073	0.1341E+08	03	19	OCT 11,1979	
1.455	3767.372	0.1420E+08	03	27	OCT 11,1979	
1.587	3871.795	0.1499E+08	03	35	OCT 11,1979	
1.719	3971.260	0.1577E+08	03	43	OCT 11,1979	
1.851	4067.910	0.1655E+08	03	51	OCT 11,1979	
1.983	4159.869	0.1730E+08	03	59	OCT 11,1979	
2.116	4249.012	0.1805E+08	04	07	OCT 11,1979	
2.248	4334.168	0.1879E+08	04	15	OCT 11,1979	
2.380	4416.743	0.1951E+08	04	23	OCT 11,1979	
2.512	4495.799	0.2021E+08	04	31	OCT 11,1979	
2.645	4572.509	0.2091E+08	04	39	OCT 11,1979	
2.777	4645.466	0.2158E+08	04	47	OCT 11,1979	
2.909	4714.200	0.2222E+08	04	55	OCT 11,1979	
3.041	4780.354	0.2285E+08	05	02	OCT 11,1979	
3.174	4843.693	0.2346E+08	05	10	OCT 11,1979	
3.306	4903.043	0.2404E+08	05	18	OCT 11,1979	
3.438	4960.048	0.2460E+08	05	26	OCT 11,1979	
3.570	5014.473	0.2514E+08	05	34	OCT 11,1979	
3.702	5066.082	0.2567E+08	05	42	OCT 11,1979	
3.835	5114.925	0.2616E+08	05	50	OCT 11,1979	
3.967	5160.596	0.2663E+08	05	58	OCT 11,1979	
4.099	5202.028	0.2706E+08	06	06	OCT 11,1979	
4.231	5242.755	0.2749E+08	06	14	OCT 11,1979	
4.364	5281.363	0.2789E+08	06	22	OCT 11,1979	
4.496	5316.910	0.2827E+08	06	30	OCT 11,1979	
4.628	5349.368	0.2862E+08	06	38	OCT 11,1979	
4.760	5381.649	0.2896E+08	06	46	OCT 11,1979	

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DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
4.393	5411.312	0.2928E+08	06	54	OCT 11,1979	
5.025	5433.620	0.2953E+03	07	01	OCT 11,1979	
5.157	5464.044	0.2986E+08	07	09	OCT 11,1979	
5.289	5489.234	0.3013E+08	07	17	OCT 11,1979	
5.421	5511.833	0.3038E+08	07	25	OCT 11,1979	
5.554	5533.256	0.3062E+08	07	33	OCT 11,1979	
5.686	5553.737	0.3084E+08	07	41	OCT 11,1979	
5.818	5572.570	0.3105E+03	07	49	OCT 11,1979	
5.950	5590.462	0.3125E+03	07	57	OCT 11,1979	
6.083	5607.176	0.3144E+08	08	05	OCT 11,1979	
6.215	5622.478	0.3161E+08	08	13	OCT 11,1979	
6.347	5638.015	0.3179E+03	08	21	OCT 11,1979	
6.479	5651.199	0.3194E+08	08	29	OCT 11,1979	
6.612	5663.911	0.3208E+08	08	37	OCT 11,1979	
6.744	5676.623	0.3222E+08	08	45	OCT 11,1979	
6.876	5687.683	0.3235E+08	08	53	OCT 11,1979	
7.008	5698.281	0.3247E+08	09	00	OCT 11,1979	
7.140	5709.110	0.3259E+08	09	08	OCT 11,1979	
7.273	5718.762	0.3270E+08	09	16	OCT 11,1979	
7.405	5727.092	0.3280E+03	09	24	OCT 11,1979	
7.537	5736.654	0.3291E+08	09	32	OCT 11.1979	
7.669	5743.716	0.3299E+08	09	40	OCT 11,1979	
7.802	5751.250	0.3308E+08	09	48	OCT 11,1979	
7.934	5758.077	0.3316E+03	09	56	OCT 11,1979	
8.066	5765.374	0.3324E+08	10	04	OCT 11,1979	
8.198	5771.731	0.3331E+08	10	12	OCT 11,1979	
8.331	5778.322	0.3339E+08	10	20	OCT 11,1979	
8.463	5783.972	0.3345E+03	10	28	OCT 11,1979	
8.595	5790.093	0.3353E+08	10	36	OCT 11,1979	
8.727	5796.449	0.3360E+08	10	44	OCT 11,1979	
8.860	5802.334	0.3367E+08	10	52	OCT 11,1979	
8.992	5807.749	0.3373E+08	11	00	OCT 11,1979	
9.124	5812.222	0.3378E+08	11	07	OCT 11,1979	
9.256	5817.636	0.3384E+08	11	15	OCT 11,1979	
9.388	5821.638	0.3389E+08	11	23	OCT 11,1979	
9.521	5826.111	0.3394E+08	11	31	OCT 11,1979	
9.653	5830.820	0.3400E+08	11	39	OCT 11,1979	

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9.785	5834.822	0.3405E+08	11	47	OCT 11,1979	
9.917	5838.324	0.3409E+08	11	55	OCT 11,1979	
10.050	5842.355	0.3413E+08	12	03	OCT 11,1979	
10.182	5846.357	0.3418E+08	12	11	OCT 11,1979	
10.314	5849.888	0.3422E+08	12	19	OCT 11,1979	
10.446	5852.948	0.3426E+08	12	27	OCT 11,1979	
10.579	5856.009	0.3429E+08	12	35	OCT 11,1979	
10.711	5859.540	0.3433E+08	12	43	OCT 11,1979	
10.843	5862.836	0.3437E+08	12	51	OCT 11,1979	
10.975	5865.396	0.3441E+08	12	59	OCT 11,1979	
11.107	5868.486	0.3444E+08	13	06	OCT 11,1979	
11.240	5871.546	0.3448E+08	13	14	OCT 11,1979	
11.372	5874.842	0.3451E+08	13	22	OCT 11,1979	
11.504	5877.432	0.3454E+08	13	30	OCT 11,1979	
11.636	5879.550	0.3457E+08	13	38	OCT 11,1979	
11.769	5882.346	0.3461E+08	13	46	OCT 11,1979	
11.901	5885.436	0.3464E+08	13	54	OCT 11,1979	
12.033	5888.025	0.3467E+08	14	02	OCT 11,1979	
12.165	5890.615	0.3470E+08	14	10	OCT 11,1979	
12.298	5893.204	0.3473E+08	14	18	OCT 11,1979	
12.430	5895.794	0.3476E+08	14	26	OCT 11,1979	
12.562	5898.148	0.3479E+08	14	34	OCT 11,1979	
12.694	5900.267	0.3481E+08	14	42	OCT 11,1979	
12.826	5902.856	0.3484E+08	14	50	OCT 11,1979	
12.959	5905.210	0.3487E+08	14	58	OCT 11,1979	
13.091	5907.565	0.3490E+08	15	05	OCT 11,1979	
13.223	5909.919	0.3493E+08	15	13	OCT 11,1979	
13.355	5912.037	0.3495E+08	15	21	OCT 11,1979	
13.488	5914.392	0.3498E+08	15	29	OCT 11,1979	
13.620	5916.275	0.3500E+08	15	37	OCT 11,1979	
13.752	5918.394	0.3503E+08	15	45	OCT 11,1979	
13.884	5920.748	0.3506E+08	15	53	OCT 11,1979	
14.017	5922.631	0.3508E+08	16	01	OCT 11,1979	
14.149	5924.514	0.3510E+08	16	09	OCT 11,1979	
14.281	5926.633	0.3512E+08	16	17	OCT 11,1979	
14.413	5928.752	0.3515E+08	16	25	OCT 11,1979	
14.545	5931.106	0.3518E+08	16	33	OCT 11,1979	

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14.678	5932.989	0.3520E+08	16	41	OCT 11,1979	
14.810	5935.108	0.3523E+08	16	49	OCT 11,1979	
14.942	5936.991	0.3525E+08	16	57	OCT 11,1979	
15.074	5938.875	0.3527E+08	17	04	OCT 11,1979	
15.207	5940.758	0.3529E+08	17	12	OCT 11,1979	
15.339	5942.406	0.3531E+08	17	20	OCT 11,1979	
15.471	5944.525	0.3534E+08	17	28	OCT 11,1979	
15.603	5946.172	0.3536E+08	17	36	OCT 11,1979	
15.736	5948.291	0.3538E+08	17	44	OCT 11,1979	
15.868	5949.939	0.3540E+08	17	52	OCT 11,1979	
16.000	5951.587	0.3542E+08	18	00	OCT 11,1979	END BUILD UP

122 POINTS REPORTED THIS RUN

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0.	5951.587	0.3542E+08	18	00	OCT 11,1979	BEGIN FLOW
0.124	5673.798	0.3219E+08	18	07	OCT 11,1979	
0.247	5596.582	0.3132E+08	18	15	OCT 11,1979	
0.371	5318.794	0.2829E+08	18	22	OCT 11,1979	
0.495	5042.154	0.2542E+08	18	30	OCT 11,1979	
0.619	4770.970	0.2276E+08	18	37	OCT 11,1979	
0.742	4500.960	0.2026E+08	18	45	OCT 11,1979	
0.866	4236.345	0.1795E+08	18	52	OCT 11,1979	
0.990	4155.177	0.1727E+08	18	59	OCT 11,1979	
1.113	3884.463	0.1509E+08	19	07	OCT 11,1979	
1.237	3617.971	0.1309E+08	19	14	OCT 11,1979	
1.361	3352.652	0.1124E+08	19	22	OCT 11,1979	
1.485	3332.946	0.1111E+08	19	29	OCT 11,1979	
1.608	3068.331	0.9415E+07	19	36	OCT 11,1979	
1.732	2838.904	0.8059E+07	19	44	OCT 11,1979	
1.856	2577.573	0.6644E+07	19	51	OCT 11,1979	
1.979	2425.091	0.5881E+07	19	59	OCT 11,1979	
2.103	2164.933	0.4687E+07	20	06	OCT 11,1979	
2.227	2123.411	0.4509E+07	20	14	OCT 11,1979	
2.351	1899.380	0.3608E+07	20	21	OCT 11,1979	
2.474	1732.119	0.3000E+07	20	28	OCT 11,1979	
2.598	1657.285	0.2747E+07	20	36	OCT 11,1979	
2.722	1621.158	0.2628E+07	20	43	OCT 11,1979	
2.845	1615.528	0.2610E+07	20	51	OCT 11,1979	
2.969	1620.455	0.2626E+07	20	58	OCT 11,1979	
3.093	1532.953	0.2350E+07	21	06	OCT 11,1979	
3.216	1397.362	0.1953E+07	21	13	OCT 11,1979	
3.340	1302.823	0.1697E+07	21	20	OCT 11,1979	
3.464	1238.546	0.1534E+07	21	28	OCT 11,1979	
3.588	1182.010	0.1397E+07	21	35	OCT 11,1979	
3.711	1138.377	0.1296E+07	21	43	OCT 11,1979	
3.835	1103.423	0.1218E+07	21	50	OCT 11,1979	
3.959	1077.149	0.1160E+07	21	58	OCT 11,1979	
4.082	1054.159	0.1111E+07	22	05	OCT 11,1979	
4.206	1037.035	0.1075E+07	22	12	OCT 11,1979	
4.330	1019.440	0.1039E+07	22	20	OCT 11,1979	
4.454	1005.365	0.1011E+07	22	27	OCT 11,1979	

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4.577	991.524	0.9831E+06	22	35	OCT 11,1979	
4.701	979.795	0.9600E+06	22	42	OCT 11,1979	
4.825	969.708	0.9403E+06	22	49	OCT 11,1979	
4.943	960.090	0.9218E+06	22	57	OCT 11,1979	
5.072	954.694	0.9114E+06	23	04	OCT 11,1979	
5.196	948.360	0.8994E+06	23	12	OCT 11,1979	
5.320	944.841	0.8927E+06	23	19	OCT 11,1979	
5.443	938.508	0.8808E+06	23	27	OCT 11,1979	
5.567	936.396	0.8768E+06	23	34	OCT 11,1979	
5.691	931.470	0.8676E+06	23	41	OCT 11,1979	
5.814	927.951	0.8611E+06	23	49	OCT 11,1979	
5.938	923.963	0.8537E+06	23	56	OCT 11,1979	
6.062	920.679	0.8476E+06	00	04	OCT 12,1979	
6.186	916.222	0.8395E+06	00	11	OCT 12,1979	
6.309	913.641	0.8347E+06	00	19	OCT 12,1979	
6.433	909.888	0.8279E+06	00	26	OCT 12,1979	
6.557	906.838	0.8224E+06	00	33	OCT 12,1979	
6.680	904.023	0.8173E+06	00	41	OCT 12,1979	
6.804	900.739	0.8113E+06	00	48	OCT 12,1979	
6.928	897.220	0.8050E+06	00	56	OCT 12,1979	
7.052	893.936	0.7991E+06	01	03	OCT 12,1979	
7.175	893.232	0.7979E+06	01	11	OCT 12,1979	
7.299	890.652	0.7933E+06	01	18	OCT 12,1979	
7.423	889.244	0.7908E+06	01	25	OCT 12,1979	
7.546	887.133	0.7870E+06	01	33	OCT 12,1979	
7.670	885.725	0.7845E+06	01	40	OCT 12,1979	
7.794	884.318	0.7820E+06	01	48	OCT 12,1979	
7.918	882.441	0.7787E+06	01	55	OCT 12,1979	
8.041	879.157	0.7729E+06	02	02	OCT 12,1979	
8.165	879.391	0.7733E+06	02	10	OCT 12,1979	
8.289	876.811	0.7688E+06	02	17	OCT 12,1979	
8.412	877.749	0.7704E+06	02	25	OCT 12,1979	
8.536	874.231	0.7643E+06	02	32	OCT 12,1979	
8.660	872.323	0.7613E+06	02	40	OCT 12,1979	
8.784	872.354	0.7610E+06	02	47	OCT 12,1979	
8.907	871.181	0.7590E+06	02	54	OCT 12,1979	
9.031	869.773	0.7565E+06	03	02	OCT 12,1979	

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9.155	868.600	0.7545E+06	03	09	OCT 12,1979	
9.278	868.131	0.7537E+06	03	17	OCT 12,1979	
9.402	867.193	0.7520E+06	03	24	OCT 12,1979	
9.526	865.785	0.7496E+06	03	32	OCT 12,1979	
9.649	864.378	0.7471E+06	03	39	OCT 12,1979	
9.773	863.674	0.7459E+06	03	46	OCT 12,1979	
9.897	862.501	0.7439E+06	03	54	OCT 12,1979	
10.021	863.205	0.7451E+06	04	01	OCT 12,1979	
10.144	860.624	0.7407E+06	04	09	OCT 12,1979	
10.268	861.563	0.7423E+06	04	16	OCT 12,1979	
10.392	860.155	0.7399E+06	04	24	OCT 12,1979	
10.515	858.044	0.7362E+06	04	31	OCT 12,1979	
10.639	858.513	0.7370E+06	04	38	OCT 12,1979	
10.763	856.871	0.7342E+06	04	46	OCT 12,1979	
10.887	855.463	0.7318E+06	04	53	OCT 12,1979	
11.010	855.463	0.7318E+06	05	01	OCT 12,1979	
11.134	855.229	0.7314E+06	05	08	OCT 12,1979	
11.258	854.056	0.7294E+06	05	15	OCT 12,1979	
11.381	854.525	0.7302E+06	05	23	OCT 12,1979	
11.505	852.179	0.7262E+06	05	30	OCT 12,1979	
11.629	851.945	0.7258E+06	05	38	OCT 12,1979	
11.753	852.648	0.7270E+06	05	45	OCT 12,1979	
11.876	849.599	0.7218E+06	05	53	OCT 12,1979	
12.000	849.833	0.7222E+06	06	00	OCT 12,1979	
12.124	848.191	0.7194E+06	06	07	OCT 12,1979	
12.247	846.784	0.7170E+06	06	15	OCT 12,1979	
12.371	846.784	0.7170E+06	06	22	OCT 12,1979	
12.495	844.907	0.7139E+06	06	30	OCT 12,1979	
12.619	845.376	0.7147E+06	06	37	OCT 12,1979	
12.742	843.969	0.7123E+06	06	45	OCT 12,1979	
12.866	841.154	0.7075E+06	06	52	OCT 12,1979	
12.990	840.450	0.7064E+06	06	59	OCT 12,1979	
13.113	839.981	0.7056E+06	07	07	OCT 12,1979	
13.361	838.104	0.7024E+06	07	22	OCT 12,1979	
13.608	835.993	0.6989E+06	07	36	OCT 12,1979	
13.856	836.696	0.7001E+06	07	51	OCT 12,1979	
14.103	835.993	0.6989E+06	08	06	OCT 12,1979	

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14.351	834.116	0.6957E+06	08	21	OCT 12,1979	
14.598	832.474	0.6930E+06	08	36	OCT 12,1979	
14.845	831.066	0.6907E+06	08	51	OCT 12,1979	
15.093	828.486	0.6864E+06	09	06	OCT 12,1979	
15.340	827.548	0.6848E+06	09	20	OCT 12,1979	
15.588	828.017	0.6856E+06	09	35	OCT 12,1979	
15.835	825.436	0.6813E+06	09	50	OCT 12,1979	
16.082	823.794	0.6786E+06	10	05	OCT 12,1979	
16.330	821.917	0.6755E+06	10	20	OCT 12,1979	
16.577	821.214	0.6744E+06	10	35	OCT 12,1979	
16.825	818.633	0.6702E+06	10	49	OCT 12,1979	
17.072	817.929	0.6690E+06	11	04	OCT 12,1979	
17.320	816.756	0.6671E+06	11	19	OCT 12,1979	
17.567	815.818	0.6656E+06	11	34	OCT 12,1979	
17.814	814.411	0.6633E+06	11	49	OCT 12,1979	
18.062	813.707	0.6621E+06	12	04	OCT 12,1979	
18.309	812.299	0.6598E+06	12	19	OCT 12,1979	
18.557	811.361	0.6583E+06	12	33	OCT 12,1979	
18.804	810.892	0.6575E+06	12	48	OCT 12,1979	
19.052	809.719	0.6556E+06	13	03	OCT 12,1979	
19.299	809.484	0.6553E+06	13	18	OCT 12,1979	
19.546	806.209	0.6500E+06	13	33	OCT 12,1979	
19.794	806.200	0.6500E+06	13	48	OCT 12,1979	
20.041	805.496	0.6488E+06	14	02	OCT 12,1979	
20.289	803.620	0.6458E+06	14	17	OCT 12,1979	
20.536	803.385	0.6454E+06	14	32	OCT 12,1979	
20.784	801.977	0.6432E+06	14	47	OCT 12,1979	
21.031	801.274	0.6420E+06	15	02	OCT 12,1979	
21.278	799.397	0.6390E+06	15	17	OCT 12,1979	
21.526	797.989	0.6368E+06	15	32	OCT 12,1979	
21.773	797.755	0.6364E+06	15	46	OCT 12,1979	
22.021	794.940	0.6319E+06	16	01	OCT 12,1979	
22.268	794.940	0.6319E+06	16	16	OCT 12,1979	
22.515	793.767	0.6301E+06	16	31	OCT 12,1979	
22.763	793.532	0.6297E+06	16	46	OCT 12,1979	
23.010	790.952	0.6256E+06	17	01	OCT 12,1979	
23.258	790.952	0.6256E+06	17	15	OCT 12,1979	

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23.505	790.952	0.6256E+06	17	30	OCT 12,1979	
23.753	789.779	0.6238E+06	17	45	OCT 12,1979	
24.000	789.779	0.6238E+06	18	00	OCT 12,1979	END FLOW

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0.	789.779	0.6238E+06	18	00	OCT 12,1979	SHUT-IN
0.137	799.366	0.6393E+06	18	08	OCT 12,1979	
0.275	1022.959	0.1046E+07	18	16	OCT 12,1979	
0.412	1158.082	0.1341E+07	18	25	OCT 12,1979	
0.549	1324.874	0.1755E+07	18	33	OCT 12,1979	
0.686	1476.652	0.2181E+07	18	41	OCT 12,1979	
0.824	1624.208	0.2638E+07	18	49	OCT 12,1979	
0.961	1762.146	0.3105E+07	18	58	OCT 12,1979	
1.098	1893.515	0.3585E+07	19	06	OCT 12,1979	
1.236	2019.958	0.4080E+07	19	14	OCT 12,1979	
1.373	2138.659	0.4574E+07	19	22	OCT 12,1979	
1.510	2251.965	0.5071E+07	19	31	OCT 12,1979	
1.647	2361.987	0.5579E+07	19	39	OCT 12,1979	
1.785	2469.663	0.6099E+07	19	47	OCT 12,1979	
1.922	2574.993	0.6631E+07	19	55	OCT 12,1979	
2.059	2672.112	0.7140E+07	20	04	OCT 12,1979	
2.197	2768.997	0.7667E+07	20	12	OCT 12,1979	
2.334	2863.771	0.8201E+07	20	20	OCT 12,1979	
2.471	2955.260	0.8734E+07	20	28	OCT 12,1979	
2.608	3045.576	0.9276E+07	20	37	OCT 12,1979	
2.746	3134.016	0.9822E+07	20	45	OCT 12,1979	
2.883	3220.344	0.1037E+08	20	53	OCT 12,1979	
3.020	3304.561	0.1092E+08	21	01	OCT 12,1979	
3.158	3387.605	0.1148E+08	21	09	OCT 12,1979	
3.295	3469.242	0.1204E+08	21	18	OCT 12,1979	
3.432	3546.891	0.1258E+08	21	26	OCT 12,1979	
3.569	3624.070	0.1313E+08	21	34	OCT 12,1979	
3.707	3699.342	0.1369E+08	21	42	OCT 12,1979	
3.844	3773.268	0.1424E+08	21	51	OCT 12,1979	
3.981	3844.583	0.1478E+08	21	59	OCT 12,1979	
4.119	3914.021	0.1532E+08	22	07	OCT 12,1979	
4.256	3981.817	0.1585E+08	22	15	OCT 12,1979	
4.393	4048.440	0.1639E+08	22	24	OCT 12,1979	
4.531	4112.013	0.1691E+08	22	32	OCT 12,1979	
4.668	4175.352	0.1743E+08	22	40	OCT 12,1979	
4.805	4235.406	0.1794E+08	22	48	OCT 12,1979	
4.942	4293.819	0.1844E+08	22	57	OCT 12,1979	

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SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
5.080	4348.947	0.1891E+08	23	05	OCT 12,1979	
5.217	4403.840	0.1939E+08	23	13	OCT 12,1979	
5.354	4456.153	0.1986E+08	23	21	OCT 12,1979	
5.492	4505.651	0.2030E+08	23	29	OCT 12,1979	
5.629	4555.149	0.2075E+08	23	38	OCT 12,1979	
5.766	4603.475	0.2119E+08	23	46	OCT 12,1979	
5.903	4648.750	0.2161E+08	23	54	OCT 12,1979	
6.041	4691.680	0.2201E+08	00	02	OCT 13,1979	
6.178	4733.436	0.2241E+08	00	11	OCT 13,1979	
6.315	4774.255	0.2279E+08	00	19	OCT 13,1979	
6.453	4813.196	0.2317E+08	00	27	OCT 13,1979	
6.590	4850.027	0.2352E+08	00	35	OCT 13,1979	
6.727	4885.215	0.2387E+08	00	44	OCT 13,1979	
6.864	4917.822	0.2418E+08	00	52	OCT 13,1979	
7.002	4950.899	0.2451E+08	01	00	OCT 13,1979	
7.139	4982.100	0.2482E+08	01	08	OCT 13,1979	
7.276	5010.016	0.2510E+08	01	17	OCT 13,1979	
7.414	5038.401	0.2539E+08	01	25	OCT 13,1979	
7.551	5065.378	0.2566E+08	01	33	OCT 13,1979	
7.688	5090.714	0.2592E+08	01	41	OCT 13,1979	
7.825	5115.396	0.2617E+08	01	50	OCT 13,1979	
7.963	5138.702	0.2641E+08	01	58	OCT 13,1979	
8.100	5161.066	0.2664E+08	02	06	OCT 13,1979	
8.237	5180.135	0.2683E+08	02	14	OCT 13,1979	
8.375	5200.380	0.2704E+08	02	22	OCT 13,1979	
8.512	5219.214	0.2724E+08	02	31	OCT 13,1979	
8.649	5236.634	0.2742E+08	02	39	OCT 13,1979	
8.786	5253.584	0.2760E+08	02	47	OCT 13,1979	
8.924	5269.828	0.2777E+08	02	55	OCT 13,1979	
9.061	5285.836	0.2794E+08	03	04	OCT 13,1979	
9.198	5299.961	0.2809E+08	03	12	OCT 13,1979	
9.336	5314.086	0.2824E+08	03	20	OCT 13,1979	
9.473	5327.033	0.2838E+08	03	28	OCT 13,1979	
9.610	5339.981	0.2852E+08	03	37	OCT 13,1979	
9.747	5352.223	0.2865E+08	03	45	OCT 13,1979	
9.885	5364.464	0.2878E+08	03	53	OCT 13,1979	
10.022	5375.529	0.2890E+08	04	01	OCT 13,1979	

JOB NUMBER
SPG-11538

DATE OF JOB
OCTOBER 9-14, 1979

GAUGE/RUN NUMBER
GAUGE NO. 481 RUN NO. 1

DATE OF RUN
OCTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
10.159	5386.122	0.2901E+08	04	10	OCT 13,1979	
10.297	5396.245	0.2912E+08	04	18	OCT 13,1979	
10.434	5405.897	0.2922E+08	04	26	OCT 13,1979	
10.571	5415.314	0.2933E+08	04	34	OCT 13,1979	
10.708	5424.024	0.2942E+08	04	43	OCT 13,1979	
10.846	5432.499	0.2951E+08	04	51	OCT 13,1979	
10.983	5440.738	0.2960E+08	04	59	OCT 13,1979	
11.120	5448.742	0.2969E+08	05	07	OCT 13,1979	
11.258	5455.569	0.2976E+08	05	15	OCT 13,1979	
11.395	5463.103	0.2985E+08	05	24	OCT 13,1979	
11.532	5470.401	0.2993E+08	05	32	OCT 13,1979	
11.669	5476.992	0.3000E+08	05	40	OCT 13,1979	
11.807	5483.584	0.3007E+08	05	48	OCT 13,1979	
11.944	5489.940	0.3014E+08	05	57	OCT 13,1979	
12.081	5495.590	0.3020E+08	06	05	OCT 13,1979	
12.219	5501.475	0.3027E+08	06	13	OCT 13,1979	
12.356	5506.890	0.3033E+08	06	21	OCT 13,1979	
12.493	5512.304	0.3039E+08	06	30	OCT 13,1979	
12.631	5517.248	0.3044E+08	06	38	OCT 13,1979	
12.768	5522.427	0.3050E+08	06	46	OCT 13,1979	
12.905	5527.371	0.3055E+08	06	54	OCT 13,1979	
13.042	5533.256	0.3062E+08	07	03	OCT 13,1979	
13.180	5538.906	0.3068E+08	07	11	OCT 13,1979	
13.317	5543.379	0.3073E+08	07	19	OCT 13,1979	
13.454	5548.087	0.3078E+08	07	27	OCT 13,1979	
13.592	5552.795	0.3083E+08	07	35	OCT 13,1979	
13.729	5557.504	0.3089E+08	07	44	OCT 13,1979	
13.866	5561.741	0.3093E+08	07	52	OCT 13,1979	
14.003	5565.979	0.3098E+08	08	00	OCT 13,1979	
14.141	5570.216	0.3103E+08	08	08	OCT 13,1979	
14.278	5573.983	0.3107E+08	08	17	OCT 13,1979	
14.415	5577.985	0.3111E+08	08	25	OCT 13,1979	
14.553	5581.987	0.3116E+08	08	33	OCT 13,1979	
14.690	5585.753	0.3120E+08	08	41	OCT 13,1979	
14.827	5589.520	0.3124E+08	08	50	OCT 13,1979	
14.964	5593.051	0.3128E+08	08	58	OCT 13,1979	
15.102	5596.818	0.3132E+08	09	06	OCT 13,1979	

JOB NUMBER
SPG-11538

DATE OF JOB
OCTOBER 9-14, 1979

GAUGE/RUN NUMBER
GAUGE NO. 431 RUN NO. 1

DATE OF RUN
OCTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
15.239	5600.585	0.3137E+08	09	14	OCT 13,1979	
15.376	5603.880	0.3140E+08	09	23	OCT 13,1979	
15.514	5607.176	0.3144E+08	09	31	OCT 13,1979	
15.651	5611.414	0.3149E+08	09	39	OCT 13,1979	
15.788	5614.239	0.3152E+08	09	47	OCT 13,1979	
15.925	5617.064	0.3155E+03	09	56	OCT 13,1979	
16.063	5620.359	0.3159E+08	10	04	OCT 13,1979	
16.200	5623.891	0.3163E+08	10	12	OCT 13,1979	
16.337	5627.186	0.3167E+08	10	20	OCT 13,1979	
16.475	5630.011	0.3170E+08	10	28	OCT 13,1979	
16.612	5633.072	0.3173E+08	10	37	OCT 13,1979	
16.749	5636.132	0.3177E+08	10	45	OCT 13,1979	
16.886	5638.957	0.3180E+08	10	53	OCT 13,1979	
17.024	5642.017	0.3183E+08	11	01	OCT 13,1979	
17.161	5644.842	0.3186E+08	11	10	OCT 13,1979	
17.298	5647.432	0.3189E+08	11	18	OCT 13,1979	
17.436	5650.492	0.3193E+08	11	26	OCT 13,1979	
17.573	5653.082	0.3196E+03	11	34	OCT 13,1979	
17.710	5655.907	0.3199E+08	11	43	OCT 13,1979	
17.847	5658.496	0.3202E+03	11	51	OCT 13,1979	
17.985	5661.557	0.3205E+08	11	59	OCT 13,1979	
18.122	5664.382	0.3209E+03	12	07	OCT 13,1979	
18.259	5666.736	0.3211E+08	12	16	OCT 13,1979	
18.397	5669.090	0.3214E+08	12	24	OCT 13,1979	
18.534	5672.150	0.3217E+03	12	32	OCT 13,1979	
18.671	5674.740	0.3220E+03	12	40	OCT 13,1979	
18.808	5677.330	0.3223E+08	12	49	OCT 13,1979	
18.946	5679.684	0.3226E+03	12	57	OCT 13,1979	
19.083	5682.273	0.3229E+08	13	05	OCT 13,1979	
19.220	5684.353	0.3232E+08	13	13	OCT 13,1979	
19.358	5687.217	0.3234E+08	13	21	OCT 13,1979	
19.495	5689.806	0.3237E+08	13	30	OCT 13,1979	
19.632	5692.396	0.3240E+08	13	38	OCT 13,1979	
19.769	5694.515	0.3243E+03	13	46	OCT 13,1979	
19.907	5697.104	0.3246E+03	13	54	OCT 13,1979	
20.044	5699.694	0.3249E+03	14	03	OCT 13,1979	
20.181	5702.048	0.3251E+08	14	11	OCT 13,1979	

JOB NUMBER
SPG-11538

DATE OF JOB
OCTOBER 9-14, 1979

GAUGE/RUN NUMBER
GAUGE NO. 481 RUN NO. 1

DATE OF RUN
OCTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
20.319	5704.167	0.3254E+08	14	19	OCT 13,1979	
20.456	5706.050	0.3256E+08	14	27	OCT 13,1979	
20.593	5708.875	0.3259E+08	14	36	OCT 13,1979	
20.731	5710.994	0.3262E+08	14	44	OCT 13,1979	
20.868	5712.877	0.3264E+08	14	52	OCT 13,1979	
21.005	5715.467	0.3267E+08	15	00	OCT 13,1979	
21.142	5717.821	0.3269E+08	15	09	OCT 13,1979	
21.280	5719.469	0.3271E+08	15	17	OCT 13,1979	
21.417	5720.646	0.3273E+08	15	25	OCT 13,1979	
21.554	5722.058	0.3274E+08	15	33	OCT 13,1979	
21.692	5724.648	0.3277E+08	15	41	OCT 13,1979	
21.829	5726.531	0.3279E+08	15	50	OCT 13,1979	
21.966	5728.179	0.3281E+08	15	58	OCT 13,1979	
22.103	5730.533	0.3284E+08	16	06	OCT 13,1979	
22.241	5733.358	0.3287E+08	16	14	OCT 13,1979	
22.378	5735.006	0.3289E+08	16	23	OCT 13,1979	
22.515	5736.654	0.3291E+08	16	31	OCT 13,1979	
22.653	5739.243	0.3294E+08	16	39	OCT 13,1979	
22.790	5741.362	0.3296E+08	16	47	OCT 13,1979	
22.927	5743.246	0.3298E+08	16	56	OCT 13,1979	
23.064	5745.129	0.3301E+08	17	04	OCT 13,1979	
23.202	5747.247	0.3303E+08	17	12	OCT 13,1979	
23.339	5747.483	0.3303E+08	17	20	OCT 13,1979	
23.614	5752.662	0.3309E+08	17	37	OCT 13,1979	
23.888	5756.900	0.3314E+08	17	53	OCT 13,1979	
24.163	5760.431	0.3318E+08	18	10	OCT 13,1979	
24.437	5764.668	0.3323E+08	18	26	OCT 13,1979	
24.712	5768.199	0.3327E+08	18	43	OCT 13,1979	
24.986	5771.966	0.3332E+08	18	59	OCT 13,1979	
25.261	5775.733	0.3336E+08	19	16	OCT 13,1979	
25.536	5779.735	0.3341E+08	19	32	OCT 13,1979	
25.810	5783.266	0.3345E+08	19	49	OCT 13,1979	
26.085	5786.797	0.3349E+08	20	05	OCT 13,1979	
26.359	5790.328	0.3353E+08	20	22	OCT 13,1979	
26.634	5793.859	0.3357E+08	20	38	OCT 13,1979	
26.908	5797.391	0.3361E+08	20	55	OCT 13,1979	
27.183	5800.922	0.3365E+08	21	11	OCT 13,1979	

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

FLUID PRODUCTION

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 24, 1980

SHEET No. 4 JOB No. 103

WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	14:15 3/22/80	16:00 3/24/80		

TIME	TANK No. 1 SIZE 50 BBLS.								TEMP. °F	TANK No. 2 SIZE 50 BBLS.							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
	09.0	05.14	00.0	00.00	OPENING GAUGE					10.0	05.71	48	27.40	OPENING GAUGE			
01:00	16.0	09.13	37.0	21.12	3.99	21.12			90								
02:00	23.5	13.40	66.5	37.95	4.27	16.83			90	00.0	00.00	01	00.57			05.71	26.83
02:30	06.5	03.71	13.0	07.42			09.69	30.53									
03:00	06.5	03.71	32.0	18.26	0.00	10.84			86								
03:30	06.5	03.71	51.5	29.39	0.00	11.13			86								
04:00									90	02.0	01.14	36	20.55	1.14	19.98		
04:30	01.0	00.57	00.0	00.00			03.14	29.39	92	09.0	05.14	61	34.82	4.00	14.27		
05:00	02.0	01.14	29.0	16.55	0.57	16.55			92								
06:00	02.0	01.14	85.0	48.52	0.00	31.97			92	01.5	00.85	00	00.00			04.29	34.82
07:00	00.0	00.00	01.0	00.57			01.14	47.95	90	20.0	11.41	56	31.96	10.56	31.96		
08:00	09.5	05.42	78.5	44.80	5.42	44.23			92	02.0	01.14	00	00.00			10.27	31.96
09:00	06.0	03.43	00.0	00.00			01.99	44.80	94	12.0	06.85	56	31.96	05.71	31.96		
10:00	13.0	07.42	65.0	37.10	3.99	37.10			96	06.0	03.43	00	00.00			03.42	31.96
11:00	12.0	06.85	00.0	00.00			00.57	37.10	96	15.0	08.56	53	30.25	05.13	30.25		
12:00	23.0	13.12	65.0	37.10	6.27	37.10			96	09.0	05.14	00	00.00			03.42	30.25
13:00	23.0	13.12	00.0	00.00			00.00	37.10	95	23.0	13.12	62	35.39	07.98	35.39		
14:00	25.0	14.27	63.0	35.96	1.15	35.96			95	12.0	06.85	00	00.00			06.27	35.39
15:00	02.0	01.14	00.0	00.00			13.13	35.96	94	23.0	13.12	65	37.10	06.27	37.10		
16:00	12.0	06.85	58.0	33.10	5.71	33.10			94	12.0	06.85	00	00.00			06.27	37.10
17:00	01.5	00.85	00.0	00.00			06.00	33.10		01.5	00.00	00	00.00			06.00	
				TOTALS	31.37	295.93	35.66	295.93					TOTALS	40.79	200.91	45.65	228.31

TIGHT HOLE

REMARKS:

TOTAL COND. PRODUCED ON CLEAN-UP 280.8 BBLS

TOTAL WATER PRODUCED ON CLEAN-UP 1366.42 BBLS

	TANK # COND.	TANK # WATER	TANK # COND.	TANK # WATER
OPENING GAUGE	15.14	00.00	05.71	27.40
PLUS PRODUCTION	31.37	295.93	40.79	200.91
TOTALS	36.51	295.93	46.50	228.31
MINUS SHIPPING	35.66	295.93	45.65	228.31
CLOSING GAUGE	00.85	000.00	00.85	000.00

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY MOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 23, 1980

FLUID PRODUCTION

SHEET No. 3 JOB No. 103
WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	14:15 3/22/80			11.17 MMCF/D AT 24:00

TIME	TANK No. 1 SIZE 50 BBLS.								TEMP. °F	TANK No. 2 SIZE 50 BBLS.							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
	00.00	0.00	02.0	01.14	OPENING GAUGE					00	0.00	02	01.14	OPENING GAUGE			
12:00	16.50	9.41	69.5	39.66	9.41	38.52			80								
13:00	00.00	0.00	02.0	01.14			9.41	38.52	82	00	0.00	67	38.24	0.00	37.10		
14:00									80	00	0.00	91	51.94	0.00	13.70		
15:00	09.00	5.14	62.0	35.39	5.14	34.25			80	00	0.00	02	01.14			0.00	50.80
16:00	02.00	1.14	00.0	00.00			4.00	35.39	83	02	1.14	41	23.40	1.14	22.26		
17:00									80	02	1.14	62	35.39	0.00	11.99		
18:00									77	02	1.14	89	50.80	0.00	15.41		
19:00	03.00	1.71	88.0	50.23	0.57	50.23			85	00	0.00	08	04.57			1.14	46.23
20:00	00.00	0.00	08.0	04.57			1.71	45.66	87	12	6.85	62	35.39	6.85	30.82		
21:00	07.00	3.99	76.0	43.38	3.99	38.81			90	02	1.14	00	00.00			5.71	35.39
22:00	01.00	0.57	00.0	00.00			3.42	43.38	90	09	5.14	56	31.96	4.00	31.96		
23:00	09.00	5.14	56.0	31.96	4.57	31.96			92	01	0.57	00	00.00			4.57	31.96
24:00	09.00	5.14	00.0	00.00			0.00	31.96	91	10	5.71	48	27.40	5.14	27.40		
	TOTALS				23.68	193.77	18.54	194.91		TOTALS				17.13	190.64	11.42	164.38

TIGHT HOLE

REMARKS: 16:00-16:30 SEPARATOR ON BY-PASS - NO PRODUCTION
TOTAL CONDENSATE PRODUCED ON CLEAN-UP = 208.64 BBLS.
TOTAL WATER PRODUCED ON CLEAN-UP = 869.58 BBLS.

	TANK # 1 COND.	TANK # 1 WATER	TANK # 2 COND.	TANK # 2 WATER
OPENING GAUGE	00.00	001.14	00.00	001.14
PLUS PRODUCTION	23.68	193.77	17.13	190.64
TOTALS	23.68	194.91	17.13	191.78
MINUS SHIPPING	18.54	194.91	11.42	164.38
CLOSING GAUGE	05.14	000.00	05.71	027.40

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

FLUID PRODUCTION

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 23, 1980

SHEET No. 2 JOB No. 103 WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	14:15 3/22/80			

TIME	TANK No. 1 SIZE 50 BBL.								TEMP. °F	TANK No. 2 SIZE 50 BBL.							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
	2	1.14	33	18.83	OPENING GAUGE					0	0.00	23.0	13.12	OPENING GAUGE			
00:30	2	1.14	58	33.10	0.00	14.27			76								
01:00	2	1.14	88	50.23	0.00	17.13			76								
01.30	0	0.00	01	00.57			1.14	49.66	73	0	0.00	55.0	31.39	0.0	18.27		
02:00									78	6	3.43	68.0	38.81	3.43	7.42		
02:30	0	0.00	38	21.69	0.00	21.12			75								
03:00	7	3.99	68	38.81	3.99	17.12			75	0	0.00	1.50	0.85			3.43	37.96
03:30									74	0	0.00	42.0	23.97	0.00	23.12		
04:00	0	0.00	01	0.57			3.99	38.24	74	6	3.43	53.0	30.25	3.43	6.28		
04:30	0	0.00	43	24.54	0.00	23.97			74								
05:00	7	3.99	70	39.95	3.99	15.41			76	0	0.00	2.0	1.14			3.43	29.11
05:30									75	0	0.00	35.0	19.97	0.00	18.83		
06:00	0	0.00	01	00.57			3.99	39.38	77	7	3.99	53.0	30.25	3.99	10.28		
06:30	0	0.00	41	23.40	0.00	22.83			78								
07:00	0	0.00	72	41.10	0.00	17.70			78	0	0.00	2.0	1.14			3.99	29.11
07:30									78	4	2.28	23.0	13.12	2.28	11.98		
08:00	0	0.00	02	1.14			0.00	39.96	80	9	5.14	53.0	30.25	2.86	17.13		
08:30	0	0.00	41	23.40	0.00	22.26			80								
09:00	0	0.00	66	37.67	0.00	14.27			78	0	0.00	2.5	1.42			5.14	28.83
			CARRYING OVE$ AT SEPARATOR - NO PRODUCTION														
10:00									80	2	1.14	37.0	21.12	1.14	19.70		
11:00	0	0.00	02	1.14			0.00	36.53	81	6	3.43	83.0	47.37	2.29	26.25		
11:00									80	0	0.00	2.0	1.14			3.43	46.23
				TOTALS	7.98	186.08	9.12	203.77					TOTALS	19.42	159.26	19.42	171.24

TIGHT HOLE

REMARKS:

	TANK # 1 COND.	TANK # 1 WATER	TANK # 2 COND.	TANK # 2 WATER
OPENING GAUGE	1.14	18.83	0.00	13.12
PLUS PRODUCTION	7.98	186.08	19.42	159.26
TOTALS	9.12	204.91	19.42	172.38
MINUS SHIPPING	9.12	203.77	19.42	171.24
CLOSING GAUGE	0.00	1.14	0.00	1.14

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

FLUID PRODUCTION

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 22, 1980

SHEET No. 1 JOB No. 103

WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	14:15 3/22/80			

TIME	TANK No. 1 SIZE 50 BBLS.								TEMP. °F	TANK No. 2 SIZE 50 BBLS.							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
14:15	03	01.71	00.00	00.00	OPENING GAUGE					10	05.71	00	00.00	OPENING GAUGE			
15:30	58	33.10	00.00	00.00	31.39	00.00											
16:00	67	38.24	00.00	00.00	05.14	00.00											
16:30										38	21.69	00	00.00	15.98	00.00		
17:00										62	35.39	00	00.00	13.70	00.00		
17:30	02	01.14	00.00	00.00			37.10	00.00		88	50.23	00	00.00	14.84	00.00		
18:00	13	07.42	00.00	00.00	06.28	00.00											
18:30	53	30.25	00.00	00.00	22.83	00.00											
19:00	84	47.95	00.00	00.00	17.70	00.00			75	02	01.14	00	00.00			49.09	00.00
19:30									75	10	05.71	07	03.99	04.57	03.99		
20:00	02	01.14	00.00	00.00			46.81	00.00	68	12	06.85	10	05.71	01.14	01.72		
20:30									64	14	07.99	38	21.69	01.14	15.98		
21:00									68	14	07.99	58	33.10	00.00	11.41		
21:30	06	03.43	32.00	18.26	02.29	18.26			70	02	01.14	00	00.00			06.85	33.10
22:00	06	03.43	59.00	33.67	00.00	15.41			70								
22:30	06	03.43	84.00	47.95	00.00	14.28			75								
23:00	02	01.14	00.00	00.00			02.29	47.95	75	02	01.14	48	27.40	00.00	27.40		
23:30									76	08	04.57	70	39.95	03.43	12.55		
24:00	02	01.14	33.00	18.83	00.00	18.83			75	00	00.00	23	13.12			04.57	26.83
				TOTALS	85.63	66.78	86.20	47.95					TOTALS	54.80	73.05	60.51	59.93

TIGHT HOLE

REMARKS: 18:00 BEGAN PRODUCING WATER
17:50-18:05 BY-PASSING SEPARATOR

	TANK #		TANK # 2	
	COND.	WATER	COND.	WATER
OPENING GAUGE	01.71	00.00	05.71	00.00
PLUS PRODUCTION	85.63	66.78	54.80	73.05
TOTALS	87.34	66.78	60.51	73.05
MINUS SHIPPING	86.20	47.95	60.51	59.93
CLOSING GAUGE	01.14	18.83	00.00	13.12

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 1, 1980

FLUID PRODUCTION

SHEET No. 6 JOB No. 103
UPPER WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RATE #1	09:00 3/1/80	13:30 3/1/80		3.32 MMCF/D AT 13:30

TIME	TANK No. 1 SIZE 50 BBL.								TEMP. °F	TANK No. 2 SIZE 50 BBL.							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
	02.5	01.42	0	0	OPENING GAUGE												
09:30	11.5	06.56	0	0	5.14	0			48								
10:00	20.0	11.41	0	0	4.85	0			56								
10:05	SHUT IN WELL - HYDRATING OFF																
13:30	OPENED WELL																
13:50	24.5	13.98	0	0	2.57	0			46								
	SHUT IN																
	TOTALS				12.56	0				TOTALS							

TIGHT HOLE

REMARKS:

	TANK # 1 COND.	TANK # 1 WATER	TANK # 2 COND.	TANK # 2 WATER
OPENING GAUGE	01.42	0		
PLUS PRODUCTION	12.56	0		
TOTALS	13.98	0		
MINUS SHIPPING	00.00	0		
CLOSING GAUGE	13.98	0		

Form OGC-1b

CONFIDENTIAL

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☐ OTHER

2. NAME OF OPERATOR: AMOCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR: P.O. Box 17675 Salt Lake City, Utah 84117

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: NW/4 NW/4 Sec. 36 694' FNL & 2159' FWL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Amoco-Champlin-Fawcett & Sons

9. WELL NO.: #1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 36, T7N, R5E SLBM

14. PERMIT NO.: 43-043-30078

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6858' KB 6833' GR

12. COUNTY OR PARISH: Summit

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
(Other) Temporary Abandon Perfs			XX	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Amoco Production Company intends to temporarily abandon present perfs as follows:

Present Perfs: 15,396' - 15,435' and 15,460' - 15,490' (Imbricate Madison Limestone)

Propose to displace hole with 9.5 #/gal. inhibited brine water (brine water used rather than mud in order to allow perfs to remain open for future production)

Retrieve permanent packer at 15,310'

Set Cast Iron Bridge Plug at 15,372', cap with 2 sacks cement

Move up hole and perforate 14,932' - 14,966' in the Imbricate Amsden-Morgan

(Verbal approval received from Mr. Frank Hamner, Utah O&G, on 10/29/79 at 10:45 a.m.)

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
DATE: Oct. 30, 1979
BY: Dianne R. Nielson

18. I hereby certify that the foregoing is true and correct

SIGNED Original Signed By D. S. DAVIDSON TITLE Dist. Admin. Supervisor DATE 10/31/79

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-3

3

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: AMOCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR: P.O. Box 17675 Salt Lake City, Utah 84117

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: NW/4 NW/4 694' FNL & 2159' FWL
At top prod. interval reported below
At total depth

Release date: 7/31/80

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Amoco-Champlin-Fawcett & Sons

9. WELL NO.: #1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 36, T7N, R5E SLBM

12. COUNTY OR PARISH: Summit

13. STATE: Utah

14. PERMIT NO.: 43-043-30078 DATE ISSUED: 7/13/78

15. DATE SPUDDED: 9/30/78

16. DATE T.D. REACHED: 5/30/79

17. DATE COMPL. (*Ready to prod.*): 12/31/79

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*: 6858' KB

19. ELEV. CASINGHEAD:

20. TOTAL DEPTH, MD & TVD: 18,055'

21. PLUG, BACK T.D., MD & TVD: 13,711'

22. IF MULTIPLE COMPL., HOW MANY*:

23. INTERVALS DRILLED BY: → ROTARY TOOLS: Surf. - TD CABLE TOOLS:

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 13,586' - 13,702' Madison

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: DLL, CNL, FDC, Sonic, FIL, Dipmeter, Cement Bond, Temperature

27. WAS WELL CORED: No

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"		1525'	26"	2250 sx	
13 3/8"		5601'	17 1/4"	3300 sx	
9 5/8"	47 - 40#	11,385'	13 3/8"	1325 sx	
7"	32#	18,055'	8 3/4"	450 sx	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
None				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8"	See Attachment "A"	

31. PERFORATION RECORD (*Interval, size and number*): See Attachment "A"

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
See #24	6000 gal. 15% HCL
None	

RECEIVED JAN 2 1980 DIVISION OF OIL, GAS & MINING

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
8/17/79	Flowing	Shut-In

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10/11/79	24	56/64"	→	528	7600		14,300:1

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
845		→	528	7600		

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Flared

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS: Attachment "A"

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED D. L. Davidson MB TITLE Dist. Admin. Supervisor DATE 12/31/79

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
DST #1	6950'	7021'	Mis-run
DST #2	"	"	Rec. Gas-Cut Water
DST #3	6940'	7038'	Rec. Salt Water
DST #4	9360'	9396'	No Returns
DST #5	9594'	9631'	Thaynes
DST #6	11,327'	11,356'	Rec. H_2S Gas-Cut Mud
DST #7	11,353'	11,600'	Rec. Phosphoria Gas & Water

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Phosphoria	11,461'	
Weber	11,956'	
Amsden	12,751'	
Madison	13,069'	
Lodgepole	14,690'	
Fault	14,777'	
Madison/Morgan	14,880'	
Madison	15,257'	

ATTACHMENT "A" TO FORM NO. OGC-3

Amoco-Champlin-Fawcett & Sons

Item #31: Perforation Record:

13,278' - 13,280'
13,586' - 13,702'
13,718' - 13,720'
15,396' - 15,435'
15,460' - 15,490'
15,663' - 15,724'
15,825' - 15,885'
16,465' - 16,600'
17,850' - 17,930'

Packers Set At: 13,492'
15,610'
15,744'
16,427'
17,750'

Tubing Record:

2 7/8" set at 11,000'

JOB NUMBE
SPG-11772A

DATE OF JOB
MARCH 25-28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

AMOCO PRODUCTION COMPANY

WELL NAME/NUMBER	FAWCETT AND SONS #1
FIELD/AREA	FAWCETT AND SONS
COUNTY/PARISH	SUMMIT
STATE	UTAH
TYPE OF TEST	ISOCRONAL
REFERENCE ELEV	G.L.

ADDITIONAL INFORMATION

GAUGE NO. 309 ELEMENT NO. 26852N 0-6000 PSI

GAUGES WERE INSTALLED AT 1145 HRS. 3/25/80

GAUGES WERE RELEASED AT 1730 HRS. 3/28/80

TEST DEPTH WAS 11852 FEET

TEMPERATURE WAS 206 DEG. F.

GAUGES WERE INSTALLED BY TIM BURTON

GAUGES WERE PULLED AND READ BY TOM GALLEY

TIGHT HOLE

200 POINTS REPORTED THIS JOB

JOB NUMBE
SPG-11772A

DATE OF JOB
MARCH 25-28, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. A

DATE OF RUN
MARCH 25-28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	5073.029	0.2574E+08	12	57	MAR 25,1980	ON BOTTOM
1.391	5074.165	0.2575E+08	14	20	MAR 25,1980	
2.781	5073.881	0.2574E+08	15	44	MAR 25,1980	
4.172	5073.881	0.2574E+08	17	07	MAR 25,1980	
5.562	5073.881	0.2574E+08	18	31	MAR 25,1980	
6.953	5073.881	0.2574E+08	19	54	MAR 25,1980	
8.343	5073.881	0.2574E+08	21	18	MAR 25,1980	
9.734	5074.165	0.2575E+08	22	41	MAR 25,1980	
11.124	5074.307	0.2575E+08	00	04	MAR 26,1980	
12.515	5074.733	0.2575E+08	01	28	MAR 26,1980	
13.905	5074.875	0.2575E+08	02	51	MAR 26,1980	
15.296	5075.159	0.2576E+08	04	15	MAR 26,1980	
16.686	5075.301	0.2576E+08	05	38	MAR 26,1980	
18.077	5075.585	0.2576E+08	07	02	MAR 26,1980	
18.216	5075.585	0.2576E+08	07	10	MAR 26,1980	
18.355	5047.188	0.2547E+08	07	18	MAR 26,1980	
18.494	5072.320	0.2573E+08	07	27	MAR 26,1980	
18.633	5073.597	0.2574E+08	07	35	MAR 26,1980	
18.772	5073.739	0.2574E+08	07	43	MAR 26,1980	
18.911	5073.739	0.2574E+08	07	52	MAR 26,1980	
19.050	5073.881	0.2574E+08	08	00	MAR 26,1980	END BUILD-UP

TIGHT HOLE

21 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11772A

DATE OF JOB
MARCH 25-28, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. A

DATE OF RUN
MARCH 25-28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	5073.881	0.2574E+08	08	00	MAR 26,1980	BEGIN FLOW
0.136	5071.752	0.2572E+08	08	08	MAR 26,1980	
0.271	5070.900	0.2571E+08	08	16	MAR 26,1980	
0.407	4964.837	0.2465E+08	08	24	MAR 26,1980	
0.542	4916.136	0.2417E+08	08	33	MAR 26,1980	
0.678	4830.945	0.2334E+08	08	41	MAR 26,1980	
0.814	4789.628	0.2294E+08	08	49	MAR 26,1980	
0.949	4798.573	0.2303E+08	08	57	MAR 26,1980	
1.085	4690.664	0.2200E+08	09	05	MAR 26,1980	
1.220	4664.397	0.2176E+08	09	13	MAR 26,1980	
1.356	4660.421	0.2172E+08	09	21	MAR 26,1980	
1.492	4592.126	0.2109E+08	09	29	MAR 26,1980	
1.627	4666.811	0.2178E+08	09	38	MAR 26,1980	
1.763	4667.662	0.2179E+08	09	46	MAR 26,1980	
1.898	4667.804	0.2179E+08	09	54	MAR 26,1980	
2.034	4666.385	0.2178E+08	10	02	MAR 26,1980	
2.169	4668.372	0.2179E+08	10	10	MAR 26,1980	
2.305	4668.372	0.2179E+08	10	18	MAR 26,1980	
2.441	4668.230	0.2179E+08	10	26	MAR 26,1980	
2.576	4664.539	0.2176E+08	10	35	MAR 26,1980	
2.712	4663.403	0.2175E+08	10	43	MAR 26,1980	
2.847	4663.545	0.2175E+08	10	51	MAR 26,1980	
2.983	4665.959	0.2177E+08	10	59	MAR 26,1980	
3.119	4666.527	0.2178E+08	11	07	MAR 26,1980	
3.254	4662.835	0.2174E+08	11	15	MAR 26,1980	
3.390	4662.409	0.2174E+08	11	23	MAR 26,1980	
3.525	4660.137	0.2172E+08	11	32	MAR 26,1980	
3.661	4655.594	0.2167E+08	11	40	MAR 26,1980	
3.797	4654.174	0.2166E+08	11	48	MAR 26,1980	
3.932	4652.044	0.2164E+08	11	56	MAR 26,1980	
4.068	4652.470	0.2165E+08	12	04	MAR 26,1980	
4.203	4652.470	0.2165E+08	12	12	MAR 26,1980	
4.339	4652.470	0.2165E+08	12	20	MAR 26,1980	
4.475	4652.186	0.2164E+08	12	28	MAR 26,1980	
4.610	4652.186	0.2164E+08	12	37	MAR 26,1980	
4.746	4652.754	0.2165E+08	12	45	MAR 26,1980	
4.881	4653.038	0.2165E+08	12	53	MAR 26,1980	

TIGHT HOLE

JOB NUMBER
SPG-11772A

DATE OF JOB
MARCH 25-28, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. A

DATE OF RUN
MARCH 25-28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
5.017	4653.322	0.2165E+08	13	01	MAR 26,1980	
5.153	4655.310	0.2167E+08	13	09	MAR 26,1980	
5.288	4655.310	0.2167E+08	13	17	MAR 26,1980	
5.424	4654.742	0.2167E+08	13	25	MAR 26,1980	
5.559	4653.890	0.2166E+08	13	34	MAR 26,1980	
5.695	4654.032	0.2166E+08	13	42	MAR 26,1980	
5.831	4653.890	0.2166E+08	13	50	MAR 26,1980	
5.966	4654.174	0.2166E+08	13	58	MAR 26,1980	
6.102	4652.186	0.2164E+08	14	06	MAR 26,1980	
6.237	4651.192	0.2163E+08	14	14	MAR 26,1980	
6.373	4651.760	0.2164E+08	14	22	MAR 26,1980	
6.508	4654.600	0.2167E+08	14	31	MAR 26,1980	
6.644	4651.902	0.2164E+08	14	39	MAR 26,1980	
6.780	4652.612	0.2165E+08	14	47	MAR 26,1980	
6.915	4650.766	0.2163E+08	14	55	MAR 26,1980	
7.051	4653.038	0.2165E+08	15	03	MAR 26,1980	
7.186	4654.032	0.2166E+08	15	11	MAR 26,1980	
7.322	4654.884	0.2167E+08	15	19	MAR 26,1980	
7.458	4655.736	0.2168E+08	15	27	MAR 26,1980	
7.593	4655.026	0.2167E+08	15	36	MAR 26,1980	
7.729	4652.470	0.2165E+08	15	44	MAR 26,1980	
7.864	4652.470	0.2165E+08	15	52	MAR 26,1980	
8.000	4651.334	0.2163E+08	16	00	MAR 26,1980	END FLOW

TIGHT HOLE

60 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11772A

DATE OF JOB
MARCH 25-28, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. A

DATE OF RUN
MARCH 25-28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
0.	4651.334	0.2163E+08	16	00	MAR 26,1980	SHUT-IN
0.136	4912.019	0.2413E+08	16	08	MAR 26,1980	
0.271	4963.275	0.2463E+08	16	16	MAR 26,1980	
0.407	5039.379	0.2540E+08	16	24	MAR 26,1980	
0.542	5055.139	0.2555E+08	16	33	MAR 26,1980	
0.678	5057.695	0.2558E+08	16	41	MAR 26,1980	
0.814	5059.257	0.2560E+08	16	49	MAR 26,1980	
0.949	5059.967	0.2560E+08	16	57	MAR 26,1980	
1.085	5060.677	0.2561E+08	17	05	MAR 26,1980	
1.220	5060.961	0.2561E+08	17	13	MAR 26,1980	
1.356	5061.671	0.2562E+08	17	21	MAR 26,1980	
1.492	5062.097	0.2562E+08	17	29	MAR 26,1980	
1.627	5062.665	0.2563E+08	17	38	MAR 26,1980	
1.763	5062.949	0.2563E+08	17	46	MAR 26,1980	
1.898	5063.233	0.2564E+08	17	54	MAR 26,1980	
2.034	5063.517	0.2564E+08	18	02	MAR 26,1980	
2.169	5063.943	0.2564E+08	18	10	MAR 26,1980	
2.305	5064.084	0.2564E+08	18	18	MAR 26,1980	
2.441	5064.226	0.2565E+08	18	26	MAR 26,1980	
2.576	5064.510	0.2565E+08	18	35	MAR 26,1980	
2.712	5064.794	0.2565E+08	18	43	MAR 26,1980	
2.847	5064.936	0.2565E+08	18	51	MAR 26,1980	
2.983	5065.220	0.2566E+08	18	59	MAR 26,1980	
3.119	5065.362	0.2566E+08	19	07	MAR 26,1980	
3.254	5065.504	0.2566E+08	19	15	MAR 26,1980	
3.390	5065.646	0.2566E+08	19	23	MAR 26,1980	
4.068	5066.356	0.2567E+08	20	04	MAR 26,1980	
4.746	5067.208	0.2568E+08	20	45	MAR 26,1980	
5.424	5067.634	0.2569E+08	21	25	MAR 26,1980	
6.102	5068.344	0.2569E+08	22	06	MAR 26,1980	
6.780	5068.912	0.2569E+08	22	47	MAR 26,1980	
7.458	5069.480	0.2570E+08	23	27	MAR 26,1980	
8.136	5069.906	0.2570E+08	00	08	MAR 27,1980	
8.814	5070.332	0.2571E+08	00	49	MAR 27,1980	
9.492	5070.616	0.2571E+08	01	29	MAR 27,1980	
10.169	5071.326	0.2572E+08	02	10	MAR 27,1980	
10.847	5071.468	0.2572E+08	02	51	MAR 27,1980	

TIGHT HOLE

JOB NUMBER
SPG-11772A

DATE OF JOB
MARCH 25-28, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. A

DATE OF RUN
MARCH 25-28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
11.525	5071.610	0.2572E+08	03	32	MAR 27,1980	
12.881	5072.320	0.2573E+08	04	53	MAR 27,1980	
14.237	5072.745	0.2573E+08	06	14	MAR 27,1980	
15.593	5073.172	0.2574E+08	07	36	MAR 27,1980	
15.729	5066.640	0.2567E+08	07	44	MAR 27,1980	
15.864	5072.036	0.2573E+08	07	52	MAR 27,1980	
16.000	5072.320	0.2573E+08	08	00	MAR 27,1980	END BUILD-UP

TIGHT HOLE

44 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11772A

DATE OF JOB
MARCH 25-28, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. A

DATE OF RUN
MARCH 25-28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	5072.320	0.2573E+08	08	00	MAR 27,1980	BEGIN FLOW
0.132	5002.605	0.2503E+08	08	08	MAR 27,1980	
0.265	4968.103	0.2468E+08	08	16	MAR 27,1980	
0.397	4909.463	0.2410E+08	08	24	MAR 27,1980	
0.529	4833.075	0.2336E+08	08	32	MAR 27,1980	
0.662	4683.849	0.2194E+08	08	40	MAR 27,1980	
0.794	4631.598	0.2145E+08	08	48	MAR 27,1980	
0.926	4567.563	0.2086E+08	08	56	MAR 27,1980	
1.059	4528.517	0.2051E+08	09	04	MAR 27,1980	
1.191	4514.887	0.2038E+08	09	11	MAR 27,1980	
1.324	4499.552	0.2025E+08	09	19	MAR 27,1980	
1.456	4446.308	0.1977E+08	09	27	MAR 27,1980	
1.588	4429.270	0.1962E+08	09	35	MAR 27,1980	
1.721	4423.022	0.1956E+08	09	43	MAR 27,1980	
1.853	4420.183	0.1954E+08	09	51	MAR 27,1980	
1.985	4416.491	0.1951E+08	09	59	MAR 27,1980	
2.118	4415.923	0.1950E+08	10	07	MAR 27,1980	
2.250	4413.509	0.1948E+08	10	15	MAR 27,1980	WELL SHUT-IN

TIGHT HOLE

18 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11772A

DATE OF JOB
MARCH 25-28, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. A

DATE OF RUN
MARCH 25-28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	4413.509	0.1948E+08	10	15	MAR 27,1980	BEGIN BUILD-UP
0.136	4543.710	0.2065E+08	10	23	MAR 27,1980	
0.272	4920.112	0.2421E+08	10	31	MAR 27,1980	
0.408	4937.860	0.2438E+08	10	40	MAR 27,1980	
0.545	5031.428	0.2532E+08	10	48	MAR 27,1980	
0.681	5054.997	0.2555E+08	10	56	MAR 27,1980	
0.817	5059.399	0.2560E+08	11	04	MAR 27,1980	
0.953	5061.387	0.2562E+08	11	12	MAR 27,1980	
1.089	5062.097	0.2562E+08	11	20	MAR 27,1980	
1.225	5062.665	0.2563E+08	11	29	MAR 27,1980	
1.362	5063.233	0.2564E+08	11	37	MAR 27,1980	
1.498	5063.517	0.2564E+08	11	45	MAR 27,1980	
1.634	5063.659	0.2564E+08	11	53	MAR 27,1980	
1.770	5064.084	0.2564E+08	12	01	MAR 27,1980	
1.906	5064.368	0.2565E+08	12	09	MAR 27,1980	
2.042	5064.794	0.2565E+08	12	18	MAR 27,1980	
2.179	5065.220	0.2566E+08	12	26	MAR 27,1980	
2.315	5065.646	0.2566E+08	12	34	MAR 27,1980	
2.451	5065.930	0.2566E+08	12	42	MAR 27,1980	
2.587	5065.930	0.2566E+08	12	50	MAR 27,1980	
2.723	5066.214	0.2567E+08	12	58	MAR 27,1980	
2.859	5066.498	0.2567E+08	13	07	MAR 27,1980	
2.996	5066.924	0.2567E+08	13	15	MAR 27,1980	
3.132	5067.066	0.2568E+08	13	23	MAR 27,1980	
3.268	5067.208	0.2568E+08	13	31	MAR 27,1980	
3.404	5067.350	0.2568E+08	13	39	MAR 27,1980	
4.085	5067.776	0.2568E+08	14	20	MAR 27,1980	
4.766	5068.486	0.2569E+08	15	01	MAR 27,1980	
5.446	5069.196	0.2570E+08	15	42	MAR 27,1980	
6.127	5069.338	0.2570E+08	16	23	MAR 27,1980	
6.808	5069.906	0.2570E+08	17	03	MAR 27,1980	
7.489	5070.758	0.2571E+08	17	44	MAR 27,1980	
8.170	5071.042	0.2572E+08	18	25	MAR 27,1980	
8.850	5071.326	0.2572E+08	19	06	MAR 27,1980	
9.531	5071.610	0.2572E+08	19	47	MAR 27,1980	
10.212	5071.752	0.2572E+08	20	28	MAR 27,1980	
10.893	5071.752	0.2572E+08	21	09	MAR 27,1980	

TIGHT HOLE

JOB NUMBER
SPG-11772A

DATE OF JOB
MARCH 25-28, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. A

DATE OF RUN
MARCH 25-28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
11.574	5071.752	0.2572E+08	21	49	MAR 27,1980	
12.254	5071.752	0.2572E+08	22	30	MAR 27,1980	
12.935	5072.178	0.2573E+08	23	11	MAR 27,1980	
13.616	5072.462	0.2573E+08	23	52	MAR 27,1980	
14.978	5072.604	0.2573E+08	01	14	MAR 28,1980	
16.339	5072.888	0.2573E+08	02	35	MAR 28,1980	
17.701	5072.888	0.2573E+08	03	57	MAR 28,1980	
19.062	5073.456	0.2574E+08	05	19	MAR 28,1980	
20.424	5072.320	0.2573E+08	06	40	MAR 28,1980	
21.786	5072.320	0.2573E+08	08	02	MAR 28,1980	
23.147	5072.320	0.2573E+08	09	24	MAR 28,1980	
24.509	5072.178	0.2573E+08	10	46	MAR 28,1980	
25.871	5072.745	0.2573E+08	12	07	MAR 28,1980	
27.232	5073.029	0.2574E+08	13	29	MAR 28,1980	
28.594	5073.456	0.2574E+08	14	51	MAR 28,1980	
29.955	5074.165	0.2575E+08	16	12	MAR 28,1980	
30.092	5074.165	0.2575E+08	16	20	MAR 28,1980	
30.228	5074.165	0.2575E+08	16	29	MAR 28,1980	
30.364	5074.165	0.2575E+08	16	37	MAR 28,1980	
30.500	5074.165	0.2575E+08	16	45	MAR 28,1980	OFF BOTTOM

TIGHT HOLE

57 POINTS REPORTED THIS RUN

ORTA-TEST SYSTEMS, INC.
O BOX 322
ILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

EST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 3, 1980

HEET No. 11 JOB No. 103
UPPER WEBER

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ H.S. METER SIZE ____ X ____ CALIBRATED @ ____ HRS. ____
ANNULUS ☐ L.S. METER SIZE ____ X ____ CALIBRATED @ ____ HRS. ____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
14:30			NO SHUT IN RECORDED - USING PRESSURE GAUGE ON MANIFOLD														
14:32			OPENED WELL THROUGH MANIFOLD TO PIT ON A 64/64 CHOKE														
14:35			50	1000													
14:[illegible]			52	1125													
14:45			56	1100													
14:50			56	975													
14:55			46	675	225												
15:00			44	650													
15:05			45	775													
15:10			40	725	425	OPENED 2" MANIFOLD LINE TO PIT											
15:15			30	600		SHUT IN 2" MANIFOLD LINE TO PIT											
15:20			46	760	490												
15:25			46	860													
15:30			46	900	600												
15:35			50	950													
15:40			46	900	700												
15:45			43	850													
15:50			40	760	775	DECREASED CHOKE TO 52/64											
15:55			33	720													
16:[illegible]			26	700		OPENED 2" MANIFOLD LINE TO PIT											
16:[illegible]			24	400	900												
16:05			SHUT IN - HYDRATING OFF														
16:10				2445													
16:15				2450													

TIGHT HOLE

EMARKS:

PORTA-TEST SYSTEMS, INC.
P O BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 2, 1980

SHEET No. 10 JOB No. 103

UPPER WEBER

HIGH STAGE ORIFICE & METER RUN SIZE	LOW STAGE ORIFICE & METER RUN SIZE
FLOWING: TUBING ☐ ANNULUS ☐	H.S. METER SIZE ____ X ____ CALIBRATED @ ____ HRS. ____
	L.S. METER SIZE ____ X ____ CALIBRATED @ ____ HRS. ____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
08:32				3180	0	SHUT IN PRESSURE											
08:33			OPEN WELL THROUGH MANIFOLD TO PIT ON A 64/64 CHOKE														
08:50			46	SHUT IN - UNABLE TO KEEP FLARE LIT													
09:05				2320													
09:10				3180													
09:15				3250													
09:20				3260													
09:25				3265													
09:30				3260													
09:35				3260													
09:40				3260													
09:45				3260													
09:50				3270													
09:55		64/64		OPENED WELL THROUGH MANIFOLD TO PIT 64/64 CHOKE													
09:56				SHUT IN													
11:20				OPENED WELL THROUGH MANIFOLD TO PIT 64/64 CHOKE													
11:25			48	1200													
11:30			70	1300													
11:35		48/64	68	960	DECREASED CHOKE TO 48/64												
11:40				SHUT IN - B.J. HUGHES RIGGING UP TO PUMP METHANOL													
13:20		64/64		OPENED WELL TO PIT ON A 64/64 CHOKE													
13:20			54	1775													
13:25			52	970	100												
13:30			67	1000	SLUGGING FLUID												
13:35			62	700													
13:40			60	300	420												
13:45				SHUT IN WELL - HYDRATING OFF B.J. HUGHES RIGGING UP TO PUMP METHANOL													

REMARKS:

TIGHT HOLE

ORTA-TEST SYSTEMS, INC.
O BOX 522
LLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 1, 1980

EST DATA SHEET

HEET No. 9 JOB No. 103
UPPER WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.000 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
09:55		20/64	44	2550		148		810	52	84	86	5.02					
09:55				SHUT IN WELL - HYDRATING OFF													
10:00				B.J. HUGHES RIGGING UP TO PUMP METHANOL													
11:				2910		SHUT IN PRESSURE											
11:40				OPENED WELL THROUGH MANIFOLD TO PIT ON A 15/64 CHOKE													
11:45			54	3020													
11:50			54	3200													
11:50				INCREASED CHOKE TO 17/64													
11:55		17/64	58	3322													
12:00			58	3200													
12:00				INCREASED CHOKE TO 25/64													
12:05		25/64	59	3120													
12:10			60	3080													
12:15			61	3040													
12:20			61	3035													
12:20				BEGIN SWITCHING FLOW THROUGH SEPARATOR													
12:25			50	2950													
12:30				BLEW BURSTING PLATE ON LOW STAGE SEPARATOR SHUT IN WELL TO REPAIR													
13:20				2650		SHUT IN PRESSURE											
13:		20/64	69	2660		INCREASED CHOKE TO 20/64											
13:				INCREASED CHOKE TO 21/64													
13:30	34	24/64	66	1580		163		870	74	150	151	5.87					
13:35			64	1840		INCREASED CHOKE TO 27/64											
13:40		27/64	62	1530		INCREASED CHOKE TO 32/64											
13:45		32/64	60	1170		160		840	24	145	147	3.32					
13:50			60	900													
13:50				SHUT IN WELL - HYDRATING OFF B.J. HUGHES RIGGING UP TO PUMP METHANOL													

TIGHT HOLE

MARKS: TOTAL GAS FLARED THROUGH SEPARATOR RATE #1 = .331 MMCF/D

Box 156
Casper, Wyo. 82601
Area Code 307
Tel. 235-5264

C. A. White
Wire Line Well Service

Box 962
Soldotna, Alaska 99669
Area Code 913
Tel. 262-4496

SUBSURFACE PRESSURE SURVEY

Producing Formation _____
Elevation GRD _____
Elevation KB _____
Datum _____ subsea, or _____
Tubing _____ Set _____
Casing _____ Set _____
Production Packer _____

Perforations _____

Subsurface Controls (Nipples, etc.) _____

Instrument Data

Element Range 10,200 Element No. 15253
Clock Range 120 Hr. Clock No. _____

Static Pressure Data

Well Shut-in _____
Shut-in Time (total) _____
Shut-in Tubing Pressure _____ psig
Shut-in Casing Pressure _____ psig
Temperature at _____ feet _____ °F
Top of Oil _____
Top of Water _____
Pressure @ Datum _____ psig
Date of Last Test _____
Shut-in Time, Last Test _____
Pressure @ Datum, Last Test _____ psig

Flow Test Data

Choke Size _____ in
Period of Stabilized Flow _____ hrs
Stabilized Production
Oil _____ bbls/day
Gas _____ MCF/day
Water _____ bbls/day
Flowing Tubing Pressure _____ psig
Flowing Casing Pressure _____ psig

Remarks:

Operator: _____

Calculated by: _____

Company AMOCO PRODUCTION COMPANY
Lease Fawcett & Sons Well No. 1
Field Wildcat State Utah
Test Date Sept. 13 to 17, 1979
Zero Point G. L.
T.D. _____
PBTD _____
KB= _____

Time	Press. @ .....ft.	Δt hrs.	Tubing Press.	Casing Press.	Ext. in.
0	1268				.241
.25	1863				.354
.50	2306				.439
.75	2727				.520
1.	3065				.585
1.25	3351				.640
1.50	3647				.697
1.75	3917				.749
2.	4155				.795
2.25	4362				.835
2.50	4537				.869
2.75	4693				.899
3.	4832				.926
4.	4997				.958
5.	5235				1.004
6.	5370				1.030
7.	5483				1.052
8.	5566				1.066
9.	5607				1.076
10.	5659				.086
11.	5711				1.096
12.	5742				1.102
13.	5767				1.107
14.	5793				1.112
15.	5829				1.119
16.	5850				1.123
17.	5876				1.128
18.	5891				1.131

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DIVISION OF
OIL, GAS & MINING

Box 156
Casper, Wyo. 82601
Area Code 307
Tel. 235-5264

C. A. White
Wire Line Well Service

Box 962
Soldotna, Alaska 99669
Area Code 913
Tel. 262-4496

SUBSURFACE PRESSURE SURVEY

Producing Formation _____
Elevation GRD _____
Elevation KB _____
Datum _____ subsea, or _____
Tubing _____ Set _____
Casing _____ Set _____
Production Packer _____

Perforations _____

Subsurface Controls (Nipples, etc.) _____

Instrument Data

Element Range 10,200 Element No. 15253
Clock Range 120 Hr Clock No. _____

Static Pressure Data

Well Shut-in _____
Shut-in Time (total) _____
Shut-in Tubing Pressure _____ psig
Shut-in Casing Pressure _____ psig
Temperature at _____ feet _____ °F
Top of Oil _____
Top of Water _____
Pressure @ Datum _____ psig
Date of Last Test _____
Shut-in Time, Last Test _____
Pressure @ Datum, Last Test _____ psig

Flow Test Data

Choke Size _____ in
Period of Stabilized Flow _____ hrs
Stabilized Production
Oil _____ bbls/day
Gas _____ MCF/day
Water _____ bbls/day
Flowing Tubing Pressure _____ psig
Flowing Casing Pressure _____ psig

Remarks:

Operator: _____

Calculated by: _____

Company AMOCO PRODUCTION COMPANY
Lease Fawcett & Sons Well No. 1
Field Wildcat State Utah
Test Date Sept. 13 to 17, 1979
Zero Point G. L.
T.D. _____
PBTD _____
KB= _____

Time	Press. @ .....ft.	Δt hrs.	Tubing Press.	Casing Press.	Ext. in.
19	5912				1.135
20	5938				1.140
21	5953				1.143
22	5969				1.146
23	5984				1.149
24	6005				1.153
25	6026				1.157
26	6051				1.162
27	6067				1.165
28	6077				1.167
29	6087				1.169
30	6108				1.173
31	6118				1.175
32	6128				1.177
33	6138				1.179
34	6149				1.181
35	6154				1.182
36	6164				1.184
37	6174				1.186
38	6179				1.187
39	6190				1.189
40	6195				1.190
41	6205				1.192
42	6210				1.193
43	6215				1.194
44	6221				1.195
45	6226				1.196
46	6231				1.197

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SUBSURFACE PRESSURE SURVEY

Producing Formation _____
Elevation GRD _____
Elevation KB _____
Datum _____ subsea, or _____
Tubing _____ Set _____
Casing _____ Set _____
Production Packer _____

Perforations _____

Subsurface Controls (Nipples, etc.) _____

Instrument Data

Element Range 10,200 Element No. 15253
Clock Range 120 Hr. Clock No. _____

Static Pressure Data

Well Shut-in _____
Shut-in Time (total) _____
Shut-in Tubing Pressure _____ psig
Shut-in Casing Pressure _____ psig
Temperature at _____ feet _____ °F
Top of Oil _____
Top of Water _____
Pressure @ Datum _____ psig
Date of Last Test _____
Shut-in Time, Last Test _____
Pressure @ Datum, Last Test _____ psig

Flow Test Data

Choke Size _____ in
Period of Stabilized Flow _____ hrs
Stabilized Production
Oil _____ bbls/day
Gas _____ MCF/day
Water _____ bbls/day
Flowing Tubing Pressure _____ psig
Flowing Casing Pressure _____ psig

Remarks:

Operator: _____

Calculated by: _____

Company AMOCO PRODUCTION COMPANY
Lease Fawcett & Sons Well No. 1
Field Wildcat State Utah
Test Date Sept. 13 to 17, 1979
Zero Point G. L.
T.D. _____
PBTD _____
KB= _____

Time	Press. @ .....ft.	Δt hrs.	Tubing Press.	Casing Press.	Ext. in.
47	6236				1.198
48	6241				1.199
49	6246				1.200
50	6251				1.201
51	6251				1.201
52	6256				1.202
53	6262				1.203
54	6267				1.204
55	6272				1.205
56	6277				1.206
57	6277				1.206
58	6277				1.206
59	6282				1.207
60	6287				1.208
61	6292				1.209
62	6292				1.209
63	6292				1.209
64	6292				1.209
65	6297				1.210
66	6303				1.211
67	6303				1.211
68	6308				1.212
69	6308				1.212
70	6308				1.212
71	6313				1.213
72	6313				1.213
73	6313				1.213
74	6318				1.214

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SUBSURFACE PRESSURE SURVEY

Producing Formation _____
Elevation GRD _____
Elevation KB _____
Datum _____ subsea, or _____
Tubing _____ Set _____
Casing _____ Set _____
Production Packer _____

Perforations _____

Subsurface Controls (Nipples, etc.) _____

Instrument Data

Element Range 10,200 Element No. 15253
Clock Range 120 Hr. Clock No. _____

Static Pressure Data

Well Shut-in _____
Shut-in Time (total) _____
Shut-in Tubing Pressure _____ psig
Shut-in Casing Pressure _____ psig
Temperature at _____ feet _____ °F
Top of Oil _____
Top of Water _____
Pressure @ Datum _____ psig
Date of Last Test _____
Shut-in Time, Last Test _____
Pressure @ Datum, Last Test _____ psig

Flow Test Data

Choke Size _____ in
Period of Stabilized Flow _____ hrs
Stabilized Production
Oil _____ bbls/day
Gas _____ MCF/day
Water _____ bbls/day
Flowing Tubing Pressure _____ psig
Flowing Casing Pressure _____ psig

Remarks:

Operator: _____

Calculated by: _____

Company AMOCO PRODUCTION COMPANY
Lease Fawcett & Sons Well No. 1
Field Wildcat State Utah
Test Date Sept. 13 to 17, 1979
Zero Point G. L.
T.D. _____
PBTD _____
KB= _____

Time	Press. @ .....ft.	Δt hrs.	Tubing Press.	Casing Press.	Ext. in.
75	6318				1.214
76	6349				1.220
77	6349				1.220

ØN LAST READING @ 05:00 .458MMCF.

*** 09-08-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW ØR SWAB, DAYS: SPUD 343, ØPER 343
RMKS: FLØW THRU PØRTA TEST FRØM 04:00 090779 THRU 10:00 090779.
104MCF GAS 4.56BBL CØND. 1.71BBL WTR. SI @ 10:00 FØR BUILDUP.
SITP 1222 ØPEN TØ PIT FLØW GAS X CØND W/ VERY LITTLE WTR UNTIL
12:18 PRESS 75# SI. RU BJ HUGHES TEST LINES ACIDIZE W/ 3450
GAL 15% HCL W/ 10GPT J-10 DEMULSIFIER 6GPT C-15 INHIBITØR 10
PT SA-10 IRØN SEQ AGENT. HAD ABØUT HØ LEAK WHEN ACD HIT PERFS
MAX TREAT PRESS 7630 @ 2.8BPM. FLUSH W/ 94BBL 2% KCL AVG TREAT
PRESS 7230 @ 2.7BPM. CSG 4000# ISIP 6800 15MIN 4470 2HRS 1600
ØPEN TØ PIT FLØW WTR PRESS DECR TØ 0 IN 2MIN BUT CØNTINUED TØ
FLØW 1/2IN STREAM. SI 5:30PM FØR BUILDUP. 6:00PM SITP 170#
ØPEN TØ PIT BLED ØFF LESS THAN 1MIN BUT CØNTINUED TØ FLØW 1/2
INCH STREAM. 7:30PM SIFN. FØUND SEAT IN CK HAD BRØKEN
APPARENTALY FRØM H2S EMBRITTLEMENT. CK NØT H2S TRIM X WAS
SUSPØSED TØ BE. PURCHASED FRØM NATIØNAL SUPPLY. BLN REC TØDAY
15 TØTAL REC 15 LEFT TØ REC 163.

*** 09-09-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW TEST., DAYS: SPUD 344, ØPER 344
RMKS: SITP 500PSI. SICP 100PSI. ØPEN TØ PIT 7:45AM SMALL FARE PRESS
DRØPPED TØ 0 FLØW WTR DIED @ 9:25AM. SI SITP @ 10:25AM 200PSI.
ØPEN TØ PIT FLØW WTR @ 11:10AM STARTED UNLØADING @ 500PSI.
AT 12:05 HAD GØØD FLARE FLØW THRU PØRTA TEST SEPARATØR @ 12:30
090879 THRU 05:00 090979 16 1/2HR. PRØD 1.275MMCF AS ØF 5AM
2.16 MMCFD PRØD 53.6 BBL CØND. 24.62BBL WTR H2S 18%. PH-7
CL 90000PPM.

*** 09-10-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,
IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLØW TESTING., DAYS: SPUD 345, ØPER 345
RMKS: FLØW THRU PØRTA TEST SEPERATØR 090979 0500 TØ THRU 0500 091079.
AVERAGE RATE 2.26MM CFD. 46.7BBLS CØND. 7.4BW 8.3% H2S.
TBG FLØWING PRESS 190PSI. 56/64 CK.

*** 09-11-79***

AMØCØ-CHAMPLIN-FAWCETT & SØNS #1, WILDCAT,

IDENT 974742-01-7, AUTH TD 15500, DRL-EXP-TIGHT,
FLW TST, DAYS: SPUD 346, ØPER 346
RMKS: FLØW TEST 24HRS 56/64 CC. 199# FTP. RECØVERED 2214 MCFD
GAS. 57 BBLS CØNDENSATE. 9 BW. H2S 8.4%.
-END-

AMØCO PRØDUCTIØN COMPANY DAILY DRILLING WIRE - CUMULATIVE REPØRT

DENVER REGIØN *** SALT LAKE CITY DISTRICT*** 09-18-79

*** COMPANY ØPERATED - DRILLING -EXPLØRATØRY ***

*** 09-12-79***

RØCKPØRT RES WI UNIT #1, WILDCAT,
IDENT 975037-01-6, AUTH TD 12500, DRL-EXP,
PBTD 12103, WØ PXA, DAYS: SPUD 235, ØPER 235

*** 09-13-79***

RØCKPØRT RES WI UNIT #1, WILDCAT,
IDENT 975037-01-6, AUTH TD 12500, DRL-EXP,
PBTD 12103, WØ PXA., DAYS: SPUD 236, ØPER 236

*** 09-14-79***

RØCKPØRT RES WI UNIT #1, WILDCAT,
IDENT 975037-01-6, AUTH TD 12500, DRL-EXP,
PBTD 12103, WØ PXA., DAYS: SPUD 237, ØPER 237

*** 09-15-79***

RØCKPØRT RES WI UNIT #1, WILDCAT,
IDENT 975037-01-6, AUTH TD 12500, DRL-EXP,
PBTD 12103, WØ PXA., DAYS: SPUD 238, ØPER 238

*** 09-16-79***

RØCKPØRT RES WI UNIT #1, WILDCAT,
IDENT 975037-01-6, AUTH TD 12500, DRL-EXP,
PBTD 12103, WØ PXA., DAYS: SPUD 239, ØPER 239

*** 09-17-79***

RØCKPØRT RES WI UNIT #1, WILDCAT,
IDENT 975037-01-6, AUTH TD 12500, DRL-EXP,
PBTD 12103, WØ PXA., DAYS: SPUD 240, ØPER 240
-END-

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SUBSURFACE PRESSURE SURVEY

Producing Formation _____
Elevation GRD _____
Elevation KB _____
Datum _____ subsea, or _____
Tubing _____ Set _____
Casing _____ Set _____
Production Packer _____

Perforations _____

Subsurface Controls (Nipples, etc.) _____

Instrument Data

Element Range 12,200 Element No. 32406
Clock Range 180 Hr. x ½ Clock No. _____

Static Pressure Data

Well Shut-in _____
Shut-in Time (total) _____
Shut-in Tubing Pressure _____ psig
Shut-in Casing Pressure _____ psig
Temperature at _____ feet _____ °F
Top of Oil _____
Top of Water _____
Pressure @ Datum _____ psig
Date of Last Test _____
Shut-in Time, Last Test _____
Pressure @ Datum, Last Test _____ psig

Flow Test Data

Choke Size _____ in
Period of Stabilized Flow _____ hrs
Stabilized Production
Oil _____ bbls/day
Gas _____ MCF/day
Water _____ bbls/day
Flowing Tubing Pressure _____ psig
Flowing Casing Pressure _____ psig

Remarks:

Operator: _____

Calculated by: _____

Company AMOCO PRODUCTION COMPANY
Lease Fawcett & Sons Well No. 1
Field Wildcat State Utah
Test Date Sept. 13 to 17, 1979
Zero Point G. L.
T.D. _____
PBTD _____
KB= _____

Time	Press. @ .....ft.	Δt hrs.	Tubing Press.	Casing Press.	Ext. in.
0	1134				.182
.25	2111				.339
.50	2142				.344
.75	2297				.369
1	2780				.447
1.25	2966				.477
1.50	3201				.515
1.75	3412				.549
2	3604				.580
2.25	3833				.617
2.50	3988				.642
2.75	4154				.669
3	4295				.692
4	4751				.766
5	5040				.813
6	5231				.844
7	5366				.866
8	5452				.880
9	5514				.890
10	5563				.898
11	5600				.904
12	5643				.911
13	5680				.917
14	5717				.923
15	5742				.927
16	5766				.931
17	5791				.935
18	5815				.939

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SUBSURFACE PRESSURE SURVEY

Producing Formation _____
Elevation GRD _____
Elevation KB _____
Datum _____ subsea, or _____
Tubing _____ Set _____
Casing _____ Set _____
Production Packer _____

Perforations _____

Subsurface Controls (Nipples, etc.) _____

Instrument Data

Element Range 12,200 Element No. 32406
Clock Range 180 Hr. x ½ Clock No. _____

Static Pressure Data

Well Shut-in _____
Shut-in Time (total) _____
Shut-in Tubing Pressure _____ psig
Shut-in Casing Pressure _____ psig
Temperature at _____ feet _____ °F
Top of Oil _____
Top of Water _____
Pressure @ Datum _____ psig
Date of Last Test _____
Shut-in Time, Last Test _____
Pressure @ Datum, Last Test _____ psig

Flow Test Data

Choke Size _____ in
Period of Stabilized Flow _____ hrs
Stabilized Production
Oil _____ bbls/day
Gas _____ MCF/day
Water _____ bbls/day
Flowing Tubing Pressure _____ psig
Flowing Casing Pressure _____ psig

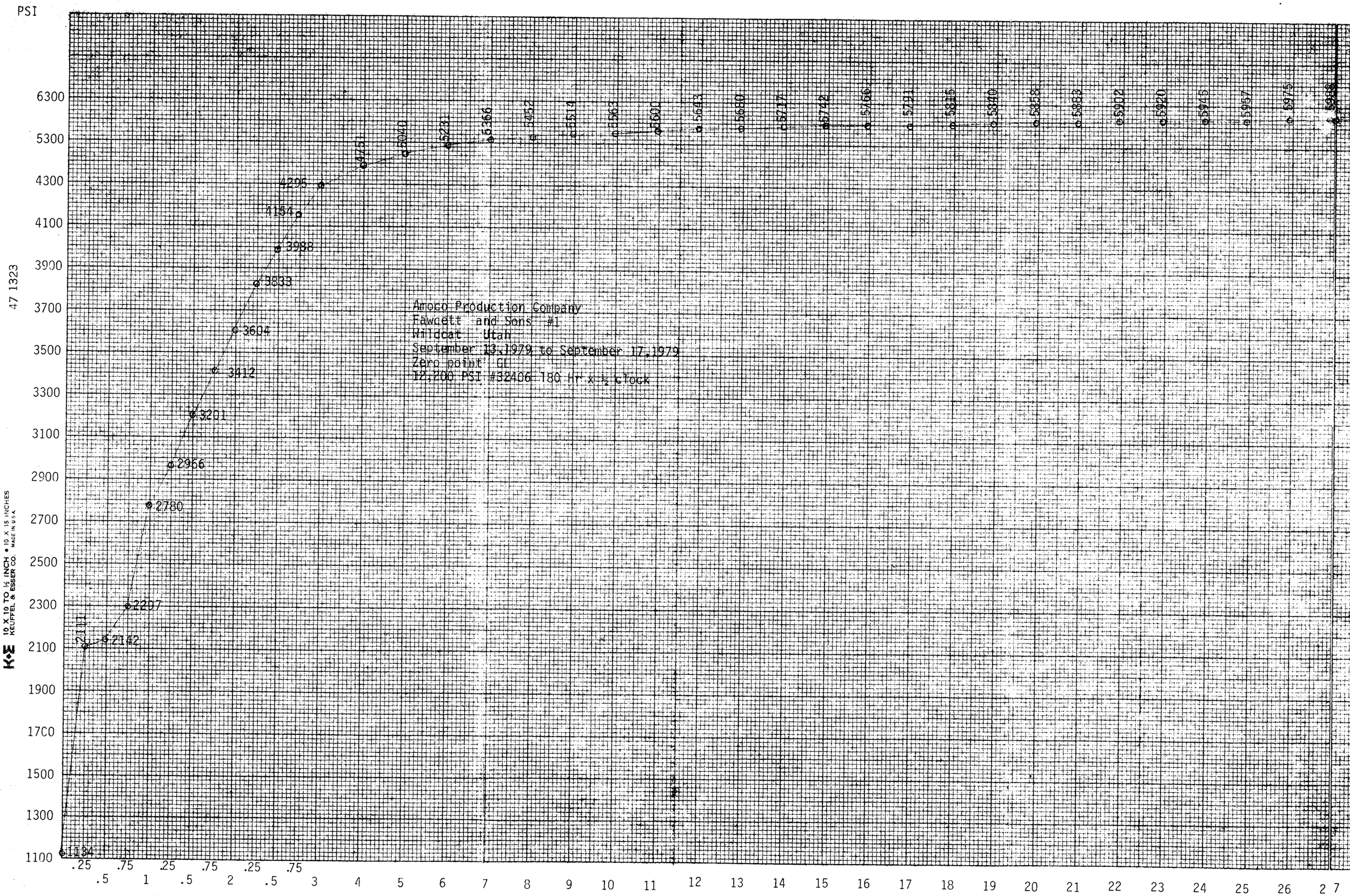
Remarks:

Operator: _____

Calculated by: _____

Company AMOCO PRODUCTION COMPANY
Lease Fawcett & Sons Well No. 1
Field Wildcat State Utah
Test Date Sept. 13 to 17, 1979
Zero Point G. L.
T.D. _____
PBTD _____
KB= _____

Time	Press. @ .....ft.	Δt hrs.	Tubing Press.	Casing Press.	Ext. in.
19	5840				.943
20	5858				.946
21	5883				.950
22	5902				.953
23	5920				.956
24	5945				.960
25	5957				.962
26	5975				.965
27	5988				.967
28	6006				.970
29	6024				.973
30	6031				.974
31	6049				.977
32	6061				.979
33	6073				.981
34	6086				.983
35	6092				.984
36	6098				.985
37	6110				.987
38	6122				.989
39	6135				.991
40	6141				.992
41	6147				.993
42	6153				.994
43	6165				.996
44	6171				.997
45	6183				.999


PSI
6300
5300
4300
4100
3900
3700
3500
3300
3100
2900
2700
2500
2300
2100
1900
1700
1500
1300
1100
47 1323
K+E 10 X 10 TO ½ INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.
Amoco Production Company
Fawcett and Sons #1
Wildcat Utah
September 13,1979 to September 17,1979
Zero point GL
12,200 PSI #32406 180 Hr x ½ clock
1134
2142
2297
2780
2956
3201
3412
3604
3833
3988
4154
4295
4475
5040
5231
5366
5452
5514
5563
5603
5643
5680
5717
5742
5766
5791
5815
5840
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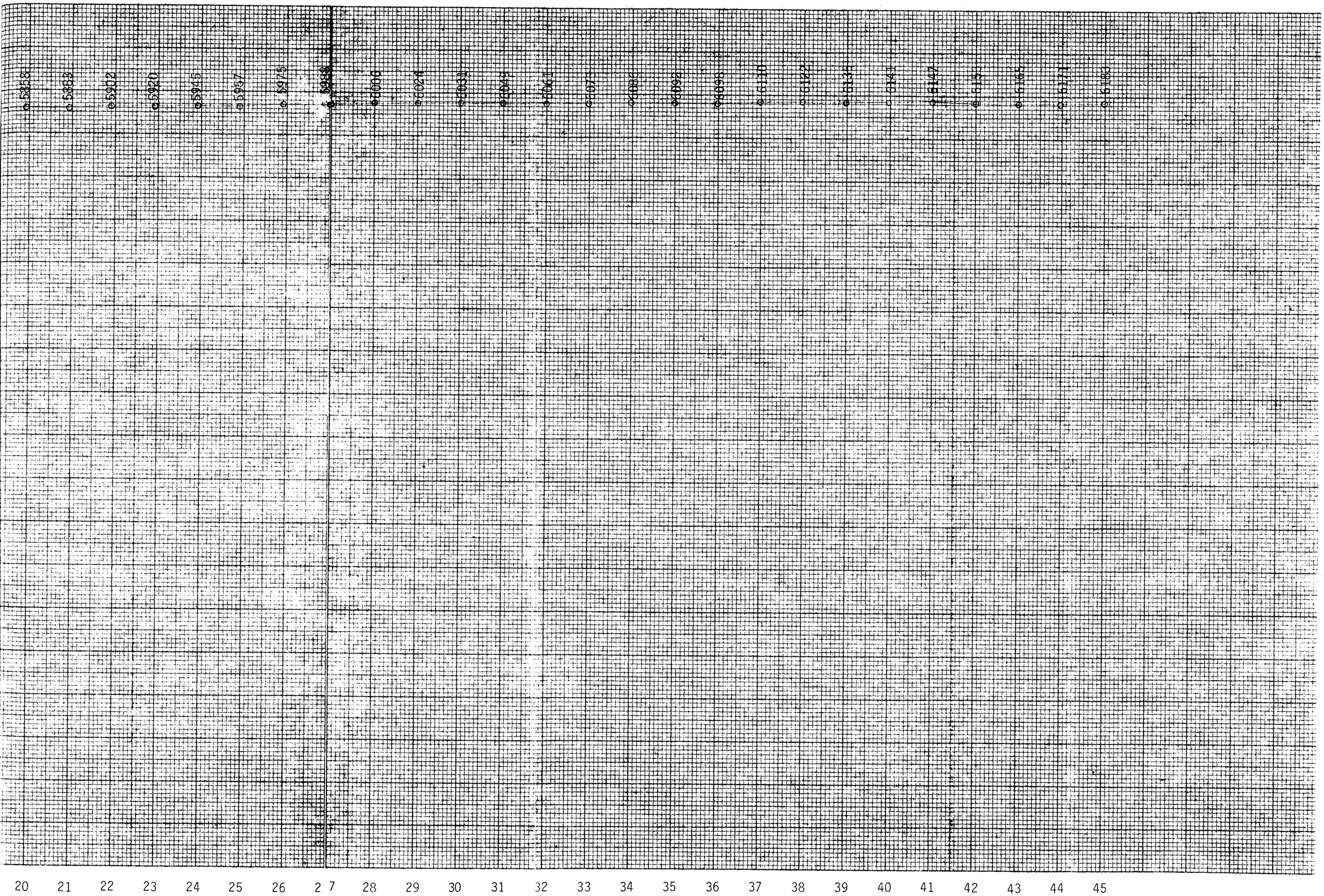
.25 .75 .25 .75 .25 .75
.5 1 .5 2 .5 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27


5858
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JOB NUMBER
SPS-11538

DATE OF JOB
OCTOBER 9-14, 1979

GAUGE/RUN NUMBER
GAUGE NO. 481 RUN NO. 1

DATE OF RUN
OCTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
37.617	5910.154	0.3493E+08	07	37	OCT 14,1979	
37.892	5912.508	0.3496E+08	07	53	OCT 14,1979	
38.166	5914.862	0.3499E+08	08	10	OCT 14,1979	
38.441	5916.981	0.3501E+08	08	26	OCT 14,1979	
38.715	5919.335	0.3504E+08	08	43	OCT 14,1979	
38.990	5921.689	0.3507E+08	08	59	OCT 14,1979	
39.264	5924.044	0.3509E+08	09	16	OCT 14,1979	
39.539	5926.633	0.3512E+08	09	32	OCT 14,1979	
39.814	5928.752	0.3515E+08	09	49	OCT 14,1979	
40.088	5930.871	0.3518E+08	10	05	OCT 14,1979	
40.363	5929.929	0.3516E+08	10	22	OCT 14,1979	
40.500	5933.225	0.3520E+08	10	30	OCT 14,1979	END OF TEST

234 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11538

DATE OF JOB
OCTOBER 9-14, 1979

GAUGE/RUN NUMBER
GAUGE NO. 481 RUN NO. 1

DATE OF RUN
OCTOBER 9-14, 1979

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
27.458	5803.982	0.3369E+08	21	27	OCT 13,1979	
27.732	5807.514	0.3373E+08	21	44	OCT 13,1979	
28.007	5810.809	0.3377E+08	22	00	OCT 13,1979	
28.281	5814.341	0.3381E+08	22	17	OCT 13,1979	
28.556	5817.636	0.3384E+08	22	33	OCT 13,1979	
28.831	5820.932	0.3388E+08	22	50	OCT 13,1979	
29.105	5823.993	0.3392E+08	23	06	OCT 13,1979	
29.380	5827.288	0.3396E+08	23	23	OCT 13,1979	
29.654	5830.113	0.3399E+08	23	39	OCT 13,1979	
29.929	5833.644	0.3403E+08	23	56	OCT 13,1979	
30.203	5836.470	0.3406E+08	00	12	OCT 14,1979	
30.478	5839.530	0.3410E+08	00	29	OCT 14,1979	
30.753	5842.119	0.3413E+08	00	45	OCT 14,1979	
31.027	5843.061	0.3414E+08	01	02	OCT 14,1979	
31.302	5848.240	0.3420E+08	01	18	OCT 14,1979	
31.576	5851.771	0.3424E+08	01	35	OCT 14,1979	
31.851	5854.126	0.3427E+08	01	51	OCT 14,1979	
32.125	5857.186	0.3431E+08	02	08	OCT 14,1979	
32.400	5860.011	0.3434E+08	02	24	OCT 14,1979	
32.675	5862.836	0.3437E+08	02	40	OCT 14,1979	
32.949	5865.661	0.3441E+08	02	57	OCT 14,1979	
33.224	5868.486	0.3444E+08	03	13	OCT 14,1979	
33.498	5871.782	0.3448E+08	03	30	OCT 14,1979	
33.773	5874.136	0.3451E+08	03	46	OCT 14,1979	
34.047	5876.725	0.3454E+08	04	03	OCT 14,1979	
34.322	5879.550	0.3457E+08	04	19	OCT 14,1979	
34.597	5882.375	0.3460E+08	04	36	OCT 14,1979	
34.871	5884.965	0.3463E+08	04	52	OCT 14,1979	
35.146	5887.319	0.3466E+08	05	09	OCT 14,1979	
35.420	5890.144	0.3469E+08	05	25	OCT 14,1979	
35.695	5892.733	0.3472E+08	05	42	OCT 14,1979	
35.969	5895.088	0.3475E+08	05	58	OCT 14,1979	
36.244	5897.913	0.3479E+08	06	15	OCT 14,1979	
36.519	5900.267	0.3481E+08	06	31	OCT 14,1979	
36.793	5902.621	0.3484E+08	06	48	OCT 14,1979	
37.068	5905.210	0.3487E+08	07	04	OCT 14,1979	
37.342	5907.800	0.3490E+08	07	21	OCT 14,1979	

Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ____ OF ____ SHEETS

STATE Utah COUNTY PARISH Morgan AREA FIELD Overthrust

SECTION 36 BLOCK TWP 5N SURVEY RANGE 7E

COMPANY Amoco Production Company

LEASE Fawcett & Sons Inc WELL NO. #1

DATE	REMARKS
9-13-79	PBTD 15,563' tstg, 56/64" ck, 2.44 MMCFD, 78 BC, 4 BW, 8.4% H2S, no BHP yet, WO WL truck.
9-14-79	PBTD 15,563', run BHP bomb.
9-17-79	Weekend Summary: PBTD 15,563', SI for BHP BU.
9-18-79	15,563' pulling bombs, TI, drag 8042', set dwn, worked to bombs @ 15,304' TO, no rec'y, reran tight at collars - no rec'y.
9-19-79	2 7/8" & 2 3/8" tbg in hole, could not recover bombs, SITP & SICP 4100 PSI, bled to pit from casing, side communication, pmpd 1bbl in tbg, returns on csg, killed well.
9/20/79	PTD 15563. Pumped 22 bbls down tubing to fill hole. Tracer pumped 12 bbls, returns on casing. 600 ppm H2s - killing well to pull tubing.
9/21/79	PB 15,563, pull tubing. tubing parted 43' below tree. PU OS. Tag fish at 68' start TO.
9-24-79	PBTD 15,563' run in w/tbg, apparently rec'd tbg OK.
9-25-79	PBTD 15,563' fishing blanking plug. finish TI X tbg, set Model "D" PKR @ @ 15,310', test csg to 1500#, set plug in "F" nipple @ 15,271' tbg would not test, pull probe out of plug.
9-26-79	PBTD 15,563' prep to pull tbg to rec CCL & blanking plug, CCL pulled out of socket.
9-27-79	PBTD 15,568' prep to swb, rec'd blanking plug & CCL tools,. TIX LD tbg.
9-28-79	PBTD 15,563' flow test (these are old perfs, did not make new perfs), TI X tbg, PKR @ 15,310', ND BOP's, NU tree, swb 2 1/4 hrs to 4800', rec 56 bbls load, well started flwg, flw 9 1/2 hrs 56/64" ck, FTP 112#, flw rate 1170 MCFGPD, rec 9.7 BC, 29 BW, H2S 9.7%.
9-29-79	No report.
10-1-79	PBTD 15,563', flw test, BHP bombs stopped @ 11,405',, 1.7 MMCFGPD, 28 BC, (time, choke, FTP-no report).
10-2-79	PBTD 15,563' TO X tbg to rec, BHP bombs?, killed w/9.5#/gal KCL wtr.
10-3-79	15,563' running tbg.
10-4-79	PBTD 15,563' SD rig repair, ran tbg in hole, ran gauge ring to 12,795'.
10-5-79	PBTD 15,563' SD rig repair.
10-8-79	PBTD 15,563', prep to run BHP survey, flw 24 hrs on 56/64" ck, FTP/NR, made 883 MCFGPD, 30 BC, 25 BLW, 109 BLWLTR.
10-9-79	PBTD 15,563' flw testing, attempted to run BHP survey, bomb stopped @ 11,786' stuck, rec bomb, flw on 56/64" ck, FTP 127#, flow1.6 MMCFGPD, rec 23 BC, 16 1/2 BW, 8.6% H2S, time of flow NR.
10/10/79	PBD 15,563 SIBHP survey. Flwd 6 1/2 hrs. 54/64" ch 1.72 MMCFGPD 12 BD 4 1/2 BW. H2 S8.4% FTPNR. Ran BHP bombs to 15,260. Flw 8 hrs 22/64" ch FTP 2263# 608 MCFGPD 19 BC 1 BW H2s 13.96%
10-11-79	PBTD 15,563', SI for BHP survey, flw 8 hrs on 16/64" ck, FTP 2800#, made 1.76 MMCFGPD, rec 23 BC, 1 BW, 11% H2S, (check 7" to 9 5/8" annulus, 0#) are running 3 point Synch. test.
10-12-79	PBTD 15,560' flw testing, 4 hrs SITP 3700#, flw 11 hrs, 56/64" ck, FTP 145#, flow 2.09 MMCFGPD, 40 BC, 10 BW, 11.68% H2S.
10-15-79	PBTD 15,563' SI BHP survey, SITP 3705#, pulled bombs, still building, re-ran bombs, SITP 3827# this AM.

Form 998 2-71

PETROLEUM ANALYTICAL LABORATORY SERVICE
P.O. BOX 152 * 24 HOUR PHONE 307/265-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . 1848

DATE RUN: 12/27/79

A SAMPLE OF: SWAB WATER FROM AMOCO PRODUCTION CO.
SAMPLE FROM: WILDCAT #1 FAWCETT&SONS 12/15/79 SUMMIT UTAH
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	29550.12	1285.43
POTASSIUM-K	1060	27.14
CALCIUM-CA	1180	58.88
MAGNESIUM-MG	114.8	9.44
BARIUM-BA	0	0
TOTAL CATIONS	31904.92	1380.88

ANIONS		
CHLORIDE-CL	44000	1240.8
SULFATE-SO4	2310	48.05
CARBONATE-CO3	0	0
BICARBONATE-HCO3	5612	92.04
TOTAL ANIONS	51922	1380.88

TOTAL DISSOLVED SOLIDS(CALC.) 83826.92

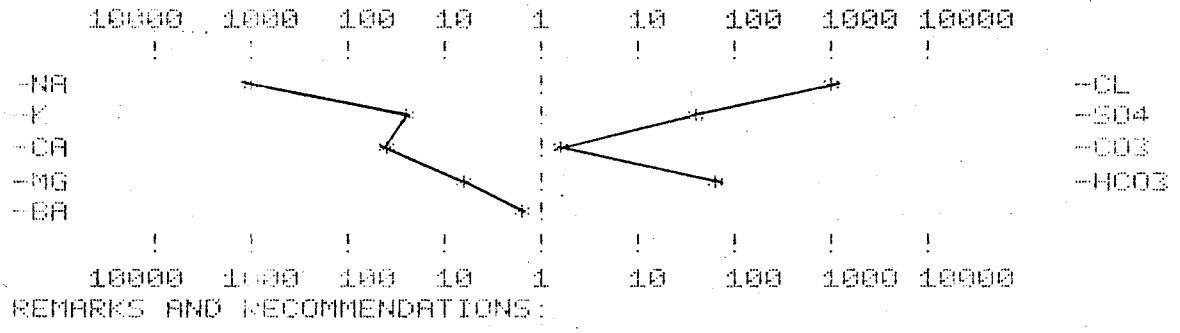
OTHER PROPERTIES

PH 6.9
RESISTIVITY(OHM-METERS). 77 F .099

IRON-FE (TOTAL) X
SULFIDE AS H2S X

RECEIVED
JAN 16 1980
DIVISION OF
OIL, GAS & MINING

WATER PATTERNS--ME/L
LOGARITHMIC



REMARKS AND RECOMMENDATIONS:

COPIES TO:
Dave Blosser
P.O. Box 17675
Salt Lake City, Utah 84117

Roy Thornok

ANALYSIS BY: E.M. Hauck

MD GL

A DIVISION OF [illegible]
PETROLEUM ANALYTICAL LABORATORY SERVICE
P. O. BOX [illegible]52 * 24 HOUR PHONE 307/26[illegible]1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 1850

DATE RUN: 12/27/79

A SAMPLE OF: WATER FROM AMOCO PRODUCTION CO.
SAMPLE FROM: FAWCETT & SONS #2 12/14/79
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	33886.79	1474.08
POTASSIUM-K	920	23.55
CALCIUM-CA	1274.4	63.59
MAGNESIUM-MG	143.5	11.8
BARIUM-BA	0	0
TOTAL CATIONS	36224.69	1573.02

ANIONS

CHLORIDE-CL	50500	1424.1
SULFATE-SO4	2850	59.28
CARBONATE-CO3	0	0
BICARBONATE-HCO3	5465.6	89.64
TOTAL ANIONS	58815.6	1573.02

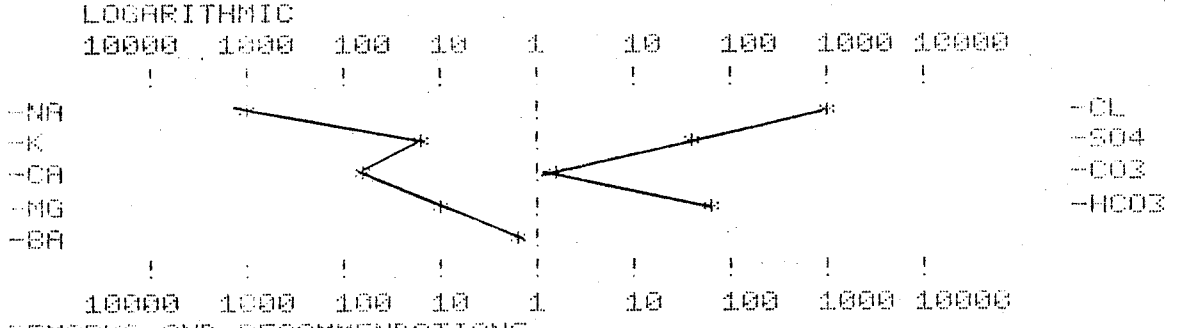
TOTAL DISSOLVED SOLIDS(CALC.)
95040.29

OTHER PROPERTIES

PH 7.1
RESISTIVITY(OHM-METERS), 77 F .08

IRON-FE (TOTAL) X
SULFIDE AS H2S X

WATER PATTERNS--ME/L
LOGARITHMIC



REMARKS AND RECOMMENDATIONS:

COPIES TO:

ANALYSIS BY: E. M. Hauck

MD GL

A DIVISION OF P.C. INC.
PETROLEUM ANALYTICAL LABORATORY SERVICE
P.O. BOX 3652 * 24 HOUR PHONE 307/265-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO...1852

DATE RUN: 12/27/79

A SAMPLE OF: WATER FROM AMOCO PRODUCTION CO.
SAMPLE FROM: FAWCETT & SONS #1 SUMMIT UTAH 12/14/779 MADISON FM FLOWLINE
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	62024.37	2698.06
POTASSIUM-K	1080	27.65
CALCIUM-CA	991.2	49.46
MAGNESIUM-MG	0	0
BARIUM-BA	0	0
TOTAL CATIONS	64095.57	2775.17

ANIONS		
CHLORIDE-CL	94000	2650.8
SULFATE-SO4	2650	55.12
CARBONATE-CO3	936	31.17
BICARBONATE-HCO3	0	0
HYDROXIDE-OH	680	38.08
TOTAL ANIONS	98266	2775.17

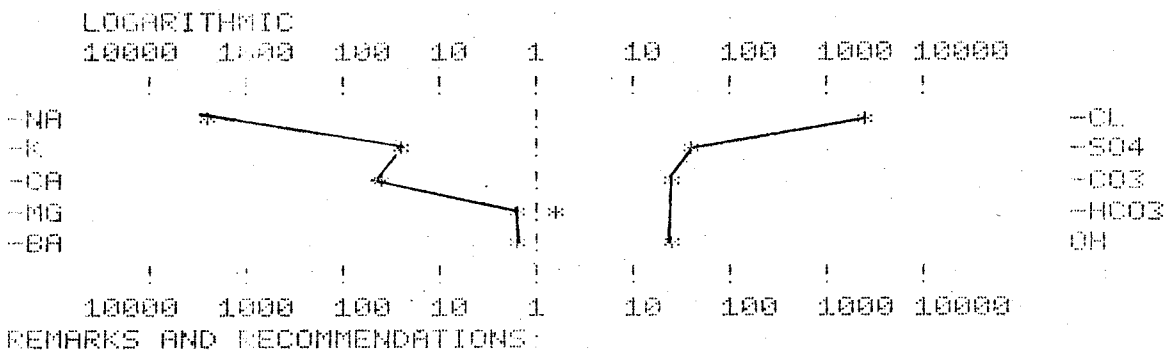
TOTAL DISSOLVED SOLIDS(CALC.)
162361.57

OTHER PROPERTIES

PH 11.2
RESISTIVITY(OHM-METERS), 77 F .064

IRON-FE (TOTAL) X
SULFIDE AS H2S X

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

COPIES TO:

ANALYSIS BY: E. M. Hamb

RECEIVED JAN 24 1980 DIVISION OF OIL, GAS & MINING

Amoco Production Company

SCOUT TICKET (Supplement)

SHEET ____ OF ____ SHEETS

STATE Utah COUNTY PARISH Morgan AREA FIELD Overthrust

SECTION 36 BLOCK TWP. 5N SURVEY RANGE 7E

COMPANY AMOCO PRODUCTION COMPANY

LEASE FAWCETT & SONS INC WELL NO. 1

DATE	REMARKS
	spl 2180-2240 sltstn a.a. trace shale brick rd occ. lavender. firm to sof slty blocky & calc.
12/9/79	PD 2380 drlg. made 114½ mud 9.0 Vis 30 WL 20 BGG 0-1 units dev. @ 2314 lg 1 deg. 2240-2360 siltstone-brk red-red brn; firm, calc., sdy in part; shale lav to lt gry-brn & tan, firm to soft & silty smooth waxy, blocky-flaky-calcareous sdstn rd brn-wht, vf-med grain sub to w. rd, friable-firm-clayfilled in part. calcareous.
12/11/79	PB 13711 TI w/small assembly. drlg. cement 13699-708. Free to 13711 Tst to 2000 Mod Dev. @ 13492
12/12/79	N/R prep to pref.
12/13/79	13,711' Prep to swab.
12/14/79	13,711', swbg. swb 7000' perf 13,586-702, 2 JSPF . FL rose to 2000 from 7000 SI overnight
12/17/79	PBD 13,711', SD rig rep. Prep to cut out pkr.
12/18/79	PBD 13,711', TI x bit to mill on pkr
12/19/79	PBD 13,711', T.O. w/bit & scraper @ 13,585.
12/20/79	PBD 13,711' TO. Set Made 1' K" pkr @ 13530 Squ w/ 150 sx @ 5500# Est 10 1/2" bbls (53 sx) into formation.
12/21/79	N/R
12/22/12/27	SI, No activity over holidays
12/28/79	PBD 13,530', RD loggers. Ran tracer, no info. Ran temp survey. Wtr in @ 13,350-400'.
12/29/12/31	PBD 13,530', Ran tracer survey & evaluating. Apparently going out perfs & down hole 15-30', (perfs 13,350-13,400, prep pluck pkr).
1/2/80	PBD 13,530 ', T.O. x tbg & model "D" after mill over pkr. Prep run ret & squeeze
1/3/80	NR
1/4/80	PBD 13,530', run bit & scraper. Set ret @ 13,200'. Ran tbg, squeeze to 1258 @ 6000#. 14 bbls in Fm. Rev out 5 bbls.
1/5/80	NR
1/6/80	NR
1/7/80	PBD 13,530', prep to swb. Set model "D" @ 13,209', perf 13,310-30, went on vacuum.
1/8/80	PBD 13,530', swbg . SITP 0, Swb 10 BLW. Acidize 3600 gal 15% HCL. Broke form @ 5000#, pumped 3200# @ 5½ BPM. Avg 3200# @ 2-½ BPM. ISIP 1900#. Went on vacuum. SI 3½ hrs. SITP 50#
1/9/80	PBD 13,500', swbg. FL 1500', swb to 3500', rec 110 BLW, 140 BLWTR. NO gas (District thinks acidized back into channel behind csg.)
1/10/80	Swab accasionally. FFL 1500'. 223 BLWR, 27 BLWTR. 4% H_2S.
1/11/80	13,530', PBD. Open to pit. Made 4 swb runs. FL 1200' to 1500'. Rec 24 B GCLW, 5' flare after swab. SD at 9:30 AM yesterday for storm
1/12/80	NR
1/13/80	NR
1/14/80	13,530', PBD. Fishing. Milled model D @ 13,209. No rec. left 4' extension, spear in hole. Ran OS
1/15/80	13,530, PBD T.O. with fishing tools. 9 hrs rig repair. TI with overshot Tag packer at 13,360', fish for packer and trip out.
1/16/80	13,530 PBD. TI with magnet. Did not recover packer. Packer, Packer plucker, and grapple off spear. Fish went down hole. Tag at 13,510.

Form 998 2-71

PETROLEUM ANALYTICAL LABORATORY SERVICE
P.O. BOX 752 * 24 HOUR PHONE 307/26 1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 1848

Completion well

DATE RUN: 12/27/79

A SAMPLE OF: SWAB WATER FROM ~~AMERA~~ PRODUCTION CO.
SAMPLE FROM: WILDCAT #1 FAWCETT&SONS 12/15/79 SUMMIT UTAH
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	29550.12	1285.43
POTASSIUM-K	1060	27.14
CALCIUM-CA	1180	58.88
MAGNESIUM-MG	114.8	9.44
BARIUM-BA	0	0
TOTAL CATIONS	31904.92	1380.88

ANIONS		
CHLORIDE-CL	44000	1240.8
SULFATE-SO4	2310	48.05
CARBONATE-CO3	0	0
BICARBONATE-HCO3	5612	92.04
TOTAL ANIONS	51922	1380.88

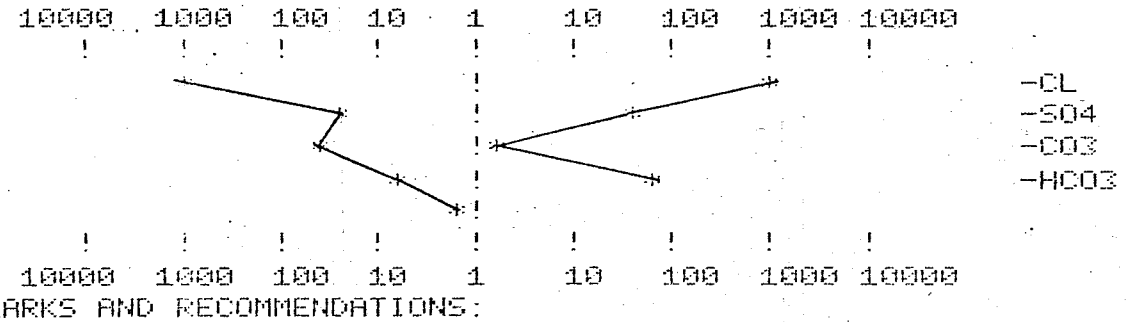
TOTAL DISSOLVED SOLIDS(CALC.) 83826.92

OTHER PROPERTIES

PH 6.9
RESISTIVITY(OHM-METERS) 77 F .099

IRON-FE (TOTAL) X
SULFIDE AS H2S X

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

COPIES TO:
Dave Blosser
P.O. Box 17675
Salt Lake City, Utah 84117

Roy Thornok

ANALYSIS BY: E. M. Hauck

MD GL

PETROLEUM ANALYTICAL LABORATORY SERVICE

P.O. BOX 752 * 24 HOUR PHONE 307/267 1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO...1850

DATE RUN: 12/27/79

A SAMPLE OF: WATER FROM AMOCO PRODUCTION CO.
SAMPLE FROM: FAWCETT & SONS #2 12/14/79
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	33886.79	1474.08
POTASSIUM-K	920	23.55
CALCIUM-CA	1274.4	63.59
MAGNESIUM-MG	143.5	11.8
BARIUM-BA	0	0
TOTAL CATIONS	36224.69	1573.02

ANIONS		
CHLORIDE-CL	50500	1424.1
SULFATE-SO4	2850	59.28
CARBONATE-CO3	0	0
BICARBONATE-HCO3	5465.6	89.64
TOTAL ANIONS	58815.6	1573.02

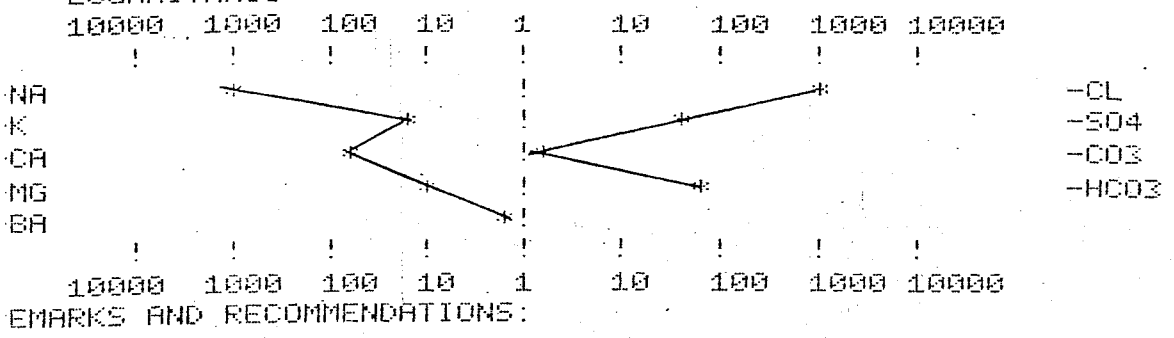
TOTAL DISSOLVED SOLIDS(CALC.) 95040.29

OTHER PROPERTIES

PH 7.1
RESISTIVITY(OHM-METERS), 77 F .08

IRON-FE (TOTAL) X
SULFIDE AS H2S X

WATER PATTERNS--ME/L
LOGARITHMIC



REMARKS AND RECOMMENDATIONS:

COPIES TO:

ANALYSIS BY: E.M. Hauck

MD GL

A DIVISION OF I.P.C. INC.

PETROLEUM ANALYTICAL LABORATORY SERVICE

P.O. BOX 52 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO...1852

DATE RUN: 12/27/79

A SAMPLE OF: WATER FROM AMOCO PRODUCTION CO.
SAMPLE FROM: FAWCETT & SONS #1 SUMMIT UTAH 12/14/779 MADISON FM FLOWLINE
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	62024.37	2698.06
POTASSIUM-K	1080	27.65
CALCIUM-CA	991.2	49.46
MAGNESIUM-MG	0	0
BARIUM-BA	0	0
TOTAL CATIONS	64095.57	2775.17

ANIONS		
CHLORIDE-CL	94000	2650.8
SULFATE-SO4	2650	55.12
CARBONATE-CO3	936	31.17
BICARBONATE-HCO3	0	0
HYDROXIDE-OH	680	38.08
TOTAL ANIONS	98266	2775.17

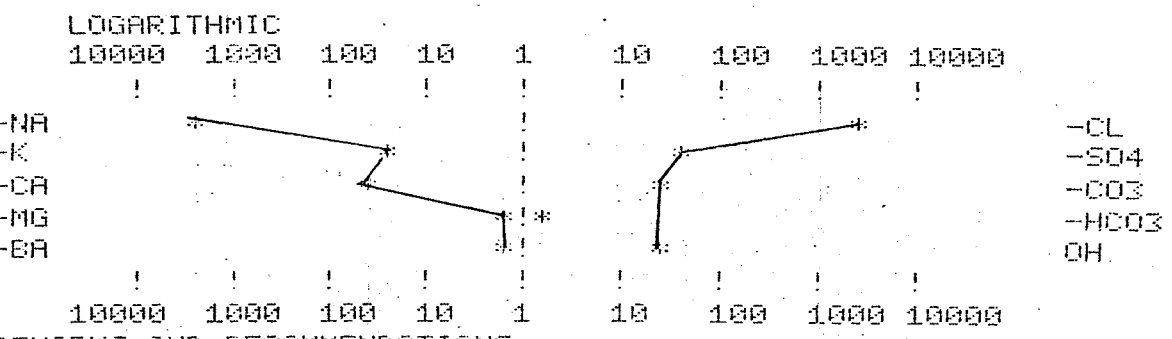
TOTAL DISSOLVED SOLIDS(CALC.)
162361.57

OTHER PROPERTIES

PH 11.2
RESISTIVITY(OHM-METERS), 77 F .064

IRON-FE (TOTAL) X
SULFIDE AS H2S X

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

COPIES TO:

ANALYSIS BY: E. M. Hamb

Form OGC-3

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN DUPLICATE (See other instructions on reverse side)

CORRECTED REPORT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: AMOCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR: P.O. Box 17675 Salt Lake City, Utah 84117

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: NW/4 NW/4 Sec. 36 694' FNL & 2159' FWL
At top prod. interval reported below
At total depth

Release Date: 7/31/80

5. LEASE DESIGNATION AND SERIAL NO.: Fee
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Amoco-Champlin-Fawcett & Son
9. WELL NO.: #1
10. FIELD AND POOL, OR WILDCAT: Wildcat
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 36, T5N, R7E SLBM
12. COUNTY OR PARISH: Summit
13. STATE: Utah
14. PERMIT NO.: 43-043-30078 DATE ISSUED: 7/12/78

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
9/30/78	5/30/79	12/31/79	6858' KB	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
18,055'	13,711'		→	Surf. - TD	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 15,396' - 15,435' 15,460' - 15,490' Madison

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: DIL, DLL, CNL, FDC, Sonic, FIL, Dipmeter

27. WAS WELL CORED: No

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"		1525'	26"	2250 sx	
13 3/8"		5601'	17 1/4"	3300 sx	
9 5/8"	47# - 40#	11,384'	12 1/4"	1325 sx	
7"	32#	18,055'	8 1/2"	450 sx	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
None				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8"	11,000'	

31. PERFORATION RECORD (*Interval, size and number*): See Attachment "A"

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
See Attachment "A"	

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
9/5/79	Flowing	Shut-In

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10/12/79	24	56/64"	→	66.06	2207		26,193:1

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
140	0	→	66.06	2207	18.20	

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Flared

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS: See Attachment "A"

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED [signature] TITLE Dist. Admin. Supervisor DATE 1/29/80

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
DST #1	6950'	7021'	Mis-run
DST #2	6950'	7021'	Rec. Gas-Cut Water
DST #3	6940'	7038'	Rec. Salt Water
DST #4	9360'	9396'	No Returns
DST #5	9594'	9631'	Thaynes
DST #6	11,327'	11,356'	Rec. H_2S Gas-Cut Mud
DST #7	11,353'	11,600'	Rec. Phosphoria Gas & Water

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Phosphoria	11,461'	
Weber	11,956'	
Amsden	12,751'	
Madison	13,069'	
Lodgepole	14,690'	
Fault	14,777'	
Madison/Morgan	14,880'	
Madison	15,257'	

ATTACHMENT "A" TO FORM OGC-3

Amoco - Champlin - Fawcett & Sons No. 1

Perforations	Stimulation or Squeeze	Packers, Cement Retainers, Cast Iron Bridge Plugs
11,461'- 11,484' 11,550'- 11,570' 11,626'- 11,642'	Acidize w/3,000 gal 7½% MCA	CIBP @ 11,440'
11,914'- 11,940' 12,048'- 12,104' 12,132'- 12,188' 12,195'- 12,215'	Acidize w/7,900 gal 7½% MCA	CIBP @ 11,890'
12,664'- 12,666'	Squeeze w/200 sx cl "G" cmt	
12,684'- 12,704' 12,762'- 12,784' 12,790'- 12,814' 12,902'- 12,950'	Squeeze w/200 sx cl "G" cmt	CR @ 12,580'
13,020'- 13,022'	Squeeze w/350 sx cl "G" cmt	CR @ 12,965'
13,278'- 13,280'	Squeeze w/125 sx cl "G" cmt	
13,310'- 13,346'	Squeeze w/125 sx cl "G" cmt	
13,310'- 13,330' (reperforate)	Acidize w/3,600 gal 15% HCL Squeeze w/100 sx cl "G" cmt	CR @ 13,188'
13,586'- 13,702'	Squeeze w/150 sx Cl "G"	CR @ 13,530'
13,718'- 13,720'	Squeeze w/165 sx Cl "G" Re-squeeze w/100 sx Cl "G"	
15,396'- 15,435' 15,460'- 15,490'	Acidize w/3450 gal. 15% HCL	CIBP @ 15,372'
15,663'- 15,724'	Acidize w/3050 gal. 15% MCA Squeeze w/100 sx Cl "G" Re-squeeze w/100 sx Cl "G"	PKR @ 15,610' CR at 15,570'
15,825'- 15,885'		PKR @ 15,744' CIBP @ 15,740'
16,270'- 16,410'	Acidize w/7000 gal. 15% MCA	PKR @ 16,170' CIBP @ 16,163'
16,465'- 16,600'	Acidize w/6750 gal. 7½% MCA Acidize w/6720 gal. 15% HCL	PKR @ 16,427' CIBP @ 16,423'
17,850'- 17,930'		PRK @ 17,743' CIBP @ 17,733'

Fawcett & Sons #1

DATE	REMARKS
1/17/80	13,530', PBD. TI with OS to rec packer
1/18/80	13,530', PBD, TI with overshot. Tag fish @ 13,523'. Rec packer top portion, fish for bottom section & stinger
1/21/80	13,530', PBD. Fishing (bottom ret. tool and stinger). Mill over 2½'. Rec small pieces of metal. TI with mill.
1/22/80	13,530', PBD. TI to squeeze; ret @ 13,188.
1/23/80	13,510', PBD. RU Schlumberger. Squeezed with 20 bbls cement. Final 5500 psi, 18 bbls into formation
1/24/80	Run casing inspection log. Some internal corrosion (minor). PU packer. TI with packer. Perf 13020-22 today, attempted to pmp.

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A DIVISION OF WPC, INC.

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 2883

DATE RUN: 4/8/80

A SAMPLE OF: WATER FROM AMOCO PRODUCTION CO
SAMPLE FROM: FAWCETT & SONS #1 3/30/80 HIGH STAGE SEPARATOR 11914-12224
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	35256.27	1533.65
POTASSIUM-K	1090	27.9
CALCIUM-CA	1014.8	50.64
MAGNESIUM-MG	157.85	12.98
BARIUM-BA	0	0
TOTAL CATIONS	37518.92	1625.17

ANIONS		
CHLORIDE-CL	52000	1466.4
SULFATE-SO4	2150	44.72
CARBONATE-CO3	0	0
BICARBONATE-HCO3	6954	114.05
TOTAL ANIONS	61104	1625.17

TOTAL DISSOLVED SOLIDS(CALC.) 98622.92

OTHER PROPERTIES

PH 7
RESISTIVITY(OHM-METERS), 77 F .084

IRON-FE (TOTAL) 0
SULFIDE AS H2S Sulfide Present

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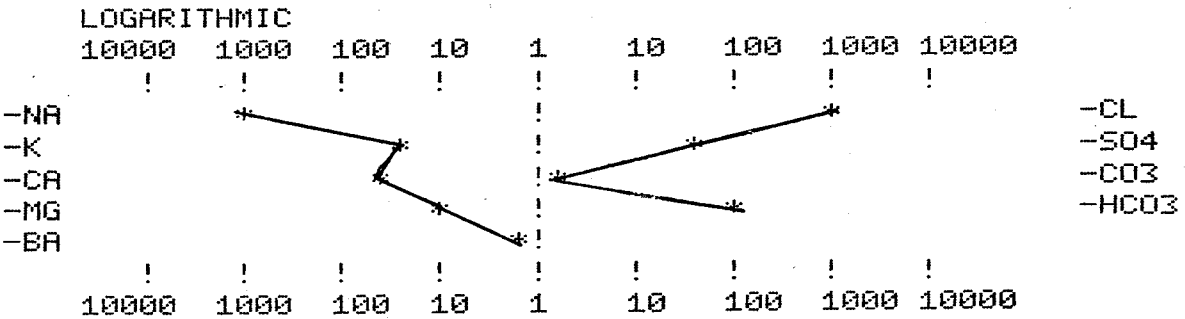
WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

TIGHT HOLE

COPIES TO:

ANALYSIS BY: EUGENE M. HAUCK

GL MD VF

A DIVISION OF WPC, INC.

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO... 2882

DATE RUN: 4/8/80

A SAMPLE OF: WATER FROM AMOCO PRODUCTION CO
SAMPLE FROM: FAWCETT & SONS #1 3/29/80 HIGH STAGE SEPARATOR 11914-12224
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	37867.41	1647.23
POTASSIUM-K	1050	26.88
CALCIUM-CA	625.4	31.21
MAGNESIUM-MG	143.5	11.8
BARIUM-BA	0	0
TOTAL CATIONS	39686.31	1717.12

ANIONS

CHLORIDE-CL	56000	1579.2
SULFATE-SO4	2350	48.88
CARBONATE-CO3	0	0
BICARBONATE-HCO3	5429	89.04
TOTAL ANIONS	63779	1717.12

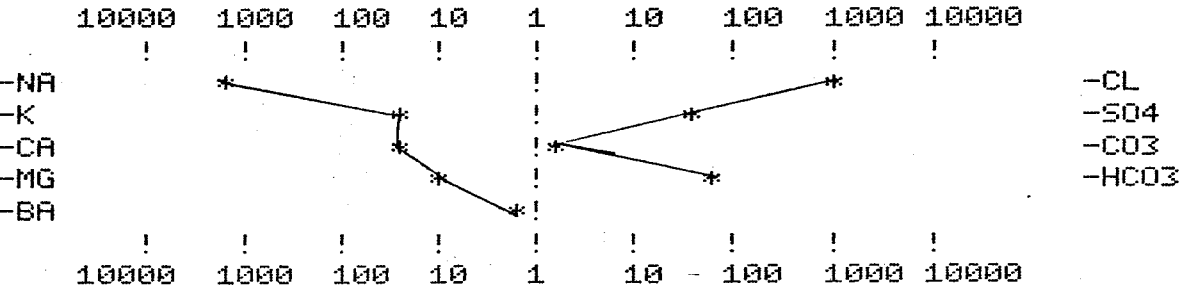
TOTAL DISSOLVED SOLIDS(CALC.) 103465.31

OTHER PROPERTIES

PH 7.5
RESISTIVITY(OHM-METERS), 77 F .082

IRON-FE (TOTAL) 0
SULFIDE AS H2S Sulfide Present

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

TIGHT HOLE

COPIES TO:

ANALYSIS BY: EUGENE M. HAUCK

GL MD VF

A DIVISION OF WPC, INC.

PETROLEUM ANAL 'TICAL LABORA DRY SERVICE

P. O. BOX 52 * 24 HOUR PHONE 307/26 1616

CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 2881

DATE RUN: 4/8/80

A SAMPLE OF: WATER FROM AMOCO PRODUCTION CO
SAMPLE FROM: ~~FAWCETT & SONS #1 3/28/80 4~~ POINT-RATE #1 HIGH STAGE SEPARATOR
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	39351.68	1711.8
POTASSIUM-K	1100	28.16
CALCIUM-CA	944	47.11
MAGNESIUM-MG	114.8	9.44
BARIUM-BA	0	0
TOTAL CATIONS	41510.48	1796.5

ANIONS		
CHLORIDE-CL	58500	1649.7
SULFATE-SO4	2200	45.76
CARBONATE-CO3	0	0
BICARBONATE-HCO3	6161	101.04
TOTAL ANIONS	66861	1796.5

TOTAL DISSOLVED SOLIDS(CALC.) 108371.48

OTHER PROPERTIES

PH 7
RESISTIVITY(OHM-METERS), 77 F .085

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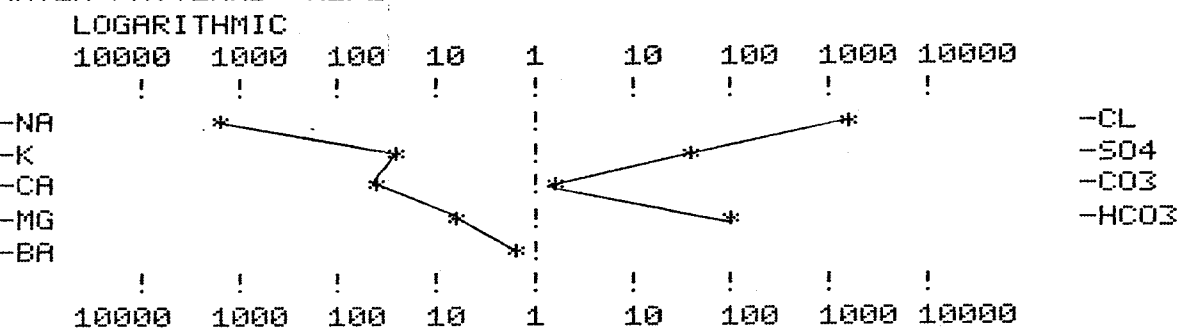
IRON-FE (TOTAL) 0
SULFIDE AS H2S Sulfide Present

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

TIGHT HOLE

COPIES TO:

ANALYSIS BY: EUGENE M. HAUCK

GL MD VF

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307 266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 15

DATE SECURED: 4/21/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/21/80 650PM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.16		
NITROGEN	1.64		
OXYGEN			
H2S	14.70		
METHANE	75.43		GPM
ETHANE	5.01		1.336
PROPANE	1.32		0.361
ISO-BUTANE	0.27		0.088
N-BUTANE	0.28		0.088
ISO-PENTANE	0.12		0.043
N-PENTANE	0.07		0.025
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.941

CALC. SP. GR. 0.7119
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.361
BUTANES CALC GPM 0.176

PENTANES PLUS GPM 0.068
EHTANE CALC GPM 1.336
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1003
WET BASIS 985

26 # PRODUCT 0.089
12 # PRODUCT 0.059

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307 266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 14

DATE SECURED: 4/21/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/21/80 500PM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.16		
NITROGEN	1.57		
OXYGEN			
H2S	14.88		
METHANE	75.29		GPM
ETHANE	4.97		1.324
PROPANE	1.31		0.361
ISO-BUTANE	0.30		0.097
N-BUTANE	0.32		0.101
ISO-PENTANE	0.12		0.043
N-PENTANE	0.08		0.028
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.954

CALC. SP. GR. 0.7138
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.361
BUTANES CALC GPM 0.198

PENTANES PLUS GPM 0.071
EHTANE CALC GPM 1.324
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1004
WET BASIS 987

26 # PRODUCT 0.094
12 # PRODUCT 0.063

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307 266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 13

DATE SECURED: 4/21/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/21/80 300PM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.16		
NITROGEN	1.56		
OXYGEN			
H2S	14.72		
METHANE	75.38		GPM
ETHANE	4.97		1.326
PROPANE	1.37		0.376
ISO-BUTANE	0.31		0.100
N-BUTANE	0.34		0.105
ISO-PENTANE	0.12		0.043
N-PENTANE	0.07		0.025
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.975

CALC. SP. GR. 0.7135
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.376
BUTANES CALC GPM 0.205

PENTANES PLUS GPM 0.068
EHTANE CALC GPM 1.326
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1006
WET BASIS 988

26 # PRODUCT 0.090
12 # PRODUCT 0.060

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307-266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 12

DATE SECURED: 4/21/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/21/80 1200PM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.17		
NITROGEN	1.55		
OXYGEN			
H2S	15.03		
METHANE	75.17		GPM
ETHANE	4.94		1.318
PROPANE	1.30		0.358
ISO-BUTANE	0.30		0.097
N-BUTANE	0.33		0.104
ISO-PENTANE	0.13		0.047
N-PENTANE	0.08		0.030
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.954

CALC. SP. GR. 0.7150
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.358
BUTANES CALC GPM 0.201

PENTANES PLUS GPM 0.077
EHTANE CALC GPM 1.318
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1004
WET BASIS 986

26 # PRODUCT 0.101
12 # PRODUCT 0.067

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

A DIVISION OF WPC, INC.

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307 266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 11

DATE SECURED: 4/21/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/21/80 1008AM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.19		
NITROGEN	1.55		
OXYGEN			
H2S	14.69		
METHANE	75.63		GPM
ETHANE	4.93		1.315
PROPANE	1.28		0.351
ISO-BUTANE	0.27		0.087
N-BUTANE	0.30		0.094
ISO-PENTANE	0.11		0.039
N-PENTANE	0.05		0.017
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.903

CALC. SP. GR. 0.7107
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.351
BUTANES CALC GPM 0.181

PENTANES PLUS GPM 0.056
EHTANE CALC GPM 1.315
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1002
WET BASIS 984

26 # PRODUCT 0.073
12 # PRODUCT 0.049

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E. M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

A DIVISION OF WPC, INC.

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307-266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 10

DATE SECURED: 4/21/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42'
SECURED FROM: AMOCO PRODUCTION CO 4/21/80 908AM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.23		
NITROGEN	1.57		
OXYGEN			
H2S	14.13		
METHANE	76.24		GPM
ETHANE	4.90		1.306
PROPANE	1.25		0.344
ISO-BUTANE	0.25		0.081
N-BUTANE	0.26		0.082
ISO-PENTANE	0.11		0.038
N-PENTANE	0.06		0.023
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.874

CALC. SP. GR. 0.7068
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.344
BUTANES CALC GPM 0.163

PENTANES PLUS GPM 0.061
EHTANE CALC GPM 1.306
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1002
WET BASIS 984

26 # PRODUCT 0.081
12 # PRODUCT 0.054

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 9

DATE SECURED: 4/20/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/20/80 400PM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.16		
NITROGEN	1.56		
OXYGEN			
H2S	14.86		
METHANE	75.41	GPM	
ETHANE	4.92	1.312	
PROPANE	1.29	0.355	
ISO-BUTANE	0.29	0.093	
N-BUTANE	0.31	0.097	
ISO-PENTANE	0.12	0.046	
N-PENTANE	0.08	0.028	
HEXANES	0.00	0.000	
HEPTANES	0.00	0.000	
TOTAL	100.00	1.931	

CALC. SP. GR. 0.7130
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.355
BUTANES CALC GPM 0.190

PENTANES PLUS GPM 0.074
EHTANE CALC GPM 1.312
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1003
WET BASIS 986

26 # PRODUCT 0.098
12 # PRODUCT 0.065

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307-266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 8

DATE SECURED: 4/20/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/20/80 305PM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.17		
NITROGEN	1.56		
OXYGEN			
H2S	14.79		
METHANE	75.44		GPM
ETHANE	4.96		1.323
PROPANE	1.30		0.358
ISO-BUTANE	0.28		0.092
N-BUTANE	0.31		0.098
ISO-PENTANE	0.12		0.044
N-PENTANE	0.07		0.024
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.939

CALC. SP. GR. 0.7126
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.358
BUTANES CALC GPM 0.190

PENTANES PLUS GPM 0.068
EHTANE CALC GPM 1.323
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1004
WET BASIS 986

26 # PRODUCT 0.090
12 # PRODUCT 0.060

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 7

DATE SECURED: 4/20/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/20/80 107PM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.19		
NITROGEN	1.55		
OXYGEN			
H2S	14.80		
METHANE	75.45	GPM	
ETHANE	4.95	1.319	
PROPANE	1.28	0.352	
ISO-BUTANE	0.28	0.091	
N-BUTANE	0.30	0.095	
ISO-PENTANE	0.13	0.046	
N-PENTANE	0.07	0.025	
HEXANES	0.00	0.000	
HEPTANES	0.00	0.000	
TOTAL	100.00	1.928	

CALC. SP. GR. 0.7125
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C, +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.352
BUTANES CALC GPM 0.186

PENTANES PLUS GPM 0.071
EHTANE CALC GPM 1.319
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1003
WET BASIS 985

26 # PRODUCT 0.094
12 # PRODUCT 0.062

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR*
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

RECEIVED
MAY 7 1980
DIVISION OF
OIL, GAS & MINING

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 6

DATE SECURED: 4/20/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/20/80 1100AM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.23		
NITROGEN	1.59		
OXYGEN			
H2S	14.26		
METHANE	76.13		GPM
ETHANE	4.99		1.330
PROPANE	1.26		0.347
ISO-BUTANE	0.27		0.087
N-BUTANE	0.27		0.084
ISO-PENTANE	0.00		0.000
N-PENTANE	0.00		0.000
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.848

CALC. SP. GR. 0.7053
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.347
BUTANES CALC GPM 0.171

PENTANES PLUS GPM 0.000
EHTANE CALC. GPM 1.330
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 997
WET BASIS 980

26 # PRODUCT 0.000
12 # PRODUCT 0.000

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307-266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 5

DATE SECURED: 4/20/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/20/80 908AM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.20		
NITROGEN	1.60		
OXYGEN			
H2S	13.22		
METHANE	77.10		GPM
ETHANE	4.94		1.317
PROPANE	1.24		0.340
ISO-BUTANE	0.28		0.091
N-BUTANE	0.27		0.086
ISO-PENTANE	0.07		0.026
N-PENTANE	0.08		0.028
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.888

CALC. SP. GR. 0.7012
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.340
BUTANES CALC GPM 0.177

PENTANES PLUS GPM 0.054
EHTANE CALC GPM 1.317
TOTAL GPM

B.T.U./CU.FT.
DRY BASIS 1006
WET BASIS 988

26 # PRODUCT 0.073
12 # PRODUCT 0.049

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307-266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 4

DATE SECURED: 4/19/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/19/80 330PM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.22		
NITROGEN	1.57		
OXYGEN			
H2S	14.37		
METHANE	75.98		GPM
ETHANE	4.99		1.332
PROPANE	1.30		0.356
ISO-BUTANE	0.28		0.091
N-BUTANE	0.29		0.090
ISO-PENTANE	0.00		0.000
N-PENTANE	0.00		0.000
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.869

CALC. SP. GR. 0.7065
CALC. MOL. WT.
CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.356
BUTANES CALC GPM 0.181
PENTANES PLUS GPM 0.000
EHTANE CALC GPM 1.332
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 998
WET BASIS 981

26 # PRODUCT 0.000
12 # PRODUCT 0.000

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

RECEIVED
MAY 7 1980
DIVISION OF
OIL, GAS & MINING

COPIES TO:

A DIVISION OF WPC, INC.

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307-266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 3

DATE SECURED: 4/19/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/19/80 130PM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.25		
NITROGEN	1.59		
OXYGEN			
H2S	13.96		
METHANE	76.39		GPM
ETHANE	5.00		1.333
PROPANE	1.27		0.349
ISO-BUTANE	0.27		0.087
N-BUTANE	0.27		0.086
ISO-PENTANE	0.00		0.000
N-PENTANE	0.00		0.000
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.855

CALC. SP. GR. 0.7038
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.349
BUTANES CALC GPM 0.173

PENTANES PLUS GPM 0.000
EHTANE CALC GPM 1.333
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 999
WET BASIS 981

26 # PRODUCT 0.000
12 # PRODUCT 0.000

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

RECEIVED
MAY 7 1980
DIVISION OF
OIL, GAS & MINING

COPIES TO:

A DIVISION OF WPC, INC.

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307-266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 2

DATE SECURED: 4/19/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-7E 11461-84 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/19/80 1130AM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.31		
NITROGEN	1.15		
OXYGEN			
H2S	11.53		
METHANE	79.27		GPM
ETHANE	5.05		1.347
PROPANE	1.23		0.336
ISO-BUTANE	0.23		0.075
N-BUTANE	0.23		0.074
ISO-PENTANE	0.00		0.000
N-PENTANE	0.00		0.000
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.832

CALC. SP. GR. 0.6861
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.336
BUTANES CALC GPM 0.149

PENTANES PLUS GPM 0.000
EHTANE CALC GPM 1.347
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1009
WET BASIS 992

26 # PRODUCT 0.000
12 # PRODUCT 0.000

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

RECEIVED
MAY 7 1980
DIVISION OF
OIL, GAS & MINING

COPIES TO:

A DIVISION OF WPC, INC

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RECEIVED
MAY 7 1980
DIVISION OF
OIL, GAS & MINING

RUN NO. . 1

DATE SECURED: 4/19/80

A SAMPLE OF: FAWCETT &SONS #1 NW/NW 36-5N-72 11550-70 11626-42
SECURED FROM: AMOCO PRODUCTION CO 4/19/80 945AM
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	1.31		
NITROGEN	1.63		
OXYGEN			
H2S	11.48		
METHANE	78.85		GPM
ETHANE	5.04		1.343
PROPANE	1.21		0.332
ISO-BUTANE	0.25		0.080
N-BUTANE	0.23		0.072
ISO-PENTANE	0.00		0.000
N-PENTANE	0.00		0.000
HEXANES	0.00		0.000
HEPTANES	0.00		0.000
TOTAL	100.00		1.827

CALC. SP. GR. 0.6877
CALC. MOL. WT.

CALC. VAP PRES
SP. GR. C +
MOL. WT. C +
VAP PRES C +
GAL/MOL C +
CF/GAL C +
LB/GAL C +
26.0 R.P.V. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
14.0 R.V.P. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2
12.0 R.V.P. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM 0.332
BUTANES CALC GPM 0.152

PENTANES PLUS GPM 0.000
EHTANE CALC GPM 1.343
TOTAL GPM

B.T.U./CU.FT
DRY BASIS 1005
WET BASIS 987

26 # PRODUCT 0.000
12 # PRODUCT 0.000

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: HAUCK CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

TIGHT HOLE

COPIES TO:

MOLE %

DATE	RUN #	TIME	Carbon Dioxide	Oxygen to Nitrogen	Hydrogen Sulfide	Methane	Ethane	Propane	ISO Butane	Normal Butane	ISO Pentane	Normal Pentane	Specific Gravity	BTU Dry	BTU Wet
4-19-80	1	9:45 AM	1.31	1.63	11.48	78.85	5.04	1.21	0.25	0.23	Trace	Trace	0.6877	1005	987
4-19-80	2	11:30 AM	1.31	1.15	11.53	79.27	5.05	1.23	0.23	0.23	Trace	Trace	0.6861	1009	992
4-19-80	3	1:30 PM	1.25	1.59	13.96	76.39	5.00	1.27	0.27	0.27	Trace	Trace	0.7038	999	981
4-19-80	4	3:30 PM	1.22	1.57	14.37	75.98	4.99	1.30	0.28	0.29	Trace	Trace	0.7065	998	981
4-20-80	5	9:08 AM	1.20	1.60	13.22	77.10	4.94	1.24	0.28	0.27	0.07	0.08	0.7012	1006	988
4-20-80	6	11:00 AM	1.23	1.59	14.26	76.13	4.99	1.26	0.27	0.27	Trace	Trace	0.7053	997	980
4-20-80	7	1:07 PM	1.19	1.55	14.80	75.45	4.95	1.28	0.28	0.30	0.13	0.07	0.7125	1003	985
4-20-80	8	3:05 PM	1.17	1.56	14.79	75.44	4.96	1.30	0.28	0.31	0.12	0.07	0.7126	1004	986
4-20-80	9	4:00 PM	1.16	1.56	14.86	75.41	4.92	1.29	0.29	0.31	0.12	0.08	0.7130	1003	986
4-21-80	10	9:08 AM	1.23	1.57	14.13	76.24	4.90	1.25	0.25	0.26	0.11	0.06	0.7068	1002	984
4-21-80	11	10:08 AM	1.19	1.55	14.69	75.63	4.93	1.28	0.27	0.30	0.11	0.05	0.7107	1002	984
4-21-80	12	12:00 PM	1.17	1.55	15.03	75.17	4.94	1.30	0.30	0.33	0.13	0.08	0.7150	1004	986
4-21-80	*13	3:00 PM	1.16	1.56	14.72	75.38	4.97	1.37	0.31	0.34	0.12	0.07	0.7135	1006	988
4-21-80	*14	5:00 PM	1.16	1.57	14.88	75.29	4.97	1.31	0.30	0.32	0.12	0.08	0.7138	1004	987
4-21-80	15	6:50 PM	1.16	1.64	14.70	75.43	5.01	1.32	0.27	0.28	0.12	0.07	0.7119	1003	985

*Under Vacuum

TIGHT HOLE

JOB NUMBE
SPG-11818

DATE OF JOB
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

AMOCO PRODUCTION COMPANY

WELL NAME/NUMBER	FAWCETT & SONS
FIELD/AREA	WILDCAT
COUNTY/PARISH	SUMMIT
STATE	UTAH
TYPE OF TEST	ISOCHRONAL
REFERENCE ELEV	MASTER VALVE

ADDITIONAL INFORMATION

GAUGE NO. 69, ELEMENT 30279N, RANGE 0-7000 LBS., 8 MIN. MODE

ZERO POINT WAS THE MASTER VALVE

THE GAUGE WAS SET AT 11,428 FEET

BOTTOM HOLE TEMPERATURE WAS RECORDED AT 172 DEG. F.

THE GAUGES WERE SET ON BOTTOM AT 12:16 HRS. 4/17/80

THANK-YOU FOR THIS OPPORTUNITY TO BE OF SERVICE TO YOU.

TIGHT HOLE

429 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11818

DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR MIN	DATE	COMMENTS
0.	5042.466	0.2543E+08	12 16	APR 17,1980	START STATIC
0.537	5044.638	0.2545E+08	12 48	APR 17,1980	
2.684	5044.638	0.2545E+08	14 57	APR 17,1980	
5.368	5044.304	0.2545E+08	17 38	APR 17,1980	
8.052	5044.638	0.2545E+08	20 19	APR 17,1980	
10.736	5043.803	0.2544E+08	23 00	APR 17,1980	
13.420	5044.304	0.2545E+08	01 41	APR 18,1980	
16.104	5044.638	0.2545E+08	04 22	APR 18,1980	
18.788	5044.972	0.2545E+08	07 03	APR 18,1980	
19.727	5044.638	0.2545E+08	08 00	APR 18,1980	END STATIC

TIGHT HOLE

10 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11818

DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	5044.638	0.2545E+08	08	00	APR 18,1980	START FIRST FLOW
0.136	5028.931	0.2529E+08	08	08	APR 18,1980	
0.271	5010.550	0.2511E+08	08	16	APR 18,1980	
0.407	5004.367	0.2504E+08	08	24	APR 18,1980	
0.542	4985.819	0.2486E+08	08	33	APR 18,1980	
0.678	4984.148	0.2484E+08	08	41	APR 18,1980	
0.814	4981.474	0.2482E+08	08	49	APR 18,1980	
0.949	4974.790	0.2475E+08	08	57	APR 18,1980	
1.085	4974.122	0.2474E+08	09	05	APR 18,1980	
1.220	4973.453	0.2474E+08	09	13	APR 18,1980	
1.356	4972.785	0.2473E+08	09	21	APR 18,1980	
1.492	4972.117	0.2472E+08	09	29	APR 18,1980	
1.627	4967.772	0.2468E+08	09	38	APR 18,1980	
1.763	4967.772	0.2468E+08	09	46	APR 18,1980	
1.898	4967.939	0.2468E+08	09	54	APR 18,1980	
2.034	4971.448	0.2472E+08	10	02	APR 18,1980	
2.170	4972.284	0.2472E+08	10	10	APR 18,1980	
2.305	4971.114	0.2471E+08	10	18	APR 18,1980	
2.441	4971.114	0.2471E+08	10	26	APR 18,1980	
2.576	4971.782	0.2472E+08	10	35	APR 18,1980	
2.712	4969.109	0.2469E+08	10	43	APR 18,1980	
2.848	4969.276	0.2469E+08	10	51	APR 18,1980	
2.983	4971.114	0.2471E+08	10	59	APR 18,1980	
3.119	4971.615	0.2472E+08	11	07	APR 18,1980	
3.254	4969.109	0.2469E+08	11	15	APR 18,1980	
3.390	4967.104	0.2467E+08	11	23	APR 18,1980	
3.526	4970.780	0.2471E+08	11	32	APR 18,1980	
3.661	4969.777	0.2470E+08	11	40	APR 18,1980	
3.797	4968.942	0.2469E+08	11	48	APR 18,1980	
3.932	4969.276	0.2469E+08	11	56	APR 18,1980	
4.068	4971.949	0.2472E+08	12	04	APR 18,1980	
4.204	4973.119	0.2473E+08	12	12	APR 18,1980	
4.339	4968.607	0.2469E+08	12	20	APR 18,1980	
4.475	4967.772	0.2468E+08	12	28	APR 18,1980	
4.610	4969.610	0.2470E+08	12	37	APR 18,1980	
4.746	4968.273	0.2468E+08	12	45	APR 18,1980	
4.882	4969.109	0.2469E+08	12	53	APR 18,1980	

TIGHT HOLE

JOB NUMBER
SPG-11818

DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
5.017	4967.939	0.2468E+08	13	01	APR 18,1980	
5.153	4969.610	0.2470E+08	13	09	APR 18,1980	
5.288	4966.435	0.2467E+08	13	17	APR 18,1980	
5.424	4968.607	0.2469E+08	13	25	APR 18,1980	
5.560	4968.440	0.2469E+08	13	34	APR 18,1980	
5.695	4966.936	0.2467E+08	13	42	APR 18,1980	
5.831	4967.772	0.2468E+08	13	50	APR 18,1980	
5.966	4967.438	0.2468E+08	13	58	APR 18,1980	
6.102	4967.939	0.2468E+08	14	06	APR 18,1980	
6.238	4967.271	0.2467E+08	14	14	APR 18,1980	
6.373	4969.777	0.2470E+08	14	22	APR 18,1980	
6.509	4971.114	0.2471E+08	14	31	APR 18,1980	
6.644	4968.942	0.2469E+08	14	39	APR 18,1980	
6.780	4971.281	0.2471E+08	14	47	APR 18,1980	
6.916	4971.114	0.2471E+08	14	55	APR 18,1980	
7.051	4969.109	0.2469E+08	15	03	APR 18,1980	
7.187	4967.271	0.2467E+08	15	11	APR 18,1980	
7.322	4966.602	0.2467E+08	15	19	APR 18,1980	
7.458	4966.101	0.2466E+08	15	27	APR 18,1980	
7.594	4969.610	0.2470E+08	15	36	APR 18,1980	
7.729	4966.101	0.2466E+08	15	44	APR 18,1980	
7.865	4966.268	0.2466E+08	15	52	APR 18,1980	
8.000	4966.435	0.2467E+08	16	00	APR 18,1980	END FIRST FLOW

TIGHT HOLE

60 POINTS REPORTED THIS RUN

JOB NUMBER
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DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	4966.435	0.2467E+08	16	00	APR 18,1980	START FIRST SHUT-I
0.135	5005.035	0.2505E+08	16	08	APR 18,1980	
0.271	5036.116	0.2536E+08	16	16	APR 18,1980	
0.406	5039.124	0.2539E+08	16	24	APR 18,1980	
0.542	5039.625	0.2540E+08	16	32	APR 18,1980	
0.677	5039.959	0.2540E+08	16	41	APR 18,1980	
0.812	5040.294	0.2540E+08	16	49	APR 18,1980	
0.948	5040.461	0.2541E+08	16	57	APR 18,1980	
1.083	5040.628	0.2541E+08	17	05	APR 18,1980	
1.219	5040.795	0.2541E+08	17	13	APR 18,1980	
1.354	5041.129	0.2541E+08	17	21	APR 18,1980	
1.625	5041.296	0.2541E+08	17	37	APR 18,1980	
2.166	5041.463	0.2542E+08	18	10	APR 18,1980	
2.708	5041.463	0.2542E+08	18	42	APR 18,1980	
3.250	5041.965	0.2542E+08	19	15	APR 18,1980	
3.791	5042.132	0.2542E+08	19	47	APR 18,1980	
4.333	5042.132	0.2542E+08	20	20	APR 18,1980	
4.604	5042.132	0.2542E+08	20	36	APR 18,1980	
5.687	5042.633	0.2543E+08	21	41	APR 18,1980	
6.770	5042.633	0.2543E+08	22	46	APR 18,1980	
7.853	5042.633	0.2543E+08	23	51	APR 18,1980	
8.936	5042.967	0.2543E+08	00	56	APR 19,1980	
10.020	5042.800	0.2543E+08	02	01	APR 19,1980	
11.103	5042.800	0.2543E+08	03	06	APR 19,1980	
12.186	5042.800	0.2543E+08	04	11	APR 19,1980	
13.269	5042.800	0.2543E+08	05	16	APR 19,1980	
14.352	5043.134	0.2543E+08	06	21	APR 19,1980	
15.436	5043.134	0.2543E+08	07	26	APR 19,1980	
16.113	5043.134	0.2543E+08	08	07	APR 19,1980	END FIRST SHUT-I

TICHNICAL

29 POINTS REPORTED THIS RUN

JOB NUMBER
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DATE OF JOB
APRIL 17, 1980

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GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	5043.134	0.2543E+08	08	07	APR 19,1980	START SECOND FLOW
0.136	5031.939	0.2532E+08	08	15	APR 19,1980	
0.272	4969.777	0.2470E+08	08	23	APR 19,1980	
0.408	4926.665	0.2427E+08	08	31	APR 19,1980	
0.544	4921.318	0.2422E+08	08	40	APR 19,1980	
0.679	4909.621	0.2410E+08	08	48	APR 19,1980	
0.815	4892.075	0.2393E+08	08	56	APR 19,1980	
0.951	4890.237	0.2391E+08	09	04	APR 19,1980	
1.087	4888.733	0.2390E+08	09	12	APR 19,1980	
1.223	4887.230	0.2389E+08	09	20	APR 19,1980	
1.359	4884.055	0.2385E+08	09	29	APR 19,1980	
1.495	4886.895	0.2388E+08	09	37	APR 19,1980	
1.631	4880.880	0.2382E+08	09	45	APR 19,1980	
1.767	4881.715	0.2383E+08	09	53	APR 19,1980	
1.903	4881.715	0.2383E+08	10	01	APR 19,1980	
2.039	4879.209	0.2381E+08	10	09	APR 19,1980	
2.174	4881.214	0.2383E+08	10	17	APR 19,1980	
2.310	4880.211	0.2382E+08	10	26	APR 19,1980	
2.446	4878.373	0.2380E+08	10	34	APR 19,1980	
2.582	4881.214	0.2383E+08	10	42	APR 19,1980	
2.718	4880.044	0.2381E+08	10	50	APR 19,1980	
2.854	4879.209	0.2381E+08	10	58	APR 19,1980	
2.990	4880.211	0.2382E+08	11	06	APR 19,1980	
3.126	4879.042	0.2381E+08	11	15	APR 19,1980	
3.262	4880.378	0.2382E+08	11	23	APR 19,1980	
3.398	4880.211	0.2382E+08	11	31	APR 19,1980	
3.533	4879.710	0.2381E+08	11	39	APR 19,1980	
3.669	4880.044	0.2381E+08	11	47	APR 19,1980	
3.805	4882.718	0.2384E+08	11	55	APR 19,1980	
3.941	4880.378	0.2382E+08	12	03	APR 19,1980	
4.077	4880.044	0.2381E+08	12	12	APR 19,1980	
4.213	4879.877	0.2381E+08	12	20	APR 19,1980	
4.349	4880.378	0.2382E+08	12	28	APR 19,1980	
4.485	4880.378	0.2382E+08	12	36	APR 19,1980	
4.621	4881.381	0.2383E+08	12	44	APR 19,1980	
4.757	4881.381	0.2383E+08	12	52	APR 19,1980	
4.892	4881.715	0.2383E+08	13	01	APR 19,1980	

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
5.028	4881.381	0.2383E+08	13	09	APR 19,1980	
5.164	4881.715	0.2383E+08	13	17	APR 19,1980	
5.300	4881.715	0.2383E+08	13	25	APR 19,1980	
5.436	4882.384	0.2384E+08	13	33	APR 19,1980	
5.572	4883.052	0.2384E+08	13	41	APR 19,1980	
5.708	4883.720	0.2385E+08	13	49	APR 19,1980	
5.844	4883.052	0.2384E+08	13	58	APR 19,1980	
5.980	4883.553	0.2385E+08	14	06	APR 19,1980	
6.116	4883.720	0.2385E+08	14	14	APR 19,1980	
6.251	4883.720	0.2385E+08	14	22	APR 19,1980	
6.387	4883.553	0.2385E+08	14	30	APR 19,1980	
6.523	4883.553	0.2385E+08	14	38	APR 19,1980	
6.659	4883.888	0.2385E+08	14	47	APR 19,1980	
6.795	4883.386	0.2385E+08	14	55	APR 19,1980	
6.931	4883.386	0.2385E+08	15	03	APR 19,1980	
7.067	4883.219	0.2385E+08	15	11	APR 19,1980	
7.203	4885.224	0.2387E+08	15	19	APR 19,1980	
7.339	4883.052	0.2384E+08	15	27	APR 19,1980	
7.475	4883.386	0.2385E+08	15	35	APR 19,1980	
7.610	4883.720	0.2385E+08	15	44	APR 19,1980	
7.746	4883.720	0.2385E+08	15	52	APR 19,1980	
7.882	4883.888	0.2385E+08	16	00	APR 19,1980	END SECOND FLOW

59 POINTS REPORTED THIS RUN

JOB NUMBER
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APRIL 17, 1980

SPERRY-SUN

PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	4883.888	0.2385E+08	16	00	APR 19,1980	START SECOND SHUT-IN
0.136	5023.082	0.2523E+08	16	08	APR 19,1980	
0.271	5023.751	0.2524E+08	16	16	APR 19,1980	
0.407	5035.113	0.2535E+08	16	24	APR 19,1980	
0.542	5037.620	0.2538E+08	16	33	APR 19,1980	
0.678	5038.790	0.2539E+08	16	41	APR 19,1980	
0.814	5039.291	0.2539E+08	16	49	APR 19,1980	
0.949	5039.792	0.2540E+08	16	57	APR 19,1980	
1.085	5040.294	0.2540E+08	17	05	APR 19,1980	
1.220	5040.461	0.2541E+08	17	13	APR 19,1980	
1.356	5040.294	0.2540E+08	17	21	APR 19,1980	
1.492	5040.294	0.2540E+08	17	29	APR 19,1980	
1.627	5041.129	0.2541E+08	17	38	APR 19,1980	
1.763	5040.126	0.2540E+08	17	46	APR 19,1980	
1.898	5040.126	0.2540E+08	17	54	APR 19,1980	
2.034	5040.461	0.2541E+08	18	02	APR 19,1980	
2.170	5040.461	0.2541E+08	18	10	APR 19,1980	
2.305	5040.126	0.2540E+08	18	18	APR 19,1980	
2.441	5040.126	0.2540E+08	18	26	APR 19,1980	
2.576	5039.959	0.2540E+08	18	35	APR 19,1980	
2.712	5040.126	0.2540E+08	18	43	APR 19,1980	
2.848	5039.959	0.2540E+08	18	51	APR 19,1980	
2.983	5039.959	0.2540E+08	18	59	APR 19,1980	
4.068	5040.294	0.2540E+08	20	04	APR 19,1980	
5.153	5040.126	0.2540E+08	21	09	APR 19,1980	
6.238	5040.294	0.2540E+08	22	14	APR 19,1980	
7.322	5040.294	0.2540E+08	23	19	APR 19,1980	
8.407	5040.461	0.2541E+08	00	24	APR 20,1980	
9.492	5040.461	0.2541E+08	01	30	APR 20,1980	
10.577	5040.461	0.2541E+08	02	35	APR 20,1980	
11.662	5040.628	0.2541E+08	03	40	APR 20,1980	
12.746	5040.795	0.2541E+08	04	45	APR 20,1980	
13.831	5041.630	0.2542E+08	05	50	APR 20,1980	
14.916	5040.795	0.2541E+08	06	55	APR 20,1980	
16.001	5041.129	0.2541E+08	08	00	APR 20,1980	END SECOND SHUT-IN

35 POINTS REPORTED THIS RUN

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DATE OF JOB
APRIL 17, 1980

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GAUGE NO. 69 RUN NO. 1

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APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	5041.129	0.2541E+08	08	00	APR 20,1980	START THIRD FLOW
0.138	5038.455	0.2539E+08	08	08	APR 20,1980	
0.276	4995.009	0.2495E+08	08	17	APR 20,1980	
0.414	4902.436	0.2403E+08	08	25	APR 20,1980	
0.552	4852.807	0.2355E+08	08	33	APR 20,1980	
0.690	4824.233	0.2327E+08	08	41	APR 20,1980	
0.827	4810.530	0.2314E+08	08	50	APR 20,1980	
0.965	4802.844	0.2307E+08	08	58	APR 20,1980	
1.103	4789.643	0.2294E+08	09	06	APR 20,1980	
1.241	4785.131	0.2290E+08	09	14	APR 20,1980	
1.379	4784.630	0.2289E+08	09	23	APR 20,1980	
1.517	4782.290	0.2287E+08	09	31	APR 20,1980	
1.655	4784.630	0.2289E+08	09	39	APR 20,1980	
1.793	4782.290	0.2287E+08	09	48	APR 20,1980	
1.931	4780.954	0.2286E+08	09	56	APR 20,1980	
2.069	4783.460	0.2288E+08	10	04	APR 20,1980	
2.206	4781.956	0.2287E+08	10	12	APR 20,1980	
2.344	4768.922	0.2274E+08	10	21	APR 20,1980	
2.482	4764.745	0.2270E+08	10	29	APR 20,1980	
2.620	4763.575	0.2269E+08	10	37	APR 20,1980	
2.758	4767.586	0.2273E+08	10	45	APR 20,1980	
2.896	4764.578	0.2270E+08	10	54	APR 20,1980	
3.034	4764.077	0.2270E+08	11	02	APR 20,1980	
3.172	4768.254	0.2274E+08	11	10	APR 20,1980	
3.310	4763.575	0.2269E+08	11	19	APR 20,1980	
3.448	4765.079	0.2271E+08	11	27	APR 20,1980	
3.585	4770.259	0.2276E+08	11	35	APR 20,1980	
3.723	4768.254	0.2274E+08	11	43	APR 20,1980	
3.861	4766.583	0.2272E+08	11	52	APR 20,1980	
3.999	4771.429	0.2277E+08	12	00	APR 20,1980	
4.137	4767.084	0.2273E+08	12	08	APR 20,1980	
4.275	4771.763	0.2277E+08	12	16	APR 20,1980	
4.413	4766.750	0.2272E+08	12	25	APR 20,1980	
4.551	4783.460	0.2288E+08	12	33	APR 20,1980	
4.689	4784.964	0.2290E+08	12	41	APR 20,1980	
4.826	4786.301	0.2291E+08	12	50	APR 20,1980	
4.964	4787.303	0.2292E+08	12	58	APR 20,1980	

JOB NUMBER
SPG-11818

DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
5.102	4786.468	0.2291E+08	13	06	APR 20,1980	
5.240	4787.136	0.2292E+08	13	14	APR 20,1980	
5.378	4786.635	0.2291E+08	13	23	APR 20,1980	
5.516	4789.643	0.2294E+08	13	31	APR 20,1980	
5.654	4787.638	0.2292E+08	13	39	APR 20,1980	
5.792	4787.638	0.2292E+08	13	48	APR 20,1980	
5.930	4788.139	0.2293E+08	13	56	APR 20,1980	
6.068	4787.471	0.2292E+08	14	04	APR 20,1980	
6.206	4789.643	0.2294E+08	14	12	APR 20,1980	
6.343	4788.139	0.2293E+08	14	21	APR 20,1980	
6.481	4787.471	0.2292E+08	14	29	APR 20,1980	
6.619	4787.471	0.2292E+08	14	37	APR 20,1980	
6.757	4788.473	0.2293E+08	14	45	APR 20,1980	
6.895	4788.139	0.2293E+08	14	54	APR 20,1980	
7.033	4792.149	0.2296E+08	15	02	APR 20,1980	
7.171	4788.139	0.2293E+08	15	10	APR 20,1980	
7.309	4788.473	0.2293E+08	15	19	APR 20,1980	
7.447	4788.306	0.2293E+08	15	27	APR 20,1980	
7.585	4788.306	0.2293E+08	15	35	APR 20,1980	
7.722	4792.651	0.2297E+08	15	43	APR 20,1980	
7.860	4788.306	0.2293E+08	15	52	APR 20,1980	
7.998	4788.306	0.2293E+08	16	00	APR 20,1980	END THIRD FLOW

59 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11818

DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	4788.306	0.2293E+08	16	00	APR 20,1980	START THIRD SHUT-IN
0.132	4925.830	0.2426E+08	16	08	APR 20,1980	
0.263	5020.409	0.2520E+08	16	16	APR 20,1980	
0.395	5029.432	0.2530E+08	16	24	APR 20,1980	
0.527	5033.275	0.2533E+08	16	32	APR 20,1980	
0.659	5034.278	0.2534E+08	16	40	APR 20,1980	
0.790	5034.111	0.2534E+08	16	47	APR 20,1980	
0.922	5034.445	0.2535E+08	16	55	APR 20,1980	
1.054	5034.779	0.2535E+08	17	03	APR 20,1980	
1.185	5035.448	0.2536E+08	17	11	APR 20,1980	
1.317	5036.283	0.2536E+08	17	19	APR 20,1980	
1.449	5036.450	0.2537E+08	17	27	APR 20,1980	
1.580	5036.450	0.2537E+08	17	35	APR 20,1980	
1.712	5036.283	0.2536E+08	17	43	APR 20,1980	
1.844	5036.283	0.2536E+08	17	51	APR 20,1980	
1.976	5036.116	0.2536E+08	17	59	APR 20,1980	
2.107	5036.116	0.2536E+08	18	06	APR 20,1980	
2.239	5036.617	0.2537E+08	18	14	APR 20,1980	
2.371	5036.283	0.2536E+08	18	22	APR 20,1980	
2.502	5036.283	0.2536E+08	18	30	APR 20,1980	
2.634	5036.450	0.2537E+08	18	38	APR 20,1980	
3.688	5036.784	0.2537E+08	19	41	APR 20,1980	
4.741	5036.784	0.2537E+08	20	44	APR 20,1980	
5.795	5036.784	0.2537E+08	21	48	APR 20,1980	
6.848	5037.286	0.2537E+08	22	51	APR 20,1980	
7.902	5037.286	0.2537E+08	23	54	APR 20,1980	
8.956	5037.119	0.2537E+08	00	57	APR 21,1980	
10.009	5037.119	0.2537E+08	02	01	APR 21,1980	
11.063	5036.952	0.2537E+08	03	04	APR 21,1980	
12.116	5037.119	0.2537E+08	04	07	APR 21,1980	
13.170	5037.286	0.2537E+08	05	10	APR 21,1980	
14.224	5037.620	0.2538E+08	06	13	APR 21,1980	
15.277	5037.620	0.2538E+08	07	17	APR 21,1980	
16.331	5037.620	0.2538E+08	08	20	APR 21,1980	END THIRD SHUT-IN

34 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11818

DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY SUN

PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	5037.620	0.2538E+08	08	20	APR 21,1980	START FOURTH FLOW
0.135	4958.414	0.2459E+08	08	28	APR 21,1980	
0.271	4856.483	0.2359E+08	08	36	APR 21,1980	
0.406	4743.189	0.2250E+08	08	44	APR 21,1980	
0.542	4730.489	0.2238E+08	08	52	APR 21,1980	
0.677	4709.100	0.2218E+08	09	01	APR 21,1980	
0.812	4695.064	0.2204E+08	09	09	APR 21,1980	
0.948	4683.367	0.2193E+08	09	17	APR 21,1980	
1.083	4683.701	0.2194E+08	09	25	APR 21,1980	
1.219	4679.022	0.2189E+08	09	33	APR 21,1980	
1.354	4671.837	0.2183E+08	09	41	APR 21,1980	
1.489	4667.492	0.2179E+08	09	49	APR 21,1980	
1.625	4664.318	0.2176E+08	09	57	APR 21,1980	
1.760	4665.989	0.2177E+08	10	06	APR 21,1980	
1.896	4663.649	0.2175E+08	10	14	APR 21,1980	
2.031	4664.652	0.2176E+08	10	22	APR 21,1980	
2.166	4664.819	0.2176E+08	10	30	APR 21,1980	
2.302	4667.158	0.2178E+08	10	38	APR 21,1980	
2.437	4663.649	0.2175E+08	10	46	APR 21,1980	
2.573	4665.320	0.2177E+08	10	54	APR 21,1980	
2.708	4665.320	0.2177E+08	11	02	APR 21,1980	
2.843	4665.821	0.2177E+08	11	11	APR 21,1980	
2.979	4663.315	0.2175E+08	11	19	APR 21,1980	
3.114	4663.649	0.2175E+08	11	27	APR 21,1980	
3.250	4662.814	0.2174E+08	11	35	APR 21,1980	
3.385	4662.814	0.2174E+08	11	43	APR 21,1980	
3.520	4664.151	0.2175E+08	11	51	APR 21,1980	
3.656	4662.647	0.2174E+08	11	59	APR 21,1980	
3.791	4663.482	0.2175E+08	12	07	APR 21,1980	
3.927	4662.981	0.2174E+08	12	16	APR 21,1980	
4.062	4663.816	0.2175E+08	12	24	APR 21,1980	
4.197	4663.983	0.2175E+08	12	32	APR 21,1980	
4.333	4662.647	0.2174E+08	12	40	APR 21,1980	
4.468	4661.310	0.2173E+08	12	48	APR 21,1980	
4.604	4663.148	0.2174E+08	12	56	APR 21,1980	
4.739	4661.644	0.2173E+08	13	04	APR 21,1980	
4.874	4666.323	0.2177E+08	13	12	APR 21,1980	

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DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
5.010	4660.976	0.2172E+08	13	21	APR 21,1980	
5.145	4663.315	0.2175E+08	13	29	APR 21,1980	
5.281	4660.976	0.2172E+08	13	37	APR 21,1980	
5.416	4660.976	0.2172E+08	13	45	APR 21,1980	
5.551	4661.310	0.2173E+08	13	53	APR 21,1980	
5.687	4660.976	0.2172E+08	14	01	APR 21,1980	
5.822	4660.641	0.2172E+08	14	09	APR 21,1980	
5.958	4661.978	0.2173E+08	14	17	APR 21,1980	
6.093	4663.649	0.2175E+08	14	26	APR 21,1980	
6.228	4662.981	0.2174E+08	14	34	APR 21,1980	
6.364	4660.641	0.2172E+08	14	42	APR 21,1980	
6.499	4659.973	0.2172E+08	14	50	APR 21,1980	
6.635	4660.474	0.2172E+08	14	58	APR 21,1980	
6.770	4660.976	0.2172E+08	15	06	APR 21,1980	
6.905	4662.479	0.2174E+08	15	14	APR 21,1980	
7.041	4663.983	0.2175E+08	15	22	APR 21,1980	
7.176	4660.474	0.2172E+08	15	31	APR 21,1980	
7.312	4659.973	0.2172E+08	15	39	APR 21,1980	
7.447	4660.474	0.2172E+08	15	47	APR 21,1980	
7.582	4660.140	0.2172E+08	15	55	APR 21,1980	
7.718	4659.806	0.2171E+08	16	03	APR 21,1980	
7.853	4659.639	0.2171E+08	16	11	APR 21,1980	
7.989	4661.143	0.2173E+08	16	19	APR 21,1980	
8.124	4661.644	0.2173E+08	16	27	APR 21,1980	
8.259	4661.310	0.2173E+08	16	36	APR 21,1980	
8.395	4662.981	0.2174E+08	16	44	APR 21,1980	
8.530	4659.472	0.2171E+08	16	52	APR 21,1980	
8.666	4660.307	0.2172E+08	17	00	APR 21,1980	
8.801	4660.474	0.2172E+08	17	08	APR 21,1980	
8.936	4661.978	0.2173E+08	17	16	APR 21,1980	
9.072	4660.641	0.2172E+08	17	24	APR 21,1980	
9.207	4659.305	0.2171E+08	17	32	APR 21,1980	
9.343	4663.983	0.2175E+08	17	41	APR 21,1980	
9.478	4659.973	0.2172E+08	17	49	APR 21,1980	
9.613	4659.973	0.2172E+08	17	57	APR 21,1980	
9.749	4660.808	0.2172E+08	18	05	APR 21,1980	
9.884	4660.976	0.2172E+08	18	13	APR 21,1980	

JOB NUMBER
SPG-11818

DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
10.020	4664.485	0.2176E+08	18	21	APR 21,1980	
10.155	4660.307	0.2172E+08	18	29	APR 21,1980	
10.290	4660.641	0.2172E+08	18	37	APR 21,1980	
10.426	4660.808	0.2172E+08	18	46	APR 21,1980	
10.561	4660.307	0.2172E+08	18	54	APR 21,1980	
10.697	4661.143	0.2173E+08	19	02	APR 21,1980	
10.832	4660.641	0.2172E+08	19	10	APR 21,1980	END FOURTH FLOW

81 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11818

DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
0.	4660.641	0.2172E+08	19	10	APR 21,1980	FINAL SHUT-IN
0.135	4929.339	0.2430E+08	19	18	APR 21,1980	
0.271	5000.189	0.2500E+08	19	26	APR 21,1980	
0.406	5013.557	0.2514E+08	19	34	APR 21,1980	
0.542	5018.069	0.2518E+08	19	42	APR 21,1980	
0.677	5020.409	0.2520E+08	19	51	APR 21,1980	
0.812	5021.913	0.2522E+08	19	59	APR 21,1980	
0.948	5023.751	0.2524E+08	20	07	APR 21,1980	
1.083	5023.918	0.2524E+08	20	15	APR 21,1980	
1.219	5024.252	0.2524E+08	20	23	APR 21,1980	
1.354	5024.419	0.2524E+08	20	31	APR 21,1980	
1.489	5025.087	0.2525E+08	20	39	APR 21,1980	
1.625	5025.087	0.2525E+08	20	47	APR 21,1980	
1.760	5025.422	0.2525E+08	20	56	APR 21,1980	
1.896	5025.255	0.2525E+08	21	04	APR 21,1980	
2.031	5025.589	0.2526E+08	21	12	APR 21,1980	
2.166	5025.756	0.2526E+08	21	20	APR 21,1980	
2.302	5026.257	0.2526E+08	21	28	APR 21,1980	
2.437	5026.257	0.2526E+08	21	36	APR 21,1980	
2.573	5026.424	0.2526E+08	21	44	APR 21,1980	
2.708	5026.424	0.2526E+08	21	52	APR 21,1980	
2.843	5026.424	0.2526E+08	22	01	APR 21,1980	
2.979	5026.758	0.2527E+08	22	09	APR 21,1980	
3.114	5026.926	0.2527E+08	22	17	APR 21,1980	
3.250	5027.093	0.2527E+08	22	25	APR 21,1980	
4.333	5027.594	0.2528E+08	23	30	APR 21,1980	
5.416	5027.761	0.2528E+08	00	35	APR 22,1980	
6.499	5028.764	0.2529E+08	01	40	APR 22,1980	
7.582	5028.764	0.2529E+08	02	45	APR 22,1980	
8.666	5029.265	0.2529E+08	03	50	APR 22,1980	
9.749	5029.265	0.2529E+08	04	55	APR 22,1980	
10.832	5029.265	0.2529E+08	06	00	APR 22,1980	
12.998	5029.599	0.2530E+08	08	10	APR 22,1980	
15.165	5029.766	0.2530E+08	10	20	APR 22,1980	
17.331	5030.435	0.2531E+08	12	30	APR 22,1980	
19.498	5030.435	0.2531E+08	14	40	APR 22,1980	
21.664	5030.769	0.2531E+08	16	50	APR 22,1980	

JOB NUMBER
SPG-11818

DATE OF JOB
APRIL 17, 1980

GAUGE/RUN NUMBER
GAUGE NO. 69 RUN NO. 1

DATE OF RUN
APRIL 17, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
23.830	5030.769	0.2531E+08	19	00	APR 22,1980	
25.997	5030.769	0.2531E+08	21	10	APR 22,1980	
28.163	5030.936	0.2531E+08	23	20	APR 22,1980	
30.330	5030.769	0.2531E+08	01	30	APR 23,1980	
32.496	5030.936	0.2531E+08	03	40	APR 23,1980	
34.662	5030.936	0.2531E+08	05	50	APR 23,1980	
36.829	5030.936	0.2531E+08	08	00	APR 23,1980	
38.995	5030.936	0.2531E+08	10	10	APR 23,1980	
41.162	5030.936	0.2531E+08	12	20	APR 23,1980	
43.328	5030.936	0.2531E+08	14	30	APR 23,1980	
45.494	5030.268	0.2530E+08	16	40	APR 23,1980	
47.661	5030.268	0.2530E+08	18	50	APR 23,1980	
49.827	5031.103	0.2531E+08	21	00	APR 23,1980	
51.994	5030.268	0.2530E+08	23	10	APR 23,1980	
54.160	5030.435	0.2531E+08	01	20	APR 24,1980	
56.326	5030.435	0.2531E+08	03	30	APR 24,1980	
58.493	5030.435	0.2531E+08	05	40	APR 24,1980	
60.659	5030.602	0.2531E+08	07	50	APR 24,1980	
62.826	5029.766	0.2530E+08	10	00	APR 24,1980	
64.992	5029.766	0.2530E+08	12	10	APR 24,1980	
67.158	5029.766	0.2530E+08	14	20	APR 24,1980	
69.325	5028.764	0.2529E+08	16	29	APR 24,1980	
71.491	5029.265	0.2529E+08	18	39	APR 24,1980	
73.658	5030.268	0.2530E+08	20	49	APR 24,1980	
74.335	5030.268	0.2530E+08	21	30	APR 24,1980	END OF TEST

62 POINTS REPORTED THIS RUN

JOB NUMBE
SPG-11772B

DATE OF JOB
APRIL 03, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

AMOCO PRODUCTION COMPANY

WELL NAME/NUMBER	FAWCETT & SONS NO. 1
FIELD/AREA	WILDCAT
COUNTY/PARISH	SUMMIT
STATE	UTAH
TYPE OF TEST	ISOCRONAL TEST
REFERENCE ELEV	MASTER VALVE

ADDITIONAL INFORMATION

GAUGE NO. 309, ELEMENT 21852N, RANGE 0-6000 LBS. 8 MIN. MODE

ZERO POINT IS THE MASTER VALVE

THIS GAUGE WAS SET AT 11,825 FEET

BOTTOM HOLE TEMPERATURE WAS 206 DEG. F.

GAUGE WAS CALIBRATED AT 220 DEG. F.

GAUGE WAS SET ON BOTTOM AT 19:25 HRS. 3/28/80

GAUGE WAS PULLED OFF BOTTOM AT 09:04 HRS. 4/3/80

THANK-YOU FOR THIS OPPORTUNITY TO BE OF SERVICE TO YOU

TIGHT HOLE

438 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11772B

DATE OF JOB
APRIL 03, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. 2

DATE OF RUN
MARCH 28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	4632.145	0.2146E+08	09	01	MAR 30,1980	FIRST SHUT-IN
0.136	4886.675	0.2388E+08	09	09	MAR 30,1980	
0.271	4957.739	0.2458E+08	09	17	MAR 30,1980	
0.407	5043.668	0.2544E+08	09	25	MAR 30,1980	
0.542	5061.930	0.2562E+08	09	34	MAR 30,1980	
0.678	5065.893	0.2566E+08	09	42	MAR 30,1980	
0.814	5067.592	0.2568E+08	09	50	MAR 30,1980	
0.949	5067.875	0.2568E+08	09	58	MAR 30,1980	
1.085	5068.583	0.2569E+08	10	06	MAR 30,1980	
1.220	5068.866	0.2569E+08	10	14	MAR 30,1980	
1.356	5069.291	0.2570E+08	10	22	MAR 30,1980	
1.491	5069.574	0.2570E+08	10	30	MAR 30,1980	
1.627	5069.716	0.2570E+08	10	39	MAR 30,1980	
1.763	5070.140	0.2571E+08	10	47	MAR 30,1980	
1.898	5070.423	0.2571E+08	10	55	MAR 30,1980	
2.034	5070.565	0.2571E+08	11	03	MAR 30,1980	
2.169	5070.140	0.2571E+08	11	11	MAR 30,1980	
2.305	5070.565	0.2571E+08	11	19	MAR 30,1980	
2.441	5071.131	0.2572E+08	11	27	MAR 30,1980	
2.576	5070.990	0.2571E+08	11	36	MAR 30,1980	
2.712	5071.131	0.2572E+08	11	44	MAR 30,1980	
2.847	5071.414	0.2572E+08	11	52	MAR 30,1980	
2.983	5071.414	0.2572E+08	12	00	MAR 30,1980	
4.068	5071.981	0.2572E+08	13	05	MAR 30,1980	
5.152	5072.405	0.2573E+08	14	10	MAR 30,1980	
6.237	5072.688	0.2573E+08	15	15	MAR 30,1980	
7.322	5072.971	0.2574E+08	16	20	MAR 30,1980	
8.407	5073.396	0.2574E+08	17	25	MAR 30,1980	
10.576	5073.962	0.2575E+08	19	36	MAR 30,1980	
12.745	5074.246	0.2575E+08	21	46	MAR 30,1980	
14.915	5074.529	0.2575E+08	23	56	MAR 30,1980	
16.135	5068.300	0.2569E+08	0	08	MAR 31,1980	END FIRST SHUT-IN

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JOB NUMBER
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DATE OF JOB
APRIL 03, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. 2

DATE OF RUN
MARCH 28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR MIN	DATE	COMMENTS
0.	5069.857	0.2570E+08	09 01	MAR 29,1980	FIRST FLOW
0.131	4937.496	0.2438E+08	09 09	MAR 29,1980	
0.262	4901.963	0.2403E+08	09 17	MAR 29,1980	
0.393	4896.443	0.2398E+08	09 25	MAR 29,1980	
0.525	4895.310	0.2396E+08	09 32	MAR 29,1980	
0.656	4893.187	0.2394E+08	09 40	MAR 29,1980	
0.787	4815.327	0.2319E+08	09 48	MAR 29,1980	
0.918	4779.795	0.2285E+08	09 56	MAR 29,1980	
1.049	4786.731	0.2291E+08	10 04	MAR 29,1980	
1.180	4951.652	0.2452E+08	10 12	MAR 29,1980	
1.311	4787.722	0.2292E+08	10 20	MAR 29,1980	
1.443	4711.561	0.2220E+08	10 28	MAR 29,1980	
1.574	4555.842	0.2076E+08	10 35	MAR 29,1980	
1.705	4405.361	0.1941E+08	10 43	MAR 29,1980	
1.836	4652.813	0.2165E+08	10 51	MAR 29,1980	
1.967	4970.480	0.2471E+08	10 59	MAR 29,1980	
2.098	4977.558	0.2478E+08	11 07	MAR 29,1980	
2.229	4828.209	0.2331E+08	11 15	MAR 29,1980	
2.361	4815.469	0.2319E+08	11 23	MAR 29,1980	
2.492	4744.121	0.2251E+08	11 30	MAR 29,1980	
2.623	4602.699	0.2118E+08	11 38	MAR 29,1980	
2.754	4563.628	0.2083E+08	11 46	MAR 29,1980	
2.885	4559.381	0.2079E+08	11 54	MAR 29,1980	
3.016	4554.285	0.2074E+08	12 02	MAR 29,1980	
3.147	4544.234	0.2065E+08	12 10	MAR 29,1980	
3.278	4531.352	0.2053E+08	12 18	MAR 29,1980	
3.410	4525.548	0.2048E+08	12 26	MAR 29,1980	
3.541	4522.858	0.2046E+08	12 33	MAR 29,1980	
3.672	4567.733	0.2086E+08	12 41	MAR 29,1980	
3.803	4595.338	0.2112E+08	12 49	MAR 29,1980	
3.934	4606.239	0.2122E+08	12 57	MAR 29,1980	
4.065	4608.220	0.2124E+08	13 05	MAR 29,1980	
4.196	4615.723	0.2130E+08	13 13	MAR 29,1980	
4.328	4619.121	0.2134E+08	13 21	MAR 29,1980	
4.459	4616.714	0.2131E+08	13 29	MAR 29,1980	
4.590	4617.847	0.2132E+08	13 36	MAR 29,1980	
4.721	4618.271	0.2133E+08	13 44	MAR 29,1980	

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DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
6.800	5077.077	0.2578E+08	02	13	MAR 29,1980	
7.866	5076.794	0.2577E+08	03	17	MAR 29,1980	
8.933	5076.652	0.2577E+08	04	21	MAR 29,1980	
10.000	5076.369	0.2577E+08	05	25	MAR 29,1980	
11.066	5076.511	0.2577E+08	06	29	MAR 29,1980	
12.133	5076.227	0.2577E+08	07	33	MAR 29,1980	
13.200	5076.369	0.2577E+08	08	37	MAR 29,1980	
13.333	5063.770	0.2564E+08	08	45	MAR 29,1980	
13.466	5032.343	0.2532E+08	08	53	MAR 29,1980	
13.600	5069.857	0.2570E+08	09	01	MAR 29,1980	OFF BOTTOM

TIGHT HOLE

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DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
4.852	4617.280	0.2132E+08	13	52	MAR 29,1980	
4.983	4616.289	0.2131E+08	14	00	MAR 29,1980	
5.114	4616.289	0.2131E+08	14	08	MAR 29,1980	
5.246	4615.865	0.2131E+08	14	16	MAR 29,1980	
5.377	4618.271	0.2133E+08	14	24	MAR 29,1980	
5.508	4619.404	0.2134E+08	14	31	MAR 29,1980	
5.639	4620.961	0.2135E+08	14	39	MAR 29,1980	
5.770	4621.103	0.2135E+08	14	47	MAR 29,1980	
5.901	4621.810	0.2136E+08	14	55	MAR 29,1980	
6.032	4622.235	0.2137E+08	15	03	MAR 29,1980	
6.164	4622.660	0.2137E+08	15	11	MAR 29,1980	
6.295	4623.934	0.2138E+08	15	19	MAR 29,1980	
6.426	4624.500	0.2139E+08	15	27	MAR 29,1980	
6.557	4625.491	0.2140E+08	15	34	MAR 29,1980	
6.688	4626.482	0.2140E+08	15	42	MAR 29,1980	
6.819	4626.907	0.2141E+08	15	50	MAR 29,1980	
6.950	4628.889	0.2143E+08	15	58	MAR 29,1980	
7.082	4628.889	0.2143E+08	16	06	MAR 29,1980	
7.213	4629.880	0.2144E+08	16	14	MAR 29,1980	
7.344	4629.738	0.2143E+08	16	22	MAR 29,1980	
7.475	4629.455	0.2143E+08	16	29	MAR 29,1980	
7.606	4629.596	0.2143E+08	16	37	MAR 29,1980	
7.737	4630.870	0.2144E+08	16	45	MAR 29,1980	
7.868	4631.295	0.2145E+08	16	53	MAR 29,1980	
8.000	4632.145	0.2146E+08	17	01	MAR 29,1980	END FIRST FLOW

TIGHT HOLE

62 POINTS REPORTED THIS RUN

JOB NUMBE
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DATE OF RUN
MARCH 28, 1980

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DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
0.	5009.976	0.2510E+08	19	25	MAR 28,1980	ON BOTTOM
0.133	5077.501	0.2578E+08	19	33	MAR 28,1980	
0.267	5078.634	0.2579E+08	19	41	MAR 28,1980	
0.400	5078.209	0.2579E+08	19	49	MAR 28,1980	
0.533	5080.191	0.2581E+08	19	57	MAR 28,1980	
0.667	5080.333	0.2581E+08	20	05	MAR 28,1980	
0.800	5079.625	0.2580E+08	20	13	MAR 28,1980	
0.933	5079.625	0.2580E+08	20	21	MAR 28,1980	
1.067	5080.050	0.2581E+08	20	29	MAR 28,1980	
1.200	5080.050	0.2581E+08	20	37	MAR 28,1980	
1.333	5079.908	0.2581E+08	20	45	MAR 28,1980	
1.467	5079.908	0.2581E+08	20	53	MAR 28,1980	
1.600	5079.625	0.2580E+08	21	01	MAR 28,1980	
1.733	5079.625	0.2580E+08	21	09	MAR 28,1980	
1.867	5079.766	0.2580E+08	21	17	MAR 28,1980	
2.000	5078.209	0.2579E+08	21	25	MAR 28,1980	
2.133	5078.917	0.2580E+08	21	33	MAR 28,1980	
2.267	5078.917	0.2580E+08	21	41	MAR 28,1980	
2.400	5078.492	0.2579E+08	21	49	MAR 28,1980	
2.533	5078.634	0.2579E+08	21	57	MAR 28,1980	
2.667	5078.209	0.2579E+08	22	05	MAR 28,1980	
2.800	5078.776	0.2579E+08	22	13	MAR 28,1980	
2.933	5078.492	0.2579E+08	22	21	MAR 28,1980	
3.067	5078.492	0.2579E+08	22	29	MAR 28,1980	
3.200	5078.068	0.2579E+08	22	37	MAR 28,1980	
3.333	5077.643	0.2578E+08	22	45	MAR 28,1980	
3.467	5078.068	0.2579E+08	22	53	MAR 28,1980	
3.600	5077.643	0.2578E+08	23	01	MAR 28,1980	
3.733	5077.926	0.2579E+08	23	09	MAR 28,1980	
3.867	5077.643	0.2578E+08	23	17	MAR 28,1980	
4.000	5077.926	0.2579E+08	23	25	MAR 28,1980	
4.133	5077.501	0.2578E+08	23	33	MAR 28,1980	
4.267	5077.643	0.2578E+08	23	41	MAR 28,1980	
4.400	5077.643	0.2578E+08	23	49	MAR 28,1980	
4.533	5077.785	0.2578E+08	23	57	MAR 28,1980	
4.667	5077.501	0.2578E+08	00	05	MAR 29,1980	
5.733	5077.077	0.2578E+08	01	09	MAR 29,1980	

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DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR MIN	DATE	COMMENTS
0.	5068.300	0.2569E+08	17 01	MAR 29,1980	SECOND FLOW
0.134	4965.808	0.2466E+08	17 09	MAR 29,1980	
0.269	4818.300	0.2322E+08	17 17	MAR 29,1980	
0.403	4671.074	0.2182E+08	17 25	MAR 29,1980	
0.538	4661.165	0.2173E+08	17 33	MAR 29,1980	
0.672	4582.598	0.2100E+08	17 41	MAR 29,1980	
0.807	4481.946	0.2009E+08	17 49	MAR 29,1980	
0.941	4365.723	0.1906E+08	17 57	MAR 29,1980	
1.076	4348.169	0.1891E+08	18 06	MAR 29,1980	
1.210	4302.303	0.1851E+08	18 14	MAR 29,1980	
1.345	4279.653	0.1832E+08	18 22	MAR 29,1980	
1.479	4184.947	0.1751E+08	18 30	MAR 29,1980	
1.613	4166.261	0.1736E+08	18 38	MAR 29,1980	
1.748	4150.831	0.1723E+08	18 46	MAR 29,1980	
1.882	4138.515	0.1713E+08	18 54	MAR 29,1980	
2.017	4128.464	0.1704E+08	19 02	MAR 29,1980	
2.151	4122.943	0.1700E+08	19 10	MAR 29,1980	
2.286	4117.705	0.1696E+08	19 18	MAR 29,1980	
2.420	4115.440	0.1694E+08	19 26	MAR 29,1980	
2.555	4114.024	0.1693E+08	19 34	MAR 29,1980	
2.689	4112.750	0.1691E+08	19 42	MAR 29,1980	
2.823	4111.901	0.1691E+08	19 50	MAR 29,1980	
2.958	4111.476	0.1690E+08	19 58	MAR 29,1980	
3.092	4111.476	0.1690E+08	20 07	MAR 29,1980	
3.227	4111.476	0.1690E+08	20 15	MAR 29,1980	
3.361	4112.184	0.1691E+08	20 23	MAR 29,1980	
3.496	4113.458	0.1692E+08	20 31	MAR 29,1980	
3.630	4114.732	0.1693E+08	20 39	MAR 29,1980	
3.765	4115.723	0.1694E+08	20 47	MAR 29,1980	
3.899	4116.714	0.1695E+08	20 55	MAR 29,1980	
4.034	4117.988	0.1696E+08	21 03	MAR 29,1980	
4.168	4119.404	0.1697E+08	21 11	MAR 29,1980	
4.302	4119.828	0.1697E+08	21 19	MAR 29,1980	
4.437	4121.102	0.1698E+08	21 27	MAR 29,1980	
4.571	4122.660	0.1700E+08	21 35	MAR 29,1980	
4.706	4124.641	0.1701E+08	21 43	MAR 29,1980	
4.840	4125.208	0.1702E+08	21 51	MAR 29,1980	

TIGHT HOLE

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DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
4.975	4126.340	0.1703E+08	21	59	MAR 29,1980	
5.109	4127.473	0.1704E+08	22	08	MAR 29,1980	
5.244	4128.888	0.1705E+08	22	16	MAR 29,1980	
5.378	4129.171	0.1705E+08	22	24	MAR 29,1980	
5.512	4129.455	0.1705E+08	22	32	MAR 29,1980	
5.647	4131.153	0.1707E+08	22	40	MAR 29,1980	
5.781	4130.729	0.1706E+08	22	48	MAR 29,1980	
5.916	4131.861	0.1707E+08	22	56	MAR 29,1980	
6.050	4132.711	0.1708E+08	23	04	MAR 29,1980	
6.185	4133.418	0.1709E+08	23	12	MAR 29,1980	
6.319	4134.409	0.1709E+08	23	20	MAR 29,1980	
6.454	4135.400	0.1710E+08	23	28	MAR 29,1980	
6.588	4135.683	0.1710E+08	23	36	MAR 29,1980	
6.722	4136.391	0.1711E+08	23	44	MAR 29,1980	
6.857	4137.665	0.1712E+08	23	52	MAR 29,1980	
6.991	4138.656	0.1713E+08	00	00	MAR 30,1980	
7.126	4139.364	0.1713E+08	00	09	MAR 30,1980	
7.260	4140.213	0.1714E+08	00	17	MAR 30,1980	
7.395	4140.780	0.1715E+08	00	25	MAR 30,1980	
7.529	4141.346	0.1715E+08	00	33	MAR 30,1980	
7.664	4142.195	0.1716E+08	00	41	MAR 30,1980	
7.798	4142.761	0.1716E+08	00	49	MAR 30,1980	
7.933	4143.611	0.1717E+08	00	57	MAR 30,1980	END SECOND FLOW

TIGHT HOLE

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JOB NUMBER
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DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR MIN	DATE	COMMENTS
0.	4143.611	0.1717E+08	17 01	MAR 30,1980	SECOND SHUT-IN
0.133	4398.990	0.1935E+08	17 09	MAR 30,1980	
0.267	4786.590	0.2291E+08	17 17	MAR 30,1980	
0.400	4990.016	0.2490E+08	17 25	MAR 30,1980	
0.533	4991.997	0.2492E+08	17 33	MAR 30,1980	
0.667	5003.039	0.2503E+08	17 41	MAR 30,1980	
0.800	5043.810	0.2544E+08	17 49	MAR 30,1980	
0.933	5053.294	0.2554E+08	17 57	MAR 30,1980	
1.067	5056.125	0.2556E+08	18 05	MAR 30,1980	
1.200	5056.833	0.2557E+08	18 13	MAR 30,1980	
1.333	5057.824	0.2558E+08	18 21	MAR 30,1980	
1.467	5058.674	0.2559E+08	18 29	MAR 30,1980	
1.600	5059.240	0.2560E+08	18 37	MAR 30,1980	
1.733	5059.098	0.2559E+08	18 45	MAR 30,1980	
1.867	5059.948	0.2560E+08	18 53	MAR 30,1980	
2.000	5059.948	0.2560E+08	19 01	MAR 30,1980	
2.133	5060.514	0.2561E+08	19 09	MAR 30,1980	
2.267	5060.797	0.2561E+08	19 17	MAR 30,1980	
2.400	5060.939	0.2561E+08	19 25	MAR 30,1980	
2.533	5061.505	0.2562E+08	19 33	MAR 30,1980	
2.667	5061.646	0.2562E+08	19 41	MAR 30,1980	
2.800	5061.646	0.2562E+08	19 49	MAR 30,1980	
2.933	5062.213	0.2563E+08	19 57	MAR 30,1980	
3.067	5062.213	0.2563E+08	20 05	MAR 30,1980	
3.200	5062.071	0.2562E+08	20 13	MAR 30,1980	
3.333	5062.213	0.2563E+08	20 21	MAR 30,1980	
3.467	5062.354	0.2563E+08	20 29	MAR 30,1980	
3.600	5062.354	0.2563E+08	20 37	MAR 30,1980	
3.733	5062.637	0.2563E+08	20 45	MAR 30,1980	
3.867	5062.779	0.2563E+08	20 53	MAR 30,1980	
4.000	5062.920	0.2563E+08	21 01	MAR 30,1980	
4.133	5063.062	0.2563E+08	21 09	MAR 30,1980	
4.267	5062.637	0.2563E+08	21 17	MAR 30,1980	
4.400	5063.062	0.2563E+08	21 25	MAR 30,1980	
4.533	5063.204	0.2564E+08	21 33	MAR 30,1980	
4.667	5063.062	0.2563E+08	21 41	MAR 30,1980	
4.800	5062.637	0.2563E+08	21 49	MAR 30,1980	

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DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
4.933	5063.345	0.2564E+08	21	57	MAR 30,1980	
5.067	5063.062	0.2563E+08	22	05	MAR 30,1980	
5.200	5063.628	0.2564E+08	22	13	MAR 30,1980	
5.333	5063.628	0.2564E+08	22	21	MAR 30,1980	
5.467	5064.478	0.2565E+08	22	29	MAR 30,1980	
5.600	5063.204	0.2564E+08	22	37	MAR 30,1980	
5.733	5064.336	0.2565E+08	22	45	MAR 30,1980	
5.867	5063.487	0.2564E+08	22	53	MAR 30,1980	
6.000	5064.902	0.2565E+08	23	01	MAR 30,1980	
6.133	5064.053	0.2564E+08	23	09	MAR 30,1980	
6.267	5064.336	0.2565E+08	23	17	MAR 30,1980	
6.400	5065.893	0.2566E+08	23	25	MAR 30,1980	
6.533	5065.893	0.2566E+08	23	33	MAR 30,1980	
6.667	5066.035	0.2566E+08	23	41	MAR 30,1980	
6.800	5066.176	0.2567E+08	23	49	MAR 30,1980	
6.933	5066.318	0.2567E+08	23	57	MAR 30,1980	
7.066	5064.902	0.2565E+08	00	05	MAR 31,1980	
7.200	5065.469	0.2566E+08	00	13	MAR 31,1980	
7.333	5066.460	0.2567E+08	00	21	MAR 31,1980	
7.466	5065.044	0.2565E+08	00	29	MAR 31,1980	
7.600	5066.601	0.2567E+08	00	37	MAR 31,1980	
7.733	5065.752	0.2566E+08	00	45	MAR 31,1980	
7.866	5066.460	0.2567E+08	00	53	MAR 31,1980	
8.000	5066.601	0.2567E+08	01	01	MAR 31,1980	
8.133	5066.884	0.2567E+08	01	09	MAR 31,1980	
8.266	5067.026	0.2567E+08	01	17	MAR 31,1980	
8.400	5067.026	0.2567E+08	01	25	MAR 31,1980	
8.533	5066.743	0.2567E+08	01	33	MAR 31,1980	
8.666	5067.167	0.2568E+08	01	41	MAR 31,1980	
8.800	5066.743	0.2567E+08	01	49	MAR 31,1980	
8.933	5067.167	0.2568E+08	01	57	MAR 31,1980	
10.000	5067.592	0.2568E+08	03	01	MAR 31,1980	
11.066	5067.875	0.2568E+08	04	05	MAR 31,1980	
12.133	5068.300	0.2569E+08	05	09	MAR 31,1980	
13.200	5068.300	0.2569E+08	06	13	MAR 31,1980	
14.266	5068.583	0.2569E+08	07	17	MAR 31,1980	
15.333	5069.008	0.2569E+08	08	21	MAR 31,1980	

TIGHT HOLE

JOB NUMBER
SPG-11772B

DATE OF JOB
APRIL 03, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. 2

DATE OF RUN
MARCH 28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR MIN	DATE	COMMENTS
16.000	5069.008	0.2569E+08	09 01	MAR 31,1980	END SECOND SHUT-IN

TIGHT HOLE

75 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11772B

DATE OF JOB
APRIL 03, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. 2

DATE OF RUN
MARCH 20, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR MIN	DATE	COMMENTS
0.	5069.008	0.2569E+08	09 01	MAR 31,1980	THIRD FLOW
0.125	5010.825	0.2511E+08	09 09	MAR 31,1980	
0.250	4856.097	0.2358E+08	09 16	MAR 31,1980	
0.375	4711.561	0.2220E+08	09 24	MAR 31,1980	
0.500	4558.532	0.2078E+08	09 31	MAR 31,1980	
0.625	4409.041	0.1944E+08	09 39	MAR 31,1980	
0.750	4313.062	0.1860E+08	09 46	MAR 31,1980	
0.875	4164.562	0.1734E+08	09 54	MAR 31,1980	
1.000	4012.838	0.1610E+08	10 01	MAR 31,1980	
1.125	4005.526	0.1604E+08	10 09	MAR 31,1980	
1.250	3908.226	0.1527E+08	10 16	MAR 31,1980	
1.375	3891.916	0.1515E+08	10 24	MAR 31,1980	
1.500	3876.027	0.1502E+08	10 31	MAR 31,1980	
1.625	3854.936	0.1486E+08	10 39	MAR 31,1980	
1.750	3841.016	0.1475E+08	10 46	MAR 31,1980	
1.875	3836.938	0.1472E+08	10 54	MAR 31,1980	
2.000	3832.580	0.1469E+08	11 01	MAR 31,1980	
2.125	3830.752	0.1467E+08	11 09	MAR 31,1980	
2.250	3826.393	0.1464E+08	11 16	MAR 31,1980	
2.375	3825.690	0.1464E+08	11 24	MAR 31,1980	
2.500	3830.189	0.1467E+08	11 31	MAR 31,1980	
2.625	3828.221	0.1466E+08	11 39	MAR 31,1980	
2.750	3824.424	0.1463E+08	11 46	MAR 31,1980	
2.875	3826.815	0.1464E+08	11 54	MAR 31,1980	
3.000	3826.393	0.1464E+08	12 01	MAR 31,1980	
3.125	3795.881	0.1441E+08	12 09	MAR 31,1980	
3.250	3776.759	0.1426E+08	12 16	MAR 31,1980	
3.375	3772.400	0.1423E+08	12 24	MAR 31,1980	
3.500	3767.760	0.1420E+08	12 31	MAR 31,1980	
3.625	3766.494	0.1419E+08	12 39	MAR 31,1980	
3.750	3767.338	0.1419E+08	12 46	MAR 31,1980	
3.875	3765.510	0.1418E+08	12 54	MAR 31,1980	
4.000	3900.493	0.1521E+08	13 01	MAR 31,1980	
4.125	4479.823	0.2007E+08	13 09	MAR 31,1980	
4.250	4481.097	0.2008E+08	13 16	MAR 31,1980	
4.375	4324.953	0.1871E+08	13 24	MAR 31,1980	
4.500	4235.768	0.1794E+08	13 31	MAR 31,1980	

TIGHT HOLE

JOB NUMBER
SPG-11772B

DATE OF JOB
APRIL 03, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. 2

DATE OF RUN
MARCH 20, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
4.625	4084.126	0.1668E+08	13	39	MAR 31,1980	
4.750	4019.868	0.1616E+08	13	46	MAR 31,1980	
4.875	3965.172	0.1572E+08	13	54	MAR 31,1980	
5.000	3917.366	0.1535E+08	14	01	MAR 31,1980	
5.125	3843.828	0.1478E+08	14	09	MAR 31,1980	
5.250	3825.549	0.1463E+08	14	16	MAR 31,1980	
5.375	3814.582	0.1455E+08	14	24	MAR 31,1980	
5.500	3806.567	0.1449E+08	14	31	MAR 31,1980	
5.625	3800.381	0.1444E+08	14	39	MAR 31,1980	
5.750	3798.693	0.1443E+08	14	46	MAR 31,1980	
5.875	3797.287	0.1442E+08	14	54	MAR 31,1980	
6.000	3794.194	0.1440E+08	15	01	MAR 31,1980	
6.125	3796.022	0.1441E+08	15	09	MAR 31,1980	
6.250	3797.850	0.1442E+08	15	16	MAR 31,1980	
6.375	3798.412	0.1443E+08	15	24	MAR 31,1980	
6.500	3798.834	0.1443E+08	15	31	MAR 31,1980	
6.625	3797.428	0.1442E+08	15	39	MAR 31,1980	
6.750	3799.678	0.1444E+08	15	46	MAR 31,1980	
6.875	3800.521	0.1444E+08	15	54	MAR 31,1980	
7.000	3800.802	0.1445E+08	16	01	MAR 31,1980	
7.125	3802.349	0.1446E+08	16	09	MAR 31,1980	
7.250	3804.880	0.1448E+08	16	16	MAR 31,1980	
7.375	3805.021	0.1448E+08	16	24	MAR 31,1980	
7.500	3806.567	0.1449E+08	16	31	MAR 31,1980	
7.625	3804.318	0.1447E+08	16	39	MAR 31,1980	
7.750	3805.864	0.1448E+08	16	46	MAR 31,1980	
7.875	3807.692	0.1450E+08	16	54	MAR 31,1980	
8.000	3809.098	0.1451E+08	17	01	MAR 31,1980	END THIRD FLOW

TIGHT HOLE

65 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11772B

DATE OF JOB
APRIL 03, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. 2

DATE OF RUN
MARCH 28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	TIME MIN	DATE	COMMENTS
0.	3809.098	0.1451E+08	17	01	MAR 31,1980	FINAL SHUT-IN
0.135	4052.770	0.1642E+08	17	09	MAR 31,1980	
0.269	4719.347	0.2227E+08	17	17	MAR 31,1980	
0.404	4873.792	0.2375E+08	17	25	MAR 31,1980	
0.538	4945.706	0.2446E+08	17	33	MAR 31,1980	
0.673	5023.708	0.2524E+08	17	41	MAR 31,1980	
0.807	5042.535	0.2543E+08	17	49	MAR 31,1980	
0.942	5047.915	0.2548E+08	17	58	MAR 31,1980	
1.076	5050.463	0.2551E+08	18	06	MAR 31,1980	
1.211	5050.746	0.2551E+08	18	14	MAR 31,1980	
1.346	5051.595	0.2552E+08	18	22	MAR 31,1980	
1.480	5052.162	0.2552E+08	18	30	MAR 31,1980	
1.615	5053.153	0.2553E+08	18	38	MAR 31,1980	
1.749	5053.436	0.2554E+08	18	46	MAR 31,1980	
1.884	5053.719	0.2554E+08	18	54	MAR 31,1980	
2.018	5054.144	0.2554E+08	19	02	MAR 31,1980	
2.153	5054.568	0.2555E+08	19	10	MAR 31,1980	
2.288	5055.135	0.2555E+08	19	18	MAR 31,1980	
2.422	5055.276	0.2556E+08	19	26	MAR 31,1980	
2.557	5055.559	0.2556E+08	19	34	MAR 31,1980	
2.691	5055.984	0.2556E+08	19	42	MAR 31,1980	
2.826	5055.984	0.2556E+08	19	51	MAR 31,1980	
2.960	5055.984	0.2556E+08	19	59	MAR 31,1980	
3.095	5056.550	0.2557E+08	20	07	MAR 31,1980	
3.229	5055.984	0.2556E+08	20	15	MAR 31,1980	
3.364	5056.409	0.2557E+08	20	23	MAR 31,1980	
3.499	5056.692	0.2557E+08	20	31	MAR 31,1980	
3.633	5056.975	0.2557E+08	20	39	MAR 31,1980	
3.768	5056.975	0.2557E+08	20	47	MAR 31,1980	
3.902	5057.116	0.2557E+08	20	55	MAR 31,1980	
4.037	5056.550	0.2557E+08	21	03	MAR 31,1980	
4.171	5057.824	0.2558E+08	21	11	MAR 31,1980	
4.306	5058.107	0.2558E+08	21	19	MAR 31,1980	
4.440	5058.249	0.2559E+08	21	27	MAR 31,1980	
4.575	5058.532	0.2559E+08	21	36	MAR 31,1980	
4.710	5057.258	0.2558E+08	21	44	MAR 31,1980	
4.844	5058.391	0.2559E+08	21	52	MAR 31,1980	

TEST HOLE

JOB NUMBER
SPG-11772B

DATE OF JOB
APRIL 03, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. 2

DATE OF RUN
MARCH 28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR MIN	DATE	COMMENTS
4.979	5058.674	0.2559E+08	22 00	MAR 31,1980	
5.113	5058.957	0.2559E+08	22 08	MAR 31,1980	
5.248	5059.098	0.2559E+08	22 16	MAR 31,1980	
5.382	5059.381	0.2560E+08	22 24	MAR 31,1980	
5.517	5059.381	0.2560E+08	22 32	MAR 31,1980	
5.652	5059.381	0.2560E+08	22 40	MAR 31,1980	
5.786	5059.523	0.2560E+08	22 48	MAR 31,1980	
5.921	5059.665	0.2560E+08	22 56	MAR 31,1980	
6.055	5059.523	0.2560E+08	23 04	MAR 31,1980	
6.190	5059.523	0.2560E+08	23 12	MAR 31,1980	
6.324	5059.806	0.2560E+08	23 20	MAR 31,1980	
6.459	5059.806	0.2560E+08	23 29	MAR 31,1980	
6.593	5059.523	0.2560E+08	23 37	MAR 31,1980	
6.728	5059.948	0.2560E+08	23 45	MAR 31,1980	
6.863	5060.372	0.2561E+08	23 53	MAR 31,1980	
6.997	5060.231	0.2561E+08	00 01	APR 01,1980	
7.132	5060.231	0.2561E+08	00 09	APR 01,1980	
7.266	5060.514	0.2561E+08	00 17	APR 01,1980	
7.401	5060.797	0.2561E+08	00 25	APR 01,1980	
7.535	5060.939	0.2561E+08	00 33	APR 01,1980	
7.670	5061.080	0.2561E+08	00 41	APR 01,1980	
7.804	5060.939	0.2561E+08	00 49	APR 01,1980	
7.939	5060.939	0.2561E+08	00 57	APR 01,1980	
8.074	5061.080	0.2561E+08	01 05	APR 01,1980	
8.208	5060.656	0.2561E+08	01 13	APR 01,1980	
8.343	5061.222	0.2562E+08	01 22	APR 01,1980	
8.477	5061.222	0.2562E+08	01 30	APR 01,1980	
8.612	5061.222	0.2562E+08	01 38	APR 01,1980	
8.746	5061.363	0.2562E+08	01 46	APR 01,1980	
8.881	5061.363	0.2562E+08	01 54	APR 01,1980	
9.016	5061.363	0.2562E+08	02 02	APR 01,1980	
9.150	5061.363	0.2562E+08	02 10	APR 01,1980	
9.285	5061.646	0.2562E+08	02 18	APR 01,1980	
9.419	5061.646	0.2562E+08	02 26	APR 01,1980	
11.572	5062.354	0.2563E+08	04 35	APR 01,1980	
13.725	5063.204	0.2564E+08	06 45	APR 01,1980	
15.878	5063.487	0.2564E+08	08 54	APR 01,1980	

TIGHT HOLE

JOB NUMBER
SPG-11772B

DATE OF JOB
APRIL 03, 1980

GAUGE/RUN NUMBER
GAUGE NO. 309 RUN NO. 2

DATE OF RUN
MARCH 28, 1980

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSIG)	PRESSURE SQUARED	TIME HR	MIN	DATE	COMMENTS
18.031	5063.770	0.2564E+08	11	03	APR 01,1980	
20.184	5064.195	0.2565E+08	13	12	APR 01,1980	
22.337	5064.619	0.2565E+08	15	21	APR 01,1980	
24.490	5064.619	0.2565E+08	17	30	APR 01,1980	
26.643	5064.619	0.2565E+08	19	40	APR 01,1980	
28.796	5063.628	0.2564E+08	21	49	APR 01,1980	
30.949	5064.619	0.2565E+08	23	58	APR 01,1980	
33.102	5063.911	0.2564E+08	02	07	APR 02,1980	
35.255	5064.619	0.2565E+08	04	16	APR 02,1980	
37.408	5064.336	0.2565E+08	06	25	APR 02,1980	
39.561	5062.920	0.2563E+08	08	35	APR 02,1980	
41.714	5063.487	0.2564E+08	10	44	APR 02,1980	
43.867	5063.345	0.2564E+08	12	53	APR 02,1980	
46.020	5063.204	0.2564E+08	15	02	APR 02,1980	
48.172	5063.345	0.2564E+08	17	11	APR 02,1980	
50.325	5062.354	0.2563E+08	19	21	APR 02,1980	
52.478	5061.930	0.2562E+08	21	30	APR 02,1980	
54.631	5061.505	0.2562E+08	23	39	APR 02,1980	
56.784	5060.939	0.2561E+08	01	48	APR 03,1980	
58.937	5060.089	0.2560E+08	03	57	APR 03,1980	
61.090	5060.231	0.2561E+08	06	06	APR 03,1980	
63.243	5060.231	0.2561E+08	08	16	APR 03.1980	
64.051	5060.231	0.2561E+08	09	04	APR 03,1980	END TEST

TIGHT HOLE

97 POINTS REPORTED THIS RUN

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 25, 1980

SHEET No. 25 JOB No. 103
BUILD-UP PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☐ H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____
ANNULUS ☐ L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
08:00				3572	0												

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 24, 1980

HIGH STAGE ORIFICE & METER RUN SIZE | LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☐ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

SHEET No. 24 JOB No. 103

BUILD-UP PHOSPHORIA

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
08:00				3580	0												

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 23, 1980

SHEET No. 23 JOB No. 109
BUILD-UP PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE — LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☐ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____
L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
08:00				3583	0												

TIGHT
LOAF

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 22, 1980

SHEET No. 22 JOB No. 103
BUILD-UP PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☐ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____
L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:30				3634													
01:00				3630													
01:30				3630													
02:00	41			3627	0												
02:30				3625													
03:00				3620													
03:30				3620													
04:00	39			3620													
04:30				3619													
05:00				3615													
05:30				3615													
06:00	40			3615													
06:30				3615													
07:00				3610													
07:30				3610													
08:00	46			3610	0												

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 21, 1980

SHEET No. 21 JOB No. 103
BUILD-UP PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☐ H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____
ANNULUS ☐ L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
20:30				3665													
20:45				3660													
21:00				3659													
21:30				3653													
22:00	49			3650													
22:30				3648													
23:00				3642													
23:30				3639													
24:00	46			3635	0												

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.C. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 21, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.750 x 3.068

SHEET No. 18 JOB No. 103
PHOSPHORIA

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 400" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
10:15	68		097	2565													
10:30	67		099	2572		144		1010	202	52	54	24.00	40	38	32	34	.925
11:00	66		100	2579	125	140		1010	205	57	58	24.00	40	36	40	40	.885
11:30	66		103	2573		140		1010	207	60	62	24.00	40	36	40	40	.885
12:00	67		106	2573	220	144		1010	210	62	63	24.05	40	38	44	44	.915
12:30	67		106	2573		144		1015	214	63	63	24.07	40	36	48	48	.885
13:00	69		109	2573	320	144		1015	217	67	68	24.10	40	35	57	58	.870
13:30	71		110	2573		146		1015	218	67	68	24.10	40	35	57	58	.870
14:00	71		111	2573	400	146		1015	217	67	68	24.10	40	36	58	60	.875
14:30	71		111	2574		146		1015	217	67	68	24.10	40	36	64	64	.875
15:00	68		114	2573		146		1015	216	68	68	24.10	40	30	67	68	.782
15:30	68		114	2584		148		1025	218	70	72	24.35	40	28	67	68	.778
16:00	67		114	2574	465	148		1025	219	70	72	24.40	40	26	67	68	.740
16:30	66		115	2570		150		1025	219	70	72	24.40	40	26	67	68	.740
17:00	62		115	2570		146		1025	220	69	72	24.40	40	25	66	66	.720
17:30	60		116	2570	000	146	1008	1030	219	70	71	24.40	40	25	66	66	.720
18:00	61		112	2567		147		1030	219	72	74	24.40	40	31	68	70	.800
18:30	61		112	2567		147		1030	220	72	73	24.50	38	25	64	64	.710
19:00	60		112	2569		147		1030	220	74	74	24.50	38	26	64	64	.720
19:10			SHUT IN BY AMOCO REQUEST - RECORDING BUILD-UPS END OF RATE #4 AND OF TEST														
19:15				3635													
19:20				3670													
19:25				3671													
19:30				3673													
19:35				3673													
19:40				3673													
19:45				3673													
19:50				3673													
19:55				3673													
20:00				3673													
20:15				3669													

TIGHT HOLE

REMARKS:

TUTWEILERS @ AVERAGE = 14.123% H2S (CHROMATOGRAPH)

TOTAL GAS FLARED RATE #4 = 10.911 MMCF/D

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 21, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.750 x 3.068

SHEET No. 17 JOB No. 103

PHOSPHORIA

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 400" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:30				3616													
01:00				3613													
01:30				3613													
02:00	48			3610	00												
02:30				3610													
03:00				3609													
03:30				3607													
04:00	47			3605													
04:30				3603													
05:00				3602													
05:30				3602													
06:00	46			3602													
06:30				3600													
07:00				3600													
07:30				3600													
08:00	54			3600	00	SHUT IN PRESSURES											
08:07		PRESSURED UP TO CHOKE - SHUT INTO REPAIR LEAK ON FLOW LINE															
08:20		PRESSURED UP TO CHOKE - OPENED WELL THROUGH SEPARATOR ON RATE #4 WITH A 2.750 x 4.026 PLATE															
08:25			70	3430													
08:30	58	36/64	74	3260				0900	076	32	34	14.00					
08:35		38/64	76	2800		INCREASED BACK PRESSURE											
08:40		38.5/64	79	2652		172		0930	102	32	34	16.55					
08:45	61		80	2645		170		0930	192	32	34	22.95					
08:50			81	2630		INCREASED BACK PRESSURE											
08:55			82	2612													
09:00	61		84	2592	10	156		1010	180	36	36	23.00	42	54	12	12	1.140
09:15	61		87	2610				1010	180	40	42	23.00	43	48	14	14	1.080
09:25		39/64	INCREASED CHOKE TO 39/64														
09:30	62		89	2572	10	146		1010	190	41	43	23.50	43	50	18	18	1.100
09:45	62		93	2565													
10:00	64		96	2565		144		1010	200	46	48	23.95	43	42	28	30	1.000

TIGHT HOLE

REMARKS:

PRESSURED UP TO CHOKE LATE DUE TO LOSS OF INSTRUMENT GAS SUPPLY AT SEPARATOR AND LEAK ON FLOW LINE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 20, 1980

SHEET No. 16 JOB No. 103
PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE	LOW STAGE ORIFICE & METER RUN SIZE
FLOWING: TUBING ☐ ANNULUS ☐	H.S. METER SIZE ____ X ____ CALIBRATED @ ____ HRS. ____
	L.S. METER SIZE ____ X ____ CALIBRATED @ ____ HRS. ____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
18:00				3652	015												
18:30				3647													
19:00				3645													
19:30				3643													
20:00				3637													
20:30				3636													
21:00				3634													
21:30				3627													
22:00				3625													
22:30				3622													
23:00				3620													
23:30				3620													
24:00				3616													

TIGHT HOLE

REMARKS: TUTWEILERS @ 09:00 - 13.13%
(CHROMATOGRAPH) @ 11:00 - 13.73%
@ 13:00 - 14.80%
@ 15:00 - 14.75%
@ 16:00 - 14.86%

TOTAL GAS FLARED RATE #3 = 6.723 MMCF/D

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 20, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.500 x 3.068

SHEET No. 15 JOB No. 103

PHOSPHORIA

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 400" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
09:45	58	31.5/64	090	2942	020	140		960	134	38	40	19.28	70	57	22	22	1.000
10:00	60		092	2970	040	142		960	137	38	39	19.30	70	55	24	24	0.990
10:30	60		093	2970		143		960	137	47	48	19.30	70	41	40	40	0.850
11:00	65		098	2975	080	144		960	138	46	47	19.36	70	36	46	46	0.790
11:20				DECREASED LOW STAGE BACK PRESSURE													
11:30	68		100	2970		144		960	140	48	48	19.45	55	44	46	46	0.800
12:00	68		102	2970	160	150		960	142	50	51	19.50	55	42	50	52	0.775
12:30	68		103	2982		152		960	143	52	54	19.55	55	52	55	55	0.850
13:00	69		106	2990	260	150		960	142	54	56	19.50	55	46	50	52	0.810
13:30	70		108	2990		150		960	144	56	57	19.53	55	44	50	52	0.790
14:00	70		109	2990	340	150		960	144	56	57	19.53	55	52	50	52	0.850
14:30	70		110	2992		154	950	960	144	57	58	19.53	55	55	60	62	0.870
15:00	70		110	2994	390	154		960	145	57	59	19.55	55	50	60	60	0.820
15:30	72		112	2997		153		960	145	58	60	19.55	55	52	65	66	0.845
16:00	71		112	2997	420	153		960	145	58	60	19.55	55	52	60	62	0.845
16:00				SHUT INTO RECORD BUILD-UPS END OF RATE #3													
16:05				3660													
16:10				3672													
16:15				3676													
16:20				3676													
16:25				3673													
16:30				3673													
16:35				3670													
16:40				3670													
16:45				3669													
16:50				3667													
16:55				3665													
17:00				3664													
17:15				3659													
17:30				3655													
17:45				3654													

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 20, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.500 x 3.068

SHEET No. 14 JOB No. 103

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 400" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

PHOSPHORIA

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:30				3612													
01:00				3610													
[illegible]30				3610													
02:00				3607													
02:30				3605													
03:00				3605													
03:30				3604													
04:00				3602													
04:30				3600													
05:00				3600													
05:30				3600													
06:00				3600													
06:30				3597													
07:00				3597													
07:30				3595													
08:00				3592													
08:00	50		OPENED WELL THROUGH SEPARATOR ON RATE #3 WITH A 2.750 x 4.026 ORIFICE PLATE														
08:05			70	3430	0												
[illegible]:10			71	3310													
[illegible]:15	51	30/64	74	3060				900	124	34	34	18.00					
08:20		31/64	76	3067													
08:25			78	2910													
08:30	52		78	2990	10	150		900	124	34	34	18.00					
08:35			79	2980													
08:40			80	2970													
08:45	52	31.5/64	80	2984		146		950	132	32	32	19.10	72	72	22	22	1.17
08:50			81	2950													
08:55			82	2950													
09:00	54		84	2950	20	141		960	132	30	31	19.25	70	68	20	20	1.12
09:15	58		86	2954		138		960	132	36	38	19.25	70	62	22	22	1.06
09:30	58		88	2949		137		960	132	38	39	19.25	70	58	22	22	1.03

SHUT IN PRESSURE - PRESSURED UPTO CHOKE

INCREASED BACK PRESSURE

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 19, 1980

SHEET No. 13 JOB No. 103

PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE | LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☐ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____

L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
17:15				3654													
17:30				3652													
17:45				3650													
18:00				3648													
18:30				3641													
19:00				3636													
19:30				3634													
20:00				3630													
20:30				3627													
21:00				3624													
21:30				3620													
22:00				3619													
22:30				3617													
23:00				3615													
23:30				3615													
24:00				3612													

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 19, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.500 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.250 x 3.068

SHEET No. 12 JOB No. 103

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 400" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

PHOSPHORIA

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
09:00	53		075	3210	020	146		910	125	28	28	14.50	87	092	41	42	0.940
09:15			078	3225		146		910	124	28	28	14.45	90	100	38	38	1.000
09:15			INCREASED HIGH STAGE BACK PRESSURE														
09:30			080	3227		146		975	114	32	32	14.25	90	087	30	32	0.940
09:45			082	3231		146		975	118	34	34	14.45	90	078	36	37	0.885
10:00	60		084	3235	030	146		975	115	36	36	14.30	90	084	44	45	0.915
10:30			088	3235		146		975	124	36	36	14.60	90	076	44	44	0.860
11:00	64		090	3242	060	146		975	124	42	42	14.60	90	063	52	52	0.785
11:30			092	3243		146		975	126	46	46	14.65	90	054	58	58	0.725
12:00	68		094	3248	060	146		975	126	48	48	14.65	90	050	58	59	0.690
12:30			096	3253		146		975	129	50	50	14.85	90	053	64	64	0.705
13:00	70		098	3255	110	146		975	130	50	50	14.90	90	040	62	62	0.670
13:30			100	3260		152	965	975	130	48	50	14.90	90	051	72	74	0.680
14:00	70		100	3265	170	154		975	129	48	54	14.85	90	048	72	74	0.670
14:30			100	3265		154		975	130	52	54	14.90	90	046	72	73	0.660
15:00	69		102	3265	200	152		975	129	54	55	14.85	90	044	78	78	0.640
15:30			102	3267		154		975	129	56	58	14.85	90	041	78	78	0.610
16:00	68		104	3268	220	156		975	128	56	58	14.80	90	040	80	82	0.600
16:00			SHUT INTO RECORD BUILD-UPS					END OF RATE #2									
16:05				3667													
16:10	68			3669													
16:15				3669													
16:20				3667													
16:25				3667													
16:30				3665													
16:35				3663													
16:40				3662													
16:45				3661													
16:50				3660													
16:55				3658													
17:00				3658													

TIGHT HOLE

REMARKS:

TUTWEILERS @ 09:00 - 15.0%
@ 11:00 - 13.7%
@ 13.00 - 12.6%
@ 15:00 - 11.9%

TOTAL GAS FLARED RATE #2 = 5.086 MMCF/D

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 19, 1980

SHEET No. 11 JOB No. 103
PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE 2.500 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.250 x 3.068

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 400" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:30				3598													
01:00				3598													
[illegible]:30				3598													
02:00				3598													
02:30				3598													
03:00				3597													
03:30				3595													
04:00				3595													
04:30				3595													
05:00				3595													
05:30				3594													
06:00				3592													
06:30				3592													
07:00				3592													
07:30				3592													
07:50		PRESSURED UP TO CHOKE - SHUT INTO REPAIR LEAK ON CHOKE															
08:05		PRESSURED UP TO CHOKE															
08:05				3592	SHUT IN PRESSURE												
[illegible]:07		OPENED WELL THROUGH SEPARATOR ON RATE #2 WITH A 2.500 x 4.026 ORIFICE PLATE															
08:15		25/64	62	3460	10			810	120	62	64	12.98					
08:15		INCREASED BACK PRESSURE															
08:20			65	3310													
08:25			68	3282													
08:30		25.5/64	70	3282				900	104	48	48	12.90	50	[illegible]	43	43	.740
08:35			70	3260	INCREASED LOW STAGE BACK PRESSURE												
08:37		26/64															
08:40		26.5/64	72	3260													
08:45			72	3200				915	128	30	32	14.70	65	PEN OFF CHART	46	48	
08:45					INCREASED LOW STAGE BACK PRESSURE												
08:50			74	3220													
08:55			74	3220													

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 18, 1980

SHEET No. 10 JOB No. 103

PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE | LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____

L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
16:05				3650													
16:10				3652													
16:15				3651													
16:20				3648													
16:25				3647													
16:30				3645													
16:35				3645													
16:40				3642													
16:45				3642													
16:50				3640													
16:55				3640													
17:00				3640													
17:15				3636													
17:30				3634													
17:45				3630													
18:00				3628	25												
18:30				3625													
19:00				3622													
19:30				3619													
20:00				3615	15												
20:30				3615													
21:00				3614													
21:30				3613													
22:00				3606													
22:30				3606													
23:00				3606													
23:30				3605													
24:00				3598	10												

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 18, 1980

SHEET No. 9 JOB No. 103
PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE 2.250 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.000 x 3.068

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 400" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
07:45				2685	0	SHUT IN PRESSURE											
08:00	48	OPENED WELL THROUGH SEPARATOR ON RATE #1 WITH A 2.250 x 4.026 ORIFICE PLATE															
08:05			52	2620													
08:10		20/64	56	2700	FLUID TO SURFACE												
08:15			62	3050		178		630	046	96	96	5.40					
08:20			64	3225	INCREASED BACK PRESSURE												
08:25			64	3330													
08:30	50		64	3450		168		840	112	86	86	9.75					
08:35		20.25/64	64	3395	INCREASED CHOKE TO 20.25/64 INCREASED BACK PRESSURE												
08:40			65	3390													
08:45			65	3410		157		930	090	54	54	9.45	35	14	70	70	.156
08:50			66	3422	INCREASED LOW STAGE BACK PRESSURE												
08:55			67	3420													
09:00	50		68	3410	0	150		930	092	58	58	9.60	55	[illegible]	74	75	.198
09:15			70	3408	METER OUT OF SERVICE								55	20	70	72	.220
09:25		20.5/64			INCREASED CHOKE TO 20.5/64												
09:30	52		72	3405		146		930	092	44	44	9.60	55	32	75	75	.278
09:45			74	3411		144		930	092	44	46	9.60	55	81	74	76	.275
10:00	56		74	3430	20	144		930	092	42	42	9.60	55	82	70	70	.445
10:30	56		76	3412		142		925	094	52	52	9.65	55	82	78	80	.445
11:00	58		78	3460	20	143		925	072	52	54	8.40	55	91	75	76	.470
11:30	60		79	3460		144		925	090	48	48	9.45	70	52	82	84	.388
12:00	60		80	3475	30	144	900	925	088	48	48	9.40	70	61	80	80	.420
12:30	61		82	3479		142		925	091	48	48	9.45	70	64	76	79	.425
13:00	64		84	3480	40	144		930	094	48	50	9.75	70	66	75	79	.440
13:30	64		86	3460		144		930	094	49	50	9.75	70	62	72	74	.430
14:00	70		86	3465	40	144		930	095	49	50	9.80	70	66	78	80	.440
14:30	70		86	3469		144		925	092	53	54	9.60	70	56	81	82	.400
15:00	70		88	3465	40	144		925	097	54	54	9.85	70	44	84	86	.355
15:30	70		89	3470		144		925	100	60	60	10.00	70	59	85	88	.410
16:00	70		89	3470	40	144		925	100	56	56	10.00	70	55	95	96	.395

TIGHT HOLE

REMARKS: 16:00 SHUT INTO RECORD BUILD-UPS END OF RATE #1

09:30-10:00 LOW STAGE FLUID DUMP STUCK OPEN 11:00 - HYDRATES BUILDING UP AT CHOKE

TOTAL GAS FLARED DURING RATE #1 = 3.247 MMCF/D

TUTWEILERS @ 11:30 = 12.6% H_2S

@ 15:30 = 13.0% H_2S

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL12, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.500 x 3.068

SHEET No. 8 JOB No. 103
CLEAN-UP PHOSPHORIA

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 400 PSI CALIBRATED @ _____ HRS.
L.S. METER SIZE 250 PSI x 100 PSI CALIBRATED @ _____ HRS.

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
16:15				3645	SHUT IN PRESSURE				INSTALLED 2.750 x 4.026 ORIFICE PLATE								
16:30			PRESSURED UP TO CHOKE				OPENED WELL THROUGH SEPARATOR ON DRAWDOWN RATE										
16:45		35/64	82	2720													
16:50		38/64															
17:00			88	2552	240	132		900	210	42	42	23.30					
17:15			92	2565	500	125		900	200	41	44	22.75					
17:30			93	2563	080	126		900	200	43	45	22.75	48	60	36	38	.890
18:00			98	2568	310	122		900	200	46	48	22.75	45	68	37	39	.920
18:30			100	2573	460	122		900	202	42	52	23.00	45	60	44	44	.860
19:00			102	2573	050	124		900	195	51	53	22.35	45	55	46	46	.820
19:30			103	2573	100	128		900	204	54	56	23.00	45	40	56	57	.780
20:00			105	2573	150	130		900	206	57	59	23.05	45	45	54	55	.735
20:30			105	2573	180	132		900	206	57	60	23.05	45	40	58	59	.690
20:30				SHUT IN - END OF DRAWDOWN - RECORDING BUILD-UP													
20:35				3650													
20:40				3673													
20:45				3683													
20:50				3685													
20:55				3685													
21:00				3685													
21:05				3683													
21:10				3683													
21:15				3682													
21:20				3681													
21:25				3679													
21:30				3679													
21:45			DEADWEIGHT														
22:00			FROZE UP AND														
22:15			OUT OF SERVICE														
22:30				3668													
22:30			CLOSED MASTERS			END OF BUILD-UP											

TIGHT HOLE

REMARKS:

17:15 + 18:30 BLED OFF CASING
18:45 HYDRATES BUILDING UP IN SEPARATOR
TOTAL GAS FLARED DURING DRAWDOWN = 3.951 MMCF

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 12, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.50 x 3.068

SHEET No. 7 JOB No. 103
CLEAN-UP PHOSPHORIA

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 x 400" CALIBRATED @ _____ HRS. _____
L.S. METER SIZE 250 x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
03:30	19	20.5/64	101	3435	40	155		950	38	70	72	09.90	49	18	104	106	.465
01:00	19		101	3435	40	155		950	38	70	72	09.90	49	HIGH	STAGE	CARRYING	
01:30	19		100	3435	40	154		950	40	70	72	10.00	50	OVER DUE TO ICE IN SEPARATO			
02:00	19		100	3435	40	156		950	40	70	72	10.00	49		086	88	
02:30	19		100	3435	40	164		950	44	74	75	10.30	49	16	088	90	.458
03:00	18		100	3435	40	160		950	44	74	75	10.30	49	16	110	112	.458
03:30	18		100	3440	40	158		950	40	68	70	10.00	49	18	112	114	.460
04:00	18		100	3440	40	156		950	40	70	72	10.00	50	14	114	116	.460
04:30	18		100	3440	40	156		950	40	68	70	10.00	50	CARRYING OVER DUE TO			
05:00	18		100	3440	40	156		950	40	68	70	10.00	50	HYDRATES IN SEPARATOR			
05:30	18		100	3440	40	156		950	40	68	70	10.00	50	18			
06:00	18		100	3440	40	156		950	40	68	70	10.00	50	18			
06:30	18		100	3440	40	156		950	40	68	70	10.00	50	18			
07:00	19		100	3440	40	156		950	40	68	70	10.00	50				
07:30	19		100	3440	40	156		950	38	66	68	10.00	51	CARRYING OVER DUE			
08:00	20		100	3440	40	156		950	38	66	68	09.90	51	TO HYDRATES IN SEPARATOR			
08:30	20		100	3440	40	156	PUT SEPARATOR ON BY-PASS TO FLUSH SEPARATOR WITH METHYNOL TO CLEAR HYDRATES										
09:00		20.5/64	100	3440	40		OPENED WELL THROUGH UNIT SET BACK PRESSURE CHANGE TO 2.500 ORFICE PLATE										
09:30			99	3440	40	144		775	72	54	54	09.80	51	11	096	096	.365
09:35			100				INCREASED BACK PRESSURE										
10:00			100	3440	40	144		800	72	56	56	10.00	51	11	112	112	.365
10:30			100	3440	40	144		800	72	56	56	10.00	51	11	114	114	.365
11:00			100	3440	40	144		800	72	54	54	10.00	51	11	092	092	.360
11:30			100	3440	40	144		800	72	54	54	10.00	51	11	086	086	.355
12:00			100	3440	40	144		800	72	54	54	10.00	51	11	086	086	.355
12:30			102	3440	40	144		800	72	54	54	10.00	51	11	086	086	.355
12:35							CLOSE MASTERS TO RIG UP OTIS										

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 11, 1980

SHEET No. 6 JOB No. 103
CLEAN-UP PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 X 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.50 X 3.068

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI X 400 PSI CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI X 100 PSI CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
21:45			DECREASED CHOKE TO			21/64											
22:00	28		105	3435		152		950	40	68	70	10.00	50	20	106	106	.480
22:10			DECREASED CHOKE TO			20.5/64											
22:30			103	3435		154		950	38	68	70	09.00	50	18	102	102	.465
23:00			102	3435		154		950	38	68	70	09.00	50	18	101	102	.465
23:30	23		102	3435		155		950	38	68	71	09.90	49	05	110	110	.238
24:00			101	3435		154		950	38	70	71	09.90	49	18	110	110	.460

TIGHT HOLE

REMARKS: TUTWEILER @ 24:00 - 11.99% H.S.

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 11, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 X 4.026 LOW STAGE ORIFICE & METER RUN SIZE

SHEET No. 5 JOB No. 103

CLEAN-UP PHOSPHORIA

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 400 PSI CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100 PSI CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
09:30			90	3400													
10:00			90	3400													
10:30			91	3400													
11:00			92	3410	320												
11:30			93	3410													
12:00			94	3410													
12:30			94	3425													
13:00			94	3425	500												
13:30			94	3425													
13:45		SWITCHED FLOW THROUGH SEPARATOR															
14:00		32/64	94	2900		170		900	148	64	64	18.75					
14:05		35/64															
14:30			98	2760		158		900	159	56	56	19.55					
15:00		DEADWEIGHT BEING SERVICED				148		910	144	58	59	19.00					
15:30			102	2755		148		910	104	58	59	16.00					
16:00	46		104	2765	390			910	080	56	56	14.20					
16:50			106	2770		BY-PASSED SEPARATOR TO PUMP METHANOL INTO UNIT											
17:00	39		107	2774													
17:30			108	2785													
18:00		SWITCH FLOW THROUGH SEPARATOR															
18:00	38		108	2755		146		870	176	58	59	20.50					
18:30			108	2755		142		900	128	58	60	17.75					
19:00	34		108	2755		144		900	172	60	60	20.85					
19:30			109	2755		144		900	172	60	60	20.85					
20:00	33		109	2755		144		885	148	56	57	18.55					
20:00		DECREASED CHOKE TO 22/64															
20:30			109	3410		154		855	088	66	67	14.20					
20:50		INCREASED BACK PRESSURE															
21:00	32		108	3410		155		900	046	68	70	10.50					
21:00		INCREASED BACK PRESSURE															
21:30			107	3410		153		950	044	68	69	10.55					

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 11, 1980

SHEET No. 4 JOB No. 103
CLEAN-UP PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE 4 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 400 PSI CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100 PSI CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:15			84	1820	280												
00:30			84	1820													
00:45			84	1820	400	OPENED WELL THROUGH SEPARATOR WITH A 2.500 X 4.026 ORFICE PLATE											
01:00		24/64				148		820	116	44	46	13.10					
01:45			BY-PASSED SEPARATOR TO STACK - FLUID INLET TO TANKS FROZE OFF														
01:55			SWITCHED FLOW THROUGH SEPARATOR														
02:05		28/64															
02:30						140		850	196	44	46	17.10					
02:45						140		870	204	46	48	17.90					
03:00						141		875	154	44	45	15.50					
03:25		32/64	SEPARATOR HYDRATING OFF - BY-PASSED TO PIT														
03:30			95	3342	280												
03:45			SHUT IN WELL DUE TO H2S GAS DRIFTING ACROSS LOCATION														
04:00				3640													
04:30				3640													
05:00				3640													
05:00				3640													
06:00				3640													
06:30				3640		SHUT IN PRESSURE											
06:30			OPENED WELL TO PIT ON A 32/64 CHOKE														
07:05			SWITCH FLOW THROUGH SEPARATOR WITH A 2.750 X 4.026 ORFICE PLATE														
07:15		24/64	84	3150	115	156		330	140	40	40	11.50					
07:30			85	3260	180	150		675	048	40	40	09.60					
07:45			86	3260	180	150		740	056	42	42	10.80					
08:00			87	3270	190	148		740	056	40	40	10.80					
08:30			89	3270	220	148		740	056	36	36	10.80					
08:35			SEPARATOR HYDRATING OFF - BY-PASSED SEPARATOR														
08:40		32/64	SWITCHED FLOW TO PIT ON A 32/64 CHOKE														
08:45			89	3400													
09:00			89	3400	240												

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 10, 1980

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

SHEET No. 3 JOB No. 103

CLEAN-UP PHOSPHORIA

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
20:55				2000		SHUT IN PRESSURE											
20:55			OPENED WELL TO PIT ON CLEAN-UP VARIOUS CHOKE SIZES														
21:05			64	1500													
21:10			66	1500													
21:15			62	1500													
21:20			66	1700													
21:25			66	1950													
21:30			70	2000													
21:45			64	1400													
22:00			70	1650	190												
22:15			72	1650													
22:30			75	1785	400	BLED DOWN CASING											
22:45			76	1820													
23:00			79	1825	285												
23:15			80	1790	360												
23:30			80	1900	040	BLED DOWN CASING											
23:45			82	1825	160												
24:00			83	1820	220												

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 10, 1980

SHEET No. 2 JOB No. 103
CLEAN-UP PHOSPHORIA

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____
L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
03:45				2550													
03:50				3050													
04:30				3593	SHUT IN PRESSURE												
04:30				OPENED WELL THROUGH 1" CHOKE TO PIT - OPENED 2" LINE TO PIT													
04:42			8°	0480	SHUT IN WELL												
04:55				3560													
05:30				3590	SHUT IN PRESSURE												
05:35				OPENED WELL THROUGH 2" MANIFOLD LINE TO PIT AND 32/64 CHOKE ON BY-PASS LINE													
05:40			10°	1050													
05:45			12°	0750													
05:50			20°	0605													
05:55			24°	0600													
06:00			18°	0520													
06:05			15°	0490	SHUT IN 2" LINE TO PIT												
06:10			45°	1700													
06:15			52°	2055													
06:20			32°	0650													
06:20				INCREASED CHOKE TO 64/64													
06:22			24°	0350	SHUT IN - HYDRATING OFF - RECORDING BUILD-UP												
06:25				2550													
06:30				2620													
06:35				2545													
06:40				2550													
06:45				2555													
07:30				2725													
08:00				2835													
09:00				2972													
09:30				3000	RIGGED OUT DEADWEIGHT - WAITING ON ORDERS												

TIGHT HOLE

REMARKS:

PC "TA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 10, 1980

RECEIVED
MAY 7 1980
DIVISION OF
OIL, GAS & MINING

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

SHEET No. 1 JOB No. 103

CLEAN-UP PHOSPHORIA

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
01:20				OPENED WELL THROUGH SEPARATOR BY-PASS TO STACK ON CLEAN-UP													
01:25			58	2450													
01:30			60	2100													
01:35			58	2000													
01:40		32/64	58	1975													
01:45		48/64	58	1500													
01:50			55	1500													
01:55			56	1400													
02:00			58	1500	20												
02:05			54	1500													
02:10			52	1400													
02:15		64/64	52	1400													
02:20			52	1400													
02:25			51	1225													
02:30			50	1100													
02:35			50	1000													
02:40			50	1250													
02:45			51	1200													
02:50			50	1175													
02:55			50	1075													
03:00			50	1100													
03:05			50	1150													
03:10			50	1150		OPENED CHOKE MANIFOLD LINE TO PIT ON A 64/64 CHOKE											
03:15			50	1125													
03:20			50	1000													
03:25			49	1000		OPENED 2" MANIFOLD LINE TO PIT											
03:30			49	1100													
03:35			42	1000		SHUT IN MANIFOLD LINES TO PIT											
03:40			40	0670	20	PRESSURE RECORDED VIA DEADWEIGHT											
03:42			SHUT IN - POSSIBLE HYDRATIONS FORMING DOWNHOLE - RECORDING BUILD-UP														

TIGHT HOLE

REMARKS: DEADWEIGHT OUT OF SERVICE
PRESSURES RECORDED VIA 10,000# GAUGE ON TREE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILES, WYOMING 82644

PRODUCTION SUMMARY SHEET RATE #4 COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 8 Job No. 103 PHOSPHORIA WELL NO. FAWCETT & SONS #1 STATE UTAH DATE APRIL 21, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
	OPENING PRODUCTION		38.881		640.82		1.14		641.96				
08:20		OPENED WELL THROUGH SEPARATOR ON RATE #4											
09:00	24.140	0.546	39.427	16.30	657.12	0.0	1.14	16.30	658.26	29.853	16.667	29.853	16.696
10:00	24.950	1.022	40.449	22.02	679.14	0.0	1.14	22.02	680.28	21.546	16.790	21.546	16.818
11:00	24.885	1.038	41.487	31.14	710.28	0.0	1.14	31.14	711.42	30.000	17.121	30.000	17.148
12:00	24.965	1.039	42.526	23.15	733.43	0.0	1.14	23.15	734.57	22.281	17.247	22.281	17.273
13:00	24.970	1.041	43.567	19.16	752.59	0.0	1.14	19.16	753.73	18.405	17.274	18.405	17.300
14:00	24.990	1.041	44.608	12.32	764.91	0.0	1.14	12.32	766.05	11.835	17.147	11.835	17.173
15:00	24.882	1.039	45.647	25.44	790.35	0.0	1.14	25.44	791.49	24.485	17.314	24.485	17.339
16:00	25.140	1.048	56.695	16.88	807.23	0.0	1.14	16.88	808.37	16.107	17.287	16.107	17.312
17:00	25.120	1.047	47.742	17.44	824.67	0.0	1.14	17.44	825.81	16.657	17.273	16.657	17.297
18:00	25.200	1.049	48.791	19.16	843.83	0.0	1.14	19.16	844.97	18.265	17.295	18.265	17.318
19:00	25.220	1.051	49.842	21.44	865.27	0.0	1.14	21.44	866.41	20.400	17.360	20.400	17.383
19:10	25.220	0.174	50.016	*03.50	868.77	0.0	1.14	03.50	869.91	20.115	17.370	20.115	17.393

*ESTIMATED
B.J. PUMPED DOWN 15 BBLS METHANOL + ¼ BBL VIA TEXSTEAM = AVERAGE OF 1.39 BBLS/HOUR SUBTRACTED

19:10 SHUT IN - END OF RATE #4 AND OF TEST

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET RATE #3 COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 7 Job No. 103 PHOSPHORIA WELL NO. FAWCETT & SONS #1 STATE UTAH DATE APRIL 20, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
			32.138		509.49		1.14		510.63				
08:00	OPENED WELL THROUGH SEPARATOR ON RATE #3												
09:00	20.175	0.820	32.958	10.50	519.99	0.0	1.14	10.50	521.13	12.805	15.777	12.805	15.812
10:00	20.290	0.845	33.803	19.63	539.62	0.0	1.14	19.63	540.75	23.231	15.964	23.231	15.997
11:00	20.150	0.839	34.642	16.77	556.39	0.0	1.14	16.77	557.53	19.988	16.061	19.988	16.094
12:00	20.275	0.844	35.486	14.49	570.88	0.0	1.14	14.49	572.02	17.168	16.087	17.168	16.120
13:00	20.310	0.848	36.334	17.91	588.79	0.0	1.14	17.91	589.93	21.120	16.205	21.120	16.236
14:00	20.380	0.848	37.182	16.78	605.57	0.0	1.14	16.78	606.71	19.788	16.287	19.788	16.317
15:00	20.370	0.849	38.031	15.63	621.20	0.0	1.14	15.63	622.34	18.410	16.334	18.410	16.364
16:00	20.395	0.850	38.881	19.62	640.82	0.0	1.14	19.62	641.96	23.082	16.482	23.082	16.511
16:00	SHUT IN - END OF RATE #3												

B.J. PUMPED 16.25 BBLS + .25 BBL PUMPED VIA TEXSTEAM = AVERAGE OF 2.06 BBL/HOUR SUBTRACTED HOURLY

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.

P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET RATE #2 COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 6 Job No. 103 PHOSPHORI WELL NO. FAWCETT & SONS #1 STATE UTAH DATE APRIL 19,1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
	OPENING	PRODUCTION	27.024		414.09		1.14		415.23				
08:00		OPENED WELL THROUGH SEPARATOR ON RATE #2											
09:00	15.440	0.609	27.633	05.29	419.38	0.0	1.14	05.29	420.52	08.686	15.177	08.686	15.218
10:00	15.215	0.637	28.270	13.28	432.66	0.0	1.14	13.28	433.38	20.848	15.305	20.848	15.330
11:00	15.385	0.642	28.912	19.56	452.22	0.0	1.14	19.56	453.36	30.467	15.641	30.467	15.681
12:00	15.340	0.639	29.551	07.00	459.22	0.0	1.14	07.00	460.36	10.955	15.540	10.955	15.578
13:00	15.570	0.649	30.200	14.42	473.64	0.0	1.14	14.42	474.78	22.219	15.683	22.219	15.721
14:00	15.520	0.648	30.848	12.14	485.78	0.0	1.14	12.14	486.92	18.735	15.748	18.735	15.784
15:00	15.490	0.647	31.495	12.14	497.92	0.0	1.14	12.14	499.06	18.764	15.809	18.764	15.846
16:00	15.400	0.643	32.138	11.57	509.49	0.0	1.14	11.57	510.63	17.994	15.853	17.994	15.889
16:00		SHUT IN - END OF RATE #2											

*12.50 BBLS METHANOL PUMPED DURING 8 HOURS = 1.56 BBLS/HOUR SUBTRACTED HOURLY

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
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PRODUCTION SUMMARY SHEET RATE #1 COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 5 Job No. 103 PHOSPHORWELL NO. FAWCETT & SONS #1 STATE UTAH DATE APRIL 18, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
	OPENING	PRODUCTION	23.748		354.66		1.14		355.80				
08:00		OPENED WELL THROUGH SEPARATOR ON RATE #1											
09:00	09.798	0.360	24.108	*6.57	361.23	0.0	1.14	6.57	362.37	18.250	14.984	18.250	15.031
10:00	10.045	0.413	24.521	4.21	365.44	0.0	1.14	4.21	366.58	10.194	14.903	10.194	14.950
11:00	08.870	0.395	24.916	7.63	373.07	0.0	1.14	7.63	374.21	19.316	14.973	19.316	15.019
12:00	09.820	0.410	25.326	9.35	382.42	0.0	1.14	9.35	383.56	22.805	15.100	22.805	15.145
13:00	10.190	0.418	25.744	7.06	389.48	0.0	1.14	7.06	390.62	16.890	15.129	16.890	15.173
14:00	10.240	0.425	26.169	7.63	397.11	0.0	1.14	7.63	398.25	17.953	15.175	17.953	15.218
15:00	10.205	0.421	26.59	7.63	404.74	0.0	1.14	7.63	405.88	18.124	15.222	18.124	15.264
16:00	10.395	0.434	27.024	9.35	414.09	0.0	1.14	9.35	415.23	21.544	15.323	21.544	15.365

11.75 BBLS METHANOL PUMPED DURING TEST VIA B.J. HUGHS + ½ BBL VIA TEXSTEAM

*ESTIMATED

AN AVERAGE OF 1.50 BBLS METHANOL/HOUR IS SUBTRACTED FOR EACH HOUR

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
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MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET CLEAN-UP COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 4 Job No. 103 PHOSPHORIA WELL NO. FAWCETT & SONS #1 STATE UTAH DATE APRIL 12, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
	OPENING	PRODUCTION	23.254		342.67		1.14		343.81				
20:30	23.740	0.494	23.748	11.99	354.66	0.0	1.14	11.99	355.80	24.271	14.934	24.271	14.982
20:30		SHUT INTO RECORD BUILD-UP - END OF CLEAN-UP											

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
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MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET CLEAN-UP COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 3 Job No. 103 PHOSPHORIA WELL NO. FAWCETT & SONS #1 STATE UTAH DATE APRIL 12, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
	OPENING PRODUCTION		14.361		186.85		1.14		187.99				
01:00	10.362	0.432	14.793	07.61	194.46	0.0	1.14	07.61	195.60	17.616	13.145	17.616	13.222
02:00	10.461	0.436	15.229	07.61	202.07	0.0	1.14	07.61	203.21	17.454	13.269	17.454	13.344
03:00	10.758	0.448	15.677	07.61	209.68	0.0	1.14	07.61	210.82	16.987	13.375	16.987	13.448
[illegible]00	10.460	0.436	16.113	07.61	217.29	0.0	1.14	07.61	218.43	17.454	13.485	17.454	13.556
05:00	10.413	0.434	16.547	07.61	224.90	0.0	1.14	07.61	226.04	17.535	13.592	17.535	13.660
06:00	10.413	0.434	16.981	07.61	232.51	0.0	1.14	07.61	233.65	17.535	13.692	17.535	13.759
07:00	10.413	0.434	17.415	07.61	240.12	0.0	1.14	07.61	241.26	17.535	13.788	17.535	13.854
08:00	10.313	0.432	17.847	07.61	247.73	0.0	1.14	07.61	248.87	17.616	13.881	17.616	13.945
09:00	10.263	0.427	18.274	07.61	255.34	0.0	1.14	07.61	256.48	17.822	13.973	17.822	14.035
10:00	10.365	0.428	18.702	05.71	261.05	0.0	1.14	05.71	262.19	13.341	13.958	13.341	14.019
11:00	10.360	0.432	19.134	08.56	269.61	0.0	1.14	08.56	270.75	19.815	14.091	19.815	14.150
[illegible]00	10.355	0.432	19.566	08.56	278.17	0.0	1.14	08.56	279.31	19.815	14.217	19.815	14.275
12:30	10.355	0.215	19.781	00.00	278.17	0.0	1.14	00.00	279.31	00.000	14.062	00.000	14.120
12:30		SHUT IN - END OF CLEAN-UP - OTIS RUNNING RECORDERS											
16:30		OPENED WELL THROUGH SEPARATOR ON DRAWDOWN RATE											
17:00	23.300	0.485	20.266	06.85	285.02	0.0	1.14	06.85	286.16	14.124	14.064	14.124	14.120
18:00	23.670	0.986	21.252	14.84	299.86	0.0	1.14	14.84	301.00	15.051	14.110	15.051	14.163
19:00	23.170	0.980	22.232	19.97	319.83	0.0	1.14	19.97	320.97	20.378	14.386	20.378	14.437
20:00	23.785	1.022	23.254	22.84	342.67	0.0	1.14	22.84	343.81	22.348	14.736	22.348	14.785

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.

P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET CLEAN-UP COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 2 Job No. 103 PHOSPHORWELL NO. FAWCETT & SONS #1 STATE UTAH DATE APRIL 11, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 ÷ 2 INSTANTANEOUS COND BBL/MMCF	5 ÷ 3 CUMULATIVE COND BBL/MMCF	8 ÷ 2 INSTANTANEOUS BBLS/FLUID/MCF	9 ÷ 3 CUMULATIVE BBLS/FLUID/MCF
	OPENING PRODUCTION		10.931		122.35		1.14		123.49				
19:00	20.850	0.804	11.735	20.55	142.90		1.14	20.55	144.04	25.560	12.177	25.560	12.274
20:00	18.550	0.821	12.556	15.41	158.31	0.0	1.14	15.41	159.45	18.770	12.608	18.770	12.699
21:00	10.500	0.515	13.071	07.99	166.30	0.0	1.14	07.99	167.44	15.515	12.723	15.515	12.810
22:00	10.480	0.430	13.501	08.56	*174.86	*0.0	1.14	08.56	176.00	19.907	12.952	19.907	13.036
23:00	10.365	0.432	13.933	08.00	182.86	0.0	1.14	08.00	184.00	18.519	13.124	18.519	13.206
24:00	10.360	0.428	14.361	03.99	186.85	0.0	1.14	03.99	187.99	09.322	13.011	09.322	13.090

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.

P.O. BOX 522
MILLS, WYOMING 82644

RECEIVED
MAY 7 1980
DIVISION OF
OIL, GAS & MINING

PRODUCTION SUMMARY SHEET CLEAN-UP COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 1 Job No. 103 PHOSPHORIA WELL NO. FAWCETT & SONS #1 STATE UTAH DATE APRIL 11, 1980

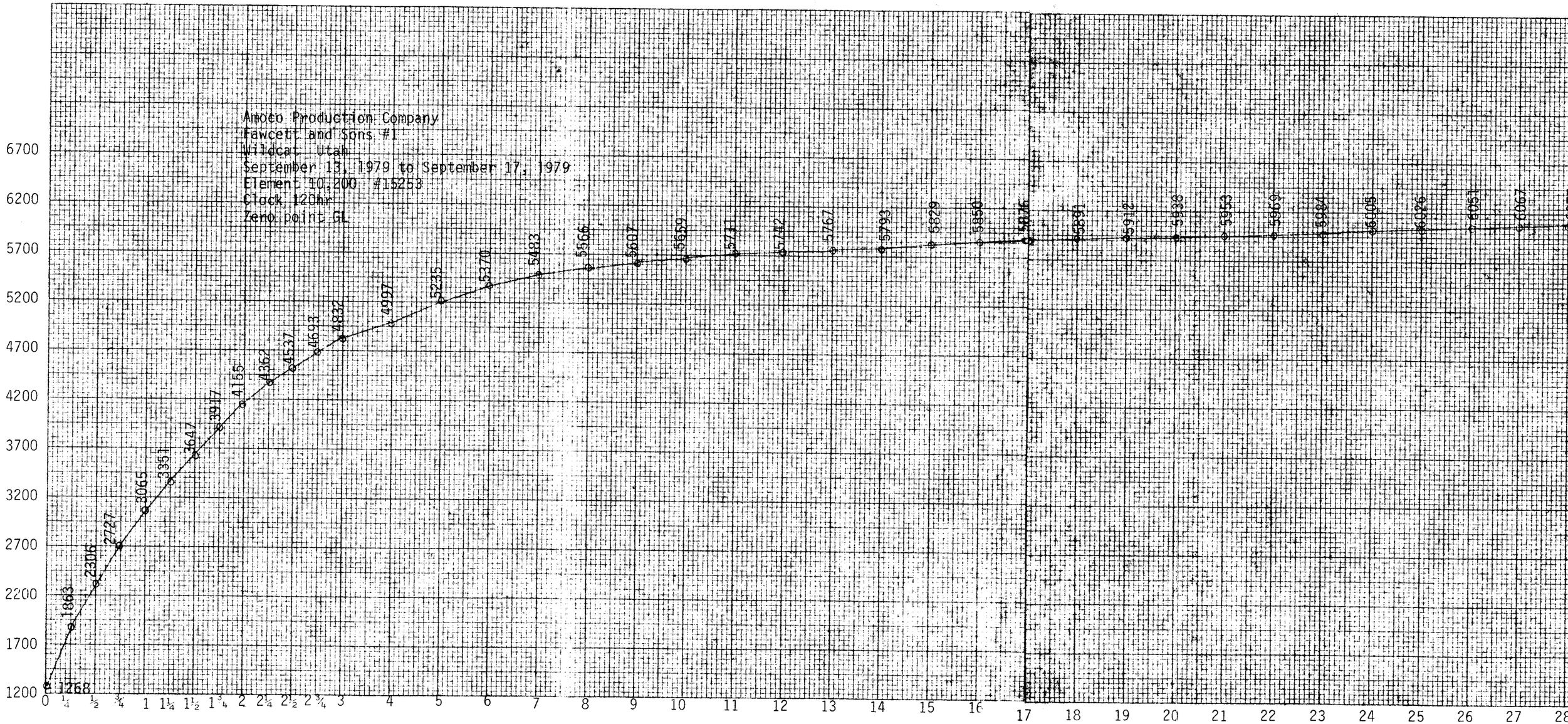
	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 ÷ 2 INSTANTANEOUS COND BBL/MMCF	5 ÷ 3 CUMULATIVE COND BBL/MMCF	8 ÷ 2 INSTANTANEOUS BBLS/FLUID/MCF	9 ÷ 3 CUMULATIVE BBLS/FLUID/MCF
00:45	BEGIN FLOWING WELL THROUGH SEPARATOR ON CLEAN-UP												
01:00	13.100	0.136	0.136	* 07.990	07.99	* 0.00	0.00	07.99	07.99	58.750	58.750	58.750	58.750
02:00	*13.100	0.546	0.682	* 07.990	15.98	* 0.00	0.00	07.99	15.98	14.634	23.431	14.634	23.431
[illegible]00	*15.500	0.701	1.383	* 05.000	20.98	* 0.00	0.00	05.00	20.98	07.133	15.170	07.133	15.170
03:45	*21.380	0.629	2.012	* 05.000	25.98	* 0.00	0.00	05.00	25.98	07.949	12.913	07.949	12.913
03:45	SHUT IN WELL												
06:30	OPENED WELL TO PIT ON A 32/64 CHOKE												
07:00	*21.380	0.445	2.457	* 02.500	28.48	* 0.00	0.00	02.50	28.48	05.618	11.591	05.618	11.591
08:00	*10.800	0.445	2.902	04.000	32.48	0.00	0.00	04.00	32.48	08.989	11.192	08.989	11.192
09:00	*21.380	0.596	3.498	* 03.500	35.98	* 0.00	0.00	03.50	35.98	05.872	10.286	05.872	10.286
10:00	*21.380	0.891	04.389	* 07.500	43.48	* 0.00	0.00	07.50	43.48	08.418	09.907	08.418	09.907
[illegible]00	*21.442	0.893	05.282	* 07.500	50.98	* 0.00	0.00	07.50	50.98	08.399	09.652	08.399	09.652
12:00	*21.442	0.893	06.175	* 07.500	58.48	* 0.00	0.00	07.50	58.48	08.399	09.470	08.399	09.470
13:00	*21.536	0.897	07.072	* 07.500	65.98	* 0.00	0.00	07.50	65.98	08.361	09.330	08.361	09.330
14:00	*18.750	0.781	07.853	* 07.000	72.98	* 0.00	0.00	07.00	72.98	08.963	09.293	08.963	09.293
15:00	19.000	0.803	08.656	08.560	81.54	0.00	0.00	08.56	81.54	10.660	09.420	10.660	09.420
16:00	14.200	0.629	09.285	13.700	95.24	0.00	0.00	13.70	95.24	21.781	10.257	21.781	10.257
17:00	19.000	0.792	10.077	12.840	108.08	1.14	1.14	13.98	109.22	16.212	10.725	17.652	10.839
18:00	20.500	0.854	10.931	14.270	122.35	* 0.00	1.14	14.27	123.49	16.710	11.193	16.710	11.297

FILE COPY

K+E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.

46 1323

K+E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.



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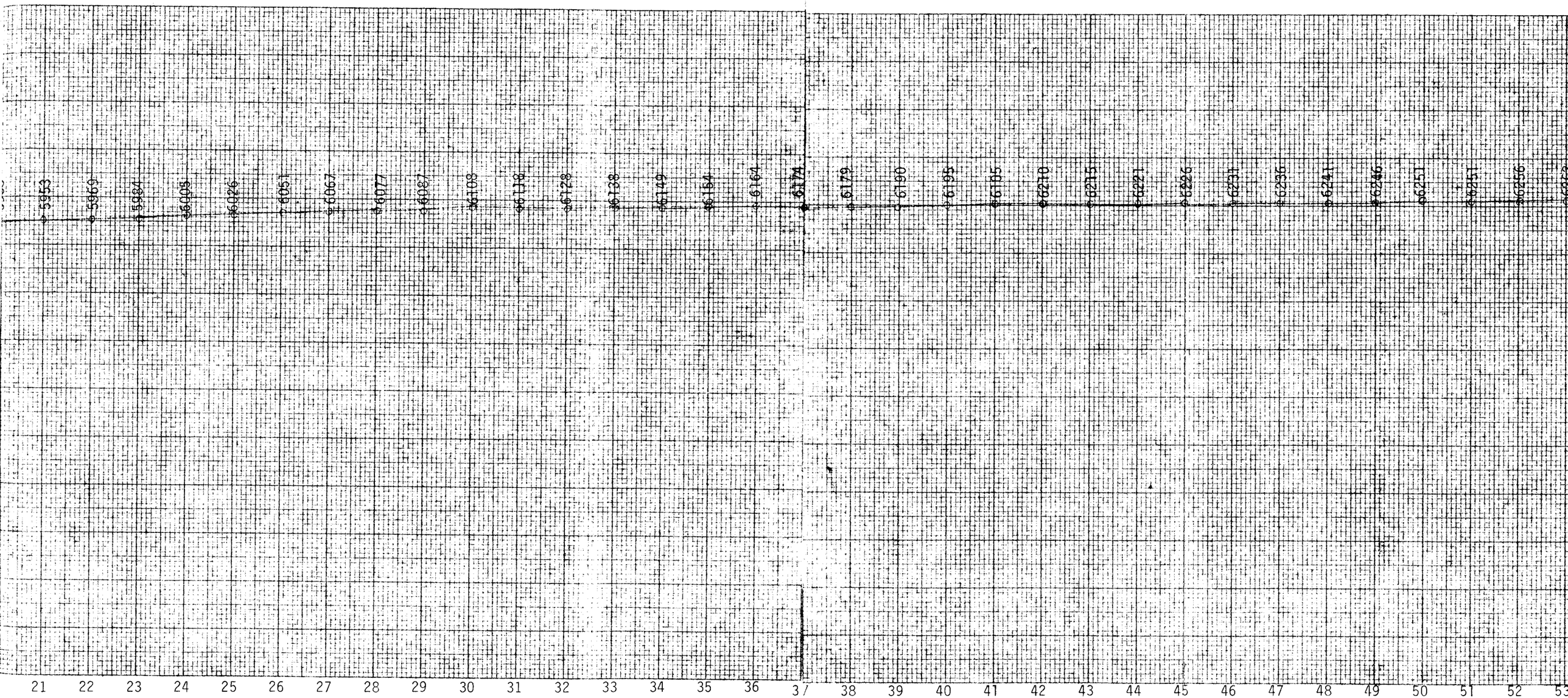

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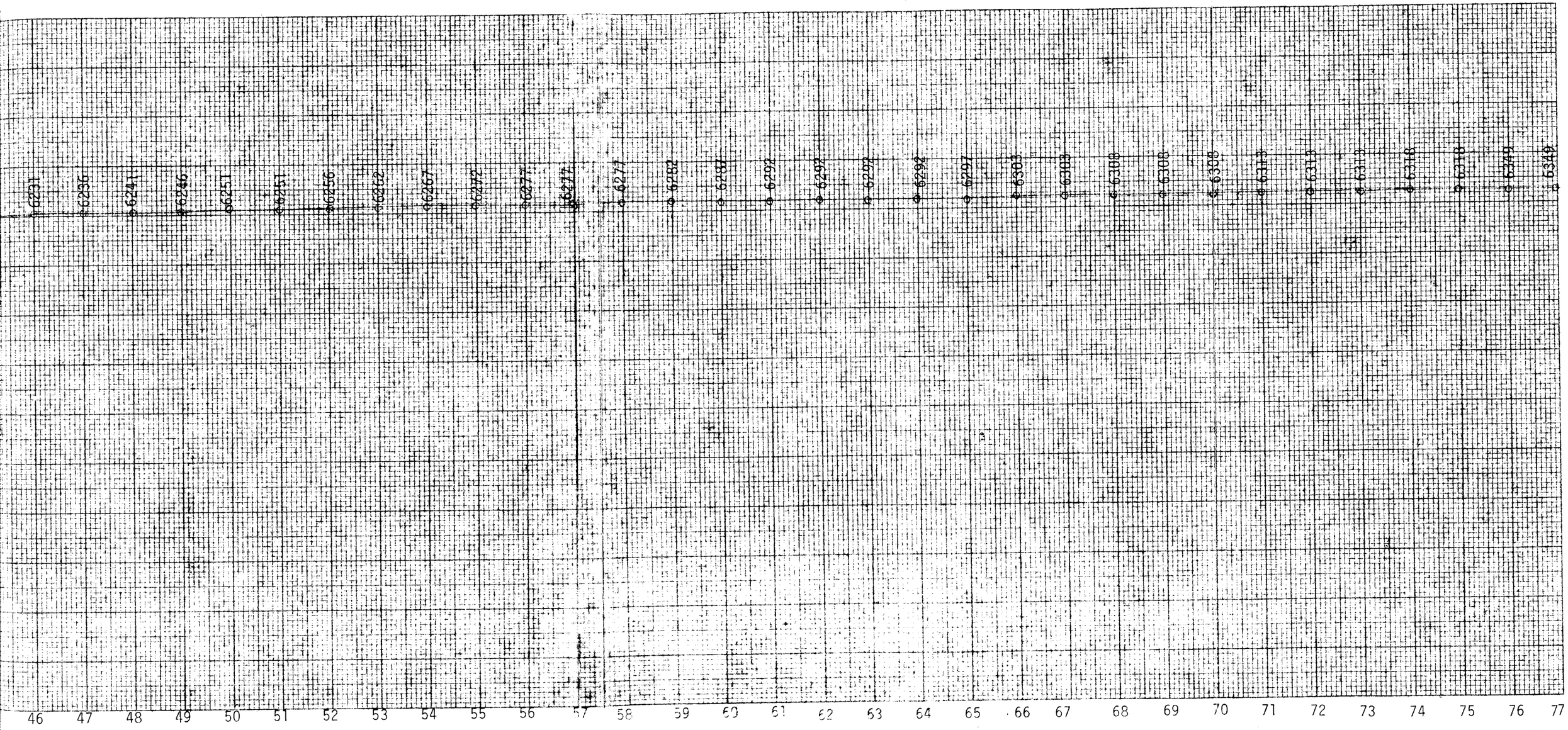

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

FLUID PRODUCTION

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 21, 1980

SHEET No. 7 JOB No. 103

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RUN #4	08:20 APRIL 21/80	19:10 APRIL 21, 1980		25.22 MMCF/D

TIME	TANK No. 1 SIZE 55 BBL								TEMP. °F	TANK No. 2 SIZE BBL							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
08:30	02.0	01.14	0.0	0.0	OPENING GAUGE												
09:00	33.0	18.83	0.0	0.0	17.69	0.0			42								
09:30	56.0	31.96	0.0	0.0	13.13				38								
10:00	74.0	42.24	0.0	0.0	10.28				34	02.0	01.14	0.0	0.0	OPENING GAUGE			
10:30	03.0	01.71	0.0	0.0			40.53	0.0	40	46.0	26.25	0.0	0.0	25.11	0.0		
11:00									42	59.0	33.67	0.0	0.0	07.42	0.0		
11:30									42	83.0	47.37	0.0	0.0	13.70	0.0		
12:00	22.0	12.55	0.0	0.0	10.84				44	23.0	13.12	0.0	0.0			34.25	0.0
12:30	36.0	20.55	0.0	0.0	08.00				50								
13:00	58.0	33.10	0.0	0.0	12.55				52								
13:30	75.0	42.81	0.0	0.0	09.71				54								
14:00	04.0	02.28	0.0	0.0			40.53	0.0	55	30.0	17.12	0.0	0.0	04.00	0.0		
14:30									60	63.0	35.96	0.0	0.0	18.84	0.0		
15:00									60	77.0	43.95	0.0	0.0	07.99	0.0		
15:30	22.0	12.55	0.0	0.0	10.27	0.0			64	04.0	02.28	0.0	0.0			41.67	0.0
16:00	36.0	20.55	0.0	0.0	08.00	0.0			64								
16:30	57.0	32.53	0.0	0.0	11.98	0.0			63								
17:00	69.0	39.38	0.0	0.0	06.85	0.0			62								
17:30	07.0	03.99	0.0	0.0			35.39	0.0	61	23.0	13.12	0.0	0.0	10.84	0.0		
18:00									61	40.0	22.83	0.0	0.0	09.71			
18:30									61	58.0	33.10	0.0	0.0	10.27			
19:00									61	80.0	45.66	0.0	0.0	12.56			
19:10									61	83.0	47.37	0.0	0.0	01.71		45.09	0.0
										04.0	02.20	0.0	0.0	CLOSING GAUGE			
				TOTALS	119.3	0.0	116.45	0.0					TOTALS	122.15	0.0	121.01	0.0

REMARKS:

B.J. HUGHS PUMPED 15 BBL METHANOL

241.45 BBL CONDENSATE PRODUCED LESS
- 15.00 BBL METHANOL
= 226.45 BBL (TOTAL FLUIDS)

	TANK # 1		TANK # 2	
	COND.	WATER	COND.	WATER
OPENING GAUGE	001.14	0.0	01.14	0.0
PLUS PRODUCTION	119.30	0.0	122.15	0.0
TOTALS	120.44	0.0	123.29	0.0
MINUS SHIPPING	116.45	0.0	121.01	0.0
CLOSING GAUGE	003.99	0.0	002.38	0.0

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

FLUID PRODUCTION

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 20, 1980

SHEET No. 6 JOB No. 103 PHOSPHORIA

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RUN #3	08:00 APRIL 20, 1980	16:00 APRIL 20, 1980		20.395 MMCF/D @ 16:00

TIME	TANK No. 1 SIZE 55 BBL								TEMP. °F	TANK No. 2 SIZE BBL							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
08:00	02.0	01.14	0.0	0.0	OPEN GAUGE					02.0	01.14	0.0	0.0	OPEN GAUGE			
08:30	13.0	07.42	0.0	0.0	06.28				64								
09:00	24.0	13.70	0.0	0.0	06.28				26								
09:30	44.0	25.11	0.0	0.0	11.41				16								
10:00	62.0	35.39	0.0	0.0	10.28				14								
10:30	81.0	46.23	0.0	0.0	10.84				20								
11:00	17.0	09.70	0.0	0.0			36.35	0.0	36	16.0	09.13	0.0	0.0	07.99	0.0		
11:30									38	31.0	17.69	0.0	0.0	08.56	0.0		
12:00									42	45.0	25.68	0.0	0.0	07.99	0.0		
12:30									46	66.0	37.67	0.0	0.0	11.98	0.0		
13:00									48	80.0	45.66	0.0	0.0	07.99	0.0		
13:30	32.0	18.26	0.0	0.0	08.56				48	06.0	03.43	0.0	0.0	00.00	0.0	42.23	0.0
14:00	50.0	28.54	0.0	0.0	10.28				49								
14:30	66.0	37.67	0.0	0.0	09.13				52								
15:00	81.0	46.23	0.0	0.0	08.56				54								
15:30	02.0	01.14	0.0	0.0			45.09	0.0	54	23.0	13.12	0.0	0.0	09.69	0.0		
16:00										44.0	25.11	0.0	0.0	11.99	0.0		
										03.0	01.71	0.0	0.0	00.00	0.0	23.40	0.0
TOTALS					81.62	0.0	81.62	0.0		TOTALS				66.20	0.0	65.63	0.0

TIGHT HOLE

REMARKS:

B.J. HUGHS PUMPED 16.25 BBL METHANOL + .25 BBL METHANOL VIA TEXSTEAM

TOTAL WATER PRODUCED RATE #3 = 0 BBLS

TOTAL CONDENSATE PRODUCED RATE #3 = 147.82-16.50 = 131.32 BBLS

	TANK # 1		TANK # 2	
	COND.	WATER	COND.	WATER
OPENING GAUGE	01.14	0.0	01.14	0.0
PLUS PRODUCTION	81.62	0.0	66.20	0.0
TOTALS	82.76	0.0	67.34	0.0
MINUS SHIPPING	81.62	0.0	65.63	0.0
CLOSING GAUGE	01.14	0.0	01.71	0.0

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 19, 1980

FLUID PRODUCTION

SHEET No. 5 JOB No. 103
PHOSPHORIA

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RUN #2	08:00 APRIL 19, 1980	16:00 APRIL 19, 1980		15.40 MMCF/D @ 16:00

TIME	TANK No. 1 SIZE 55 BBLS								TEMP. °F	TANK No. 2 SIZE 55 BBLS							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
08:00	02.0	01.14	0.0	0.0	OPEN	GAUGE				02.0	01.14	0.0	0.0	OPEN	GAUGE		
08:30	03.0	01.71	0.0	0.0	00.57	0.0			54								
09:00	14.0	07.99	0.0	0.0	06.28	0.0			52								
09:30	27.0	15.41	0.0	0.0	07.42	0.0			36								
10:00	40.0	22.83	0.0	0.0	07.42	0.0			28								
10:30	52.0	29.68	0.0	0.0	06.85	0.0			30								
11:00	77.0	43.95	0.0	0.0	14.27	0.0			34								
11:30	80.0	45.66	0.0	0.0	01.17	0.0			34								
12:00	14.0	07.99	0.0	0.0	00.00	0.0	37.67	0.0	40	14.0	07.99	0.0	0.0	06.85	0.0		
00:30									52	33.0	18.83	0.0	0.0	10.84	0.0		
13:00									54	42.0	23.97	0.0	0.0	05.14	0.0		
13:30									56	54.0	30.82	0.0	0.0	06.85	0.0		
14:00									58	66.0	37.67	0.0	0.0	06.85	0.0		
14:30									62	77.0	43.95	0.0	0.0	06.28	0.0		
15:00	27.0	15.41	0.0	0.0	07.42	0.0			62	03.0	01.71	0.0	0.0	00.00	0.0	42.24	0.0
15:30	38.0	21.69	0.0	0.0	06.28	0.0			62								
16:00	50.0	28.54	0.0	0.0	06.85	0.0			62								
	02.0	01.14	0.0	0.0	00.00	0.0	27.40	0.0									
TOTALS					65.07	0.0	65.07	0.0		TOTALS				42.81	0.0	42.24	

TIGHT HOLE

REMARKS:
B.J. HUGHS PUMPED 12.25 BBLS METHANOL + .25 BBLS " VIA TEXSTEAM

TOTAL WATER PRODUCED RATE #2 = 0.0 BBLS
TOTAL CONDENSATE PRODUCED RATE #2 = 107.88-12.50 METHANOL = 95.38

	TANK # 1		TANK # 2	
	COND.	WATER	COND.	WATER
OPENING GAUGE	01.14	0.0	01.14	0.0
PLUS PRODUCTION	65.07	0.0	42.81	0.0
TOTALS	66.21	0.0	43.95	0.0
MINUS SHIPPING	65.07	0.0	42.24	0.0
CLOSING GAUGE	01.14	0.0	01.71	0.0

PORTA-TEST SYSTEMS, INC.
P.O. BOX 532
MILLS, WYOMING, U.S.A. 82644

FLUID PRODUCTION

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 18, 1980

SHEET No. 4 JOB No. 103
PHOSPHORIA

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RUN #1	08:00 A.M. APRIL 18/80	16:00 APRIL 18, 1980		10.395 MMCF/D @ 16:00

TIME	TANK No. 1 SIZE 55 BBLS								TEMP. °F	TANK No. 2 SIZE 55 BBLS							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
08:00	03.0	01.71	0.0	0.0	OPEN	GAUGE				01.0	00.57	0.0	0.0	OPEN	GAUGE		
08:30	35.0	19.97	0.0	0.0	18.26	0.0			54								
09:00	43.0	24.54	0.0	0.0	04.57	0.0			78								
[illegible]:30	47.0	26.82	0.0	0.0	02.28	0.0			78								
[illegible]:00	53.0	30.25	0.0	0.0	03.43	0.0			78								
10:30	58.0	33.10	0.0	0.0	02.85	0.0			78								
11:00	69.0	39.38	0.0	0.0	06.28	0.0			78								
11:30	77.0	43.95	0.0	0.0	04.57	0.0			76								
12:00	02.0	01.14	0.0	0.0	00.00	0.0	42.81	0.0	74	12.0	06.85	0.0	0.0	6.28	0.0		
12:30									74	21.0	11.98	0.0	0.0	5.13	0.0		
13:00									74	27.0	15.41	0.0	0.0	3.43	0.0		
13:30									70	35.0	19.97	0.0	0.0	4.56	0.0		
14:00									70	43.0	24.54	0.0	0.0	4.57	0.0		
14:30									70	51.0	29.11	0.0	0.0	4.57	0.0		
15:00									70	59.0	33.67	0.0	0.0	4.56	0.0		
15:30									70	67.0	38.24	0.0	0.0	4.57	0.0		
16:00									70	78.0	44.52	0.0	0.0	6.28	0.0		
										02.0	01.14	0.0	0.0	0.00	0.0	43.38	0.0
TOTALS					42.24	0.0	42.81	0.0		TOTALS				43.95	0.0	43.38	0.0

TIGHT HOLE

REMARKS: B.J. HUGHS PUMPED DOWN 25 BARRELS ON APRIL 17 ACCOUNTING FOR THE LOW SHUT IN PRESSURE AND LARGE PRODUCTION RATE FOR THE FIRST HALF HOUR.
ALSO PUMPED DOWN 11.75 BARRELS OF METHANOL DURING TEST AND .25 BBLS DOWNHOLE AFTER SHUT IN.
TOTAL WATER PRODUCED RATE #1 = 0.0 BBLS
TOTAL CONDENSATE PRODUCED RATE #1 = 86.19 - (APPROX.) 27.50 BBLS
METHANOL = 58.69

	TANK # 1		TANK # 2	
	COND.	WATER	COND.	WATER
OPENING GAUGE	01.71	0.0	00.57	0.0
PLUS PRODUCTION	42.24	0.0	43.95	0.0
TOTALS	43.95	0.0	44.52	0.0
MINUS SHIPPING	42.81	0.0	43.38	0.0
CLOSING GAUGE	01.14	0.0	01.14	0.0

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 12, 1980

FLUID PRODUCTION

SHEET No. 3 JOB No. 103
PHOSPHORIA

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	00:45 APRIL 11/80	20:30 APRIL 12/80		23.75 MMCF @ 20.30

TIME	TANK No. 1 SIZE 50 BBLS								TEMP. °F	TANK No. 2 SIZE BBLS							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
16:30	03.0	01.71	0.0	0.0	OPENING GAUGE					54.0	30.82	0.0	0.0	OPENING GAUGE			
17:00	15.0	08.56	0.0	0.0	6.85	0.0			36	02.0	01.14	0.0	0.0			29.68	0.0
17:30	31.0	17.69	0.0	0.0	9.13	0.0			38								
18:00	44.0	25.11	0.0	0.0	7.42	0.0			38								
18:30	55.0	31.39	0.0	0.0	6.28	0.0			34								
19:00	02.0	01.14	0.0	0.0			30.25	0.0	34	23.0	13.12	0.0	0.0	11.98	0.0		
19:30									30	47.0	26.82	0.0	0.0	13.70	0.0		
20:00									30	63.0	35.96	0.0	0.0	09.14	0.0		
20:30										84.0	47.95	0.0	0.0	11.99	0.0		
				TOTALS	29.68	0.0	30.25	0.0					TOTALS	46.81	0.0	29.68	0.0

TIGHT HOLE

REMARKS:
B.J. HUGHS PUMPED 4 BARRELS METHANOL
DURING 4 HOUR PERIOD - 16:30-20:30 APRIL 12

TOTAL CONDENSATE PRODUCED = 233.45 BBLS.
TOTAL WATER PRODUCED = 1.14 BBLS.

	TANK # 1		TANK # 2	
	COND.	WATER	COND.	WATER
OPENING GAUGE	01.71	0.0	30.82	0.0
PLUS PRODUCTION	29.68	0.0	46.81	0.0
TOTALS	31.39	0.0	77.63	0.0
MINUS SHIPPING	30.25	0.0	29.68	0.0
CLOSING GAUGE	01.14	0.0	47.95	0.0

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SON #1 STATE UTAH DATE APRIL 12, 1980

FLUID PRODUCTION

SHEET No. 2 JOB No. 103
PHOSPHORIA

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	00:45 APRIL 11/80			10.46 MMCF @ 4.00

TIME	TANK No. 1 SIZE 50 BBL								TEMP. °F	TANK No. 2 SIZE 50 BBL							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
	15.0	08.56	0.0	0.0	OPENING GAUGE					14.0	07.99	0.0	0.0	OPENING GAUGE			
00:30	15.0	08.56	0.0	0.0	0.00	0.0			55								
01:30	15.0	08.56	0.0	0.0	0.00	0.0											
[illegible]:30	24.0	13.70	0.0	0.0	5.14	0.0											
[illegible]:00	24.0	13.70	0.0	0.0	0.00	0.0											
02:30	24.0	13.70	0.0	0.0	0.00	0.0											
03:00	26.0	14.84	0.0	0.0	1.14	0.0											
03:30	32.0	18.26	0.0	0.0	3.42	0.0											
04:00	39.0	22.26	0.0	0.0	4.00	0.0											
04:30	42.0	23.97	0.0	0.0	1.71	0.0											
05:00	48.0	27.40	0.0	0.0	3.43	0.0											
05:30	57.0	32.53	0.0	0.0	5.13	0.0											
06:00	61.0	34.82	0.0	0.0	2.29	0.0											
06:30	66.0	37.67	0.0	0.0	2.85	0.0											
07:00	66.0	37.67	0.0	0.0	0.00	0.0											
07:30	66.0	37.67	0.0	0.0	0.00	0.0											
08:00	69.0	39.38	0.0	0.0	1.71	0.0											
08:30	69.0	39.38	0.0	0.0	0.00	0.0											
09:00	75.0	42.81	0.0	0.0	3.43	0.0	41.1	0.0									
[illegible]:00	03.0	01.71	0.0	0.0	CLOSING GAUGE					24.0	13.70	0.0	0.0	5.71	0.0		
[illegible]:30										29.0	16.55	0.0	0.0	2.85	0.0		
11:00										39.0	22.26	0.0	0.0	5.71	0.0		
11:30										46.0	26.25	0.0	0.0	3.99	0.0		
12:00										54.0	30.82	0.0	0.0	4.57	0.0		
				TOTALS	34.25	0.0	41.1						TOTALS	22.83	0.0		

REMARKS:

	TANK # 1		TANK # 2	
	COND.	WATER	COND.	WATER
OPENING GAUGE	08.56	0.0	07.99	0.0
PLUS PRODUCTION	34.25	0.0	22.83	0.0
TOTALS	42.81	0.0	30.82	0.0
MINUS SHIPPING	41.10	0.0	00.00	0.0
CLOSING GAUGE	01.71	0.0	30.82	0.0

FIGHT FOR

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING U.S.A. 82644

FLUID PRODUCTION

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE APRIL 11, 1980

RECEIVED MAY 7 1980 DIVISION OF OIL, GAS & MINING

SHEET No. 1 JOB No. 103 PHOSPHORIA

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	00:45 APRIL 11/80			10.36 MMCF @ 24:00

TIME	TANK No. 1 SIZE 50 BBLS								TEMP. °F	TANK No. 2 SIZE 50 BBLS							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
07:50	02.0	01.14	0.0	0.00	OPEN	GAUGE				02.0	01.14	0.0	0.0	OPEN	GAUGE		
08:00										09.0	05.14	0.0	0.0	04.00	0.0		
08:30										30.0	17.12	0.0	0.0	11.98	0.0		
1:35	UNIT	ON BY-PASS															
14:30									58°	41.0	23.40	0.0	0.0	06.28	0.0		
15:00									58°	45.0	25.68	0.0	0.0	02.28	0.0		
15:30									52°	58.0	33.10	0.0	0.0	07.42	0.0	31.96	0.0
16:00	13.0	07.42	0.0	0.00	06.28	0.00			54°	02.0	01.14	0.0	0.0	00.00	0.0	OPEN	GAUGE
16:30	23.0	13.12	2.0	1.14	05.70	1.14			54°								
17:00	UNIT	ON BY-PASS															
18:30	38.0	21.69	2.0	1.14	08.57	0.00			56°								
19:00	59.0	33.67	2.0	1.14	11.98	0.00	32.53	1.14									
19:30	02.0	01.14	0.0	0.00	00.00	0.00	OPEN	GAUGE	50°	12.0	06.85	0.0	0.0	05.71	0.0		
20:00									50°	29.0	16.55	0.0	0.0	09.70	0.0		
20:30									50°	36.0	20.55	0.0	0.0	04.00	0.0		
21:00									51°	43.0	24.54	0.0	0.0	03.99	0.0		
21:30									50°	43.0	24.54	0.0	0.0	00.00	0.0	UNIT	CARRYING
22:00									50°	43.0	24.54	0.0	0.0	00.00	0.0	OVER	
22:30									50°	51.0	29.11	0.0	0.0	04.57	0.0	21.12	0.0
:00	08.0	04.57	0.0	0.00	03.43	0.00			55°	14.0	07.99	0.0	0.0	00.00	0.0	OPEN	GAUGE
:30	15.0	08.56	0.0	0.00	03.99	0.00			55°								
24:00	15.0	08.56	0.0	0.00	00.00	0.00			56°								
				TOTALS	39.95	1.14	32.53	1.14					TOTALS	59.93	Ø	53.08	0.0

REMARKS:

	TANK # 1 COND.	TANK # 1 WATER	TANK # 2 COND.	TANK # 2 WATER
OPENING GAUGE	01.14	0.00	01.14	0.0
PLUS PRODUCTION	39.95	1.14	59.93	0.0
TOTALS	41.09	1.14	61.07	0.0
MINUS SHIPPING	32.53	1.14	53.08	0.0
CLOSING GAUGE	08.56	0.00	07.99	0.0

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 31, 1980

SHEET No. 22 JOB No. 103
WEBER

HIGH STAGE ORIFICE & METER RUN SIZE | LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☐ ANNULUS ☐
H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.
L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
17:55				3412													
18:00	26			3415													
18:15				3430													
18:30				3440													
18:45				3450													
19:00	21			3450													
19:30				3465													
20:00				3480													
20:30				3500													
21:00	19			3590	30												
			SHUT IN MASTERS			END OF BUILD-UP											

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPA' AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 31, 1980

SHEET No. 21 JOB No. 103

WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.500 x 3.068

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
10:00	24	36/64	85	2015	24	150		840	76	74	75	13.05	LOW STAGE METER				
10:15			88	2005	34	150		840	78	75	76	13.20	PLUGGED OFF				
10:30	28		90	2002	34	150		840	80	77	78	13.40					
10:45			92	2002	38	152		840	80	78	80	13.40					
11:00	30		92	2007	40	154		840	84	81	82	13.60					
11:30	30		96	2007	40	156		840	82	85	86	13.50					
12:00	30	37/64	98	1960	44	156		860	88	90	92	14.05	INCREASED BACK PRESSURE				
12:30	30		100	1960	46	158		860	86	90	92	13.90	60	15	100	100	.450
12:45		18/64	BLEW BURSTING PLATE ON LOW STAGE SEPARATOR BY-PASSED SEPARATOR														
			DECREASED CHOKE TO 18/64														
13:00	28		SWITCHED FLOW BACK THROUGH HIGH STAGE SEPARATOR INCREASED BACK PRESSURE														
13:00			100	2885	48												
13:30	30	37/64	102	2100	48	172		940	82	94	96	14.00					
14:00	32		102	1975	52	172		940	84	95	96	14.20					
14:30	32		104	1970	52	170		940	83	96	96	14.05					
15:00	32		106	1970	56	168		940	84	100	101	14.20					
15:30	38		108	1970	58	168		940	84	100	101	14.20					
16:00	38		108	1970	56	166		940	84	101	102	14.20					
16:30	36		108	1975	58	166		940	84	100	100	14.20					
17:00	36		108	1980	58	166		940	84	101	101	14.20					
17:10			SHUT IN TO RECORD BUILD-UP END OF RATE #3 AND OF TEST														
17:05				2875													
17:10				3100													
17:15				3220													
17:20				3320													
17:25				3360													
17:30	34			3380	32												
17:35				3385													
17:40				3400													
17:45				3405													
17:50				3405													

REMARKS: TUTWEILER @ 16:00 13.6% H_2S
TOTAL GAS FLARED RATE #3 = 4.749 MMCF/D

*LOW STAGE SEPARATOR OUT OF SERVICE
.450 MMCF/D WAS CALCULATED AS AN AVERAGE RATE = .150 MMCF/D FOR RATE #3. THIS WAS CALCULATED IN WITH TOTAL GAS FLARED.

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 31, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

SHEET No. 20 JOB No. 103

RATE 3 WEBER

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. 1

L.S. METER SIZE _____ x _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:30				3535													
01:00	14			3535	22												
01:30				3535													
02:00	14			3535													
02:30				3535													
03:00	14			3535													
03:30				3535													
04:00	14			3535													
04:30				3535													
05:00	12			3535													
05:30				3535													
06:00	14			3535	20												
06:30				3535													
07:00	18			3535													
07:30				D.W. REPAIRED													
08:00	19			NOT OPERATING PROPERLY													
08:30																	
09:00				3500		SHUT IN PRESSURES											
09:00	22			PRESSURED UP TO CHOKE													
09:00				OPENED WELL THROUGH SEPARATOR ON RATE #3 WITH A 2.750 X 4.026 ORIFICE PLATE													
09:05		19/64	70	2650	18												
09:10		23/64	70	2650	18												
09:15		32/64	72	2325	18	180		840	88	62	63	14.25					
09:20			76	2370	24												
09:25		34/64	78	2170	24												
09:30	24		78	2120	24	162		840	80	66	68	13.50					
09:35		36/64	78	2050	24												
09:40			80	2020	24												
09:45			82	2000	24	152		840	76	64	76	13.05					
09:50			82	2000	24												
09:55			84	2015	24												

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 30, 1980

SHEET No. 19 JOB No. 103
BUILD UP WEBER

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☐ H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____
ANNULUS ☐ L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
18:15				3330													
18:30				3355													
18:45				3360													
19:00	26			3360													
19:30				3380													
20:00	23			3400	30												
20:30				3410													
21:00	16			3420													
21:30				3446													
22:00	12			3485													
22:30				3507													
23:00	12			3535													
23:30				3535													
24:00	12			3535													

TIGHT HOLE

REMARKS:

ORTA-TEST SYSTEMS, INC.
BOX 522
LS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 30, 1980

EST DATA SHEET

HIGH STAGE ORIFICE & METER RUN SIZE 2.500 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1000 x 3.068

EET No. 18 JOB No. 103

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

Rate #2 WEBER

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
0:00	20	28/64	76	2395	16	150		840	65	68	68	9.60					
0:00				INCREASED BACK PRESSURE													
0:15			78	2310	20			METER PLUGGED OFF									
0:		30/64	80	2290	20			900	90	68	69	11.65					
0:45			82	2295	24												
1:00	20		84	2295	26			HIGH STAGE DRY FLOW METER									
1:30	20		88	2300	26			UNSERVICABLE DUE TO SUBSTANCE					48	74	88	90	.395
2:00	26		90	2315	28			PLUGGING OFF EXISTING METER					50	44	87	91	.315
2:30	26		92	2315	30			LINES AND METER BELLOWS					50	42	89	93	.305
3:00	26		94	2315	34								50	41	91	95	.300
3:30	30		95	2315	34	160		900	88	86	88	11.35	50	36	100	102	.280
4:00	32		96	2315	36	160		900	89	90	90	11.40	50	36	102	106	.280
4:30	32		98	2315	38	161		900	90	92	93	11.40	50	36	104	106	.280
5:00	32		99	2320	38	166		900	90	94	96	11.40	50	35	104	106	.275
5:30	32		100	2325	38	166		900	92	94	96	11.45	50	38	105	108	.286
6:00	32		102	2335	40	166		900	92	94	96	11.45	50	35	109	110	.280
6:30	32		102	2335	44	167		900	93	96	97	11.50	50	35	108	110	.280
7:00	30		104	2340	44	165		900	92	96	96	11.45	50	24	108	110	.245
7:00			SHUT INTO RECORD BUILD-UPS END OF RATE #2														
7:				3035													
7:				3150													
7:15				3250													
7:20				3300													
7:25				3310													
7:30				3325													
7:35				3330													
7:40				3340													
7:45				3345													
7:50				3345													
7:55				3345													
8:00				3345													

TIGHT HOLE

MARKS:

TOTAL GAS FLARED ON RATE #2 = 3.759

TUTWEILER 1400 HRS 12.9%, 1530 HRS 12.9%, 1630 HRS 12.9%, 1655 HRS 12.9%

*METER MONOMETERED AND FOUND TO BE ACCURATE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPA' AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 30, 1980

SHEET No. 17 JOB No. 103
WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.500 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE _____ x _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:30				3535													
01:00				3535													
01:30				3531													
02:00				3525													
02:30				3525													
03:00				3525													
03:30				3524													
04:00				3522													
04:30				3520													
05:00				3516													
05:30				3516													
06:00				3516	18												
06:30				3514													
07:00				3510													
07:30				3510													
08:00				3506													
08:30				3505													
09:00				3500	SHUT IN PRESSURE												
09:00			PRESSURED UP TO CHOKE - SHUT INTO REPAIR LEAK ON FLOW LINE														
09:05			PRESSURED UP TO CHOKE														
09:05			BEGAN FLOWING WELL THROUGH SEPARATOR ON RATE #2 WITH A 2.500 x 4.026 ORIFICE PLATE														
09:10	24	25/64	64	2660	10	FLUID TO SURFACE											
09:15			64	2650		185		810	104	62	63	12.05					
09:20		26/64	66	2640													
09:25			67	2650													
09:30	20	27/64	70	2600	14	160		810	98	55	57	11.80					
09:35			74	2580													
09:40			71	2500													
09:45		28/64	72	2410	16	155		830	70	[illegible]	66	9.85					
09:50			74	2420													
09:55			75	2400													

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMP AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 29, 1980

SHEET No. 16 JOB No. 103

WEBER

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☐ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
19:30				3397													
20:00				3435													
20:30				3460	24												
[illegible]:00				3470													
21:30				3479													
22:00				3490													
22:30				3510													
23:00				3520													
23:30				3528													
24:00				3535	20												

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 27, 1980

SHEET No. 15 JOB No. 103

HIGH STAGE ORIFICE & METER RUN SIZE 2.000 x 4.000 LOW STAGE ORIFICE & METER RUN SIZE 1.000 x 3.068

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

WEBER

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
13:30	34	21/64	82	2850	28	152		945	110	74	75	7.98	51	30	84	85	.262
14:00	34		84	2870	30	156		940	113	74	76	8.05	49	29	84	84	.255
14:30			86	2848	30	158		940	110	80	80	7.95	48	29	86	86	.252
15:00	38		86	2850	30	158		940	110	80	80	7.95	48	29	86	86	.252
15:30			88	2850	30	159	940	940	109	86	86	7.90					
15:30				ZEROED	METER												
16:00	41		89	2840	32	159		940	110	86	86	7.95	50	20	86	87	.210
16:30			90	2860	34	160		940	109	86	87	7.90	50	20	88	88	.210
17:00	38		90	2860	34	160		940	110	88	88	7.95	50	20	58	88	.210
17:00				SHUT INTO RECORD BUILD-UPS END OF RATE #1													
17:05				3205													
17:10				3280													
17:15				3327													
17:20				3350													
17:25				3365													
17:30				3370													
17:35				3375													
17:40				3376													
17:45				3380													
17:50				3381													
17:55				3381													
18:00				3381													
18:15				3384													
18:30				3387													
18:45				3390													
19:00				3395													

TIGHT HOLE

REMARKS:

TUTWEILERS @ 13:00 9.6%
@ 14:30 13.7%
@ 16:30 14.0%
@ 17:00 13.2%

TOTAL GAS FLARED - RATE #1 = 3.525 MMCF/D

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPA' AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 29, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.000 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

SHEET No. 14 JOB No. 103

Rate 1 WEBER

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
08:55				3490	15	SHUT IN PRESSURE											
09:00			PRESSURED UP TO CHOKE														
09:00			OPENED UP WELL THROUGH SEPARATOR ON RATE #1 WITH A 2.000 x 4.026 ORIFICE PLATE														
0[illegible]5	30	15/64	65	3225	15	185		830	61	106	108	5.45					
09:30		17/64	68	3150	16	172		720	72	108	110	5.50					
09:45		19/64	68	3082	16	160		825	38	108	110	4.25					
09:50			FLUID TO SURFACE														
10:00	30		74	3025	16	160		820	72	75	76	6.00					
10:12		19.5/64	INCREASED CHOKE TO 19.5/64														
10:15			75	2975	20	158		840	61	84	85	5.58					
10:15			INCREASED CHOKE TO 20.5/64														
10:20			70														
10:25			66	FLOW LINE HYDRATING OFF DUE TO LOSS OF RIG AIR SUPPLY TO INSPECTION PUMP													
10:30			60														
10:35			58														
10:40			SHUT IN TO LUBRICATE METHANOL THROUGH TREE, FLOW LINE HYDRATED OFF														
11:00	42		OPENED UP WELL THROUGH SEPARATOR														
11:15		24/64	70	2725	20	172		840	100	74	78	7.20					
11:20			70	2729	20												
1[illegible]25		23/64	71	2710	20												
1[illegible]25			DECREASED CHOKE TO 23/64														
11:30	42		71	2660	22	158		840	152	68	68	8.85					
11:45			73	2685	24	154		840	136	68	67	8.40					
12:00	43		76	2705	26	150		840	144	68	68	8.60					
12:10			INCREASED BACK PRESSURE														
12:15		22/64	DECREASED CHOKE TO 22/64														
12:18		21/64	DECREASED CHOKE TO 21/64					STARTED FLOWING THROUGH LOW STAGE WITH A 1.00 x 3.068 PLATE									
12:30	36		79	2820	28	150		900	108	68	68	7.80					
13:00	36		79	2850	29	150		900	118	70	70	8.10	51	34	76	76	.270
13:25			INCREASED BACK PRESSURE														

REMARKS: 09:50 - BY-PASSED SEPARATOR TO BY-PASS BIG JOE REGULATOR

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
O. BOX 522
ILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 27, 1980

SHEET No. 13 JOB No. 103

Rate #2 WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.250 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
09:45	27	25/64	84	2560	22	102		840	60	66	66	7.22					
10:00	27		84	2562	22	100		840	72	65	66	7.90					
10:20			BLEW BURSTING PLATE AND INLET LINE ON SEPARATOR - SHUT IN														

REMARKS: TOTAL GAS FLARED RATE #2 = 0.536 MMCF/D
NO TUTWEILER

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 27, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.250 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

SHEET No. 12 JOB No. 103

Rate #2 WEBER

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:30				3540													
01:00				3540													
01:30				3540													
02:00				3540													
02:30				3540													
03:00				3540													
03:30				3540													
04:00				3540													
04:30				3542													
05:00				3540													
05:30				3540													
06:00				3533													
06:30				3533													
07:00				3533													
07:30				3528													
07:45				3523	SHUT IN PRESSURE - PRESSURED UP TO CHOKE												
08:00			BEGINNING TO FLOW THROUGH SEPARATOR ON RATE #2														
08:05	26	14/64	66	3414	18												
08:10	26		68	3350	18												
08:15	26	17/64	68	3210													
08:20	26		70	3200													
08:25	26	20/64	70	3120													
08:30	26	22/64	70	3050	18	145		850	70	94	96	7.80					
08:35	26	23/64	70	2750													
08:40	26	24/64	70	2600													
08:45	30		76	2700		130		840	60	72	72	7.22					
08:50	30		76	2650													
08:55	30		78	2615	18												
09:00	30	25/64	78	2602	20	108		840	56	66	66	7.00					
09:15	28		80	2560	22												
09:30	28		82	2560	22	104		840	70	66	66	7.85					

REMARKS:

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 26, 1980

SHEET No. 11 JOB No. 103
Rate 1 WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.000 x 4.026" LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
14:00	32	20/64	90	2895	33	106		920	65	72	72	6.10	75	45	58	58	.385
14:30	34		92	2893	33	106		885	62	72	72	5.85	75	20	62	62	.260
15:00	34		92	2893	33	106		865	64	75	75	5.90	65	14	62	62	.200
1[illegible]0	34		94	2890	35	106	METER PLUGGED		OFF	75	75		83	20	62	62	.270
15:40			DECREASED BACK PRESSURE														
16:00	34		96	2891	35	106		750	80	75	75	6.10	80	25	62	63	.295
16:00			SHUT IN TO RECORD BUILD-UP - END OF RATE #1														
16:50				3290													
16:10				3340													
16:15				3360													
16:20				3372													
16:25				3377													
16:30				3377													
16:45			DEADWEIGHT BEING SERVICED														
17:00				3387													
17:15				3390													
17:30				3393													
17:45				3396													
18:00				3400													
1[illegible]0				3412	22												
19:00				3425													
19:30				3440													
20:00				3460													
20:30				3490													
21:00				3502													
21:30				3520													
22:00				3540													
22:30				3540													
23:00				3540													
23:30				3540													
24:00				3540	21												

TIGHT HOLE

REMARKS: TOTAL GAS FLARED RATE #1 = 2.087 MMCF/D
TUTWEILER 13.5%

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 26, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.000 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

SHEET No. 10 JOB No. 103

Rate 1 WEBER

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
06:45				3510	30	SHUT IN PRESSURE											
06:50						PRESSURED UP TO CHOKE - SHUT IN TO REPAIR LEAK ON FLOW LINE											
08:00				3500	16	SHUT IN PRESSURE											
08:00		OPENED WELL THROUGH SEPARATOR ON RATE #1 WITH A 2.000 x 4.026 ORIFICE PLATE															
08:05			60	3400	16												
08:10			64	3300	16												
08:15		18/64	66	3100	16	168		830	76	134	136	6.25					
08:20			68	3003	18	FLUID TO SURFACE											
08:25			68	2950	18												
08:30	38	19/64	70	2923	18	143		840	68	104	106	5.95					
08:35			69	2850	18												
08:40			72	2800	20												
08:40		FLUID HIT SURFACE - CARRYING OVER - EXTINGUISHED FLARE - DECREASED CHOKE TO RE-LIGHT															
08:45			74	3000	20	120		840	66	74	74	5.90					
08:50			74	2950	20												
08:55			76	2920	20												
09:00			76	2880	20	118		820	80	66	66	6.40					
09:15			76	2810	20	116		820	72	67	68	6.10					
09:30	28	20/64	78	2830	26	112		840	68	66	67	5.95					
09:45			78	2853	26	112		840	79	69	70	6.05					
10:00	28		80	2855	28	110		840	100	69	70	7.20					
10:30	28		80	2880	28	110		840	90	69	70	6.85	80	15	48	49	.230
11:00	30		84	2880	28	110		840	90	69	70	6.85	80	15	48	50	.230
11:30	30		86	2880	30	105	METER PLUGGED OFF			66	68		75	7	52	52	.152
12:00	30		88	2882	30	108		840	84	69	70	6.60	80	16	50	52	.240
12:30	30		88	2880	30	108		840	76	70	70	6.28	60	25	50	52	.265
13:00	32		90	2893	33	105	METER PLUGGED OFF			70	70		80	10	50	50	.190
13:25		INCREASED BACK PRESSURE															
13:30	32		90	2895	33	106		920	65	72	72	6.10	90	10	58	58	.195
13:45		BLEW POP VALVE ON HIGH AND LOW STAGE SEPARATORS - BY-PASSED TO REPAIR															

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 25, 1980

HIGH STAGE ORIFICE & METER RUN SIZE & LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☐ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

SHEET No. 9 JOB No. 103

BUILD-UP WEBER

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:30				3575													
01:00	18			3570	26												
01:30	18			3570	26												
02:00	18			3570	26												
02:30	17			3570	26												
03:00	17			3570	24												
03:30	17			3570	24												
04:00	16			3570	24												
04:30	16			3570	24												
05:00	16			3570	24												
05:30	19			3570	23												
06:00	19			3570	23												
06:30	19			3570	22												
07:00	19			3570	22												
07:30	19			3570	22												
07:45		OTIS RIGGING UP TO RUN BOMBS IN HOLE															

TIGHT HOLE

REMARKS:

RTA-TEST SYSTEMS, INC.
BOX 522
S, WYOMING, U.S.A. 82644

COMPANY MOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 24, 1980

EST DATA SHEET

EET No. 8 JOB No. 103
UILD-UP WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.500 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ H.S. METER SIZE ____ X ____ CALIBRATED @ ____ HRS.
ANNULUS ☐ L.S. METER SIZE ____ X ____ CALIBRATED @ ____ HRS.

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
3:00				3580													
3:30				3575													
4:00				3580	30												

TIGHT HOLE

MARKS: ACCUMULATIVE GAS FLARED ON CLEAN-UP = 19.083 MMCF
TUTWEILER 11.76% H_2S @ 16:00

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 24, 1980

SHEET No. 7 JOB No. 103
CLEAN-UP WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.500 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____
L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
14:00	34	38/64	116	1870	70	144		960	105	114	114	12.80	80	12	104	104	.550
14:30			116	1870	68	144		960	105	114	114	12.80	80	12	102	104	.550
15:00	36		116	1870	68	143		960	105	114	114	12.80	80	12	102	104	.550
15:30			116	1870	68	143		960	105	114	114	12.80	80	12	102	104	.550
16:00	36		116	1872	68	144		960	105	113	115	12.80	80	12	102	103	.550
16:00				SHUT IN BY AMOCO REQUEST - END OF CLEAN-UP - RECORDING BUILD-UP													
16:05				2700													
16:10				3050													
16:15				3150													
16:20				3270													
16:25				3350													
16:30				3400													
16:35				3420													
16:40				3435													
16:45				3435													
16:50				3440													
16:55				3440													
17:00				3443													
17:15				3460													
17:30				3463													
17:45				3463	45												
18:00				3466													
18:30				3495													
19:00				3503	40												
19:30				3520													
20:00				3540													
20:30				3560													
21:00				3575	33												
21:30				3580													
22:00				3580													
22:30				3580													

REMARKS:

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY [illegible]

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 24, 1980

HIGH STAGE ORIFICE & METER RUN SIZE 2.50 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.625 x 3.068

SHEET No. 6 JOB No. 103

CLEAN-UP WEBER

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:30		34/64	116	2060	72	135		870	84	105	108	10.80	78	11	102	104	.520
01:00	22		116	2058	72	135		870	84	106	108	10.80	78	11	102	104	.520
01:30			114	2062	72	136		870	84	106	108	10.80	78	10	102	104	.510
02:00	22		114	2062	72	136		870	84	106	108	10.80	78	10	102	102	.510
02:15		PUT UNIT ON BY-PASS DUE TO OVERFLOW IN TRANSFER TANKS. PUMP NOT WORKING															
02:40		OPEN THROUGH SEPARATOR. ADJUST TO 34/64.															
03:00	22	34/64	114	2130	70	120		830	100	90	90	11.50	78	10	82	84	.510
03:30			116	2090	70	130		840	90	100	100	11.00	78	12	93	94	.530
04:00	18		116	2073	70	130		840	92	104	106	11.10	80	11	98	99	.520
04:30			116	2073	70	130		850	90	96	98	11.10	79	10	98	99	.520
05:00		36/64	116	2073	70	130		870	88	96	98	11.00	79	10	98	99	.520
05:30			116	2050	70	135		900	100	96	98	12.00	79	10	100	102	.520
06:00	17		116	2020	70	135		870	80	96	98	10.55	79	10	88	100	.520
06:30			116	1960	72	140		870	104	110	110	12.10	79	10	96	98	.520
07:00	19	38/64	116	1960	70	140		870	98	110	110	11.70	79	10	96	98	.520
07:30			116	1910	72	140		870	108	108	110	12.40	79	6	96	98	.385
08:00	26		116	1890	72	140		875	108	110	110	12.40	79	9	100	102	.470
08:30			116	1870	72	140		870	METER	110	110		79	8	95	96	.440
09:00	47		116	1870	72	140		870	PLUGGED	110	110		79	9	95	96	.470
09:05		DECREASED BACK PRESSURE															
09:30			116	1870	72	138		790		106	108		79	9	99	100	.470
10:00	32		116	1870	72	140		830	124	98	100	12.80	79	8	100	100	.440
10:05		INCREASED BACK PRESSURE															
10:30			116	1873	72	141		840	116	108	108	12.45	79	8	100	102	.440
11:00	34		116	1873	71	139		870	116	107	108	12.75	79	8	101	102	.440
11:30			116	1873	71	140		870	116	99	100	12.75	79	8	101	102	.440
11:45		INCREASED BACK PRESSURE															
12:00	39		116	1873	71	140		870	115	99	100	12.80	80	10	99	100	.500
12:30			116	1863	70	140		900	100	112	112	12.10	80	10	99	100	.500
13:00	40		116	1870	70	142		960	102	112	112	12.50	80	10	102	104	.500
13:30			116	1870	70	143		960	103	114	114	12.50	80	10	102	104	.500

REMARKS: * INCREASE CHOKE TO 34/64 @ 00:30
INCREASE CHOKE TO 36/64 @ 05:00
INCREASE BACK PRESSURE

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P O BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 23, 1980

SHEET No. 5 JOB No. 103
CLEAN-UP WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.000 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE 1.625 x 3.068

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____
L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
15:00	42	28/64	114	2363	65	132		850	150	99	100	8.60					
15:30	46		114	2363	65	132		850	150	98	100	8.60					
16:00	48		PUT SEPARATOR ON BY-PASS TO CHANGE PROPANE TANKS AND REPAIR LEAK IN DANIEL. CHANGE ORIFICE PLATE TO														
			2.50 x 4.026														
16:30			OPEN THROUGH SEPARATOR USING LOW STAGE. INCREASE CHOKE TO 32/64														
17:00	40	32/64	114	2100	60	132		820	62	96	98	9.20					
17:30	38		114	2125	65	134		820	66	100	100	9.40	50	20	82		.58
18:00	32		114	2125	65	134		850	70	102	102	9.80	50	15	96		.60
18:30	29		116	2125	65	136		850	70	104	104	9.90	80	15	100		.61
19:00	28		116	2150	66	138		850	75	105	107	10.10	80	15	100		.61
19:30	28		116	2150	67	138		850	75	105	107	10.10	80	15	104		.61
20:00	28		116	2150	68	138		850	75	105	107	10.10	80	15	104		.61
20:30	26		116	2153	69	138		870	78	105	107	10.40	80	12	104		.54
21:00	24		116	2155	69	138		870	78	105	107	10.40	80	12	104		.54
21:30	24		116	2156	69	138		870	78	105	107	10.40	80	12	104		.54
22:00	24		116	2160	70	138		870	78	105	107	10.40	80	12	104		.54
22:30	22		116	2160	70	138		870	78	105	107	10.40	80	12	104		.54
23:00	22		116	2160	70	138		870	78	105	107	10.40	80	11	104		.52
23:30	22		116	2160	70	138		870	78	105	107	10.40	80	11	104		.52
24:00	22		116	2160	70	138		870	80	105	207	10.50	80	11	104		.52

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 23, 1980

SHEET No. 4 JOB No. 103

CLEAN-UP WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.000 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
00:30		28/64	100	2309		124		870	76	94	94	6.30					
01:00	24		100	2309		124		870	76	94	94	6.30					
01:30			102	2315		124		870	80	97	98	6.42					
02:00	24		102	2315		124		870	80	97	98	6.42					
02:30			102	2315		124		870	80	97	98	6.42					
03:00	24		104	2345		124		870	84	97	98	6.60					
03:30			104	2370	25	124		870	84	96	97	6.60					
04:00	22		104	2400		128		870	88	96	97	6.75					
04:30			104	2412	50	126		870	86	96	97	6.60					
05:00	20		104	2432		126		870	86	96	97	6.60					
05:30			106	2462		126		870	92	96	97	6.95					
06:00	20		108	2450	75	126		870	100	98	99	7.20					
06:30			106	2450		130		870	102	98	99	7.20					
07:00	20		108	2450	75	132		870	102	99	99	7.20					
07:30			108	2450		132		870	104	100	101	7.42					
08:00	26		108	2440	45	133		870	108	100	102	7.50					
08:30			110	2417		133		870	108	100	102	7.50					
09:00	28		110	2420		133		870	104	100	102	7.42					
09:30			110	2420		133		870	104	100	102	7.42					
09:45		LOST SUPPLY GAS FOR CONTROLES. CLOS# CHOKE TO 9/64															
		SWITCH PROPANE TANKS															
10:15		START THROUGH UNIT INCREASING CHOKE SIZES															
10:30			106	2300		112		720	144	86	88	7.85					
11:00			110	2365		126		850	100	96	98	7.10					
11:30			110	2362		130		840	134	97	99	8.19					
12:00			112	2350	50	132		840	140	99	100	8.35					
12:30			110	2350		132		840	140	99	100	8.35					
13:00			114	2350	60	132		840	140	99	100	8.35					
13:30			114	2360		132		850	150	98	100	8.60					
14:00			114	2361	70	132		850	150	98	100	8.60					
14:30			114	2362		132		850	150	98	100	8.60					

REMARKS:

WATER SAMPLE AT 05:00 H_2S 6% + BY DRAGER

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 22, 1980

SHEET No. 3 JOB No. 103
CLEAN-UP WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.000 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS. _____
L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
14:15				2100	SHUT IN PRESSURE				OPEN WELL THROUGH SEPARATOR ON CLEAN-UP.								
14:15		VARIOUS	65	2800													
1[illegible]20					FLUID TO SURFACE												
14:30			70	2500				460	60	114	120	3.98	INCREASED BACK PRESSURE				
14:45		25/64	72	2645				600	96	85	86	5.93					
15:00			72	2650		116		600	110	74	75	6.20					
15:30			78	2495		116		720	70	70	70	5.60	BEGAN HYDRATING OFF AT B.P. VALVE				
16:00			80	2516		116		850	60	74	74	5.60					
16;30			80	2510		118	METER EQUALIZED			71	73						
16:45					ICE PLUG BROKE LOOSE												
17:00	30		83	2507		118		900	60	77	78	5.75					
17:30		26/64	36	2340	D.W. PLUGGED	117		900	60	80	82	5.75					
17:50					BLEW BURSTING PLATE ON LOW STAGE SEPARATOR - BY PASSED SEPARATOR												
18:00	30		80	2420													
18:15					BEGIN FLOW THROUGH SEPARATOR												
18:30			91	2420				935	60	85	86	5.80					
19:00	28		91	2420		116		850	64	87	89	5.70					
19:30		27/64	93	2320		118		850	70	89	90	6.00					
[illegible]00	28		95	2325		118		850	75	88	90	6.18					
[illegible]30			98	2300		122		900	75	91	93	6.20					
21:00	28		100	2300		124		850	75	91	93	6.20					
21:30			100	2325		126		875	92	92	95	6.20					
22:00	26		102	2325		126		875	70	93	96	6.00					
22:30		28/64	102	2315		126		875	70	93	96	6.00					
23:00	24		102	2310		127		874	80	94	96	6.45					
23:30			100	2309		124		870	76	94	96	6.30					
24:00	24		100	2309		124		870	76	94	96	6.30					

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 21, 1980

SHEET No. 2 JOB No. 103
CLEAN-UP WEBER

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ H.S. METER SIZE ____ X ____ CALIBRATED @ ____ HRS.
ANNULUS ☐ L.S. METER SIZE ____ X ____ CALIBRATED @ ____ HRS.

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
15:45		64/64	104	1100													
16:00		48/64	104	1080	DECREASED CHOKE TO 48/64												
16:15			106	1800													
1[illegible]9		32/64	106	2000													
16:23			106	2075													
16:23		48/64															
16:30			106	2425	SHUT IN CHOKE TO RE-ZERO												
16:34		31/64															
16:35		30/64															
16:38		29/64															
16:39		28/64															
16:40		27/64															
16:45			106	2700	SHUT IN TO RE-RIG PILOT IN PIT												
17:00				3050													
17:30					PRESSURED UP TO CHOKE ON SEPARATOR												
17:35					BEGIN FLOWING WELL THROUGH SEPARATOR ON CLEAN-UP												
17:45					SHUT IN DUE TO LEAKING WING VALVE ON TREE												

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 21, 1980

SHEET No. 1 JOB No. 103

CLEAN-UP WEBER

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
10:45				2100	SHUT IN PRESSURE												
10:45		64/64	OPEN	WELL TO	PIT ON	CLEAN-UP THROUGH 2" OPEN LINE AND A 64/64						CHOKE					
10:50			41	50													
10:55			56	80													
11:00			58	100													
11:05			64	125													
11:10			72	200													
11:15			74	500													
11:20			76	500													
11:25			80	570													
11:30			80	550													
11:35			80	550													
11:40			72	600													
11:45			80	600													
11:50			82	625													
11:55			87	650													
12:00			82	650													
12:15			88	700													
12:30			90	700													
12:45			94	675													
13:00			96	690													
13:15			97	650													
13:30			97	700													
13:45			100	700													
14:00			100	700													
14:15			100	700	SHUT IN OPEN LINE TO PIT - DECREASED CHOKE												
14:25		43/64	105	1800													
14:30		64/64	102	1200													
14:45			102	1100													
15:00			102	1075													
15:30			101	1100													

REMARKS:

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.

P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET RATE #3 COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 9 Job No. 103 WEBER WELL NO. FAWCETT & SONS #1 STATE UTAH DATE MARCH 31, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
OPENING PRODUCTION			28.188		381.39		1878.50		2259.89				
OPENED WELL THROUGH SEPARATOR ON RATE #3													
10:00	13.05	0.561	28.749	05.14	386.53	30.25	1908.75	35.39	2295.28	09.162	13.445	63.084	79.839
11:00	13.60	0.558	29.307	04.57	391.10	39.38	1948.13	43.95	2339.23	08.190	13.345	78.763	79.818
12:00	14.50	0.593	29.90	06.85	397.95	37.67	1985.80	44.52	2383.75	11.551	13.309	75.076	79.724
13:00	* 06.25	0.439	30.339	* 12.84	410.79	* 42.81	2028.61	55.65	2439.40	29.248	13.540	126.765	80.405
14:00	* 14.65	0.607	30.946	04.00	414.79	18.83	2047.44	22.83	2462.23	06.590	13.404	37.611	79.565
15:00	* 14.65	0.608	31.554	05.71	420.50	37.10	2084.54	42.81	2505.04	09.391	13.326	70.411	79.389
16:00	* 14.65	0.607	32.161	05.71	426.21	37.10	2121.64	42.81	2547.85	09.407	13.252	70.527	79.222
17:00	* 14.65	0.607	32.768	06.85	433.06	37.10	2158.74	43.95	2591.80	11.285	13.216	72.405	79.095

SHUT INTO RECORD BUILD-UPS END OF RATE #3 AND OF TEST

* ESTIMATED
* FLOW RATES DERIVED FROM AN AVG FLOW RATE OF .450 MMCF ON THE LOW STAGE

* PROD ON FLUID IS TOTALED FOR 12:30 AND 13:00 15 MIN. PROD ADDED DUE TO CARRYING OVER

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.

P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET RATE #2 COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 8 Job No. 103 WEBER WELL NO. FAWCETT & SONS #1 STATE UTAH DATE MARCH 30, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 ÷ 2 INSTANTANEOUS COND BBL/MMCF	5 ÷ 3 CUMULATIVE COND BBL/MMCF	8 ÷ 2 INSTANTANEOUS BBLS/FLUID/MCF	9 ÷ 3 CUMULATIVE BBLS/FLUID/MCF
OPENING PRODUCTION			24.318		339.44		1638.53		1977.97				
OPENED WELL THROUGH SEPARATOR ON RATE #2													
10:00	09.600	0.451	24.769	7.99	347.43	19.97	1658.50	27.96	2005.93	17.716	14.027	61.996	80.986
11:00	*11.500	0.482	25.251	2.86	350.29	31.96	1690.46	34.82	2040.75	05.934	13.872	72.241	80.819
:00	11.815	0.494	25.745	1.99	352.28	31.67	1722.13	33.66	2074.41	04.028	13.683	68.138	80.575
13:00	11.800	0.492	26.237	6.28	358.56	30.25	1752.38	36.53	2110.94	12.764	13.666	74.248	80.457
14:00	11.680	0.486	26.732	4.28	362.84	31.10	1783.48	36.38	2146.32	08.807	13.578	72.798	80.317
15:00	11.675	0.487	27.210	6.28	369.12	32.53	1816.01	38.81	2185.13	12.895	13.566	79.692	80.306
16:00	11.730	0.489	27.699	5.14	374.26	30.82	1846.83	35.96	2221.09	10.511	13.512	73.538	80.187
17:00	11.678	0.489	28.188	7.13	381.39	31.67	1878.50	38.80	2259.89	14.581	13.530	79.346	80.172
			SHUT INTO RECORD BUILD-UPS END OF RATE #2										

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET RATE #1 COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 7 Job No. 103 WEBER WELL NO. FAWCETT & SONS #1 STATE UTAH DATE MARCH 29, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
OPENING PRODUCTION			21.984		315.76		1530.38		1846.14				
OPENED WELL THROUGH SEPARATOR ON RATE #1													
10:00	6.000	0.221	22.205	5.71	321.47	01.71	1532.09	07.42	1853.56	25.837	14.477	33.575	83.475
11:00	0.000	0.058	22.263 *	0.00	321.47 *	00.00	1532.09	00.00	1853.56	00.000	14.440	00.000	83.257
12:00	8.600	0.344	22.607	1.42	322.89	27.11	1559.20	28.53	1882.09	04.128	14.283	82.936	83.253
13:00	8.370	0.337	22.944	2.28	325.17	14.27	1573.47	16.55	1898.64	06.766	14.172	49.110	82.751
14:00	8.305	0.345	23.289	2.85	328.02	15.98	1589.45	18.83	1917.47	08.261	14.085	54.580	82.334
15:00	8.202	0.342	23.631	3.43	331.45	15.98	1605.43	19.41	1936.88	10.029	14.026	56.754	81.964
16:00	8.160	0.348	23.979	4.27	335.72	16.26	1621.69	20.53	1957.41	12.270	14.001	58.994	81.630
17:00	8.160	0.339	24.318	3.72	339.44	16.84	1638.53	20.56	1977.97	10.973	13.958	60.649	81.338
			SHUT INTO RECORD BUILD-UPS			END OF RATE #1							

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
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MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET RATE #2 COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 6 Job No. 103 WEBER WELL NO. FAWCETT & SONS #1 STATE UTAH DATE MARCH 27, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
OPENING PRODUCTION			21.249		307.77		1494.42		1802.19				
OPENED WELL THROUGH SEPARATOR ON RATE #2													
09:00	7.000	0.306	21.555	1.71	309.48	09.13	1503.55	10.84	1813.03	05.588	14.358	35.425	84.112
10:00	7.900	0.319	21.874	4.00	313.48	21.12	1524.67	25.12	1838.15	12.539	14.331	78.746	84.034
10:20	* 7.900	* 0.110	21.984	2.28	315.76	05.71	1530.38	07.99	1846.14	20.727	14.363	72.636	83.977
10:20	BLEW BURSTING PLATE AND RUPTURED INLET LINE ON SEPARATOR - SHUT IN												
	* ESTIMATED FLOW RATE AND PRODUCTION FOR 20 MINUTES												

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET RATE #1 COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 5 Job No. 103 WEBER WELL NO. FAWCETT & SONS #1 STATE UTAH DATE MARCH 26, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 ÷ 2 INSTANTANEOUS COND BBL/MMCF	5 ÷ 3 CUMULATIVE COND BBL/MMCF	8 ÷ 2 INSTANTANEOUS BBLS/FLUID/MCF	9 ÷ 3 CUMULATIVE BBLS/FLUID/MCF
OPENING PRODUCTION			19.101		284.36		1393.40		1677.76				
08:00	OPENED WELL THROUGH SEPARATOR ON RATE #1 OF 4 POINT TEST												
09:00	6.400	0.255	19.356	1.71	286.07	05.71	1399.11	07.42	1685.18	06.706	14.779	29.098	87.062
10:00	7.200	0.264	19.620	1.43	287.50	14.26	1413.37	15.69	1700.87	05.417	14.653	59.432	86.691
11:00	7.080	0.295	19.915	1.15	288.65	08.00	1421.37	09.15	1710.02	03.898	14.494	31.017	85.866
12:00	6.840	0.288	20.203	0.00	288.64	14.27	1435.64	14.27	1724.29	00.000	14.287	49.549	85.348
13:00	6.385	0.261	20.464	4.57	293.22	13.70	1449.34	18.27	1742.56	17.510	14.329	70.000	85.152
14:00	6.485	0.266	20.730 *	9.98	303.20 *	14.26	1463.60	24.24	1766.80	37.519	14.626	91.128	85.229
15:00	6.100	0.255	20.985	0.00	303.20	13.70	1477.30	13.70	1780.50	00.000	14.448	53.725	84.846
16:00	6.395	0.264	21.249	4.57	307.77	17.12	1494.42	21.69	1802.19	17.311	14.484	82.159	84.813
				SHUT IN TO RECORD BUILD-UPS END OF RATE #1									

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET CLEAN-UP COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 4 Job No. 103 WEBER WELL NO. FAWCETT & SONS #1 STATE UTAH DATE MARCH 24, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
OPENING PRODUCTION			10.776		209.78		893.42		1103.20				
01:00	11.320	0.472	11.248	3.99	213.77	21.12	914.54	25.11	1128.31	08.453	19.005	53.199	100.312
02:00	11.310	0.471	11.719	4.27	218.04	16.83	931.37	21.10	1149.41	09.066	18.606	44.798	098.081
03:00	* 12.010	0.493	12.212	* 2.42	220.46	* 13.98	945.35	16.40	1165.81	04.909	18.053	33.265	095.464
04:00	11.620	0.482	12.694	1.14	221.60	31.11	976.46	32.25	1198.06	02.365	17.457	66.909	094.380
05:00	11.520	0.482	13.176	4.57	226.17	30.82	1007.28	35.39	1233.45	09.481	17.165	73.423	093.613
06:00	11.070	0.492	13.668	0.00	226.17	31.97	1039.25	31.97	1265.42	00.000	16.547	64.980	092.583
07:00	12.220	0.518	14.186	10.56	236.73	31.96	1071.21	42.52	1307.94	20.386	16.688	82.085	092.199
08:00	12.870	0.535	14.721	5.42	242.15	44.23	1115.44	49.65	1357.59	10.131	16.449	92.804	092.221
09:00	* 13.070	0.540	15.261	5.71	247.86	31.96	1147.40	37.67	1395.26	10.574	16.241	69.759	091.427
10:00	* 13.240	0.548	15.809	3.99	251.85	37.10	1184.50	41.09	1436.35	07.281	15.931	74.982	090.856
11:00	13.190	0.543	16.352	5.13	256.98	30.25	1214.75	35.38	1471.73	09.448	15.716	64.157	090.003
12:00	13.300	0.552	16.904	6.27	263.25	37.10	1251.85	43.37	1515.10	11.359	15.573	78.569	089.630
13:00	13.000	0.534	17.438	7.98	271.23	35.39	1287.24	43.37	1558.47	14.944	15.554	81.217	089.372
14:00	13.350	0.551	17.989	1.15	272.38	35.96	1323.20	37.11	1595.58	02.087	15.141	67.350	088.698
15:00	13.350	0.556	18.545	6.27	278.65	37.10	1360.30	43.37	1638.95	11.277	15.026	78.004	088.377
16:00	13.350	0.556	19.101	5.71	284.36	33.10	1393.40	38.81	1677.76	10.2[illegible]	[illegible].887	69.802	087.8[illegible]

SHUT IN BY AMOCO REQUEST - END OF CLEAN-UP - RECORDING BUILD-UPS

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET CLEAN-UP COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 3 Job No. 103 WEBER WELL NO. FAWCETT & SONS #1 STATE UTAH DATE MARCH 23, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
OPENING PRODUCTION			5.848		177.81		540.68		718.49				
13:00	8.350	0.348	6.196	0.00	177.81	37.10	577.78	37.10	755.59	00.000	28.698	106.609	121.948
14:00	8.600	0.358	6.554	0.00	177.81	13.70	591.48	13.70	769.29	00.000	27.130	038.268	117.377
15:00	8.600	0.358	6.912	5.14	182.95	34.25	625.73	39.39	808.68	14.358	26.468	110.028	116.997
16:00	8.600	0.358	7.270	1.14	184.09	22.26	647.99	23.40	832.08	03.184	25.322	065.363	114.454
17:00	9.200 *	0.371	7.641 *	0.57	184.66 *	18.84	666.83	19.41	851.49	01.536	24.167	052.318	111.437
18:00	10.500	0.427	8.068	0.00	184.66	15.41	682.24	15.41	866.90	00.000	22.888	36.089	107.449
19:00	10.710	0.442	8.510	0.57	185.23	50.23	732.47	50.80	917.70	01.290	21.766	114.932	107.838
20:00	10.710	0.442	8.952	6.85	192.08	30.82	763.29	37.67	955.37	15.498	21.457	085.226	106.721
21:00	10.940	0.456	9.408	3.99	196.07	38.81	802.10	42.80	998.17	08.750	20.841	093.860	106.098
22:00	10.940	0.456	9.864	4.00	200.07	31.96	834.06	35.96	1034.13	08.772	20.283	078.860	104.839
23:00	10.920	0.455	10.319	4.57	204.64	31.96	866.02	36.53	1070.66	10.044	19.831	080.286	103.756
24:00	11.020	0.457	10.776	5.14	209.78	27.40	893.42	32.54	1103.20	11.247	19.467	071.204	102.376

TIGHT HOLE

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307/[illegible]-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 2889

DATE SECURED: 4/24/80

A SAMPLE OF: FAWCETT & SONS #1 4/19/80 1530 HR SEPARATOR BOTTOM SIGHT GLASS
SECURED FROM: AMOCO PRODUCTION CO
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	0.00	0.00	0.00
NITROGEN			
OXYGEN			
H2S			
METHANE	0.00	0.00	0.00
ETHANE	0.01	0-.01	0.02
PROPANE	0.67	0.31	0.41
ISO-BUTANE	0.89	0.54	0.65
N-BUTANE	1.96	1.19	1.38
ISO-PENTANE	2.25	1.69	1.84
N-PENTANE	2.13	1.60	1.72
HEXANES	8.78	7.87	8.07
HEPTANES	83.31	86.81	85.91
TOTAL	100.00	100.00	100.00

CALC. SP. GR.	0.6811
CALC. MOL. WT.	96.166
CALC. VAP PRES	5.52
SP. GR. C 7 +	0.6882
MOL. WT. C 7 +	100.21
VAP PRES C 7 +	1.620
GAL/#MOL C 7 +	17.464
CF/GAL C 7 +	21.729
LB/GAL C 7 +	5.738

26.0 R.P.V.
GASOLINE
EXCESS C'4S
EXCESS C3
EXCESS C2

14.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

12.0 R.V.P.
GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM
BUTANES CALC GPM
PENTANES PLUS GPM
ETHANE CALC GPM
TOTAL GPM

B.T.U./CU.FT.
DRY BASIS
WET BASIS

26 # PRODUCT
12 # PRODUCT

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: VF CHECKED BY: HAUCK APPROVED BY:

RECEIVED
MAY 13 1980
DIVISION OF
OIL, GAS & MINING

ADDITIONAL DATA AND REMARKS

API Gravity @ 60°F 55.0
Reid Vapor Pressure 10.2

COPIES TO:

TIGHT HOLE

A DIVISION OF WPC, INC.

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BO[illegible]652 * 24 HOUR PHONE 307/[illegible]-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 2988

DATE SECURED: 4/24/80

A SAMPLE OF: FAWCETT & SONS #1 4/18/80 1500 HR SEPARATOR PHOSPHORIA
SECURED FROM: AMOCO PRODUCTION CO
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	0.00	0.00	0.00
NITROGEN			
OXYGEN			
H2S			
METHANE	1.37	0.23	0.52
ETHANE	0.73	0.25	0.45
PROPANE	0.40	0.18	0.25
ISO-BUTANE	0.47	0.28	0.34
N-BUTANE	1.06	0.64	0.75
ISO-PENTANE	1.65	1.24	1.35
N-PENTANE	1.80	1.36	1.46
HEXANES	7.28	6.55	6.71
HEPTANES	85.24	89.27	88.17
TOTAL	100.00	100.00	100.00

CALC. SP. GR.	0.6797
CALC. MOL. WT.	95.677
CALC. VAP PRES	78.46
SP. GR. C 7 +	0.6882
MOL. WT. C 7 +	100.21
VAP PRES C 7 +	1.620
GAL/#MOL C 7 +	17.464
CF/GAL C 7 +	21.729
LB/GAL C 7 +	5.738
26.0 R.P.V. GASOLINE	
EXCESS C4'S	
EXCESS C3	
EXCESS C2	
14.0 R.V.P. GASOLINE	
EXCESS C4'S	
EXCESS C3	
EXCESS C2	
12.0 R.V.P. GASOLINE	
EXCESS C4'S	
EXCESS C3	
EXCESS C2	

PROPANE CALC	GPM
BUTANES CALC	GPM
PENTANES PLUS	GPM
ETHANE CALC	GPM
TOTAL	GPM
B.T.U./CU. FT.	
DRY BASIS	
WET BASIS	
26 # PRODUCT	
12 # PRODUCT	
SULFUR ANALYSIS (GR./100CU. FT.)	
HYDROGEN SULFIDE	
MERCAPTANS	
SULFIDES	
RESIDUAL SULFUR	
MOISTURE CONTENT (#/MMCU. FT.)	

RUN BY: VF CHECKED BY: HAUCK APPROVED

RECEIVED
MAY 13 1980
DIVISION OF OIL, GAS & MINING

ADDITIONAL DATA AND REMARKS

API Gravity @ 60°F 53.0
Reid Vapor Pressure 7.5

COPIES TO:

TIGHT HOLE

A DIVISION OF WPC, INC.

A DIVISION OF WPC, INC.

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 2906

DATE RUN: 4/8/80

A SAMPLE OF: WATER FROM AMOCO PRODUCTION CO. SUMMIT CO. UTAH
SAMPLE FROM: WILDCAT FAWCETT AND SONS WEBER FORM 3/31/80 11914-12224
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	30353.91	1320.4
POTASSIUM-K	1090	27.9
CALCIUM-CA	1109.2	55.35
MAGNESIUM-MG	143.5	11.8
BARIUM-BA	0	0
TOTAL CATIONS	32696.61	1415.44

ANIONS

CHLORIDE-CL	45000	1269
SULFATE-SO4	1750	36.4
CARBONATE-CO3	0	0
BICARBONATE-HCO3	6710	110.04
TOTAL ANIONS	53460	1415.44

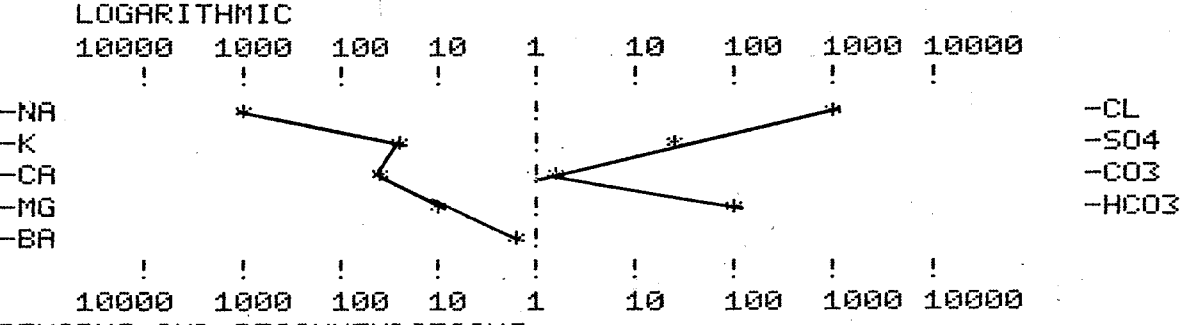
TOTAL DISSOLVED SOLIDS(CALC.) 86156.61

OTHER PROPERTIES

PH 6.9
RESISTIVITY(OHM-METERS), 77 F .1

IRON-FE (TOTAL) 0
SULFIDE AS H2S Sulfide Present

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

TIGHT HOLE

COPIES TO:

ANALYSIS BY: EUGENE M. HAUCK

GL MD VF

A DIVISION OF NPC, INC.

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 162 * 24 HOUR PHONE 307/261-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 2887

DATE RUN: 4/8/80

A SAMPLE OF: WATER FROM AMOCO PRODUCTION CO.
SAMPLE FROM: FAWCETT AND SONS ACID WATER
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	115899.07	5041.61
POTASSIUM-K	510	13.06
CALCIUM-CA	365.8	18.25
MAGNESIUM-MG	38.75	3.18
BARIUM-BA	0	0
TOTAL CATIONS	116813.62	5076.1

ANIONS

CHLORIDE-CL	180000	5076
SULFATE-SO4	5	.1
CARBONATE-CO3	0	0
BICARBONATE-HCO3	0	0
TOTAL ANIONS	180005	5076.1

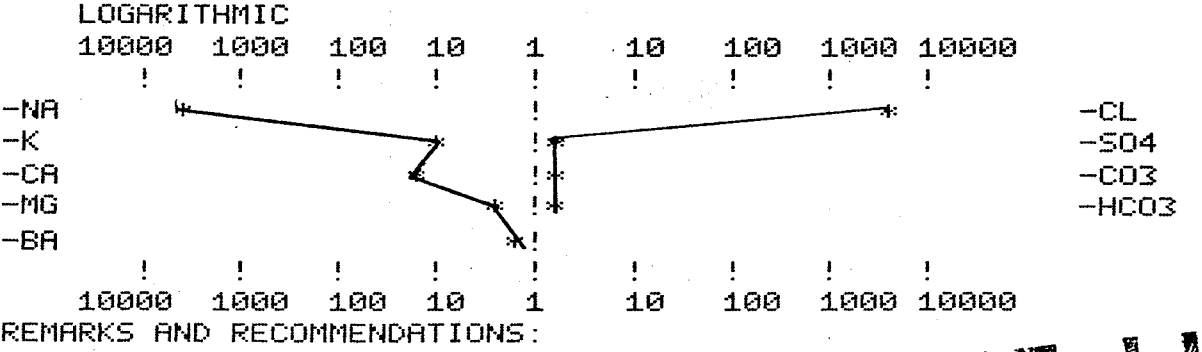
TOTAL DISSOLVED SOLIDS(CALC.) 296818.62

OTHER PROPERTIES

PH .1
RESISTIVITY(OHM-METERS), 77 F .02

IRON-FE (TOTAL) Iron Present
SULFIDE AS H2S 0

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

TIGHT HOLE

COPIES TO:

ANALYSIS BY: EUGENE M. HAUCK

GL MD

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . . 2885

DATE SECURED: 4/7/80

A SAMPLE OF: FAWCETT & SONS #1 WILDCAT 3/24/80 LOW STAGE SEPARATOR 11914-12224
SECURED FROM: AMOCO PRODUCTION CO BOX 17675 SALT LAKE CITY UTAH 84117
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	0.00	0.00	0.00
NITROGEN			
OXYGEN			
H2S			
METHANE	0.00	0.00	0.00
ETHANE	0.00	0.02	0.00
PROPANE	0.03	0.01	0.02
ISO-BUTANE	0.08	0.04	0.05
N-BUTANE	0.22	0.13	0.15
ISO-PENTANE	0.43	0.31	0.34
N-PENTANE	0.49	0.35	0.39
HEXANES	2.24	1.94	2.01
HEPTANES	96.51	97.20	97.04
TOTAL	100.00	100.00	100.00

CALC. SP. GR.	0.6870
CALC. MOL. WT.	99.491
CALC. VAP PRES	2.07
SP. GR. C 7 +	0.6882
MOL. WT. C 7 +	100.21
VAP PRES C 7 +	1.620
GAL/#MOL C 7 +	17.464
CF/GAL C 7 +	21.729
LB/GAL C 7 +	5.738

26.0 R.P.V. GASOLINE
EXCESS C'4S
EXCESS C3
EXCESS C2

14.0 R.V.P. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

12.0 R.V.P. GASOLINE
EXCESS C4'S
EXCESS C3
EXCESS C2

PROPANE CALC GPM
BUTANES CALC GPM
PENTANES PLUS GPM
ETHANE CALC GPM
TOTAL GPM

B.T.U./CU.FT.
DRY BASIS
WET BASIS

26 # PRODUCT
12 # PRODUCT

SULFUR ANALYSIS
(GR./100CU.FT.)
HYDROGEN SULFIDE
MERCAPTANS
SULFIDES
RESIDUAL SULFUR
MOISTURE CONTENT
(#/MMCU.FT.)

RUN BY: VF CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

API Gravity @ 60°F	49.8
Reid Vapor Pressure	2.5
Sour Condensate	

COPIES TO: ROY THORNOCK DAVE BLOSSER SALT LAKE CITY UTAH

TIGHT HOLE

A DIVISION OF WPC, INC.

A DIVISION OF WPC, INC.

PETROLEUM ANAL 'TICAL LABORA ORY SERVICE

P. O. BOX 52 * 24 HOUR PHONE 307/26 1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 2884

DATE RUN: 4/8/80

A SAMPLE OF: WATER FROM AMOCO PRODUCTION CO.
SAMPLE FROM: FAWCETT AND SONS FRESH WATER ACID
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	119245.43	5187.18
POTASSIUM-K	380	9.73
CALCIUM-CA	339.84	16.96
MAGNESIUM-MG	38.17	3.14
BARIUM-BA	0	0
TOTAL CATIONS	120003.44	5217

ANIONS

CHLORIDE-CL	185000	5217
SULFATE-SO4	0	0
CARBONATE-CO3	0	0
BICARBONATE-HCO3	0	0
TOTAL ANIONS	185000	5217

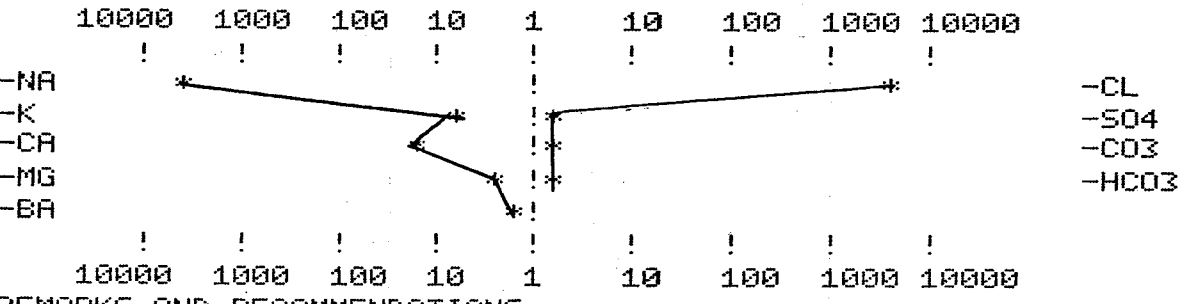
TOTAL DISSOLVED SOLIDS(CALC.)
305003.44

OTHER PROPERTIES

PH .2
RESISTIVITY(OHM-METERS), 77 F .02

IRON-FE (TOTAL) Iron Present
SULFIDE AS H2S 0

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

TIGHT HOLE

COPIES TO:

ANALYSIS BY: EUGENE M. HAUCK

GL MD VF

ORTA-TEST SYSTEMS, INC.
O BOX 522
LLS, WYOMING, U S A 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 19, 1980

LUID PRODUCTION

HEET No. 1 JOB No. 103

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	10:05 2/19/80	14:05 2/19/80		.580 MMCF/D AT 14:00

TIME	TANK No. 1 SIZE 50 BBLS.								TEMP. °F	TANK No. 2 SIZE 50 BBLS.							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
10:00	03	01.71	0	0	OPENING GAUGE												
12:00	29	16.55	0	0	14.84	0											
1[illegible]:00	29	16.55	0	0	00.00	0											
[illegible]:00	35	19.97	0	0	03.42	0			SHUT IN TO ACIDIZE								
				TOTALS	18.26	0							TOTALS				

TIGHT HOLE

RECEIVED
MAR 13 1980
DIVISION OF
OIL, GAS & MINING

MARKS:

	TANK # 1 COND.	TANK # 1 WATER	TANK # COND.	TANK # WATER
OPENING GAUGE	01.71	0		
PLUS PRODUCTION	18.26	0		
TOTALS	19.97	0		
MINUS SHIPPING	00.00	0		
CLOSING GAUGE	19.97	0		

PORTA TEST SYSTEMS, INC.
PO BOX 522
MILLS, WYOMING, U S A 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 19, 1980

SHEET No. 1 JOB No. 103

HIGH STAGE ORIFICE & METER RUN SIZE 2.250 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 P.S.I. x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 P.S.I. x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
04:45				SHUT IN STOPCOCKING TO PIT													
06:45				1101 SHUT IN PRESSURE													
[illegible]:50				PRESSURED UP TO CHOKE - SHUT IN TO REPAIR LEAK													
[illegible]:50				2449 SHUT IN PRESSURE - PRESSURED UP TO CHOKE													
10:05		10/64		BEGAN FLOWING WELL THROUGH SEPARATOR WITH A 2.250 x 4.026 ORIFICE PLATE													
10:15		14/64		INCREASED CHOKE TO 14/64				25	42	135	136	1.250					
10:18		16/64		INCREASED CHOKE TO 16/64													
10:20		20/64		INCREASED CHOKE TO 20/64													
10:30				1641		144		80	116	120	122	3.240					
10:40				INCREASED BACK PRESSURE													
10:45				1125		143		105	48	120	122	2.320					
11:00				772		122		95	22	116	118	1.520					
11:05				INCREASED CHOKE TO 32/64													
11:07				INCREASED CHOKE TO 45/64													
11:10				INCREASED CHOKE TO 56/64 - BEGAN SLUGGING FLUID													
11:15				165	0	118		100	18	110	109	1.420					
11:30				116		120		90	16	112	112	1.300					
12:00	52			92		100		75	51	99	98	0.495	CHANGED TO A 1.125 x 4.026 PLATE				
12:30			52	107		98		80	44	96	96	0.475					
[illegible]:00	52		56	115	0	94		85	71	91	92	0.620					
[illegible]:30			58	99		95		85	55	90	91	0.560					
14:00	52		58	101		97		85	62	94	95	0.580					
14:05				SHUT IN BY AMOCO REQUEST - B.J. HUGHES ON LOCATION TO ACIDIZE													
14:10				320													
14:15				375													
14:20				458													
14:25				520													
14:30				600													
14:35				695	SHUT IN PLASTERS - END OF BUILD-UP												

TICKLE

RECEIVED
MAR 13 1980
DIVISION OF
OIL, GAS & MINING

REMARKS: ACCUMULATIVE GAS FLARED 10:00-14:00 = .208 MMCF/D
TOTAL CONDENSATE PRODUCED = 18.26 BBLS.
TOTAL WATER PRODUCED = 0.0 BBLS.

ORTA-TEST SYSTEMS, INC.
BOX 522
LLS, WYOMING, U S A 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 25, 1980

LUID PRODUCTION

HEET No. 5 JOB No. 103
UPPER WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RATE #1	14:30 2/25/80	17:30 2/25/80		2.28 MMCF/D AT 17:30

TIME	TANK No. 1 SIZE 50 BBLS.								TEMP. °F	TANK No. SIZE							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
	04.0	02.28	0	0.00	OPENING GAUGE												
15:00	04.0	02.28	0	0.00	0.00	0.00											
15:[illegible]	12.0	06.85	2	1.14	4.57	1.14			49								
1[illegible]	18.0	10.27	3	1.71	3.42	0.57			42								
16:30	20.5	11.69	4	2.28	1.42	0.57			42								
17:00	20.5	11.69	5	2.85	0.00	0.57			40								
17:30	26.0	14.84	5	2.85	3.15	0.00			48								
				TOTALS	12.56	2.85							TOTALS				

TIGHT HOLE

MARKS: TOTAL CONSENSATE PRODUCED RATE #1 = 12.56 BBLS.
TOTAL WATER PRODUCED RATE #1 = 2.85 BBLS.

	TANK # 1		TANK #	
	COND.	WATER	COND.	WATER
OPENING GAUGE	02.28	0.00		
PLUS PRODUCTION	12.56	2.85		
TOTALS	14.84	2.85		
MINUS SHIPPING	00.00	0.00		
CLOSING GAUGE	14.84	2.85		

PORTA-TEST SYSTEMS, INC.
O BOX 522
VILLS, WYOMING, U S A 82644

LUID PRODUCTION

SHEET No. 4 JOB No. 103

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 21, 1980

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	15:30 2/21/80	18:30 2/21/80		5.5 MMCF/D

TIME	TANK No. 1 SIZE 50 BBL.								TEMP. °F	TANK No. 2 SIZE 50 BBL.							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
	04	02.28	0.0	0.00	OPENING GAUGE					7	3.99	0	0	OPENING GAUGE			
15:30		OPEN UP WELL ON DRAW DOWN															
16:00	10	05.71	0.0	0.00	03.43	0.00											
[illegible]	29	16.55	3.0	1.71	10.84	1.71											
18:00	63	35.96	3.0	1.71	19.41	0.00											
18:30	77	43.95	3.5	1.49	07.99	0.28				SHUT IN WELL							
18:45	04	02.28	0.0	0.00			41.67	1.49									
				TOTALS	41.67	1.49	41.67	1.49					TOTALS				

TIGHT HOLE

REMARKS: TOTAL CONDENSATE PRODUCED ON CLEAN-UP =
TOTAL WATER PRODUCED ON CLEAN-UP =

	TANK # 1		TANK # 2	
	COND.	WATER	COND.	WATER
OPENING GAUGE	02.28	0.00		
PLUS PRODUCTION	41.67	1.49		
TOTALS	43.95	1.49		
MINUS SHIPPING	41.67	1.49		
CLOSING GAUGE	02.28	0.00		

ORTA TEST SYSTEMS, INC.
O BOX 522
LLS WYOMING, U S A 82644

LUID PRODUCTION

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 21, 1980

HEET No. 3 JOB No. 103

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	13:15 2/20/80	08:30 2/21/80		6.25 MMCF/D

TIME	TANK No. 1 SIZE 50 BBL. CONDENSATE Ins.	CONDENSATE Bbls.	WATER Ins.	WATER Bbls.	PROD. COND. Bbls.	PROD. WATER Bbls	SHIPPING COND. Bbls.	SHIPPING WATER Bbls.	TEMP. °F	TANK No. 2 SIZE 50 BBL. CONDENSATE Ins.	CONDENSATE Bbls.	WATER Ins.	WATER Bbls.	PROD COND. Bbls.	PROD WATER Bbls.	SHIPPING COND. Bbls.	SHIPPING WATER Bbls.
	07.0	03.99	00	00.00	OPENING GAUGE					81	46.23	15	08.56	OPENING GAUGE			
00:30	27.0	15.41	24	13.70	11.42	13.70				03	01.71	00	00.00			44.52	08.56
01:00										06	03.43	02	01.14	01.72	01.14		
01:30	06.0	03.43	00	00.00			11.98	13.70		09	05.14	44	25.11	01.71	23.97		
02:00										31	17.69	44	25.11	12.55	00.00		
02:30	34.0	19.40	00	00.00	15.99	00.00											
03:00	37.0	21.12	00	00.00	01.72	00.00											
03:30	43.5	24.82	00	00.00	03.70	00.00											
04:00	53.0	30.25	00	00.00	05.43	00.00											
05:00	55.0	31.39	00	00.00	01.14	00.00											
05:30	55.0	31.39	00	00.00	00.00	00.00											
06:00	55.5	31.67	00	00.00	00.28	00.00											
06:30	57.0	32.53	02	01.14	00.86	01.14											
07:00	58.0	33.10	04	02.28	00.57	01.14											
07:30	60.0	34.25	06	03.43	01.15	01.14											
08:00	62.0	35.39	08	04.57	01.14	01.14											
08:30	65.0	37.10	10	05.71	01.71	01.14											
08:31		SHUT IN WELL					TRANSFER TANKS										
09:00	04.0	02.28	00	00.00			34.82	05.71		07	03.99	00	00.00			13.70	25.11
				TOTALS	45.09	05.70	46.80	19.41					TOTALS	15.98	25.11	58.22	33.67

TICKET HOLE

MARKS:

	TANK # 1 COND.	TANK # 1 WATER	TANK # 2 COND.	TANK # 2 WATER
OPENING GAUGE	03.99	0.00	46.23	08.56
PLUS PRODUCTION	45.09	5.70	15.98	25.11
TOTALS	49.08	5.70	62.21	33.67
MINUS SHIPPING	46.80	5.70	58.22	33.67
CLOSING GAUGE	02.28	0.00	03.99	00.00

ORTA-TEST SYSTEMS, INC.
O BOX 522
LS WYOMING, U S A 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 20, 1980

LUID PRODUCTION

HEET No. 2 JOB No. 103

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
CLEAN-UP	13:15 2/20/80			10.25 MMCF @ 24:00

TIME	TANK No. 1 SIZE 50 BBLS. CONDENSATE Ins.	CONDENSATE Bbls.	WATER Ins.	WATER Bbls	PROD. COND Bbls.	PROD. WATER Bbls.	SHIPPING COND. Bbls.	SHIPPING WATER Bbls.	TEMP. °F	TANK No. 2 SIZE 50 BBLS. CONDENSATE Ins.	CONDENSATE Bbls.	WATER Ins.	WATER Bbls.	PROD. COND. Bbls.	PROD. WATER Bbls.	SHIPPING COND. Bbls.	SHIPPING WATER Bbls.
16:30	15.0	08.56	20.0	11.41	OPENING GAUGE					03.0	01.71	00.0	00.00	OPENING GAUGE			
17:00	20.0	11.41	63.0	35.96	02.85	24.55											
17:30	03.0	01.71	00.0	00.00			09.70	35.96		08.0	04.57	06.0	03.43	02.86	3.43		
1			SEPARATOR ON BY-PASS														
19:30										15.0	08.56	12.0	06.85	03.99	3.42		
20:00										30.0	17.12	25.0	14.27	08.56	7.42		
20:30										44.0	25.11	38.0	21.69	07.99	7.42		
21:00	26.0	14.84	24.0	13.70	13.13	13.70											
23:30										46.0	26.25	07.0	03.99	01.14			17.7
24:00	07.0	03.99	00.0	00.00			10.85	13.70		81.0	46.23	15.0	08.56	19.98	4.57		
				TOTALS	15.98	38.25	20.55	49.66					TOTALS	44.52	26.26		17.7

TIGHT HOLE

MARKS:

	TANK # 1 COND.	TANK # 1 WATER	TANK # 2 COND.	TANK # 2 WATER
OPENING GAUGE	08.56	11.41	01.71	00.00
PLUS PRODUCTION	15.98	38.25	44.52	26.26
TOTALS	24.54	49.66	46.23	26.26
MINUS SHIPPING	20.55	49.66	00.00	17.70
CLOSING GAUGE	03.99	00.00	46.23	08.56

Form OGCC-3

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☒ Other

2. NAME OF OPERATOR: Amoco Production Company

3. ADDRESS OF OPERATOR: P.O. Box 17675, Salt Lake City, Utah 84117

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: NW/4 - NW/4 Sec. 36 694' FNL & 2159 FWL
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME: Amoco-Champlin-Fawcett & Sons

9. WELL NO.: #1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 36, T5N, R7E SLBM

14. PERMIT NO.: 43-043-30078 DATE ISSUED: 7-12-78

12. COUNTY OR PARISH: Summit 13. STATE: Utah

15. DATE SPUDDED: 9-30-78 16. DATE T.D. REACHED: 5-30-79 17. DATE COMPL. (*Ready to prod.*): 5-1-80 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*: 6858 (RKB) 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD: 18055 21. PLUG, BACK T.D., MD & TVD: 13,711 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY → ROTARY TOOLS: Surf-TD CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 11461 - 11956 Phosphoria, Permian

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: DIL, DLL, FDC, CNL, BHC Sonic, FIL, HDT, Temp Survey, R/A Tracer Cement Bond

27. WAS WELL CORED: no

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"		1525	26	2250 sx	
13 3/8"		5601	17¼	3300 sx	
9 5/8"	47-40	11384	12¼	1325 sx	
7"	32	18055	8½	450 sx	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
None				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
3½"	11300	

31. PERFORATION RECORD (*Interval, size and number*): See Attachment "A"

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
See Attachment "A"	

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33.* PRODUCTION

DATE FIRST PRODUCTION: | PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*): Flowing | WELL STATUS (*Producing or shut-in*): Shut-in

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
4-22-80	11	39/64		230	10915	0	50286

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
2569	0		502	25220	0	50.5 @ 50°F

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Flared

TEST WITNESSED BY

35. LIST OF ATTACHMENTS: "A" includes Perforation Record, Acid, Shot, Fracture, Cement Squeeze, Etc.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Don Davidson TITLE Dist. Admin. Supervisor DATE 5-5-80

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
DST #1	6950	7021	Mis-run
DST #2	6950	7021	Rec Gas-cut Water
DST #3	6940	7038	Rec Saltwater
DST #4	9360	9396	No Recoveries
DST #5	9594	9631	Thaynes
DST #6	11327	11356	Rec H_2S Gas-cut Mud
DST #7	11353	11600	Rec Phosphoria Gas & Water

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Phosphoria	11,461	
Weber	11,956	
Amsden	12,751	
Madison	13,069	
Lodgepole	14,690	
Fault	14,777	
Madison/Morgan	14,880	
Madison	15,257	

BOTTOM HOLE PRESSURE/TEMPERATURE SURVEY REPORT

OEC-906

TEST NUMBER	RUN NUMBER	AREA	DEVIATED HOLE?	DATE (DAY MO YR)	PAGE OF
1	2		YES [ ] NO [x]	3 April 80	1 / 2

CUSTOMER	WELL NAME OR NUMBER	KB ELEV. (FT)	GND ELEV./WATER DEPTH (FT)	REF. ELEV. (FT.)	SHUT IN TIME BEFORE SURVEY (HOURS)
AMOCO PRODUCTION CO.	Fawcett & Sons # 1				

UPPER PRESSURE GAUGE

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (psi)	INNER HOUSING NO.	CHART TIME RANGE (HRS)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION $a + P_e$
44261	0-6500	1002	3		3282.4757	-17.9622

LOWER PRESSURE GAUGE

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (psi)	INNER HOUSING NO.	CHART TIME RANGE (HRS)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION $a + P_e$

TEMPERATURE GAUGE

TEMP. ELEMENT NO.	TEMP. ELEMENT RANGE (°F)	INNER HOUSING NO.	CHART TIME RANGE (HRS)	CALIBRATION NO.	CALIBRATION FACTOR(S)

T	DEPTH		UPPER PRESSURE GAUGE					LOWER PRESSURE GAUGE					TEMPERATURE GAUGE				
ARRIVED / DEPARTED	MEASURED DEPTH (FEET)	DEPTH DIFFERENCE (FEET)	PRESSURE DEFLECTION Y (INCHES)	NON-LINEAR CORRECTION C_L* (psi)	BOTTOM HOLE PRESSURE $P=KY+a+P_e+C_L$ (psig)	PRESSURE DIFFERENCE (psi)	PRESSURE GRADIENT (psi/FT)	PRESSURE DEFLECTION Y (INCHES)	NON-LINEAR CORRECTION C_L* (psi)	BOTTOM HOLE PRESSURE $P=KY+a+P_e+C_L$ (psig)	PRESSURE DIFFERENCE (psi)	PRESSURE GRADIENT (psi/FT)	TEMPERATURE DEFLECTION (INCHES)	CALIBRATION FACTOR (°F/INCH)	BOTTOM HOLE TEMPERATURE (°F)	TEMP. DIFFERENCE (°F)	TEMP. GRADIENT (°F/FT)
6:26																	
6:30	0		1.087		3550.6												
6:59																	
7:09	12550		1.641		5368.5												
7:10		100				42.6	.426										
7:14	12450		1.628		5325.9												
7:15		100				39.4	.394										
7:19	12350		1.616		5286.5												
7:20		100				49.3	.493										
7:24	12250		1.601		5237.2												
7:25		100				45.9	.459										
7:29	12150		1.587		5191.3												
7:[illegible]		100				49.3	.493										
7:34	12050		1.572		5142.0												
7:35		100				42.6	.426										
7:39	11950		1.559		5099.4												
7:40		100				13.2	.132										
7:44	11850		1.555		5086.2												
7:46		850				105.0	.123										
7:50	11000		1.523		4981.2												
7:53		1000				121.5	.121										
7:57	10000		1.486		4859.7												
8:00		1000				128.0	.128										
8:04	9000		1.447		4731.7												
8:07		1000				124.7	.124										
8:11	8000		1.409		4607.0												
8:14		1000				134.6	.134										
8:18	7000		1.368		4472.4												
		1000				128.0	.128										

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TIGHT HOLE

HOLE PRESSURE/TEMPERATURE SURVEY REPORT

DEC 906

TEST NUMBER	RUN NUMBER	AREA	DEVIATED HOLE?	DATE (DAY MO YR)	PAGE OF
			YES / NO		2 / 2

CUSTOMER	WELL NAME OR NUMBER	KB ELEV. (FT)	GND ELEV./WATER DEPTH (FT)	REF. ELEV. (FT.)	SHUT IN TIME BEFORE SURVEY (HOURS)
AMOCO PRODUCTION CO.	Fawcett & Sons # 1				

UPPER PRESSURE GAUGE

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (psi)	INNER HOUSING NO.	CHART TIME RANGE (HRS)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION $a + P_e$

LOWER PRESSURE GAUGE

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (psi)	INNER HOUSING NO.	CHART TIME RANGE (HRS)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION $a + P_u$

TEMPERATURE GAUGE

TEMP. ELEMENT NO.	TEMP. ELEMENT RANGE (°F)	INNER HOUSING NO.	CHART TIME RANGE (HRS)	CALIBRATION NO.	CALIBRATION FACTOR(S)

T	DEPTH		UPPER PRESSURE GAUGE					LOWER PRESSURE GAUGE					TEMPERATURE GAUGE				
ARRIVED / DEPARTED	MEASURED DEPTH (FEET)	DEPTH DIFFERENCE (FEET)	PRESSURE DEFLECTION Y (INCHES)	NON-LINEAR CORRECTION C_L* (psi)	BOTTOM HOLE PRESSURE $P=KY+a+P_e+C_L$ (psig)	PRESSURE DIFFERENCE (psi)	PRESSURE GRADIENT (psi/FT)	PRESSURE DEFLECTION Y (INCHES)	NON-LINEAR CORRECTION C_L* (psi)	BOTTOM HOLE PRESSURE $P=KY+a+P_e+C_L$ (psig)	PRESSURE DIFFERENCE (psi)	PRESSURE GRADIENT (psi/FT)	TEMPERATURE DEFLECTION (INCHES)	CALIBRATION FACTOR (°F/INCH)	BOTTOM HOLE TEMPERATURE (°F)	TEMP. DIFFERENCE (°F)	TEMP. GRADIENT (°F/FT)
1 8:21					1					1					1		
8:25	6000		1,329		4344.4												
2 8:28		1000			2	134.6	.134			2					2		
8:32	5000		1.288		4209.8												
3 8:33		1000			3	129.8	.129			3					3		
8:37	4000		1.248		3950.5												
4 8:40		1000			4	129.5	.129			4					4		
8:44	3000		1.209		3822.5												
5 8:47		1000			5	128.0	.128			5					5		
8:51	2000		1.170		3697.8												
6 8:54		1000			6	124.7	.124			6					6		
8:58	1000		1.132		3562.5												
9:		1000			7	135.3	.135			7					7		
9:09	0		1.090														
8					8					8					8		
9					9					9					9		
10					10					10					10		
11					11					11					11		
12					12					12					12		
13					13					13					13		
14					14					14					14		

TIGHT HOLE

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BO[illegible]2652 * 24 HOUR PHONE 307/[illegible]-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

RUN NO. . 2990

DATE SECURED: 4/24/80

A SAMPLE OF: FAWCETT & SONS #1 4/20/80 1530 NR SEPARATOR PHOSPHORIA
SECURED FROM: AMOCO PRODUCTION CO
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP: ..... TIME: ..... DATE: .....

FRACTIONAL ANALYSIS

@ 14.696 &60 DEG. F.

	MOL. %	WT. %	LIQ. %
CARBON DIOXIDE	0.00	0.00	0.00
NITROGEN			
OXYGEN			
H2S			
METHANE	0.00	0.00	0.00
ETHANE	0.01	0.00	0-.01
PROPANE	0.47	0.22	0.29
ISO-BUTANE	0.67	0.40	0.49
N-BUTANE	1.62	0.97	1.14
ISO-PENTANE	2.26	1.69	1.84
N-PENTANE	2.11	1.58	1.71
HEXANES	7.45	6.64	6.83
HEPTANES	85.41	88.50	87.71
TOTAL	100.00	100.00	100.00

CALC. SP. GR.	0.6821
CALC. MOL. WT.	96.703
CALC. VAP PRES	4.76
SP. GR. C 7 +	0.6882
MOL. WT. C 7 +	100.21
VAP PRES C 7 +	1.620
GAL/#MOL C 7 +	17.464
CF/GAL C 7 +	21.729
LB/GAL C 7 +	5.738
26.0 R.P.V. GASOLINE	
EXCESS C'4S	
EXCESS C3	
EXCESS C2	
14.0 R.V.P. GASOLINE	
EXCESS C4'S	
EXCESS C3	
EXCESS C2	
12.0 R.V.P. GASOLINE	
EXCESS C4'S	
EXCESS C3	
EXCESS C2	

PROPANE CALC	GPM
BUTANES CALC	GPM
PENTANES PLUS	GPM
ETHANE CALC	GPM
TOTAL	GPM
B.T.U./CU.FT.	
DRY BASIS	
WET BASIS	
26 # PRODUCT	
12 # PRODUCT	
SULFUR ANALYSIS (GR./100CU.FT.)	
HYDROGEN SULFIDE	
MERCAPTANS	
SULFIDES	
RESIDUAL SULFUR	
MOISTURE CONTENT (#/MMCU.FT.)	

RUN BY: VF CHECKED BY: HAUCK APPROVED BY: E.M. Hauck

ADDITIONAL DATA AND REMARKS

API Gravity @ 60°F 54.0
Reid Vapor Pressure 8.0

COPIES TO:

TIGHT HOLE

A DIVISION OF WPC, INC.

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

TEST DATA SHEET

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 1, 1980

SHEET No. 8 JOB No. 103
UPPER WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 2.000 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 PSI x 200" CALIBRATED @ _____ HRS.

L.S. METER SIZE 250 PSI x 100" CALIBRATED @ _____ HRS.

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
07:40				2483	0		SHUT IN PRESSURE										
08:00		25/64	OPENED WELL THROUGH MANIFOLD TO PIT ON CLEAN-UP														
08:05			52	2650													
08:10			58	2400													
08:15			67	2407													
08:15		22/64	DECREASED CHOKE TO 22/64 BEGAN SLUGGING FLUID														
08:20			72	2860													
08:25			73	2867													
08:25		20/64	DECREASED CHOKE TO 20/64														
08:30			72	2900													
08:30		16/64	STOP-COCKED WELL ONCE TO PIT, DECREASED CHOKE TO 16/64														
08:35			70	3370													
08:35			INCREASED CHOKE TO 20/64														
08:40			65	3350													
08:45			64	3365													
08:50			63	3370													
08:55			68	3150													
09:00			70	3347			TURNED FLOW THROUGH SEPARATOR ON RATE #1 2.000 x 4.026 ORIFICE										
09:05			68	3197													
09:10			68	3120													
09:10		17/64	INCREASED CHOKE														
09:15			64	3072		164		435	147	124	126	6.05					
09:15		17.5/64	INCREASED CHOKE														
09:20			58	3032													
09:25		18/64	INCREASED CHOKE														
09:30			52	2915		164		435	146	120	122	6.05					
09:35			55	2910													
09:40			55	2880													
09:40			INCREASED BACK PRESSURE														
09:45			DEADWEIGHT INOPERATABLE					765	66	8[illegible]	8[illegible]	[illegible].50					
09:50		20/64	58	2815	650												

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TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P O BOX 522
MILLS, WYOMING, U S A 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 25, 1980

SHEET No. 7 JOB No. 103
UPPER WEBER

HIGH STAGE ORIFICE & METER RUN SIZE 1.500 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 P.S.I. x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 P.S.I. x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
13:00				3520	0	SHUT IN PRESSURES											
13:00				PRESSURED UP TO CHOKE - SHUT IN TO REPAIR LEAKS ON FLOW LINE AND WELLHEAD													
1[illegible]:00				3505		SHUT IN PRESSURE											
[illegible]30				BEGIN FLOWING WELL THROUGH SEPARATOR ON RATE #1 WITH A 1.500 x 4.026 ORIFICE PLATE													
14:45		14/64	54	3366		160		480	142	145	147	3.42					
14:45				INCREASED BACK PRESSURE													
15:00	53		50	3268	0	118		490	106	94	98	3.06					
15:15			57	3200		113		495	100	76	76	3.05					
15:30			58	3164		106		495	80	82	82	2.72					
15:45			60	3210		110		495	60	91	92	2.32					
15:45		15/64		CHECKED CHOKE FOR OBSTRUCTION, INCREASED CHOKE TO 15/64													
16:00	49		60	3250	0	110		495	150	73	74	3.72					
16:15			59	3020													
16:30			60	2998		112		495	152	74	76	3.75					
16:45		14/64		DECREASED CHOKE TO 14/64													
17:00	47		64	3055	10			485	127	83	84	3.40					
17:30			61	2800		120		475	60	106	108	2.28					
17:30				HYDRATING OFF DOWNHOLE, INCREASED CHOKE TO 20/64, ATTEMPTED BLOWING DOWN TO PIT													
17:40				SHUT IN WING VALVES - INJECTING METHANOL DOWNHOLE													

REMARKS: 15:00 FLUID TO SURFACE
17:00 OBTAINED WATER SAMPLE

TOTAL GAS FLARED - RATE #1 = .385 MMCF/D
H_2S 26.05%

TEMPLE

PORTA-TEST SYSTEMS, INC.
P O BOX 522
MILLS, WYOMING, U S A 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 21, 198[illegible]

TEST DATA SHEET

SHEET No. 6 JOB No. 103

BUILD-UP

HIGH STAGE ORIFICE & METER RUN SIZE LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

L.S. METER SIZE _____ X _____ CALIBRATED @ _____ HRS.

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
18:50				3392													
18:55				3392													
19:00				3392													
19:05				3395													
19:10				3399													
19:15				3400													
19:20				3400													
19:25	30			3402													
19:30				3402		END OF BUILD-UP											

TIGHT HOLE

REMARKS:

PORTA TEST SYSTEMS, INC.
R O BOX 522
MILLS, WYOMING, U S A 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 21, 1980

SHEET No. 5 JOB No. 103

HIGH STAGE ORIFICE & METER RUN SIZE 2.500 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 P.S.I. x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE _____ x _____ CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
08:31		OTIS RIGGED TO RUN PRESSURE RECORDERS															
13:00				3505	SHUT IN PRESSURE												
15:00		RIG OUT OTIS EQUIPMENT PREPARE FOR DRAW DOWN TEST															
[illegible]30		PRESSURE UP TO CHOKE															
15:30	38			3535		OPEN UP WELL											
15:35				3308													
15:40				2980													
15:45		20/64		2830													
15:50				2733													
15:55				2590													
16:00				2695		122		210	100	73		6.00					
16:05				2740													
16:10				2812													
16:15				2760													
16:20				2744													
16:25				2724													
16:30	30			2673		120		210	96	66		5.98					
16:45				2636													
17:00		20/64		2703		110		210	84	62		5.50					
[illegible]15				2695													
[illegible]30				2708		110		210	92	60		5.78					
17:45				2745													
18:00				2800		108		210	96	60		5.98					
18:15				2818													
18:20				2817													
18:24				2817													
18:30				2819		108		210	100	58		6.00					
18:31		SHUT IN WELL TO RECORD BUILD-UP															
18:35				3300													
18:40				3363													
18:45				3392													

REMARKS:

ACCUMULATIVE GAS FLARED 16:00 FEB. 20 - 18:30 FEB. 21 = 6.088 MMCF

TIGHT HOLE

PORTA TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 21, 198

SHEET No. 4 JOB No. 103

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 P.S.I. x 200" CALIBRATED @ ____ HRS.

L.S. METER SIZE 250 P.S.I. x 100" CALIBRATED @ ____ HRS.

TIME	AMB. TEMP °F	WELLHEAD READINGS: CHOKE SIZE IN.	FLOW TEMP. F	TUBING PRESS. PSIG	ANNULUS PRESS. PSIG	HEATER BATH TEMP. F	HIGH STAGE SEPARATOR READINGS: STATIC PRESS. DEAD WT. PSIG	STATIC PRESS. METER PSIG	DIFF. IN.	M.R. TEMP. °F	SEP. TEMP °F	FLOW RATE MMCF/D	LOW STAGE SEPARATOR READINGS: STATIC PRESS. PSIG	DIFF. IN.	M.R. TEMP. °F	SEP. TEMP °F	FLOW RATE MMCF/D
00:05		INCREASING CHOKE TO OBTAIN A MAXIMUM FLOW RATE															
00:25		48/64															
[illegible]30			90	1305	1250	126		840	73	98	98	12.50					
[illegible]00			90	1305	1250	126		840	70	102	104	12.40					
01:30			90	1305	1270	126		840	72	102	104	12.45					
02:00			88	1302	1280	128		840	72	101	104	12.45					
02:30			88	1300	1300	126		840	72	102	104	12.45					
02:30		DECREASED CHOKE TO 18/64 TO OBTAIN LOWEST STABLE RATE - DECREASED BACK PRESSURE															
03:00			86	3025	1250	120		465	28	82	84	05.95					
03:30			90	2950	1150			460	28	80	81	05.90					
04:00			91	2935	1150			460	26	79	80	05.85					
04:05		DECREASED CHOKE TO 12/64															
04:15		DECREASED CHOKE TO 10/64 - CHANGED TO A 1.500 x 4.026 ORIFICE PLATE - DECREASED BACK PRESSURE															
04:30			87	3370	950	130		210	82	128	130	01.85					
05:00			90	3380	750	160		210	90	144	130	01.87					
05:30			90	3550	700	160		210	85	160	135	01.85					
06:00			90	3515	490	160		210	78	170	140	01.81					
06:30			82	DW PLUGGED	490	200		195	48	180	180	01.49					
06:45		18/64	CHANGED TO 2.500 x 4.026 ORIFICE PLATE - INCREASED CHOKE TO 18/64														
[illegible]00			84	2615	500	165		270	81	160	162	06.10					
[illegible]:30			86	2765	520	124		265	52	104	106	04.90					
07:45		22/64	INCREASED CHOKE TO 22/64 - INCREASED BACK PRESSURE														
08:00			86	2553	620	124		570	44	84	86	06.40					
08:30			86	2600	650	110		555	42	76	77	06.25					
08:31			SHUT IN WELL					OTIS TO RUN PRESSURE BOMBS									

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No. FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 20, 19

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

SHEET No. 3 JOB No. 103

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 P.S.I. x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 P.S.I. x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS	BATH TEMP.	STATIC PRESS. DEAD WT	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN	F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
19:30		32/64	86	1898	850	113		885	42	80	81	09.95					
20:00			86	1882	900	113		880	44	80	81	10.15					
[illegible]30			86	1870	980	115		870	48	80	81	10.50					
[illegible]00			88	1904	40	116		840	44	82	83	09.95					
21:30			88	1910	70	118		840	44	84	85	09.95					
22:00			88	1917	100	120		840	44	86	87	09.95					
22:30			88	1929	1100	120		840	46	88	88	10.10					
23:00			88	1952	1150	120		840	44	88	88	09.95					
23:30			90	1945	1200	119		840	46	90	91	10.10					
24:00			90	1965	1250	120		840	48	89	90	10.25					

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P O BOX 522
MILLS, WYOMING, U S A 82644

COMPANY AMOCO PRODUCTION COMPANY

TEST DATA SHEET

WELL No FAWCETT & SONS #1 STATE UTAH DATE FEBRUARY 20, 19..

HIGH STAGE ORIFICE & METER RUN SIZE 2.750 x 4.026 LOW STAGE ORIFICE & METER RUN SIZE

SHEET No. 2 JOB No. 103

FLOWING: TUBING ☒ ANNULUS ☐

H.S. METER SIZE 1500 P.S.I. x 200" CALIBRATED @ _____ HRS. _____

L.S. METER SIZE 250 P.S.I. x 100" CALIBRATED @ _____ HRS. _____

TIME	AMB. TEMP	WELLHEAD READINGS				HEATER	HIGH STAGE SEPARATOR READINGS						LOW STAGE SEPARATOR READINGS				
		CHOKE SIZE	FLOW TEMP.	TUBING PRESS.	ANNULUS PRESS.	BATH TEMP.	STATIC PRESS. DEAD WT.	STATIC PRESS. METER	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE	STATIC PRESS.	DIFF.	M.R. TEMP.	SEP. TEMP	FLOW RATE
	°F	IN.	°F	PSIG	PSIG	°F	PSIG	PSIG	IN.	°F	°F	MMCF/D	PSIG	IN.	°F	°F	MMCF/D
10:00			OPEN WELL TO PIT - TRACE OF GAS														
11:00			SHUT IN TO RIG DOWN LUBRICATOR AND RIG UP DEADWEIGHT														
[illegible]40				2200	OPEN WELL TO PIT												
[illegible]45				1950													
12:00				2175													
12:15				2245													
12:30				2245													
12:45				2267													
13:00				2280													
13:15			BEGIN FLOW THROUGH SEPARATOR														
13:30				2295													
13:45		16/64	PUT SEPARATOR ON BY-PASS TO CHANGE ORIFICE PLATE AND REPAIR LEAK ON FLOW LINE														
14:00				3250													
15:00				3025	SHUT IN MASTERS - LINE TO PIT FROZE OFF												
15:50			PRESSURED UP TO CHOKE														
15:50				3390	SHUT IN PRESSURE												
15:55			OPENED WELL THROUGH SEPARATOR WITH A 16/64 CHOKE AND A 2.750 x 4.026 ORIFICE PLATE														
16:00				3140				130	66	140	142	04.75					
16:07			FLUID TO SURFACE														
[illegible]15			80	2930				460	34	97	99	06.40					
[illegible]:15		20/64	INCREASED CHOKE TO 20/64 - INCREASED BACK PRESSURE														
16:20		30/64	INCREASED CHOKE TO 30/64														
16:30			76	2700				700	56	70	73	10.25					
16:30		32/64	INCREASED CHOKE TO 32/64														
16:45			80	1979				870	48	72	74	10.55					
17:00			80	1967	300			885	50	72	74	10.75					
17:30			80	1920	500	BLEW LOW STAGE BURST PLATE - BY-PASSED SEPARATOR											
18:00			80	1900	575												
18:30			84	1893	700												
19:00			84	1921	750	BEGINNING TO FLOW THROUGH SEPARATOR											

TIGHT HOLE

REMARKS:

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING 82644

PRODUCTION SUMMARY SHEET CLEAN-UP COMPANY AMOCO PRODUCTION COMPANY

Sheet No. 1 Job No. 103 WEBER WELL NO. FAWCETT & SONS #1 STATE UTAH DATE MARCH 22, 1980

	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	GAS RATE	ACTUAL GAS PROD.	CUMULATIVE GAS PROD.	CONDENSATE PROD./BBLS.	CUMULATIVE COND./BBLS	WATER PRODUCTION	CUMULATIVE WATER/BBLS.	4 + 6 FLUID PRODUCTION	5 + 7 CUMULATIVE FLUID	4 + 2 INSTANTANEOUS COND BBL/MMCF	5 + 3 CUMULATIVE COND BBL/MMCF	8 + 2 INSTANTANEOUS BBLS/FLUID/MCF	9 + 3 CUMULATIVE BBLS/FLUID/MCF
14:15		OPEN WELL THROUGH SEPARATOR ON CLEAN-UP											
15:00	5.376	0.168	0.168	00.00	000.00	00.00	000.00	00.00	000.00	000.000	000.000	000.000	000.000
16:00	5.600	0.233	0.401	36.53	036.53	00.00	000.00	36.53	036.53	156.781	091.097	156.781	091.097
17:00	5.750	0.238	0.639	29.68	066.21	00.00	000.00	29.68	066.21	124.706	103.615	124.706	103.615
18:00	5.775	0.241	0.880	21.12	087.33	00.00	000.00	21.12	087.33	087.635	099.239	087.635	099.239
19:00	5.750	0.240	1.120	40.53	127.86	00.00	000.00	40.53	127.86	168.875	114.161	168.875	114.161
20:00	6.180	0.254	1.374	05.71	133.57	05.71	005.71	11.42	139.28	022.480	097.213	044.960	101.368
21:00	6.200	0.258	1.632	01.14	134.71	27.39	033.10	28.53	167.81	004.419	082.543	110.581	102.825
22:00	6.000	0.254	1.886	02.29	137.00	33.67	066.77	35.96	203.77	009.016	072.641	141.575	108.043
23:00	6.450	0.259	2.145	00.00	137.00	41.68	108.45	41.68	245.45	000.000	063.869	160.927	114.429
24:00	6.300	0.263	2.408	03.43	140.43	31.38	139.83	34.81	280.26	013.042	058.318	132.357	116.387

RECEIVED
MAY 15 1980
DIVISION OF
OIL, GAS & MINING

TIGHT HOLE

PORTA-TEST SYSTEMS, INC.
P.O. BOX 1522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

FLUID PRODUCTION

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 31, 1980

SHEET No. 9 JOB No. 103
WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RATE #3	09:00 3/31/80	17:00 3/31/80		14.655 MMCF/D AT 17:00

TIME	TANK No. 1 SIZE 50 BBLS.								TEMP. °F	TANK No. 2 SIZE 50 BBLS.							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
	02	01.14	00	00.00	OPENING GAUGE					02	1.14	00	00.00	OPENING GAUGE			
09:30									73	09	5.14	10	11.41	4.00	11.41		
10:00									75	11	6.28	53	30.25	1.14	18.84		
10:30	02	01.14	35	19.97	0.00	19.97			78	02	1.14	00	00.00			5.14	30.25
11:00	10	05.71	69	39.38	4.57	19.41			80								
11:30	04	02.28	00	00.00			03.43	39.38	86	10	5.71	33	18.83	4.57	18.83		
12:00									86	14	7.99	66	37.67	2.28	18.84		
12:30	09	05.14	33	18.83	2.86	18.83			93	02	1.14	00	00.00			6.85	37.67
13:00	22	12.55	60	34.25	7.41	15.42			93								
13:30	02	01.14	00	00.00			11.41	34.25	86	05	2.85	21	11.98	1.71	11.98		
14:00									86	09	5.14	33	18.83	2.29	06.85		
14:30	06	03.43	34	19.40	2.29	19.40			100	02	1.14	00	00.00			4.00	18.83
15:00	12	06.85	65	37.10	3.42	17.70			100								
15:30	04	02.28	00	00.00			04.57	37.10	101	06	3.43	35	19.97	2.29	19.97		
16:00									101	12	6.85	65	37.10	3.42	17.13		
16:30	09	05.14	34	19.40	2.86	19.40			102	02	1.14	00	00.00			5.71	37.10
17:00	16	09.13	65	37.10	3.99	17.70			102								
17:30	02	01.14	00	00.00			07.99	37.10									
TOTALS					27.40	147.83	27.40	147.83		TOTALS				21.70	123.85	21.70	123.85

TIGHT HOLE

REMARKS: 12:45 - 13:00 BLEW LOW STAGE BURSTING PLATE
BY-PASSED SEPARATOR

TOTAL WATER PRODUCED RATE #3 = 271.68 BBLS.
TOTAL CONDENSATE PRODUCED RATE #3 = 49.10 BBLS.

	TANK # 1		TANK # 2	
	COND.	WATER	COND.	WATER
OPENING GAUGE	01.14	000.00	01.14	000.00
PLUS PRODUCTION	27.40	147.83	21.70	123.85
TOTALS	28.54	147.83	22.84	123.85
MINUS SHIPPING	27.40	147.83	21.70	123.85
CLOSING GAUGE	01.14	000.00	01.14	000.00

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

FLUID PRODUCTION

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 30, 1980

SHEET No. 8 JOB No. 103

WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RATE #2	09:00 3/30/80	17:00 3/30/80		11.678 MMCF/D

TIME	TANK No. 1 SIZE 50 BBLS.								TEMP. °F	TANK No. 2 SIZE 50 BBLS.							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
	Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.		Ins.	Bbls.	Ins.	Bbls.	COND. Bbls.	WATER Bbls.	COND. Bbls.	WATER Bbls.
	04.0	2.28	00.0	00.00	OPENING GAUGE					14.0	07.99	00.0	00.00	OPENING GAUGE			
09:00					OPENED WELL THROUGH UNIT												
09:30									55	21.0	11.98	07.0	03.99	03.99	03.99		
10:00									58	28.0	15.98	35.0	19.97	04.00	15.98		
10:30	06.0	3.43	32.0	18.26	1.15	18.26			58	02.0	01.14	00.0	00.00			14.84	19.97
11:00	09.0	5.14	56.0	31.96	1.71	13.70			58								
11:30	02.0	1.14	00.0	00.00			4.00	31.96	72	05.0	02.85	28.0	15.98	01.71	15.98		
12:00									74	05.5	03.13	55.5	31.67	00.28	15.69		
12:30	05.0	2.85	24.0	13.70	1.71	13.70			78	02.0	01.14	00.0	00.00			01.99	31.67
13:00	13.0	7.42	53.0	30.25	4.57	16.55			77								
13:30	02.0	1.14	00.0	00.00			6.28	30.25	83	06.0	03.43	30.0	17.12	02.29	17.12		
14:00									82	09.5	05.42	54.5	31.10	01.99	13.98		
14:30	07.0	3.99	29.0	16.55	2.85	16.55			86	02.0	01.14	00.0	00.00			04.28	31.10
15:00	13.0	7.42	57.0	32.53	3.43	15.98			85								
15:30	03.0	1.71	00.0	00.00			5.71	32.53	87	05.0	02.85	30.0	17.12	01.71	17.12		
16:00									87	11.0	06.28	54.0	30.82	03.43	13.70		
16:30	06.5	3.71	02.95	16.83	2.00	16.83			92	02.0	01.14	00.0	00.00			05.14	30.82
17:00	15.5	8.84	55.50	31.67	5.13	14.84			90								
17:30	02.0	1.14	00.00	00.00			7.70	31.67									
TOTALS					22.55	126.41	23.69	126.41		TOTALS				19.40	113.56	26.25	113.56

REMARKS: TOTAL WATER PRODUCED RATE #2 = 239.97 BBLS.
TOTAL CONDENSATE PRODUCED RATE #2 = 41.95 BBLS.

TIGHT

	TANK #1 COND.	TANK #1 WATER	TANK #2 COND.	TANK #2 WATER
OPENING GAUGE	02.28	000.00	07.99	000.00
PLUS PRODUCTION	22.55	126.41	19.40	113.56
TOTALS	24.83	126.41	27.39	113.56
MINUS SHIPPING	23.69	126.41	26.25	113.56
CLOSING GAUGE	01.14	000.00	01.14	000.00

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 29, 1980

FLUID PRODUCTION

SHEET No. 7 JOB No. 103
WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RATE #1	09:00 3/29/80	17:00 3/29/80		8.16 MMCF/D AT 17:00

TIME	TANK No. 1 SIZE 50 BBLS. CONDENSATE Ins.	CONDENSATE Bbls.	WATER Ins.	WATER Bbls.	PROD. COND. Bbls.	PROD. WATER Bbls.	SHIPPING COND. Bbls.	SHIPPING WATER Bbls.	TEMP. °F	TANK No. 2 SIZE BBLS. CONDENSATE Ins.	CONDENSATE Bbls.	WATER Ins.	WATER Bbls.	PROD. COND. Bbls.	PROD. WATER Bbls.	SHIPPING COND. Bbls.	SHIPPING WATER Bbls.
09:00	02.0	1.14	00	00.00	OPENING GAUGE					02.0	01.14	00.00	00.00	OPENING GAUGE			
09:00			OPENED WELL THROUGH UNIT						40	12.0	06.85	03.00	01.71	5.71	01.71		
10:00																	
1[illegible]:00									FLOW LINE HYDRATED OFF								
11:00									70	12.0	06.85	18.00	10.27	0.00	08.56		
11:30									72	14.5	08.27	50.50	28.82	1.42	18.55		
12:00									76	18.5	10.55	62.50	35.67	2.28	06.85	1.99	35.67
12:30									72	15.0	08.56	00.00	00.00				
13:00	02.0	1.14	13	07.42	0.00	07.42			76								
13:30	03.0	1.71	31	17.69	0.57	10.27			76								
14:00	07.0	3.99	41	23.40	2.28	05.71			76								
14:30	08.5	4.85	56	31.96	0.86	08.56			76								
15:00	13.0	7.42	69	39.38	2.57	07.42			85	17.5	09.98	16.50	09.41	1.42	09.41		
15:30	04.0	2.28	00	00.00			5.14	39.38	86	22.5	12.83	28.50	16.26	2.85	06.85		
16:00									86	26.5	15.12	41.50	23.68	2.29	07.42		
16:30									84	29.0	16.55	58.00	33.10	1.43	09.42		
17:00										14.0	07.99	00.00	00.00			8.56	33.10
17:30																	
			TOTALS		6.28	39.38	5.14	39.38		TOTALS				17.40	68.77	10.55	68.77

REMARKS: TOTAL CONDENSATE PRODUCED RATE #1 = 23.68 BBLS.
TOTAL WATER PRODUCED RATE #1 = 108.15 BBLS.

10:20-11:00 BY-PASSING UNIT AND SHUT IN

	TANK # 1 COND.	TANK # 1 WATER	TANK # 2 COND.	TANK # 2 WATER
OPENING GAUGE	1.14	00.00	01.14	00.00
PLUS PRODUCTION	6.28	39.38	17.40	68.77
TOTALS	7.42	39.38	18.54	68.77
MINUS SHIPPING	5.14	39.38	10.55	68.77
CLOSING GAUGE	2.28	00.00	07.99	00.00

TICL

PORTA-TEST SYSTEMS, INC.
P.O. BOX 522
MILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

FLUID PRODUCTION

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 27, 1980

SHEET No. 6 JOB No. 103

WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RATE #2	08:00 3/27/80	10:20 3/27/80		

TIME	TANK No. 1 SIZE 50 BBLS.								TEMP. °F	TANK No. 2 SIZE 50 BBLS.							
	CONDENSATE		WATER		PROD.		SHIPPING			CONDENSATE		WATER		PROD.		SHIPPING	
					COND.	WATER	COND.	WATER						COND.	WATER	COND.	WATER
	Ins.	Bbls.	Ins.	Bbls.	Bbls.	Bbls.	Bbls.	Bbls.		Ins.	Bbls.	Ins.	Bbls.	Bbls.	Bbls.	Bbls.	Bbls.
08:30	2.0	1.14	0	0	OPENING GAUGE					02	1.14	00	00.00	OPENING GAUGE			
09:00									47	05	2.85	16	09.13	1.71	09.13		
30									47	12	6.85	36	20.55	4.00	11.42		
10:00									45	12	6.85	53	30.25	0.00	09.70		
10:20									45	16	9.13	63	35.96	2.28	05.71		
		SHUT IN - RUPTURED VESSEL															
TOTALS										TOTALS				7.99	35.96		

REMARKS: 08:15-08:30 ON BY-PASS - NO PRODUCTION
10:20 - RUPTURED SEPARATOR - SHUT IN

	TANK # 1 COND.	TANK # 1 WATER	TANK # 2 COND.	TANK # 2 WATER
OPENING GAUGE			1.14	00.00
PLUS PRODUCTION			7.99	35.96
TOTALS			9.13	35.96
MINUS SHIPPING			0.00	00.00
CLOSING GAUGE			9.13	35.96

TIGHT HOLE

ORTA-TEST SYSTEMS, INC.
O. BOX 522
ILLS, WYOMING, U.S.A. 82644

COMPANY AMOCO PRODUCTION COMPANY

LUID PRODUCTION

WELL No. FAWCETT & SONS #1 STATE UTAH DATE MARCH 26, 1980

HEET No. 5 JOB No. 103

WEBER

RUN #	TIME ON	TIME OFF	GRAVITY	FLOW RATE
RATE #1	08:00 3/26/80	16:00 3/26/80		6.395 MMCF/D AT 16:00

TIME	TANK No. 1 SIZE 50 BBLS. CONDENSATE Ins.	CONDENSATE Bbls.	WATER Ins.	WATER Bbls.	PROD. COND. Bbls.	PROD. WATER Bbls.	SHIPPING COND. Bbls.	SHIPPING WATER Bbls.	TEMP. °F	TANK No. 2 SIZE 50 BBLS. CONDENSATE Ins.	CONDENSATE Bbls.	WATER Ins.	WATER Bbls.	PROD. COND. Bbls.	PROD. WATER Bbls.	SHIPPING COND. Bbls.	SHIPPING WATER Bbls.
08:00	01.5	0.85	00	00.00	OPENING GAUGE					01	00.57	00	00.00	OPENING GAUGE			
09:00	04.5	2.56	10	05.71	1.71	5.71			68								
09:30	07.0	3.99	21	11.98	1.43	6.27			55								
10	07.0	3.99	35	19.97	0.00	7.99			52								
10:30	08.0	4.57	40	22.83	0.58	2.86			52								
11:00	09.0	5.14	49	27.97	0.57	5.14			47								
11:30	09.0	5.14	62	35.39	0.00	7.42			45								
12:00	09.0	5.14	74	42.24	0.00	6.85			45								
12:30	02.0	1.14	00	00.00			4.00	42.24	45	05	02.85	13	07.42	2.28	7.42		
13:00									45	09	05.14	24	13.70	2.29	6.28		
13:30									45	11	06.28	37	21.12	1.14	7.42		
14:00									45	23	13.12	44	25.11	6.84	3.99		
14:30									45	23	13.12	54	30.82	0.00	5.71		
15:00									45	23	13.12	68	38.81	0.00	7.99		
15:30	04.0	2.28	15	08.56	1.14	8.56			55	02	01.14	00	00.00			11.98	38.81
16:00	10.0	5.71	30	17.12	3.43	8.56	4.57	17.12	55								
16:30	02	1.14	00	00.00													
				TOTALS	8.86	59.36	8.57	59.36			TOTALS	12.55	38.81	11.98	38.81		

MARKS: 08:00-08:30 - NO FLUID PRODUCTION
13:45 - 14:00 - BY-PASSED SEPARATOR - NO FLUID PRODUCTION

TOTAL CONDENSATE PRODUCED RATE #1 = 21.41 BBLS.
TOTAL WATER PRODUCED RATE #1 = 98.17 BBLS.

	TANK # 1 COND.	TANK # 1 WATER	TANK # 2 COND.	TANK # 2 WATER
OPENING GAUGE	0.85	00.00	00.57	00.00
PLUS PRODUCTION	8.86	59.36	12.55	38.81
TOTALS	9.71	59.36	13.12	38.81
MINUS SHIPPING	8.57	59.36	11.98	38.81
CLOSING GAUGE	1.14	00.00	01.14	00.00

TIGHT HOLE

September 30, 1981

Amoco Production Company
P.O. Box 17675
Salt Lake City, Utah 84117

Re: Well No. Amoco-Champlin-Fawcett
And Sons #1
Sec. 36, T. 5N, R. 7E
Summit County, Utah

Gentlemen:

According to our records, a "Well Completion Report" filed with this office May 5, 1981, from above referred to well, indicates the following electric logs were run: DIL, DLL, FDC, CNL, BHC Sonic, FIL, HDT, Temp Survey, R/A Tracer. As of today's date, this office has not received these logs: DIL, DLL, FDC, CNL, BHC Sonic, FIL, HDT, and R/A Tracer.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity logs.

Your prompt attention to the above will be greatly appreciated.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

TERRI REID
CLERK-TYPIST

ATTACHMENT "A" TO FORM OGC-3

Amoco-Champlin-Fawcett
& Sons No. 1

Perforations:	Stimulation or Squeeze	Packers, Cement Retainers or Cast Iron Bridge Plugs
13,278' - 13,280'	Squeeze w/125 sx Cl "G"	
13,586' - 13,702'	Squeeze w/150 sx Cl "G"	CR at 13,530'
13,718' - 13,720'	Squeeze w/165 sx Cl "G" Re-squeeze w/100 sx Cl "G"	
15,396' - 15,435' 15,460' - 15,490'	Acidize w/3450 gal. 15% HCL	CIBP at 15,372'
15,663' - 15,724'	Acidize w/3050 gal. 15% MCA Squeeze w/100 sx Cl "G" Re-squeeze w/100 sx Cl "G"	PKR at 15,610' CR at 15,570'
15,825' - 15,885'		PKR at 15,744' CIBP at 15,740'
16,270' - 16,410'	Acidize w/7000 gal. 15% MCA	PKR at 16,170' CIBP at 16,163'
16,465' - 16,600'	Acidize w/6750 gal. 7 1/2% MCA Acidize w/6720 gal. 15% HCL	PKR at 16,427' CIBP at 16,423'
17,850' - 17,930'		PKR at 17,743' CIBP at 17,733'

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

March 9, 1983

Amoco Production Company
P. O. Box 17675
Salt Lake City, Utah 84117

2nd NOTICE

Re: Well No. Amoco-Champlin-Fawcett & Sons # 1
Sec. 36, T. 5N, R. 7E.
Summit County, Utah

Gentlemen:

Our office contacted you on September 30, 1981, requesting that you send in the electric logs for the above referred to well.

According to our records, a "Well Completion Report" filed with this office May 5, 1981, from above referred to well, indicates the following electric logs were run: DIL, DLL, FDC, CNL, BHC Sonic, FIL, HDT, Temp Survey, R/A Tracer. As of todays date, this office has not received these logs: DIL, DLL, FDC, CNL, BHC Sonic, FIL, HDT, and R/A Tracer.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity logs.

**You are in violation of the above rule. If you wish to continue developing business in the State of Utah, compliance with pertinent rules and regulations is essential. Further delay in your attention to this matter may result in punitive action. Please submit the required information as stated above within fifteen (15) days.

Respectfully,

DIVISION OF OIL, GAS AND MINING

Cari Furse

Cari Furse
Well Records Specialist

CF/cf

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

an equal opportunity employer • please recycle paper

Amoco Production Company

Denver Region
1670 Broadway
P.O. Box 800
Denver, Colorado 80201
303-830-4040

Don F. Crespo, Jr.
Regional Administrative Manager, Production

RECEIVED
JAN 24 1990
DIVISION OF
OIL, GAS & MINING

January 22, 1990

State of Utah
Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

File: DDL-2056-980.3

Annual Report of Drilling-Suspended,
Shut-In and Temporarily-Abandoned Wells

As operator of the Anschutz Ranch East Operation Center and in accordance with Rule R615-8-10 of the Utah Oil and Gas Conservation General Rules, listed below is the annual status report for wells that have been shut-in or teporarily-abandoned for more than 30 consecutive days as of December 31, 1989. The wells listed are located in Summit County, Utah.

Please note, there were no drilling wells that had suspended drilling operations as of December 31, 1989. Questions regarding well status may be directed to David Lovato at (303) 830-5321.

WELL NAME	API NUMBER	COMMENTS
ARE 081A	43-043-30130	SHUT-IN
ARE E28-06	43-043-30226	SHUT-IN
ARE W12-04	43-043-30283	SHUT-IN
ARE W29-04	43-043-30129	SHUT-IN
CH 387 B1A	43-043-30168	SHUT-IN TWIN CREEK
CH 372 C1	43-043-30143	SHUT-IN TWIN CREEK
CH 372 C1	43-043-30143	SHUT-IN NUGGET
CH 372 D1	43-043-30170	SHUT-IN NUGGET
ISLAND RANCH B1	43-043-30109	SHUT-IN TWIN CREEK
ISLAND RANCH D1	43-043-30161	SHUT-IN WEBER
AMOCO-CHAMP F & S	43-043-30078	SHUT-IN Sec. 36 T. 5N R. 7E
CH 544 D1	43-043-30210	P X A (12/89)
CH 544 D2	43-043-30246	P X A (12/89)

D. F. Crespo, Jr.
bmw

DJL/rlt

cc: Bureau of Land Management
324 South State, Suite 301
Salt Lake City, Utah 84111-2303

Amoco Production Company
Denver Region
1670 Broadway
P.O. Box 800
Denver, Colorado 80201
303-830-4040

RECEIVED
FEB 06 1991
DIVISION OF
OIL, GAS & MINING

Don F. Crespo, Jr.
Regional Administrative Manager, Production

February 4, 1991

State of Utah
Division of Oil, Gas, and Mining
355 West N. Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

File: DFC-100-980.3

Annual Report of Drilling-suspended,
Shut-in and Temporarily-Abandoned Wells

As operator of the Anschutz Ranch East Operation Center and in accordance with Rule 615-8-10 of the Utah Oil and Gas Conservation general Rules, Listed below is the annual status report for wells that have been shut-in or temporarily-abandoned for more than 30 consecutive days as of December 31, 1990. The wells listed are located in Summit County, Utah.

Well Name	API Number	Comments
Anschutz Ranch East 81A	43-043-30130	Shut-in
Anschutz Ranch East W12-04	43-043-30283	Shut-in
Champlin 387 B1A	43-043-30168	Shut-in (Twin Creek)
Champlin 372 C1	43-043-30143	Shut-in (Twin Creek)
Champlin 372 C1	43-043-30143	Shut-in (Nugget)
Champlin 372 D1	43-043-30170	Shut-in (Nugget)
Island Ranch B1	43-043-30109	Shut-in (Twin Creek)
Island Ranch D1	43-043-30161	Shut-in (Weber)
Amoco Champlin F & S	43-043-30078	Shut-in S.36, T.5N, R.7E
Champlin 544 D1	43-043-30210	P x A (12/89)
Champlin 544 D2	43-043-30246	P x A (12/89)
Champlin 846 Amoco /B/ #1	43-043-30253	Shut-in

Please note that there were no drilling wells that had suspended operations as of December 31, 1990. Questions regarding this report may be directed to James Camargo at (303) 830-4233.

D. F. Crespo, Jr.

:jpc

cc: Bureau of Land Management
324 South State, Suite 301
Salt Lake City, Utah 84111-2303

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT — for such proposals.

6. Lease Designation and Serial Number

7. Indian Allottee or Tribe Name

8. Unit or Communitization Agreement

1. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other (specify)

9. Well Name and Number: Fawcett & Sons #1

2. Name of Operator: UNION PACIFIC RESOURCES COMPANY Attn: Joy Rector

10. API Well Number: 43-043-30078

3. Address of Operator: P. O. Box 7-MS 3407

4. Telephone Number: 817/877-7956

11. Field and Pool, or Wildcat: Cave Creek

5. Location of Well
Footage : 694' FNL & 2159' FWL
QQ, Sec, T., R., M. : SENENW Sec 36-T5N-R7E
County : Summit
State : UTAH

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)

- ☐ Abandonment
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Multiple Completion
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Recompletion
- ☐ Shoot or Acidize
- ☒ Vent or Flare
- ☐ Water Shut-Off
- ☒ Other Casing inspection surveys - Pipe testing

Approximate Date Work Will Start: 8-3-92

SUBSEQUENT REPORT (Submit Original Form Only)

- ☐ Abandonment *
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Other
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Date of Work Completion

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Fawcett & Sons #1 Casing Inspection Survey
Section 36 T5N-R7E
Summit County, Utah

GL: 6,833'
KB: 6,858'

1. Test Anchors-setup tanks-setup safety equipment. Conduct initial safety briefings.
2. Clean out cellar and replace pressure gauges on tree. Check pressures and fluids on 7", 9 5/8", and 13 5/8" casing. Load w/ diesel as necessary.
3. RU workover unit.
4. RU and pressure test existing Cameron wellhead down to lower master valve to 4,000#. See attached drawing of wellhead equipment.
5. RU and pressure test 7" casing to 2,000# against BPV. Hold for 15 minutes.
6. Strip off Cameron wellhead equipment to top of tubing head. Install BOP per attached drawing for 3 1/2" tubing and pressure test pipe rams to 5,000# and hydril to 3,500#. RU and pull Cameron BPV. Circulate down tubing w/ water pulling periodic water samples for analyses. Circulate hole clean.
7. TOH with 3 1/2" L-80 9.2# VAM tubing. (Total 360 Jts. w/ "R" Nipple on end of string @ 11,167'). CIBP @ 11,420' w/ 4 sx cement tested to 1,000#.
8. TIH w/ 3 1/2" tubing with 5 3/4" bit and scraper to PBTD. Circulate hole clean with water. TOH w/ pipe. Take fluid samples during circulating period.
9. RU wireline logging company w/ full lubricator tested to 5,000# and sour line to run GR, CPET, METT, and PAL to PBTD @ 11,420'. Evaluate logs. RD wireline unit.
10. TIH w/ 3 1/2" tubing to 11,167'. Reverse circulate hole w/ 8.9# corrosion inhibited brine fluid w/ oxygen scavenger. Install BPV and test casing and BPV to 2,000#. Strip off BOP's and nipple up tree. Winterize tree and tubulars w/ diesel. Secure well and await re-entry during summer of 1993.

(CONTINUED ON BACK)

14. I hereby certify that the foregoing is true and correct

Name & Signature: J L Rector / Joy L. Rector Title: Regulatory Analyst Date: 7-17-92

(State Use Only)

RECEIVED
JUL 20 1992
DIVISION OF OIL GAS & MINING

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 8-6-92
BY: [illegible]

(6/90) See Instructions on Reverse Side

ATTACHMENTS

Fawcett and Sons #1 Casing Program

7" Production Casing

28	jts	35# SS95 BTC	- 1248.37'	- Depth	1,232.8'	
57	jts	35# SS95 LTC	- 2488.21'	- Depth	3,689.3'	
45	jts	32# L-80 LTC	- 1544.38'	- Depth	5,208.6'	
119	jts	29# L-80 LTC	- 4942.38'	- Depth	10,084.8'	
51	jts	26# RS90 LTC	- 2318.62'	- Depth	12,375.0'	Stage Collar
35	jts	26# SS95 LTC	- 1577.04'	- Depth	13,932.6'	
69	jts	29# SS95 BTC	- 3032.01'	- Depth	16,926.2'	
23	jts	32# SS95 LTC	- 1019.84'	- Depth	17,933.2'	
2	jts	32# SS95 LTC	- 93.73'	- Depth	18,055.0'	Shoe

9 5/8" Intermediate Casing

1	jts	47# SS95 LTC	- 45.00'	- Depth	44.5'	
41	jts	47# L-80 LTC	- 1669.91'	- Depth	1,693.1'	
70	jts	44# L-80 LTC	- 3091.85'	- Depth	4,751.8'	
54	jts	40# SS95 LTC	- 2411.26'	- Depth	7,137.6'	
32	jts	47# L-80 LTC	- 1239.44'	- Depth	8,361.9'	
67	jts	47# SS95 LTC	- 2963.01'	- Depth	11,293.2'	
2	jts	47# SS95 LTC	- 92.85'	- Depth	11,384.0'	Shoe

13 5/8" Intermediate Casing

84	jts	68# J-55 STC	- 3661.40'	- Depth	3,633.8'	
24	jts	68# L-80 STC	- 982.93'	- Depth	4,608.8'	
21	jts	88# SS95 STC	- 908.93'	- Depth	5,510.8'	
2	jts	88# SS95 BTC	- 90.86'	- Depth	5,601.0'	Shoe

20" Surface Casing

NA	jts	NA# NAH-40 STC	- 874.79'	- Depth	1,525'	Shoe

Fawcett & Sons #1 Casing Inspection Survey
Section 36 T5N-R7E
Summit County, Utah

GL: 6,833'
KB: 6,858'

1. Test Anchors-setup tanks-setup safety equipment. Conduct initial safety briefings.

2. Clean out cellar and replace pressure gauges on tree. Check pressures and fluids on 7", 9 5/8", and 13 5/8" casing. Load w/ diesel as necessary.

3. RU workover unit.

4. RU and pressure test existing Cameron wellhead down to lower master valve to 4,000#. See attached drawing of wellhead equipment.

5. RU and pressure test 7" casing to 2,000# against BPV. Hold for 15 minutes.

6. Strip off Cameron wellhead equipment to top of tubing head. Install BOP per attached drawing for 3 1/2" tubing and pressure test pipe rams to 5,000# and hydril to 3,500#. RU and pull Cameron BPV. Circulate down tubing w/ water pulling periodic water samples for analyses. Circulate hole clean.

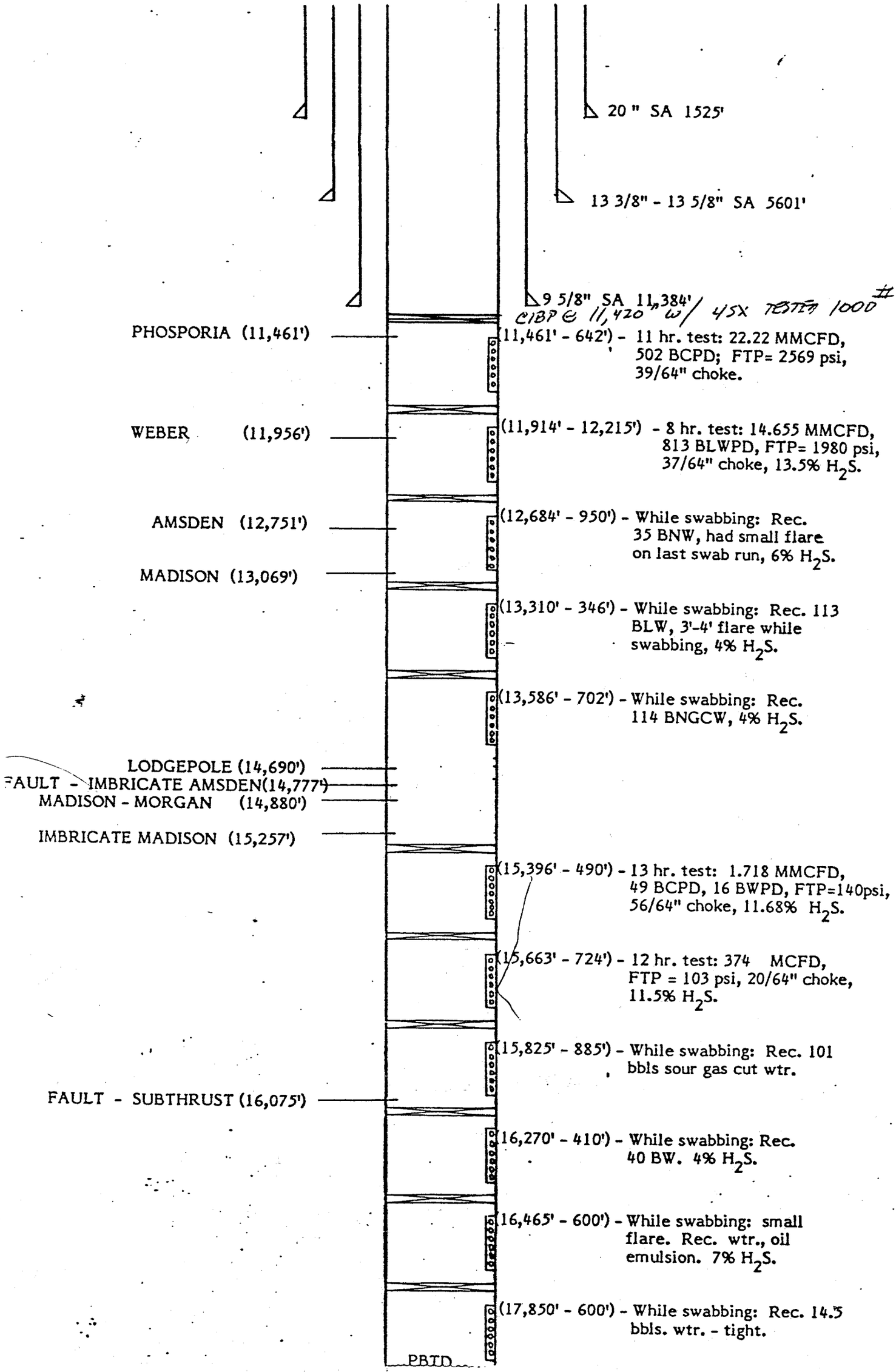
7. TOH with 3 1/2" L-80 9.2# VAM tubing. (Total 360 Jts. w/ "R" Nipple on end of string @ 11,167'). CIBP @ 11,420' w/ 4 sx cement tested to 1,000#.

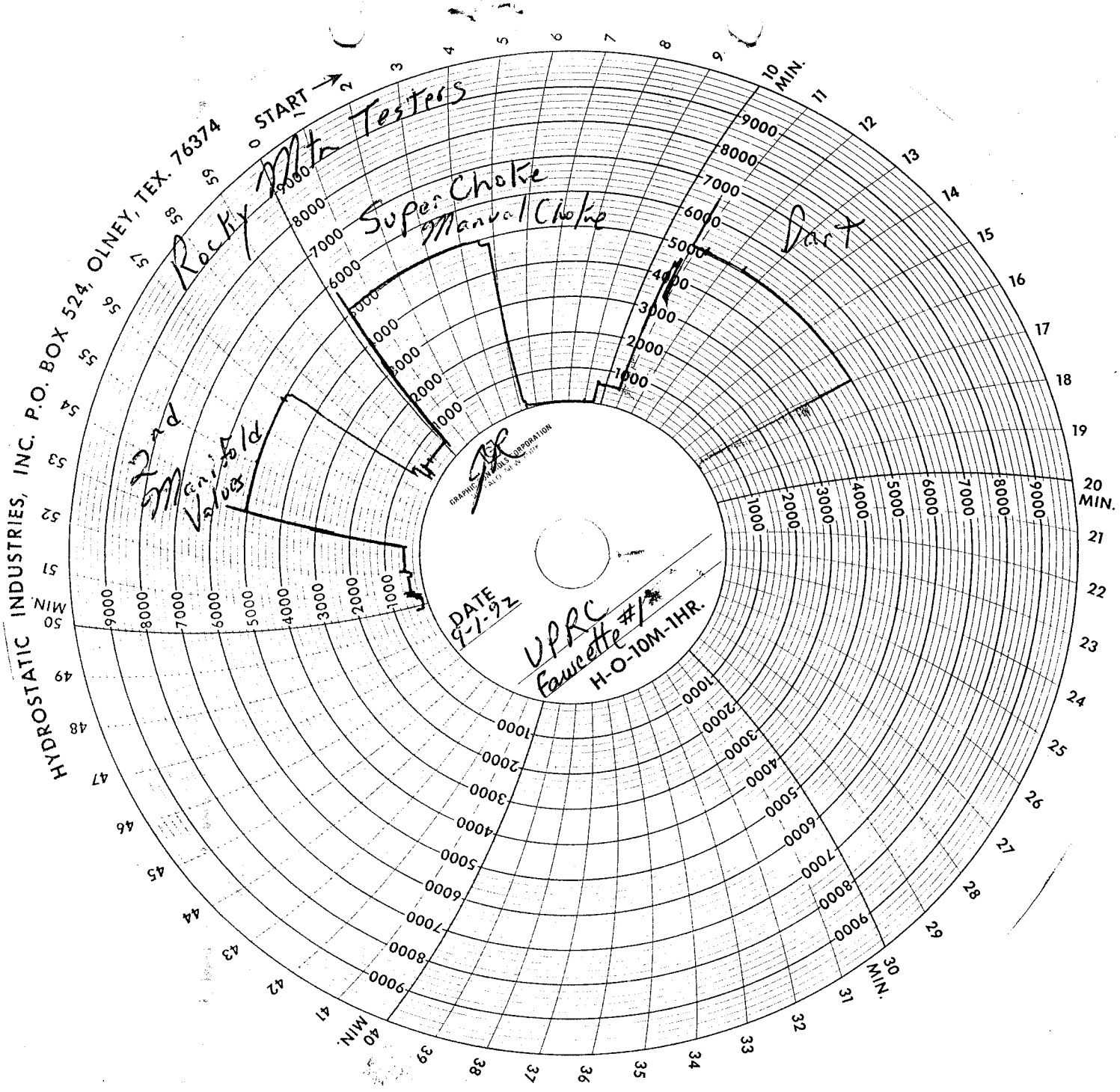
8. TIH w/ 3 1/2" tubing with 5 3/4" bit and scraper to PBTD. Circulate hole clean with water. TOH w/ pipe. Take fluid samples during circulating period.

9. RU wireline logging company w/ full lubricator tested to 5,000# and sour line to run GR, CPET, METT, and PAL to PBTD @ 11,420'. Evaluate logs. RD wireline unit.

10. TIH w/ 3 1/2" tubing to 11,167'. Reverse circulate hole w/ 8.9# corrosion inhibited brine fluid w/ oxygen scavenger. Install BPV and test casing and BPV to 2,000#. Strip off BOP's and nipple up tree. Winterize tree and tubulars w/ diesel. Secure well and await re-entry during summer of 1993.

FAWCETT AND SONS NO. 1



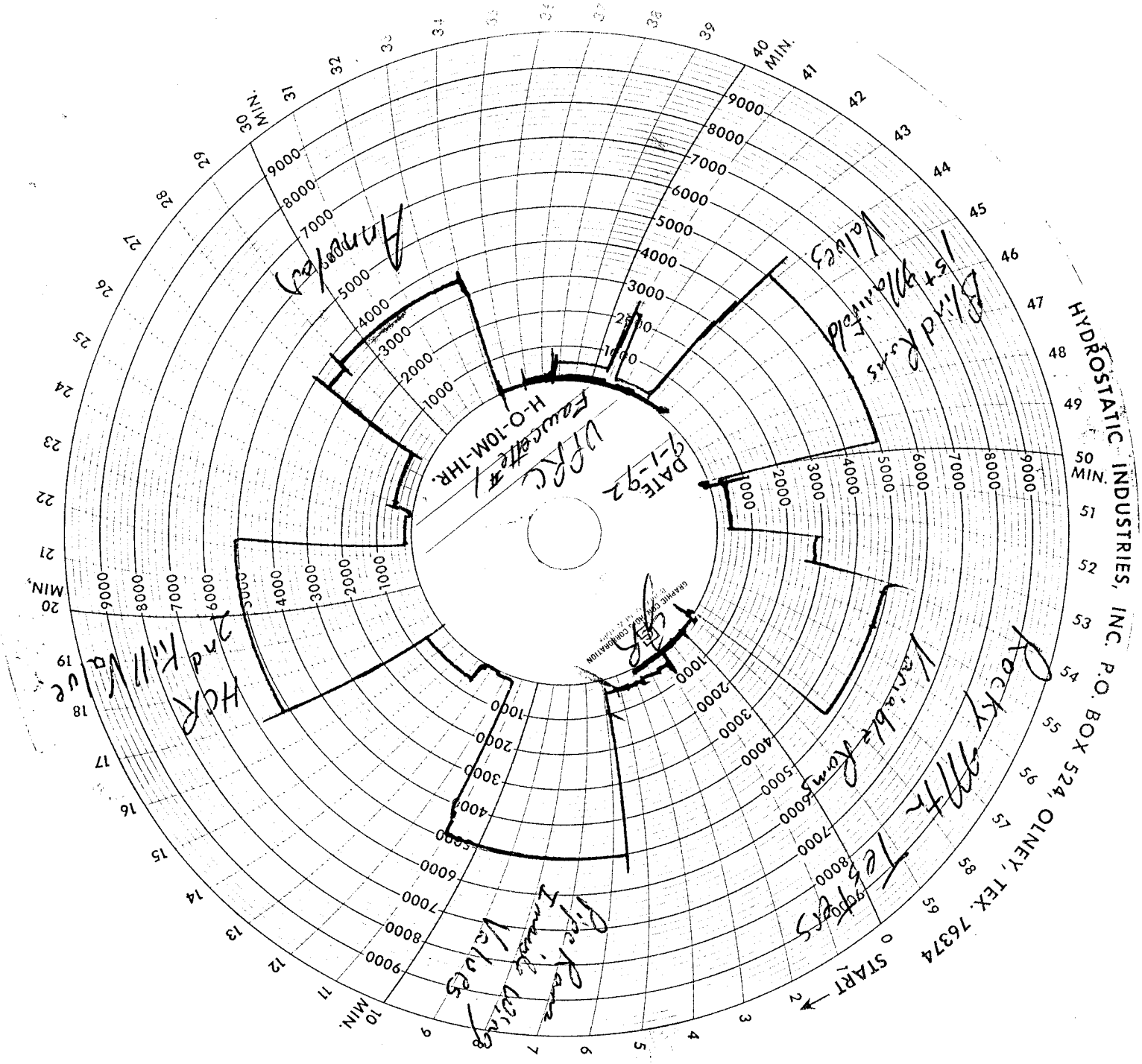


Fawcette & Son #1

5N 7E Sec #36

43-043-30078

RECEIVED
SEP 0 4 1992
DIVISION OF
OIL GAS & MINING



Fawcette & Son #1
5N 7E Sec #36
43-043-30078

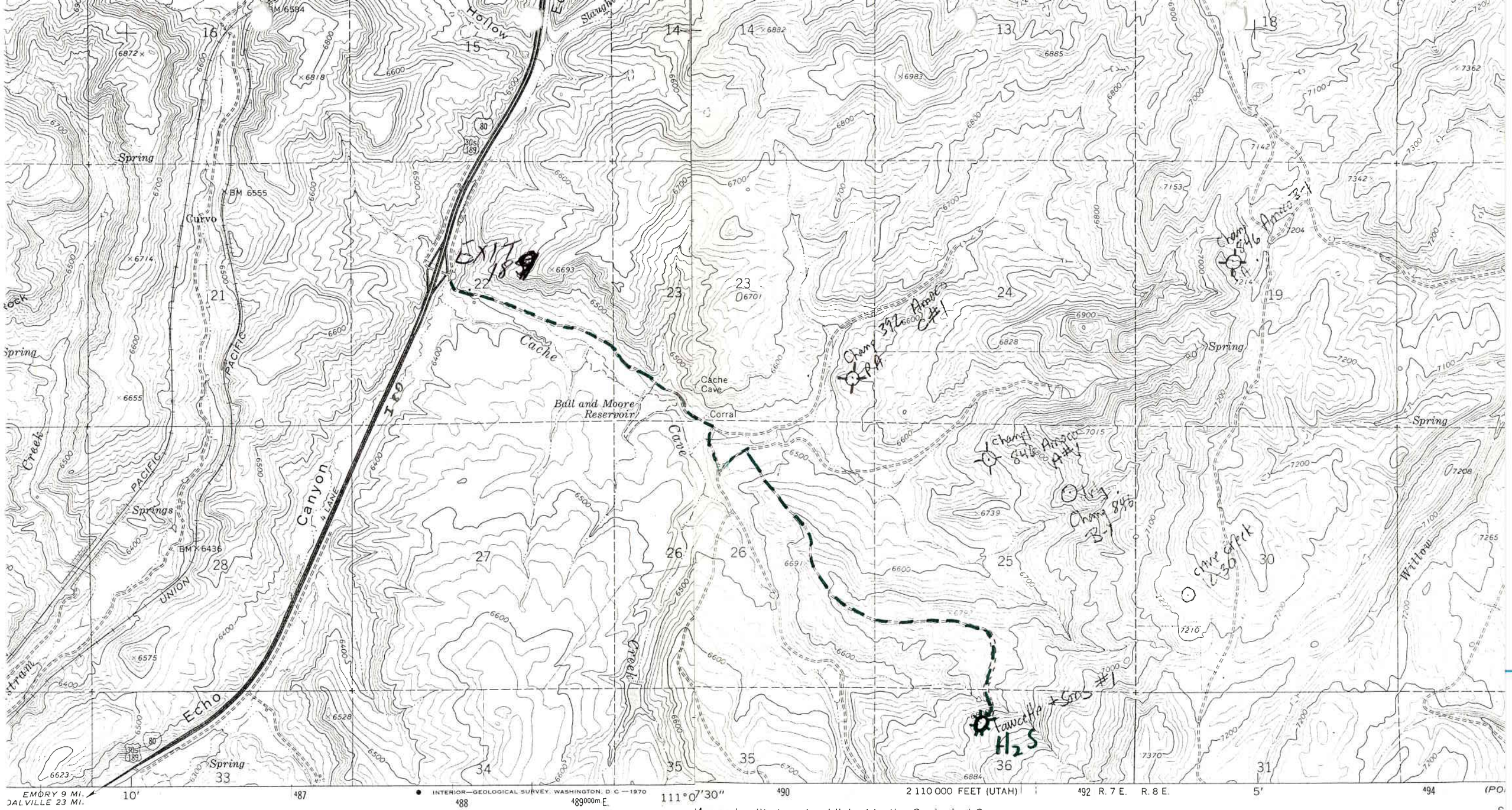
RECEIVED
SEP 0 4 1992
DIVISION OF
OIL, GAS & MINING

BOP Nipple-Up Service
BOP Testing to 10,000 PSI
formation Leak off Testing
Hydraulic Torque Wrenches

ROCKY MTN TESTERS, INC.

Jim Robinson
Box 4237
Marbleton, WY 83113

Phone (307) 276-5249
Cellular 1-350-8188

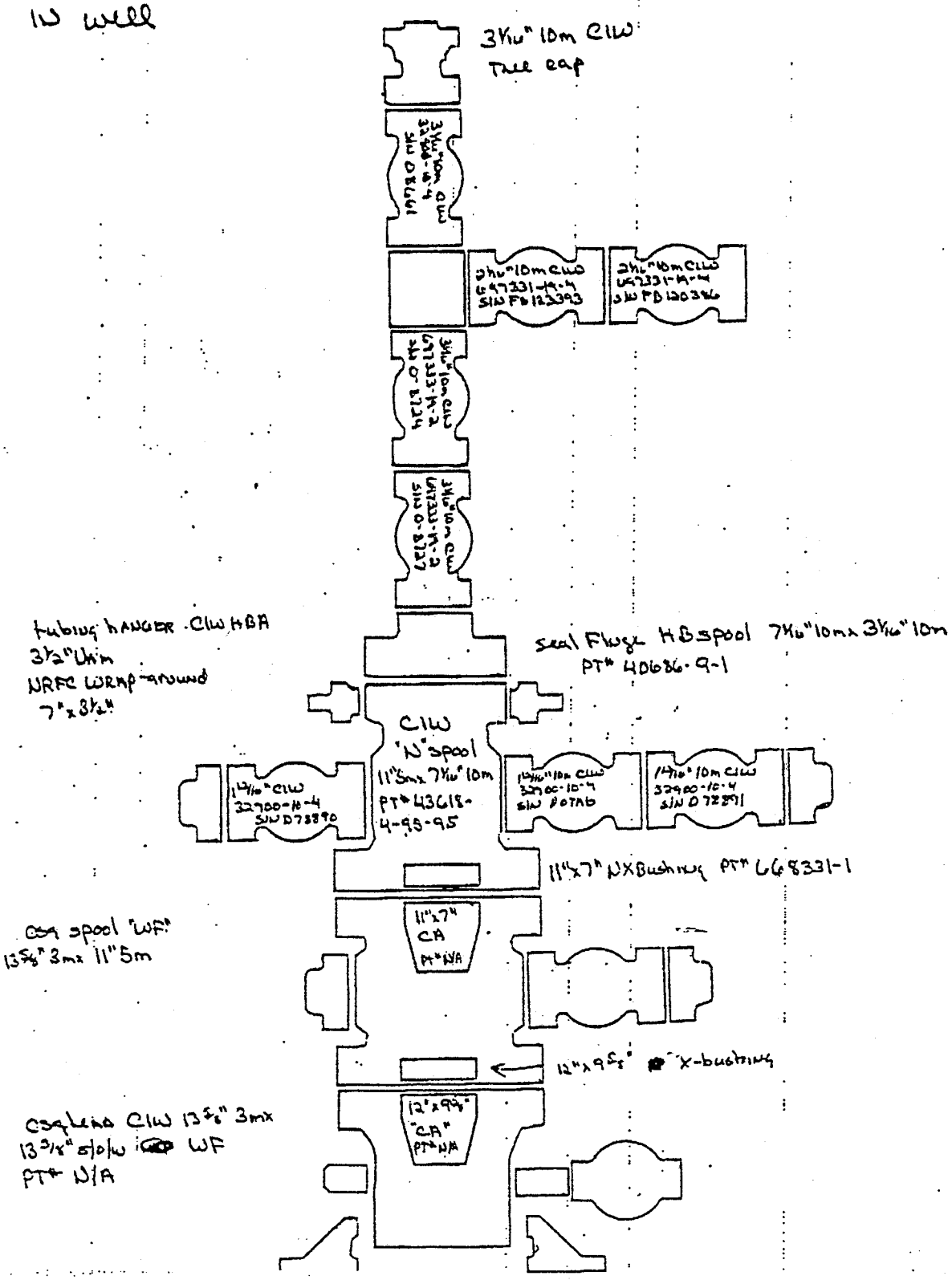


ROAD CLASSIFICATION

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

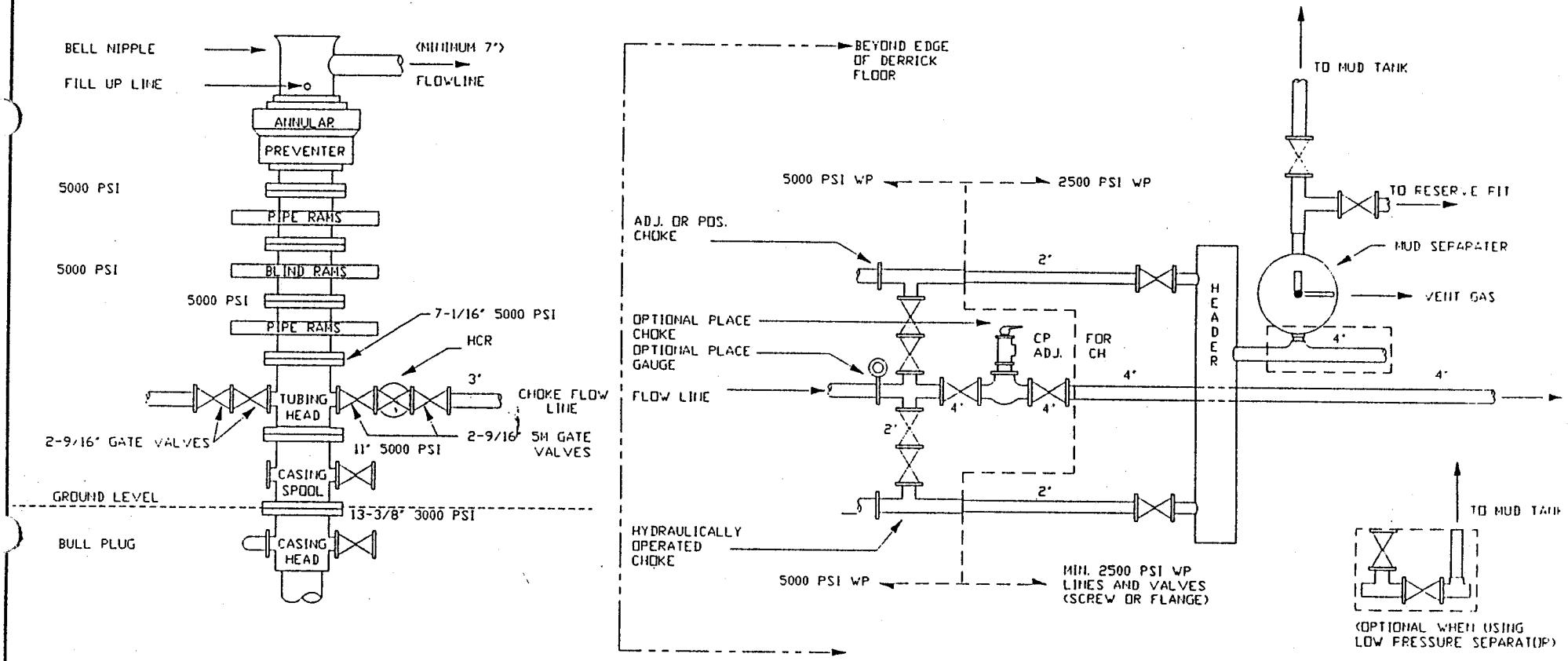
should have BPV.
in well



Union Pacific Resources
A Subsidiary of Union Pacific Corporation

DRAWING NUMBER 7B
5000 # WORKING PRESSURE

TUBING HEAD
7-1/16" X 5000#
FULL OPENING BORE



DRAWN BY JOE D DOUGHARTY 6-16-92 5000DW7B.DWG

Fawcett and Sons #1 Casing Program

7" Production Casing

28	jts	35# SS95 BTC	- 1248.37'	- Depth	1.232.8'	
57	jts	35# SS95 LTC	- 2488.21'	- Depth	3,689.3'	
45	jts	32# L-80 LTC	- 1544.38'	- Depth	5,208.6'	
119	jts	29# L-80 LTC	- 4942.38'	- Depth	10,084.8'	
51	jts	26# RS90 LTC	- 2318.62'	- Depth	12,375.0'	Stage Collar
35	jts	26# SS95 LTC	- 1577.04'	- Depth	13.932.6'	
69	jts	29# SS95 BTC	- 3032.01'	- Depth	16,926.2'	
23	jts	32# SS95 LTC	- 1019.84'	- Depth	17,933.2'	
2	jts	32# SS95 LTC	- 93.73'	- Depth	18,055.0'	Shoe

9 5/8" Intermediate Casing

1	jts	47# SS95 LTC	- 45.00'	- Depth	44.5'	
41	jts	47# L-80 LTC	- 1669.91'	- Depth	1,693.1'	
70	jts	44# L-80 LTC	- 3091.85'	- Depth	4,751.8'	
54	jts	40# SS95 LTC	- 2411.26'	- Depth	7,137.6'	
32	jts	47# L-80 LTC	- 1239.44'	- Depth	8,361.9'	
67	jts	47# SS95 LTC	- 2963.01'	- Depth	11,293.2'	
2	jts	47# SS95 LTC	- 92.85'	- Depth	11,384.0'	Shoe

13 5/8" Intermediate Casing

84	jts	68# J-55 STC	- 3661.40'	- Depth	3,633.8'	
24	jts	68# L-80 STC	- 982.93'	- Depth	4,608.8'	
21	jts	88# SS95 STC	- 908.93'	- Depth	5,510.8'	
2	jts	88# SS95 BTC	- 90.86'	- Depth	5,601.0'	Shoe

20" Surface Casing

NA	jts	NA# NAH-40 STC	- 874.79'	- Depth	1,525'	Shoe

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

July 17, 1992

VIA EXPRESS MAIL

Mr. Frank Matthews
Utah Dept. of Natural Resources
Div. of Oil, Gas & Mining
355 N. Temple - 3 Triad Center, Ste 350
Salt Lake City, Utah 84180

RE: **Wahsatch Sour Gas Gathering System**
Proposed Procedure for Casing Inspection Surveys
#1 Fawcett & Sons 43-043-30078
SENENW Section 36-T5N-R7E
Summit County, Utah

Dear Frank:

Please find enclosed for your review UPRC's proposed casing inspection procedure to be conducted to ascertain casing integrity for the above-mentioned well.

Additionally enclosed for your review is a copy of UPRC Wahsatch Sour Gas Gathering System Project Update. Frank, this will give you an overview of what the project is all about and our proposed course of action.

This casing inspection survey procedure is the initial step in our program, and subsequent re-entry procedures will follow.

A copy of the H_2S Contingency Plan is also enclosed for your reference.

I missed your return call today. I will talk with you soon.

Respectfully submitted,

UNION PACIFIC RESOURCES COMPANY

Joy L. Rector /sb

Joy L. Rector
Regulatory Analyst

JLR/sb
attachments

RECEIVED
JUL 20 1992
DIVISION OF
OIL GAS & MINING

Union Pacific Resources Company
P.O. Box 7
Fort Worth, Texas 76101-0007
817 / 877-6000
TWX 910 893 5024
Telex 758-447

H2S CONTINGENCY PLAN
for

Fawcett & Son #1

Township 5 N, Range 7 E
Section 36

Summit County, Utah

Union Pacific Resources Corp.
170 Yellow Creek Road Suite B
Evanston, WY 82930

PURPOSE OF PROGRAM

It is the policy of Union Pacific Resource Corporation to provide for the safety of its employees as well as contractor's employees at the job site, and to provide for the protection of the environment and the public within a two mile radius of this wellsite.

The primary purpose of this contingency plan is to guide location personnel in the responses expected of them in the event that hydrogen sulfide (H2S) is released to the atmosphere during the drilling program.

Due to its capability of endangering life at very low concentrations and of potentially causing instantaneous failure of high strength metals, hydrogen sulfide is extremely hazardous to field operations. Drilling and production operations of hydrocarbons containing toxic gases, however, are routinely performed safely and without incident when the necessary precautions are taken and the outlined safety procedures are followed. It is imperative that sulfide resistant materials be used, that the appropriate support safety equipment be readily available, and that this equipment be properly maintained to provide an effective safety program during the drilling of this well.

DIRECTIONS TO LOCATION- Fawcett & Son #1

Directions start from Utah Port of Entry 3 miles West of Evanston, WY. at the Utah- Wyoming state line on I-80.

Follow I-80 West for 9.1 miles to the 189 exit. Get off I-80 at the is exit. Go under the interstate and through the gates. Follow the dirt road for 2.5 miles to the fork in the road and take the right hand fork to the well.

The total distance from the Utah Port of Entry at the state line to the Fawcett & Son # 1 location is 12.6 miles.

CHARACTERISTICS OF HYDROGEN SULFIDE

Hydrogen sulfide is a highly toxic gas which, when inhaled in relatively low concentrations, can rapidly cause death. It is also highly flammable, being classified by the U.S. Department of Transportation as a flammable compressed gas. Certain concentrations in the air can burn upon ignition.

Although at lower concentrations it has a characteristic odor of rotten eggs, at higher concentrations it cannot be smelled at all. Therefore, odor cannot be depended upon as a means of detection of the gas.

Hydrogen sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure according to the ACGIH and government standards is 10 ppm, which is .001 percent by volume.

Hydrogen sulfide is heavier than air (specific gravity = 1.19) and colorless. It forms a flammable mixture with air between 4.3 and 46.0 percent by volume, and burns to produce Sulfur Dioxide (SO2). SO2 is considered by NIOSH to be a hazard to humans. It is a colorless, very irritating gas with a pungent odor and taste. It does not inhibit the sense of smell, but causes irritation to nose and throat which may result in choking and gagging. These symptoms are sufficiently disagreeable that most persons will not tolerate them for more than short periods. Exposure to higher concentrations of SO2 may lead to chemical pneumonia. The government standard for exposure to sulfur dioxide is 2 ppm for an 8-hour period. Whenever exposure to any concentration of these gases exceeding ACGIH or government standards is anticipated, the use of protective breathing equipment is required.

TOXICITY OF HYDROGEN SULFIDE TO MAN

The following table describes the toxicity of H2S concentrations, expressed as parts of H2S per million parts of air(PPM).

10 PPM	Obvious and obnoxious odor; has the characteristic odor of rotten eggs. Eye irritation begins in the range of 10 to 30 ppm. Safe for 8 hours exposure. Everyone must wear respiratory protective equipment at concentrations above this level.
20 PPM	Former TLV or Safe Working Level
100 PPM	Impairs the sense of smell after 2 to 15 minutes exposure; alters respiration, causes pain in eyes, and drowsiness after 15 to 30 minutes, and throat irritation after 1 hour.
200 PPM	Quickly eliminates the sense of smell; may result in death after 8 to 48 hours of continuous exposure.
500 PPM	Causes loss of sense of reasoning and balance produces respiratory paralysis in 30 to 45 minutes exposure, and death in exposures of 1 to 4 hours. Victim requires prompt artificial resuscitation.
600 PPM	Causes death within 30 to 60 minutes, if not rescued and given immediate artificial resuscitation.
1000 PPM	Causes immediate loss of consciousness; permanent brain damage may result if not rescued promptly and resuscitated.

RESPIRATORY PROTECTIVE EQUIPMENT

When the H2S concentration in the work environment exceeds a minimum of 10 ppm during an 8-hour period of continuous exposure, respiratory protective equipment must be worn. If the H2S concentration reaches damage levels shown in the table, respiratory equipment is necessary to prevent injury for whatever exposure time. At higher concentration levels, a self-contained air breathing apparatus and a life line should be used.

TESTING FOR HYDROGEN SULFIDE

NEVER rely on the sense of smell to guess what the H2S concentration may be. A relatively small amount of H2S quickly impairs the sense of smell. Always use an approved H2S detector to test for H2S concentrations, and respiratory protection should always be used when testing for the presence of H2S.

FIRST AID TREATMENT OF HYDROGEN SULFIDE VICTIMS

A person who is overcome by hydrogen sulfide must be removed to an area clear of gas immediately and artificial respiration started at once. Any delay in the start of artificial respiration appreciably reduces the chance of recovery. Four minutes of delay reduces the chance for recovery to 50-50. The recommended method of artificial respiration is mouth-to-mouth using current techniques and barriers when available. Additional rescue procedures and first aid will be further described during the individual safety training of all personnel on location.

TREATMENT FOR HYDROGEN SULFIDE POISONING

Inhalation

As hydrogen sulfide in the blood oxidizes rapidly, symptoms of acute poisoning pass off when inhalation of the gas ceases. It is important, therefore, to get the victim of poisoning to fresh air as quickly as possible. He should be kept at rest and chilling should be prevented. If respiration is slow, labored, or impaired, artificial respiration may become necessary. Most persons overcome by hydrogen sulfide may be revived if artificial respiration is applied before the heart action ceases. Victims of poisoning should be under the care of a physician as soon as possible. Irritation due to subacute poisoning may lead to serious complications such as pneumonia. Under those conditions, treatment by a physician necessarily would be automatic. The patient should be kept in fresh air and hygienic conditions should be watched carefully.

Contact with Eyes

Eye contact with liquid and/or gas containing hydrogen sulfide will cause painful irritation (conjunctivitis). Keep patient in a darkened room, apply ice compresses to eyes, put ice on forehead, and send for a physician. Eye irritation caused by exposure to hydrogen sulfide requires treatment by a physician, preferably an eye specialist. The progress to recovery in these cases is usually good.

Contact with Skin

Skin absorption is very low. Skin discoloration is possible after contact with liquids containing hydrogen sulfide. If such skin contact is suspected, the area should be thoroughly washed.

EFFECTS OF HYDROGEN SULFIDE ON METAL

Hydrogen Sulfide dissolves in water to form a weak acid that can cause some pitting, particularly in the presence of oxygen and/or carbon dioxide. However, the most significant action of H_2S is its contribution to a form of hydrogen embrittlement known as sulfide stress cracking. Sulfide stress cracking is a result of metals being subjected to high stress levels in a corrosive environment where H_2S is present. The metal will often fail catastrophically in a brittle manner. Sulfide stress cracking of steel is dependent upon and determined by:

a. Strength (hardness) of the steel - the higher the strength, the greater the susceptibility to sulfide stress cracking. Steels having yield strengths up to 95,000 psi and hardness up to Rc 22 are generally resistant to sulfide stress cracking. These limitations can be extended slightly higher for properly quenched and tempered materials.

b. Total member stress (load) - the higher the stress level (load) the greater the susceptibility to sulfide stress cracking.

c. Corrosive environment - corrosive reactions, acids, bacterial action, thermal degradation, or low PH fluid environment.

In addition to the use of a scavenger in the drilling mud, all tubulars, BOP and surface safety equipment should be of H_2S resistant material.

RESUSCITATION CHART

D I D Y O U K N O W ?

THERE IS NOT TIME TO WASTE WHEN BREATHING STOPS!

ARTIFICIAL RESUSCITATION MUST BE STARTED IMMEDIATELY!!!

After Breathing is Stopped for:	The Chances for Life are:
1 Minute	98 out of 100
2 Minutes	92 out of 100
3 Minutes	72 out of 100
4 Minutes	50 out of 100
5 Minutes	25 out of 100 *
6 Minutes	11 out of 100 *
7 Minutes	8 out of 100 *
8 Minutes	5 out of 100 *
9 Minutes	2 out of 100 *
10 Minutes	1 out of 100 *
11 Minutes	1 out of 1,000 *
12 Minutes	1 out of 10,000 *

* Irreparable brain damage starts at about the fifth minute.

COOL-HEADED ACTION IN RESCUE IS CRITICAL

OPERATIONS

1) All respiratory protective equipment and H2S monitoring equipment will be rigged up prior to starting operations. All personnel will be fully trained in H2S safety procedures at this time.

2) A 4 channel continuous H2S monitoring system will be used to constantly monitor for hydrogen sulfide. The monitor console will be located in an area that is easily accessible and controlled, with multiple alarm lights and sirens situated so that they can be observed from any point on the location. Additional alarms and buzzers will be installed around the location to ensure that everyone is cognizant of any H2S alarms. The monitor heads will be located as follows: 1) the operator's stand, 2) bell nipple area, 3) shale shaker area, 4) a second sensor head in the cellar area. The monitor will be calibrated to activate a revolving red beacon should 10+ ppm H2S be detected by any single monitor head. Should 15+ ppm or higher H2S be detected a loud siren will alarm. Personnel will be trained to take action to protect themselves, and for non-essential personnel to proceed to the upwind briefing area if this alarm sounds.

3) A safety trailer will be provided to house a 10 bottle cascade system that contains Grade D breathing air. This system will serve to supply breathing air to various points around the location including: the rig floor, the substructure, the shale shaker area, the derrick monkey board, and the mud mixing area. This trailer will also serve as storage area for safety equipment not in use or rigged up.

4) 2 Gastec/Sensidyne pump-type hand-held gas detectors will be available on the drilling location. These detectors use colormetric tubes to detect the presence of H2S and SO2 at specific areas.

5) The location will be rigged up to take maximum advantage of the prevailing winds and the topography of the terrain surrounding the drillsite.

6) Windsocks and streamers will be strategically placed around the location to ensure that wind direction is easily determined by all personnel. One wind indicator will be mounted on or near the rig floor to be readily visible to rig crews when tripping. Windsocks will be in illuminated areas to be visible 24 hours a day.

7) At least two (2) Safe Briefing Areas (SBA) will be located on the location. These areas will be situated to assure that at least one area will always be upwind. Each Safe Briefing Area will include 3-300 cu. ft. bottles of compressed breathing air cascaded together, 1-filler hose, and 1-Scott 30 minute rescue air pack.

8) A 12-gauge single shot flare gun will be provided with flare shells. The gun and shells will be stored in a controlled area.

9) Two (2) - 24"explosion-proof bug fans will be installed to facilitate additional ventilation in confined areas. These fans can be turned to provide multidirectional ventilation in the work area.

10) No smoking areas will be established and "No Smoking" signs posted.

11) Reliable 24-hour radio communication will be established from the drilling rig and emergency call lists and contacts will be near this communication system.

12) The blowout preventers, the choke manifold equipment, and any test equipment will be trimmed to function in an H2S environment as per the specifications of UPRC Drilling Dept.

13) All drill pipe, drill stem tools, and other tubulars will be selected to comply with U.P.R.C.'s requirements for H2S service.

14) Additives to reduce the opportunity for sulfide stress cracking will be available to add to the completion fluid system as necessary.

15) A stokes body litter will be available at the safety trailer.

16) Retrieval ropes with safety harnesses will be available.

17) Chalk-boards and writing markers will be provided for emergency communication purposes.

18. 6 voice mikes will be available for communication while wearing masks.

19) Warning signs will be posted on location entrance roads and a three color flag system will be used to indicate current drilling operation and potential hazard. Additionally a H2S warning sign and standby barricades will be placed at the junction of the location access road and the BLM road.

20) Twelve(12) Scott Ska-Paks (hoseline work units with 5 minute egress bottle) will be provided for the operation and placed to assure that all personnel have an emergency air mask available. These units will also be used as hoseline/work units around the drilling rig. The locations for this equipment will be:

a) At least five (5) units on the rig floor
b) One (1) unit for derrickman at monkey board with airline
c) Two (2) at shale shaker with airlines
d) The remainder to be strategically placed around the location to provide emergency breathing air to personnel during a variety of completion/ testing conditions.

21) Ten (10) Scott 30 min. rescue packs will be located for key personnel involved in emergency operations, including:

a) Two (2) on the rig floor or adjacent doghouse.
b) One (1) at each safe briefing area.
c) One (1) in Rig Toolpusher's quarters.
d) Two (2) in UPRC's drilling Representative's quarters.
e) Two (2) at access points to rig floor such as stair landings and access areas to the substructure.

22) Spectacle kits will be available for the Scott airpacks for personnel that require corrective lenses for adequate vision.

23) Additional safety equipment will include:

a) 1 Oxygen powered resuscitator with a spare cylinder
b) Airline hoses and manifolds to supply breathing air to the rig floor,substructure area,the shale shaker area and other strategic work areas.
c) 1 36 unit first aid kit & 1 EMT trauma kit

24) Safety meetings and training sessions will be held at frequent intervals by the Safety Advisor, the Drilling Supervisor, or the Rig Supervisor. All persons required to work on location will be thoroughly familiar with the use, care and servicing of the following: Personal protective equipment, resuscitation equipment, gas detection equipment, emergency response drills and procedures.

H2S SAFETY EQUIPMENT ON LOCATION
(PROVIDED BY INTER-MOUNTAIN SAFETY CO.)

1. Safety Trailer with a cascade system of 10-300 cu. ft. bottles of compressed breathing air complete with high pressure regulator and spare regulator.

2. At least 750 ft. low pressure air Line, equipped with Hanson 3000 series locking fittings.

3. Four low pressure manifold system with five outlets.

4. Ten (10) Scott Pressure Pac IIA, 30 minute pressure demand breathing apparatus NIOSH and MSHA approved.

5. Twelve (12) Scott Ska-Paks escape hoseline units with emergency egress cylinder.

6. 4-Channel Monitor for multiple point continuous detection, each monitoring point is capable of activating remote audio and visual alarm system. The set points for the alarms will be 10 ppm H2S for the lights and 15 ppm H2S for the sirens.

7. Two Gastec/ Sensidyne portable hand operated pump type detector with low and high range H2S detector tubes and SO2 detection tubes.

8. One Robert Shaw Portable Oxygen Resuscitator with spare cylinder.

9. One 36 Unit First Aid Kit.

10. One stretcher Stokes wire basket

11. Three Wind Socks with poles.

12. At least two high pressure compressed air refill hoses.

13. At least one H2S Condition Sign w/ Three Flag System.

14. One Fire Blanket.

15. One set air splints

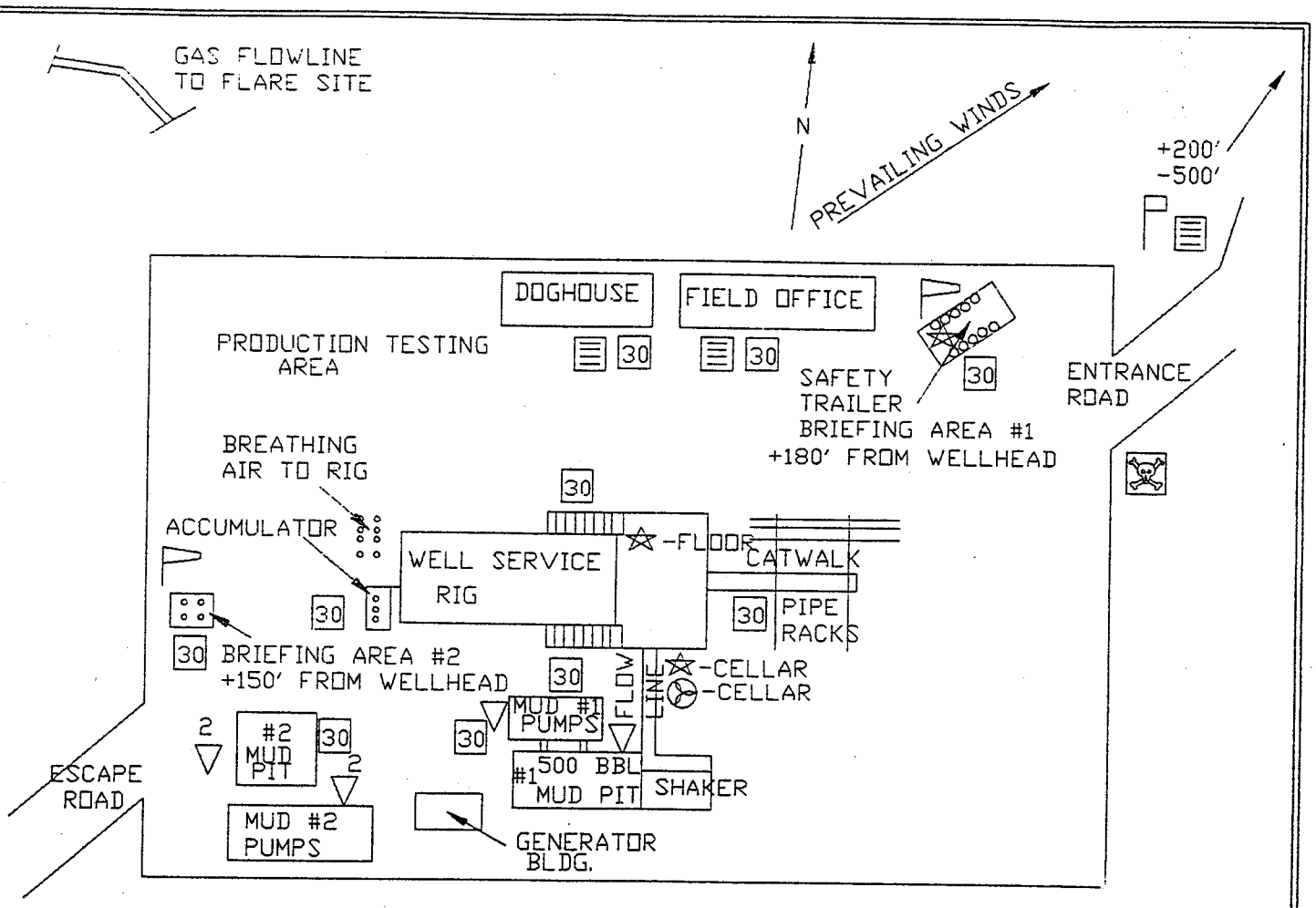
16. Two explosion proof 110 volt bug fans.

17. Battery powered bullhorn and writing board.

18. Three 300 cu. ft. bottles with Briefing Area Stand.

19. 6 battery powered voice mikes (Speak- Easies) for communication while wearing respiratory protective equipment.

NOTE: Additional equipment will be added if well conditions require.



NOTES:

MUD PUMPS #2 AND
MUD PIT #2 ARE
OPTIONAL IF ROTATING
HEAD NOT REQUIRED.

AIR MANIFOLD WITH WORK
UNIT LOCATED IN DERRICK

LEGEND:

- ▽ AIR MANIFOLD WITH WORK UNITS
- ☆ GAS DETECTOR
- GASGAGE SYSTEM
- WIND SOCK
- DISPERSION FAN
- [30] 30 MINUTE RESCUE PACKS
- [6] 6 MINUTE ESCAPE PACKS
- OPERATING CONDITIONS FLAG AND SIGN
- POISON GAS SIGN

UNION PACIFIC
RESOURCES
A Subsidiary of Union Pacific Corporation

PROJECT

TYPICAL WELL SITE LAYOUT

DATE	DWG. NO.
18 JUNE 92	8511

H2S SAFETY TRAINING

All personnel on the drilling rig, all support personnel, visitors will be trained in H2S safety procedures.

This training will include, but not be limited to:

1) The potential hazards and characteristics of H2S and SO2.

2) The effects of these gases on man and materials.

3) Operation and limitations of all types of respiratory protective equipment available on the location with thorough hands-on practice both for routine and emergency donning.

4) The different types of H2S and SO2 detection and alarm equipment available on the drillsite and how to interpret this equipment.

5) Prevailing winds, ventilation equipment, and safe briefing areas.

6) Rescue and H2S first aid procedures.

7) Working with the buddy system.

8) Safety precautions to be followed during drill stem testing

9) Emergency procedures to follow including company preferred well shutin methods.

ACTION PLAN FOR H2S EMERGENCY

Should the H2S monitor alarms sound indicating the presence of hydrogen sulfide on location, the following actions will be taken:

1) All personnel on location must don protective breathing equipment and immediately follow the "buddy system" as prescribed during H2S training drills.

2) The driller and rig crew will take action to control any possible flow of hydrogen sulfide from the wellbore as per company guidelines.

3) Notify the UPRC drilling representative and the toolpusher of the presence and possible location of the hydrogen sulfide.

4) Monitor for hydrogen sulfide with portable gas detection equipment while following the directions of the U.P.R.C. drilling foreman to reduce or eliminate the hydrogen sulfide present.

5. Verify the drillsite "head count" and search out and assist any missing or distressed personnel.

6. Ensure that all non-essential personnel are in a safe upwind briefing area and that no new visitors are allowed on location.

IGNITING THE WELL

The decision to ignite the well is the responsibility of the UPRC drilling foreman. In his absence or incapacity, the toolpusher will assume his duties.

The decision to ignite the well is to be made as a LAST RESORT when it is obvious that there is:

1. Imminent danger to human life and property in the immediate area

2. There is no hope of containing the well under the current prevailing conditions.

In all cases, every effort should be made to notify the staff support personnel on the emergency call list of the situation, and of the need to ignite the well.

Public in Roe

We have enclosed copies of an abstract from Appendix C, pages C-1- C6, of the *Hazards Analysis/ Risk Analysis Study of Union Pacific Resources Company's Wahsatch Gas Gathering Pipeline System* compiled by Quest Consultants on May 8,1992. This study provided information to determine the radius of exposure calculations of hydrogen sulfide from the well. Should further detail be required, please refer to the original study.

APPENDIX C
BUREAU OF LAND MANAGEMENT
ONSHORE OIL AND GAS ORDER NO. 6 CALCULATIONS

Radius of Exposure Calculations

Dispersion calculations were made to determine the Radius Of Exposure (ROE) distances associated with the Wahsatch Gas Gathering System. Calculations were made for pipeline releases, as well as for well-head releases.

Flow rates used in the calculations were those defined by 43 CFR Part 3160, specifically Subpart 3164 - *Special Provisions*. Within this subpart is onshore oil and gas order number 6, which pertains to hydrogen sulfide (H_2S) operations. The release rate of gas containing H_2S is defined to be the maximum flow at that point in the system at the time of release. (This definition is identical to the definition in Texas Railroad Commission's Rule 36, which also defines H_2S exposure zones.) For the pipeline sections, this would correspond to the gas flow in the pipeline. For the wells, this would correspond to the Absolute Open Flow (AOF) of the well.

The rule recognizes the Gaussian dispersion formulation defined in the rule is not applicable for gas compositions containing more than 10 mole percent H_2S. Gas in the Wahsatch Gas Gathering System contains approximately 15 mole percent H_2S. The dispersion calculations presented in this appendix are performed with the momentum jet dispersion model used in the risk analysis. Full descriptions of the model, the algorithms, and the validation studies are presented in Appendix B.

Using the flow rates and dispersion model defined above, dispersion calculations were made to the 100 and 500 ppm H_2S concentration levels under low wind (1 mph) and stable (Pasquill stability class F) conditions. The calculations were made for all pipeline sections and well sites. Table C-1 presents a summary of distances to the 100 and 500 ppm H_2S levels.

The ROE limits (defined by the 100 and 500 ppm H_2S levels) can be overlaid onto the overall pipeline route. This overlay is presented in Figure C-1.

As discussed in the main report, only a small section of the Wahsatch Gathering System is located adjacent to a permanent population. When the ROE limits are overlaid onto this area, Figure C-2 results.

Flaring Calculations

In addition to the ROE calculations described above, onshore oil and gas order number 6 requires the calculation of dispersion distances for H_2S and SO_2 for the flaring operations. In the Wahsatch design, there is the potential for three different flaring rates. The lowest rate is associated with the individual flares at the well sites. The next lowest rate is produced by the Wahsatch flare. The highest rate that can be flared occurs at the inlet facility.

At all three locations, dispersion calculations were performed to determine the maximum dispersion distance for both the H_2S and SO_2 concentrations defined in onshore order number 6. For H_2S, this

Table C-1
Radius of Exposure (ROE) Limits
Using Texas Railroad Commission Rule 36 for Flow Rates and
Momentum Jet Dispersion Model for ROE Distances

Well/Pipeline Section	Exposure Time (min)	Maximum Flow (mmscfd)	Mole Fraction H_2S	ROE (100 ppm) [feet]	ROE (500 ppm) [feet]
Harry Moon	60	10.6‡	0.15	2100.	510.
Bradbury	60	22.7‡	0.15	2770.	680.
Urroz "B"	60	11.3‡	0.15	2170.	530.
Celsius 4-36	60	7.5‡	0.15	1790.	450.
Urroz "1"	60	24.2‡	0.15	2880.	740.
Fawcett & Sons	60	23.5‡	0.15	2850.	730.
Kindler-Reese	60	7.5‡	0.15	1790.	450.
Champlin 375 C	60	7.5‡	0.15	1790.	450.
L1	5	15.5*	0.15	3600.	1010.
L2	5	8.7*	0.15	3130.	1130.
L3	5	9.0*	0.15	2700.	600.
L4	5	17.7*	0.15	3830.	980.
L5	5	6.3*	0.15	2320.	490.
L7	5	27.0*	0.15	4180.	920.
L8	5	14.4*	0.15	3220.	710.
L9	5	56.9*	0.15	5600.	1300.
L10	5	4.9*	0.15	2760.	1040.
L11	5	2.1*	0.15	1800.	615.
L12	5	7.0*	0.15	2990.	1130.
L13	5	63.9*	0.15	5830.	1290.
L14	5	20.7*	0.15	3810.	880.
L15	5	3.0*	0.15	2020.	600.
L16	5	8.7*	0.15	2680.	560.

‡Flow rate based on well AOF.

*Flow rate based on maintaining normal flow conditions during release.

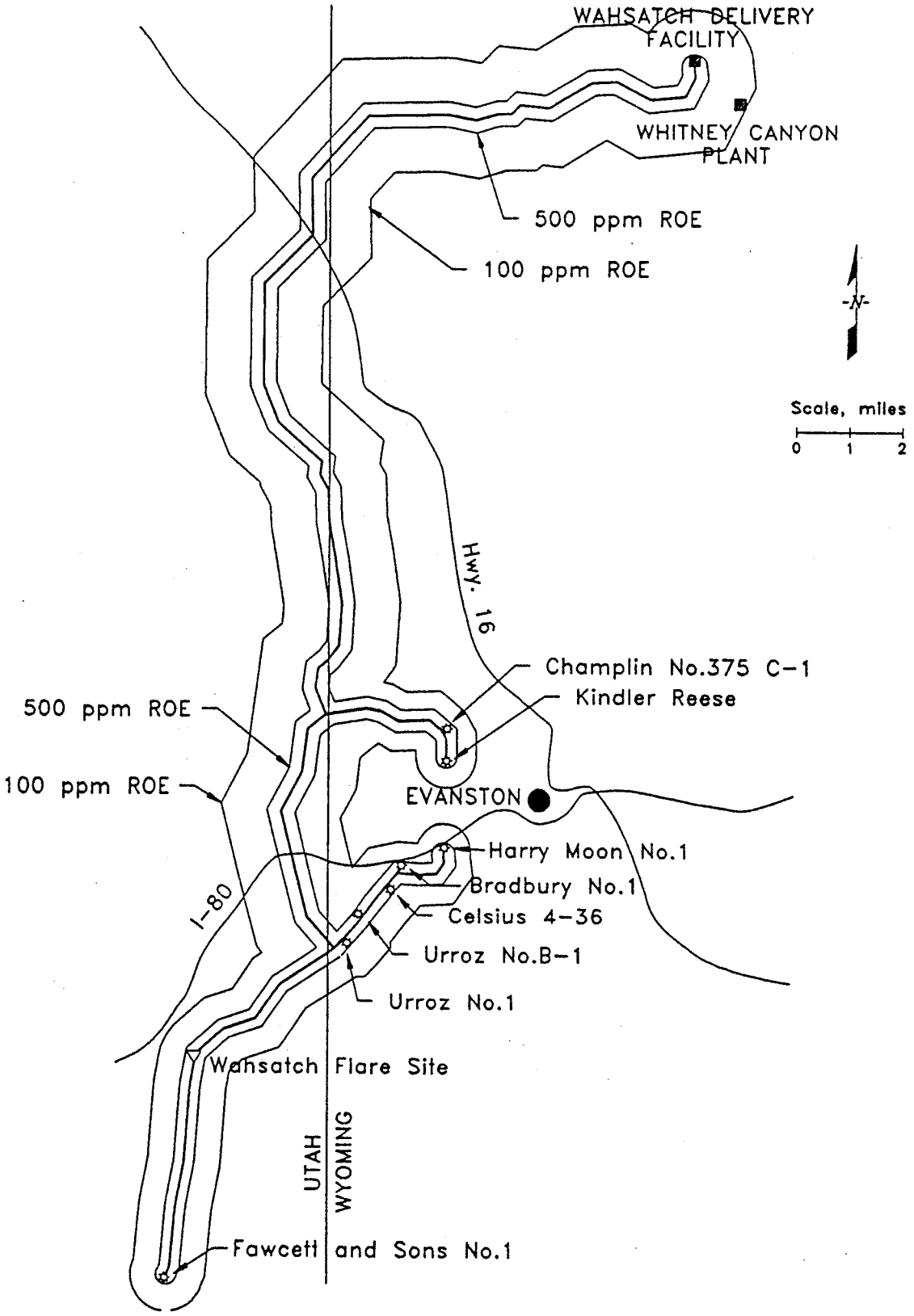


Figure C-1
Wahsatch Pipeline Area Map

QUEST

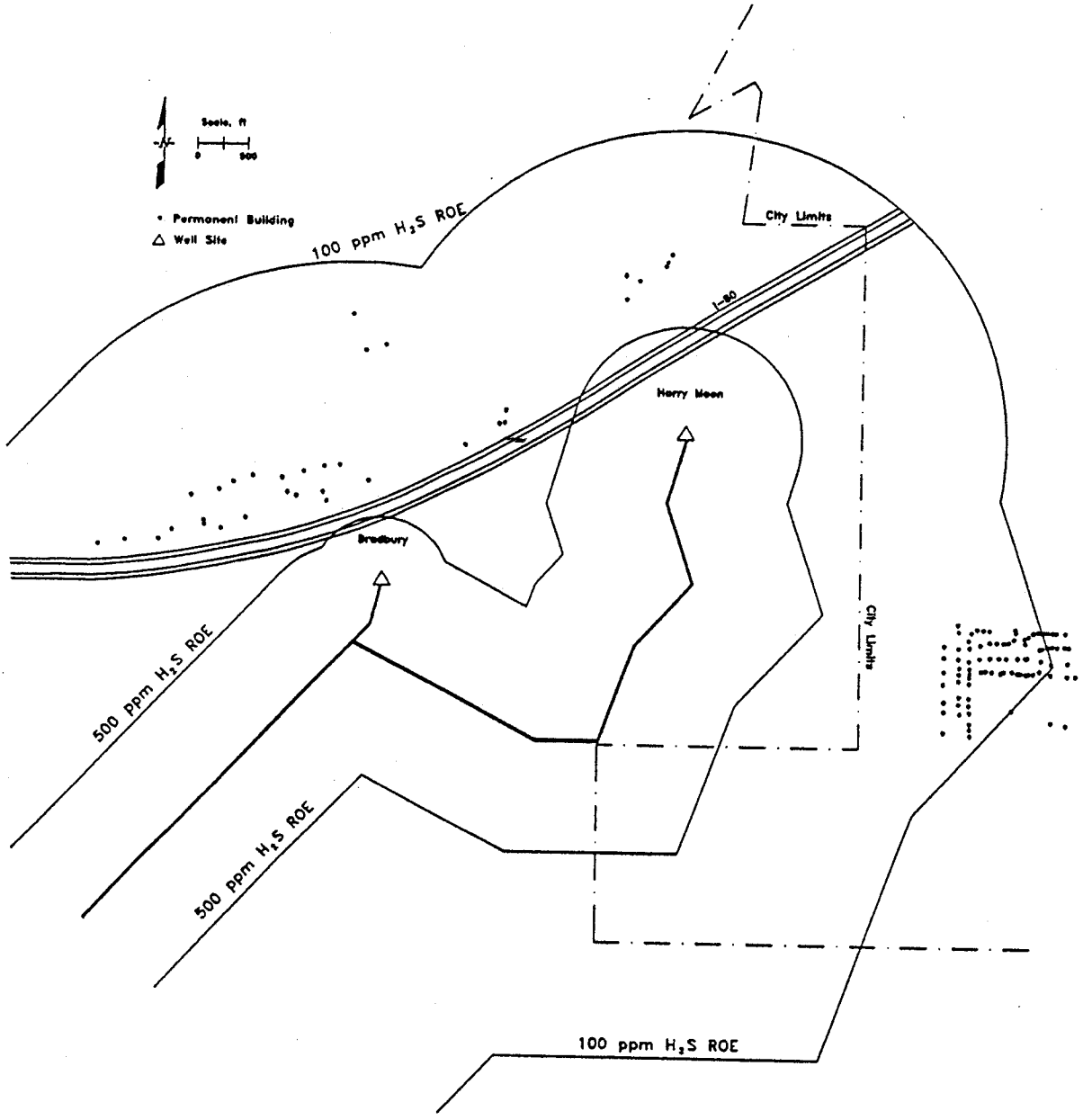


Figure C-2

QUEST

required the calculation to be made to 10 ppm H_2S while for SO_2, the concentration limit was defined to be 2 ppm.

The results of these calculations are presented in Table C-2.

Maximum Distances to Odor Concentrations

Onshore oil and gas order number 6 does not require the calculation of downwind distances at which the different toxic components can be smelled by persons in the area. These calculations are included in this section for reference only. As referenced in Section 4, the concentrations at which H_2S and SO_2 can be smelled by humans is low and, at these low concentrations, the materials do not pose a health hazard to the exposed public.

Since the concentrations at which the materials can be smelled varies over a range, the shortest and longest distances away from the release point at which the material can be smelled are presented. Note that in some cases, when the elevated plume does not reach grade at the concentrations defined, the distances will be zero. The zero distance means that gas concentration at or above the lowest smell concentration does not exist at grade. The results of these calculations are presented in Table C-3.

Table C-2
Dispersion Distances for Flaring Operations

Flare Site	Exposure Time (min)	Flaring Rate (mmscfd)	Ground Level Downwind Distance‡ (ft) to	
			10 ppm H_2S (unignited flare)	2 ppm SO_2 (ignited flare)
Individual Well Site	60	5	0	0
Wahsatch Flare	60	10	0	0
Inlet Facility Flare	60	100	0	0

Table C-3
Dispersion Distances to Reach Odor Threshold

Flare Site	Exposure Time (min)	Flaring Rate (mmscfd)	Ground Level Dispersion Distance‡ (ft) to			
			0.13 ppm H_2S (unignited flare)		0.62 ppm SO_2 (ignited flare)	
			minimum	maximum	minimum	maximum
Individual Flare Site	60	5	800	6,600	0	0
Wahsatch Flare	60	10	1,400	8,000	0	0
Inlet Facility Flare	60	100	2,200	23,000	0	0

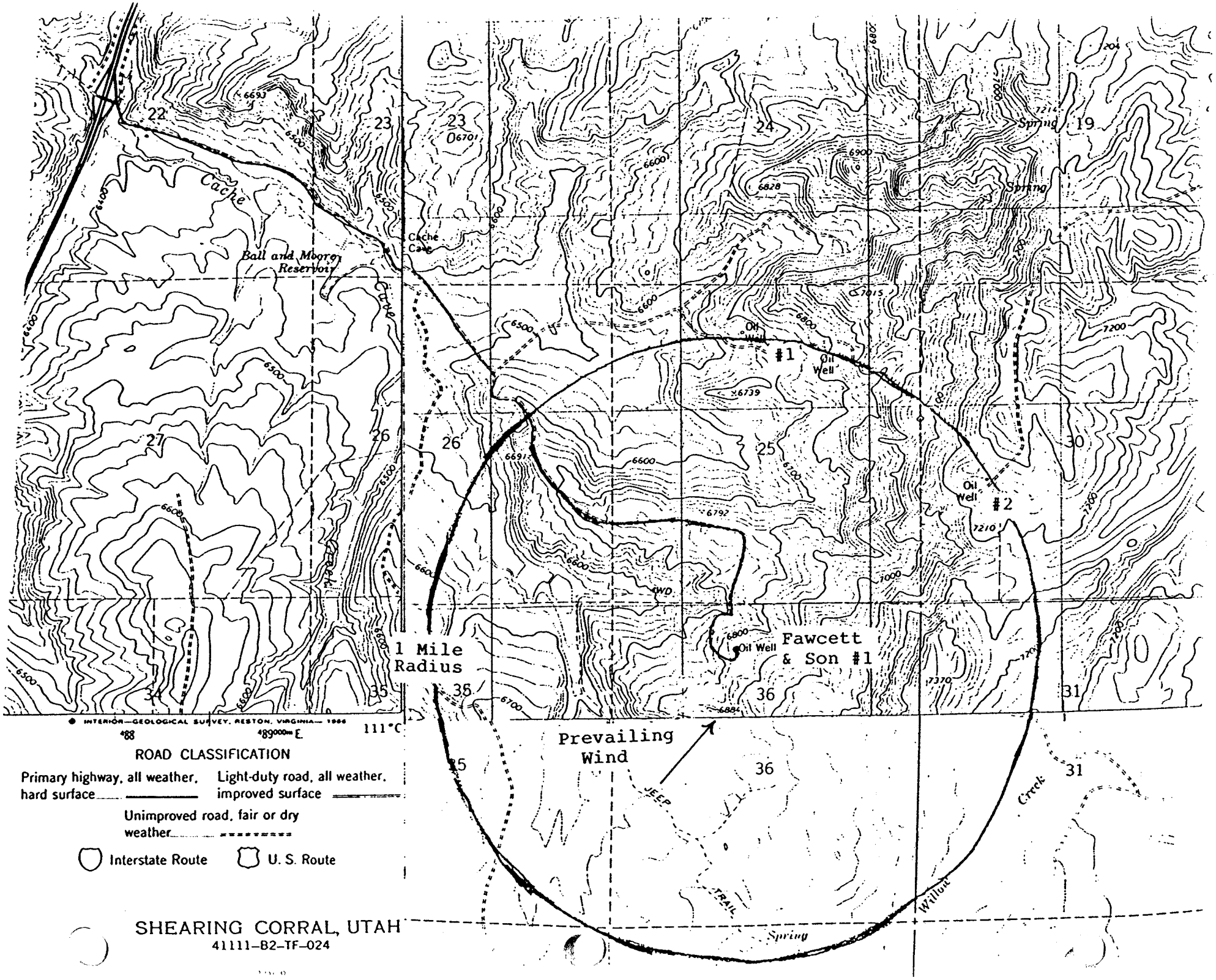
Pipeline Section	Exposure Time (min)	Gas Rate (mmscfd)	0.13 ppm H_2S	
			minimum	maximum
L2	5	8.7*	0	16,000
L3	5	9.0*	0	16,500
L4	5	17.7*	0	21,000
L16	5	8.7*	0	16,000

‡ Calculated during "worst case" atmospheric conditions.
* Flow rate based on maintaining normal flow conditoins during release.

Residences within one mile radius of Fawcett & Son #1

MAP REFERENCE NUMBER	NAME OF RESIDENT	NUMBER OF PERSONS	TELEPHONE NUMBER AREA CODE
1	Champlin 846 B-1 Amoco Production	1-3	Clark Lawler Production Foreman Office....307-783-2406 Home.....307-789-6075
Dehy Operator	Production Operators Inc.	1-3	Dennis Morgan Foreman Office...307-789-5331
Compressor Operator	Questar Pipeline	1-2	Jim Mathson Foreman Office...307-789-6395 24 hour Gas Control...801-534-5626
2	Cave Creek # 12-30 Anschutz Co. well		
Pumper	Questar Pipeline	1-2	Jim Mathson Foreman Office...307-783-2406 24 hour Gas Control..801-534-5626
Dehy Operator	Production Operators Inc.	1-3	Dennis Morgan Foreman Office...307-789-5331
Compressor Operator	Questar Pipeline	1-2	Jim Mathson Foreman Office...307-789-6395 24 hour Gas Control...801-534-5626

There are no residences within 1 mile radius of this well.



SHEARING CORRAL, UTAH
41111–B2–TF–024

EMERGENCY CALL LIST - OPERATIONS

A. Union Pacific Resource Corporation (817) 877-6000
801 Cherry St.
Ft. Worth, TX. 76101

UPRC - Wahsatch Gathering System (307) 789-1573
170 Yellow Creek Rd. Suite B
Evanston, WY. 82930

Operations Superintendent
Pete Straub
Office.....(307) 789-1573
Home.....(307) 789-1576
Mobil .....(307) 799-7848

Production Manager - Rocky Mountain District
Karl Nesselrode
Office.....(817) 877-7104
Home.....(817) 571-1011

Drilling Manager
Mike Walker-
Office.....(817) 877-7683
Home.....(817) 461-8838

Senior Drilling Foreman
Lyle Woelich
Office.....(307) 237-8039
Home.....(307) 234-9432
Mobil.....(307) 267-0685

Drilling Supervisor
Troy Schindler
Office.....(817) 877-7686
Home.....(817) 571-6322

UPRC Safety Department
Joe Gay
Office.....(817) 877-7018
Home.....(817) 236-8418

Kevin McDermott
Office.....(817) 877-7017
Home .....(817) 431-0773

Mark Hawkinson
Office.....(817) 877-7015
Home.....(817) 354-8041

Environmental
Davis Scharff
Office.....(817) 877-7009
Home.....(817) 457-6812

John Rector
Office.....(817) 877-7013
Home.....(817) 473-6009

Public Affairs
Jim Sailor
Office.....(817) 877-7527
Home .....(817) 477-2333

Ed Gladish
Office.....(817) 877-7526
Home.....(817) 370-1225

B. **Workover Contractor**

Cannon Oil & Gas Well Service, Inc.
348 Turret Drive
Rock Springs, WY. 82901

Supervisor
Larry D. Halstead
Office.....(307) 382-9465
Home.....(307) 789-6091
Mobil.....(307) 799-7811

C. **Safety Contractor**
Inter-Mountain Safety Co, Inc.
66 Walker Rd.
Evanston, WY. 82930

Manager
Frank Kaunitz
Office.....(307) 789-3882
Home.....(307) 789-3882

Safety Supervisor
Ted Lye
Office.....(307) 789-3882
Home.....(307) 789-3345

Emergency Call List

Local Officials and Medical Contacts

All Services are from Evanston, WY. unless otherwise noted

SHERIFF....Uinta County, WY. (Evanston, WY.#'s)...(307) 789-2331

AMBULANCE....Evanston, WY..... 911

HOSPITAL.....IHC Evanston.(307) 789-3636

DOCTOR.....On Call At Hospital Emergency Room

HIGHWAY PATROL....(Wyoming).....1-800-442-9090

HELICOPTER....Air Med - Salt Lake City, UT.....1-800-453-0120

FIRE.....Evanston, WY 911

SEARCH AND RESCUE..... (307)789-2331

POISON CONTROL ..Rocky Mt. Poison Center.....1-800-955-9119

Radio Answering Service-Alexander Answering Service 307-789-9565

Additional Notification Numbers

1. BUREAU OF LAND MANAGEMENT (BLM).....(307) 877-3933
   Kemmerer, WY.

   John Pecor
   Petroleum Engineer

2. Wyoming Oil & Gas Commission.....(307) 234-7147
   Casper, Wyoming

3. EPA - Denver

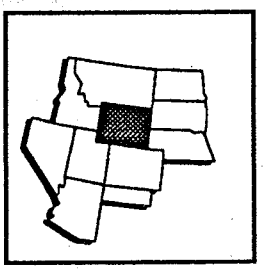
   Oil Spills.....(800) 424-8802

   Toxic Substances Airborne .....(303) 293-1438

4. Uinta County Commissioners
   Pat Mulhall - Chairman
   County Complex.....(307) 789-1780
   Home.....(307) 789-2228

ROCKY MOUNTAIN

REGION REPORT



WYOMING EDITION

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Union Pacific Begins Construction of Overthrust Belt Gathering System

UNION PACIFIC Resources Co has started construction of its 41-mile Wahsatch Gathering System at its permanent operations facilities in Evanston, southwestern Wyoming. The gathering system will run from Cave Creek field in northwestern Summit County, Utah, to Uinta County, Wyoming's Yellow Creek field and on to the Whitney Canyon processing plant northeast of Evanston.

Gas for the new system will come from a number of shut-in, sour gas wells in the two fields, which Union Pacific plans to put back into production. The first well in its six-well rework program, the 1 Urroz in nw nw 2-14n-121w, Uinta County, was tested for four days at a rate of 10,000,000 cu ft of gas and 185 bbls of condensate daily commingled from Phosphoria and Weber (PI 10-16-92).

The 1 Urroz originally was completed in 1981 by Amoco Production Co as the 1 Urroz-WIU, a deeper pay discovery for Yellow Creek field in both Phosphoria and Weber. Amoco gauged a flow of 25 million cu ft of sour (12.9 percent hydrogen sulfide)

(Please see WahsatchSystem, Page 4)

Roosevelt Planning New Exploration in Southwestern South Dakota

DENVER-BASED PETER K. Roosevelt has staked a 2180-ft Minnelusa wildcat in a non-producing township of southwestern South Dakota's Black Hills Uplift four miles northeast of Edgemont.

The 6-17 American Growers Inc, se nw 17-8s-3e, Fall River County, will be drilled six miles east of Cheyenne Bend field, a one-well Leo (Minnelusa) oil field. The drillsite is seven miles northeast of Edgemont field and nearly 10 miles southeast of Barker Dome field, both Leo pools.

The new location offsets to the northwest a 2300-ft dry hole completed by Roosevelt in 1980 at the 1 American Growers in nw se 17-8s-3e. Roosevelt recovered small amounts of mud with no reported shows on two drillstem tests taken in Leo at 1974-2007 ft and 2115-2191 ft. The top of Leo was logged at 1974 ft, measured from a kelly bushing elevation of 3635 ft.

NEWSLETTER
DAILY ACTIVITY REPORT
WYOMING

SECTION I
SECTION II
SECTION III

Petroleum Information Corporation

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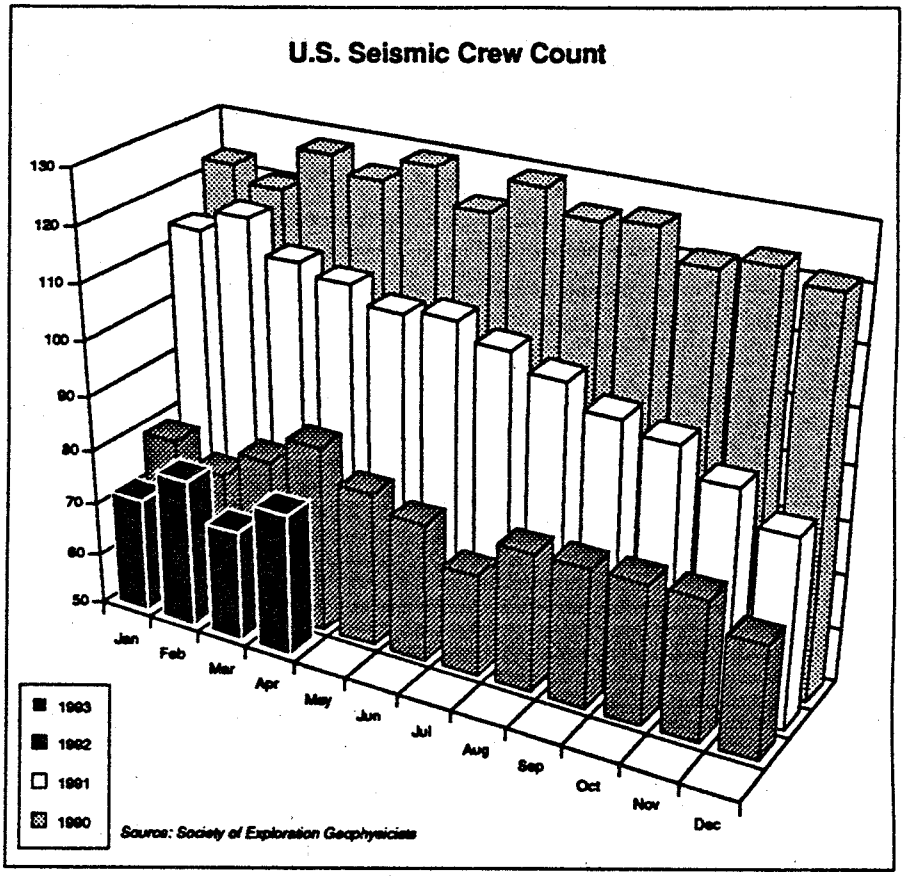
U.S. Seismic Count Rises to 77

THE NUMBER of seismic land crews and marine vessels at work in the U.S. and its waters in April rose by six to 77, according to the Society of Exploration Geophysicists. That figure represents an eight percent increase over the March tally and a nine percent decrease when compared to the year-ago total of 85 crews.

April's crew count reflects an increase of eight working land crews (63) and a decrease of two in the number of active marine crews (14). During the first four months of the year, the count averaged 74.5, down seven percent from the same period last year when SEG reported an average of nearly 80 crews working.

During April, only one of 73 contractor-operated crews (a marine vessel) was active on a speculative survey. Two oil companies accounted for the other four active crews, three land-based and one marine vessel.



(Wahsatch System, continued from Page 1)

gas and 630 bbls of 52° condensate per day from perforations in Phosphoria at 12,200-12,230 ft.

From the deeper Weber at 12,690-12,770 ft, Amoco gauged a flow of 17,750,000 cu ft of gas and 400 bbls of 51° condensate per day. Gas from the Weber zone was 14.2 percent hydrogen sulfide. The well was shut in after initial testing while awaiting connection to sour gas processing facilities.

When the Wahsatch Gathering System begins operation later this year, it will transport about 55 million cu ft of gas and 800 bbls of condensate per day. The system is expected to create jobs, royalty payments and tax revenues in excess of $53 million during the next 20 years. About nine people will be employed full time for operation and maintenance, with annual salaries and benefits estimated at $9.4 million for the life of the project.

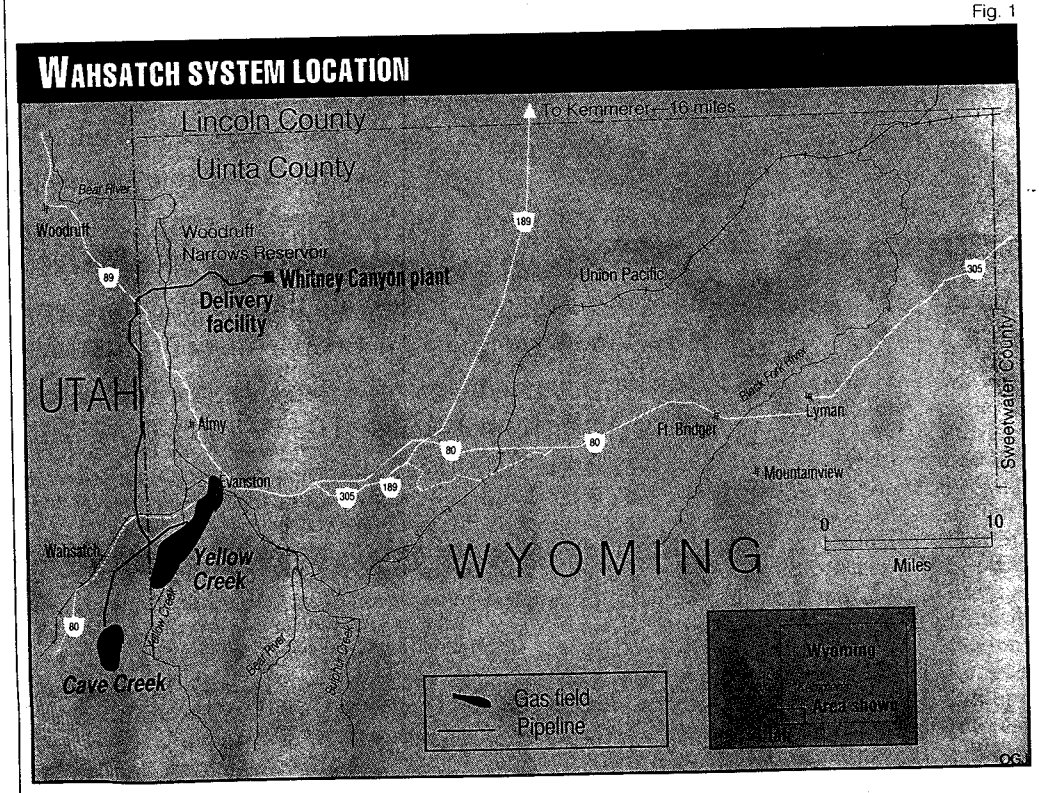
"Construction materials already ordered include 72 miles of pipe, 14 miles of well tubulars and millions of dollars worth of valves and custom-ized vessels," said Jack L. Messman, president and chief executive officer of UPRC, who added, "The company will employ about 125 new local workers for the six-month construction period, with wages totaling about $3.1 million.

"This is a $44 million investment, including procurement, engineering, permitting, well recompletions, pipeline and facilities construction," Messman said. "We're spending more than $1 million just to design the system and $4.3 million for the sour gas valves alone."

Union Pacific starts up sour-gas Wahsatch system

Warren R. True *Pipeline/Gas Processing Editor*

Fig. 1



Earlier this month, Union Pacific Resources Co., Ft. Worth, began operating its sour-gas Wahsatch gathering system in southwestern Wyoming and northeastern Utah (Fig. 1).

The project currently ties in 36.7 miles of 4, 6, and 10-in. pipeline among six wells delivering design capacity of 65 MMcfd at 1,600 psig. Two more wells adding 3.1 miles of 6 in. line will come on stream later in the project's life to maintain the design capacity (Table 1).

In addition to the pipelines, the project consists of a separation and delivery facility at the inlet of Amoco Production Co.'s Whitney Canyon gas plant and an existing flare site on the Fawcett & Sons lateral (Fig. 2).

The project was budgeted for $44 million but has exceeded that, by how much

Fig. 2

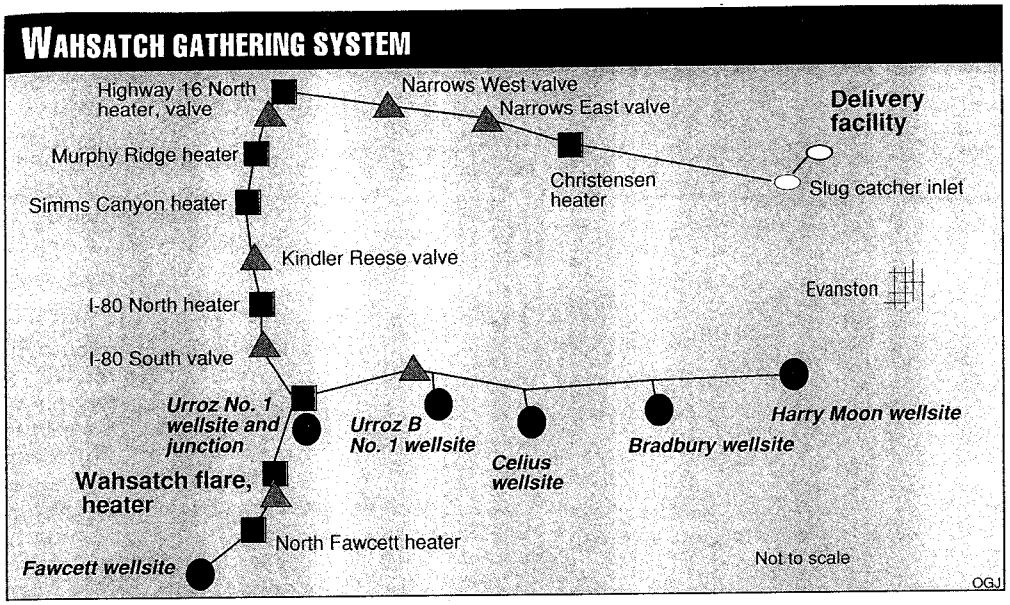


Table 1

WAHSATCH PIPELINES

Pipeline leg	Sour-gas pipeline	New fuel-gas line	Existing fuel-gas line
10.750 in. main line	24.8 miles, 10.750 in.	24.8 miles, 4 in.	0 miles
Harry Moon lateral	3.2 miles, 6.625 in.	0.5 miles, 3 in.	3.2 miles, 6 in.
Fawcett & Sons lateral	8.2 miles, 6.625 in.	4.7 miles, 3 in.	3.5 miles, 6 in.
Total 1993 construction	**36.7 miles**	**30.0 miles**	—
Kindler Reese lateral (future tie)	3.1 miles, 6.625 in.	3.1 miles, 3 in.	—
Total Wahsatch project	**39.8 miles**	**33.1 miles**	**6.7 miles**

Union Pacific declines to say. Additionally, its targeted start up date was November 1993.

But it is not a simple project.

Design and construction have employed numerous corrosion-protection techniques to guard against accidental release of the wet gas that carries as much as 15% H_2S.

Opening plugged wells

The purpose of the project is to produce reserves from the Phosphoria and Weber formations of the Yellow Creek Deep and Cave Creek fields of Wyoming and Utah, to transport the sour gas and liquids to the Whitney Canyon plant for separation of liquids and gas, and to deliver the raw gas and condensates to the Whitney Canyon plant for H_2S removal and processed gas to interstate pipelines and gas markets.

Marketable products include pipeline gas, NGLs, condensates, and sulfur. Produced water from the Yellow Creek Deep and Cave Creek fields is being disposed of by Amoco into an already approved, existing salt-water disposal well adjacent the Whitney Canyon plant inlet.

Union Pacific says the eight wells included in the Wahsatch gathering system permit were drilled, production tested, and shut in a decade ago.

No commercial production occurred because there was no nearby processing facility and gas reserves were insufficient to justify construction of a separate processing plant.

At that time, Amoco considered a gathering system that would have been nearly identical to what Union Pacific has constructed, but only recently has declining production in other fields opened up long-term processing capacity in Whitney Canyon.

Gathering system

The Wahsatch gathering system consists of 24.8 miles of seamless 10.75-in. OD × 0.438-in. W.T. X-52 line pipe. Additionally, the line consists of 11.4 miles of seamless 6.625-in. OD × 0.280-in. W.T. and a 0.5-mile extension of seamless 6.625-in. × 0.280-in. W.T.

Later in the project, a 3.1-mile extension of seamless 6.625-in. OD × 0.280-in. W.T. is planned for future production along the 6.625-in. Kindler-Reese lateral and Champlin No. 375C-1 well.

The gathering system currently collects sour gas from six wells which Union Pacific purchased in 1991 for an undisclosed amount from Amoco Production: the Harry Moon No. 1, Bradbury No. 1, Urroz No. B-1, Urroz No. 1, Celsius No. 4-36, and the Fawcett & Sons No. 1 (Fig. 2).

An accompanying box shows the gas composition flowing on the gathering system as well as that for the fuel-gas line running with it.

At peak capacity, as stated, the pipeline delivers 65 MMcfd at 1,600 psig; maximum allowable operating pressure (MAOP) is 1,760 psig. Although early delivery-facility pressures have ranged from 850 to 1,760 psig, pressures later in the anticipated 20 year life of the system will decline to 300 psig.

The sour-gas lines are laid in 8-ft ditches to depths of at least 6 ft at the top of the pipe, well deeper than usual even for sour-gas lines (Fig. 3).

At a depth of at least 4 ft and directly over the sour-gas line, Union Pacific has laid a 3 and 4 in. fuel-gas line for most of the project's length. This line supplies heater fuel gas and control gas to system components. The sweet gas for this line is delivered in the line by Amoco at the Whitney Canyon plant inlet.

Parallel with the fuel-gas line was laid the fiber optic cable that carries signals to the system's valves and emergency shutdown (ESD) system components.

Union Pacific believes this configuration provides a margin of safety against third-party damage to the main line.

Also built with the pipeline were 17 heaters, 6 located at wellsites, 8 in the main line, and 3 at the delivery facility. These heaters are part of the flow-control strategy to inhibit hydrate formation.

Fifty-eight ESD valves have also been installed, 30 at wellsites, 12 at line heaters, 7 at main line valves, 5 at the Wahsatch flare site, 3 at the Urroz junction, and 1 at the Wahsatch delivery site.

The fuel-gas line includes 33.1 miles of newly installed pipeline: 24.8 miles of 4 in. and 8.3 miles of 3 in. line.

Another portion of the fuel-gas line, about 6.7 miles of 6 in., was already in place between the Wahsatch flare site and the Harry Moon well as part of the Wahsatch flare test system.

Along this portion of the route, the sour gas line has been laid in a completely separate ditch.

The fuel-gas line, as stated, supplies fuel to equipment located along the sour gas line at both heater and ESD valve sites and also at the well sites. It Operates at 250 psig at a rate of 2 MMcfd and is equipped with manual and automatic block valves.

The 4-in. line carries sweet fuel gas from the inlet to the Whitney Canyon plant south 24.8 miles to the Urroz junction. There, it ties into an existing 6-in. line.

During July 1992, this 6-in. line was hydrotested for 24 hr at 3,300 psig to ensure its integrity. This 6-in. line travels 6.7 miles to the Harry Moon wellsite and southwest to the Wahsatch flare site.

At the Wahsatch flare site, this existing line ties into a new 3-in. line which travels nearly 5 miles south to the Fawcett & Sons wellsite.

The newly installed portion of the sweet-gas line is laid in the same ditch, as stated, and approximately 2 ft above the sour gas line so that if unauthorized trenching or digging occurs, the sweet-gas line would be encountered before the sour-gas line would be exposed or damaged.

A safety warning ribbon has been laid in the trench 2 ft above the sweet-gas line for the same purpose.

At special crossings, the two lines usually lie side by side in the trench or casing to provide separate independent support for each of the lines.

A separate ditch has been made for the sour-gas line where it runs parallel to the 6-in. existing line.

Flare, delivery sites

The Wahsatch flare is on the Fawcett & Sons lateral 3.5 miles southwest of the Urroz No. 1 wellsite in Summit County, Utah.

The flare site already existed and was used during original well-production testing 10 years ago. During well recompletion, a temporary 90-ft flare stack was used for initial production testing of the Harry Moon, Bradbury, Urroz B, and Urroz No. 1 wells. The flare site was used in September 1992 for production testing of the Urroz No. 1 well.

During system operation, the flare site will be used in an emergency shut down to allow depressurization of the gathering line.

Currently at this site are a new flare stack, 95 ft high, a 30,000-gal knockout drum, and an in-line heater. The heater is designed for a duty of 1.0 MMBTU/hr and a design temperature of 170° F.

The 132 in. ID, 44-ft flare knock-out drum is used for knocking out liquids from the sour gas as it is blown down through the flare in an emergency.

Liquids accumulated during flare-line pigging will be collected in the flare knock-out drums and hauled from the flare site and redelivered to the Whitney Canyon plant inlet area.

This site also includes three ESD valves for the sour-gas system plus two ESDs on the heater and one for the fuel-gas system.

The Wahsatch delivery facility sits adjacent Amoco's Whitney Canyon gas-plant inlet and about 16 miles northeast of Evanston, Wyo. This location includes a flare, 2,600-bbl slug catcher, tankage, separators, pumps, heaters, and a small control room.

Three buildings at the delivery facility include a pump building; a building housing the sour-water stripping vessel, the inlet-gas separator, and the inlet-liquid separator; and a control building housing telemetry equipment, warehouse space, and a remote field office.

A main line pig receiver precedes a 42-in. OD, 1,700-ft slug catcher capable of holding 2,600 bbl. Its purpose is to intercept the large amounts of liquids that arrive during the regular pipeline pigging operations.

Once pigging is complete, the fluid from the slug catcher is pumped through the condensate heater and then on to the liquids separator. The condensate heater requires a duty of 3.0 MMBTU/hr.

The liquids from the slug catcher are processed in the 72-in. OD × 30-ft liquids separator that removes remaining sour gas from sour water in the liquids.

At this point the condensate moves to the nearby plant for further processing, and the sour water is treated in a sour-water stripper (16 in. OD × 21 ft high). The water is then either stored in one of the two available 1,000-bbl storage tanks or pumped directly to Amoco for disposal, as previously mentioned.

Gas coming off the slug catcher is treated in the inlet-gas separator (60 in. OD × 20 ft tall). From this point, the gas is heated and sent to Amoco for further processing. The gas heater requires a duty of 1.5 MMBTU/hr.

The building housing these components is equipped with H_2S sensors, hydrocarbon-gas detection equipment, and warning lights.

In an emergency, the gas flows through the flare knock-out drum (12 in. OD × 35 ft long) to remove any liquids before flaring.

The 30 in. × 130 ft tall flare has a blow down rate of 175 MMcfd.

Corrosion protection, safety

The entire Wahsatch gathering system is a Class 1 location as defined in ANSI B31.8 and U.S. Department of Transportation (DOT) 49 Code of Federal Regulations (CFR) Part 192.

DOT requires an area of 220 yd on either side of the centerline of the pipeline be surveyed for buildings for human occupancy. Class 1 locations are intended to reflect such areas as waste lands, deserts, rugged mountains, grazing land, farmland, and sparsely populated areas that have 10 or fewer buildings for human occupancy along any 1-mile section.

Because of the toxicity of the sour gas, Union Pacific has designed the system to exceed Class 1 requirements for valve spacing, burial depth, design pressure, corrosion allowance, and pipeline monitoring.

The design safety factor of the pipeline has been im-

WAHSATCH SYSTEM GASES

SOUR-GAS LINE

Gas composition		Gas composition, mole %	Condensate composition, mole %
H_2S	hydrogen sulfide	15.0	19.0
CO_2	carbon dioxide	1.3	0.9
N_2	nitrogen	1.6	0.1
CH_4	methane	71.6	21.1
C_2	H_6 ethane	5.7	5.6
C_3	H_8 propane	1.7	3.9
C_4	H_{10} butane	0.3	3.8
C_5	H_{12} pentane	0.3	3.2
C_6	H_{14} heptane plus	0.4	42.4

System pressures

Operating pressure, psig	1,600
Design max. allowable operating pressure psig,	1,760
Hydrates will format	

Pressure, psig	Temperature, °F.
2,300	85
1,600	82
1,000	80
500	70

FUEL-GAS PIPELINE

Gas composition		Composition, mole %
CH_4	methane	96.66
C_2H_6	ethane	2.38
C_3H_8	propane	0.04
N_2	nitrogen	0.92

System pressures

Operating pressure, psig	250
Design max. allowable operating pressure, psig	720

Fig. 3

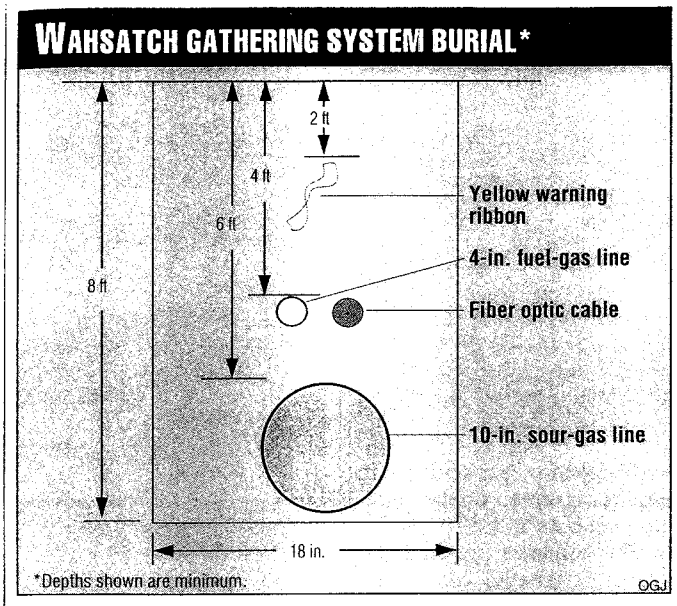
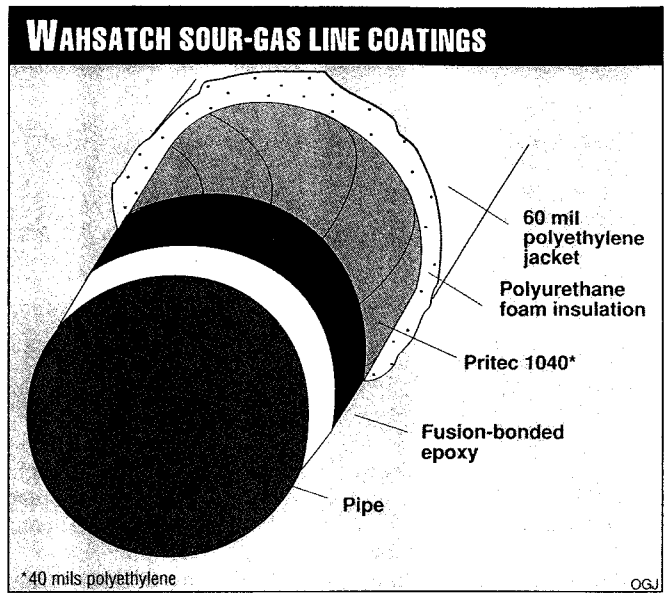


Fig. 4



proved beyond current standards for wall thickness, external coatings, and overall system operation.

Additionally, pipeline depth and valve locations are also affected by the class location. A Class 1 location requires pipeline valves to be located within 10 miles of each other.

Union Pacific has designed 25 automatic ESD valve locations into the gathering system. The maximum valve distance is 5.3 miles, with a minimum valve distance of 300 ft.

Pipes, protection

The burial depth required by DOT in Class 1 service is 30 in. to the top of the pipe. Minimum depth of burial for the fuel-gas line for the Wahsatch system is 30 in. to the top of the pipe, as stated earlier.

As an additional safety precaution, Union Pacific required a minimum burial depth of 72 in. to the top of the sour-gas pipe. This is to ensure the integrity of the system and avoid unintentional pipeline damage.

Table 2 compares DOT and Union Pacific standards for design pipewall thickness.

The seamless 4, 6, and 10-in. X-52 pipe used met the requirements of the latest edition of API 5L, "Specification for Line Pipe." It has a maximum carbon equivalency of 0.40. Table 3 shows the required chemical composition of the pipe steel.

Steel pipe was manufactured by Mannesmann S.A. in Belo Horizonte, Brazil, specifically for the Wahsatch pipeline.

A set of Charpy impact tests was performed at −20° F. on one length of pipe from every 100 and with a minimum average impact energy of 30 ft-lb with no single value less than 25 ft-lb.

Pipe wall thickness tolerances are +15%, −12.5%. And Rockwell B hardness is between 74.0 minimum to 85.0 maximum and does not exceed a 22 HRC ASTM STD E 18.

Maximum hoop stress, calculated according to DOT CFR 49 Part 192, is 3,050 psig for the entire sour-gas system.

Union Pacific's system design includes proven control technology and practices for an H_2S environment.

Internally the pipeline would be protected by use of corrosion-inhibition fluids, increased pipe wall thickness, specially manufactured, H_2S-resistant, low carbon X-52, seamless steel pipe and fittings, and periodic pigging of the pipeline to prevent fluid buildup.

Regular injection of corrosion-inhibition fluids will reduce internal corrosion. How much corrosion-inhibitor is injected and how often are determined once the pipeline is fully operational and based upon observations and measurements of the system.

Union Pacific included a 0.0625-in. internal corrosion allowance in the pipeline design. An additional wall thickness of 0.0625 in. was included for external corrosion at all cased crossings.

Corrosion monitoring; heaters

Corrosion monitoring spools have been installed upstream of the wellsite heaters and line heaters on the pipeline and immediately upstream of the Whitney Canyon delivery facility.

The spools are located on the bypass into the heaters so that the main pipeline can be periodically pigged.

Coupons are located in the spool upstream of the chemical injection points.

In addition to the coupons, access fittings have been installed in the spool to allow for other types of internal monitoring devices such as electric resistance probes, hydrogen probes, and flush probes.

A conventional coupon retainer assembly has been used that allows coupons to be inserted and retrieved under pressure so that the line does not have to be shut-in and loss of sour gas is held to a minimum.

Because hydrate formation can plug the line and stop flow, heaters are necessary to keep the pipeline at a temperature above hydrate formation. Operating temperatures range from 70 to 170° F. with normal temperatures at 140° F. or cooler. Gas temperature is maintained at greater than 90° F.

Seventeen heaters along the gathering system are fueled by gas from the tailgate of the Whitney Canyon plant. Total heater load for the system is approximately 42 MMBTU/hr.

The heaters are located at all wellhead sites, accounting for six heaters. The designed duty requirements for these heaters is 3.5 MMBTU/hr, with the maximum designed heating temperature for all heaters at 170° F.

The pipeline coatings can withstand temperatures to 180° F.

There are also 8 in.-line heaters along the pipeline whose duty ranges from 1.0 to 1.5 MMBTU/hr.

Three heaters are located at the Wahsatch delivery facility: one to heat the sour-gas condensate requiring 3.0 MMBTU/hr, one to heat the sour gas requiring 1.5 MMBTU/hr, and one to provide space heating within

Table 2

How Wahsatch system exceeds DOT requirements

Pipe location, size, grade	DOT requirements: Class 1 location MAOP=1,760 psig* wall thickness, in.	UPRC standards: UPRC design wall thickness, in.	UPRC MAOP at design wall thickness, psig	UPRC total corrosion allowance, in. @ 1,760 psig
4.500 in. OD for well site tie-ins, Grade X-52, seamless pipe	0.106	0.219	3,694	0.113
6.625 in. OD for Harry Moon and Fawcett & Sons Spur, Grade X-52 seamless pipe	0.156	0.280	3,164	0.124
10.750 in. OD for 10.750 in. main-line, Grade X-52, seamless pipe	0.253	0.438	3,050	0.185

*MAOP = Maximum allowable operating pressure

Table 3

Required chemical composition of WGS pipe steel

Elements	Maximum concentration, wt %
Carbon (C)	0.16
Manganese (Mn)	1.30
Silicon (Si)	0.35
Sulfur (S)	0.010
Phosphorus (P)	0.025
Vanadium (V)	0.05
Titanium (Ti)	0.03
Niobium (Nb)	0.05
Aluminum (Al)	0.05
Nitrogen (N)	0.01
Copper (Cu)	0.30
Chromium (Cr)	0.25
Molybdenum (Mo)	0.50
Nickel (Ni)	0.20
Boron (B)	0.0025

the process and metering building requiring 1 MMBTU/hr.

Heater units plus a small building to protect equipment are skid-mounted.

Crossings; concrete coatings

Casing has been installed at three points along the gathering system.

One of the cased crossings is the Union Pacific railroad. The others are highway crossings at Interstate 80 and Utah State Highway 16.

The cased highway crossings have been installed to comply with Utah Department of Transportation requirements.

The carrier pipe will be concrete coated and placed inside the 30-in. casing. Concrete coating of the carrier pipe will cathodically insulate the two lines and prevent the development of an electrical short.

A cathodic protection test station has been installed at both ends of the cased crossing.

The 10.750 in. sour-gas pipe has been concrete coated for a length of 80 ft for installation at the Chapman Canal crossing and 4,880 ft at the Woodruff Narrows crossing.

A minimum concrete coating thickness of 4 in. has been applied to the exterior of the insulated 10-in. line. This coating is necessary to prevent the pipeline from floating in submerged areas.

A concrete coating was chosen instead of weights to reduce crushing the insulation underneath. The weight is evenly distributed instead of being localized at one point.

The 4 and 6-in. sour gas pipelines have also been concrete coated through all water crossings. The 4-in. line required 1-in. concrete coating; the 6-in. line, 2 in.

Pigging; external coatings

At the Fawcett & Sons well site and at the Harry Moon well site are located 6-in. pig launchers; at the Urroz Junction location, 6-in. pig receivers and a 10-in. pig launcher. A 10-in. pig receiver is located at the Wahsatch delivery facility.

In November and December 1993, Pipetronix Inc., Houston, ran an ultrasonic inspection pig through the 6 in. and 10-in. main lines to verify pipeline geometry and provide a base line for future runs for comparison of corrosion rates.

Inspection pigging was unnecessary for the fuel-gas line because the gas is sweet and dry.

After this initial survey, the inspection pig will be run once a year the first few years of operation to assess the corrosion-control program for the line. Future frequencies of smart-pig runs depend upon the amount of corrosion observed.

All records from the inspection-pigging process are being retained for the life of the pipeline.

By routinely pigging the sour-gas line, Union Pacific can also greatly reduce liquid build-up, particularly in low lying areas of the pipeline.

The sour-gas pipeline has been externally coated by two systems (Fig. 4):

- A fusion-bonded epoxy coating has been covered by Pritec 1040, a polyethylene wrap over a proprietary butyl mastic. The polyethylene was applied to a thickness of 40 mils, the butyl mastic 10 mils, both supplied by Energy Coatings Inc., Houston, and applied in Fontana, Calif., and Harvey, La.

Over these, a polyurethane-foam insulation has been applied. The insulation is necessary to maintain the gas stream's temperature to prevent hydrates forming.

- A final layer of high-density polyurethane has been applied over the insulation to protect it. On the 10-in. sour-gas main line, 2 in. of high-density polyurethane will be applied.

When necessary, as stated earlier, concrete coating has been applied over the insulation for installation at cased crossings or at water crossings.

In October 1993, the sour gas and fuel-gas pipelines were hydrostatically tested to ensure their integrity before start-up. The minimum test pressure for the sour-gas line was 180% of the MAOP of 1,760 psig.

Valves, fittings

All the system's ball valves were manufactured for sour gas service to meet requirements in API Specifications 6D and 6A, as well as NACE MR-01-75.

All components of the valves resist sulfide stress cracking and are designed to operate between −50° F. and 180° F.

The valve bodies were forged and manufactured from AISI 4130, 8630, or 2½ Cr-1 Mo steel. The valve balls were supplied by American Energy Services Co., Houston, and made from solid Incoloy 825 or carbon-steel weld overlaid with a nickel, chromium alloy.

Union Pacific required the valve supplier to meet the following specifications:

- Impact tests were performed at or less than −50° F. and exhibited a minimum average value of 15 ft-lb in the transverse direction or 20 ft-lb in the longitudinal direction.

No test was acceptable if a single value is less than 12 ft-lb in the transverse direction or 15 ft-lb in the longitudinal direction.

- The tensile properties were tested with a minimum of one specimen for each heat-treatment lot. All metallic components of the valves were also function tested to ensure they could be opened and closed against differential hydrostatic pressure.
- All valve parts and components were capable of complete traceability. If any part of the valve was not traceable, that component

was rejected.

There are 58 ESD valves at 25 locations along the sour-gas system; these include the line heaters, wellheads, the Urroz No. 1 Junction, main line valve locations, the Wahsatch flare site, and the Wahsatch delivery facility.

Five ESD valves are located at each of the six well sites. Each of the line heaters has two ESD valves placed to allow maintenance on the heater.

The purpose behind the valve design is to limit how much sour gas could be released into the atmosphere in an emergency. An ESD valve will close if abnormal pressures appear in the gas line, if for example pressures exceeded preset high or low pressure conditions at any individual valve location.

Sour gas line ESD valves are designed to "fail" in the closed position.

The basic design is also used on the sweet-gas line, but these valves activate in lost pressure. The sweet-gas valve is designed to "fail" close.

Valve spacing; fiber optics

According to DOT 49 CFR Part 192, as stated earlier, valve spacing within a Class 1 location shall not exceed 10 miles from any point along the pipeline. The spacing between any two valves along the Wahsatch system varies from a maximum of 5.3 miles to a minimum of 300 ft.

Union Pacific says its control instrumentation will constantly monitor the pipeline with air monitors located at all aboveground installations to detect H_2S gas.

Alarms are activated if H_2S concentrations reach 10 ppm. At 40 ppm H_2S, the ESD valves automatically activate to their designed "fail safe" closed positions.

Automation of the system is controlled by its supervisory control and data acquisition (scada) system which monitors operating parameters and output from air monitors.

The scada system is in communication with each site through a remote telemetry unit (RTU) and a programmable logic controller (PLC). The PLCs monitor local site conditions and report to the master station which is in communication with the scada system.

All fittings manufactured for sour-gas service meet the requirements of MSS SP-75 "Specification for High Test Wrought Butt Welding Fittings" and NACE MR 01-75. Their chemical composition and carbon equivalency are similar to those used in the main line pipe.

Union Pacific required that the primary fitting suppliers—distributor National Oilwell for manufacturer Texas Forge & Fitting, both of Houston—meet the following specifications:

- The hardness of the fittings was to be measured with requirements of Rockwell hardness B 72.0 minimum and HRB 85.0 maximum.
- Charpy impact tests were to have been performed at −50° F. with a minimum average impact energy of 25 ft-lb. No single value from the tests was to be less than 20 ft-lb with a minimum shear area of 85%.
- 100% visual and non-destructive examinations were to have been performed on the fittings.

The fiber optic line installed in the pipeline trench links all sensors, ESD valves, and system control components with the Wahsatch control room in Evanston.

The fiber optic line, laid at the side of the trench at the same depth as the fuel gas line, has been installed within a protective conduit consisting of a layer of polyethylene, a steel jacket, and an outer layer of polyethylene.

Monitoring; emergency shut down

A scada system monitors the operating parameters of the pipeline and associated facilities and regulates critical equipment. This includes the ESD valves and the H_2S sensors.

The scada system consists of a master terminal station and redundant backup station in Union Pacific's office in Evanston where they are monitored 24 hr/day.

The system uses PLCs to determine field conditions. These monitor conditions at designated locations and report these conditions to the master terminal through a continuous scanning process.

PLCs are stationed at all wellsites, heaters, ESD valves, and flare sites.

In an upset of pipeline conditions at a specific location, the PLC can close valves and sound alarms without relying on feedback from the master station before performing preprogrammed functions.

In the event of lost communication between the PLC and the master station, the available redundant communication paths would be used. If power were temporarily lost or all communications or the computer system failed, the ESD valves would shut down part or all the pipeline.

To detect leaks along the pipeline, the scada system monitors pressures, field equipment, and process control. If a probable leak were detected, alarms would sound and valves surrounding the leak would close.

Any immediate upstream wells affected by the valve closures would be shut-in.

A major component and safety feature of the automatic shut down system is the number of ESD valves included in the system. The 58 valves allow Union Pacific the flexibility to isolate a small portion of the line or to shut-in the entire system, depending upon the severity of the problem.

The valves will begin the shut-in process under a variety of conditions:

- *High, low pipeline pressure.* A shut down process may be initiated by abnormal pressures experienced in the pipeline or at a wellsite. Unusual conditions would be determined by preset high or low pressures at the valve.

If unusual operating conditions were present, the automatic shut down process would begin.

Having all of the emergency valves designed to fail close further increases the safety factor. In an emergency shut down, the flares at the Wahsatch delivery facility and at the Wahsatch flare site provide a means to depressurize the pipeline.

If pressures deviate ±10% from the normal operating pressure range, the line will shut down.

- *Fusible Links.* Another safety feature incorporated in the pipeline design is the use of fusible links at the wellsites.

In fire or exposure to extreme heat, these links will melt and create a pressure loss in the control line that will cause the downhole valve to shut in the well.

This same configuration has been installed at heater locations as well.

- *H_2S sensors.* Valve closure will be activated if H_2S gas is detected at 40 ppm along the pipeline, at any well or heater, the flare, or the delivery site. The gas would be detected by the H_2S sensors.

Every wellsite has a total of seven sensors in place, one at each corner, one at the wellhead, one at the heater vent, and one in the heater building.

Every heater location has sensors in all corners, one at the heater vent, and one in the building. All casing vents have one sensor. Several sensors are located at the Wahsatch delivery facility, and a sensor is located at each main line ESD valve.

If H_2S gas is detected at concentrations of 10 ppm, the sensors trigger alarms at the wellsite and in the control room. At H_2S concentrations of 40 ppm, the valves begin the automatic shut-in process which cannot be overridden from any other location.

- *Lower explosive limit sensors.* Lower explosive limit sensors are tied into the scada system at heater buildings and delivery process buildings. Their purpose is to detect combustible gas, and they are used by scada to provide for emergency shut down. ▪

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WAHSATCH GATHERING SYSTEM PERMITTING

(7/9/92 - reflects Permitting Team reviews of 7/8/92)

Permit/Approval	Agency	Status or Requirements	Timing	UPRC - Lead &/or permit filing	3rd Party - analysis or agency interaction	Notes
Right-of-Way Transfer ROW Amendments ---------- Construction & Operations Plan ---------- Contingency Plan/Urroz ---------- Public Pro/Emergency Response Plan	Bureau of Land Management	Project Update & Public Comment period done. Transfer SF 299 filed 7/2/92; Modification SF299 to be filed 7/20/92. Wants Content Analysis. ---------- Construction & Operation Plan needs final engineering, reveg., mitigation, etc. ---------- Contingency Plan for Urroz/flare site ---------- System-wide ERP/PubProt Plan	BLM agenda/schedules uncertain on transfer & modification approvals ---------- complete by 12/92 ---------- July '92 ---------- Jan '93, annual updates	Ed Gladish/Karl Nesselrode/Neuner ---------- Neuner/Straub/ Arkenberg/Engineering Group ---------- Joe Gay ---------- Joe Gay	Bear West ---------- Trigon, Craig, West, Dern (soils & Reveg.), others? ---------- Hildebrand/Noll & Intermountain Safety	EPA review of Quest due 7/23; Meeting with BLM to resolve schedules & needed action 7/23/92 ---------- ---------- ---------- accelerate
Endangered Species Review (Section 7)	Fish & Wildlife Service	Section 7 review be completed prior to construction	180 days prior to construction	Joy Rector	Dale Strickland, West	West meeting UTDWR, WYG&F, Deseret & F&W
404 Wetlands Permit	COE/EPA Utah Office & WY Office WY DEQWQD UT DEQDWQ	Notification under nationwide permit to COE - UT & WY Oversite Review for WY DEQ Oversite Review for UT DEQ	30-60 days 30-60 days 30-60 days	Joy Rector	Bear West, Strickland (Blinkhorn doing COE & wetland inventory)	For COE, separate certification from UT & WY offices
NPDES Permit	WY DEQ/WQD ---------- UT/WY DEQ	Discharge of Hydrotest Water - 1993 ---------- Flare line test - 1992	30-90 days	John Rector	---------- Hank Seale, Trigon	Hydrotest will be used

Permit/Approval	Agency	Status or Requirements	Timing	UPRC - Lead &/or permit filing	3rd Party - analysis or agency interaction	Notes
Temporary Water Use	WY State Engineer	Water for hydrotest - 1993 ---------- Flare line test - 1992		John Rector	Trigon ---------- Hank Seale, Trigon	Hydrotest will be used; coor. with pipeline group
Stream Alteration Permit	UT NatRes/DWater Rights	Permit crossing UT streams		Joy Rector	Bear West, West, Blinkhorn	Chad Gourley, 538-7375, COE permitting may cover
Historical Preservation/ Archaeological	Advisory Council for Historic Preservation BLM UT State History & State Lands & Forestry Wyoming SHIPO	Section 106 Review Permit to conduct archeological exploration on federal lands Permit to conduct archaeological investigations & State Reviews Cultural Resources Review	Permits to conduct investigations secured, cultural surveys are underway for entire route	Joy Rector	Bear West Senco-Phenix	Estimate completion of field work in July, completion of reports in August. Cave Creek Cave. Potential site north of Fawcett. May be issues at terraces east & west of Bear River crossing
Re-entry Well Permit	WY Oil & Gas Commission	APD for wells shut in for 90 days; Form 1, 14B for surface pit, Survey Plat, Bond & $25 fee	30 days 2 days to process	Joy Rector		
Re-entry Well Permit	UT Div Oil, Gas & Mining	APD for re-entry	30 days	Joy Rector		
File Notice of Change of Operator	UT Div Oil, Gas & Mining	File Change of Operator with Division	filing	Joy Rector		Plats should be on file from original APD
Oil & Gas Well Permit	Evanston, City Council/ Planning & Zoning	Oil & Gas Well Permit	Re-enter wells 8 & 9/93; complete permit by 3/93	Nesselrode, Neuner & Gladish; Permit filing/Joy Rector, Neuner, Harris	Local - Mark Harris	Within 0.5 mile of Corp. limits: Moon, Bradbury; each needs permit, Chap. 16, City Code
Wahsatch Flare System	WY Oil & Gas Com. UT Div Oil, Gas & Mining	Was previously permitted		Joy Rector will check on need		

Permit/Approval	Agency	Status or Requirements	Timing	UPRC - Lead &/or permit filing	3rd Party - analysis or agency interaction	Notes
Right-of-Way	UPRailroad	Permit to cross railroad	60-90 days	Fife/Krogue/Joy		
	UT Dept. of Transportation	ROW encroachment permit	60-90 days	Nesselrode/Krogue/ Fife	Bear West	UDOT coordin. USFHA
	WY State Lands Dept. UT State Lands	ROW & Permits	60-90 days	ROW - Fife Permit-Joy Rector		
	Uinta Co. Commission	Road crossing permit	30-45 days	Nesselrode, Neuner, & Gladish; Permit filing - Joy Rector	Evanston - Mark Harris	
	Uinta C.	Use certificate	30-45 days			
	Evanston, City Council/ Planning & Zoning	Conditional Use permit	90-180 days			
	Summit Co. Commission	Road Crossing permit	30-45 days	Clyde/Joy Rector	Bear West, lead; Local Rep. - Tom Clyde	
	Summit C Planning & Zoning	Conditional Use permit	30-90 days			
	Rich Co., Co. Commission	Conditional Use permit	30-90 days		Bear West	
	Bear River Regional Com.	Road Crossing permit				
	Uinta Livestock Company	Purchase/lease 7 acres Delivery Facility		Neuner/Fife	Casper	
	Other private lands			Fife/Searcy	Casper	

Permit/Approval	Agency	Status or Requirements	Timing	UPRC - Lead &/or permit filing	3rd Party - analysis or agency interaction	Notes
Air Quality	WY DEQ/AQD UT DEQ UT DEQ	Heaters & flare stacks Heaters & flare stacks Flare Site - for production testing 1992	120-180 days 30-180 days 30-180 days	John Rector	AeroVironment	WY may not be necessary UT air permits experience delay Ready to publish Notice of Intent to Approve; 30 day comment period. Permit should be issued by mid-August '92
State Clearinghouse procedures	UT State Planning Office WY State Planning Office	Coordination of State Reviews	1-180 days - continual	Gladish/Nesselrode /Neuner	Bear West	Largely procedural - comments in on Update
MOU on Emergency Response - Mutual Aid	Uinta & Summit Counties & UPRC Uinta & Rich Counties & UPRC	This is not permit - Draft under reviews	Prior to Re-entry at Fawcett	Neuner/Gettig	Bear West, Clyde, Harris	Provides mutual aid protocol among counties for emergency response on WGS
Microwave License	Fed. Communications Commission	For microwave communication system		Crocker		

SUNDRY NOTICES AND REPORTS ON WELLS

During Production testing of the Urroz well, gas would be flared during the daylight hours for a period not to exceed one week. It is estimated that up to 5.2 million cubic feet of gas would be flared. This gas would be up to 14.04 percent H_2S by volume. Projected flow rate of gas to flare during the test is as follows:

DAY	FLARING HOURS	FLOW RATE (DSCF/HR)	CUMULATIVE VOLUME MILLION FT^3
1	8	21,000	.2
2	8	42,000	.5
3	8	62,500	1.0
	2	104,000	1.2
	2	208,000	1.6
	2	312,500	2.3
4	2	417,000	3.1
	2	104,000	3.3
	2	208,000	3.7
	2	312,500	4.3
5	2	417,000	5.2

Form 4
(June, 1975)

STATE OF WYOMING
OIL AND GAS CONSERVATION COMMISSION
Office of State Oil and Gas Supervisor
P. O. Box 2640
Casper, Wyoming 82601

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DIVISION OF
OIL, GAS & MINING

5. State Lease No.

6. Unit Agreement

7. Farm or Lease Name: Wahsatch Flare

8. Well No.

9. Reservoir: Weber/Phosphoria

10. Field Name: Yellow Creek Field

11. Section, Township and Range: Reference Reports attached.

1. SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill, deepen, or plug-back. Form 1 is provided for such proposals.)

OIL WELL ☐ GAS WELL ☐ OTHER DRY ☐

2. OPERATOR: UNION PACIFIC RESOURCES COMPANY

3. ADDRESS: P.O. BOX 7, MS 3407, FORT WORTH, TX 76101-0007

4. LOCATION (Show quarter-quarter description and footage measurements. See also space 16 below)
At surface

Wahsatch Flaring + H_2S Contingency Plan

12. County: Uinta

13. State: WYOMING

14. ELEVATIONS Derrick Floor	Rotary Kelly Bushing	Rotary Table	Ground	Other

15. INDICATE BELOW BY CHECK MARK NATURE OF REPORT, NOTICE OR OTHER DATA

NOTICE OF INTENTION TO: (Submit in triplicate)

Test Water Shut-Off	☐	Pull or Alter Casing	☐
Fracture Treat	☐	Recomplete	☐
Shoot or Acidize	☐	Abandon	☐
Repair Well	☐	Change Plans	☐
			☐

SUBSEQUENT REPORT OF: (Submit in duplicate, triplicate on state lands)

Water Shut-Off	☐	Repairing Well	☐
Fracture Treatment	☐	Altering Casing	☐
Shooting or Acidizing	☐	Abandonment (Submit in triplicate)	☐
			☐

(Note: Report results of multiple completion on Well Completion or Recompletion and Log form.)

16. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.

(See DMK Environmental Engineering Report enclosed)

The first well to be tested would be the Urroz well, located just east of the Utah-Wyoming border and approximately four miles southwest of Evanston (Sec. 2, T14N, R121W). A map showing the location of the well and flare is included in Appendix 4. Gas from the well would be sent to a flare system that was constructed by Amoco Production Company for the purpose of conducting production tests on six of the wells. The flare system was composed of gathering lines and a pipeline to a flare site on private land in Summit County, Utah (Sec. 1, T5N, R7E), three miles southwest of the Yellow Creek Deep Field. After the initial testing in 1982/83, the flare stack was removed but, the gathering lines, right-of-ways and flare site remain intact.

In order to run the production test, the Urroz well would be re-completed, and a new 128 foot high flare stack constructed on the flare site. The pipeline connecting the well to the flare would be pressure tested using water.

(Continued on Back Side)

17. I hereby certify that the foregoing as to any work or operation performed is a true and correct report of such work or operations.

SIGNED J L Rector /Joy L. Rector TITLE Regulatory Analyst DATE 8-5-92

(This space for State office use)

APPROVAL DATE

APPROVED BY
State Oil and Gas Supervisor

Approvals sent 196

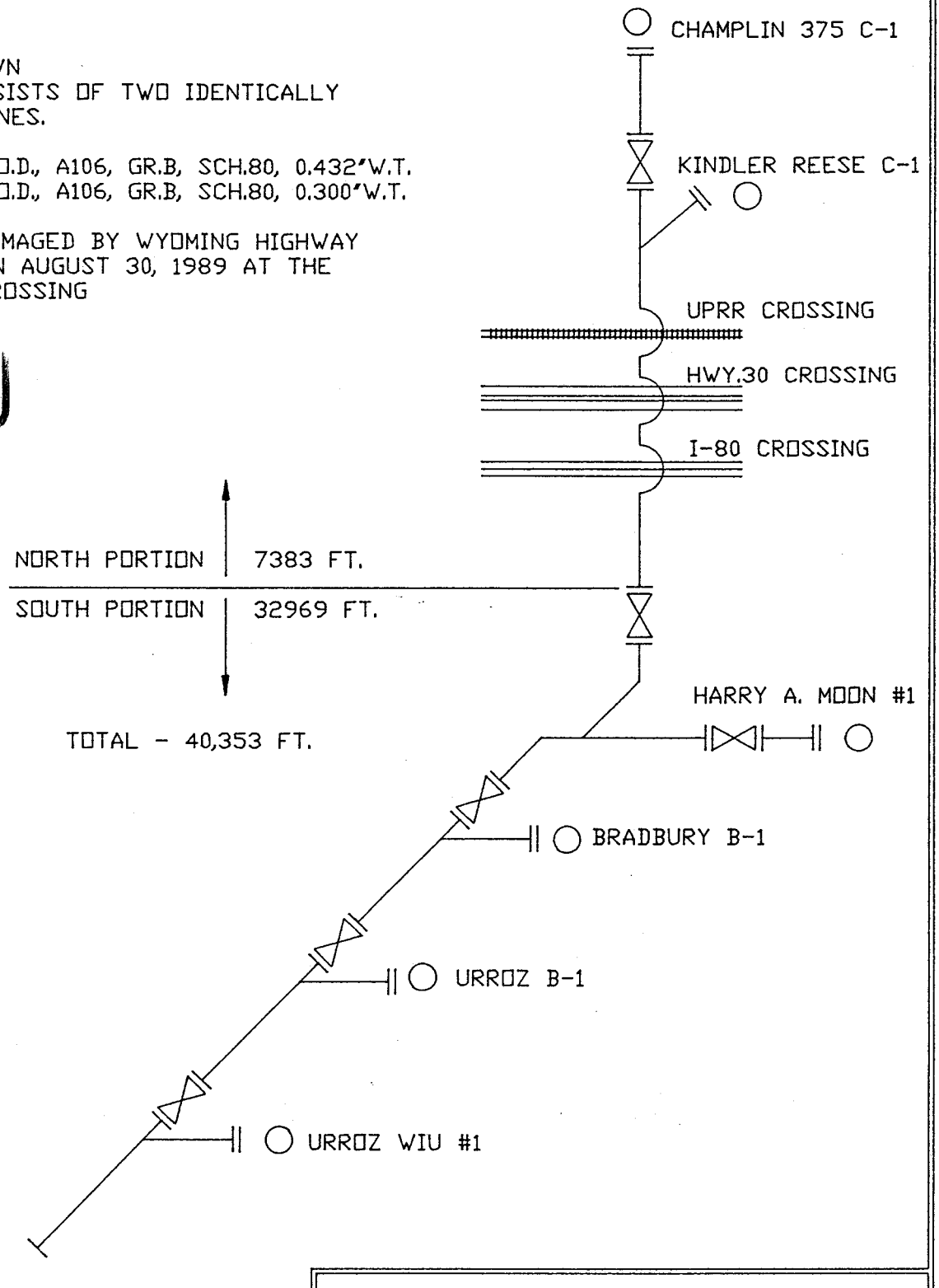
CONDITIONS OF APPROVAL, IF ANY

ONE LINE SHOWN
ACTUALLY CONSISTS OF TWO IDENTICALLY
CONFIGURED LINES.

LINE 1: 6 5/8"O.D., A106, GR.B, SCH.80, 0.432"W.T.
LINE 2: 3 1/2"O.D., A106, GR.B, SCH.80, 0.300"W.T.

BOTH LINES DAMAGED BY WYOMING HIGHWAY
DEPARTMENT ON AUGUST 30, 1989 AT THE
HIGHWAY 30 CROSSING

RECEIVED
AUG 06 1992
DIVISION OF
OIL, GAS & MINING



PRELIMINARY

16 JUNE 92

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

SCHEMATIC DIAGRAM

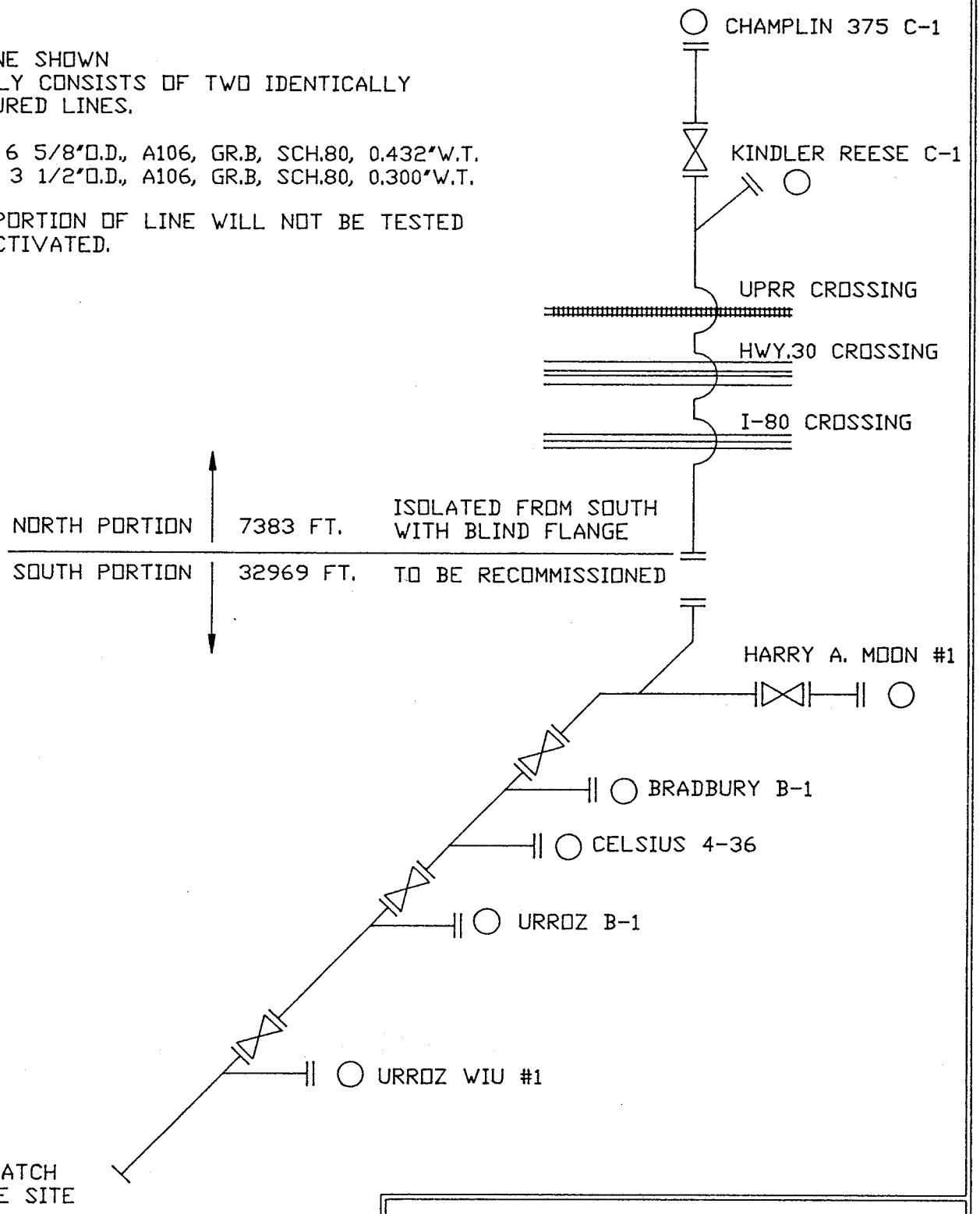
PROJECT
EXISTING WAHSATCH FLARE
SYSTEM PIPING

DATE	DWG. NO.	PAGE OF
MAY 1992	8511	1 2

ONE LINE SHOWN
ACTUALLY CONSISTS OF TWO IDENTICALLY
CONFIGURED LINES.

LINE 1: 6 5/8"O.D., A106, GR.B, SCH.80, 0.432"W.T.
LINE 2: 3 1/2"O.D., A106, GR.B, SCH.80, 0.300"W.T.

NORTH PORTION OF LINE WILL NOT BE TESTED
OR REACTIVATED.



PRELIMINARY

16 JUNE 92

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

SCHEMATIC DIAGRAM

PROJECT
PROPOSED WAHSATCH FLARE
SYSTEM PIPING

DATE	DWG. NO.	PAGE OF
MAY 1992	8511	2 2

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Kemmerer Resource Area
312 Highway 189 North
Kemmerer, Wyoming 83101

TAKE PRIDE IN AMERICA

RECEIVED
AUG 13 1992
DIV. OIL, GAS, MINING

1792 (420)
W-78405; U-51457

AUG 11 1992

Dear Reader:

This serves as notice from the Rock Springs and Salt Lake Districts of the Bureau of Land Management (BLM) that they have approved the transfer (reassign) of the Amoco Production Company right-of-way grant, issued in 1984 to Amoco for their Cave Creek Sour Gas Gathering System, to Union Pacific Resources Company (UPRC) for their Wahsatch Sour Gas Gathering System (WGS). The WGS will transport sour gas from wells in northern Summit County, Utah and southwestern Uinta County, Wyoming to the Whitney Canyon Processing Plant north of Evanston, Wyoming.

As explained in the May 1992 **UPRC Wahsatch Sour Gas Gathering System (previously Cave Creek) Project Update**, this pipeline gathering system was originally proposed by Amoco Production Company and analyzed for environmental impact by BLM in the **Cave Creek Sour Gas Gathering System Environmental Assessment (EA)** in 1983-84. A Decision Record (DR) was issued by BLM approving the proposal, and a right-of-way (ROW) grant was issued in 1984 to Amoco for construction across federal lands. The project, however, was never implemented by Amoco due to processing capacity limitations at the Whitney Canyon Plant.

In 1991 Union Pacific Resources (UPRC) acquired the project from Amoco, updated the design, and has applied to the BLM for transfer of the Amoco ROW grant to UPRC. UPRC intends to initiate construction of the pipeline in late spring of 1993 and start-up production later that year.

It is important for the reader to understand what an assignment does. Assignment of the Amoco right-of-way grant to UPRC is merely a change in name of the right-of-way holder. It does not allow for any construction to commence, nor does it approve any of the changes proposed in the **UPRC Wahsatch Sour Gas Gathering System (previously Cave Creek) Project Update**.

Following transfer of the right-of-way grant to UPRC, the BLM will make appropriate revisions in the grant terms and stipulations (Appendix M of the Project Update) to reflect current policies, regulations, rentals, dates, and UPRC's Emergency Response Plan and Construction and Operations Plan. A **Notice To Proceed** must be issued by BLM before surface disturbing activities will be allowed on federal lands.

During the public meetings held and in written comments received on the **UPRC Wahsatch Sour Gas Gathering System (previously Cave Creek) Project Update**, concerns were identified. A summary of the comments received and responses to them is found in Attachment I. The primary concerns expressed pertained to the technical adequacy of the **Hazard Analysis/Risk Analysis Study** of UPRC's Wahsatch Gas Gathering Pipeline System and to the absence of an emergency response plan. In responding to the adequacy of the Hazard Analysis/Risk Analysis concern, BLM asked the U.S. Environmental Protection Agency (EPA) to review the study report. EPA responded (copy enclosed as Attachment II) saying that,

> "The technical expertise exhibited by the authors of the document appear to be quite extensive, and the modeling of release and dispersion of natural gas from the proposed pipeline system under catastrophic conditions seems to be performed in a credible fashion....the results presented in the document appear to be in the correct range for a worst-

EPA also identified three additional points for consideration which the BLM will take under advisement during the right-of-way amendment phase of processing UPRC's grant.

The emergency response plan is in the process of being prepared by UPRC in consultation with the City of Evanston, the Evanston fire department and the County Governments of Uinta County, Wyoming and Summit and Rich Counties, Utah. A Notice To Proceed will not be issued to UPRC by the BLM until this plan and the Construction and Operations Plan have been approved.

On the basis of EPAs review and response, BLM feels confident that the ***Hazard Analysis/Risk Analysis Study***, prepared by Quest Consultants Inc. is technically sound and reliable.

The BLM would like to take this opportunity to thank the individuals and organizations who provided suggestions and comments.

If you have any questions, please contact Darrel Short at (307) 877-3933 or Leon Berggren at (801) 977-4300.

Sincerely,

Darrel J. Short

Darrel Short
Area Manager
Kemmerer Resource Area

Leon Berggren

Leon Berggren
Area Manager
Bear River Resource Area

Enclosure

PUBLIC COMMENTS - SUMMER 1992
WAHSATCH GATHERING SYSTEM
August 9, 1992

A number of comments were received on the proposed Wahsatch Gathering System (WGS) during public informational meetings the first week of June 1992 and as written comments on the *Wahsatch Sour Gas Gathering System (Previously Cave Creek) Project Update* distributed by the Bureau of Land Management for comment on May 22. This document provides a summary of the comments received and responses to those comments.

The Project Update was distributed to a mailing list compiled by both the Wyoming and Utah BLM offices. A "dear reader" letter from the BLM in the Project Update stated that it was the BLM's intention to implement a realty action to transfer the existing Amoco Production Company gathering system right-of-way grant to Union Pacific Resources. The letter solicited public comments on the Project Update. The 30 day public comment period ended June 24, however, comments received up until preparation of this report were read and are included in this summary. Fifteen written comments were received by the BLM on the Project Update. Attachment A is a list of those agencies and members of the public who provided comments.

Public informational meetings were conducted by Union Pacific Resources Company (UPRC) in Evanston, Wyoming the week of June 1, 1992. Four meetings were conducted. The first three meetings, June 1, 2, and 3, were by invitation and included people who live or work within areas which are closest to the existing wells or the proposed gathering system pipeline. Each of the households in these areas had been visited by representatives of UPRC, provided a brochure describing the proposed project, and invited to meetings. The fourth meeting, June 4, was open to the general public, advertised in the local media and announced in a BLM press release distributed to Utah and Wyoming news outlets. A total of 75 members of the public registered at the meetings. Some people registered at more than one meeting and a few people chose not to register. Attachment B is lists of people who registered at each meeting.

Format for each of the meetings was similar. After opening remarks, a ten minute video was shown which explained the basic components and safety features of the Wahsatch Gathering System. General interest questions were taken from the audience or the group was adjourned to informally seek out and ask questions of UPRC personnel, consultants, or others involved in project design, planning, and reviews. Within the general meeting area, displays included an aerial photo/map of the pipeline corridor, boards explaining project features and components, and review copies of the 1984 EA, copies of the risk

analysis/hazards study compiled by Quest Consultants, and the 1992 BLM Project Update. People were invited to provide comments or questions on the back of the agenda as well as to UPRC personnel and encouraged to provide comments on the Project Update to the Bureau of Land Management.

UPRC personnel and consultants present at the meetings to respond to questions and comments included project planning and design personnel; emergency response planning consultants, risk/hazards analysis consultants, and permitting consultants. The Evanston/Uinta County Fire Chief, Jon Lunsford, was at three meetings including the general public meeting. The BLM Kemmerer Area Manager, Darrel Short, attended one area meeting and the general meeting. Michael Barnes and Signa Larralde of the BLM Bear River Resource Area also attended the general meeting.

Because of the informal gathering format for the question and answer periods for meetings 1 through 3, not every question and response is reported here. There were usually several groups of people engaged in conversation at one time. However, it is believed that the general nature of concerns and questions expressed are included in this summary.

In addition to distribution of the Project Update and holding public informational meetings, other opportunities have been pursued by the proponent to provide information on the project to affected jurisdictions. UPRC has met with the Governors of Wyoming and Utah, Utah Resource Development Coordinating Committee and individual Utah State agencies, representatives of Wyoming State agencies, Uinta County Commissioners, Evanston City Council, Evanston Planning Commission, Summit County Commissioners, Summit County Planning Commission, and Rich County Commissioners. The purposes of these meetings was to provide information on the WGS and to hear comments on the project or on permitting processes. The proponent has generally received support from these jurisdictions in its approach to the project and cooperation in project reviews and permitting processes. The proponent has also made presentations to various organizations and groups.

The following is a summary of comments received on the Project Update or in the public meetings and responses to those comments. The summary includes issues and concerns identified both in comments during the public meetings and in written comments received by the BLM on the Project Update. For comments received from governmental agencies, the agency providing the comment is identified. All written comments are on file with the Rock Springs District BLM and available for review. Comments are displayed in the left column. Responses to comments are provided in the right column. Comments are organized by issues including public safety, project design, wildlife/environment, cultural resources, seismic, highway crossings, other issues, and permitting processes.

COMMENTS AND RESPONSES

COMMENTS	RESPONSES
PUBLIC SAFETY	
Most questions and comments heard during the meetings and written comments received from members of the public involved public safety, potential risk to people in areas nearest the wells and proposed pipeline system, and system components designed to protect public safety from potential exposure to H_2S.	The Quest Consultants risk study indicates that the chance of a fatality due to a worst case well or pipeline accident under worst possible air dispersion weather conditions is one chance in 400 million for the people living and working in the neighborhoods closest to the system - a total of 26 structures. The Quest analysis uses worst case conditions and assumptions which provide a margin of error on the side of safety. For the other areas in relatively close proximity to the system, there is in effect no real risk to public safety. However, as a precaution, public protection plans/ emergency response procedures are being developed in close cooperation with local authorities to include all of the nearby neighborhoods. The neighborhoods closest to the system will be provided additional information as planning continues and informed as to procedures including notification and precautions which would be taken in the case of an accident. Subsequent meetings will be held with people in these neighborhoods to provide additional information on H_2S, on system safety components, emergency response procedures, and if desired by residents, H_2S safety training.
Several people had concerns about the proximity of the Harry Moon and Bradbury wells and pipeline to residential areas. A few people were concerned about the proximity of the Kindler Reese well to housing and to the Union Pacific Railroad right-of-way.	
There were specific questions about the potential risk to people in residential areas nearest the wells and pipeline and about the results of the risk analysis conducted for the project.	
Some people had difficulty understanding the use of dispersion modelling and the concept that the size of an emission plume would stabilize and questions were	Copies of the risk analysis are available for review from the BLM's Rock Springs District Office. The firm which

asked about these components of the analysis. It was asked if at some point the size of the plume would grow - would the atmosphere become saturated with H_2S. Others expressed cynicism about the risk analysis. One person stated that no matter how much information you give us, we will have trouble digesting it. He did not believe the risk analysis could be objective because UPRC paid for it. He asked "Did you pick the study with the best results?"

conducted the risk analysis, Quest Consultants, is highly respected in its field and has conducted similar studies for federal agencies and for other corporations. During the public meetings, UPRC stated that neither Quest nor UPRC would subject themselves to the potential consequences of misrepresentation or unobjective analysis. Quest would not compromise its professional integrity for this or any other project.

A letter to the BLM stated that there has been no independent study on the short or long term hazards of the line. The writer said "Our questions are not being answered. We don't feel comfortable with the application of simulated computer studies to the real world."

At the request of the BLM, the Environmental Protection Agency conducted an independent review of the methodology used and the findings of the Quest analysis. A copy of the EPA response is included in this packet.

Another letter stated, "Since the gas is ground hugging and seeks lowest terrain, what opportunity do we who live within 2,000 feet radius of the pipeline and/or gas wells to escape within the 'acceptable' loss range if such a break occurs?"

The writer's subdivision is 3,200 feet from the nearest well. The produced H_2S is naturally mixed with methane and other gases in the production formation. These gases give H_2S buoyancy it does not exhibit in an isolated state. The H_2S is not separated from the other gases during production or dispersion. The gases would rise together - there would be a plume rise should there be a major rupture or other leak. The gas as produced from these formations will not be "ground hugging". Additionally, even in the event of the worst possible accident under the worst possible weather conditions, H_2S concentrations would be low enough at even the nearest occupied structures to afford time for notification and response to protect public safety.

There were additional questions about which particular areas could be affected by an accidental release of H_2S including residential areas, the Wyoming port-of-entry, and the Evanston hospital.

Appendix I in the Project Update displays which portions of residential neighborhoods are within the 100 ppm isopleth. Delineation of the 100 ppm isopleth is required by the Department of Interior's Onshore Order #6 to determine areas for which a public protection plan should be developed. Within that isopleth, through worst case conditions dispersion modelling, Quest Consultants delineated a corridor in which there is a very small risk (a risk hazard corridor) of exposure to higher concentrations of H_2S under a worst case accident scenario. Neither the port-of-entry nor the hospital are within a risk hazard corridor or the 100 ppm isopleth.

A writer said they lived within close proximity to the pipeline and to the Jack Moon #1 wellhead and was concerned about safety and health effects.

The Jack Moon well does not have production from the Phosphoria and Weber formations and does not produce H_2S gas. The Jack Moon well will not be connected to the Wahsatch Gathering System. The Harry Moon well, more than 3,200 feet from the Chaparral Estates and Overthrust Meadows subdivisions, is part of the system. Nevertheless, a portion of these subdivisions is within the 100 ppm isopleth, so public protection plan/emergency response plans will include these entire subdivisions as a margin of safety.

People wanted additional information on effects of H_2S concentrations under different lengths of exposure. One person wanted to know the effects of long term exposure to low concentrations of H_2S. A letter writer said their son has respiratory problems and asked about long term effects of low dose exposure to H_2S and SO_2.

Tables in Appendix I of the Project Update and the Quest Risk Analysis provide answers to these questions. Low exposure to H_2S (less than 10 ppm) does not have serious health effects even under long-term exposure times. Government regulations allow employees to be exposed

to concentrations up to 10 ppm for eight hours per day for their working life. The only sources of SO_2 emissions would be emissions into the atmosphere during flaring of production gas at remote sites. No SO_2 emissions would occur near populated areas. Flaring will only occur during production testing or in the case of a system emergency. The incidence of emissions would be irregular and short term.

Another person wanted to know about H_2S effects on pets and animals; and another, if they would need to shelter their pets in case of an accident.

If there were a release of dangerous concentrations of H_2S, animals would be vulnerable to the gas and pets should be protected if feasible.

A question was asked about whether or not the H_2S concentrations in the production gas could change over time.

Changes in H_2S concentrations in the produced gas are not customary, however, there have been changes in H_2S concentrations in oil production wells when water containing bacteria was introduced for stimulation. Also, if another separate reservoir were incorporated into production, there could be a change. There may be a difference in H_2S content among the project wells - within the range of 13 to 18 percent, but it is unlikely it will change in production from any one given well. However, there would have to be a substantial increase in concentrations in the produced gas before it would significantly affect the hazard or risk analysis. The pipe and materials metallurgy is designed for use in high levels of H_2S.

There were questions about H_2S monitors, how they work, and what is the response at detection of various concentrations.

The trip point for a monitor response is usually 10 ppm. When this condition is reached, an alarm is set off. Another alarm is usually triggered at 20 ppm and

automatic system shut-in is triggered at 40 ppm. Public notification and emergency response procedures would only be activated at higher concentrations and would be dependent upon the nature of the release, procedures in the public protection plan still being developed, and the overriding consideration of protection of public safety.

One letter asked about frequency of monitors. The letter stated there are 27 "sensors" along the 40.4 miles of pipeline - averages one every mile and one-half. How much H_2S would escape if break occurred midway between sensors before problem were identified by sensors?

Sensors (detection monitors) will be located at every above ground component of the system. The number 27 refers to the number of emergency shut down (ESD) valve locations along the pipeline. In all, there would be 68 ESD valves. The amount of gas which would have the potential to escape between two line valves is dependent upon the pipe size and distance between valves (the volume of gas within that pipe segment). The velocity of the release is dependent upon pipeline pressure. To establish the size of the area subject to a potential risk of H_2S exposure, the hazards analysis assumed a full pipeline rupture in which the gas plume reaches its fullest extent possible with or without ESD valves - a worst possible case.

Another person asked if anything would detect the rotten egg odor of H_2S?

No, not specifically for odor because odor can be smelled at extremely low concentrations, but if people smelled H_2S they should notify operating personnel - residents should not experience any nuisance odor.

It was asked if there would be freeze damage to the pipeline.

Heaters would maintain gas temperatures. The insulated sour gas pipeline would be buried at a depth of six feet, below frost depth.

One person asked about an Associated Press story which indicated that 95 percent of pipelines experience failure - is that anticipated here?

The Associated Press figure was derived from the 1984 Cave Creek EA and included all kinds of pipeline and system leaks reflected in record keeping by the Department of Transportation for all jurisdictional pipelines. It does not mean that 95 percent of pipelines experience a rupture or other major failure. It does not indicate any likelihood for a significant problem with this system.

Some people wanted to know about modifications to the system as now proposed by UPRC.

The primary changes are described on pages 27 and 28 of the Project Update. Major modifications include changes in the pipeline route to provide a greater distance between the pipeline and newer rural subdivisions in the Bear River Valley; use of higher quality H_2S resistant wellheads; and use of the Supervisory Control and Data Acquisition (SCADA) System with fully redundant backup systems. The SCADA system would be monitored 24 hours a day 7 days a week by UPRC personnel.

Other questions were raised about other safety factors being built into the system.

The pipeline is designed and will be built to exceed U.S. Department of Transportation standards. Pipe and components will be inspected as they are manufactured, and pipe welds will be X-rayed and will exceed API standards. The entire system will use pipe that has extra wall thickness and with even greater pipe wall thickness in portions of the system near Evanston.

The Wyoming Oil & Gas Conservation Commission wrote "it appears that UPRC is taking all the precautions necessary to ensure the safety of those working around the wells and those living downwind. Sour gas has been produced and processed in a

number of fields in Wyoming for years without incident. There is no reason to believe that this will be any different." The letter stated that in addition to developing more of Wyoming's natural resources, this project will add to the life and usefulness of the Amoco processing facility. The additional volumes will contribute tax revenues to the county and the state. It will also require some extra help and keep some of those presently employed on the payroll.

The Commission also commented on pipeline routing and said that as an extra precaution, it was glad to see the line swing to the west rather than going right through town or even at the edge of town for safety sake. "Therefore, I would urge that UPRC be granted approval to proceed with this project."

There was a question about possible damage to the pipe from external sources.

Pipe wall thickness, six foot depth of burial to the top of the pipe, use of a warning ribbon buried in ground above the pipe, ground markers, and regular pipeline patrols will all serve to protect the pipe from external damage.

One person wondered if there would be alternative power sources for the ESD valves.

The ESD valves are fail-safe valves. They will close automatically with a loss of pressure, whether or not there is an outside source of electrical power. Other system monitoring and safety related control equipment would have back-up power to assure continued operation during an electrical outage.

It was asked if there would be compression facilities.

The answer is no.

Another person wondered if line heaters would complicate the system.

Heaters are necessary to prevent formation of hydrates in the line. Heater sites would be fenced to prevent public access and additional ESD valves would be located at the heaters to assure safety.

There were questions about emergency response procedures and current emergency response planning for Evanston. Some people wondered if there was any kind of warning system in place in Evanston now and some people from the Chaparral estates area said they were unable to hear existing local emergency warning sirens or receive radio frequencies carrying the emergency broadcasting network in their neighborhood. Some people asked if there was any public protection plan in place for Evanston now?

At the general meeting, Uinta County/ Evanston Fire Chief Jon Lunsford explained that there were currently emergency response procedures in place for the community which include notification and response procedures. This existing plan would be amended to include procedures necessary to respond in the event of an emergency involving this kind of system and that UPRC and he were cooperating in development of that expanded plan and in providing the necessary training to make that plan effective. Lunsford indicated that his department would look into the concerns about not being able to hear existing sirens or receive emergency broadcasting network radio frequencies.

One writer stated that where they lived and the Evanston hospital were within 2,200 feet of the Harry Moon well. There is still no emergency response plan. The writer asked the BLM, "Should you put your stamp of approval on a plan which has not yet been prepared, tested or otherwise even developed yet?" The writer quoted from the Project Update about the size of the hazard corridor, that a major gas leak is not probable, but is possible, and that an approved emergency response plan will be in place prior to recompletion and testing of the Urroz #1 well.

The writer's subdivision is 3,200 feet and the Evanston hospital is 3,800 feet from the Harry Moon well. The hospital is outside of the 100 ppm isopleth. However, as stated elsewhere, this entire area will be included in emergency response/public protection plans as a margin of safety. Emergency Response/ Public Protection Plans are being developed now in cooperation with local emergency response officials. The Department of Interior's Onshore Order #6 requires BLM review and approval of public protection plans for facilities involving BLM approval. Furthermore, since the Harry Moon well is within the jurisdiction of the City of Evanston, the City under the City Code, Chapter 16, has an opportunity to review re-entry and operations plans and to monitor all activities.

Some people from nearby neighborhoods said they wanted to have a warning siren at each well - something that is distinctive that people could hear and would know what it was.

The proponent has taken this suggestion under consideration and will work with the chief local emergency responders to address this.

Questions were asked about safety risks during drilling of the wells. There were also questions about cementing of the wells and how they would be drilled out. Questions were asked about risks and procedures for re-entry. A member of the City Council recalled that during initial production testing of the Urroz #1 well, people were asked to stay inside and that people remembered that.

All of the wells are existing wells which were drilled in the late 1970's early 1980's. The greatest risk of an accidental release was probably experienced when those wells were drilled. When the wells were temporarily abandoned, a cast iron bridge plug was placed in the well casing over the producing formations and the casing was cemented above the plug. Every precaution will be taken during re-entry. The procedures will be fully detailed and reviewed by permitting jurisdictions prior to re-entry.

Some people wondered which wells the City of Evanston would have jurisdiction for approving re-entry.

The Harry Moon, Bradbury, and Kindler Reese wells are all within the 1/2 mile buffer jurisdiction of Evanston. The City will require a permit for re-entry of these wells and has authority to review procedures and plans and to monitor all well activity.

Another person wondered if wellhead pressure would be similar to that found in Texas and California.

Yes, wellhead pressure experienced here is not unusual and is customary for a normally pressured reservoir.

A few royalty owners wanted to know how long production from wells would continue and about the potential total production from wells. Others wanted to know if it were absolutely necessary to re-open the Harry Moon and Bradbury wells. Another person wondered if wells near town would be shut down when production was finished.

Production from all of the wells is necessary to drain the reservoir. It is not certain how long production will be sustained from any of the wells nor how much total production from each well could be anticipated. Production testing when the wells were drilled gave some indication of their production capability. Until the wells are re-entered, production tested, and production is finally begun,

these production volumes and the well-life can not accurately be predicted. The estimated life of the gathering system is 20 years which anticipates that there could be drilling of additional wells in the Cave Creek field in Summit County and southwest of the Yellow Creek Deep field. Development drilling is uncertain until such time as both fields have sufficient producing history to make that determination. The Harry Moon and Bradbury wells are existing wells near the edge of the Yellow Creek Deep field. Due to the complicated geology of the formations, the gas resource could not be fully produced from the reservoirs without utilizing these wells. When a well is depleted, the well will be plugged, sealed, and abandoned.

It was asked what would happen if UPRC sold the project to another operator? Are there any guarantees that another operator would comply with the commitments made by UPRC?

UPRC does not intend to sell the project. However, if it did, the same stipulations and Construction and Use Plan would be imposed on a new operator.

PROJECT DESIGN

One person wrote that there was insufficient engineering design criteria to assure the public safety. Specific design data and material specifications as well as quality assurance procedures should receive detailed review by independent engineering firms prior to issuance of BLM project approval and issuance (or reinstatement) of a right-of-way. A review document must contain sufficient detail for agency assessments to assure that no threat to the public safety is created.

The original Amoco right-of-way grant remains intact. Transfer of the right-of-way to UPRC does not complete agency reviews of this project. Re-entry plans and procedures and Construction and Operations Plans will carefully detail materials, construction, and operations specifications. These plans will be reviewed by the appropriate governmental agencies including the Wyoming Oil and Gas Conservation Commission, the Utah Division of Oil, Gas, and Mining, the BLM, and for three wells, the City of Evanston.

Another person wrote that the system must meet specifications governing internal corrosion & external corrosion, corrosion control and monitoring for both internal and external corrosion, prevention of freezing of water that would be condensed in transportation, sulfurous chemicals that crystalize at temperatures above freezing & could block the pipeline & aggravate safe operating procedures, expansion loops to take care of expansion & contraction.

The Project Update describes proposed system design and operational components which address these concerns. These have been important design considerations.

Two letters asked the BLM to contract with independent pipeline engineering and construction firm to review design and specifications. The writers felt permits should not be granted until engineering design had been reviewed by an independent engineering firm.

As stated above, the appropriate governmental agencies will review design, construction, and operations components.

In a written comment to the BLM, a member of the public said he had reservations about constructing pipelines anywhere in the U.S. which will transport hazardous chemicals or gasses. "Congress should establish a law not permitting interstate transport of such substances. Though it would be costly, desulfurize this gas at its source. If more wells are brought on it could be feasible." Another letter asked the BLM, "Is the "sour gas" pipeline necessary? Could the need it seeks to serve be accomplished in a different way?"

Sour gas pipelines are common to Uinta County, the State of Wyoming and much of the U.S. and Canada. The WGS takes the most direct, prudent, route possible to the Whitney Canyon Processing Plan. There is no assurance that if additional wells were drilled, that they would be successful producers. Reserves from the existing wells do not economically justify a new, separate processing plant. The pipeline is necessary in order to transport the gas to the nearest available processing facility and prepare it for transport and use. Even if a new processing plant were built in a remote location nearer to the wells, production would occur at the same existing well locations and have to be piped from these locations.

WILDLIFE/ENVIRONMENTAL ISSUES

One letter to the BLM stated that there were major environmental discrepancies in the review document. There is lack of specific mitigation/prevention

The proponent has committed to restoration of the fishery and to introduction of macroinvertebrates to

procedures for downstream effects of a spill into Woodruff Narrows Reservoir and effects on process water and personnel at the Carter Creek Gas Plant.

enhance fishery recovery in the unlikely event of a major release into the Bear River. Given the volume of water which would be affected, H_2S concentrations would quickly be diluted. However, the size of the release and resulting concentrations at take-out points below the release would have to be evaluated to determine the necessity of any temporary restrictions on water use.

On the other hand, the Wyoming Game and Fish Department wrote that the Project Update is generally complete and accurate regarding fishery issues. Stream bank restoration should be done in a manner that returns stream banks to their original or better contours and level of stability. In most cases this will require the use of rock riprap or rock filled baskets for stabilization.

The Construction and Operations Plan will include stream bank restoration measures.

The Wyoming Game and Fish acknowledged UPRC's recognition of potential fishery impacts and UPRC's commitment to mitigate any losses. The sponsor should be aware that mitigation would be based not only upon the value of the individual fish lost but could also include compensation for the loss of recreational value and related administrative and management costs incurred by our department.

The proponent has accepted this responsibility.

A question was asked during the public meetings about procedures for crossing the Bear River.

The pipe would be buried six feet beneath the river bottom and encased in concrete. All Corps of Engineers, BLM, and Wyoming State mitigation and protection measures would be incorporated at the river crossing.

One letter asked has there been any study of the acceptable loss to wildlife and ground cover?

Up to a maximum of 531 acres may be disturbed during pipeline construction. All disturbed areas would be revegetated with native species and as prescribed by affected agencies and/or private land

owners. In addition, the proponent has committed to acre for acre off-site habitat enhancement for temporary loss of habitat in critical wildlife areas.

The Wyoming Game & Fish Department concurred with proposed habitat mitigation measures. Their letter requested involvement in the detailed planning and design of any habitat improvements for mitigation of habitat loss. Due to the extent of oil and gas activity in the area, Game and Fish requested that the BLM implement projects proposed in the Overthrust HMP that are designed to offset impact from oil and gas activity.

The proponent is working with the Wyoming Game and Fish Department on such measures including off-site habitat enhancements.

At a public meeting a former president of the Wyoming Wildlife Federation who lives in one of the neighborhoods close to the pipeline commented that in the early 1980's his organization held up approval of gas plants due to the lack of attention to wildlife. He commented that "What has been done for the WGS is a full step above what was done for the EA in 1984. I don't personally have a problem with their proposal."

Another individual wondered if construction of the line and increased access would lead to more poaching of wild game at Woodruff Narrows?

The project will not result in any new public access roads.

At the general meeting, one person stated that there was loss of wildlife from a well blowout near Pinedale, Wyoming about 10 years ago and that Town of Pinedale, 18 miles away, was evacuated or put on alert.

UPRC responded in the meeting that the reports were that one dead moose was found and that it was not verified that it died due to H_2S exposure.

The Utah Division of Wildlife Resources wrote, "We feel that wildlife resources will be adequately protected and that mitigation is adequate, if UPRC abides by mitigation measures agreed to in 1984 by Amoco, and follows the 1992 Project Update." The letter further advised that the Construction and Operations Plan

The proponent is also cooperating with the Utah Division of Wildlife Resources and has agreed to the measures outlined in the comment.

should incorporate measures applicable to current wildlife distribution including a survey for threatened or endangered species within 180 days prior to construction; construction avoidance of seasonally sensitive wildlife areas; and off site habitat enhancement to mitigate for temporary loss of habitat within the construction corridor. Seasonal avoidance periods include March 1 through July 15 for Raptor nesting areas (0.5 miles); November 15 to March 15 for critical bald eagle habitat; December 1 to April 15 for mule deer, elk, pronghorn, and moose critical winter range; and for sage grouse, a strutting ground in a radius of two miles, sage grouse breeding and nesting habitat, March 1 through June 15, as well as strutting grounds; and critical winter sage grouse habitat from December 1 to February 28. A follow-up letter clarified that acre-for-acre off-site habitat enhancement to mitigate for temporary loss of habitat within the construction corridor was intended to address the loss of critical habitat, specifically temporary loss of critical mule deer winter range, sage grouse critical winter habitat and sage grouse breeding habitat.

The Utah Division of Water Rights commented that a stream alteration permit will be required for Utah portion of the project.

The proponent has contacted the Division and will comply.

CULTURAL RESOURCES

The Wyoming State Historic Preservation Office wrote that Section 106 of the National Historic Preservation Act and Advisory Council regulations 36CFR800 call for survey, evaluation and protection of significant historic and archeological sites prior to any disturbance. Provided the BLM follow the procedures established in the regulations, SHIPO has no objections to the project.

Cultural surveys and reports are currently being conducted. Both the Bear River and Kemmerer BLM Resource Areas require full compliance with the Act for all affected lands, private, state, or Federal.

SEISMIC ISSUES

During the public meetings, one person wanted to know about earthquake effects on the pipeline.

The pipeline corridor is within a quiescent zone of the Intermountain Seismic Belt (earthquake recurrence intervals are in the order of hundreds to thousands of years) so it is unlikely that a substantial earthquake would be experienced. Modern pipeline are engineered and constructed to withstand seismic activity. Experience with pipelines serving areas where earthquakes are a common occurrence such as southern California (where there are many pipelines) indicate that historically there has been little damage to these pipelines. If there were a major quake here causing pipe damage and a gas release, ESD valve closure would be triggered by loss of pressure.

The Geological Survey of Wyoming, in responding to the Project Update, provided maps and information on known faults in southwestern Wyoming and on the Northern Bear River Fault System for use by the BLM in assessing the seismic risk factors of the area and landslide potential. For most of the Northern Bear River Fault System (parallelling the Bear River Valley), the sole test for fault movement of Quaternary age (less than or equal to 2,000,000 years old) was offset of erosion surfaces or of materials dating from some stage in the development of the present landscape. At the Whitney Canyon fault portion of this system, further investigations have been conducted which found evidence indicating that the last movement on the Whitney Canyon Fault occurred between 1200 and 2400 years ago. Two other fault systems were briefly described which are outside of the right-of-way vicinity: the Rock Creek fault, a north-trending normal fault located 15 miles west of Kemmerer; and the Bear River Fault System, located approximately 12 miles southeast of Evanston.

The pipeline route along the Wyoming/Utah state line parallels mapped faulting of the Northern Bear River Fault System. The downthrow side of the fault is away from the pipeline route. The route crosses north of the primary Whitney Canyon fault and through segmented fault areas.

HIGHWAY CROSSINGS

It was asked if crossing of Interstate Highway 80 was safe and if UPRC had obtained permission to cross I-80.

Procedures for the I-80 crossing include boring under the Interstate from outside of the highway right-of-way, coating the pipeline with cement, and placing vents and H_2S detection monitors at each side of the crossing. UPRC must obtain road crossing permits from Utah Department of Transportation.

The Utah Department of Transportation commented that their involvement would be limited to crossing of State rights-of-way along State Route 16 and Interstate 80. Permitting is customarily handled by District Permits and the Encroachment Office in the appropriate UDOT District. District 1 for SR-16 and District 2 for I-80.

UPRC has met with permitting personnel in both Districts and will submit permit applications shortly.

OTHER ISSUES

Some people living in the Chaparral Estates and Overthrust Meadows subdivisions were concerned about potential consequences for their property values. They explained that they had purchased their homes during the Evanston boom years at premium prices and had already seen a decrease in value. They wondered if there would be a further decrease in their property values due to the proximity of this project.

The wells in question were drilled ten years ago during the boom years. Until the gas is produced, they will continue to be a factor in the community. Once the resource is produced and depleted, the wells will be plugged, sealed, and abandoned and the pipeline will be purged and abandoned.

One letter stated "We are being forced to accept something which will have unknown effects on the quality of our lives."

A few comments were made at the public meetings about safety at Whitney Canyon, that there were rumors that "it is an accident waiting to happen."

At these meetings, UPRC replied that it has a working interest in Whitney Canyon and that there are often rumors like that about processing plants and refineries.

PERMITTING PROCESSES

Wyoming Governor Mike Sullivan wrote to the BLM that Agencies of the State of Wyoming have reviewed the Project Update for the Wahsatch Sour Gas Gathering System and submitted their comments for BLM review. The Governor wrote, "The State of Wyoming supports BLM's implementation of a realty action to transfer the existing Amoco Production Company right-of-way to Union Pacific Resources Company."

At the general public meeting, one person said he wanted to see UPRC purchase a big insurance policy - a $5 to 10 billion premium coverage with the full premiums paid in advance. He said he was not in the position of evaluating everything involved, but an insurance company issuing such a policy would or it wouldn't take the risk.

UPRC responded at the meeting that as a corporation it had substantial liability insurance and significant corporate value, that UPRC would not contemplate a project which would jeopardize the corporation or its assets or compromise public safety.

One person asked how many disinterested parties would be looking over UPRC's shoulder?

There are various kinds and levels of permitting involved in project approvals including the City of Evanston, the BLM, the State of Utah, the Wyoming Oil and Gas Conservation Commission, and others. Evanston City Code provides for an Oil and Gas Inspector to monitor activities within its jurisdiction. The BLM will monitor construction and operations for compliance with the Construction and Operations Plan and right-of-way grant stipulations.

At each of the public meetings, someone asked if there would be a chance for the public to vote on the proposal, would there be a referendum? One asked if there were any room for negotiation, she elaborated, "is there a chance to stop the project?"

The public does have an opportunity to participate in the permitting process by providing comments and by talking with regulatory authorities, elected officials, and the proponent, UPRC.

It was also asked at the general public meeting why meetings were being conducted prior to completion of

The public meetings were informational meetings that also sought public

a public protection plan; would there be additional meetings?

comment. Additional meetings or hearings can be contemplated throughout the permitting process by the various permitting jurisdictions. There will also be additional meetings with neighborhoods closest to the project as the public protection plan is developed. Darrel Short of the BLM, in response to the question, indicated that there could be another public meeting if so desired.

A resident of a subdivision that is partially within the 100 ppm isopleth wrote, "Must we approve this entire plan? No alternatives have been considered such as leaving the wells closest to dwellings and businesses alone."

When the Cave Creek environmental assessment (EA) was compiled in 1983-84, alternatives to the proposal were properly considered. Those alternatives are briefly described on pages 58-60 of the Project Update. However, alternatives affecting production from individual wells within the project area were not included in the EA analysis. The primary Wahsatch Gathering System proposal is for the gathering system and ancillary facilities to collect and transport produced gas from the wells to the Whitney Canyon Processing Plant. The wells were previously permitted and drilled. The Harry Moon and Bradbury wells are existing wells in fixed locations and cannot be moved. The legal rights to these wells are not affected by the proposed realty action. Due to the complex geology, the entire Yellow Creek Deep gas reservoir could not be economically produced if production did not occur from these wells. The economic viability of production of the field is contingent upon production from all wells within the field.

The BLM's transfer of the right-of-way grant from Amoco to UPRC, modifica-

tions to that right-of-way, and reviews of project components, design, and operations plans does not include the option of precluding production from these wells or of abrogating the existing ownership or rights associated with the mineral resource or the wells themselves. Following are other considerations.

Although the projected life of the Wahsatch Gathering System is 20 years, it is anticipated that the production life of the Harry Moon and Bradbury wells will be considerably shorter. Production will decline from these wells after the first few years of operation. It is not possible to accurately predict at this time when this portion of the gas reservoir will be depleted, but it is expected that production from these two wells will be exhausted in less than 15 years. At that time, the wells would be plugged and abandoned. The existence of these wells has been a factor in the community since they were drilled ten years ago. Production and subsequent abandonment of the wells will allow removal of any land use restrictions or considerations which may be associated with the existence and potential production of the wells.

The Harry Moon and Bradbury wells are both privately-owned and are located on privately-owned property. The Federal Government does not have a working interest in either well. The gas to be produced from these wells is primarily privately-owned mineral. However, a portion of the gas contained within the existing spacing orders is Federally-owned

mineral. The BLM's responsibility for the Federally-owned gas in this case is to assure that royalties are collected on that portion of the production which is allocable to Federal ownership. The Bureau of Land Management, as a holder of a portion of the mineral rights, cannot stop production of the wells. The owners of the privately-owned mineral estate are entitled to "reasonable access" to produce their property, the privately-owned gas resource. The regulatory authorities responsible for issuing permits to re-enter and produce these two wells are the City of Evanston and the Wyoming Oil and Gas Conservation Commission. They are responsible for determining whether or not re-entry and production procedures comply with their regulations and to monitor activities to assure regulatory and permit stipulation compliance.

The advantages of producing these wells are efficient recovery of the resource, resolution of existing area use constraints by the eventual abandonment of the wells, prolonged use of processing capacities at the Whitney Canyon Processing Plant, economic benefits to the community through equipment purchases, rentals and employment, and their contribution to the estimated $40.6 million in revenues to local, state and federal governments from production severance taxes, royalties, and property and sales taxes.

As described in the Project Update, state-of-the-art technology is being used in wellhead equipment and other engineering and materials components to assure

worker and public safety during well re-entry and production phases of the project. The proponent has carefully reviewed every element of the project to assure that industry and BLM standards for operations involving sour gas are met or exceeded. Not only do materials specifications call for H_2S resistant materials, but also additional precautions are taken throughout the system to assure the long term integrity of the pipeline, wellhead, and all ancillary facilities. Detection monitors, four emergency shut down valves, and other warning and safety components will be located at the Harry Moon, Bradbury, and all other wells. The entire system will be constantly monitored. The Construction and Operations Plan will describe procedures for every aspect of operations. Additionally, emergency response/public protection plans being prepared will clearly provide procedures and actions to be taken to protect public safety in the unlikely event of an accidental release at either of these two wells.

Sour gas wells and pipelines are common to Wyoming, Uinta County, the United States and Canada and several existing sour gas projects are in close proximity to populated areas. The proponent has visited Occidental Petroleum's Myrtle Springs project in east Texas to learn about public safety components of that system. The Myrtle Springs project is a 12 inch insulated pipeline transporting gas with 30 percent H_2S. There is one residence within 50 feet of the pipeline and 800 people live within 1,000 feet of the line. A feeder line delivers gas into

that system from Unocal wells and a gathering system which are also close proximity operations. Amoco operates sour gas wells within the City limits of Calgary, Alberta. Mobil and Shell Oil's offshore production in Mobile Bay comes onshore for processing within the Mobile, Alabama metropolitan area. There are numerous other close proximity facilities. These circumstances, however, should in no way imply that public safety is not important. Public safety is necessarily a paramount consideration in project design, materials selection, construction and operations whenever close proximity facilities are contemplated. The BLM's Onshore Order #6, which applies to the WGS project, was promulgated to help assure that public safety is fully addressed when sour gas facilities are near populated areas.

PEOPLE WHO REGISTERED AT THE PUBLIC MEETINGS
(Some people attended more than one meeting. Names are listed only once here)

Edward Dickerson
Evanston, Wyoming

Carrie Dickerson
Evanston

Cyndie & John Nordwall
Evanston

George Wolford
Evanston

Duane Carpenter
Evanston

Clarence Lowham
Evanston

Glenda Krejci
Evanston

Robert & Phyllis Krejci
Evanston

Susan Taggart
Evanston

Brent D. Bergen
Evanston

Arlo Fawcett
Roy, Utah

Nadine Lyons
Layton, Utah 84041

Myrna Shipp
Roy, Utah

Dan Wetzel
Evanston

Rob Ridley
Evanston

Jerry Balius
Evanston

Jae Dee Kindler
Evanston

Brian Wallace
Evanston

Sharon Kreinbrink
Evanston

Edith Miller
Evanston

Mike Jackson
Evanston

Russell Easton
Evanston

Gary Symes
Evanston

Joe & Mary Fawcett
Henefer, UT

Roy & Arvilla Fawcett
Henefer, UT

Ruth A. Reese
Salt Lake City, Utah

Randy Leseberg
Evanston

Marc Pittman
Evanston

Ken Savage
Evanston

Forrest Bright
Evanston

Niccole Henderson
Evanston

Mr. & Mrs. Lorin Fawcett
Henefer, UT 84033

Alan & Kriss Tonge
Evanston

Roger Steele
Evanston

Dennis & Andrea Jablonski
Evanston

Rick T. Stapleton
Houston, TX

Jeff Ball
Denver, Co.

Joseph F. Joyce
Evanston

Jeff Shaffer
Evanston

James W. Abbott
Evanston

Claude M. Hamilton
Evanston

K C Byrne
Evanston

Carl V. Kreinbrink
Evanston

Ann Curtis
Evanston

John P. Bowers
Evanston

Ken Moak
Evanston

Mark Cox
Evanston

Marlin Wright
Evanston

Monte Siebrecht
Evanston

Ken Walbridge
Evanston

John Young
Evanston

Clarence Vranish
Evanston

Joe E. Loftin
Evanston

Mike L. Walker
Salt Lake City, UT

Julia Abbott
Evanston

Laura Moon
Evanston

Kathy Ball
Evanston

Kilburn Porter
Evanston

Lloyd & Marie Kay
Evanston

E. R. Butch Conner
Evanston

Mr. & Mrs. E. R. Woodmansee
Evanston

W. C. Vickers
Evanston

Bob Meiers
Evanston

Greg Duerden
Evanston

MEMBERS OF THE PUBLIC AND AGENCIES WHICH SUBMITTED WRITTEN COMMENTS

Governor Mike Sullivan
State of Wyoming
Cheyenne, Wyoming

Francis Petera, Director
Wyoming Game and Fish Department
Cheyenne, Wyoming

John T. Keck
Interim Director
State Historical Preservation Office
Cheyenne, Wyoming

Rory Reynolds
Utah Division of Wildlife Resources
Odgen, Utah

D. K. H. Alt
Salt Lake City, Utah

John M. Limburg
Murray, Utah

David Datteri
Evanston, Wyoming

Rod Millar
State Planning Coordinator's Office
Cheyenne, Wyoming

Cyndie Nordwall
Evanston, Wyoming

Donald B. Basko
State Oil and Gas Commission
Casper, Wyoming

Geological Survey of Wyoming
Laramie, Wyoming

Brad T. Barber
State Planning Coordinator
Salt Lake City, Utah

George & Carrie Dickerson
Evanston, Wyoming

Gordon L. Park
Evanston, Utah

Phillis Krejci
Evanston, Wyoming

Utah Division of Water Rights
Salt Lake City, Utah

Utah Department of Transportation
Salt Lake City, Utah

RECEIVED
AUG 13 1992
DIV. OIL, GAS, MINING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

AUG 6 1992

Mr. Bill McMahan
United States Department of the Interior
Bureau of Land Management
Rock Springs District Office
Post Office Box 1869
Rock Springs, Wyoming 82902-1869

Dear Mr. McMahan:

As requested, I have reviewed the document entitled, "Hazards Analysis/Risk Analysis Study of Union Pacific Resources Company's Wahsatch Gas Gathering Pipeline System," by Quest Consultants Incorporated.

The technical expertise exhibited by the authors of the document appears to be quite extensive, and the modeling of release and dispersion of natural gas from the proposed pipeline system under catastrophic conditions seems to be performed in a credible fashion. While I have not personally executed the FOCUS model, used in the analysis, I am extremely familiar with its technical basis, and the results presented in the document appear to be in the correct range for a worst-case release of the described magnitude. In such a case, rapid dilution of the plume occurs as the release depressurizes from the pipeline pressure to atmospheric. Subsequent dilution will occur as a result of naturally-occurring atmospheric turbulence. The FOCUS model adequately treats both of these phenomena, and can handle the treatment of denser-than-air plume dispersion, if necessary. In this case, as pointed out in the document, such dense gas phenomena are not present and therefore need not be treated.

There are a few points that may require additional examination or consideration:

(1) The concentration limits used in the modeling may or may not be appropriate. The United States Environmental Protection Agency (EPA) has had a difficult time deciding on concentration limits which may be considered "adequately protective of public health." The EPA is currently wrestling with this problem as it relates to the development of accidental release regulations under the Clean Air Act of 1990. The Bureau

of Land Management (BLM) may want to monitor the EPA's forthcoming decisions in this regard for the sake of maintaining a consistent approach.

(2) Comparison of the worst-case model results with those from any public domain model (even a screening-type model) may be useful toward providing additional comfort with the modeling results. Quest Consultants should be able to address such a comparison. Additionally, it should be kept in mind that the model used in the analysis is unbiased, i.e., it is not inherently conservative. Even though conservative assumptions are used to develop the model inputs, they are nonetheless plausible. Thus, if a worst-case release were to occur under worst-case conditions (an unlikely event), it is possible that the plume impacts may be slightly greater than predicted by this analysis. I would recommend consideration of "safety factors" when implementing system designs based on the analysis.

(3) In light of the fact that the proposed pipeline is not a risk-free venture (as pointed out by the analysis), the development of alarm systems, contingency plans, backup control systems, etc., will be extremely important to the safety of the nearby public as well as to the venture itself. To this end, the EPA has an engineering group in the Chemical Emergency Preparedness and Prevention (CEPP) Office which has experience in these areas and which is responsible for developing related guidance under the new Clean Air Act. With your permission, I am forwarding the documents you sent me to Craig Matthiessen of the CEPP Office for his review and comment on these matters.

I hope these comments are helpful, and I look forward to continued exchange of information on hazard analysis projects in the future, as I feel that our groups share many of the same interests with respect to the development of safe industrial policies based on sound and defensible science.

Sincerely,

David E. Guinnup

David E. Guinnup
Environmental Engineer
Technical Support Division

cc: C. Matthiessen

Wahsatch Gathering System, Summer 1992 Flare test

Dispersion Modeling Analysis

Prepared for

Union Pacific Resources Company

Project number AV-213011

AEROVIRONMENT, Inc. -Salt Lake City, Utah
Updated - April 17, 1992

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1 Introduction

This report has been prepared on behalf of Union Pacific Resources Company for purposes of describing the methodology and results of the air quality dispersion modeling analysis for the Wahsatch Gathering System, Summer 1992 Flare test facility. This report discusses the project description, dispersion models used, source input data, meteorology, and background air quality which is used in the air quality impact analysis.

A dispersion modeling analysis was performed for purposes of quantifying the project air quality impacts on the National Ambient Air Quality Standards (NAAQS). The dispersion models used are the latest versions obtained from the U.S. Environmental Protection Agency (EPA). The models are the recommended models as contained in the *Guideline on Air Quality Models*.

1.1 Projected Emissions

The Wahsatch Gathering System, Summer 1992 Flare test is expected to be a temporary source under the Utah Air Conservation Regulations. The emissions from the Wahsatch Gathering System, Summer 1992 Flare test are as follows:

SO_2 (t/yr)	59.3
H_2S (t/yr)	.6

2 Models used

The dispersion models used are the latest versions obtained from the U.S. Environmental Protection Agency (EPA). The models are the recommended models as contained in the *Guideline on Air Quality Models.*

Locations where model predicted concentrations are performed, called receptors, are both lower and higher in elevation than the emission sources. To accommodate this, both flat terrain modeling and elevated receptor modeling will be performed. The preferred flat terrain model for this project is ISCST. For elevated receptors, called complex terrain, the COMPLEX I model will be used. Both models will use the same receptor grid, which contain receptors at many different elevations.

2.1 Flat terrain model

The Industrial Source Complex short-term (ISCST) dispersion model is designed to use hourly meteorological data to calculate concentration or deposition values produced by emissions from multiple stack, volume, and area sources. Discrete or arbitrarily placed receptors are allowed. Average concentration or total deposition values are calculated for any averaging period. Average concentration or total deposition values are printed for source groups, where a source group consists of any combination of sources included in the model input data.

2.1.1 Program control options

ISCST requires several program control options which define the method of calculating the concentrations. Certain options must be used when the model results are used for regulatory purposes. ISCST has an option to automatically set the required options. These options are as follows:

1) Tape/file meteorological input assumed
2) Final plume rise at all receptor locations
3) Stack-tip downwash
4) Buoyancy-induced dispersion
5) Default wind profile coefficients (urban or rural)
6) Default vertical potential temperature gradients
7) Calm wind processing
8) A decay half life of 4 hours for SO_2, urban; otherwise the half life is set to infinity
9) Revised wake effects procedures

2.2 COMPLEX I Model Description

COMPLEX I is a post screening model designed to treat plume impact on elevated (complex) terrain from point sources. This model is used for receptors having elevations higher than the elevation of the stack top. The algorithm is based upon Gaussian modeling assumptions and incorporates the Pasquill-Gifford (P-G) verticle dispersion parameters.

2.2.1 Terrain Adjustments

Consideration of the differences between local ground-level elevation at the stack and at the receptor is an option in COMPLEX I. The adjustment for terrain is made by treating the plume as if it were released over flat terrain, but lowers the plume closer to the ground, resulting in higher predicted concentrations. The final adjusted height of the plume is not allowed to completely impact the ground, but is set to a minimum distance, ZMIN, by the user. The amount of plume height adjustment is determined by the elevation differences between the source and the receptor multiplied by a terrain adjustment factor which can range from 0 to 1. Terrain adjustment factors are entered for each of the six P-G stability classes. The terrain adjustment incorporated in COMPLEX I is obviously simplistic. For the estimation of plume behavior in the vicinity of a single hill, stable-plume fluid modeling studies have shown the importance of the Froude number, and of the location of the receptor and the plume relative to hill base and top. None of these parameters are considered here, but rather the relation of the receptor and source ground-level elevations. The reader is therefore cautioned against assigning too great a significance to results obtained using the terrain adjustment option.

2.2.2 Program control options

The default options recommended for regulatory applications are as follows:

1) Final plume rise is used (gradual or transitional plume rise is not considered).
2) Buoyancy-induced dispersion is used.
3) Terrain adjustment factors are set to .5,.5,.5,.5,0,0 for stability classes A through F respectively.
4) Use calm processing options.
5) Decay half-life is set to an infinite half-life (no decay) for <u>all</u> cases.
6) Use terrain adjustment option
7) Set ZMIN to 10 meters

2.3 Building downwash

There are no major buildings surrounding the proposed Wahsatch Gathering System, Summer 1992 Flare test, so aerodynamic building wake effects will not be considered for this project.

3 Model Input Data

3.1 Location

The Wahsatch Gathering System, Summer 1992 Flare test will be located in Wahsatch, Utah. Figure 1 is a map of the location of the source.

3.2 Meteorology

Meteorological inputs required by the dispersion models are: hourly averages of wind direction, wind speed, ambient air temperature, Pasquill stability category, [1]mixing height, wind-profile exponent and vertical potential temperature gradient.

Meteorological data was available from a station that is very close to the flare site. This meteorlogical data was originally collected and used in a PSD permit for the Amoco Anshutz gas treatment facility, which was proposed to be located about 500 meters southeast of the flare site. Although the data is fairly old, it is most representative of wind flow conditions at the flare site. The data was collected on a hill top, just west of the flare site, so it is very representative of free stream wind flow in the region surrounding the flare. The map in figure 1 shows the location of the met station, with respect to the flare site. Figure 2 is a plot of a stardata file from this site.

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[1]The mixing height is the height above the surface at which an elevated stable layer exists. Emissions released under this layer are confined within the layer. Emissions released above this layer are not considered by the model.

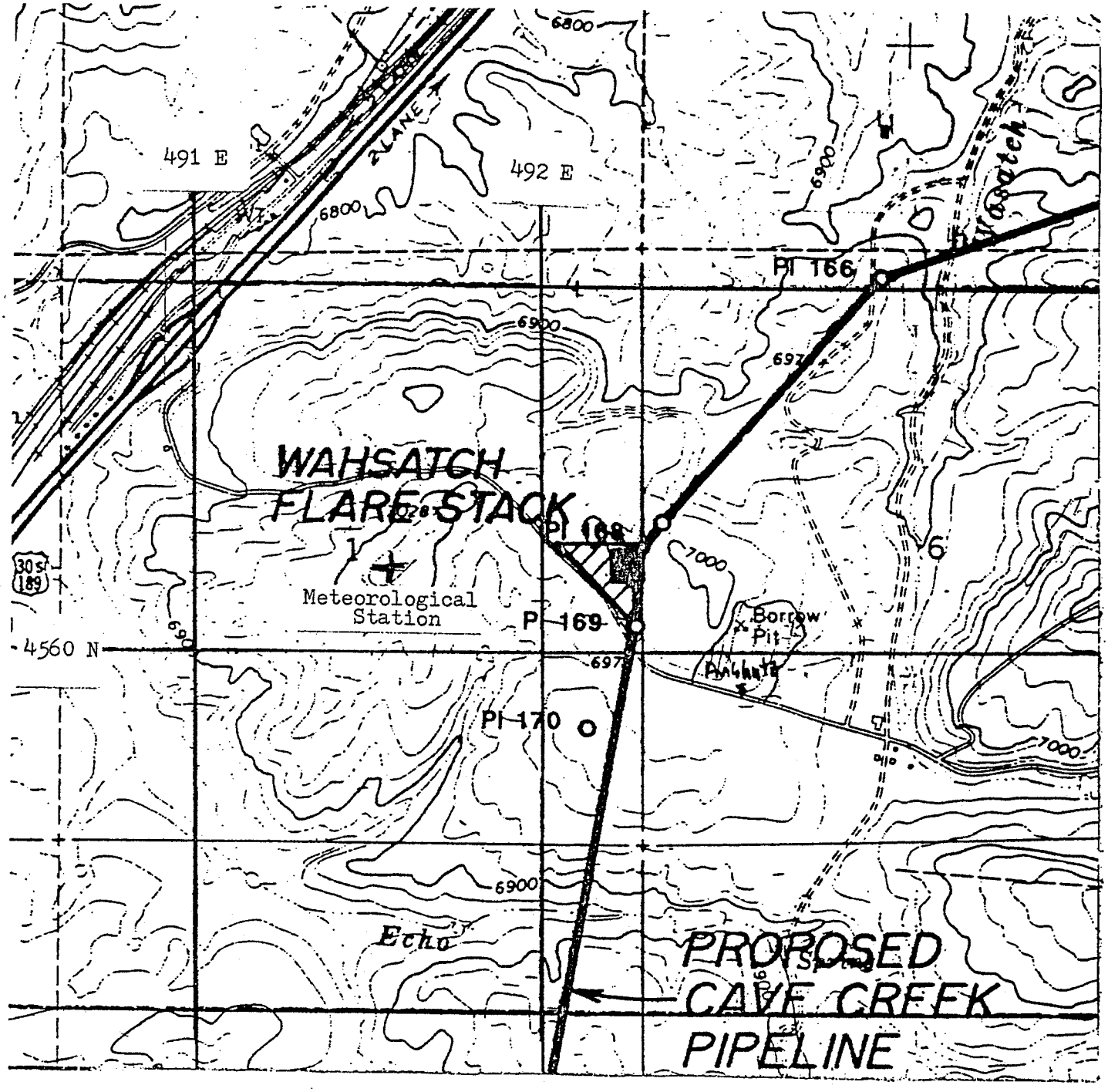

Figure 1 - Map of Wahsatch Flare Stack and property (within hatched area).

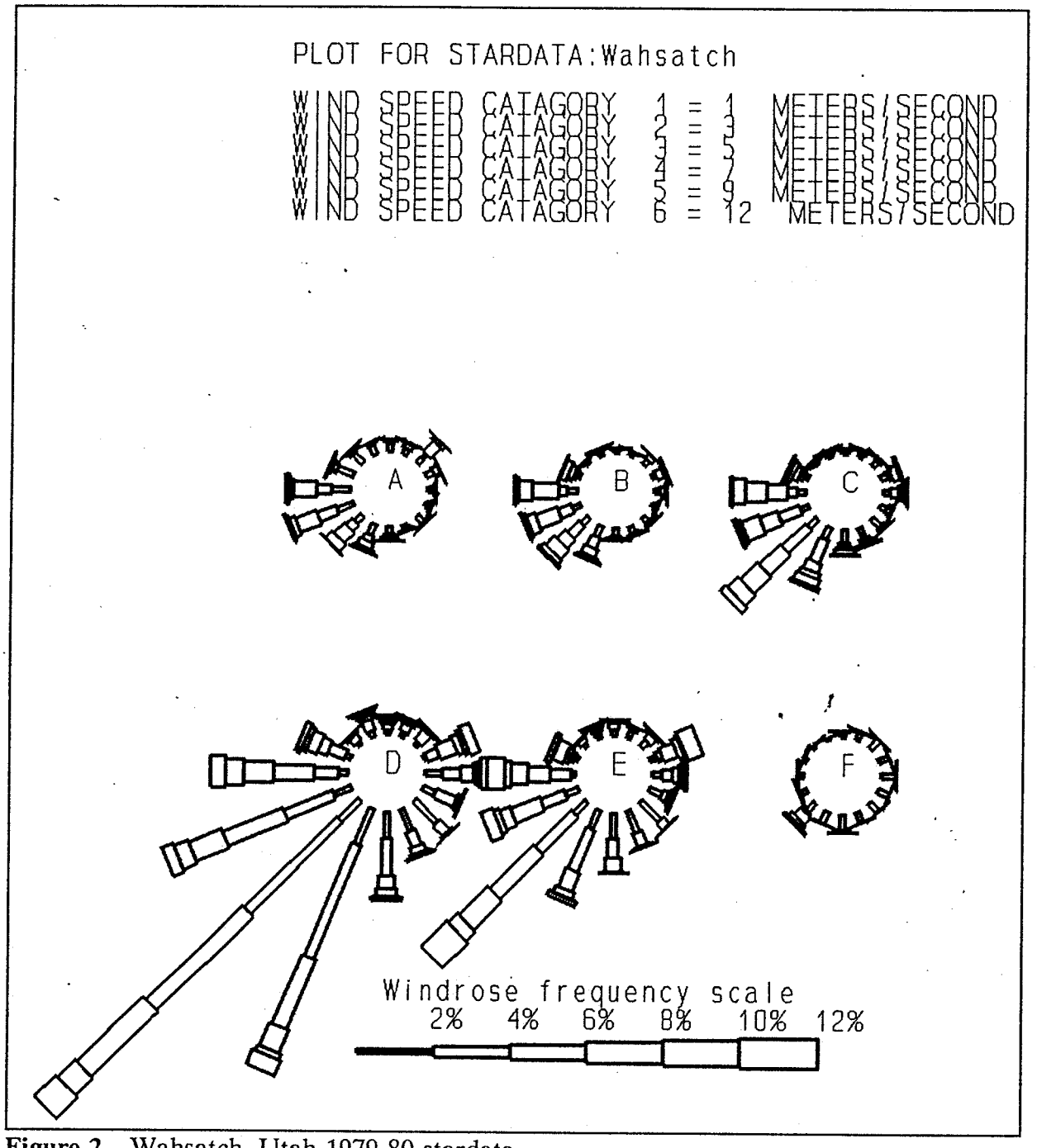

Figure 2 - Wahsatch, Utah 1979-80 stardata.

3.3 Receptor Data

Receptor locations in the Cartesian coordinate system are given as Universal Transverse Mercator (UTM) coordinates. The ground level elevation (meters) of each receptor is required. If receptor heights above ground ("flagpole" receptors) are to be modeled, the receptor height above local terrain (meters) is also required.

A grid of receptors was developed to allow for adequate impact boundary definition with enough grid points to allow for maximum concentrations to be identified. Based on the source type, the receptor region was chosen. Nested grids are used within larger, coarser grids, if the modeled concentrations indicate that the maximum concentration was localized (i.e. hot spots). Terrain elevations were obtained from USGS quadrangle topographic maps for each of the receptor grid points used. Figures 3, 4 and 5 are plots of the terrain heights for the receptor grids used to model the Wahsatch Gathering System, Summer 1992 Flare test facility.

The background data to be used in comparing the impacts from the Wahsatch Gathering System, Summer 1992 Flare test with applicable NAAQS is discussed in this section.

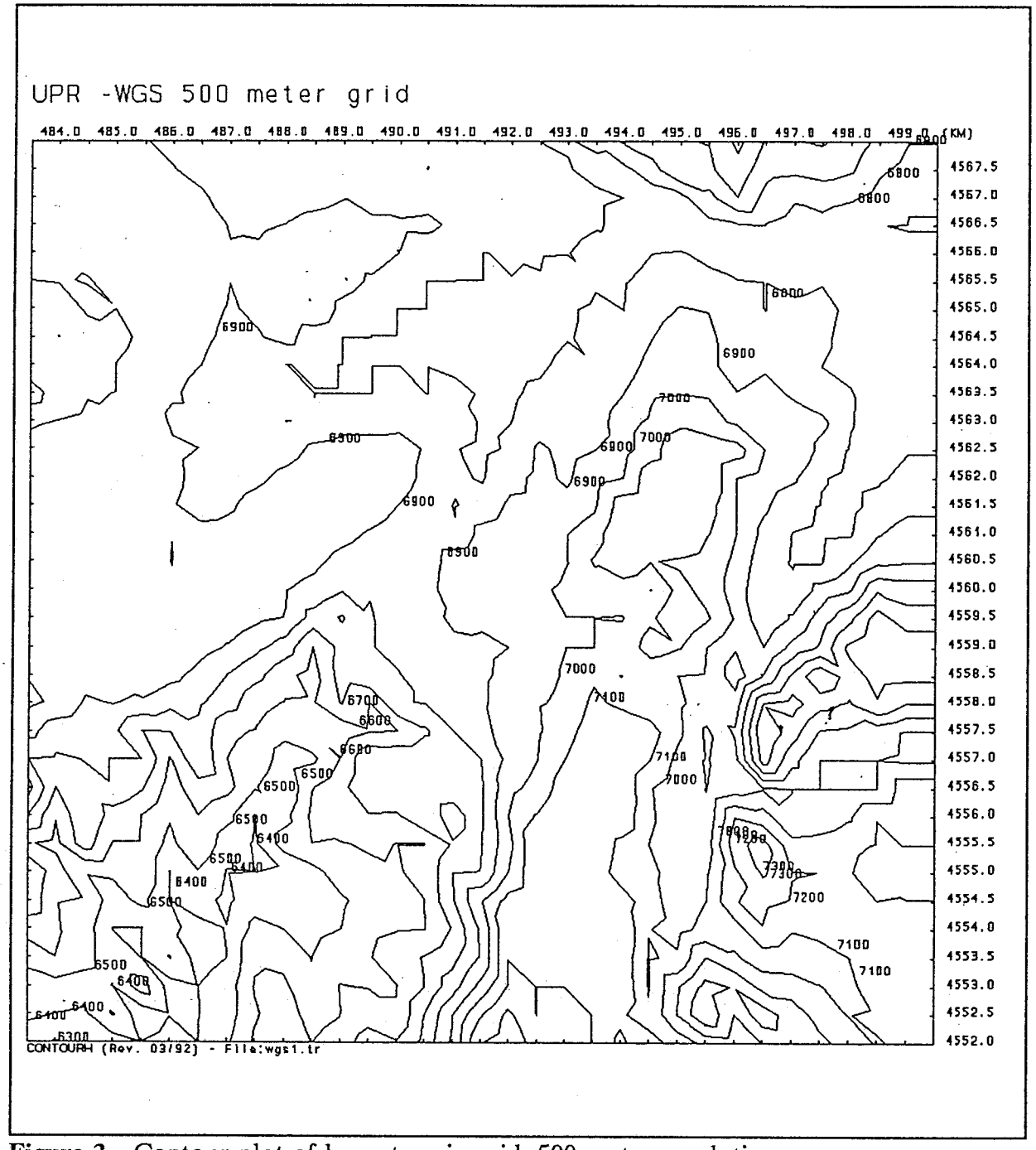

Figure 3 - Contour plot of large terrain grid, 500 meter resolution.

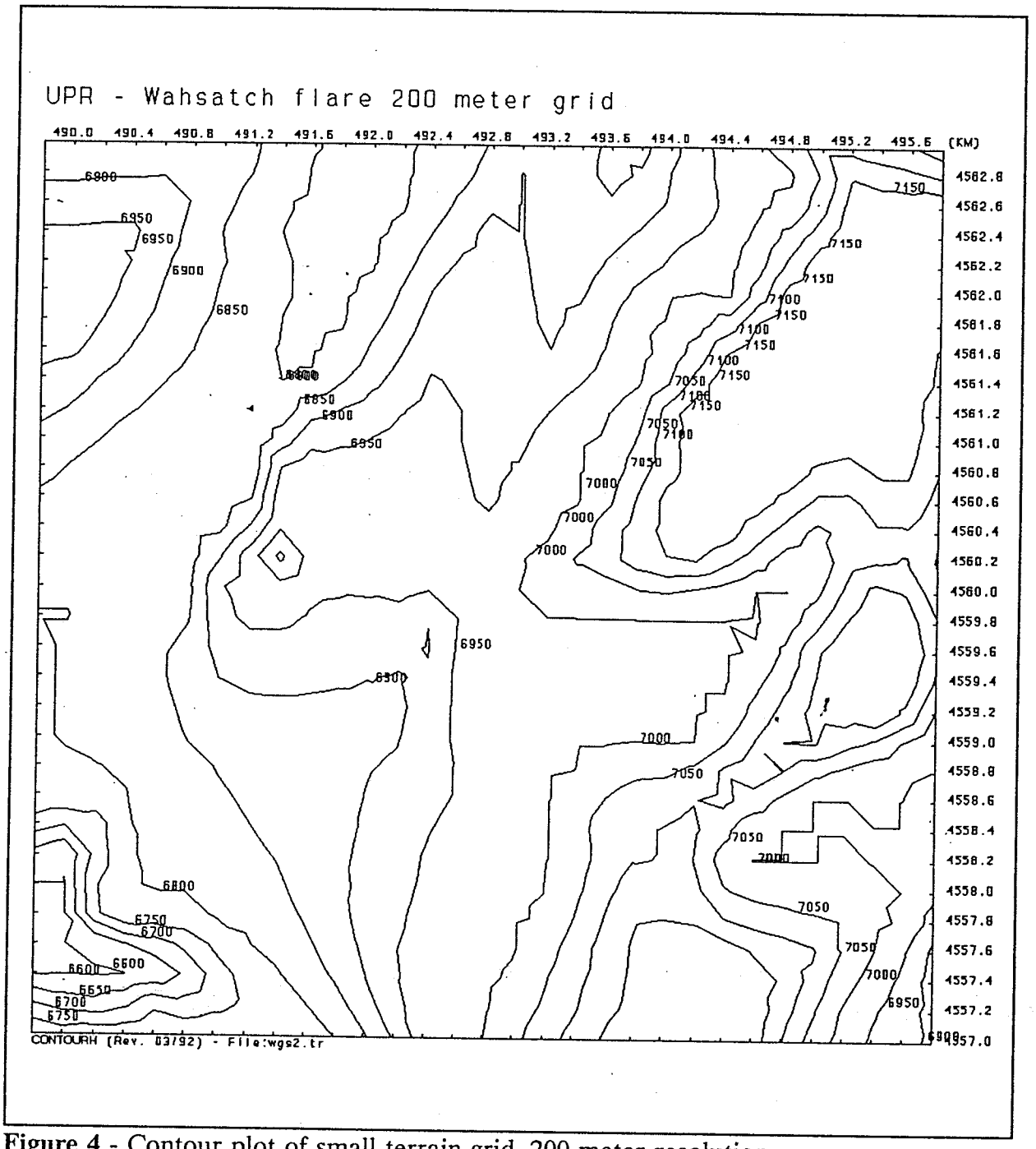

Figure 4 - Contour plot of small terrain grid, 200 meter resolution.

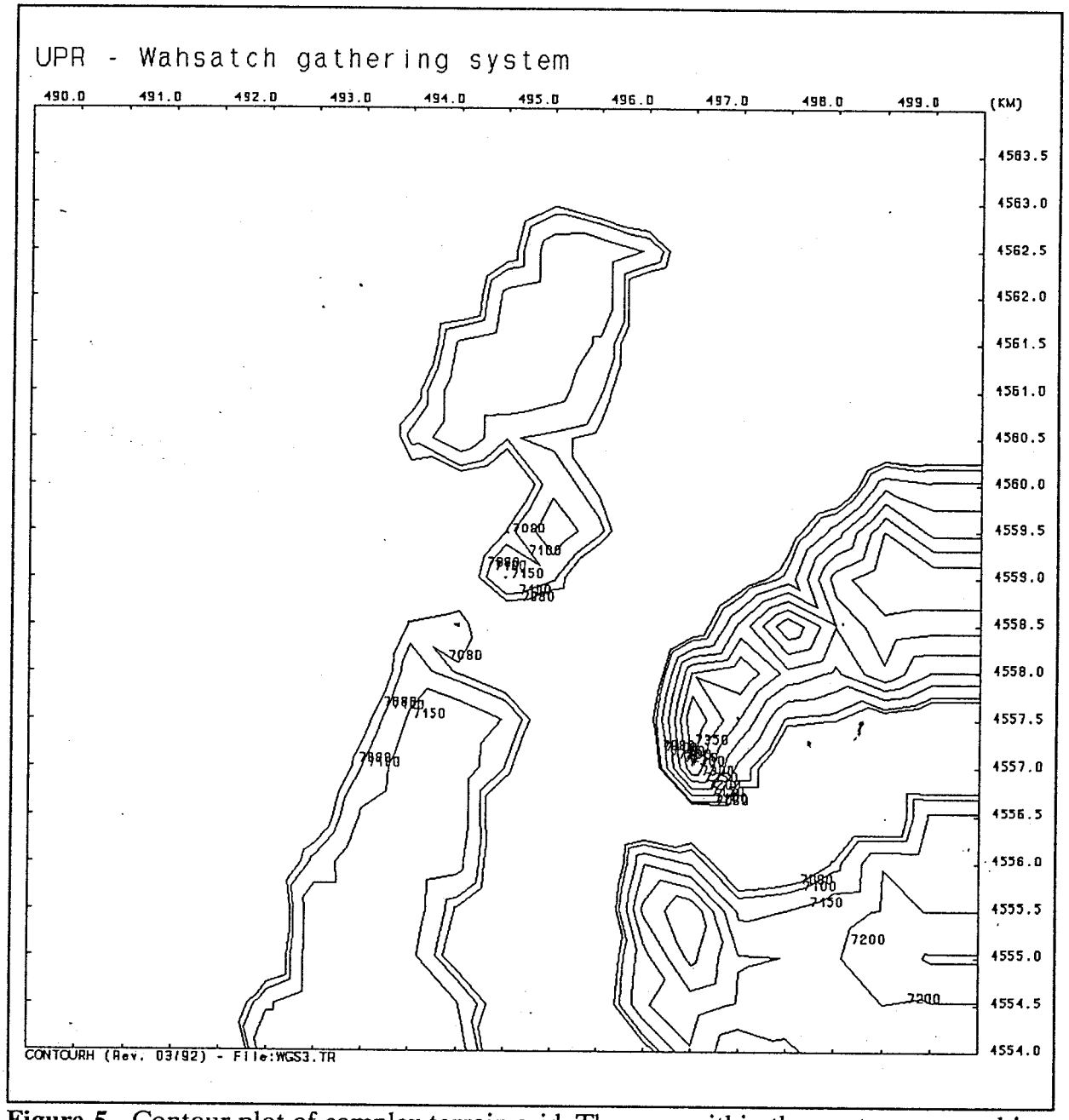

Figure 5 - Contour plot of complex terrain grid. The area within the contours are subject to model results from COMPLEX1. The area lower in elevation is where only the ISCST model results apply.

3.4 Background Ambient Air Quality

Background data which represents ambient conditions at the facility used was Bountiful, Utah 1990. This is a permanently located monitoring station, operated by the Utah DAQ. The following table lists the background data which was used.

3-hr SO_2	24-hr SO_2	Annual SO_2
(micrograms/cubic meter)		
78	78	16

3.5 Source emissions

The Wahsatch Gathering System, Summer 1992 Flare test facility was modeled for SO_2, and H_2S. Table 1 summarizes the source emission rates analyzed in this report. For additional information, the reader should refer to the model output listings which are on a 3.5 inch computer disk at the end of this report (files with .out extension), and are printed under separate volume.

Table 1

	Source modeling emissions worksheet											
Project:	Union Pacific Resources											
Facility:	Wahsatch Flare testing - summer 1992											
09-Apr-92									Emission rates for model			
				Average	Peak	Peak 3hr	Operation		8hr	annual	3hr	8hr
		H2S	SO2	lb/day	lb/day	lb/hr		h/day	g/s	g/s	g/s	g/s
Source		t/yr	t/yr	SO2	SO2	SO2	day/yr		H2S	SO2	SO2	SO2
MMCF of gas /day				1.040	2.083	3.056	5	8.0				
Flare site		0.568	59.3	23708.0	47492.0	8706.9	5	8.0	7.172	0.071	1097.04	747.98
heat rate (cal/s)				9100000	18229167	26736111						
Stack type bouyancy flux						443.75						
T (k)						1273						
Vs (f/s)						371.1						
Vs (m/s)						113.1						
D						1.4417						

AVUT011-04-17-92

4 Detailed dispersion modeling results

4.1 SO2 - 3 hour NAAQS

Model results for the Wahsatch Gathering System, Summer 1992 Flare test were within all applicable NAAQS limits. The 3 hour average NAAQS impact for SO2 was predicted to be 1035 micrograms per cubic meter. This maximum occurred at UTM 493.000 (km) E/ 4560.400 (km) N. When this predicted value is added to the background of 78 the total is 1113 micrograms per cubic meter, which is 85.6% of the NAAQS set at 1300 micrograms per cubic meter. The model which showed the highest concentration was ISCST. Figures 6 and 7 are plots of total project impact using ISCST for the two different grid sizes. Figure 8 is a similar plot indicating the COMPLEX1 model results. Since the complex terrain is east of the major impact areas predicted by COMPLEX1, results from this run were less than ISCST. A model result summary for the Wahsatch Gathering System, Summer 1992 Flare test may be found in table 2.

4.2 SO2 - 24 hour NAAQS

The 24 hour average NAAQS impact for SO2 was predicted to be 103 micrograms per cubic meter. This maximum occurred at UTM 493.000 (km) E/ 4560.400 (km) N. When this predicted value is added to the background of 78 the total is 181 micrograms per cubic meter, which is 49.5% of the NAAQS set at 365 micrograms per cubic meter. The model which showed the highest concentration was ISCST

4.3 SO2 - annual NAAQS

The annual average NAAQS impact for SO2 was predicted to be 0.0 micrograms per cubic meter. This maximum occurred at UTM 493.800 (km) E/ 4560.400 (km) N. The modeled project total impact plus background is 19.5% of the NAAQS set at 80 micrograms per cubic meter. The model which showed the highest concentration was ISCST.

4.4 H2S - 8 hour TLV/100

The 8 hour average TLV/100 impacted by the project for H2S was predicted to be 6 micrograms per cubic meter. The modeled project total impact plus background is 4.5% of the TLV/100 set at 140 micrograms per cubic meter. The model which showed the highest concentration was ISCST.

Table 2

Dispersion Modeling summary sheet

Source:	Union Pacific Resources Company
Project:	Wahsatch Gathering System, Summer 1992 Flare test
Location:	Wahsatch, Utah
Date:	16-Apr-92
Meteorology:	Wahsatch, Utah 1979-1980
Background:	Bountiful, Utah 1990

Model prediction results:

Pollutant	Standard	Average	Maximum off-site UTMx (km)	UTMy (km)	Impact	Background	Total	Standard	Percent used	Model	Modeled Emissions (g/s)	Actual Emissions (g/s)
					Micrograms per Cubic Meter							
SO2	NAAQS	3 hour	493.000	4560.400	1035	78	1113	1300	85.6%	ISCST	1097.000	1097.000
SO2	NAAQS	24 hour	493.000	4560.400	103	78	181	365	49.5%	ISCST		249.327
SO2	NAAQS	annual	493.800	4560.400	0.0	16	16	80	19.5%	ISCST		0.071
H2S	TLV/100	8 hour	493.000	4560.400	6	0	6	140	4.5%	ISCST		7.172

5 Concentration isopleths figures

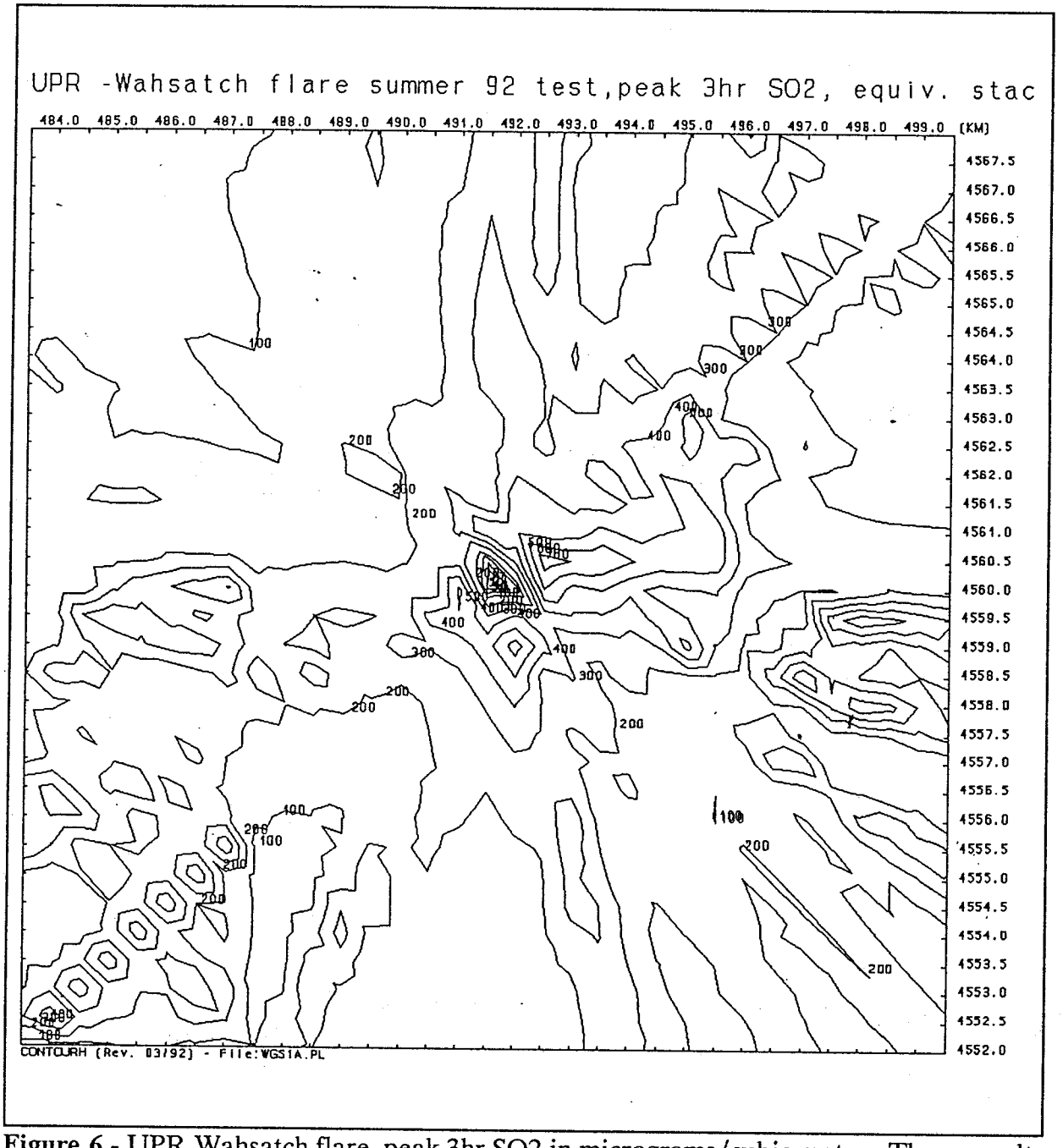

Figure 6 - UPR Wahsatch flare, peak 3hr SO2 in micrograms/cubic meter. These results are from the ISCST model using Wahsatch, Utah 1979 meteorology.

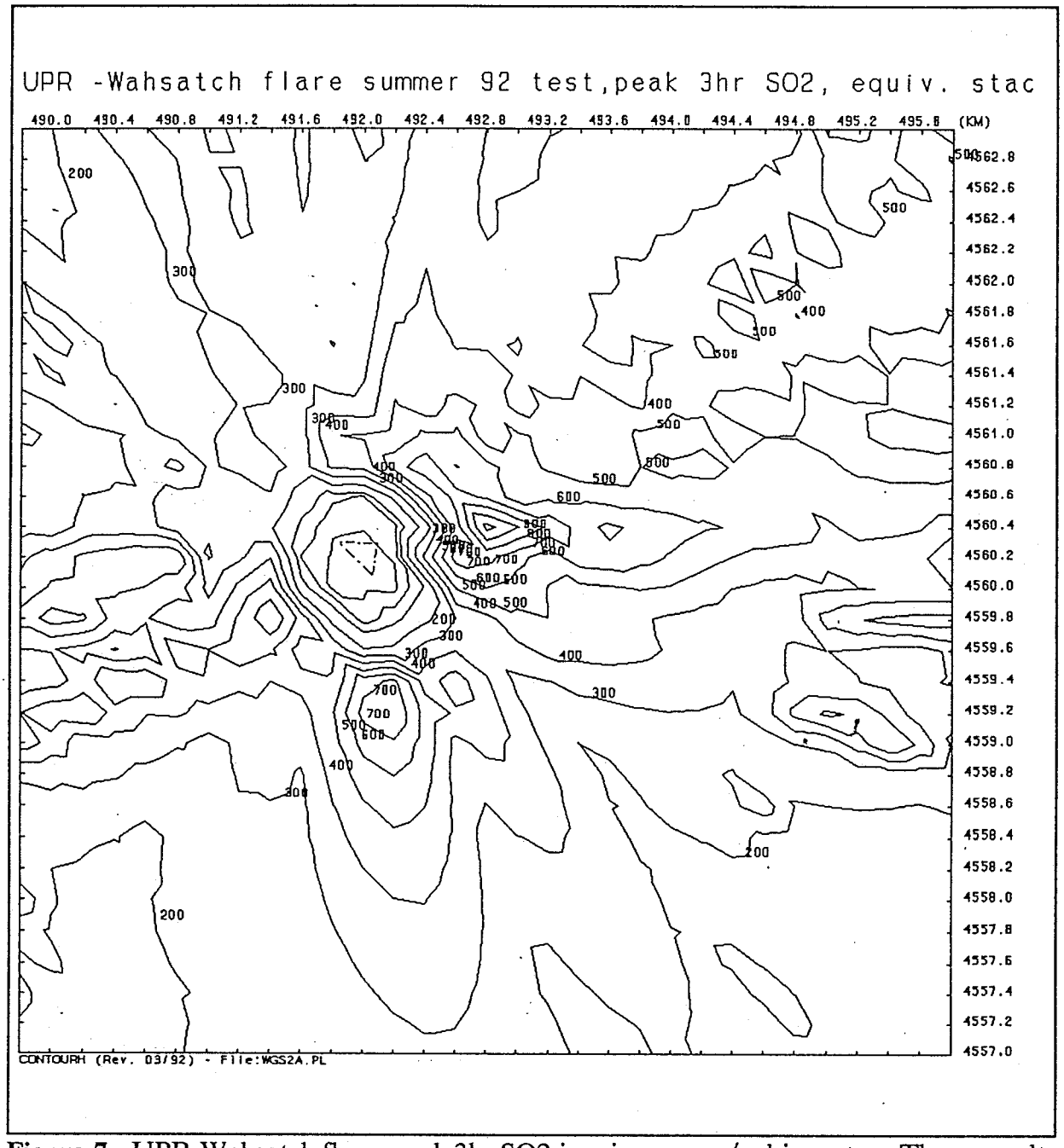

Figure 7 - UPR Wahsatch flare, peak 3hr SO2 in micrograms/cubic meter. These results are from the ISCST model using Wahsatch, Utah 1979 meteorology.

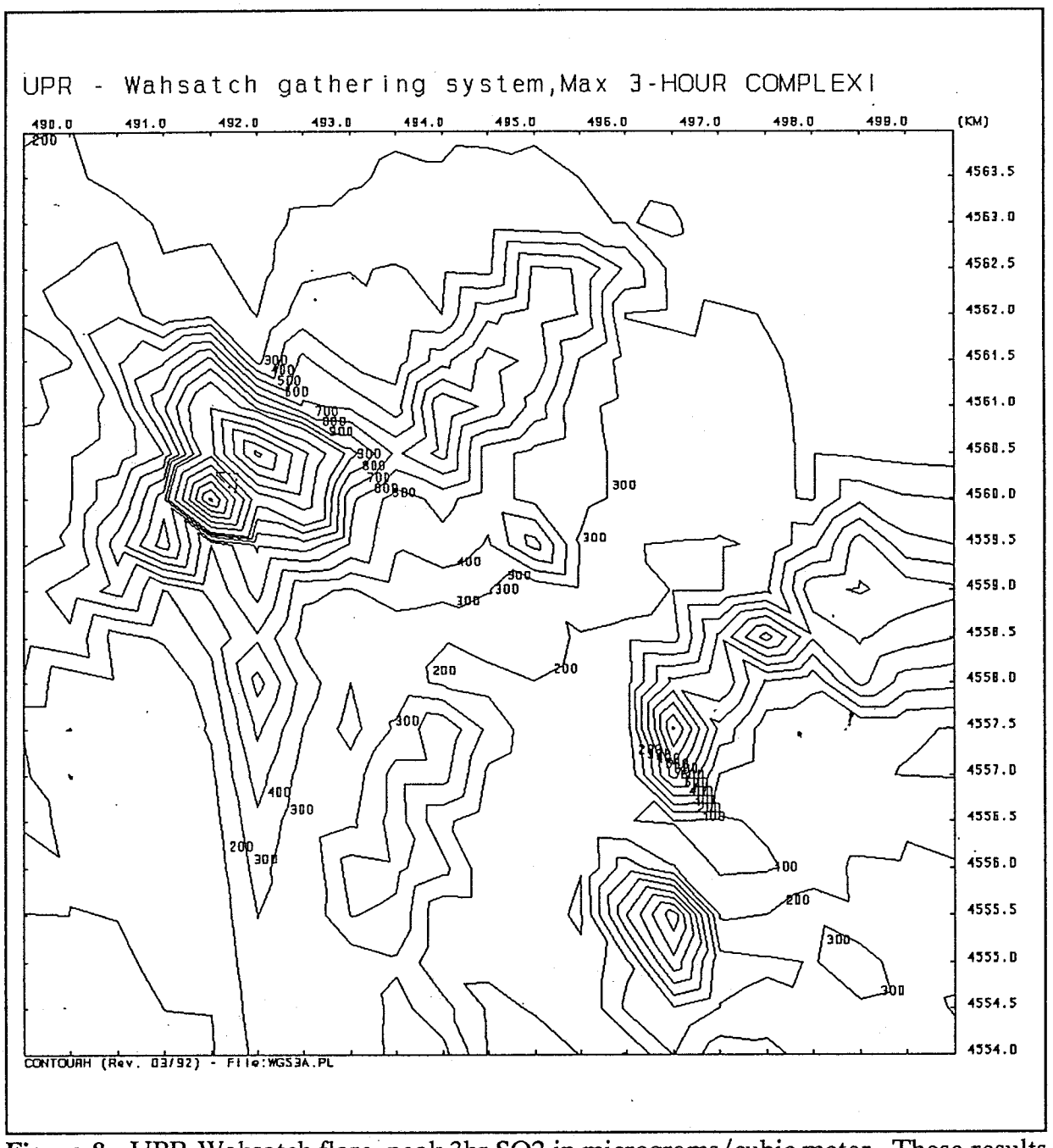

Figure 8 - UPR Wahsatch flare, peak 3hr SO2 in micrograms/cubic meter. These results are from the COMPLEX1 model using Wahsatch, Utah 1979 meteorology.

JTIL2 B:*.*áá

COMMAND ëëë SCROLL ëëë HALF

NAME	EXT	SIZE	CDATE	TIME	NEW NAME
SUMMARY	WK1	3743	04/16/92	4:03p	
WAHSAT79	MET	254756	04/14/92	5:37p	
WGS1	TR	4613	04/08/92	12:30p	
WGS1A	IS	12308	04/15/92	1:38p	
WGS1A	OUT	335876	04/15/92	2:23p	
WGS1A	PL	18619	04/16/92	1:23p	
WGS2	TR	4101	04/09/92	4:14p	
WGS2A	IS	10946	04/15/92	1:38p	
WGS2A	OUT	307780	04/15/92	3:04p	
WGS2A	PL	16443	04/16/92	1:25p	
WGS3	TR	1894	04/09/92	4:47p	
WGS3A	CX	22628	04/16/92	12:09p	
WGS3A	OUT	321759	04/16/92	12:27p	
WGS3A	PL	7585	04/16/92	1:27p	
WGSFLARE	CFM	447	04/15/92	1:28p	
WGSSO2-F	SCR	374	04/09/92	12:43p	
WGSSO2-P	SCR	426	04/09/92	2:43p	
END					

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DMK

ENVIRONMENTAL ENGINEERING, INC.

UNION PACIFIC RESOURCES

WASHATCH GATHERING SYSTEM

TEST PROGRAM

APRIL 10, 1992

4609 South 23rd East #102 Holladay, Utah 84117
(801) 278-5133 FAX # (801) 278-5170

Union Pacific Resources - Wahsatch Flare

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Union Pacific Resources - Wahsatch Flare

I. Introduction

Union Pacific Resources Company (UPRC) has purchased, and is investigating the feasibility of operating, the Wahsatch Gathering System (WGS). This system consists of eight natural gas wells, 40.5 miles of connecting pipelines, and associated equipment including 18 heaters and four flares. The pipeline would transport sour natural gas from the wells to the Whitney Canyon Processing Plant north of Evanston, Wyoming. Most of the equipment associated with this project would be located in Wyoming. One well, two flares and possibly three heaters would be located in Utah.

Prior to developing the entire project, UPRC would like to run production tests on six of the wells. A production test consists of allowing the well to send gas down the pipeline to a flare and measuring the flow rates to determine how much gas the well will produce. UPRC would like to run the first test in early summer of 1992. The remaining tests would be run in 1993. Each test would emit SO_2 and other products of combustion. SO_2 would be the air contaminant emitted in the largest quantity (maximum of approximately 60 tons per test). All other air contaminants would be emitted in quantities of 1.5 tons or less.

The main flare, in which the tests would be vented, is located in Utah approximately four miles south west of Evanston.

Prior to proceeding with the full test program, UPRC would like to obtain an experimental variance to allow for one production test. Information obtained during this test will be used to determine if the full production test program should be pursued. The full production test program would determine if the long-term operation of the project would be feasible and if it is worth completing. Data gathered during the test would be used to prepare a complete Notice of Intent for the remaining production tests and the full project.

Dispersion modeling has been performed, which predicts that no violations of the National Ambient Air Quality Standards (NAAQS) or Prevention of Significant Degradation (PSD) increments should occur from the test. Systems to reduce SO_2 from the flare were investigated. None were found which were within the price range normally considered acceptable for compliance to the Best Available Control Technology (BACT) requirement. Emissions from the test would be held to the minimum possible by flaring only the minimum amount of gas necessary to obtain the data.

Any correspondence regarding this application should be mailed to:

Mr. John A. Rector
Staff Supervisor Environmental Affairs
Union Pacific Resources
Mail Station 3103
P.O. Box 7
Fort Worth, TX 76101-0007
(817) 877-7013

II. Description of the Proposed Project

Union Pacific Resources Company (UPRC), of Forth Worth, Texas, a subsidiary of Union Pacific Corporation, proposes to construct, develop and operate the Wahsatch Gathering System (WGS). The WGS project is a 40.5 mile long pipeline network that would transport sour gas from eight shut-in wells in the Yellow Creek Deep Field, of Uintah County, Wyoming and the Cave Creek Field, of Summit County, Utah, to the Whitney Canyon Processing Plant north of Evanston, Wyoming. The sour gas would then be processed and delivered to interstate pipeline systems and gas markets.

The project was originally proposed to the Utah Bureau of Air Quality in 1983, by Amoco Production Company, as the Cave Creek Sour Gas Gathering System and included production from seven wells. Amoco deferred construction of the project, due to lack of available processing capacity at the Whitney Canyon Processing Plant. Negotiations between UPRC and Amoco Production Company resulted in UPRC acquisition of the project and Amoco's operating interest in the subject wells in August 1991. Today, the processing plant capacity exists to accommodate production from these sour gas wells.

Eight wells were drilled in the late 1970's and early 1980's, production tested in 1982/83, and shut in. The wells have been shut-in since the 1982/83 testing. Until re-completion and production testing is done, the down-hole condition of the wells and their production capability is uncertain.

At this time, UPRC would like to obtain approval to test the production capability of one well to determine if it is feasible to proceed with the rest of the project. If the first well proves productive, testing of five additional wells would be scheduled for 1993. Four of those five tests would be flared at the same Wahsatch flare site. One well, the Fewcett & Sons located in Utah approximately five miles south of the Wahsatch flare site, would be flared through a separate flare located at the well site. Approval to test those wells would be requested in a Notice of Intent which would be submitted at a later date.

The first well to be tested would be the Urroz well, located just east of the Utah-Wyoming border and approximately four miles southwest of Evanston (Sec. 2, T14N, R121W). A map showing the location of the well and flare is included in Appendix 4. Gas from the well would be sent to a flare system that was constructed by Amoco Production Company for the purpose of conducting production tests on six of the wells. The flare system was composed of gathering lines and a pipeline to a flare site on private land in Summit County, Utah (Sec. 1, T5N, R7E), three miles southwest of the Yellow Creek Deep Field. After the initial testing in 1982/83, the flare stack was removed but, the gathering lines, right-of-ways and flare site remain intact.

In order to run the production test, the Urroz well would be re-completed, and a new 128 foot high flare stack constructed on the flare site. The pipeline connecting the well to the flare would be pressure tested using water.

During Production testing of the Urroz well, gas would be flared during the daylight hours for a period not to exceed one week. It is estimated that up to 5.2 million cubic feet of gas would be flared. This gas would be up to 14.04 percent H_2S by volume. Projected flow rate of gas to flare during the test is as follows:

DAY	FLARING HOURS	FLOW RATE (DSCF/HR)	CUMULATIVE VOLUME MILLION FT^3
1	8	21,000	.2
2	8	42,000	.5
3	8	62,500	1.0
	2	104,000	1.2
	2	208,000	1.6
	2	312,500	2.3
4	2	417,000	3.1
	2	104,000	3.3
	2	208,000	3.7
	2	312,500	4.3
5	2	417,000	5.2

No chemical reactions other than the normal reactions of combustion would be involved in this test.

The operator of the facility will be:

Union Pacific Resources Company
P.O. Box 7
Fort Worth, Texas 76101-0007

III. Potential Emission Points and Potential Air Contaminants

During production testing, the only emission point located in Utah will be the flare stack. In addition to the Wahsatch Flare, a small amount of gas (.2 million ft_3) vented from storage tanks, will be flared at the well site in Wyoming. Each of the following air contaminants will be produced from the combustion at the flares:

PM-10
SO_2
NO_x
CO
VOC
H_2S and other sulfur compounds
Methane
Ethane

The VOC will be composed of the following gases:

Propane
Butane
Pentane
Hexanes
Heptanes and higher molecular weight hydrocarbons.

A gas analysis, showing a more detailed list of the sulfur compounds and the higher molecular weight compounds which would be emitted from the flare, are shown in Appendix 3.

VI. Other Considerations

A. Best Available Control Technology (BACT)

We have investigated systems that could be applied to this production test. Due to the high concentration of H_2S in the natural gas, most systems which could be installed on a temporary basis would be overloaded in a short period of time. The only system which we found that would be capable of handling the high H_2S concentration is an absorption system using a product called Sulfur Guard.

Sulfur Guard is a liquid which can absorb the H_2S out of the natural gas. It is capable of reducing the H_2S concentration in the Gas to 4 ppm. Liquid / Gas contact must be provided in a packed tower. Once the Sulfur Guard is saturated with the maximum amount of H_2S that it can hold, it must be replaced with fresh liquid. The saturated Sulfur Guard is then disposed of in an environmentally sound manner.

In order to absorb the quantity of H_2S contained in the gas to be flared during the one week test, 33,000 gallons of Sulfur Guard would be required. Sulfur Guard costs $6.50 per gallon. The cost of the Sulfur Guard liquid would be $429,000. Packed Tower Pressure Vessels could be rented at a cost of $50,000. Ignoring the cost of construction expenses, operating expenses and disposal costs for the spent Sulfur Guard, the total cost to use the Sulfur Guard system would be $479,000.

The system would prevent the release of approximately 60 tons of SO_2 and .64 tons of H_2S into the atmosphere. At a cost of $529,000, the expense to control the pollutants with this system would be $7,527 per ton of pollutant controlled. We believe this amount exceeds the quantity which is considered reasonable cost for pollution control.

Because the only pollution reduction system which is technically feasible for this test is excessively expensive, we believe the operation of the flare, as proposed, is consistent with the definition of BACT contained in the UACR.

B. National Ambient Air Quality Standards (NAAQS)

In order to determine the impact this test will have on the NAAQS, dispersion modeling was performed. Details of the model used, the input parameters, and

results of the model are contained in a seperate document prepared by AeroVironment. The modeling shows that no exceedances of the NAAQS will occur from this test.

C. Nonattainment Area Considerations

The designation of the location of this facility is attainment for all air pollutants. The only pollutant emitted in a large enough quantity to be a concern is SO_2. The nearest nonattainment area for SO_2 is Salt Lake County which is approximately 40 miles to the southwest. Wyoming has no SO_2 nonattainment areas.

D. Stack Heights

There are no stacks associated with this test which exceed 65 meters in height. Therefore, the test is in compliance with Section 3.8 UACR (Stack Heights).

E. Visibility

Since the emissions associated with this test are less than 100 tons per year for each pollutant, Section 3.11 UACR (Visibility Protection) does not apply.

V. Conclusions

Union Pacific Resources requests an experimental variance to run a production test on the Wahsatch Gathering System. Information gathered during the test would be used to determine if the project should be completed and to prepare a complete Notice of Intent for additional production tests and for full operation of the collection system.

The test would last for a period of one week and emit approximately 63 tons of Sulfur Dioxide. Dispersion modeling shows that no exceedances of the National Ambient Air Quality Standards will occur from the test. Pollution reduction systems were investigated but none were found which could be reasonable be applied to this test.

APPENDIX 1

AIR POLLUTANT FACT SHEET

COMPANY NAME: UNION PACIFIC RESOURCES
PROJECT: WAHSATCH GATHERING SYSTEM FIRST PRODUCTION TEST
DATE: 09-Apr-92 08:03 AM
CALCULATION BY: DMK ENVIRONMENTAL ENGINEERING

AIR POLLUTANT FACT SHEET
EMISSION POINT: WAHSATCH FLARE

POLLUTANT	EMISSION RATES					MAXIMUM STACK FLOW RATE DSCFM	GR/DSCF OR PPMDV IN STACK	POTENTIAL UPSET CONDITIONS		BACT CONCIDERATIONS AND CONTROL MEANS
	UNCONTROLLED		CONTROLLED							
	LBS/HR	TPY	LBS/HR	TPY	HOURLY G/SEC			LBS/HR	LBS/YR	
						416,667				
PM-10	0	0	7.12	0.044	0.897		N/A	0	0	Proper Flare Design
SO2	0	0	9,514	59.4	1,199		N/A	0	0	Sulfur Check, Flare*
NOx	0	0	29.9	0.187	3.77		N/A	0	0	Proper Flare Design
CO	0	0	163	1.016	20.51		N/A	0	0	Proper Flare Design
VOC	6,505	40.6	130	0.812	16.39		N/A	1,626	1,626	Proper Flare Design
H2S	5,158	32.2	103	0.644	13.00		N/A	1,289	1,289	Sulfur Check, Flare*
Methane	12,505	78.0	250	1.561	31.51		N/A	3,126	3,126	Proper Flare Design
Ethane	1,985	12.4	39.7	0.248	5.002		N/A	496	496	Proper Flare Design
Propane	1,024	6.39	20.5	0.128	2.581		N/A	256	256	Proper Flare Design
I-Butane	226	1.41	4.52	0.028	0.570		N/A	56.5	56.5	Proper Flare Design
N-Butane	484	3.02	9.67	0.060	1.218		N/A	121	121	Proper Flare Design
I-Pentane	281	1.75	5.61	0.035	0.707		N/A	70.2	70.2	Proper Flare Design
N-pentane	242	1.51	4.83	0.030	0.609		N/A	60.4	60.4	Proper Flare Design
Hexanes	577	3.60	11.5	0.072	1.455		N/A	144	144	Proper Flare Design
Heptanes +	3,671	22.9	73.4	0.458	9.252		N/A	918	918	Proper Flare Design

APPENDIX 2

EMISSION CALCULATIONS

COMPANY NAME:	UNION PACIFIC RESOURCES
PROJECT:	WAHSATCH FLARE PRODUCTION TEST
DATE:	April 9, 1992
CALCULATIONS BY:	DMK ENVIRONMENTAL ENGINEERING, INC.

Emission rates were calculated using the computer spreadsheets shown in Tables 1 and 2 on the following pages. For purposes of these calculations we have considered the flare to be the air pollution control device, its purpose being to prevent the release of H_2S and VOCs. To calculate the "uncontrolled emission rates" it is assumed that operation of the production test would proceed without use of a flare. The gas would just be vented to the atmosphere.

Detailed explanations of the calculations contained in the spreadsheets are given on the pages following the Tables.

TABLE 1

COMPANY NAME: UNION PACIFIC RESOURCES
PROJECT: WAHSATCH GATHERING SYSTEM FIRST PRODUCTION TEST
DATE: 09-Apr-92 08:27 AM
CALCULATION BY: DMK ENVIRONMENTAL ENGINEERING
EMISSION POINT WAHSATCH FLARE

A	B	C	D	E	E	G	H	I	J	K	L	M	N	O	P	Q
	Uncontrolled	Per Cent	Controlled					Emission Rates								
Air	Emission	Reduction	Emission	Maximum Production Factors				Controlled		Maximum		Maximum				Uncontrolled
Contaminant	Factor		Factor	1hr Ave.	3hr Ave.	8hr Ave.	total	Peak 1hr		3hr Ave.		8hr Ave.		Total	annual	lbs/hr
	lbs per		lbs per	ft^3/hr	ft^3/hr	ft^3/hr	ft^3/test	lbs/hr	g/sec	lbs/hr	g/sec	lbs/hr	g/sec	Tons/	average	
	10^6 ft^3		10^6 ft^3											Test	g/sec	
PM-10	0.000	N/A	17.089	416,666.7	381,944.4	260,417.0	5,200,000	7.120	0.897	6.527	0.822	4.450	0.561	0.044	0.00128	0.000
SO2	"	N/A	22833.886	"	"	"	"	9,514.119	1,198.753	8,721.276	1,098.857	5,946.332	749.221	59.368	1.708	0.000
NOx	"	N/A	71.808	"	"	"	"	29.920	3.770	27.427	3.456	18.700	2.356	0.187	0.005	0.000
CO	"	N/A	390.720	"	"	"	"	162.800	20.512	149.233	18.803	101.750	12.820	1.016	0.029	0.000
VOC	15611.894	0.980	312.238	"	"	"	"	130.099	16.392	119.258	15.026	81.312	10.245	0.812	0.023	6,504.956
H2S	12378.063	"	247.561	"	"	"	"	103.151	12.997	94.555	11.914	64.469	8.123	0.644	0.019	5,157.526
Methane	30012.87	"	600.257	"	"	"	"	250.107	31.513	229.265	28.887	156.317	19.696	1.561	0.045	12,505.363
Ethane	4764.105	"	95.282	"	"	"	"	39.701	5.002	36.392	4.585	24.813	3.126	0.248	0.007	1,985.044
Propane	2458.576	"	49.172	"	"	"	"	20.488	2.581	18.781	2.366	12.805	1.613	0.128	0.004	1,024.407
I-Butane	542.544	"	10.851	"	"	"	"	4.521	0.570	4.144	0.522	2.826	0.356	0.028	0.001	226.060
N-Butane	1160.441	"	23.209	"	"	"	"	9.670	1.218	8.864	1.117	6.044	0.762	0.060	0.002	483.517
I-Pentane	673.512	"	13.470	"	"	"	"	5.613	0.707	5.145	0.648	3.508	0.442	0.035	0.001	280.630
N-pentane	579.969	"	11.599	"	"	"	"	4.833	0.609	4.430	0.558	3.021	0.381	0.030	0.001	241.654
Hexanes	1385.495	"	27.710	"	"	"	"	11.546	1.455	10.584	1.334	7.216	0.909	0.072	0.002	577.289
Heptanes +	8811.357	"	176.227	"	"	"	"	73.428	9.252	67.309	8.481	45.893	5.782	0.458	0.013	3,671.399

TABLE 2

COMPANY NAME: UNION PACIFIC RESOURCES
PROJECT: WAHSATCH GATHERING SYSTEM FIRST PRODUCTION TEST
DATE: 09-Apr-92 08:27 AM
CALCULATION BY: DMK ENVIRONMENTAL ENGINEERING

Calculation of uncontrolled emission factors based on gas analysis

lbs/10^6 ft^3 = 10^6 ft^3 x (ft^3 compound/ft^3 total gas) in % x Mol. Wt. in lbs/lb-mole / (385.65 ft^3 / lb-mole)

Given:

Gas composition from gas analys in % by volume:		x	Mol. Wt.	/	385.65 ft^3/lb-mol	=	lbs/10^6 ft^3
Methane	72.16%		16.04				30,013
Ethane	6.11%		30.07				4,764
H2S	14.04%		34.00				12,378
Propane	2.15%		44.1				2,459
I-Butane	0.36%		58.12				543
N-Butane	0.77%		58.12				1,160
I-Pentane	0.36%		72.15				674
N-pentane	0.31%		72.15				580
Hexanes	0.62%		86.18				1,385
Heptanes Plus	2.41%		141				8,811
Total VOC	6.98%		n/a				15,612

COMPANY NAME: UNION PACIFIC RESOURCES
PROJECT: WAHSATCH FLARE PRODUCTION TEST
DATE: April 9, 1992
CALCULATIONS BY: DMK ENVIRONMENTAL ENGINEERING, INC.

The calculations in Table 1 were made as follows:

Column A: Name of each Air Contaminant for which calculations were generated.

Column B: Uncontrolled Emission Factors;

For PM-10, SO_2, NO_x and CO: These air contaminants do not exist in the natural gas which is flared. They are formed as a product of the combustion process. Since the uncontrolled emission factors assumes no combustion, the factor for each of these gases is set at zero.

For VOC and H_2S: The quantity of each compound found in the natural gas, expressed in units of percent by volume, was multiplied by the molecular weight of each compound and divided by the volume of a mole of gas at standard conditions and multiplied by one million to give the uncontrolled emission factor in units of lbs per million cubic feet of gas vented. The equation, input values and results of this calculation for H_2S and each VOC as well as methane and ethane, which are not defined as VOC, are shown in Table 2.

Column C: reduction of each air contaminant;

For PM-10, SO_2, NO_x and CO: This entry is listed as N/A meaning not applicable. The flare will generate those air contaminants as a result of destroying the VOC and H_2S. A value of 98% reduction is used for the VOC, H_2S, Methane and Ethane. The value is taken from AP-42 page 11.5-3 Supplement D.

Column D: "controlled emission factors";

This is the quantity of emissions per million cubic feet of gas flared, that will result from the combustion in the flare. The source of these factors is as follows:

PM-10: AP-42, Table 11.5-1 "Emission Factors for Flare Operations" in conjunction with discussions with Dennis Beauregard of EPA. The Table 11.5-1 is confusing in that it lists the same emission factor under units of lbs/million btu and micro grams per liter(in the footnote c). Dennis stated that the footnote took precedence over the table. Using the worst case value from the footnote of 274 micrograms per

liter we calculated an emission factor in units of pounds per million btu as follows:

$$(274\ \frac{ug}{l})(\frac{1\ g}{10^6\ ug})(\frac{1 lb}{454\ g})(\frac{28.3\ l}{ft^3})(10^6) = 17.089\ lbs/10^6\ ft^3$$

SO_2: SO_2 is generated in the flare from combustion of H_2S. Each mole of H_2S produces one mole of SO_2. The molecular weight of SO_2 is 64, and that of H_2S is 34. The flare converts 98% of the H_2S to SO_2. The SO_2 emission factor is calculated from the uncontrolled H_2S emission factor of Column B as follows:

$$(\frac{12,378\ lbs\ H2S}{10^6\ ft^3})(98\%)(\frac{64\ lbs\ SO2}{34\ lb\ H2S}) = 22,834 lbs\ SO2/10^6\ ft^3$$

NO_x: AP-42, Table 11.5-1 (.068 pounds per million btu) converted to pounds per million cubic feet as follows:

$$(0.068 lbs/10^6 btu)(1056\ btu/ft^3) = 71.808 lbs/10^6\ ft^3$$

The heat content value of 1056 btu/ft^3 is taken from the gas analysis.

CO: AP-42, Table 11.5-1 (.37 pounds per million btu) converted to pounds per million cubic feet as follows:

$$(0.37 lbs/10^6 btu)(1056\ btu/ft^3) = 390.72\ lbs/10^6\ ft^3$$

COMPANY NAME: UNION PACIFIC RESOURCES
PROJECT: WAHSATCH FLARE PRODUCTION TEST
DATE: April 9, 1992
CALCULATIONS BY: DMK ENVIRONMENTAL ENGINEERING, INC.

VOC's, H_2S, Methane and Ethane:

Each of these gases will be reduced by the combustion in the flare by 98%. The controlled emission factor is calculated by multiplying the uncontrolled emission factor in column B by (1-.98).

Column E,F,G and H: Maximum Production Factors;

These values are determined by the design of the test program.

Column I: Maximum One Hour Emission Rate;

Calculated by multiplying the controlled emission factor of Column D times the Production factor of Column E.

$$(D\ lbs/10^6\ ft^3)\ (416{,}667\ ft^3/hr) = lbs/hr$$

Column J: Maximum One Hour Emission Rate in Grams per Second;

Calculated by multiplying the pounds per hour emission rate of Column I times 453.59 grams per pound and dividing by 3,600 seconds per hour.

$$(I\ lbs/hr)\ (453.59\ g/lb)\ /\ (3{,}600\ sec/hr) = g/sec$$

Column K: Average emission rate in pounds per hour for the three-hour period with maximum emissions;

Calculated by multiplying the controlled emission factor of Column D times the Production factor of Column F.

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$$(D\ lbs/10^6\ ft^3)(381{,}944\ ft^3/hr) = lbs/hr$$

Column L: Maximum Three-Hour Emission Rate in Grams per Second;

Calculated by multiplying the pounds per hour emission rate of Column K times 453.59 grams per pound and dividing by 3,600 seconds per hour.

$$(K\ lbs/hr)\ (453.59\ g/lb)\ (3{,}600\ sec/hr) = g/sec$$

Column M: Average emission rate in pounds per hour for the eight hour period with maximum emissions;

Calculated by multiplying the controlled emission factor of Column D times the Production factor of Column G.

$$(D\ lbs/10^6\ ft^3)(255{,}208\ ft^3/hr) = lbs/hr$$

Column N: Maximum Eight-Hour Emission Rate in Grams per Second;

Calculated by multiplying the pounds per hour emission rate of Column M times 453.59 grams per pound and dividing by 3,600 seconds per hour.

$$(M\ lbs/hr)\ (453.59\ g/lb)\ (3{,}600\ sec/hr) = g/sec$$

Column O: Total Tons per Test (Tons/yr);

Calculated by multiplying the controlled emission factor of Column D times the total gas flared in Column H as follows:

COMPANY NAME: UNION PACIFIC RESOURCES
PROJECT: WAHSATCH FLARE PRODUCTION TEST
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CALCULATIONS BY: DMK ENVIRONMENTAL ENGINEERING, INC.

$$(D\ lbs/10^6\ ft^3)(5{,}200{,}000\ ft^3/test)\left(\frac{1\ ton}{2{,}000\ lbs}\right) = Tons/Test$$

Column P: Annual average Grams per Second;

Calculated by multiplying the Tons/Test of Column O by the following:

$$\left(\frac{Tons}{Test}\right)\left(\frac{907{,}180\ g}{Ton}\right)\left(\frac{1\ Test}{year}\right)\left(\frac{1\ year}{31{,}536{,}000\ sec}\right. = g/sec$$

Column Q: Uncontrolled lbs/hr;

Calculated by multiplying the uncontrolled emission factor of Column B times the production factor of Column E as follows:

$$(B\ lbs/10^6\ ft^3)(416{,}667\ ft^3/hr) = lbs/hr$$

Column R: Total Tons per Test (Tons/yr) uncontrolled;

Calculated by multiplying the uncontrolled emission factor of Column B times the total gas flared in Column H as follows:

$$(B\ lbs/10^6\ ft^3)(5{,}200{,}000\ ft^3/test)\left(\frac{1\ ton}{2{,}000\ lbs}\right) = Tons/Test$$

Potential Upset Conditions shown on the Air Pollutant Fact Sheet of Appendix 3 were calculated as follows:

COMPANY NAME:	UNION PACIFIC RESOURCES
PROJECT:	WAHSATCH FLARE PRODUCTION TEST
DATE:	April 9, 1992
CALCULATIONS BY:	DMK ENVIRONMENTAL ENGINEERING, INC.

Upset conditions could possibly occur if the flame on the flare were extinguished during the test. It is very unlikely that such an event would take place because the Natural Gas being flared is very difficult to extinguish, and the flare is equipped with an electronic ignition system designed to relight the flame if it ever should go out. If the flame went out and the ignition system failed, an operator would shut down the gas flow. We have estimated that it would take 15 minutes to turn off the gas flow in such an event. The Upset LBS/HR emission rate has been calculated by dividing the uncontrolled emission rate for the Maximum One Hour Average by four to estimate the quantity of emissions which would take place in 15 minutes. The same value was used for the LBS/YR calculation since it is highly unlikely that even one such upset would occur during the test.

APPENDIX 3

GAS ANALYSIS

TABLE 1

COMPOSITIONAL ANALYSES FOR SEPARATOR GAS AND OIL SAMPLES
AND CALCULATED RECOMBINED WELLSTREAM

URROZ WTU WELL NO. 1 WEBER FORMATION
(12690-12770 FT) DEEP YELLOW CREEK FIELD
UINTA COUNTY, WYOMING; API WELL NO. 49043120321

SEPARATOR CONDITIONS : 641. PSIA 80.°F

COMPOSITIONS IN MOLE PERCENT

COMPONENT	GAS 1[1]	GAS 2[2]	OIL 1	RECOMBINED WELLSTREAM	
CYL.NO.:	RC-9	SS-1435	SS-957	SS-1435[3]	SS-1435[4]
LAB ID :	P-27295	P-27294	P-27299	SS-957	SS-957
NITROGEN	0.0	0.0	0.63	0.03	1.49
METHANE	72.76	74.59	13.02	72.16	69.33
CARBON DIOXIDE	1.23	1.31	0.37	1.27	1.30
ETHANE	5.94	6.18	4.52	6.11	6.12
HYDROGEN SULFIDE	14.28	13.36	15.67	13.45	16.02
PROPANE	2.05	2.07	4.05	2.15	1.85
I-BUTANE	0.25	0.30	1.72	0.36	0.45
N-BUTANE	0.51	0.70	2.53	0.77	0.54
I-PENTANE	0.12	0.30	1.88	0.36	0.24
N-PENTANE	0.08	0.26	1.63	0.31	0.20
HEXANES	0.39	0.42	5.43	0.62	0.32
HEPTANES PLUS	2.39	0.51	48.55	2.41	2.15
TOTALS	100.00	100.00	100.00	100.00	100.01
GAS PROPERTIES:					
GRAVITY,AIR = 1	0.7960	0.7492			
F(PV)		1.0748			
GROSS HV BTU/FT3	1160.	1101.			
NET HV BTU/FT3	1058.	1000.			
GPM OF PROPANE +	2.14	1.50			
GPM OF BUTANES +	1.57	0.93			
GPM OF PENTANES+	1.33	0.61			
OIL PROPERTIES, C7+					
MOLECULAR WEIGHT			145.		
SPECIFIC GRAVITY			0.7917		
API GRAVITY			47.2		
CALC. BPP, PSIA			645.		
EXP. BPP, PSIA			545.		
SEPARATOR GOR					
SCF SEP. GAS/BBL STO				32320.	32320.
RECOMBINATION RATIO					
MOLES SEP. GAS/MOLE OIL				24.21800	24.21800

[1]contains 8976 grains hydrogen sulfide/100 cu. ft.
[2]contains 8397 grains hydrogen sulfide/100 cu. ft.
[3]calculated wellstream composition
[4]sampled after physical recombination as a single phase fluid in PVT cell

JJC:h/sdg
82210ART0007

CORE LABORATORIES, INC.
Reservoir Fluid Analysis

File RFL 81767

Well Urroz WIU No. 1

ANALYSIS FOR SULFUR COMPOUNDS IN SEPARATOR GAS SAMPLE

Component	Concentration, ppm
Hydrogen Sulfide(1)	139,100
Carbonyl Sulfide(1)	41.4
Sulfur Dioxide(1)	ND
Methyl Mercaptan(1)	16.6
Ethyl Mercaptan(1)	5.7
Dimethyl Sulfide(1)	ND
Carbon Disulfide(1)	ND
i-Propyl Mercaptan(1)	7.8
n-Propyl Mercaptan(1)	2.8
Ethyl Methyl Sulfide(2)	ND
t-Butyl Mercaptan(2)	ND
s-Butyl Mercaptan(2)	ND
i-Butyl Mercaptan(2)	0.6
n-Butyl Mercaptan(2)	1.5
Dimethyl Disulfide(2)	ND
Ethyl Methyl Disulfide(2)	Trace
Diethyl Disulfide(2)	ND

(1) ND = None detected. Minimum detectable concentration = 0.1 ppm by volume.
(2) ND = None detected. Minimum detectable concentration = 0.5 ppm by volume.

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confid use, this report is made. The interpretations or opinions expressed represent the best judgement of Core Laboratories, Inc. (all errors and omis excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the pr tivity, proper operation, or profitableness of any oil, gas or other mineral well or in connection with which such report is used relied

CORE LABORATORIES, INC.
Reservoir Fluid Analysis

File RFL 81767

Well Urrea WIU No. 1

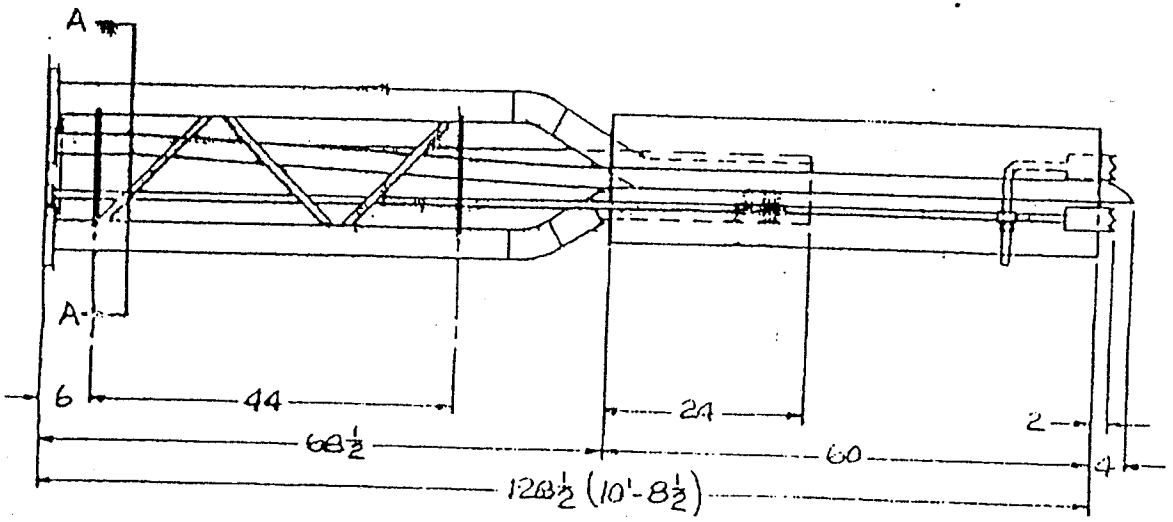
HYDROCARBON ANALYSIS OF HEPTANES PLUS FRACTION OF SEPARATOR GAS SAMPLE

Component	Mol Percent
Methylcyclopentane	0.02
Benzene	0.01
Cyclohexane	0.03
Heptanes	0.04
Methylcyclohexane	0.02
Toluene	0.01
Octanes	0.03
Nonanes	0.01
Decanes	0.01
Undecanes plus	Trace
	0.18

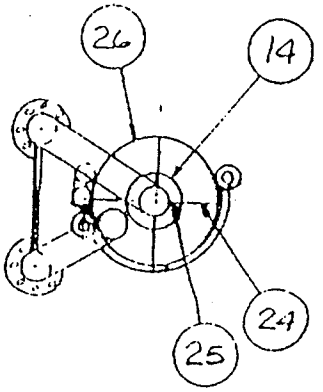
These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgement of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, gas or other mineral well or in connection with which such report is used or relied upon.

APPENDIX 4

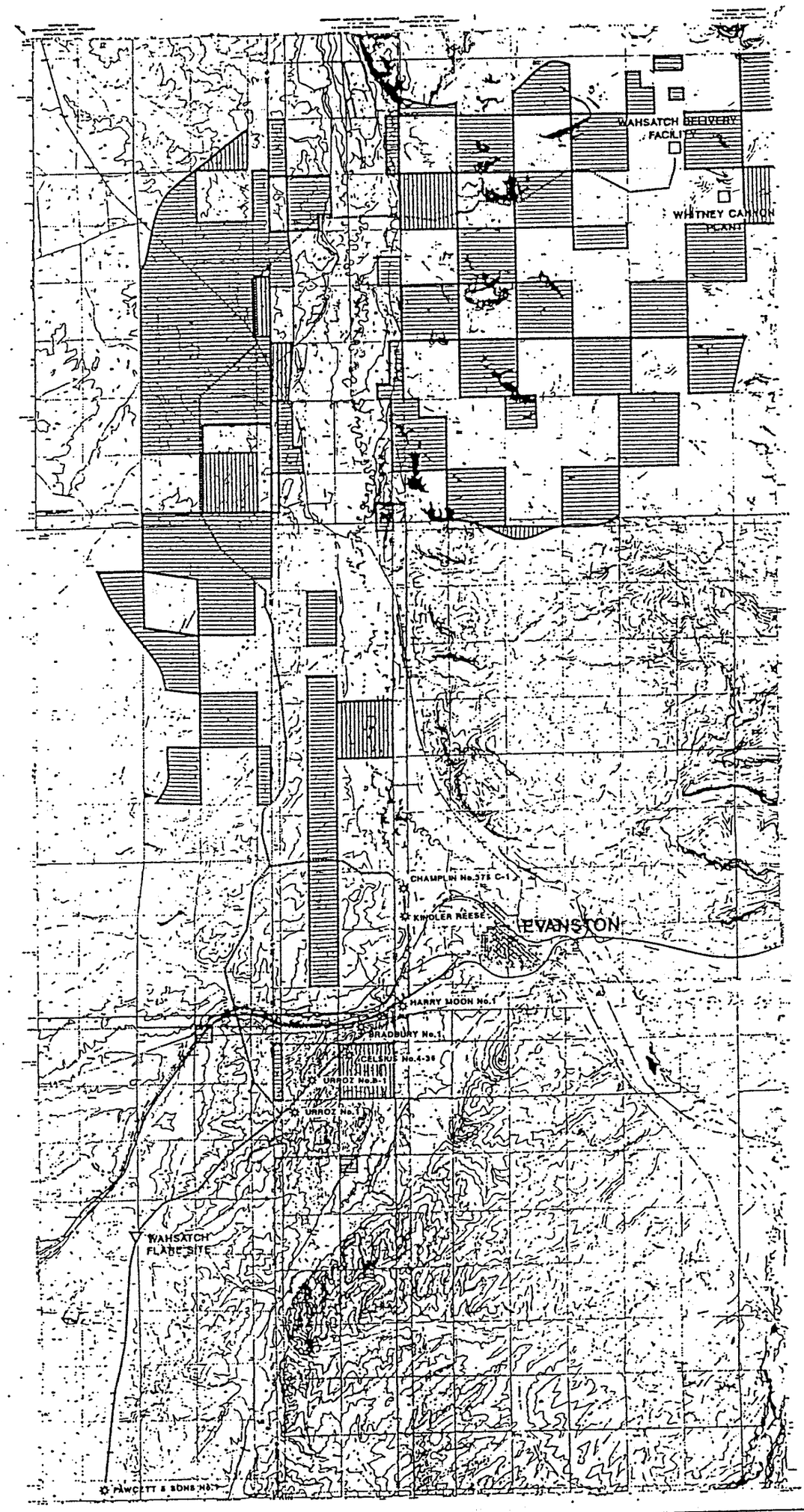
DIAGRAMS AND MAPS



6" FLARE TIP



ITEM	DESCRIPTION
1	FLANGE. SLIP-ON 6" ASA 150 lb.
2	FLANGE, SLIP-ON 3" ASA 150 lb
3	FLANGE. SLIP-ON 2" ASA 150 lb
4	FLANGE, SLIP-ON ½" ASA 150 lb
5	½ x ½ x ½ WELD-ON PIPE 'T' - SCH. 40
6	3" SCH. 40 - 90° WELD-ON ELBOW
7	½ SCH. 40 - 90° WELD-ON ELBOW
8.	2" VALVE
9	3" SCH. 40 - 45° WELD-ON ELBOW
10	
11	
12	C6 @ 8.2 - 3
13.	12" SCH. 20 PIPE - 196
14	6" x .188 WALL PIPE - LENGTHS AS REQ'D. ¼ WALL
15	3" x .125 WALL PIPE - LENGTHS AS REQ'D.
16	6" SCH. 40 PIPE - 124
17	3" SCH. 40 PIPE - LENGTHS AS REQ'D.
18	2" SCH. 40 PIPE - LENGTHS AS REQ'D.
19	½" SCH. 40 PIPE - LENGTHS AS REQ'D.
20	PL ½ - EQUAL. TRIANGLE. 16" H x 18½ SIDE, SEE SEC. A-A
21	PL ½ - 12½ O.D. x 6½ I.D.
22	H.R. SHT. 10GA. - 24 x 3½
23	H.R. SHT. 10GA - 24 x 4⅜
24	H.R. SHT. 10GA. - 24 x 4
25	H.R. SHT. 10GA - 24 x 1⅜
26	H.R. SHT. 10GA. ROLLED TO 15" O.D. x 60 LONG
27	H.R. SHT. 10GA. ROLLED TO 20" O.D. x 60 LONG.
28	PILOT BURNER - MAKE AS PER SAMPLE.



WAHSATCH GATHERING SYSTEM & SOUR GAS PIPELINE

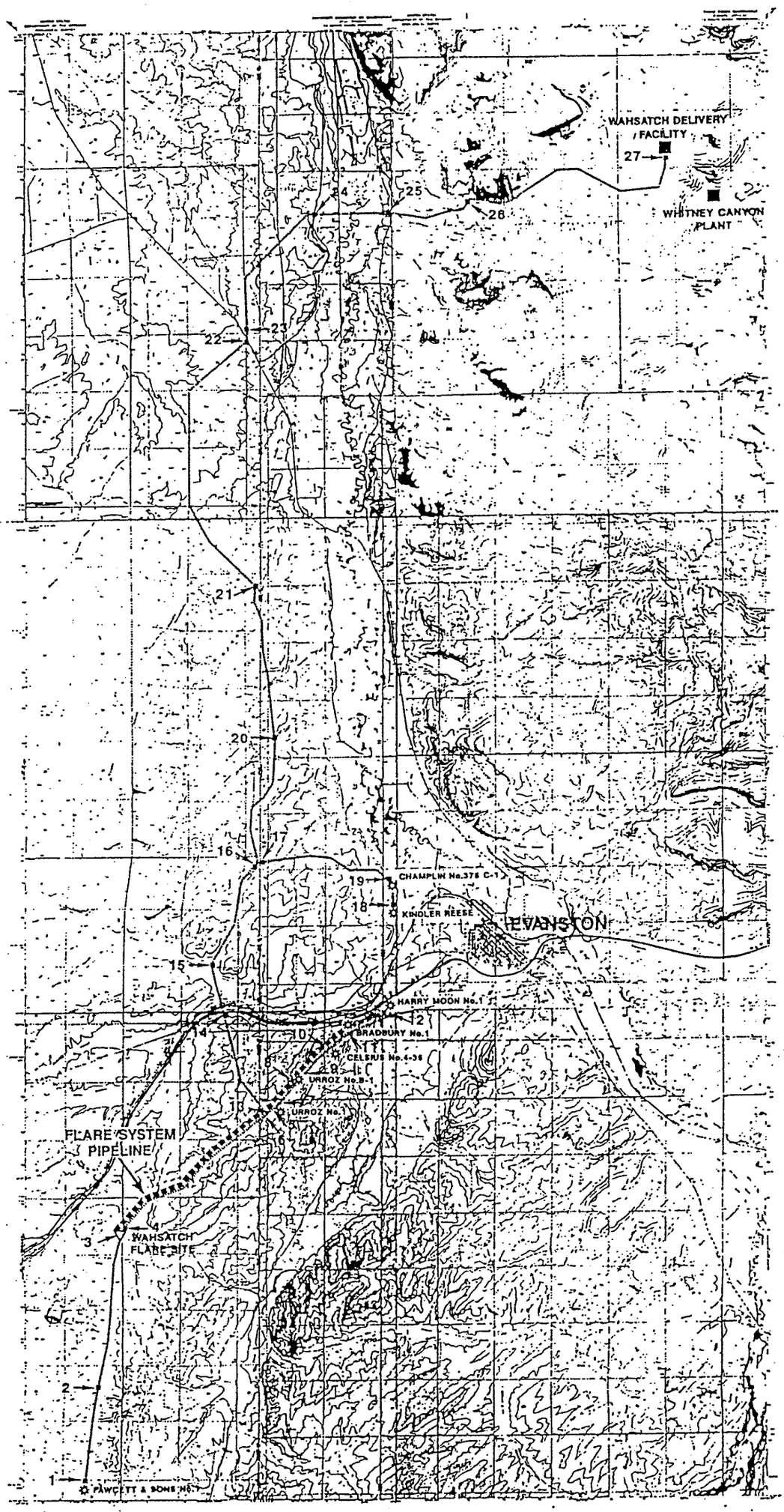
BLM LAND

STATE LAND

PRIVATE LAND

Union Pacific Resources

LAND OWNERSHIP MAP



WAHSATCH GATHERING SYSTEM & SOUR GAS PIPELINE

SOUR GAS PIPELINE

ESD VALVE (numbered)

FLARE SYSTEM PIPELINE

Union Pacific Resources

SUMMIT & RICH CO., UTAH

ESD Valve Locations & Flare System Pipeline

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

VIA FEDERAL EXPRESS

August 5, 1992

Mr. Donald B. Basko, Director
State of Wyoming
Oil & Gas Conservation Commission
777 West First Street
Casper, WY 82601

Bureau of Land Management
Kemmerer Resource Area
312 Highway 189 North
Kemmerer, WY 83101

RECEIVED
AUG 06 1992
DIVISION OF
OIL, GAS & MINING

RE: **Union Pacific Resources Company**
Wahsatch Gathering System
Recommissioning of Flare Site & System
Yellow Creek Deep Field
Uinta County, Wyoming and
Summit County, Utah

Gentlemen:

Union Pacific Resources Company (UPRC), of Fort Worth, Texas, a subsidiary of Union Pacific Corporation, proposes to construct, develop and operate the Wahsatch Gathering System (WGS), located in Uinta County, Wyoming and Summit County, Utah. This system consists of eight natural gas wells, 40.5 miles of connecting pipelines, and associated equipment including 18 heaters and four flares. The pipeline would transport sour natural gas from the wells to the Whitney Canyon Processing Plant north of Evanston, Wyoming. Most of the equipment associated with this project would be located in Wyoming. One well, two flares and possibly three heaters would be located in Utah.

Prior to developing the entire project, UPRC would like to run production tests on six of the wells. A production test consists of allowing the well to send gas down the pipeline to a flare and measuring the flow rates to determine how much gas the well will produce. Each test would emit SO_2 and other products of combustion. The main flare, in which the tests would be vented, is located in Utah approximately four miles southwest of Evanston.

Eight wells were drilled in the late 1970's and early 1980's, production tested in 1982/83 and shut in. The wells have been shut-in since the 1982/83 testing. Until recompletion and production testing is done, the downhole condition of the wells and their production capability is uncertain.

The first well to be tested would be the Urroz well, located just east of the Utah-Wyoming border and approximately four miles southwest of Evanston (Sec 2, T14N, R121W). (Please reference "Notice of Intent" attached.)

At this time, UPRC would like to obtain approval to test the production capability of one well to determine if it is feasible to proceed with the rest of the project. If the first well proves productive, testing of five additional wells would be scheduled immediately. Four of those five tests would be flared at the same Wahsatch flare site. One well, the Fawcett & Sons located in Utah approximately five miles south of the Wahsatch flare site, would be flared through a separate flare located at the well site. Approval to test those wells would be requested in a Notice of Intent which would be submitted at a later date.

Union Pacific Resources Company
P.O. Box 7
Fort Worth, Texas 76101-0007
817 / 877-6000
TWX 910 893 5024
Telex 758-447

Attached for your review are the following:

1) Schematic Diagram of Wahsatch Flare System
2) Docket 137-82 authorizing flaring of gas production during test
3) Sundry "Notice of Intent" for the #1 Urroz well (Sec 2-T14N-R121W) testing and recompleting procedure and wellhead diagram
4) DMK Environmental Engineering analysis covering emission points, potential air contaminants, emission rates, air pollution control, gas analysis, etc.
5) Aerovironment-Dispersion Modeling Analysis
6) Flare Site H_2S Contingency Plan
7) #1 Urroz Contingency Plan
8) Sundry "Reinstatement of Flaring and Flare Site"
9) Wahsatch Project Plan

Please advise if additional clarification or submittals are needed.

Respectfully submitted,

UNION PACIFIC RESOURCES COMPANY

J L Rector

Joy L. Rector
Regulatory Analyst

JLR/sb
attachments

cc: Bureau of Land Management
Bear River Divide Resource Area
2730 South 2300 West
Salt Lake City, UT 84119

Utah Dept. of Natural Resources
Division of Oil, Gas & Mining
355 N. Temple - 3 Triad Center, Ste 350
Salt Lake City, UT 84180

Wahsatch Project Team

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: W 88184

6. If Indian, Allottee or Tribe Name: N/A

7. If Unit or CA, Agreement Designation:

1. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator: UNION PACIFIC RESOURCES

8. Well Name and No.: Urroz W.I. Unit

3. Address and Telephone No.: P.O. BOX 7, MAIL STOP 3407, FORT WORTH, TX 76101

9. API Well No.: 49-041-20321

4. Location of Well (Footage, Sec., T., R., M., or Survey Description): C-NW/4 1186' FNL - 1210' FWL
Section 2-T14N-R121W

10. Field and Pool, or Exploratory Area: Yellow Creek

11. County or Parish, State: Uinta, WY

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	[X] Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other H_2S Plan	☐ Dispose Water
		(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

RECEIVED
AUG 06 1992
DIVISION OF
OIL, GAS & MINING

URROZ #1 RECOMPLETION
Section 2 T14N-R121W
Uinta County, Wyoming
7/29/92

Well Data:
GL: 6,896' KB: 6,918'
Production Casing: 7" 29#-35# SS95, RS90, & S0090 set at 17,115'.
Existing Kill String: 398 Jts. 3 1/2" L-80 12.7# VAM w/ stinger @ 12,021'.
Top CICR: Set at 12,070' w/ 4 sx cement; top of cement estimated at 12,055'.
Botttom CICR: Set at 12,822'.
Original Perforations: Phosphoria 12,200'-230'; Weber 12,690'-770' w/4 JSPF.
7" Casing Volume to PBTD @ 12,055': 434 BBls.
3 1/2" 12.7# Tubing Volume: 88 BBls.
7" X 3 1/2" Annular Volume: 291 bbls.
Bottom-hole Temperature: 200 degree Farenheit.
Bottom-hole Pressure @ 12,470' midpoint: 5,600 psig.

(Continued on Back Side)

14. I hereby certify that the foregoing is true and correct

Signed J K Rector /Joy Rector Title Regulatory Analyst Date 8-5-92

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

1. Test Anchors-setup tanks-setup H2S safety equipment & conduct initial safety meetings. Train rig and service personnel in H2S safety procedures.

2. Clean out cellar and replace pressure gauges on tree. Check pressures on 7", 9-5/8", and 13-5/8" casing. Check fluids at each valve and fill if necessary w/ diesel. Operate all tree valves to assure all are functional.

3. RU workover unit. Spot pump and tanks. RU H2S safety equipment.

4. RU and pressure test existing Cameron wellhead down to lower master valve to 3500#. See attached drawing of wellhead equipment.

5. RU and tie into 7" X 3-1/2" annulus and pressure test 7" casing to 3500#. Hold for 15 minutes.

6. Strip off Cameron wellhead equipment to top of tubing head. Install BOP per attached drawing for 3 1/2" tubing and pressure test pipe rams,blinds, and valves to 5000#, hydril to 3500#. RU and PU on tbg.,pull Cameron BPV. Circulate down tubing w/ water pulling periodic water samples for analyses. Circulate hole clean.

   NOTE:All bop equipment and choke manifold should be H2S certified and inspected.

7. TOH with 3 1/2" L-80 12.7# VAM tubing laying down all but 1,000'. (Total 398 Jts. w/cementing stinger on end of string @ 12,021'). TIH on tubing w/retrievable bridge plug. Land at 1000'. Pressure test bridge plug to 2,000#. TOH w/tubing. Strip off BOP and Cameron tubing head equipment.

8. Install new FMC tubing head with metal to metal seal. Cutoff casing stub as necessary. The 7"-35# S0090 casing stub will be prepped for tubing head installation. Nipple up tubing head and pressure test to 5,000#. Nipple up inspected and certified 7 1/16" x 5,000# bore BOP stack w/3 1/2" pipe rams and manifold per the attached drawing. Land BOP test plug in tubing head. Pressure test pipe rams and blinds, valves on BOP equipment to 5,000#. Pressure test Hydril to 3,500#. TIH w/tubing and retrieve bridge plug. TOH w/plug laying down tubing.

9. RU FMC to run wear bushing into tubing head. FMC to supply running tool.

10. PU inspected 3 1/2" E 13.30# & 3 1/2" X-95 15.50# IF drill pipe/work string with 5 3/4" bit and scraper to PBTD estimated at 12,055'(Cement top;CICR @ 12,070'). Circulate hole clean with water. TOH w/pipe. Take fluid samples during circulating period.

11. RU wireline logging company to run GR, CPET, METT, PAL, and temperature logs to PBTD @ 12,055'. Evaluate logs.

12. TIH w/5 3/4" bit, and drill pipe. Close TIW valve and pressure test casing and lower pipe rams to 4000#. Mud up with 9.2 ppg brine water with H2S scavenger system with additives to minimum of PH 9.5. Function test BOP'S.

13. Drill out cement @ 12,055', cast iron cement retainer @ 12,070' and cement plugs to depth of 12,800'. Circulate hole clean of cement. Previous CICR @ 12,822'. Old Weber perfs @ 12,690'-12,770' w/4 JSPF. Interval squeezed w/300 sx Class "G" (61 BBls slurry). Estimated 165 sx in formation, 125 sx below retainer, and 5 sx above retainer. Original Phosphoria perforations from 12,200'-230' w/4 JSPF. Interval squeezed w/300 sx Class "G" to 3,700#. Circulate well clean. Make 10 stand short trip. CBU.

    NOTE:returns should be continuosly monitored for H2S. Keep scavenger in circulating system.

14. TOH w/ drill string. Monitor pit volume tank and use trip tank. Check fluid levels on way out. Do not swab hole in. RU wireline and full lubricator tested to 3000# and run GR-CBL-VDL from PBTD @ 12,800' to 11,800'. Make bit and scraper run while logs are being evaluated for squeeze. If no squeeze, TOH LD workstring.

15. RU wireline unit. Make GR and JB run to 12000'. TIH w/wireline setting tool and Model "DB" retainer production packer with extension assembly per attached sketch.

    NOTE: Packer and extension should have been previously shop tested to 5000#.

16. Pressure test packer and plug to 2,000#. Pull wear bushing. Change out pipe rams for 2 7/8" tubing and pressure test ram BOP to 5,000#.

CONTINUED NEXT PAGE

17. TIH with seal assembly, 2-7/8" 7.9# L-80 VAM-ACE tubing with flow couplings,nipples, methanol injection mandrel w/ valve and sub surface safety valve. Hydrotest above slips to 8000#. Circulate inhibited fluid down backside. Stab into packer, space out with 5M# with pups. Close pipe rams and test annulus to 2000#. Hold for 15 minutes. TOH to methanol injection valve. Attach control line to valve. TIH with tubing retesting breaks to 8000#. Run control line from SCSSV to surface. Pressure test SCSSV control line to 10,000# before cutting line for connection.

18. Make up hanger bushing and landing joint. Make up control line connection to hanger bushing. Lower hanger thru BOP'S and hang off tubing stringwith 5M# compression. Run in lock downscrews, back out landing joint. Install "IS" BPV in hanger. Strip off BOP's and rig up composite master valve. Pressure test hanger/composite valve assembly to 5,000#. Pressure test SCSSV control lines to 10,000#. Pressure test backside to 2,000#. Pull BPV.

19. Lubricate in tree test plug. Nipple up remainder of wellhead tree. Pressure test tree components to 5,000#. RD workover rig.

20. RU perforators with lubricator. Pressure test lubricator to 5,000#.

21. TIH w/1-11/16" zero degree phased de-centralized hollow carrier tubing guns and perforate Phosphoria and Weber intervals 12,170'-12,440'. 12,580'-12,610', & 12,690'-12,770' with 2 JSPF.

22. RU tree saver and pressure test. Acid treat Phosphoria and Weber intervals per the attached treatment program. Maximum treatment pressure is 8,000#. Hold 2,000# on backside and monitor. Set casing popoff for 3,000#. Shut well in for 1 hour after treatment. Take SIP's every 10 minutes. RU Norward testers. Test all lines and manifolds to 5000#.

23. Open up well and unload treatment fluids. Once well is gassing heavily, test SCSSV. TIH w/tandem pressure bombs (mechanical and Panex gauge w/168 hour clocks and land in upper "R" nipple. TOH w/wireline. Flow well back according to attached schedule through Norward test system.

24. Continue to flow test well during daylight hours. Complete flow test. At end of test, RU wireline w/full lubricator with bottom hole sampler to 11,800'. TOH w/wireline sampler. Send to lab for complete analysis per Alberta Sulfur research recommendation.

25. TIH w/wireline and retrieve bombs after 24 hour shut-in. Monitor surface pressures.

26. RU wireline to set retrievable tubing plug in RN-nipple. Set retrievable plug. Blow down tubing volume to flare. Displace tubing w/ inhibited fluids. Last 3 BBls of displacement to contain diesel.

27. Shut well in and close safety valve. Finish winterizing remainder of tree and secure wellhead equipment. Wait on pipeline connection. Estimate first production in November, 1993.

URROZ WIU 1
YELLOW CREEK DEEP
UINTA CO., WYOMING

0 - 2036' 20" OD K-55 Surface Casing
5956' 13 3/8" OD K-55 Intermediate Casing

12116' 9 5/8" OD SS-95 Intermediate Casing

12072 - 12073' Retainer

12822 - 12823' Retainer
12977 - 12978' Retainer
13170 - 13171' Retainer

13885 - 13886' CIBP

15815 - 15816' CIBP

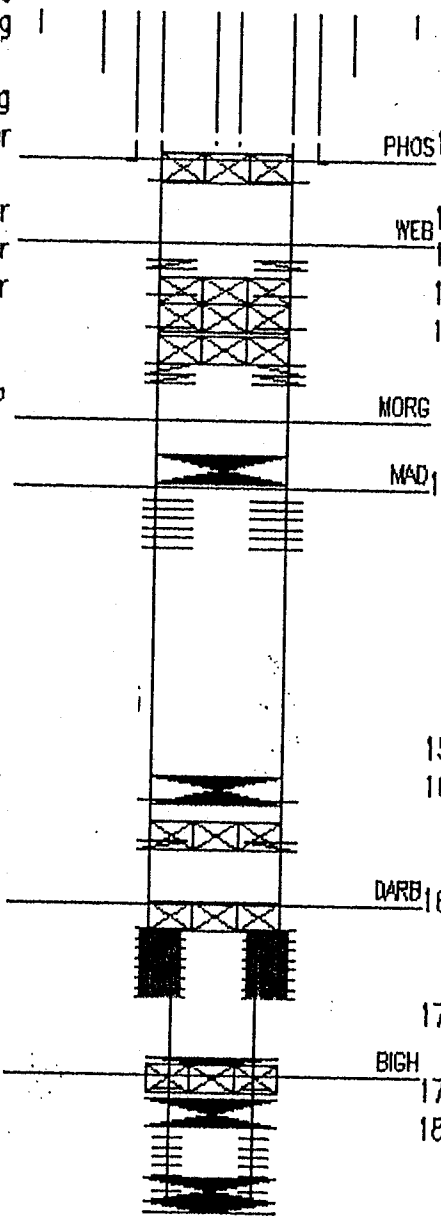
16090 - 16091' Retainer

16570 - 16571' Retainer

0 - 17134' 7" OD SS-95 Intermediate Casing

17512 - 17513' CIBP
17550 - 17551' Retainer
17758 - 17759' CIBP
18238 - 18239' CIBP
18380 - 18381' CIBP

16772 - 18403' 4 1/2" OD SS-95 Liner Casing



KB ELEV: 6917.5'
TD: 18438'

0 - 12021' 3.500" OD L-80 Tubing

PHOS 12200 - 12230' Squeeze Perfs SQZD W/300 SX TO 3700#

WEB 12690 - 12770' Squeeze Perfs SQZD W/300 SX TO 600#
12890 - 12930' Squeeze Perfs SQZD W/200 SX TO 2500#
13075 - 13115' Squeeze Perfs SQZD W/170 SX TO 500#
13298 - 13460' Squeeze Perfs SQZD W/200 SX TO 2500#

MORG

MAD 14126 - 14440' Perfs

15930 - 15970' Perfs
16190 - 16262' Squeeze Perfs SQZD W/200 SX

DARB 16730 - 17150' Abandoned Perfs SQZD W/250 SX

17646 - 17686' Squeeze Perfs

BIGH 17950 - 18220' Perfs
18290 - 18318' Perfs

Urroz #1 Casing Program

7" Production Casing

13	jts	35# S0090	BTC -	500.08'	- Depth 495.4'	
41	jts	35# SS95	BTC -	1,813.56'	- Depth 2,294.3'	
45	jts	32# RS90	BTC -	1,732.38'	- Depth 4,010.6'	
18	jts	29# RS90	BTC -	682.96'	- Depth 4,687.1'	
156	jts	29# RS90	LTC -	6,012.49'	- Depth 10,643.9'	
78	jts	32# SS95	LTC -	3,431.19'	- Depth 14,047.3'	
31	jts	32# SS95	LTC -	1,382.76'	- Depth 15,418.9'	
35	jts	35# SS95	LTC -	1,551.58'	- Depth 16,957.9'	
3	jts	35# SS95	LTC -	136.68'	- Depth 17,115.0'	Shoe

9 5/8" Intermediate Casing

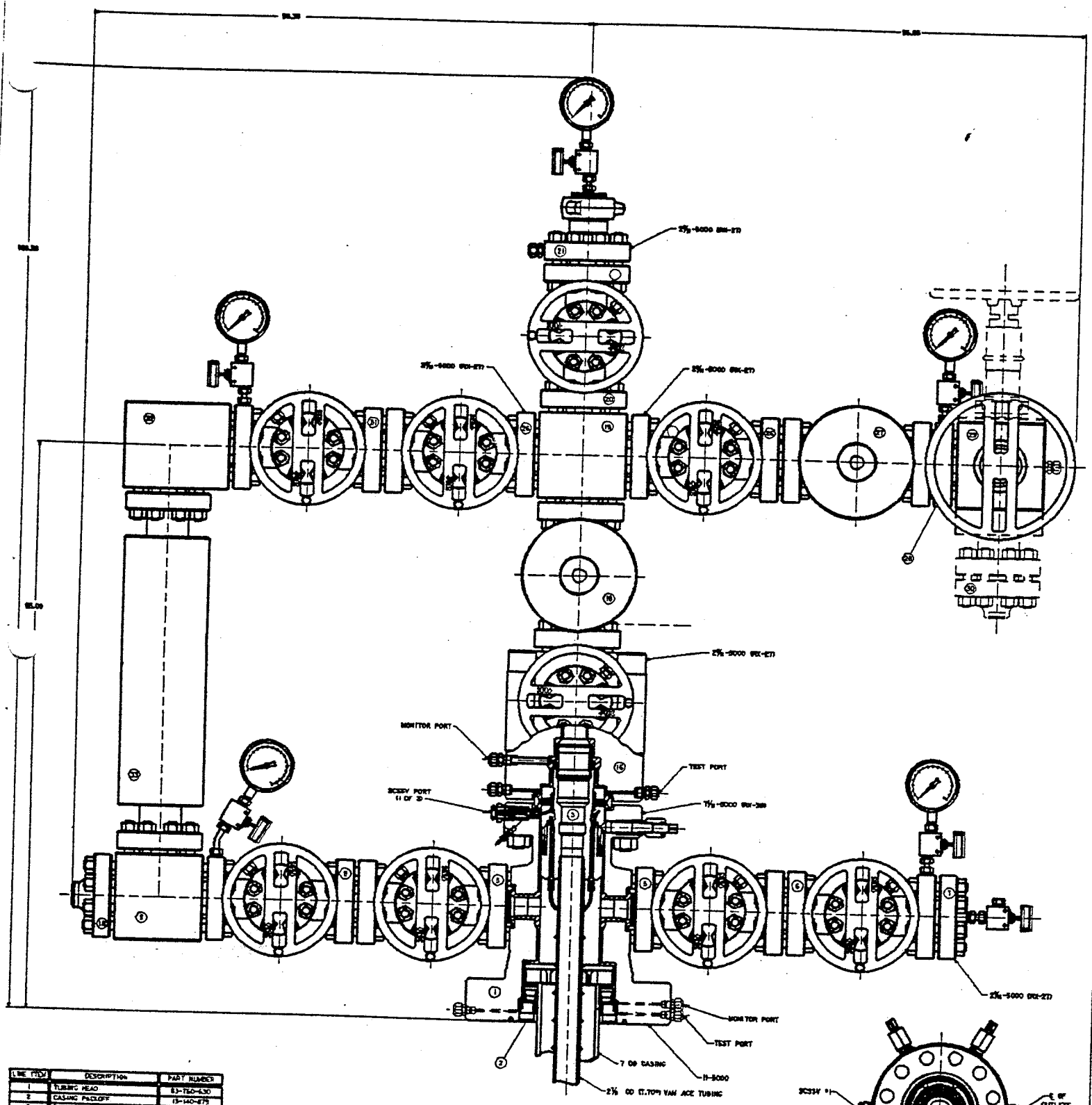
2	jts	47# SS95	LTC -	90.29'	- Depth 89.5'	
39	jts	40# SS95	LTC -	1,764.34'	- Depth 1,839.2'	
60	jts	40# L-80	LTC -	2,442.67'	- Depth 4,259.4'	
70	jts	40# SS95	LTC -	3,191.15'	- Depth 7,424.3'	
30	jts	44# SS95	LTC -	1,368.25'	- Depth 8,781.4'	
21	jts	44# SS95	LTC -	882.83'	- Depth 9,656.3'	
56	jts	47# SS95	LTC -	2,398.47'	- Depth 12,033.8'	
2	jts	47# SS95	LTC -	84.65'	- Depth 12,116.0'	Shoe

13 5/8" Intermediate Casing

2	jts	72# L-80	STC -	90.20'	- Depth 89.6'	
81	jts	68# K-55	STC -	3,306.99'	- Depth 3,372.3'	
28	jts	72# L-80	STC -	1,215.58'	- Depth 4,579.5'	
17	jts	72# SS95	BTC -	721.90'	- Depth 5,296.3'	
13	jts	88# SS95	STC -	581.40'	- Depth 5,873.8'	
2	jts	88# SS95	STC -	90.20'	- Depth 5,956.5'	Shoe

20" Surface Casing

21	jts	94# H-40	STC -	874.79'	- Depth 867.8'	
3	jts	133# K-55	STC -	121.44'	- Depth 988.2'	
26	jts	133# K-55	STC -	1,065.73'	- Depth 2,036.6'	Shoe



LINE ITEM	DESCRIPTION	PART NUMBER
1	TUBING HEAD	83-760-630
2	CASING PACKOFF	15-140-879
3	TUBING HANGER	82-147-227
6, 20, 25	GATE VALVE	90-120-974
6, 8, 31	GATE VALVE WITH TEST PORT	90-120-977
7	BLIND FLANGE	26-100-798
9	TEE	25-054-311
10, 30	WELD-NECK FLANGE	26-091-699
16	ADAPTER VALVE	90-320-522
16, 27	GATE VALVE WITH ACTUATOR	92-127-512
19	CROSS	25-023-269
[illegible]	TREE CAP	02-370-095
[illegible]	INSTRUMENT FLANGE	26-111-320
[illegible]	CHOKE	15-010-906
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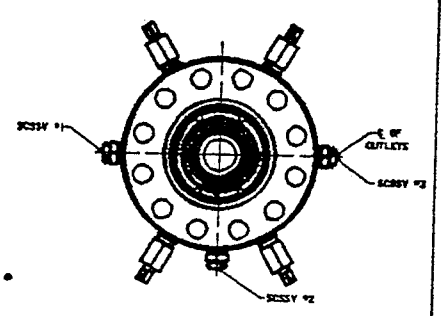
33	SPACER SPOOL	24-115-620

UNION PACIFIC RESOURCES CO.
DEEP YELLOW CREEK



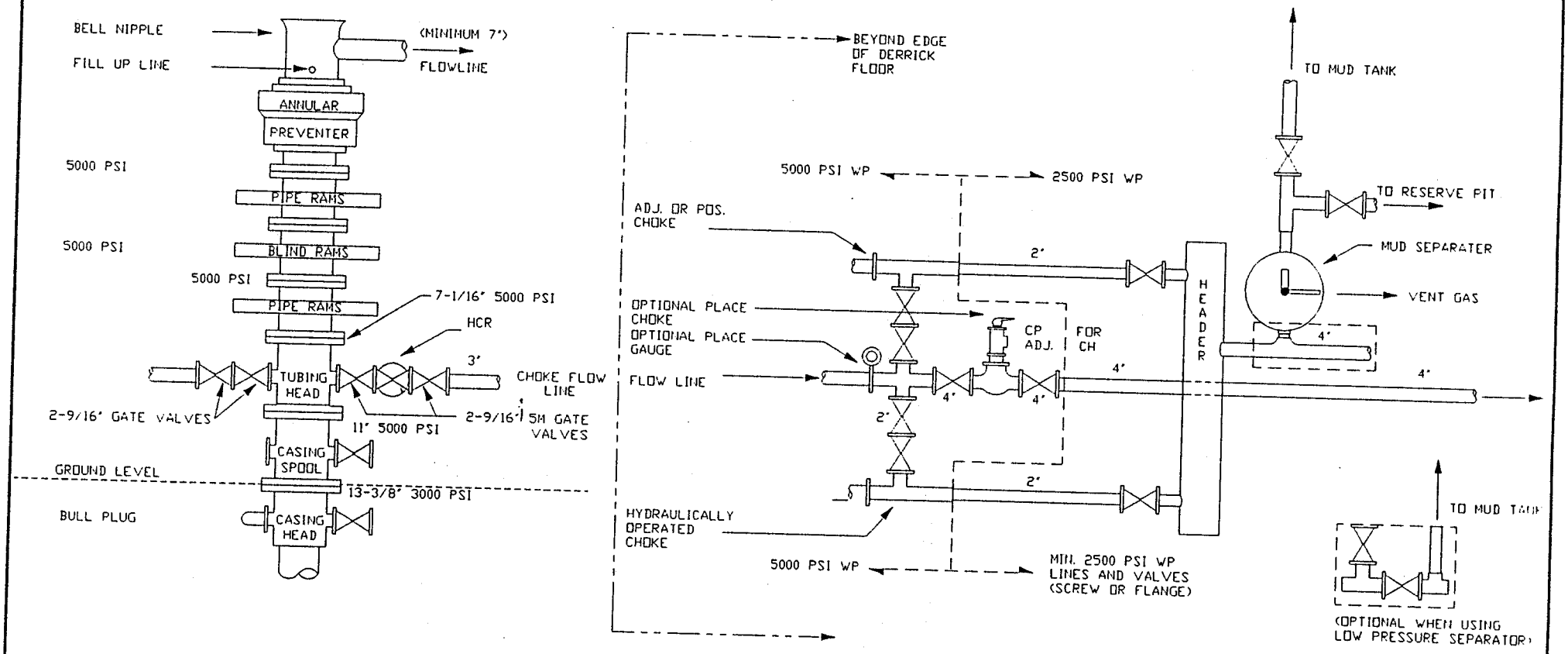
TOP VIEW OF
TUBING HEAD AND HANGER

TRINCLAD TUBING HEAD, TUBING HANGER, AND X-MAS TREE

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

DRAWING NUMBER 7B
5000 # WORKING PRESSURE

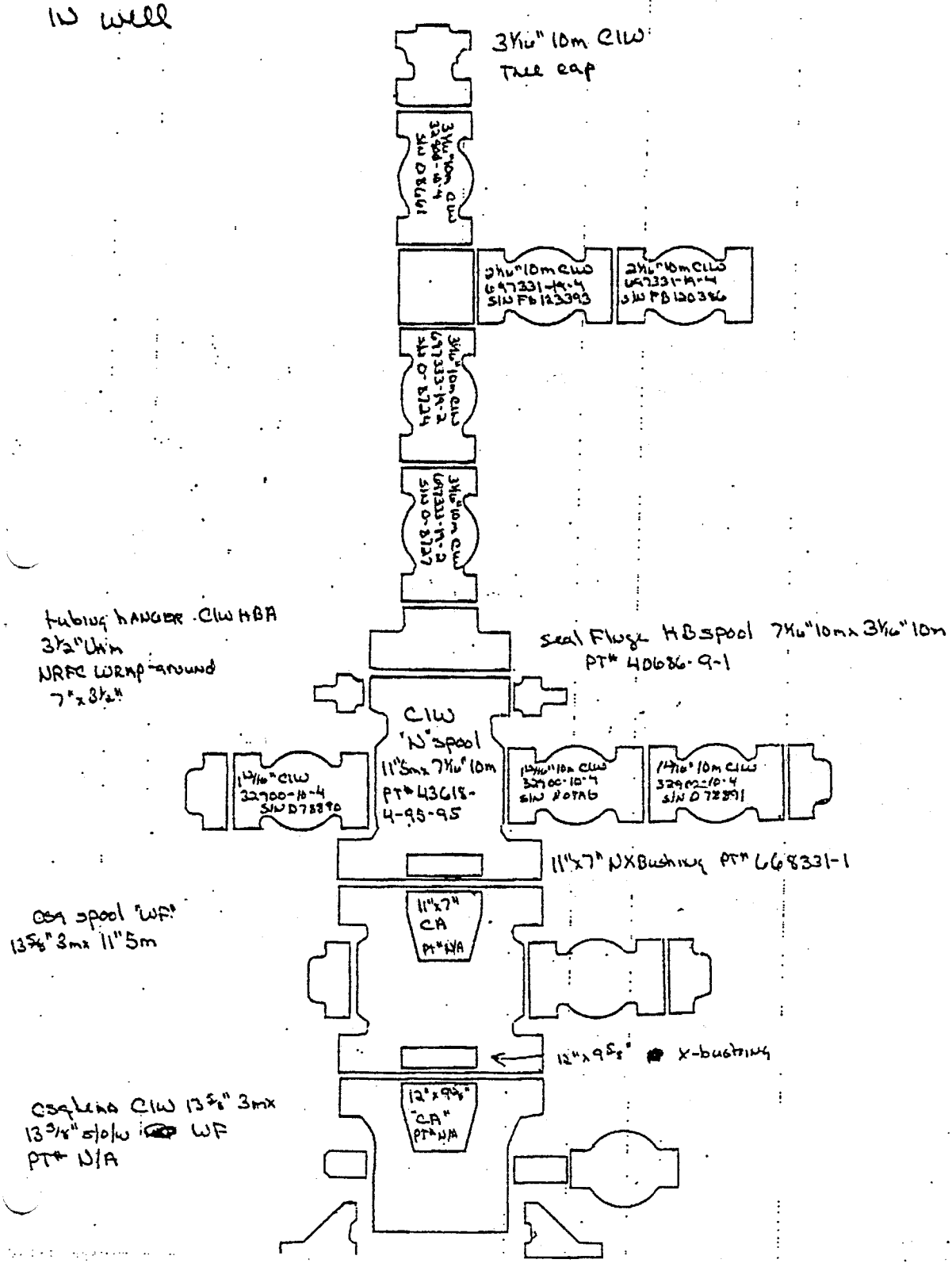
TUBING HEAD
7-1/16" X 5000#
FULL OPENING BORE



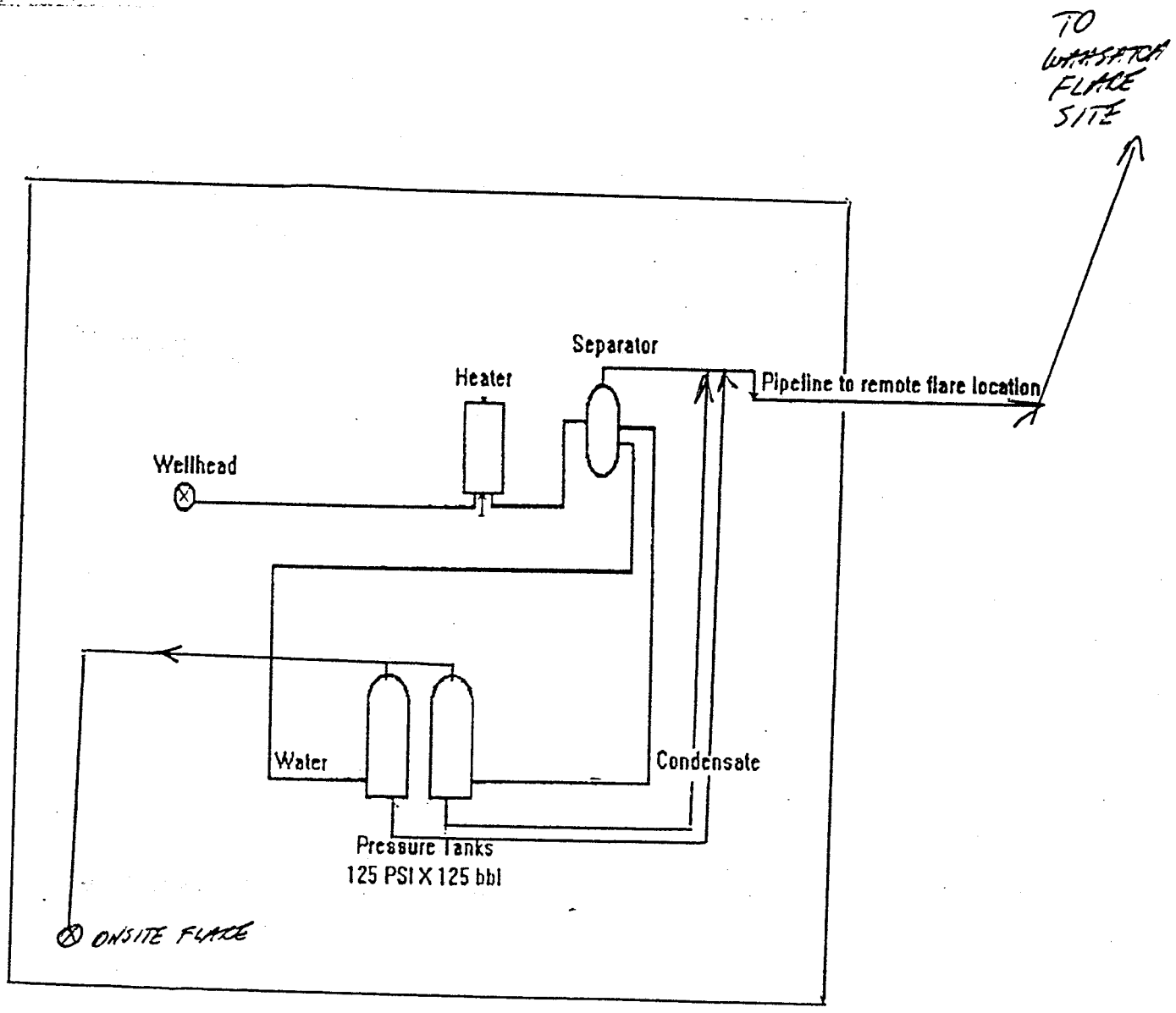
DRAWN BY JOE D. DOUGHARTY 6-16-92 5000DW7B.DWG

Yellow Creek

should have BPV.
in well



OPTION #3


TO WASATCH FLARE SITE
Separator
Heater
Pipeline to remote flare location
Wellhead
Water
Condensate
Pressure Tanks
125 PSI X 125 bbl
ONSITE FLARE

Wahsatch Gathering System

Urroz #1 Flare Testing Program
Well Location – Nw 1/4 Section 2 T14N–R121W Uinta County, Wyoming
Flare Location – Ne 1/4 of Se 1/4 Section 1 T5N–R7E Summit County, Utah
Flare Line Outside Diameter – 6 5/8″ Max. Rated Pressure – 1500 psig
Flare Stack Height – Estimate 100 feet
Wellsite Flare Height – Estimate 30 feet
Estimated Wellsite Flare Volume During Test – 0.2 MMcfg
Flare Testing Conducted only during daylight hours

Flare Schedule

Day	Flaring Hours	Rate MMcfd	Volume MMcfg	Cum Volume MMcfg
1	8	0.5	0.2	0.2
2	8	1.0	0.3	0.5
3	8	1.5	0.5	1.0
	2	2.5	0.2	1.2
	2	5.0	0.4	1.6
	2	7.5	0.6	2.3
4	2	10.0	0.8	3.1
	2	2.5	0.2	3.3
	2	5.0	0.4	3.7
	2	7.5	0.6	4.3
5	2	10.0	0.8	5.2
Total/Average	40	3.1	5.2	

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

RECEIVED
AUG 06 1992
DIVISION OF
OIL, GAS & MINING

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: W 88184

6. If Indian, Allottee or Tribe Name: N/A

7. If Unit or CA, Agreement Designation:

1. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator: UNION PACIFIC RESOURCES

3. Address and Telephone No.: P.O. BOX 7, MAIL STOP 3407, FORT WORTH, TX 76101

8. Well Name and No.: Urroz W.I. Unit

9. API Well No.: 49-041-20321

4. Location of Well (Footage, Sec., T., R., M., or Survey Description): C-NW/4 1186' FNL - 1210' FWL
Section 2-T14N-R121W

10. Field and Pool, or Exploratory Area: Yellow Creek

11. County or Parish, State: Uinta, WY

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	[X] Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other H_2S Plan	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

URROZ #1 RECOMPLETION
Section 2 T14N-R121W
Uinta County, Wyoming
7/29/92

Well Data:
GL: 6,896' KB: 6,918'
Production Casing: 7" 29#-35# SS95, RS90, & S0090 set at 17,115'.
Existing Kill String: 398 Jts. 3 1/2" L-80 12.7# VAM w/ stinger @ 12,021'.
Top CICR: Set at 12,070' w/ 4 sx cement; top of cement estimated at 12,055'.
Botttom CICR: Set at 12,822'.
Original Perforations: Phosphoria 12,200'-230'; Weber 12,690'-770' w/4 JSPF.
7" Casing Volume to PBTD @ 12,055': 434 BBls.
3 1/2" 12.7# Tubing Volume: 88 BBls.
7" X 3 1/2" Annular Volume: 291 bbls.
Bottom-hole Temperature: 200 degree Farenheit.
Bottom-hole Pressure @ 12,470' midpoint: 5,600 psig.

(Continued on Back Side)

14. I hereby certify that the foregoing is true and correct

Signed J K Rector /Joy Rector Title Regulatory Analyst Date 8-5-92

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

1. Test Anchors-setup tanks-setup H2S safety equipment & conduct initial safety meetings. Train rig and service personnel in H2S safety procedures.

2. Clean out cellar and replace pressure gauges on tree. Check pressures on 7", 9-5/8", and 13-5/8" casing. Check fluids at each valve and fill if necessary w/ diesel. Operate all tree valves to assure all are functional.

3. RU workover unit. Spot pump and tanks. RU H2S safety equipment.

4. RU and pressure test existing Cameron wellhead down to lower master valve to 3500#. See attached drawing of wellhead equipment.

5. RU and tie into 7" X 3-1/2" annulus and pressure test 7" casing to 3500#. Hold for 15 minutes.

6. Strip off Cameron wellhead equipment to top of tubing head. Install BOP per attached drawing for 3 1/2" tubing and pressure test pipe rams, blinds, and valves to 5000#, hydril to 3500#. RU and PU on tbg., pull Cameron BPV. Circulate down tubing w/ water pulling periodic water samples for analyses. Circulate hole clean.

   NOTE:All bop equipment and choke manifold should be H2S certified and inspected.

7. TOH with 3 1/2" L-80 12.7# VAM tubing laying down all but 1,000'. (Total 398 Jts. w/cementing stinger on end of string @ 12,021'). TIH on tubing w/retrievable bridge plug. Land at 1000'. Pressure test bridge plug to 2,000#. TOH w/tubing. Strip off BOP and Cameron tubing head equipment.

8. Install new FMC tubing head with metal to metal seal. Cutoff casing stub as necessary. The 7"-35# S0090 casing stub will be prepped for tubing head installation. Nipple up tubing head and pressure test to 5,000#. Nipple up inspected and certified 7 1/16" x 5,000# bore BOP stack w/3 1/2" pipe rams and manifold per the attached drawing. Land BOP test plug in tubing head. Pressure test pipe rams and blinds, valves on BOP equipment to 5,000#. Pressure test Hydril to 3,500#. TIH w/tubing and retrieve bridge plug. TOH w/plug laying down tubing.

9. RU FMC to run wear bushing into tubing head. FMC to supply running tool.

10. PU inspected 3 1/2" E 13.30# & 3 1/2" X-95 15.50# IF drill pipe/work string with 5 3/4" bit and scraper to PBTD estimated at 12,055'(Cement top;CICR @ 12,070'). Circulate hole clean with water. TOH w/pipe. Take fluid samples during circulating period.

11. RU wireline logging company to run GR, CPET, METT, PAL, and temperature logs to PBTD @ 12,055'. Evaluate logs.

12. TIH w/5 3/4" bit, and drill pipe. Close TIW valve and pressure test casing and lower pipe rams to 4000#. Mud up with 9.2 ppg brine water with H2S scavenger system with additives to minimum of PH 9.5. Function test BOP'S.

13. Drill out cement @ 12,055', cast iron cement retainer @ 12,070' and cement plugs to depth of 12,800'. Circulate hole clean of cement. Previous CICR @ 12,822'. Old Weber perfs @ 12,690'-12,770' w/4 JSPF. Interval squeezed w/300 sx Class "G" (61 BBls slurry). Estimated 165 sx in formation, 125 sx below retainer, and 5 sx above retainer. Original Phosphoria perforations from 12,200'-230' w/4 JSPF. Interval squeezed w/300 sx Class "G" to 3,700#. Circulate well clean. Make 10 stand short trip. CBU.

    NOTE:returns should be continuosly monitored for H2S. Keep scavenger in circulating system.

14. TOH w/ drill string. Monitor pit volume tank and use trip tank. Check fluid levels on way out. Do not swab hole in. RU wireline and full lubricator tested to 3000# and run GR-CBL-VDL from PBTD @ 12,800' to 11,800'. Make bit and scraper run while logs are being evaluated for squeeze. If no squeeze, TOH LD workstring.

15. RU wireline unit. Make GR and JB run to 12000'. TIH w/wireline setting tool and Model "DB" retainer production packer with extension assembly per attached sketch.

    NOTE: Packer and extension should have been previously shop tested to 5000#.

16. Pressure test packer and plug to 2,000#. Pull wear bushing. Change out pipe rams for 2 7/8" tubing and pressure test ram BOP to 5,000#.

CONTINUED NEXT PAGE

17. TIH with seal assembly, 2-7/8" 7.9# L-80 VAM-ACE tubing with flow couplings,nipples, methanol injection mandrel w/ valve and sub surface safety valve. Hydrotest above slips to 8000#. Circulate inhibited fluid down backside. Stab into packer, space out with 5M# with pups. Close pipe rams and test annulus to 2000#. Hold for 15 minutes. TOH to methanol injection valve. Attach control line to valve. TIH with tubing retesting breaks to 8000#. Run control line from SCSSV to surface. Pressure test SCSSV control line to 10,000# before cutting line for connection.

18. Make up hanger bushing and landing joint. Make up control line connection to hanger bushing. Lower hanger thru BOP'S and hang off tubing stringwith 5M# compression. Run in lock downscrews, back out landing joint. Install "IS" BPV in hanger. Strip off BOP's and rig up composite master valve. Pressure test hanger/composite v a l v e assembly to 5,000#. Pressure test SCSSV control lines to 10,000#. Pressure test backside to 2,000#. Pull BPV.

19. Lubricate in tree test plug. Nipple up remainder of wellhead tree. Pressure test tree components to 5,000#. RD workover rig.

20. RU perforators with lubricator. Pressure test lubricator to 5,000#.

21. TIH w/1-11/16" zero degree phased de-centralized hollow carrier tubing guns and perforate Phosphoria and Weber intervals 12,170'-12,440'. 12,580'-12,610', & 12,690'-12,770' with 2 JSPF.

22. RU tree saver and pressure test. Acid treat Phosphoria and Weber intervals per the attached treatment program. Maximum treatment pressure is 8,000#. Hold 2,000# on backside and monitor. Set casing popoff for 3,000#. Shut well in for 1 hour after treatment. Take SIP's every 10 minutes. RU Norward testers. Test all lines and manifolds to 5000#.

23. Open up well and unload treatment fluids. Once well is gassing heavily, test SCSSV. TIH w/tandem pressure bombs (mechanical and Panex gauge w/168 hour clocks and land in upper "R" nipple. TOH w/wireline. Flow well back according to attached schedule through Norward test system.

24. Continue to flow test well during daylight hours. Complete flow test. At end of test, RU wireline w/full lubricator with bottom hole sampler to 11,800'. TOH w/wireline sampler. Send to lab for complete analysis per Alberta Sulfur research recommendation.

25. TIH w/wireline and retrieve bombs after 24 hour shut-in. Monitor surface pressures.

26. RU wireline to set retrievable tubing plug in RN-nipple. Set retrievable plug. Blow down tubing volume to flare. Displace tubing w/ inhibited fluids. Last 3 BBls of displacement to contain diesel.

27. Shut well in and close safety valve. Finish winterizing remainder of tree and secure wellhead equipment. Wait on pipeline connection. Estimate first production in November, 1993.

URROZ WIU 1
YELLOW CREEK DEEP
UINTA CO., WYOMING

0 - 2036' 20" OD K-55 Surface Casing
5956' 13 3/8" OD K-55 Intermediate Casing

12116' 9 5/8" OD SS-95 Intermediate Casing

12072 - 12073' Retainer

12822 - 12823' Retainer
12977 - 12978' Retainer
13170 - 13171' Retainer

13885 - 13886' CIBP

15815 - 15816' CIBP

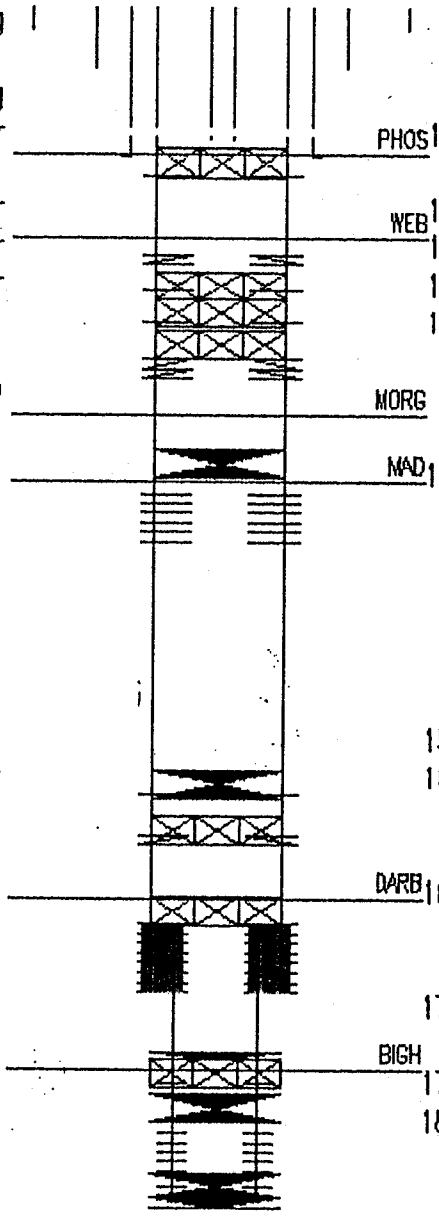
16090 - 16091' Retainer

16570 - 16571' Retainer

0 - 17134' 7" OD SS-95 Intermediate Casing

17512 - 17513' CIBP
17550 - 17551' Retainer
17758 - 17759' CIBP
18238 - 18239' CIBP
18380 - 18381' CIBP

16772 - 18403' 4 1/2" OD SS-95 Liner Casing



KB ELEV: 6917.5'
TD: 18438'

0 - 12021' 3.500" OD L-80 Tubing

PHOS 12200 - 12230' Squeeze Perfs SQZD W/300 SX TO 3700#

WEB 12690 - 12770' Squeeze Perfs SQZD W/300 SX TO 600#
12890 - 12930' Squeeze Perfs SQZD W/200 SX TO 2500#
13075 - 13115' Squeeze Perfs SQZD W/170 SX TO 500#
13298 - 13460' Squeeze Perfs SQZD W/200 SX TO 2500#

MORG

MAD 14126 - 14440' Perfs

15930 - 15970' Perfs
16190 - 16262' Squeeze Perfs SQZD W/200 SX

DARB 16730 - 17150' Abandoned Perfs SQZD W/250 SX

17646 - 17686' Squeeze Perfs

BIGH 17950 - 18220' Perfs
18290 - 18318' Perfs

Urroz #1 Casing Program

7" Production Casing

13	jts	35#	S0090	BTC - 500.08'	- Depth 495.4'	
41	jts	35#	SS95	BTC - 1,813.56'	- Depth 2,294.3'	
45	jts	32#	RS90	BTC - 1,732.38'	- Depth 4,010.6'	
18	jts	29#	RS90	BTC - 682.96'	- Depth 4,687.1'	
156	jts	29#	RS90	LTC - 6,012.49'	- Depth 10,643.9'	
78	jts	32#	SS95	LTC - 3,431.19'	- Depth 14,047.3'	
31	jts	32#	SS95	LTC - 1,382.76'	- Depth 15,418.9'	
35	jts	35#	SS95	LTC - 1,551.58'	- Depth 16,957.9'	
3	jts	35#	SS95	LTC - 136.68'	- Depth 17,115.0'	Shoe

9 5/8" Intermediate Casing

2	jts	47#	SS95	LTC - 90.29'	- Depth 89.5'	
39	jts	40#	SS95	LTC - 1,764.34'	- Depth 1,839.2'	
60	jts	40#	L-80	LTC - 2,442.67'	- Depth 4,259.4'	
70	jts	40#	SS95	LTC - 3,191.15'	- Depth 7,424.3'	
30	jts	44#	SS95	LTC - 1,368.25'	- Depth 8,781.4'	
21	jts	44#	SS95	LTC - 882.83'	- Depth 9,656.3'	
56	jts	47#	SS95	LTC - 2,398.47'	- Depth 12,033.8'	
2	jts	47#	SS95	LTC - 84.65'	- Depth 12,116.0'	Shoe

13 5/8" Intermediate Casing

2	jts	72#	L-80	STC - 90.20'	- Depth 89.6'	
81	jts	68#	K-55	STC - 3,306.99'	- Depth 3,372.3'	
28	jts	72#	L-80	STC - 1,215.58'	- Depth 4,579.5'	
17	jts	72#	SS95	BTC - 721.90'	- Depth 5,296.3'	
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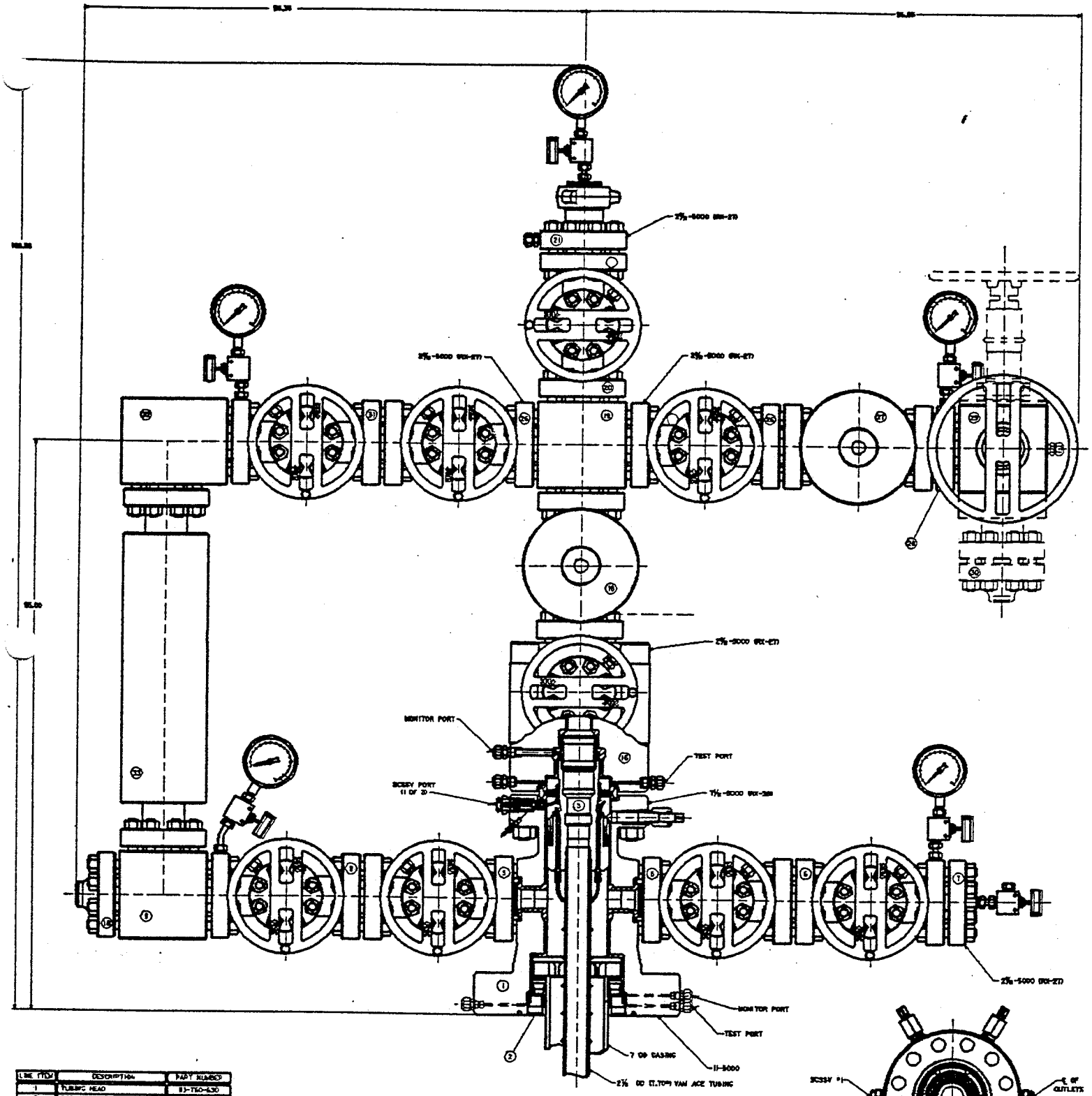

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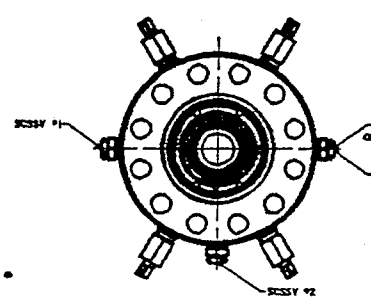

TOP VIEW OF
TUBING HEAD AND HANGER

TRINCLAD TUBING HEAD, TUBING HANGER, AND X-MAS TREE

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A Subsidiary of Union Pacific Corporation

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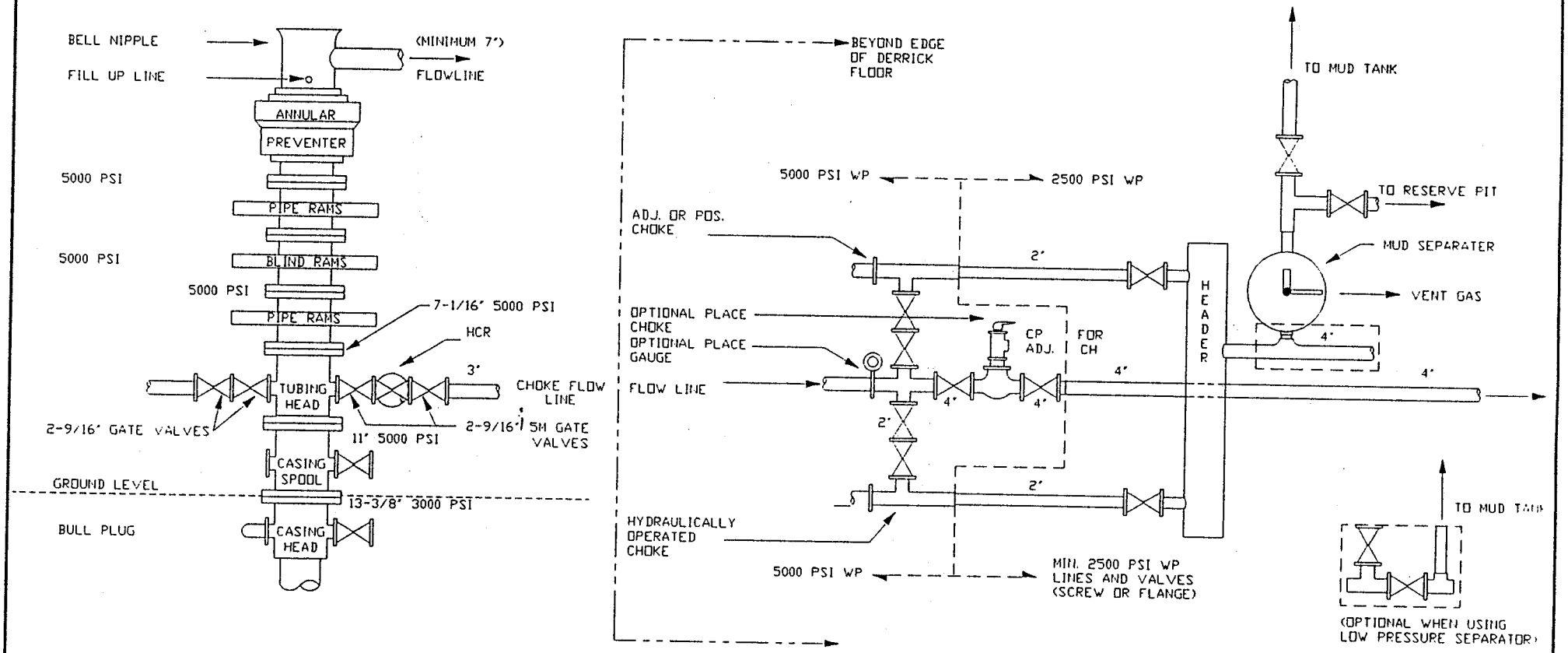

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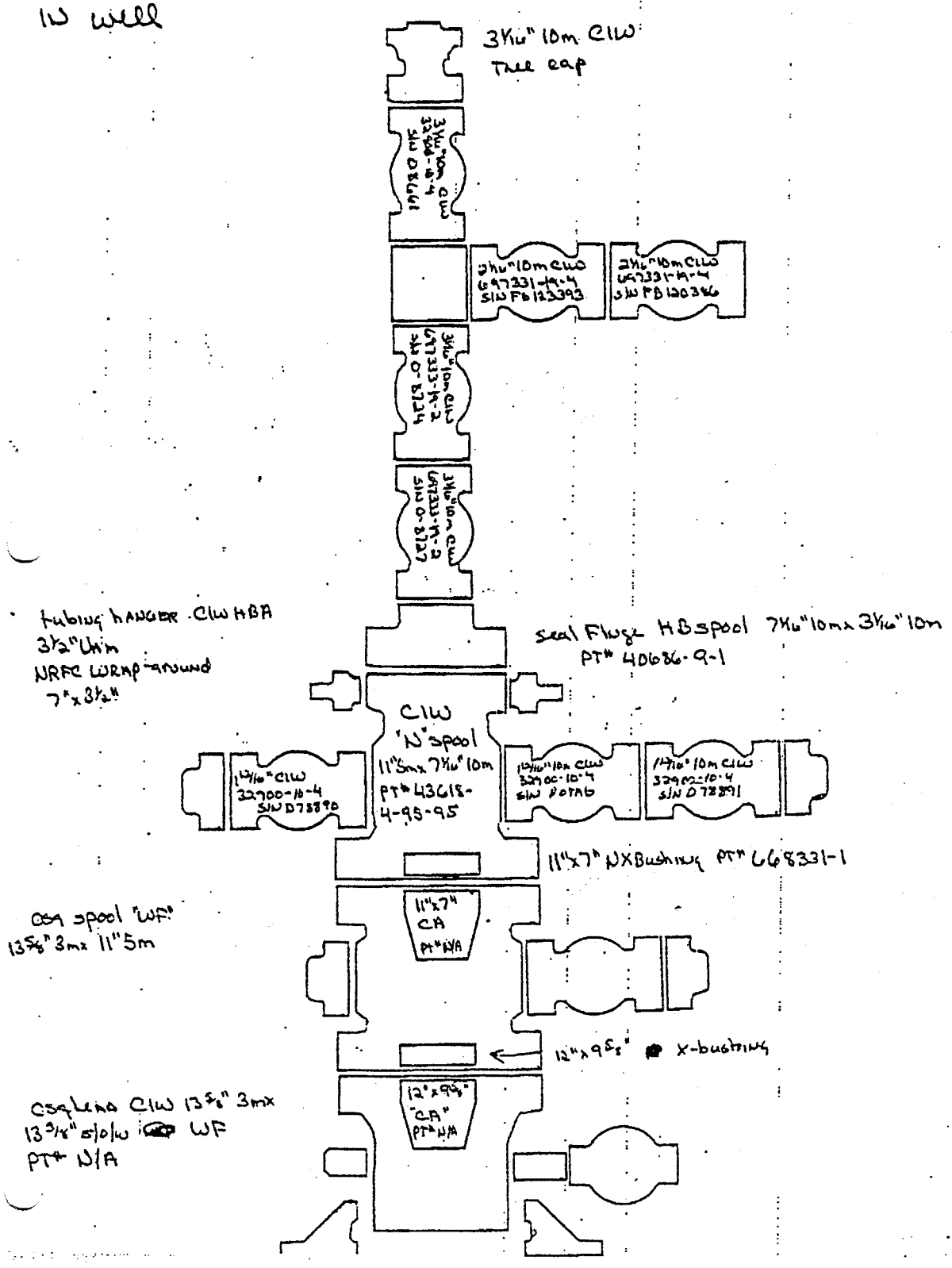
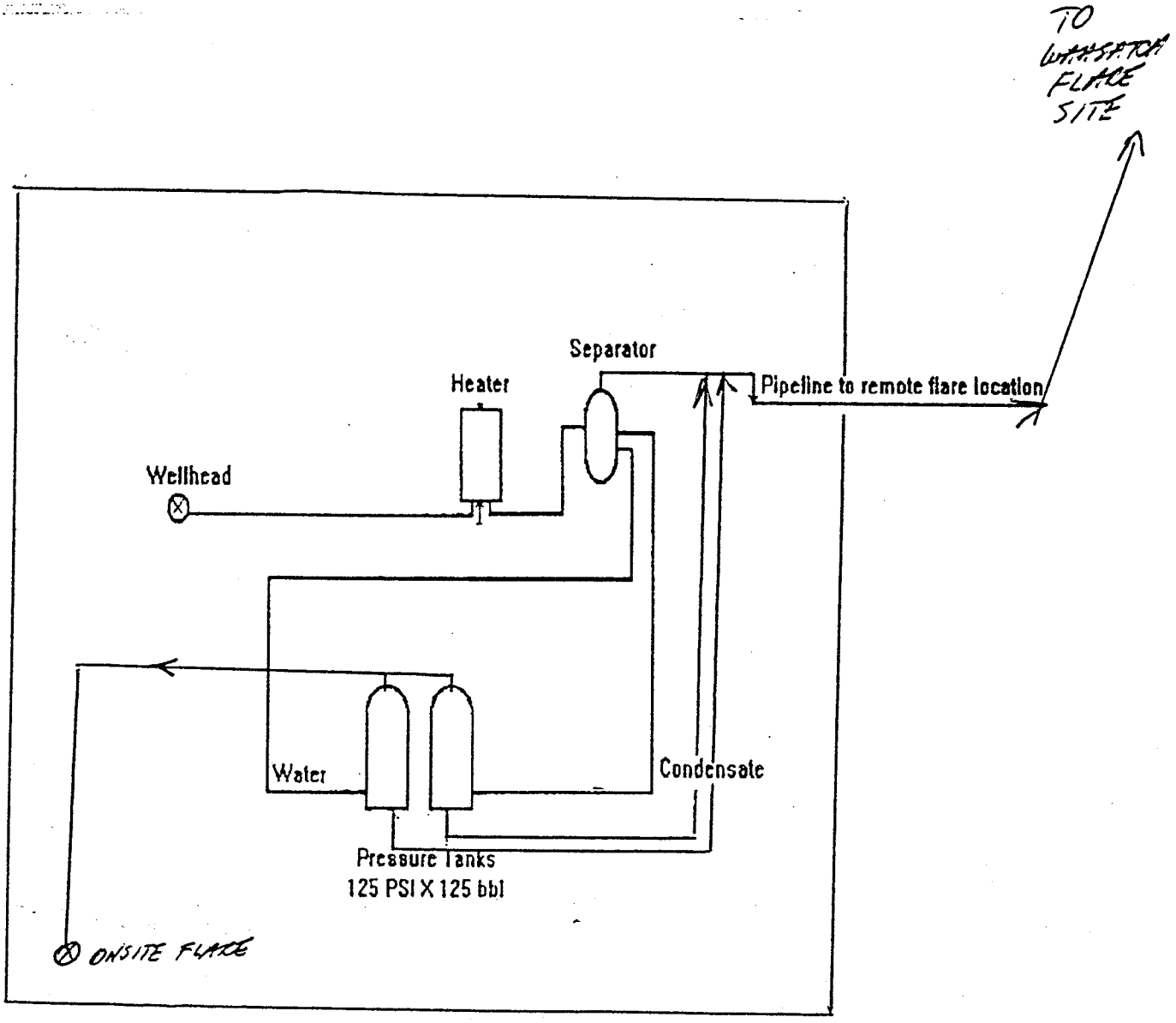


OPTION #3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Condensate
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ONSITE FLARE

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Flare Stack Height – Estimate 100 feet
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Flare Schedule

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	2	2.5	0.2	1.2
	2	5.0	0.4	1.6
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Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

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RECEIVED
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OIL, GAS & MINING

SUBMIT IN TRIPLICATE

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W 88184

6. If Indian, Allottee or Tribe Name
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7. If Unit or CA, Agreement Designation

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
UNION PACIFIC RESOURCES

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P.O. BOX 7, MAIL STOP 3407, FORT WORTH, TX 76101 817/877-7956

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	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Change of Operator	☐ Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Please be advised that Union Pacific Resources Company has acquired operations of the above mentioned lease from Amoco. Current operations are covered under Nationwide Bond #888994.

Previous Operator: Amoco Production Company
P. O. Box 800
Denver, CO 80201

Effective Date: 6-1-91

Please forward all approvals and correspondence to:

Union Pacific Resources Company
P. O. Box 7-MS 3407
Fort Worth, TX 76101-0007

This well has remained shut-in since 1982/83 awaiting construction of a pipeline to market. UPRC is proposing to build a pipeline during 1993.

14. I hereby certify that the foregoing is true and correct

Signed J. L. Rector Joy L. Rector Title Regulatory Analyst Date 8-5-92

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

WGS

WAHSATCH GATHERING SYSTEM

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

Union Pacific
Resources Company
Corporate Headquarters
801 Cherry Street
Fort Worth, Texas 76102
(817) 877-7526

Union Pacific
Resources Company
Wahsatch Gathering System
Local Operating Office
170 Yellow Creek Road, Suite A
Evanston, Wyoming 82930
(307) 789-1573

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

RICH AND SOMMIT COUNTY.

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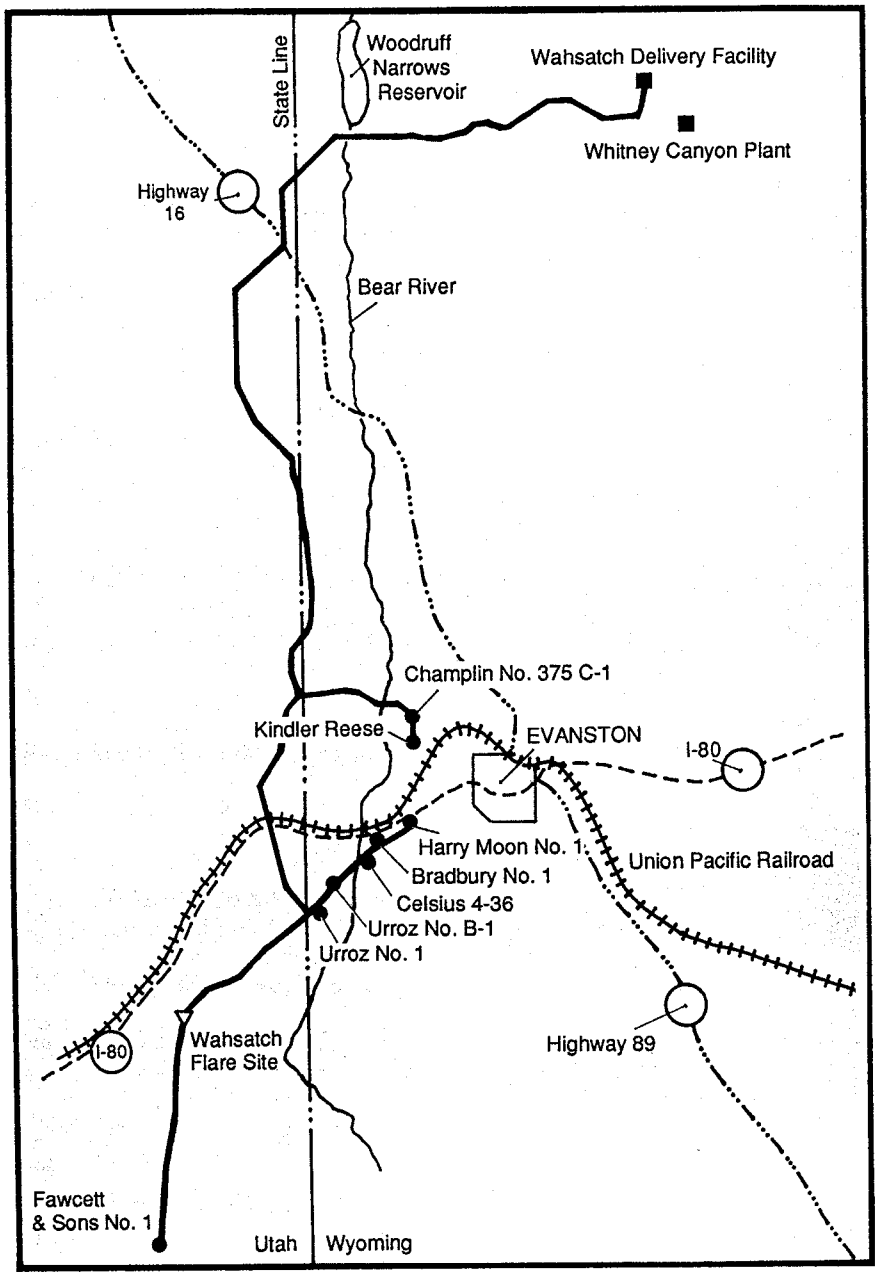
The Yellow Creek Deep and Cave Creek fields are undeveloped sour gas reservoirs located in the "Overthrust Belt" of Wyoming and Utah. Production of these reserves will help sustain local and state energy mineral revenues and contribute to the domestic energy supply.

In order to produce and market gas from eight existing wells, a pipeline gathering system and associated facilities are necessary to collect and transport the gas to the Whitney Canyon processing plant. This system, The Wahsatch Gathering System, is proposed for construction by Union Pacific Resources Company (UPRC) commencing in 1993.

A comprehensive plan for operating the system will be developed by UPRC. It will specify procedures, schedules and responsibilities for compliance with all regulatory, industry and company regulations and guidelines. The plan will also include a full regime of inspection, maintenance and system monitoring and control.

UPRC is committed to constructing and operating the Wahsatch Gathering System in a safe and environmentally responsive manner. Safety has priority over all other considerations.

UPRC will build on its partnership with "Overthrust Belt" communities by working with local, state and federal authorities and private citizens in developing the Wahsatch Gathering System.

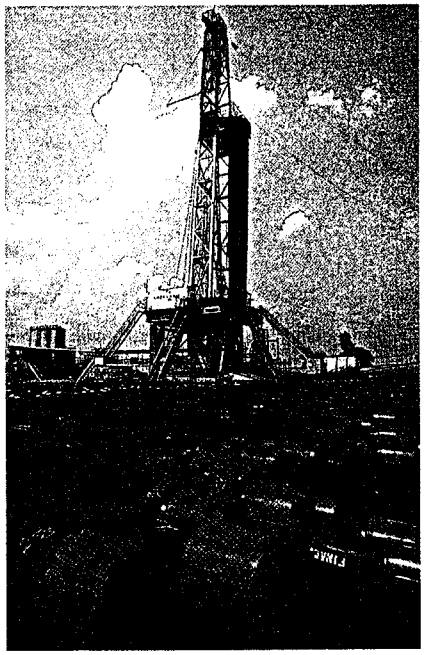


The Wahsatch Gathering System

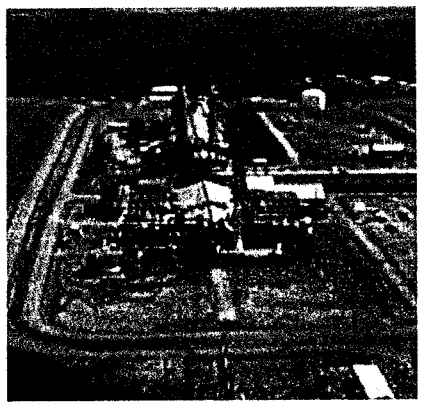
Union Pacific Resources Company proposes construction of the Wahsatch Gathering System, or WGS, in Uinta County, Wyoming and Rich and Summit Counties, Utah.

The WGS will allow production from eight natural gas wells in two currently non-producing fields, the Cave Creek and Yellow Creek Deep fields. For the next 20 years, a 41-mile pipeline would transport sour gas from the eight existing wells near Evanston, Wyoming to the Whitney Canyon Processing Plant northeast of Evanston (see map at left). UPRC is a partner in this processing plant facility.

The project involves the construction, operation and maintenance of a system composed of gathering pipelines, a fuel gas line, wells and wellhead equipment, safety systems, and support facilities.



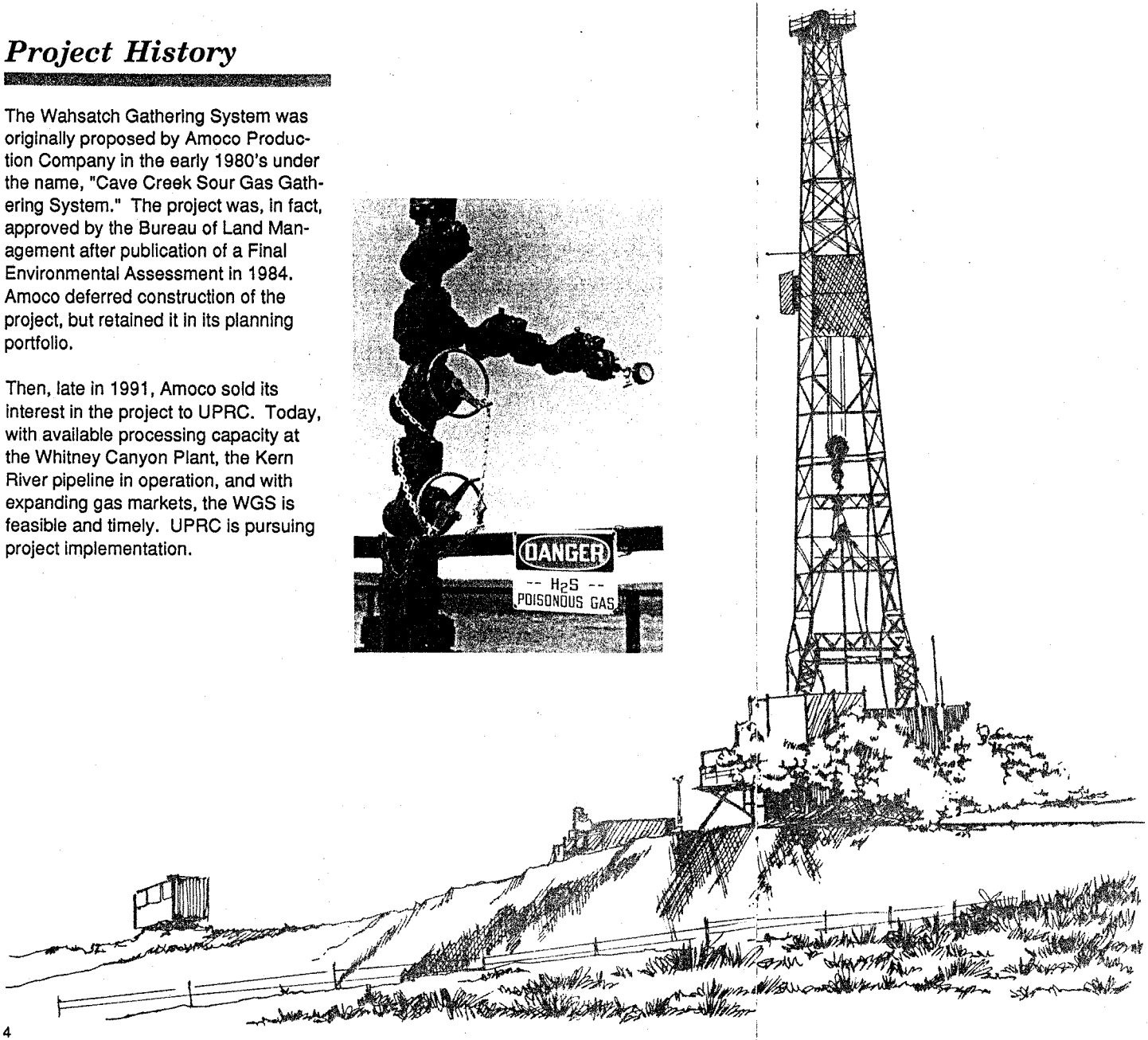
All eight wells that will be linked to the WGS were originally drilled and tested in the late 1970's and early 1980's. They have been shut-in since then because there was no available pipeline for delivery of the gas to a processing facility.



Project History

The Wahsatch Gathering System was originally proposed by Amoco Production Company in the early 1980's under the name, "Cave Creek Sour Gas Gathering System." The project was, in fact, approved by the Bureau of Land Management after publication of a Final Environmental Assessment in 1984. Amoco deferred construction of the project, but retained it in its planning portfolio.

Then, late in 1991, Amoco sold its interest in the project to UPRC. Today, with available processing capacity at the Whitney Canyon Plant, the Kern River pipeline in operation, and with expanding gas markets, the WGS is feasible and timely. UPRC is pursuing project implementation.



Products

Marketable products from the produced gas include natural gas, gas condensate, liquid hydrocarbons and sulfur. Propane, butane and petrochemicals are derived from the liquid hydrocarbons. Sulfur is used in making fertilizers.

Hydrogen Sulfide

The gas to be transported by the Wahsatch Gathering System contains on average 15% hydrogen sulfide (H_2S). The H_2S must be removed before the gas can be sold commercially as an energy fuel. The Whitney Canyon Plant is the nearest facility capable of processing the sour gas. The presence of H_2S also requires special system design considerations to ensure the safety of the public and the operator.

Hydrogen sulfide is a toxic, colorless gas which is hazardous to people, wildlife and livestock. Substantial precautions have been planned into the design of the system to assure public and environmental safety.

Union Pacific Resources is committed to constructing and operating the system in a safe and environmentally responsible manner. In designing the pipeline system, safety has priority over all other considerations.

Benefits

Two socioeconomic benefits can be expected from the WGS--first, short and long term employment and second, increased revenues and tax base for the affected counties and governments.

Employment

As proposed, the project will employ an average of 125 people over a six-month construction period. Efforts will be made to hire from the local area whenever possible. Approximately $3.1 million will be paid as wages to construction workers during the period.

When construction of the WGS is complete, UPRC anticipates that nine people will be employed full-time for operation and maintenance of the gathering system and wells. These employees will receive an estimated combined annual wage plus benefits of $470,000--$9.4 million for the 20-year project life.

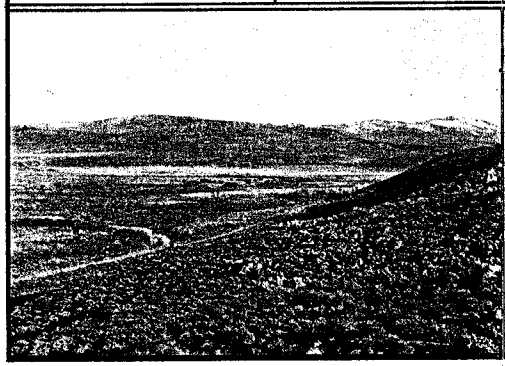
Additionally, local contractors and service companies will be hired periodically for facility maintenance and services.

Revenue

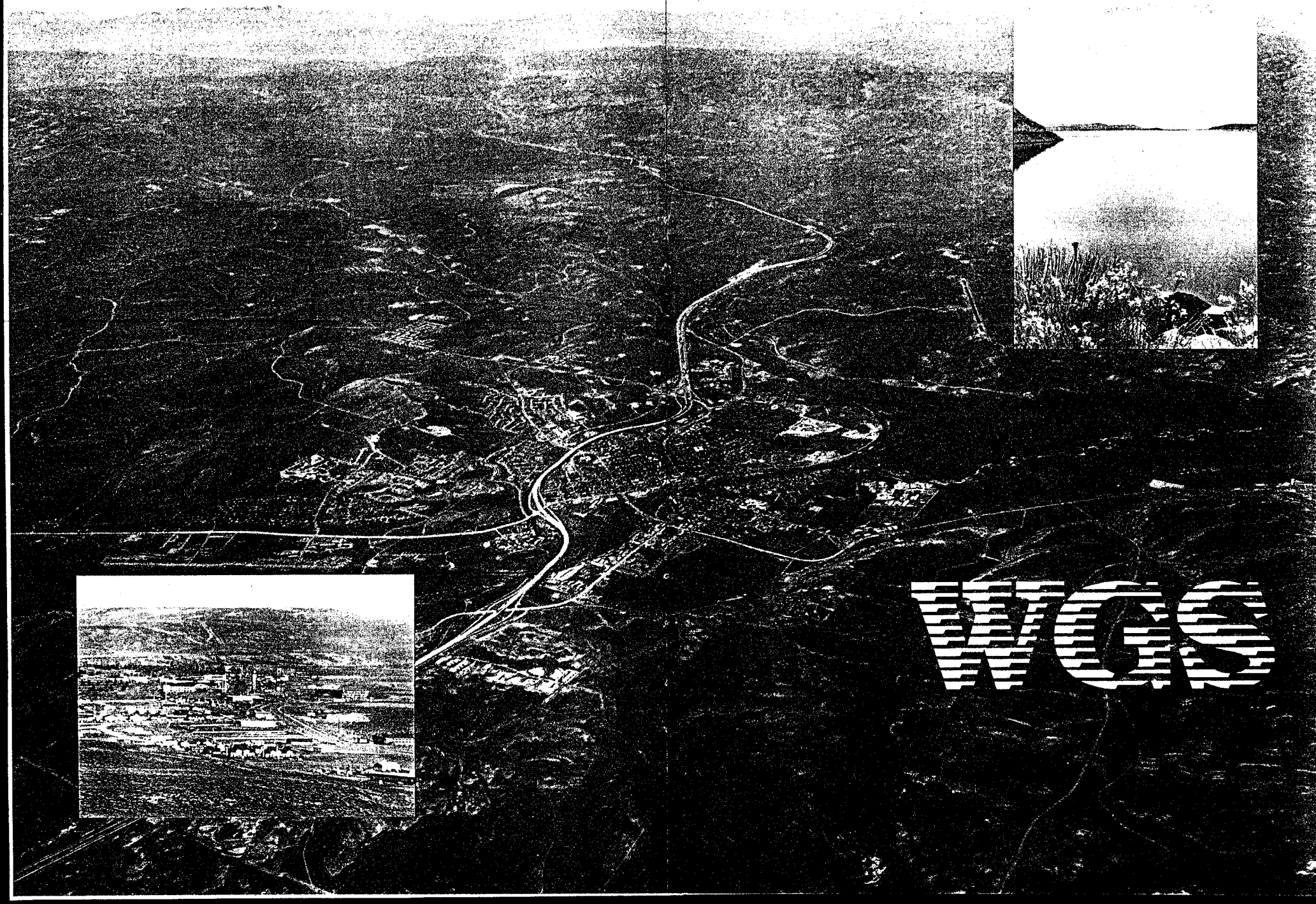
Revenue projections from royalties and taxes are projected at $40,643,000 to be paid over the life of the project. This figure is calculated using today's prices and tax rates. The table at right shows the breakdown in project royalty and tax revenue by county, state and federal governments.

Summary of WGS Tax Revenue Benefits Over the Project Life[1]

ENTITY	ROYALTIES	SEVERANCE TAXES	AD VALOREM[2] TAXES	SALES & USE TAXES	TOTAL TAX REVENUES
Federal Government	$2,564,000[3]				$2,564,000
State of Wyoming	$3,138,000[4]	$10,661,000		$266,000	$14,065,000
Uinta County			$13,613,000[5]	$261,000	$13,874,000
Wyoming Subtotal	$3,138,000	$10,661,000	$13,613,000	$527,000	$27,939,000
State of Utah		$5,305,000		$371,000[6]	$5,676,000
Rich County			$655,000	$39,000	$704,000
Summit County			$3,727,000	$33,000	$3,760,000
Utah Subtotal		$5,305,000	$4,392,000	$433,000	$10,140,000
Total for Project	$5,702,000	$15,966,000	$18,005,000	$970,000	$40,643,000



1. Estimates are in 1992 dollars and not discounted to reflect the value of revenue in future dollars.
2. Includes production and non-production ad valorem taxes.
3. Projected federal mineral royalties total $5,128,000, however, one-half of federal royalties collected are returned to the state in which they are generated (Wyoming).
4. A portion of Wyoming's share of federal royalty payments would go to the federal government to cover the administrative costs of the program. These costs are currently averaging about 6.5 percent of royalties.
5. Approximately 17 percent of ad valorem taxes in Uinta County would go to the State School Foundation Funds. The remainder would be divided among County government, schools, and special assessment districts.
6. Includes $2,200 to the Utah Sports Authority.


WCIS

Construction

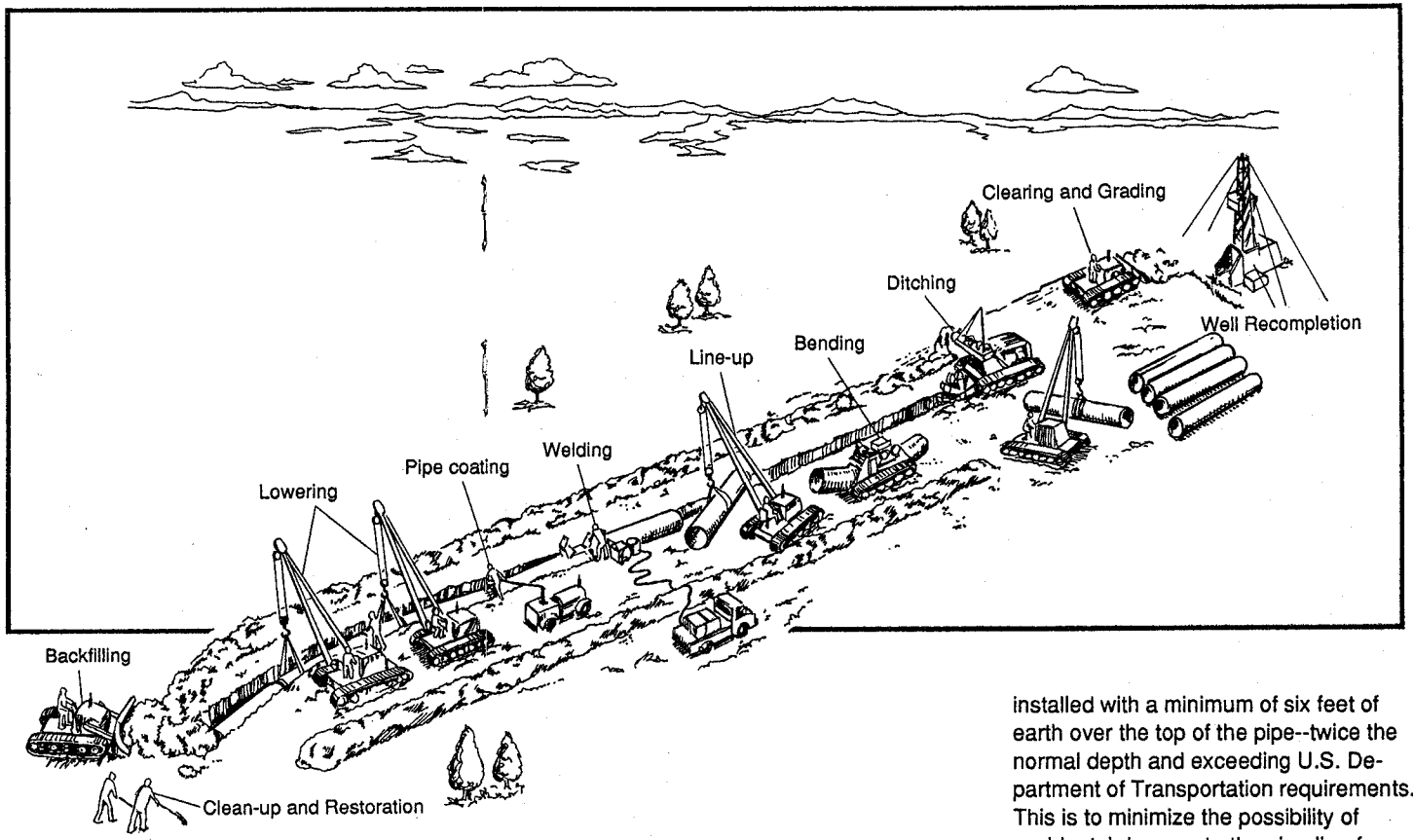
Construction of the WGS will occur in a short, six-month period. A construction crew of 125 will work on two pipeline spreads and facilities simultaneously. The 125 skilled and unskilled workers will be hired from the local work force whenever possible.

See the diagram at right for an overview of the pipeline construction process.

Timing

UPRC intends to begin gas production by the end of 1993. The project schedule provides time for thorough planning, review, permitting, testing and construction.

Some activities will need to begin prior to overall project approval. Recompletion and testing of one well is scheduled to begin in late summer 1992. As planned, actual pipeline construction would begin in late spring of 1993.



Well Recompletion

Following original production testing in the early 1980's, the gas wells were shut-in. The 1,000-foot productive zone ranges in depth from 11,000 to 13,000 feet. The operator sealed the productive intervals with cement for safety reasons and to preserve the well casing integrity. For production to be initiated, the cement will have to be drilled out and the productive zone will be re-perforated. Comprehensive safety measures will be used during this process. Once production is restored, existing wellhead equipment will be replaced with new H_2S resistant components. In addition, each well will be equipped with a sub-surface safety valve for further protection.

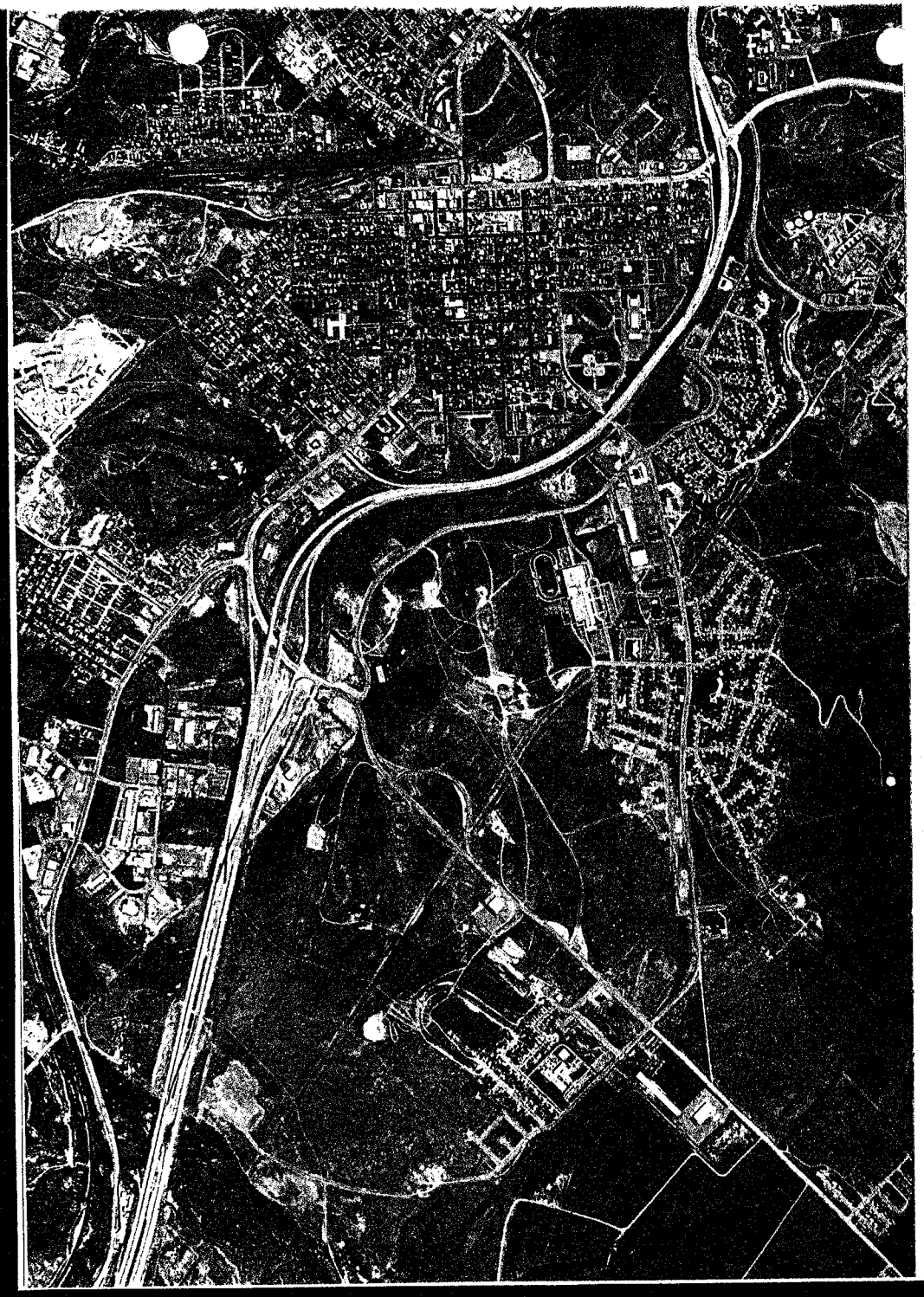
Initial production would come from six of the wells. Two others would be recompleted and produced in the future.

Laying the Pipeline

Normal industry and Bureau of Land Management stipulated practices will be exceeded in preparing the pipeline right-of-way, digging the pipeline trench, lowering the pipe, backfilling the trench and reclaiming the disturbed right-of-way surface areas.

Because the pipeline will transport H_2S, stringent measures will also be followed in laying the pipeline. The pipe will be installed with a minimum of six feet of earth over the top of the pipe--twice the normal depth and exceeding U.S. Department of Transportation requirements. This is to minimize the possibility of accidental damage to the pipe-line from surface activities such as backhoe operation and digging.

Pipe steel, pipe fabrication and pipeline valves have been selected and will be monitored during manufacture and installation to meet stringent specifications developed for use in an H_2S environment. All pipeline welds will be radiographed and the pipeline will be pressure tested prior to use. The pipe will be coated for protection from external corrosion and also insulated to retain heat in the system.



Land use

The pipeline route and facilities siting have been carefully selected. The pipeline route intentionally avoids close proximity to residences and businesses. Facilities are sited to minimize the need for new access roads or other new surface disturbance. The rights-of-way include federal, state and privately-owned lands.

Along the pipeline route, UPRC has requested a temporary 100-foot-wide right-of-way for construction and a 50-foot permanent right-of-way for line maintenance during operation. Construction activities will disturb only that area necessary for the installation of the pipeline and facilities.

Pipeline construction will disturb a maximum of 532 acres of land surface. The right-of-way is mostly shrubland with good revegetation potential. The area can be successfully revegetated in three to five years.

Nearly all land intersected by the proposed pipeline is locally zoned agricultural and is used for livestock grazing and production or wildlife habitat. The pipeline will cross a mule deer crucial winter range area on the west side of the Bear River Divide and about 3/4 mile of grass pasture/hayland in the Bear River Valley. Special plans will be made to offset temporary disturbance of these areas.

Ranchers and landowners would be advised in advance of any fence openings or other construction activities affecting their operations. Construction will be scheduled to avoid disturbance in seasonally sensitive wildlife habitat areas.

Concerning land use and Restoration:

- Clearance of vegetation will be kept to a minimum.
- Disturbed lands will be reshaped to their natural contours.
- Revegetation efforts will include reseeding of desirable native plants and sagebrush and any necessary weed control as required by state law or landowners.

CONSTRUCTION IMPACT:

Community

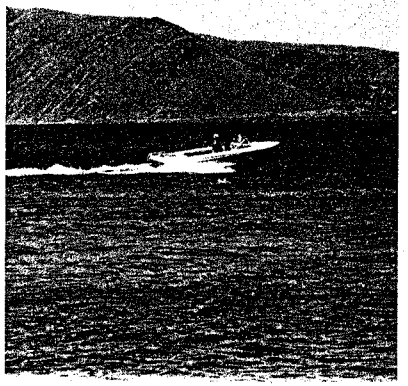
It is believed that the temporary construction work force can be accommodated by the existing local housing, service and infrastructure capacities. It is expected that a portion of the work force would be hired locally. Housing should be available for non-resident temporary workers. The 1990 census found a 24% vacancy rate for rental units in Evanston, and a total of 833 vacant housing units within the city.

The permanent work force of nine people would easily be accommodated within existing community infrastructures.

Nevertheless, UPRC would work closely with local governments and service providers to assess the capability of existing services and housing to accommodate the temporary construction work force and to minimize potential adverse socioeconomic community impacts.

Additionally, UPRC will cooperate with local fire and rescue, law enforcement and emergency service providers in the preparation and implementation of an emergency response plan for the WGS.

UPRC's local operating office in Evanston will provide convenient access to project managers for community participation during planning and construction of the pipeline.



Recreation

System construction schedules will avoid seasonally sensitive wildlife habitat areas. Additionally, off-site deer habitat enhancements will be implemented in the mule deer crucial winter range area to mitigate for temporary loss of disturbed habitat.

Access to Woodruff Narrows Reservoir and other public recreation sites would be maintained throughout construction. Detours and/or temporary bridges may be used to maintain access during the pipeline construction phase. No interruption of traffic on highways or the interstate should occur. The pipeline will be bored under these highways from outside of the highway right-of-way.

Wildlife

Construction in sensitive habitats would be scheduled to avoid critical seasons of wildlife use. Areas subject to this seasonally sensitive scheduling include the mule deer crucial winter range, waterfowl and waterbird nesting areas, sage grouse strutting areas, spring fish spawning, and late fall brown trout spawning in the Bear River.

The proposed route for the WGS crosses approximately 3.8 linear miles of mule deer crucial winter range. Up to 46 acres of surface could be disturbed during construction out of the 80,000 acres included in the crucial winter range area. Temporary loss of habitat from surface disturbance would be mitigated by off-site habitat improvements within the winter range.

Surveys for threatened and endangered and sensitive species would be conducted within 180 days of construction. If any threatened or endangered species were identified, UPRC would cooperate with the U.S. Fish and Wildlife Service, Wyoming and Utah Game and Fish Departments and the Bureau of Land Management in protection of the species.

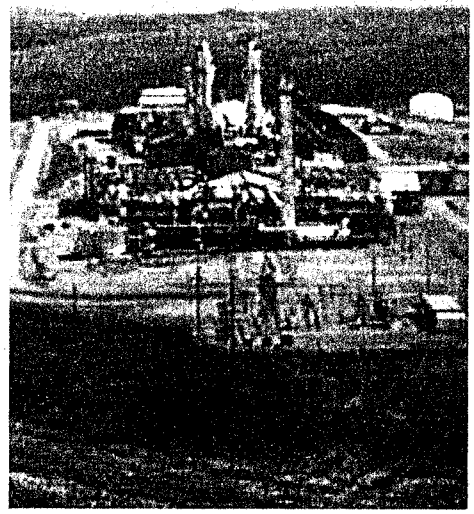
To limit the impact on wildlife, these additional measures will be taken by UPRC.

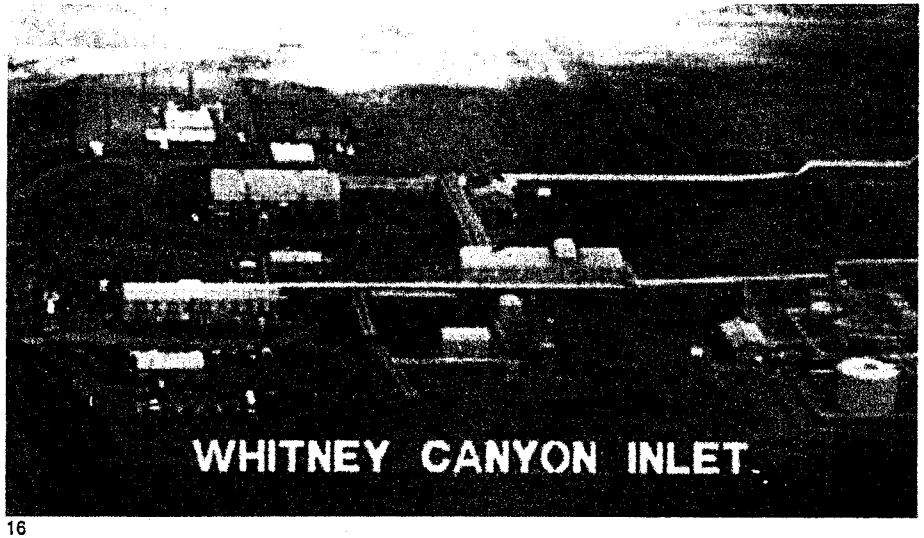
- No new public access points will be constructed along the pipeline corridor.
- Area reclamation will include measures to conserve soils, revegetate disturbed areas, restore riparian and stream areas and control surface runoff and stream sedimentation.
- Construction and permanent work force personnel will be educated to prevent wildlife harassment and avoid unnecessary wildlife disturbance. Personnel will not be allowed to carry firearms.

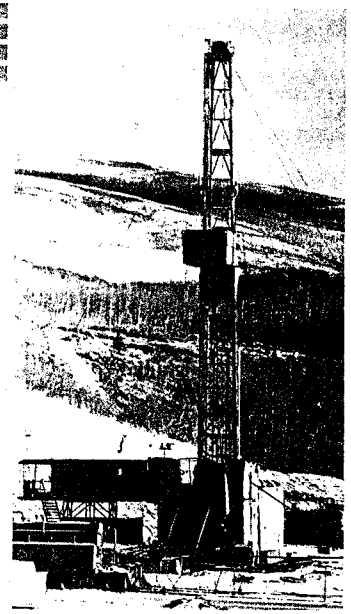
WGS OPERATION:

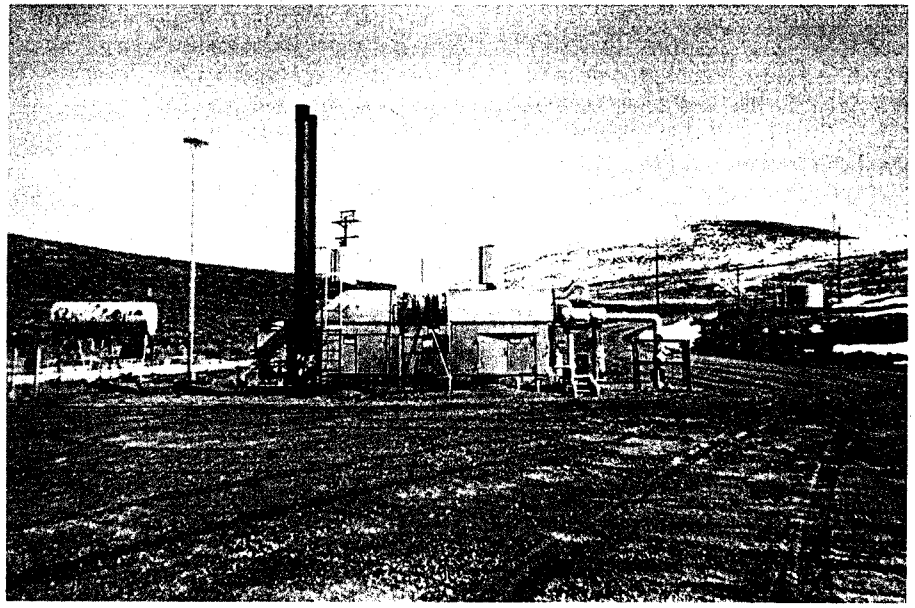
The sole purpose of the Wahsatch Gathering System is to safely and economically transport sour gas to a processing facility for delivery to commercial markets. The pipeline will transport on average 55 million cubic feet of gas per day to the Whitney Canyon processing plant.

The permanent operations work force is expected to be nine people. These personnel would be responsible for operating the system including maintenance and inspection of all system components.









OPERATIONAL SAFETY:

The gas carried by the Wahsatch Gathering System will contain on the average 15% H_2S by volume.

Because of the dangers involved with H_2S, a number of special precautions have been taken in the design of the pipeline to assure the safety of the nearby communities and WGS workers. Safety has been the priority consideration in system, pipeline and wellhead design, materials selection, construction procedures, operations plans, leak prevention and detection measures, emergency response preparedness and the location of the pipeline route.

It is important for the public and the operator to understand the level of risk to public safety associated with the WGS project. An independent analysis of potential public health and safety risks was commissioned by UPRC. The analysis found that for people living or working at structures nearest the system, the safety risk from an accidental release of gas, even under the worst possible circumstances, is extremely small--substantially less than the risk of being struck by lightning. The following measures are incorporated into the system to help assure integrity of the system.

WGS Safety Measures:

- A comprehensive inspection and quality control program will be utilized for materials fabrication to assure full compliance with engineering design's rigid specifications. A specifications document will be prepared that details contractor performance procedures, and independent, third party and UPRC inspections of materials and performance. Any materials and components not meeting these standards will be rejected. No component will be accepted which does not meet specifications.

- The pipeline will be buried a minimum of six feet underground. This is twice the normal burial depth for gas pipelines.

- All welds between pipeline segments will be subject to stringent welding requirements and only certified welders will be used.

- Before being placed in use, the pipeline will be pressure tested in accordance with U.S. Department of Transportation regulations.

- Measures are incorporated into pipeline design and operation to control the corrosive effects of H_2S. Also, fluid buildup in the pipeline will be removed regularly to prevent internal corrosion. Mechanisms and procedures are incorporated to monitor for, detect and respond to internal corrosion. Corrosion inhibitors will be injected into the pipeline to minimize internal corrosion. Protective coatings and cathodic protection will protect the pipeline from external corrosion.

- Routine system inspection and maintenance will detect and correct any potential problems before they develop.

- In addition to monitoring by UPRC personnel in the field and in the system control room, the pipeline will be monitored and controlled continuously, 24 hours a day, by a supervisory computer system with 100 percent back-up capability.

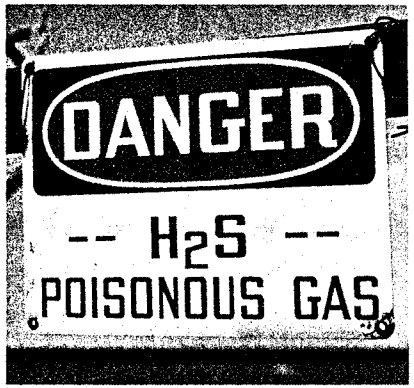
- H_2S detectors will be placed at all facilities along the pipeline and connected with the system's control system. If H_2S concentrations of 20 ppm or more are detected, an alarm would sound at UPRC's local operating office. Concentrations in excess of 40 ppm trigger automatic closure of emergency shutdown valves.

- The maximum time from detecting a leak to system response is one minute. Emergency shutdown will be completed within 10 to 20 seconds of activation.

- In the unlikely event of an emergency, two flares at locations remote from populated areas (the Wahsatch Flare Site and the Wahsatch Delivery Facility) are available to depressurize the pipeline system. Each flare has the capability to depressurize the line within an hour. Flaring the gas converts the H_2S to sulfur dioxide (SO_2), which quickly rises and disperses in the flare plume. Because of the remoteness of the flare sites and the rapid diffusion of the SO_2, there will be no significant environmental effects from emergency flaring.

- Pipeline pressure will be continuously monitored. A pressure point analysis program will also be used to detect a pipeline leak or rupture. Abnormal pressure changes would trigger emergency shutdown valve closure.

- Any power failure or computer malfunction in the pipeline system will trigger emergency shutdown valve closures.



Operational Safety (continued)

- Landowners and people living or working near the system will be personally contacted by UPRC and provided information about pipeline location, system operation, and public protection measures. They will be asked not to conduct any digging or trenching near the line and provided information on whom to contact if they need to conduct surface disturbance activity near the system so as to avoid damage to the line. They will also be provided briefings and educational materials on the dangers of H_2S and on emergency response preparedness and procedures specifically developed for this system.

- The pipeline route will be marked with signs to indicate location of the buried pipeline. All above ground facilities will be marked with H_2S warning signs and fenced with locked gates to prevent public access.

Emergency Procedures

The operating philosophy for the Wahsatch Gathering System places safety first. It is UPRC's policy to provide a safe and healthy working environment for all employees as well as to protect the public and environment from the hazards of H_2S.

Measures have been incorporated into pipeline, wellhead, and system design to specifically reduce the probability of an accidental release of gas. Sophisticated systems are included in the project to combat corrosion, detect leaks or pressure changes, maintain rapid communication among safety systems and personnel, and close emergency shut-down valves. Air dispersion modelling and risk analysis shows that the likelihood of encountering dangerous concentrations of H_2S resulting from a well or pipeline accident is extremely remote.

In the event that an accidental gas release did occur, an emergency response plan would be immediately initiated to alert or evacuate people in affected areas and to notify local fire, law enforcement and medical services. This emergency response plan will be developed in close cooperation with local authorities and be regularly reviewed and updated. UPRC will meet with people who live and work nearest the system to explain H_2S risks, Wahsatch Gathering System safety features, emergency response procedures and to respond to questions.

M. P. (Pete) Straub
Operations Superintendent
Wahsatch Gathering System

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

170 Yellow Creek Road
Suite B
Evanston, WY 82930
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'Sour gas' pipeline may be built in '93

Rich, Summit counties would be affected

SALT LAKE CITY (AP) — Utah Pacific Resources has revived a dormant plan to construct a pipeline through two rural Utah counties to carry natural gas contaminated with extremely lethal concentrations of hydrogen sulfide.

The 41-mile pipeline from Utah to Wyoming will connect eight "sour gas" wells to a processing plant in Whitney Canyon, about 16 miles northeast of Evanston, Wyo.

The so-called "sour gas" will be taken from seven wells in Wyoming and one in Summit County. The southernmost Summit County well, near the Ball & Moore Reservoir about 10 miles northeast of Coalville, accounts for about half the total gas that will be transported to Whitney Canyon. The rest of the gas will come from wells near Evanston.

Hydrogen sulfide, hazardous to people, wildlife and livestock in even low concentrations, forms sulphur dioxide when it is burned and must be removed from natural gas before it is used in homes or businesses.

The sour gas that will be transported in the pipeline will have a hydrogen sulfide concentration of 15 percent, or 150,000 parts per million.

A person exposed to sour gas with 700 parts hydrogen sulfide per million would die in less than two minutes, according to information provided by Union Pacific Resources.

An environmental study completed in 1984 shows a 95 percent chance of a "pipeline incident" and a 28 percent chance of a pipeline rupture over the 20-year life of the project, but assumes the actual risk of exposure to people living in the area to be almost nonexistent.

Sour gas, like natural gas, is lighter than air and disperses rapidly into the atmosphere when released. However, hydrogen sulfide dissolves quickly in water and is poisonous to aquatic organisms, the 1984 environmental study states.

The pipeline, proposed by Amoco Production Co. in 1983 as the Cave Creek Sour Gas Gathering System, received final public and private approval in 1984.

Amoco didn't proceed with the project, however, and instead sold its interests to Union Pacific Resources. The company plans to begin construction of the pipeline, now known as the Wahsatch Gathering System, in 1993.

About 18 miles of the pipeline will run through Summit County and nine miles through Rich County. It will cross the Utah-Wyoming state line six times and will run under I-80, U-16 and the Union Pacific railroad line.

The pipeline will also cross two sections of the Bear River in Wyoming, and would lie about a quarter mile below the high-water mark of the Woodruff Narrows Reservoir in Wyoming.

The pipeline will pass through important wildlife habitat in Utah and Wyoming.

Union Pacific Resources acknowledges the dangers of sour gas and is emphasizing the safety measures — including unusually deep burial and a complex monitoring and shutdown system — that will be taken during the construction and operation of the pipeline.

No environmental advocacy groups commented on the environmental study in 1984, nor did any concerned citizens.

Representatives the Utah Wilderness Association, the Utah chapter of the Sierra Club, the Wyoming Wildlife Federation and the Wyoming Outdoor Council said they were unaware of the revived pipeline project under either of its names.

Union Pacific Resources is emphasizing the financial benefits the project will bring to Utah and Wyoming, and is planning public briefing sessions for this summer. Informal meetings already have been held with commissioners in Summit and Rich counties.

WGS
WAHSATCH GATHERING SYSTEM

Dealing with Hydrogen Sulfide

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

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801 Cherry Street
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Union Pacific Resources Company
Wahsatch Gathering System
Local Operating Office
170 Yellow Creek Road, Suite A
Evanston, Wyoming 82930
(307) 789-1573

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

Union Pacific Resources Company (UPRC) is committed to safe construction and operation of the Wahsatch Gathering System (WGS). The presence of hydrogen sulfide (H_2S) in the produced gas carried in this pipeline system requires special measures to ensure the safety of the public and the line's operators.

One of these safety measures includes public education. This booklet will assist you in understanding what H_2S is and how the Wahsatch Gathering System has been designed to protect you from an accidental release of gas.

What is The Wahsatch Gathering System?

The Wahsatch Gathering System, the WGS, is a 41-mile-long natural gas pipeline system proposed by Union Pacific Resources Company (UPRC). The WGS consists of a produced gas pipeline, and an adjacent fuel gas pipeline used for operation of heaters, wellhead equipment and support facilities. The pipeline system has a design capacity of 64 million cubic feet of gas per day.

The WGS will transport produced gas from eight wells in the Yellow Creek Deep and Cave Creek fields located near Evanston, Wyoming to the Whitney Canyon processing plant. The gas produced from these wells contains 13 - 18 percent hydrogen sulfide (H_2S).

What is Hydrogen Sulfide?

H_2S is a gas formed by the decomposition of organic materials such as leaves and animal matter. These organic materials are broken down by bacteria during decomposition and form H_2S as a by-product. "H_2S" is the chemical formula for hydrogen sulfide which is composed of two Hydrogen (H) atoms for each sulfur (S) atom.

H_2S is heavier than air, colorless, flammable, corrosive to most metals, and highly toxic. In industries where H_2S is often encountered, it is referred to by a number of names including:

Sour Gas
Stink Damp
Sulfurated Hydrogen
Sour Crude
Rotten Egg Gas
Hydrosulfuric Acid
Sulfur Hydride

How Does Hydrogen Sulfide Affect People?

The effect H_2S has on people depends on the following factors:

- the length of time a person was exposed.
- the concentration of H_2S gas in the air that an individual inhales.
- the person's individual resistance to the gas.

The table at right describes the effects of H_2S gas on the average person based on parts per million (ppm). 1 ppm means 1 part of H_2S per million parts of air.

Physiologic Response to Various Concentrations of Hydrogen Sulfide (H_2S)

H_2S Concentration (parts per million)	Duration of Exposure						
	0 - 2 minutes	2 - 15 minutes	15 - 30 minutes	30 minutes to 1 hour	1 - 4 hours	4 - 8 hours	8 - 48 hours
5 - 100				Mild conjunctivitis, respiratory tract irritation.			
100 - 150		Coughing, irritation of eyes, loss of sense of smell.	Disturbed respiration, pain in eyes, sleepiness.	Throat irritation.	Salivation and mucous discharge, sharp pain in eyes, coughing.	Increased symptoms.	Hemorrhage and death.
150 - 200		Loss of sense of smell.	Throat and eye irritation.	Throat and eye irritation.	Difficulty breathing, blurred vision, light shyness.	Serious irritating effect.	Hemorrhage and death.
250 - 350	Irritation of eyes, loss of sense of smell.	Irritation of eyes.	Painful secretion of tears, weariness.	Light shy, nasal catarrh, pain in eyes, difficulty breathing.	Hemorrhage and death.		
340 - 450		Irritation of eyes, loss of sense of smell.	Difficult respiration, coughing, irritation of eyes.	Increased irritation of eyes and nasal tract, dull pain in head, weariness, light shy.	Dizziness, weakness, increased irritation, death.	Death.	
500 - 600	Coughing, collapse, and unconsciousness.	Respiratory disturbances, irritation of eyes, collapse.	Serious eye irritation, light shy, heart palpitations, a few cases of death.	Severe eye and head pains, dizziness, trembling of extremities, weakness and death.			
600 or greater	Collapse, unconsciousness, death.						

Source: National Safety Council data sheet D-chem 15

Where is Hydrogen Sulfide Found?

H_2S is found in a variety of natural and industrial settings. Because this gas is a by-product of biological processes, it is sometimes found in sewers and cesspools. It is often found in industries such as chemical production, mining, leather tanning, nylon manufacturing, paper manufacturing, and oil and gas production.

The Wahsatch Gathering System falls under this last category. The system will transport natural gas containing on average 15 percent H_2S. Because H_2S is toxic at this concentration, it must be removed before the gas can be sold as an energy fuel.

H_2S will be removed from the gas at the Whitney Canyon processing plant and converted into water and sulfur. This processing plant has operated safely over the last eight years converting H_2S into sulfur. The sulfur is then used in manufacturing fertilizers.

How Is Hydrogen Sulfide Detected?

Many gases can be detected at nearly any concentration by an odor. However, this is **not** true with H_2S. In very low concentrations, H_2S has the distinctive odor of rotten eggs. At higher concentrations, it rapidly deadens the sense of smell. Therefore, one cannot always depend on the sense of smell alone to detect H_2S. However, at these higher concentration, continuous irritation of the eyes and throat serves to warn the individual of its presence.

UPRC has incorporated several different techniques to detect a release of H_2S into the atmosphere. These techniques include:

- Portable and fixed H_2S detection equipment.
- Installation of sophisticated pressure sensing equipment along the pipeline.

The detection systems will immediately alert operators to the possibility of an H_2S leak while automatically shutting down the wells and pipeline. This system design will prevent any leak from becoming a major hazard.

What Are the Safety Features of the Wahsatch Gathering System?

UPRC engineers, working with some of the best consultants in the industry, have designed features into the system to protect the public and pipeline workers. To fully understand the risks of the WGS project, UPRC commissioned a comprehensive risk analysis to evaluate whether the system, as designed, poses a hazard to the welfare and safety of the public. The results of the analysis found that for people living or working nearest to the WGS (about 1,000 feet away), the annual risk of fatality from an accidental release of gas is extremely low--in comparison, an individual would be 163 times more likely to be struck be lightning than fatally exposed to the gas from the WGS. In other words, the risk to those people closest to the WGS pipeline is about one chance in 400 million per year. The risk analysis used worst case conditions (wind, weather, and pipeline rupture or well blowout) for evaluating the entire well and pipeline system.

Safety Features (continued)

Some of the design and operating safety features of the system include:

- Intentionally locating the pipeline right-of-way away from residences and businesses.
- Using pipeline and well components and operational plans specifically designed for sour gas facilities.
- Burying the pipeline a minimum of six feet below ground (twice the normal depth) to avoid accidental pipeline damage.
- Continuous monitoring of the air in the vicinity of the pipeline and the wells to detect H_2S.
- Emergency shut down valves at 27 points along the pipeline plus three safety valves on each well.
- A control system that can shut down the line within one minute of detecting a problem.
- Back-up monitoring, control and shutdown systems.
- Continuous pressure monitoring.
- External pipeline corrosion protection with coatings and cathodic protection.
- Internal pipeline corrosion protection using corrosion inhibitors.
- Fences and locked gates around each facility to prevent unauthorized access.
- Installation of warning signs along the pipeline route to protect against digging or trenching operations.
- Remote flaring facilities for emergency depressurization of the pipeline.
- Rigorous and regular inspection and maintenance of all system components.

These safety features reflect UPRC's objective to eliminate accidental releases of H_2S. However, to be prepared if an accident does occur, an emergency response plan is being created by UPRC in close co-operation with local authorities. This plan will provide the operator and local emergency responders with the procedures for handling an H_2S emergency. It will also provide the public with necessary information and instructions for dealing with this unlikely situation.

RECEIVED
AUG 0 6 1992
DIVISION OF
OIL, GAS & MINING

H2S CONTINGENCY PLAN
for

Urroz #1

Township 14N, Range 121W
Section 2

Uinta County, Wyoming

Union Pacific Resources Corp.
170 Yellow Creek Road Suite B
Evanston, WY 82930

PURPOSE OF PROGRAM

It is the policy of Union Pacific Resource Corporation to provide for the safety of its employees as well as contractor's employees at the job site, and to provide for the protection of the environment and the public within a two mile radius of this wellsite.

The primary purpose of this contingency plan is to guide location personnel in the responses expected of them in the event that hydrogen sulfide (H2S) is released to the atmosphere during the drilling program.

Due to its capability of endangering life at very low concentrations and of potentially causing instantaneous failure of high strength metals, hydrogen sulfide is extremely hazardous to field operations. Drilling and production operations of hydrocarbons containing toxic gases, however, are routinely performed safely and without incident when the necessary precautions are taken and the outlined safety procedures are followed. It is imperative that sulfide resistant materials be used, that the appropriate support safety equipment be readily available, and that this equipment be properly maintained to provide an effective safety program during the drilling of this well.

DIRECTIONS TO LOCATION- Urroz #1

Directions start from intersection of I-80 and Overthrust Rd. at the west Evanston exit near Kentucky Fried Chicken.

Follow the paved Overthrust Rd. south past where it merges with Yellow Ck. Rd for 4.5 miles to a right hand turnoff that has a sign for gun club. Turn onto the gravel road and follow it for .5 miles to a gate. Past the gate stay on this road for .6 miles and then turn left, and follow this dirt road for 1.1 miles up a hill. At top of hill, turn left and travel .5 miles to location.

The total distance from the intersection of I-80 and Overthrust Rd. at west side of Evanston to Urroz #1 location is 7.2 miles.

CHARACTERISTICS OF HYDROGEN SULFIDE

Hydrogen sulfide is a highly toxic gas which, when inhaled in relatively low concentrations, can rapidly cause death. It is also highly flammable, being classified by the U.S. Department of Transportation as a flammable compressed gas. Certain concentrations in the air can burn upon ignition.

Although at lower concentrations it has a characteristic odor of rotten eggs, at higher concentrations it cannot be smelled at all. Therefore, odor cannot be depended upon as a means of detection of the gas.

Hydrogen sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure according to the ACGIH and government standards is 10 ppm, which is .001 percent by volume.

Hydrogen sulfide is heavier than air (specific gravity = 1.19) and colorless. It forms a flammable mixture with air between 4.3 and 46.0 percent by volume, and burns to produce Sulfur Dioxide (SO_2). SO_2 is considered by NIOSH to be a hazard to humans. It is a colorless, very irritating gas with a pungent odor and taste. It does not inhibit the sense of smell, but causes irritation to nose and throat which may result in choking and gagging. These symptoms are sufficiently disagreeable that most persons will not tolerate them for more than short periods. Exposure to higher concentrations of SO_2 may lead to chemical pneumonia. The government standard for exposure to sulfur dioxide is 2 ppm for an 8-hour period. Whenever exposure to any concentration of these gases exceeding ACGIH or government standards is anticipated, the use of protective breathing equipment is required.

TOXICITY OF HYDROGEN SULFIDE TO MAN

The following table describes the toxicity of H_2S concentrations, expressed as parts of H_2S per million parts of air(PPM).

10 PPM	Obvious and obnoxious odor; has the characteristic odor of rotten eggs. Eye irritation begins in the range of 10 to 30 ppm. Safe for 8 hours exposure. Everyone must wear respiratory protective equipment at concentrations above this level.
20 PPM	Former TLV or Safe Working Level
100 PPM	Impairs the sense of smell after 2 to 15 minutes exposure; alters respiration, causes pain in eyes, and drowsiness after 15 to 30 minutes, and throat irritation after 1 hour.
200 PPM	Quickly eliminates the sense of smell; may result in death after 8 to 48 hours of continuous exposure.
500 PPM	Causes loss of sense of reasoning and balance produces respiratory paralysis in 30 to 45 minutes exposure, and death in exposures of 1 to 4 hours. Victim requires prompt artificial resuscitation.
600 PPM	Causes death within 30 to 60 minutes, if not rescued and given immediate artificial resuscitation.
1000 PPM	Causes immediate loss of consciousness; permanent brain damage may result if not rescued promptly and resuscitated.

RESPIRATORY PROTECTIVE EQUIPMENT

When the H_2S concentration in the work environment exceeds a minimum of 10 ppm during an 8-hour period of continuous exposure, respiratory protective equipment must be worn. If the H_2S concentration reaches damage levels shown in the table, respiratory equipment is necessary to prevent injury for whatever exposure time. At higher concentration levels, a self-contained air breathing apparatus and a life line should be used.

TESTING FOR HYDROGEN SULFIDE

NEVER rely on the sense of smell to guess what the H_2S concentration may be. A relatively small amount of H_2S quickly impairs the sense of smell. Always use an approved H_2S detector to test for H_2S concentrations, and respiratory protection should always be used when testing for the presence of H_2S.

FIRST AID TREATMENT OF HYDROGEN SULFIDE VICTIMS

A person who is overcome by hydrogen sulfide must be removed to an area clear of gas immediately and artificial respiration started at once. Any delay in the start of artificial respiration appreciably reduces the chance of recovery. Four minutes of delay reduces the chance for recovery to 50-50. The recommended method of artificial respiration is mouth-to-mouth using current techniques and barriers when available. Additional rescue procedures and first aid will be further described during the individual safety training of all personnel on location.

TREATMENT FOR HYDROGEN SULFIDE POISONING

Inhalation

As hydrogen sulfide in the blood oxidizes rapidly, symptoms of acute poisoning pass off when inhalation of the gas ceases. It is important, therefore, to get the victim of poisoning to fresh air as quickly as possible. He should be kept at rest and chilling should be prevented. If respiration is slow, labored, or impaired, artificial respiration may become necessary. Most persons overcome by hydrogen sulfide may be revived if artificial respiration is applied before the heart action ceases. Victims of poisoning should be under the care of a physician as soon as possible. Irritation due to subacute poisoning may lead to serious complications such as pneumonia. Under those conditions, treatment by a physician necessarily would be automatic. The patient should be kept in fresh air and hygienic conditions should be watched carefully.

Contact with Eyes

Eye contact with liquid and/or gas containing hydrogen sulfide will cause painful irritation (conjunctivitis). Keep patient in a darkened room, apply ice compresses to eyes, put ice on forehead, and send for a physician. Eye irritation caused by exposure to hydrogen sulfide requires treatment by a physician, preferably an eye specialist. The progress to recovery in these cases is usually good.

Contact with Skin

Skin absorption is very low. Skin discoloration is possible after contact with liquids containing hydrogen sulfide. If such skin contact is suspected, the area should be thoroughly washed.

EFFECTS OF HYDROGEN SULFIDE ON METAL

Hydrogen Sulfide dissolves in water to form a weak acid that can cause some pitting, particularly in the presence of oxygen and/or carbon dioxide. However, the most significant action of H2S is its contribution to a form of hydrogen embrittlement known as sulfide stress cracking. Sulfide stress cracking is a result of metals being subjected to high stress levels in a corrosive environment where H2S is present. The metal will often fail catastrophically in a brittle manner. Sulfide stress cracking of steel is dependent upon and determined by:

a. Strength (hardness) of the steel - the higher the strength, the greater the susceptibility to sulfide stress cracking. Steels having yield strengths up to 95,000 psi and hardness up to Rc 22 are generally resistant to sulfide stress cracking. These limitations can be extended slightly higher for properly quenched and tempered materials.

b. Total member stress (load) - the higher the stress level (load) the greater the susceptibility to sulfide stress cracking.

c. Corrosive environment - corrosive reactions, acids, bacterial action, thermal degradation, or low PH fluid environment.

In addition to the use of a scavenger in the drilling mud, all tubulars, BOP and surface safety equipment should be of H2S resistant material.

RESUSCITATION CHART

D I D Y O U K N O W ?

THERE IS NOT TIME TO WASTE WHEN BREATHING STOPS!

ARTIFICIAL RESUSCITATION MUST BE STARTED IMMEDIATELY!!!

After Breathing is Stopped for:	The Chances for Life are:
1 Minute	98 out of 100
2 Minutes	92 out of 100
3 Minutes	72 out of 100
4 Minutes	50 out of 100
5 Minutes	25 out of 100 *
6 Minutes	11 out of 100 *
7 Minutes	8 out of 100 *
8 Minutes	5 out of 100 *
9 Minutes	2 out of 100 *
10 Minutes	1 out of 100 *
11 Minutes	1 out of 1,000 *
12 Minutes	1 out of 10,000 *

* Irreparable brain damage starts at about the fifth minute.

COOL-HEADED ACTION IN RESCUE IS CRITICAL

OPERATIONS

1) All respiratory protective equipment and H2S monitoring equipment will be rigged up prior to starting operations. All personnel will be fully trained in H2S safety procedures at this time.

2) A 4 channel continuous H2S monitoring system will be used to constantly monitor for hydrogen sulfide. The monitor console will be located in an area that is easily accessible and controlled, with multiple alarm lights and sirens situated so that they can be observed from any point on the location. Additional alarms and buzzers will be installed around the location to ensure that everyone is cognizant of any H2S alarms. The monitor heads will be located as follows: 1) the operator's stand, 2) bell nipple area, 3) shale shaker area, 4) a second sensor head in the cellar area. The monitor will be calibrated to activate a revolving red beacon should 10+ ppm H2S be detected by any single monitor head. Should 15+ ppm or higher H2S be detected a loud siren will alarm. Personnel will be trained to take action to protect themselves, and for non-essential personnel to proceed to the upwind briefing area if this alarm sounds.

3) A safety trailer will be provided to house a 10 bottle cascade system that contains Grade D breathing air. This system will serve to supply breathing air to various points around the location including: the rig floor, the substructure, the shale shaker area, the derrick monkey board, and the mud mixing area. This trailer will also serve as storage area for safety equipment not in use or rigged up.

4) 2 Gastec/ Sensidyne pump-type hand-held gas detectors will be available on the drilling location. These detectors use colormetric tubes to detect the presence of H2S and SO2 at specific areas.

5) The location will be rigged up to take maximum advantage of the prevailing winds and the topography of the terrain surrounding the drillsite.

6) Windsocks and streamers will be strategically placed around the location to ensure that wind direction is easily determined by all personnel. One wind indicator will be mounted on or near the rig floor to be readily visible to rig crews when tripping. Windsocks will be in illuminated areas to be visible 24 hours a day.

7) At least two (2) Safe Briefing Areas (SBA) will be located on the location. These areas will be situated to assure that at least one area will always be upwind. Each Safe Briefing Area will include 3-300 cu. ft. bottles of compressed breathing air cascaded together, 1-filler hose, and 1-Scott 30 minute rescue air pack.

8) A 12-gauge single shot flare gun will be provided with flare shells. The gun and shells will be stored in a controlled area.

9) Two (2) - 24"explosion-proof bug fans will be installed to facilitate additional ventilation in confined areas. These fans can be turned to provide multidirectional ventilation in the work area.

10) No smoking areas will be established and "No Smoking" signs posted.

11) Reliable 24-hour radio communication will be established from the drilling rig and emergency call lists and contacts will be near this communication system.

12) The blowout preventers, the choke manifold equipment, and any test equipment will be trimmed to function in an H2S environment as per the specifications of UPRC Drilling Dept.

13) All drill pipe, drill stem tools, and other tubulars will be selected to comply with UPRC's requirements for H2S service.

14) Additives to reduce the opportunity for sulfide stress cracking will be available to add to the completion fluid system as necessary.

15) A stokes body litter will be available at the safety trailer.

16) Retrieval ropes with safety harnesses will be available.

17) Chalk-boards and writing markers will be provided for emergency communication purposes.

18. 6 voice mikes will be available for communication while wearing masks.

19) Warning signs will be posted on location entrance roads and a three color flag system will be used to indicate current drilling operation and potential hazard. Additionally a H2S warning sign and standby barricades will be placed at the junction of the location access road and the BLM road.

20) Twelve(12) Scott Ska-Paks (hoseline work units with 5 minute egress bottle) will be provided for the operation and placed to assure that all personnel have an emergency air mask available. These units will also be used as hoseline/work units around the drilling rig. The locations for this equipment will be:

a) At least five (5) units on the rig floor
b) One (1) unit for derrickman at monkey board with airline
c) Two (2) at shale shaker with airlines
d) The remainder to be strategically placed around the location to provide emergency breathing air to personnel during a variety of completion/ testing conditions.

21) Ten (10) Scott 30 min. rescue packs will be located for key personnel involved in emergency operations, including:

a) Two (2) on the rig floor or adjacent doghouse.
b) One (1) at each safe briefing area.
c) One (1) in Rig Toolpusher's quarters.
d) Two (2) in UPRC's drilling Representative's quarters.
e) Two (2) at access points to rig floor such as stair landings and access areas to the substructure.

22) Spectacle kits will be available for the Scott airpacks for personnel that require corrective lenses for adequate vision.

23) Additional safety equipment will include:

a) 1 Oxygen powered resuscitator with a spare cylinder
b) Airline hoses and manifolds to supply breathing air to the rig floor,substructure area,the shale shaker area and other strategic work areas.
c) 1 36 unit first aid kit & 1 EMT trauma kit

24) Safety meetings and training sessions will be held at frequent intervals by the Safety Advisor, the Drilling Supervisor, or the Rig Supervisor. All persons required to work on location will be thoroughly familiar with the use, care and servicing of the following: Personal protective equipment, resuscitation equipment, gas detection equipment, emergency response drills and procedures.

H2S SAFETY EQUIPMENT ON LOCATION
(PROVIDED BY INTER-MOUNTAIN SAFETY CO.)

1. Safety Trailer with a cascade system of 10-300 cu. ft. bottles of compressed breathing air complete with high pressure regulator and spare regulator.

2. At least 750 ft. low pressure air Line, equipped with Hanson 3000 series locking fittings.

3. Four low pressure manifold system with five outlets.

4. Ten (10) Scott Pressure Pac IIA, 30 minute pressure demand breathing apparatus NIOSH and MSHA approved.

5. Twelve (12) Scott Ska-Paks escape hoseline units with emergency egress cylinder.

6. 4-Channel Monitor for multiple point continuous detection, each monitoring point is capable of activating remote audio and visual alarm system. The set points for the alarms will be 10 ppm H2S for the lights and 15 ppm H2S for the sirens.

7. Two Gastec/ Sensidyne portable hand operated pump type detector with low and high range H2S detector tubes and SO2 detection tubes.

8. One Robert Shaw Portable Oxygen Resuscitator with spare cylinder.

9. One 36 Unit First Aid Kit.

10. One stretcher Stokes wire basket

11. Three Wind Socks with poles.

12. At least two high pressure compressed air refill hoses.

13. At least one H2S Condition Sign w/ Three Flag System.

14. One Fire Blanket.

15. One set air splints

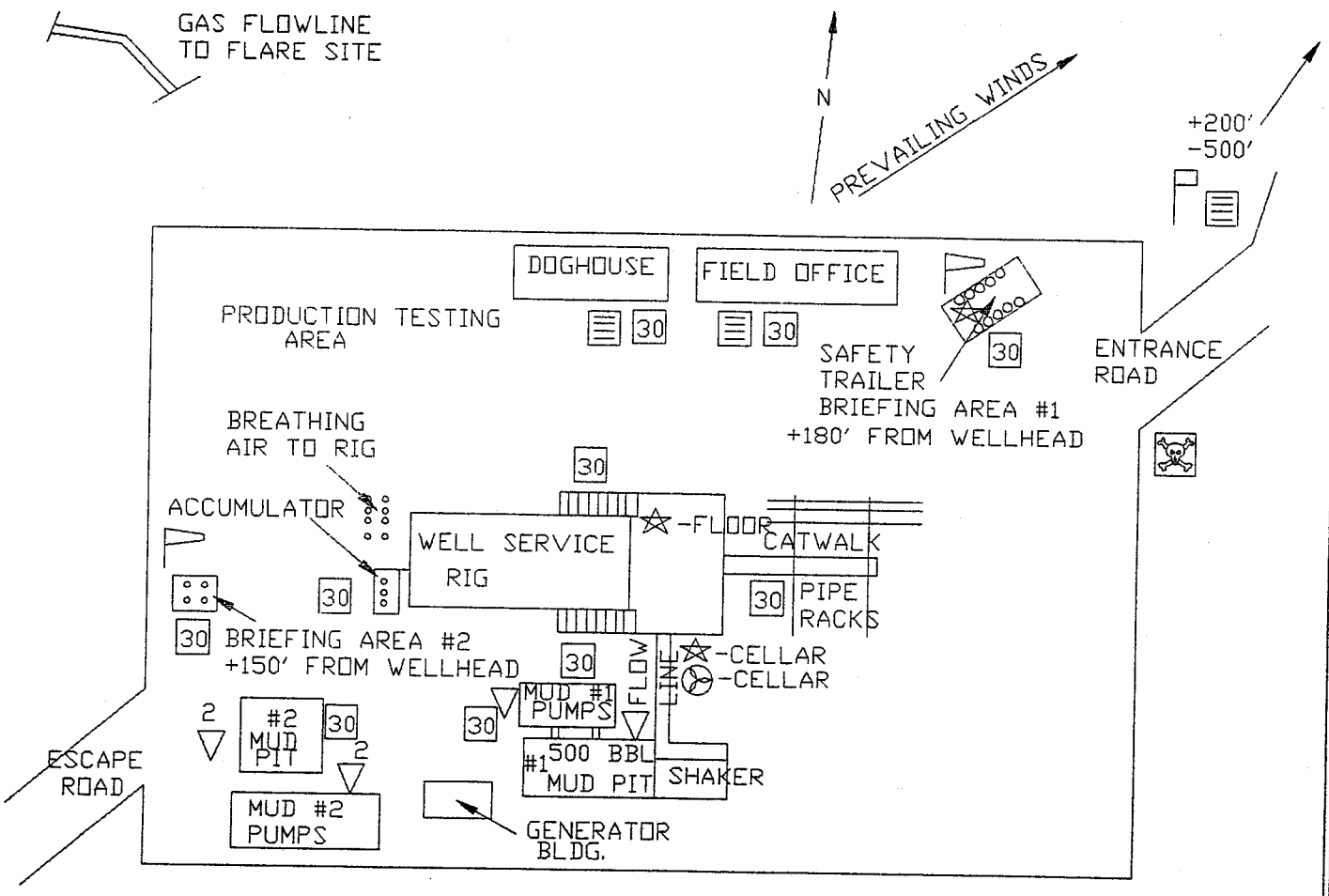
16. Two explosion proof 110 volt bug fans.

17. Battery powered bullhorn and writing board.

18. Three 300 cu. ft. bottles with Briefing Area Stand.

19. 6 battery powered voice mikes (Speak- Easies) for communication while wearing respiratory protective equipment.

NOTE: Additional equipment will be added if well conditions require.



NOTES:

MUD PUMPS #2 AND
MUD PIT #2 ARE
OPTIONAL IF ROTATING
HEAD NOT REQUIRED.

AIR MANIFOLD WITH WORK
UNIT LOCATED IN DERRICK

LEGEND:

- ▽ AIR MANIFOLD WITH WORK UNITS
- ☆ GAS DETECTOR
- GASGAGE SYSTEM
- WIND SOCK
- DISPERSION FAN
- 30 30 MINUTE RESCUE PACKS
- 6 6 MINUTE ESCAPE PACKS
- OPERATING CONDITIONS FLAG AND SIGN
- POISON GAS SIGN

UNION PACIFIC
RESOURCES
A Subsidiary of Union Pacific Corporation

PROJECT

TYPICAL WELL SITE LAYOUT

DATE	DWG. NO.
18 JUNE 92	8511

H2S SAFETY TRAINING

All personnel on the drilling rig, all support personnel, visitors will be trained in H2S safety procedures.

This training will include, but not be limited to:

1) The potential hazards and characteristics of H2S and SO2.

2) The effects of these gases on man and materials.

3) Operation and limitations of all types of respiratory protective equipment available on the location with thorough hands-on practice both for routine and emergency donning.

4) The different types of H2S and SO2 detection and alarm equipment available on the drillsite and how to interpret this equipment.

5) Prevailing winds, ventilation equipment, and safe briefing areas.

6) Rescue and H2S first aid procedures.

7) Working with the buddy system.

8) Safety precautions to be followed during drill stem testing

9) Emergency procedures to follow including company preferred well shutin methods.

ACTION PLAN FOR H2S EMERGENCY

Should the H2S monitor alarms sound indicating the presence of hydrogen sulfide on location, the following actions will be taken:

1) All personnel on location must don protective breathing equipment and immediately follow the "buddy system" as prescribed during H2S training drills.

2) The driller and rig crew will take action to control any possible flow of hydrogen sulfide from the wellbore as per company guidelines.

3) Notify the UPRC drilling representative and the toolpusher of the presence and possible location of the hydrogen sulfide.

4) Monitor for hydrogen sulfide with portable gas detection equipment while following the directions of the UPRC drilling foreman to reduce or eliminate the hydrogen sulfide present.

5. Verify the drillsite "head count" and search out and assist any missing or distressed personnel.

6. Ensure that all non-essential personnel are in a safe upwind briefing area and that no new visitors are allowed on location.

IGNITING THE WELL

The decision to ignite the well is the responsibility of the UPRC drilling foreman. In his absence or incapacity, the toolpusher will assume his duties.

The decision to ignite the well is to be made as a LAST RESORT when it is obvious that there is:

1. Imminent danger to human life and property in the immediate area

2. There is no hope of containing the well under the current prevailing conditions.

In all cases, every effort should be made to notify the staff support personnel on the emergency call list of the situation, and of the need to ignite the well.

Public in Roe

We have enclosed copies of an abstract from Appendix C, pages C-1- C6, of the *Hazards Analysis/ Risk Analysis Study of Union Pacific Resources Company's Wahsatch Gas Gathering Pipeline System* compiled by Quest Consultants on May 8,1992. This study provided information to determine the radius of exposure calculations of hydrogen sulfide from the well. Should further detail be required, please refer to the original study.

APPENDIX C
BUREAU OF LAND MANAGEMENT
ONSHORE OIL AND GAS ORDER NO. 6 CALCULATIONS

Radius of Exposure Calculations

Dispersion calculations were made to determine the Radius Of Exposure (ROE) distances associated with the Wahsatch Gas Gathering System. Calculations were made for pipeline releases, as well as for well-head releases.

Flow rates used in the calculations were those defined by 43 CFR Part 3160, specifically Subpart 3164 - *Special Provisions*. Within this subpart is onshore oil and gas order number 6, which pertains to hydrogen sulfide (H_2S) operations. The release rate of gas containing H_2S is defined to be the maximum flow at that point in the system at the time of release. (This definition is identical to the definition in Texas Railroad Commission's Rule 36, which also defines H_2S exposure zones.) For the pipeline sections, this would correspond to the gas flow in the pipeline. For the wells, this would correspond to the Absolute Open Flow (AOF) of the well.

The rule recognizes the Gaussian dispersion formulation defined in the rule is not applicable for gas compositions containing more than 10 mole percent H_2S. Gas in the Wahsatch Gas Gathering System contains approximately 15 mole percent H_2S. The dispersion calculations presented in this appendix are performed with the momentum jet dispersion model used in the risk analysis. Full descriptions of the model, the algorithms, and the validation studies are presented in Appendix B.

Using the flow rates and dispersion model defined above, dispersion calculations were made to the 100 and 500 ppm H_2S concentration levels under low wind (1 mph) and stable (Pasquill stability class F) conditions. The calculations were made for all pipeline sections and well sites. Table C-1 presents a summary of distances to the 100 and 500 ppm H_2S levels.

The ROE limits (defined by the 100 and 500 ppm H_2S levels) can be overlaid onto the overall pipeline route. This overlay is presented in Figure C-1.

As discussed in the main report, only a small section of the Wahsatch Gathering System is located adjacent to a permanent population. When the ROE limits are overlaid onto this area, Figure C-2 results.

Flaring Calculations

In addition to the ROE calculations described above, onshore oil and gas order number 6 requires the calculation of dispersion distances for H_2S and SO_2 for the flaring operations. In the Wahsatch design, there is the potential for three different flaring rates. The lowest rate is associated with the individual flares at the well sites. The next lowest rate is produced by the Wahsatch flare. The highest rate that can be flared occurs at the inlet facility.

At all three locations, dispersion calculations were performed to determine the maximum dispersion distance for both the H_2S and SO_2 concentrations defined in onshore order number 6. For H_2S, this

Table C-1
Radius of Exposure (ROE) Limits
Using Texas Railroad Commission Rule 36 for Flow Rates and
Momentum Jet Dispersion Model for ROE Distances

Well/Pipeline Section	Exposure Time (min)	Maximum Flow (mmscfd)	Mole Fraction H_2S	ROE (100 ppm) [feet]	ROE (500 ppm) [feet]
Harry Moon	60	10.6‡	0.15	2100.	510.
Bradbury	60	22.7‡	0.15	2770.	680.
Urroz "B"	60	11.3‡	0.15	2170.	530.
Celsius 4-36	60	7.5‡	0.15	1790.	450.
Urroz "1"	60	24.2‡	0.15	2880.	740.
Fawcett & Sons	60	23.5‡	0.15	2850.	730.
Kindler-Reese	60	7.5‡	0.15	1790.	450.
Champlin 375 C	60	7.5‡	0.15	1790.	450.
L1	5	15.5*	0.15	3600.	1010.
L2	5	8.7*	0.15	3130.	1130.
L3	5	9.0*	0.15	2700.	600.
L4	5	17.7*	0.15	3830.	980.
L5	5	6.3*	0.15	2320.	490.
L7	5	27.0*	0.15	4180.	920.
L8	5	14.4*	0.15	3220.	710.
L9	5	56.9*	0.15	5600.	1300.
L10	5	4.9*	0.15	2760.	1040.
L11	5	2.1*	0.15	1800.	615.
L12	5	7.0*	0.15	2990.	1130.
L13	5	63.9*	0.15	5830.	1290.
L14	5	20.7*	0.15	3810.	880.
L15	5	3.0*	0.15	2020.	600.
L16	5	8.7*	0.15	2680.	560.

‡Flow rate based on well AOF.

*Flow rate based on maintaining normal flow conditions during release.

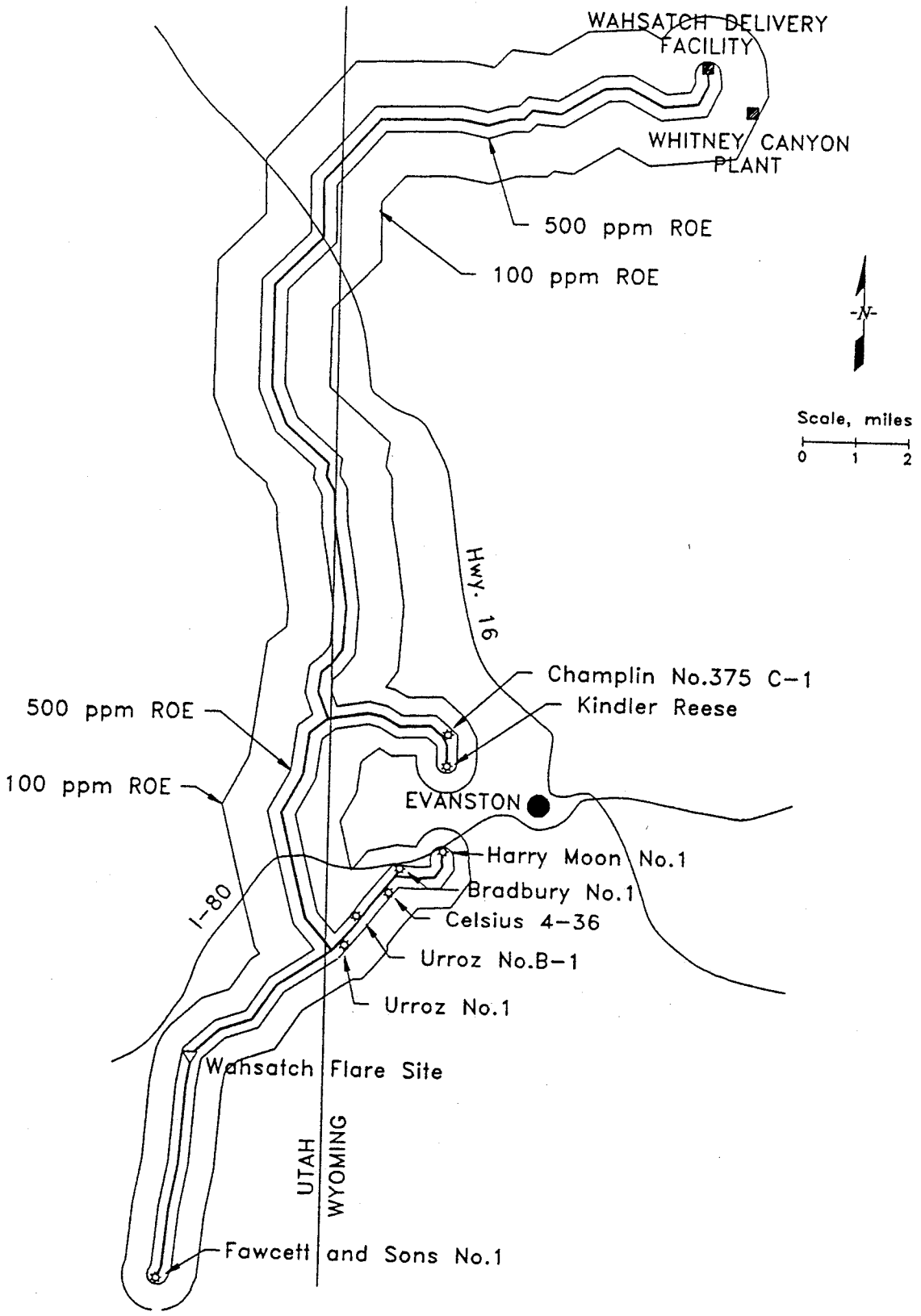


Figure C-1
Wahsatch Pipeline Area Map

QUEST

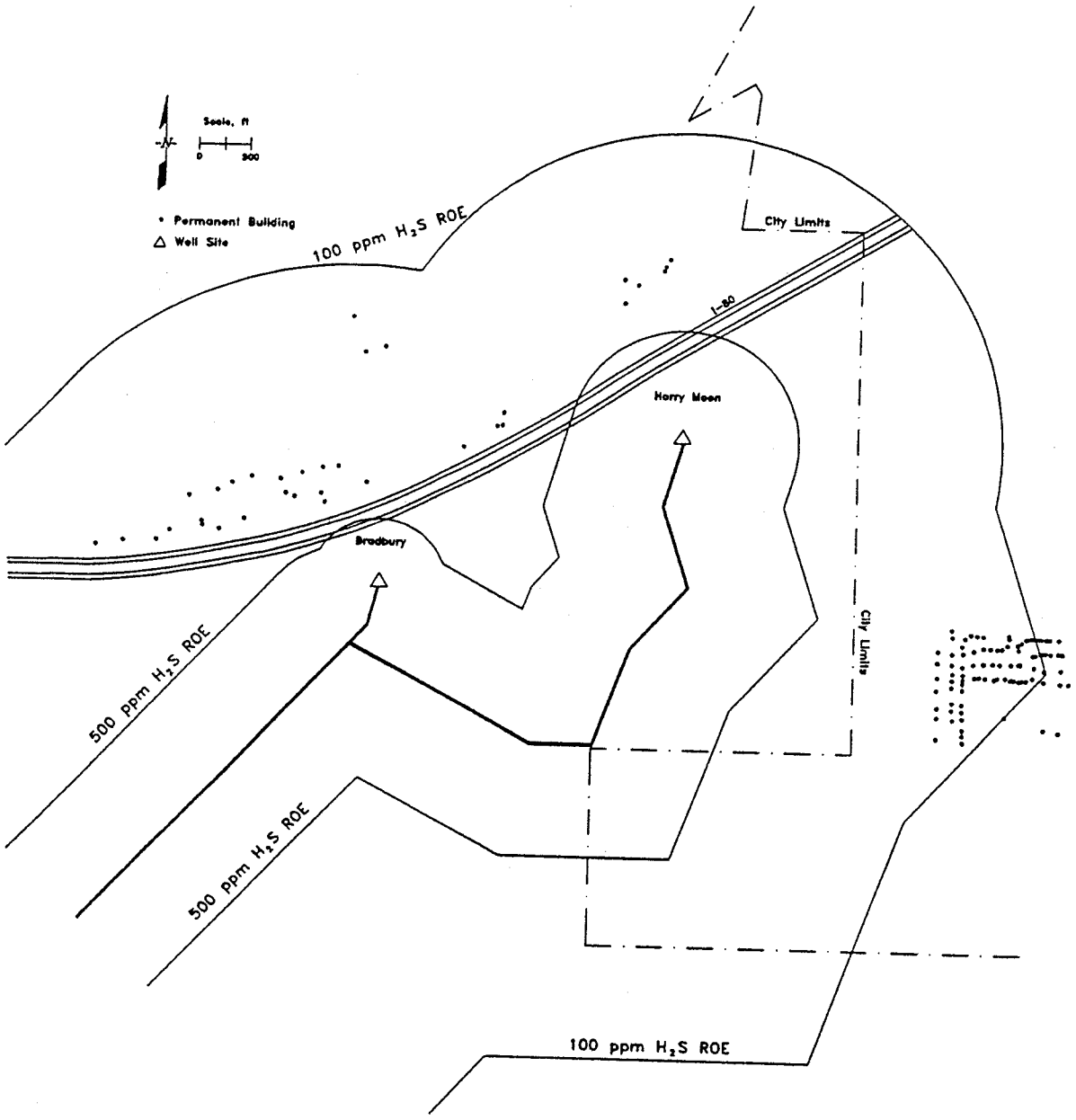


Figure C-2

QUEST

required the calculation to be made to 10 ppm H_2S while for SO_2, the concentration limit was defined to be 2 ppm.

The results of these calculations are presented in Table C-2.

Maximum Distances to Odor Concentrations

Onshore oil and gas order number 6 does not require the calculation of downwind distances at which the different toxic components can be smelled by persons in the area. These calculations are included in this section for reference only. As referenced in Section 4, the concentrations at which H_2S and SO_2 can be smelled by humans is low and, at these low concentrations, the materials do not pose a health hazard to the exposed public.

Since the concentrations at which the materials can be smelled varies over a range, the shortest and longest distances away from the release point at which the material can be smelled are presented. Note that in some cases, when the elevated plume does not reach grade at the concentrations defined, the distances will be zero. The zero distance means that gas concentration at or above the lowest smell concentration does not exist at grade. The results of these calculations are presented in Table C-3.

Table C-2
Dispersion Distances for Flaring Operations

Flare Site	Exposure Time (min)	Flaring Rate (mmscfd)	Ground Level Downwind Distance‡ (ft) to	
			10 ppm H_2S (unignited flare)	2 ppm SO_2 (ignited flare)
Individual Well Site	60	5	0	0
Wahsatch Flare	60	10	0	0
Inlet Facility Flare	60	100	0	0

Table C-3
Dispersion Distances to Reach Odor Threshold

Flare Site	Exposure Time (min)	Flaring Rate (mmscfd)	Ground Level Dispersion Distance‡ (ft) to			
			0.13 ppm H_2S (unignited flare)		0.62 ppm SO_2 (ignited flare)	
			minimum	maximum	minimum	maximum
Individual Flare Site	60	5	800	6,600	0	0
Wahsatch Flare	60	10	1,400	8,000	0	0
Inlet Facility Flare	60	100	2,200	23,000	0	0

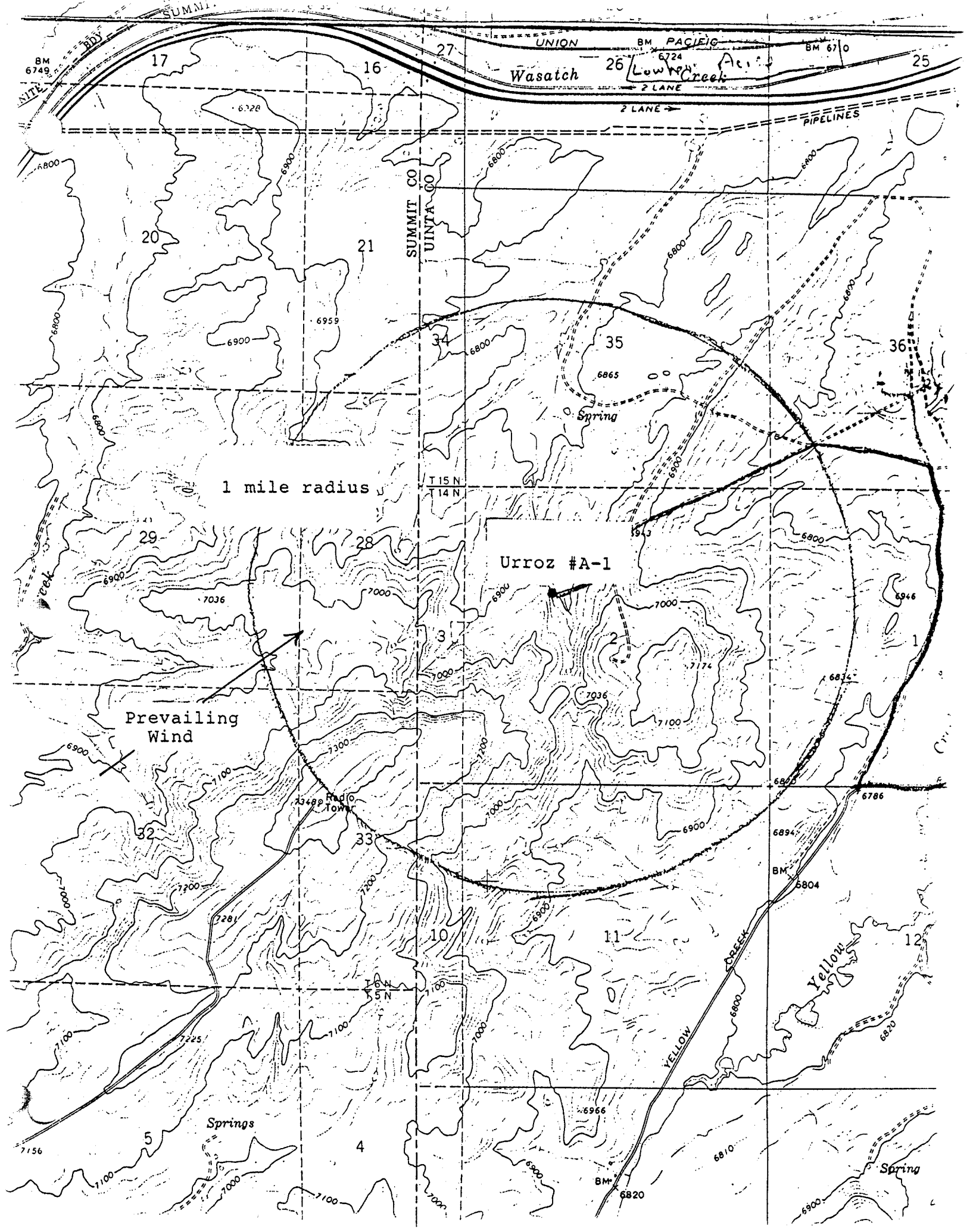
Pipeline Section	Exposure Time (min)	Gas Rate (mmscfd)	0.13 ppm H_2S	
			minimum	maximum
L2	5	8.7*	0	16,000
L3	5	9.0*	0	16,500
L4	5	17.7*	0	21,000
L16	5	8.7*	0	16,000

‡ Calculated during "worst case" atmospheric conditions.
* Flow rate based on maintaining normal flow conditoins during release.

Residences within one mile radius of Urroz #1

MAP REFERENCE NUMBER	NAME OF RESIDENT	NUMBER OF PERSONS	TELEPHONE NUMBER AREA CODE

There are no residences within a 1 mile radius of the Urroz #1 well.



UNION PACIFIC
Wasatch
Creek
2 LANE
PIPELINES
SUMMIT CO
UINTA CO
1 mile radius
T 15 N
T 14 N
Urroz #A-1
Prevailing Wind
Radio Tower
Spring
Springs
YELLOW CREEK
Yellow
T 6 N
T 5 N

EMERGENCY CALL LIST - OPERATIONS

A. Union Pacific Resource Corporation (817) 877-6000
801 Cherry St.
Ft. Worth, TX. 76101

UPRC - Wahsatch Gathering System (307) 789-1573
170 Yellow Creek Rd. Suite B
Evanston, WY. 82930

Operations Superintendent
Pete Straub
Office.....(307) 789-1573
Home.....(307) 789-1576
Mobil .....(307) 799 7848

Production Manager - Rocky Mountain District
Karl Nesselrode
Office.....(817) 877-7104
Home.....(817) 571-1011

Drilling Manager
Mike Walker-
Office.....(817) 877-7683
Home.....(817) 461-8838

Senior Drilling Foreman
Lyle Woelich
Office.....(307) 237-8039
Home.....(307) 234-9432
Mobil.....(307) 267-0685

Drilling Supervisor
Troy Schindler
Office.....(817) 877-7686
Home.....(817) 571-6322

UPRC Safety Department
Joe Gay
Office.....(817) 877-7018
Home.....(817) 236-8418

Kevin McDermott
Office.....(817) 877-7017
Home .....(817) 431-0773

Mark Hawkinson
Office.....(817) 877-7015
Home.....(817) 354-8041

Environmental
Davis Scharff
Office.....(817) 877-7009
Home.....(817) 457-6812

John Rector
Office.....(817) 877-7013
Home.....(817) 473-6009

Public Affairs
Jim Sailor
Office.....(817) 877-7527
Home .....(817) 477-2333

Ed Gladish
Office.....(817) 877-7526
Home.....(817) 370-1225

B. **Workover Contractor**

Cannon Oil & Gas Well Service, Inc.
348 Turret Drive
Rock Springs, WY. 82901

Supervisor
Larry D. Halstead
Office.....(307) 382-9465
Home.....(307) 789-6091
Mobil.....(307) 799-7811

C. **Safety Contractor**
Inter-Mountain Safety Co, Inc.
66 Walker Rd.
Evanston, WY. 82930

Manager
Frank Kaunitz
Office.....(307) 789-3882
Home.....(307) 789-3882

Safety Supervisor
Ted Lye
Office.....(307) 789-3882
Home.....(307) 789-3345

Emergency Call List

Local Officials and Medical Contacts

All Services are from Evanston, WY. unless otherwise noted

SHERIFF....Uinta County, WY. (Evanston, WY.#'s)...(307) 789-2331

AMBULANCE....Evanston, WY.....911

HOSPITAL...IHC Evanston .....(307) 789-3636

DOCTOR.....On Call At Hospital Emergency Room

HIGHWAY PATROL....(Wyoming).....1-800-442-9090

HELICOPTER....Air Med - Salt Lake City, UT.....1-800-453-0120

FIRE.....Evanston, WY 911

SEARCH AND RESCUE.....(307) 789-2331

POISON CONTROL ..Rocky Mt. Poison Center.....1-800-955-9119

Radio Answering Service -Alexander Answering Service 307-789-9565

Additional Notification Numbers

1. BUREAU OF LAND MANAGEMENT (BLM).....(307) 877-3933
   Kemmerer, WY.

   John Pecor
   Petroleum Engineer

2. Wyoming Oil & Gas Commission.....(307) 234-7147
   Casper, Wyoming

3. EPA - Denver

   Oil Spills.....(800) 424-8802

   Toxic Substances Airborne .....(303) 293-1438

4. Uinta County Commissioners
   Pat Mulhall - Chairman
   County Complex.....(307) 789-1780
   Home.....(307) 789-2228

H2S CONTINGENCY PLAN
for

Wahsatch Flare Site

Township 5 N, Range 7 E
NE/SE Sec 1,

Summit County, Utah

Union Pacific Resources Corp.
170 Yellow Creek Road Suite B
Evanston, WY 82930

PURPOSE OF PROGRAM

It is the policy of Union Pacific Resources Corporation to provide for the safety of its employees as well as contractor's employees at the job site, and to provide for the protection of the environment and the public within a one mile radius of this wellsite.

The primary purpose of this contingency plan is to guide location personnel in the responses expected of them in the event that hydrogen sulfide (H2S) is released to the atmosphere during the drilling program.

Due to its capability of endangering life at very low concentrations and of potentially causing instantaneous failure of high strength metals, hydrogen sulfide is extremely hazardous to field operations. Drilling and production operations of hydrocarbons containing toxic gases, however, are routinely performed safely and without incident when the necessary precautions are taken and the outlined safety procedures are followed. It is imperative that sulfide resistant materials be used, that the appropriate support safety equipment be readily available, and that this equipment be properly maintained to provide an effective safety program during the recompletion and testing of this well.

DIRECTIONS TO LOCATION- Wahsatch Flare Site

Directions start from Utah Port of Entry 3 miles west of Evanston, WY. at the Utah - Wyoming state line.

Follow I- 80 West for 5.1 miles to exit 193 (Wahsatch). Get off I-80 at this exit. Go under the interstate and follow the gravel road south for 1.0 miles to the fenced enclosure.

The total distance from the Utah port of entry at the state line to the Wahsatch flare site is 6.1 miles.

CHARACTERISTICS OF HYDROGEN SULFIDE

Hydrogen sulfide is a highly toxic gas which, when inhaled in relatively low concentrations, can rapidly cause death. It is also highly flammable, being classified by the U.S. Department of Transportation as a flammable compressed gas. Certain concentrations in the air can burn upon ignition.

Although at lower concentrations it has a characteristic odor of rotten eggs, at higher concentrations it cannot be smelled at all. Therefore, odor cannot be depended upon as a means of detection of the gas.

Hydrogen sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure according to the ACGIH and government standards is 10 ppm, which is .001 percent by volume.

Hydrogen sulfide is heavier than air (specific gravity = 1.19) and colorless. It forms a flammable mixture with air between 4.3 and 46.0 percent by volume, and burns to produce Sulfur Dioxide (SO2). SO2 is considered by NIOSH to be a hazard to humans. It is a colorless, very irritating gas with a pungent odor and taste. It does not inhibit the sense of smell, but causes irritation to nose and throat which may result in choking and gagging. These symptoms are sufficiently disagreeable that most persons will not tolerate them for more than short periods. Exposure to higher concentrations of SO2 may lead to chemical pneumonia. The government standard for exposure to sulfur dioxide is 2 ppm for an 8-hour period. Whenever exposure to any concentration of these gases exceeding ACGIH or government standards is anticipated, the use of protective breathing equipment is required.

TOXICITY OF HYDROGEN SULFIDE TO MAN

The following table describes the toxicity of H_2S concentrations, expressed as parts of H_2S per million parts of air(PPM).

10 PPM	Obvious and obnoxious odor; has the characteristic odor of rotten eggs. Eye irritation begins in the range of 10 to 30 ppm. Safe for 8 hours exposure. Everyone must wear respiratory protective equipment at concentrations above this level.
20 PPM	Former TLV or Safe Working Level
100 PPM	Impairs the sense of smell after 2 to 15 minutes exposure; alters respiration, causes pain in eyes, and drowsiness after 15 to 30 minutes, and throat irritation after 1 hour.
200 PPM	Quickly eliminates the sense of smell; may result in death after 8 to 48 hours of continuous exposure.
500 PPM	Causes loss of sense of reasoning and balance produces respiratory paralysis in 30 to 45 minutes exposure, and death in exposures of 1 to 4 hours. Victim requires prompt artificial resuscitation.
600 PPM	Causes death within 30 to 60 minutes, if not rescued and given immediate artificial resuscitation.
1000 PPM	Causes immediate loss of consciousness; permanent brain damage may result if not rescued promptly and resuscitated.

RESPIRATORY PROTECTIVE EQUIPMENT

When the H2S concentration in the work environment exceeds a minimum of 10 ppm during an 8-hour period of continuous exposure, respiratory protective equipment must be worn. If the H2S concentration reaches damage levels shown in the table, respiratory equipment is necessary to prevent injury for whatever exposure time. At higher concentration levels, a self-contained air breathing apparatus and a life line should be used.

TESTING FOR HYDROGEN SULFIDE

NEVER rely on the sense of smell to guess what the H2S concentration may be. A relatively small amount of H2S quickly impairs the sense of smell. Always use an approved H2S detector to test for H2S concentrations, and respiratory protection should always be used when testing for the presence of H2S.

FIRST AID TREATMENT OF HYDROGEN SULFIDE VICTIMS

A person who is overcome by hydrogen sulfide must be removed to an area clear of gas immediately and artificial respiration started at once. Any delay in the start of artificial respiration appreciably reduces the chance of recovery. Four minutes of delay reduces the chance for recovery to 50-50. The recommended method of artificial respiration is mouth-to-mouth using current techniques and barriers when available. Additional rescue procedures and first aid will be further described during the individual safety training of all personnel on location.

TREATMENT FOR HYDROGEN SULFIDE POISONING

Inhalation

As hydrogen sulfide in the blood oxidizes rapidly, symptoms of acute poisoning pass off when inhalation of the gas ceases. It is important, therefore, to get the victim of poisoning to fresh air as quickly as possible. He should be kept at rest and chilling should be prevented. If respiration is slow, labored, or impaired, artificial respiration may become necessary. Most persons overcome by hydrogen sulfide may be revived if artificial respiration is applied before the heart action ceases. Victims of poisoning should be under the care of a physician as soon as possible. Irritation due to subacute poisoning may lead to serious complications such as pneumonia. Under those conditions, treatment by a physician necessarily would be automatic. The patient should be kept in fresh air and hygienic conditions should be watched carefully.

Contact with Eyes

Eye contact with liquid and/or gas containing hydrogen sulfide will cause painful irritation (conjunctivitis). Keep patient in a darkened room, apply ice compresses to eyes, put ice on forehead, and send for a physician. Eye irritation caused by exposure to hydrogen sulfide requires treatment by a physician, preferably an eye specialist. The progress to recovery in these cases is usually good.

Contact with Skin

Skin absorption is very low. Skin discoloration is possible after contact with liquids containing hydrogen sulfide. If such skin contact is suspected, the area should be thoroughly washed.

EFFECTS OF HYDROGEN SULFIDE ON METAL

Hydrogen Sulfide dissolves in water to form a weak acid that can cause some pitting, particularly in the presence of oxygen and/or carbon dioxide. However, the most significant action of H_2S is its contribution to a form of hydrogen embrittlement known as sulfide stress cracking. Sulfide stress cracking is a result of metals being subjected to high stress levels in a corrosive environment where H_2S is present. The metal will often fail catastrophically in a brittle manner. Sulfide stress cracking of steel is dependent upon and determined by:

a. Strength (hardness) of the steel - the higher the strength, the greater the susceptibility to sulfide stress cracking. Steels having yield strengths up to 95,000 psi and hardness up to Rc 22 are generally resistant to sulfide stress cracking. These limitations can be extended slightly higher for properly quenched and tempered materials.

b. Total member stress (load) - the higher the stress level (load) the greater the susceptibility to sulfide stress cracking.

c. Corrosive environment - corrosive reactions, acids, bacterial action, thermal degradation, or low PH fluid environment.

A scavenger/ corrosion inhibitor will be injected into the pipeline to help to reduce pipeline corrosion.

RESUSCITATION CHART

D I D Y O U K N O W ?

THERE IS NOT TIME TO WASTE
WHEN BREATHING STOPS!

ARTIFICIAL RESUSCITATION MUST BE STARTED IMMEDIATELY!!!

After Breathing is Stopped for:	The Chances for Life are:
1 Minute	98 out of 100
2 Minutes	92 out of 100
3 Minutes	72 out of 100
4 Minutes	50 out of 100
5 Minutes	25 out of 100 *
6 Minutes	11 out of 100 *
7 Minutes	8 out of 100 *
8 Minutes	5 out of 100 *
9 Minutes	2 out of 100 *
10 Minutes	1 out of 100 *
11 Minutes	1 out of 1,000 *
12 Minutes	1 out of 10,000 *

* Irreparable brain damage starts at about the fifth minute.

COOL-HEADED ACTION IN RESCUE IS CRITICAL

OPERATIONS

1) All respiratory protective equipment and H2S monitoring equipment will be rigged up prior to starting operations. All personnel will be fully trained in H2S safety procedures at this time.

2) A 4 channel continuous H2S monitoring system will be used to constantly monitor for hydrogen sulfide. The monitor console will be located in an area that is easily accessible and controlled, with multiple alarm lights and sirens situated so that they can be observed from any point on the location. Additional alarms and buzzers will be installed around the location to ensure that everyone is cognizant of any H2S alarms. The monitor heads will be located as follows: 1) the pipeline inlet/ pig catcher area, 2) the flare stack area, 3) the field office trailer area, 4) the central area of the site near the electrical panel. The monitor will be calibrated to activate a revolving red beacon should 10+ ppm H2S be detected by any single monitor head. Should 15+ ppm or higher H2S be detected a loud siren will alarm. Personnel will be trained to take action to protect themselves, and for non-essential personnel to proceed to the upwind briefing area if this alarm sounds.

3) A safety trailer will be provided to house a 10 bottle cascade system that contains Grade D breathing air. This system will serve to supply breathing air to various points around the location including the pipeline inlet/ pig catcher area and the work trailer area. Additional cascade systems will be setup around the lease to insure that no work area will require more than 250 ft. of air line for use. This trailer will also serve as storage area for safety equipment not in use or rigged up.

4) 2 Gastec/ Sensidyne pump-type hand-held gas detectors will be available on the flare site. These detectors use colormetric tubes to detect the presence of H2S and SO2 at specific areas.

5) The location is rigged up to take maximum advantage of the prevailing winds and the topography of the terrain surrounding the flare site.

6) Windsocks and streamers will be strategically placed around the location to ensure that wind direction is easily determined by all personnel. One wind indicator will be mounted on or near the work trailer to be readily visible to all personnel.

7) At least two (2) Safe Briefing Areas (SBA) will be located on the location. These areas will be situated to assure that at least one area will always be upwind. Each Safe Briefing Area will include 3-300 cu. ft. bottles of compressed breathing air cascaded together, 1-filler hose, and 1-Scott 30 minute rescue air pack.

8) A 12-gauge single shot flare gun will be provided with flare shells. The gun and shells will be stored in a controlled area.

9) No smoking areas will be established and "No Smoking" signs posted.

10) Reliable radio/ telephone communication will be established from the flare site and emergency call lists and contacts will be near this communication system.

11) A Stokes Stretcher will be available at the safety trailer.

12) Retrieval ropes with safety harnesses will be available.

13) Chalk-boards and writing markers will be available for emergency communication purposes.

14) Warning signs will be posted on location entrance roads and a three color flag system will be used to indicate current drilling operation and potential hazard.

15) Ten (10) Scott Ska-Paks (hoseline work units with 5 minute egress bottle) will be provided for the operation and placed to assure that all personnel have an emergency air mask available. These units will also be used as hoseline/work units around the site. The locations for this equipment will be:

a) At least two (2) units by the pipeline inlet/pig catcher area
b) Two (2) units with cascade system toward the flare stack area
c) Two (2) units at the center of location near the electrical panel
d) Three (3) units in the office work trailer
e) The remainder to be strategically placed around the location to provide emergency breathing air to personnel during a variety of completion/ testing conditions.

16) Ten (10) Scott 30 minute rescue packs will be located for key personnel involved in emergency operations, including:

a) At least two (2) at each safe briefing area
b) At least three (3) at the office work trailer.
c) Two (2) at the pipeline inlet/ pig catcher area.
d) The remainder will be strategically place around the site to provide emergency access to all personnel

17) Spectacle kits will be available for the Scott airpacks for personnel that require corrective lenses for adequate vision.

18) Additional safety equipment will include:

a) 1 Oxygen powered resuscitator with a spare cylinder
b) Airline hoses and manifolds to supply breathing air to the pipeline inlet area, flare stack area, and other strategic work areas.
c) 1 36 unit first aid kit & 1 EMT trauma kit

19) Safety meetings and training sessions will be held at frequent intervals by the Safety Advisor or the Production Supervisor. All persons required to work on location will be thoroughly familiar with the use, care and servicing of the following: Personal protective equipment, resuscitation equipment, gas detection equipment, emergency response drills and procedures.

H2S SAFETY EQUIPMENT ON LOCATION
(PROVIDED BY INTER-MOUNTAIN SAFETY CO.)

1. Safety Trailer with a cascade system of 10-300 cu. ft. bottles of compressed breathing air complete with high pressure regulator and spare regulator.

2. At least 750 ft. low pressure air Line, equipped with Hanson 3000 series locking fittings.

3. Four low pressure manifold system with five outlets.

4. Ten (10) Scott Pressure Pac IIA, 30 minute pressure demand breathing apparatus NIOSH and MSHA approved.

5. Ten (10) Scott Ska-Paks escape hoseline units with emergency egress cylinder.

6. 4-Channel Monitor for multiple point continuous detection, each monitoring point is capable of activating remote audio and visual alarm system. The set points for the alarms will be 10 ppm H2S for the lights and 15 ppm H2S for the sirens.

7. Two Gastec/Sensidyne portable hand operated pump type detector with low and high range H2S detector tubes and SO2 detection tubes.

8. One Robert Shaw Portable Oxygen Resuscitator with spare cylinder.

9. One 36 Unit First Aid Kit.

10. One stretcher Stokes wire basket

11. Three Wind Socks with poles.

12. At least two high pressure compressed air refill hoses.

13. At least one H2S Condition Sign w/ Three Flag System.

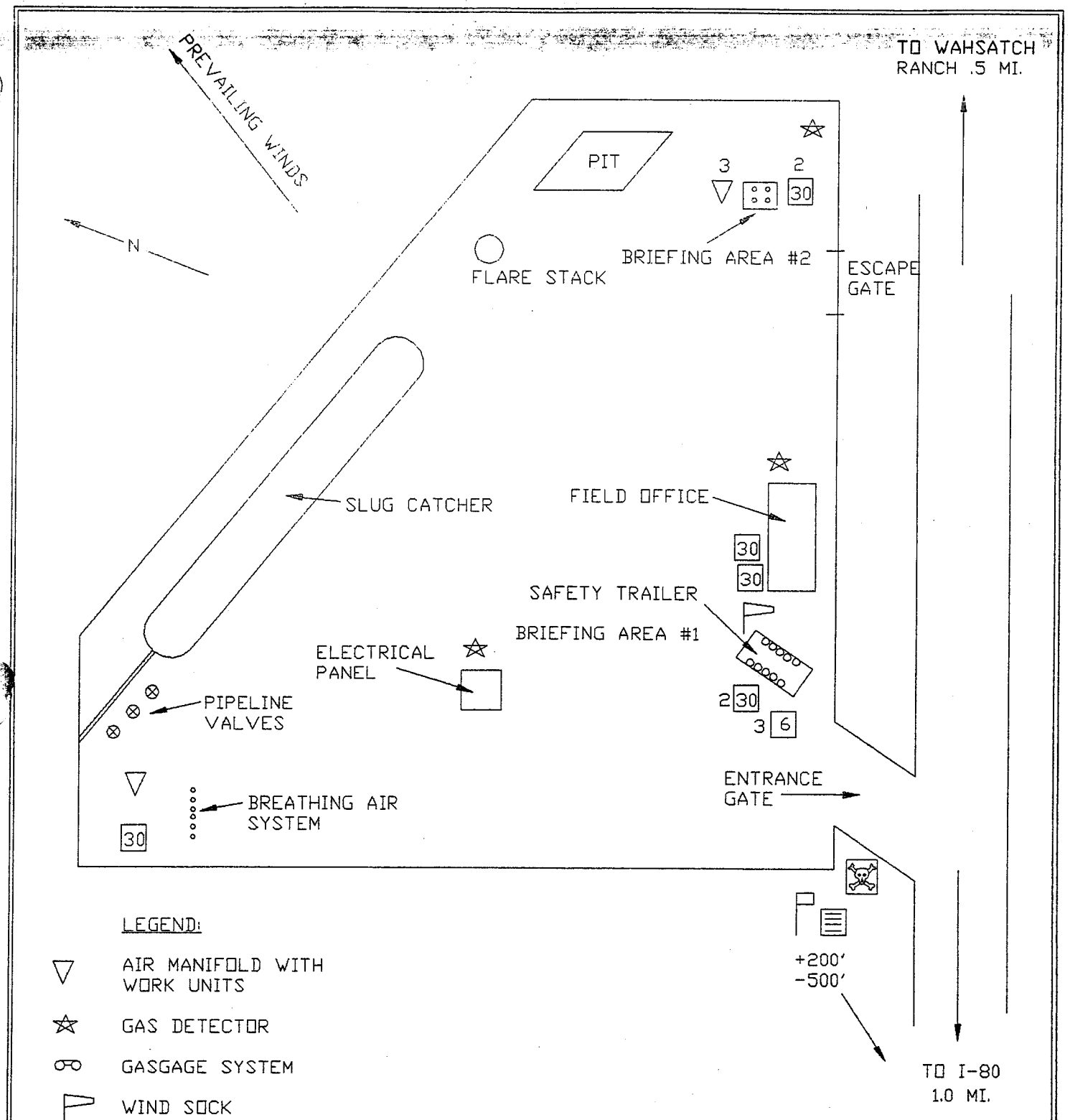
14. One Fire Blanket.

15. One set air splints

16. Two explosion proof 110 volt bug fans.

17. Battery powered bullhorn and writing board.

18. Three 300 cu. ft. bottles with Briefing Area Station



LEGEND:

- AIR MANIFOLD WITH WORK UNITS
- GAS DETECTOR
- GASGAGE SYSTEM
- WIND SOCK
- DISPERSION FAN
- 30 MINUTE RESCUE PACKS
- 6 MINUTE ESCAPE PACKS
- OPERATING CONDITIONS FLAG AND SIGN
- POISON GAS SIGN

UNION PACIFIC RESOURCES
A Subsidiary of Union Pacific Corporation

PROJECT

WAHSATCH FLARE SITE LAYOUT

DATE	DWG. NO.
18 JUNE 92	8511

H2S SAFETY TRAINING

All personnel on the flare site, support personnel and visitors will be trained in H2S safety procedures.

This training will include, but not be limited to:

1) The potential hazards and characteristics of H2S and SO2.

2) The effects of these gases on man and materials.

3) Operation and limitations of all types of respiratory protective equipment available on the location with thorough hands-on practice both for routine and emergency donning.

4) The different types of H2S and SO2 detection and alarm equipment available on the flare site and how to interpret this equipment.

5) Prevailing winds, ventilation equipment, and safe briefing areas.

6) Rescue and H2S first aid procedures.

7) Working with the buddy system.

8) Safety precautions to be followed during well flow testing.

ACTION PLAN FOR H2S EMERGENCY

Should the H2S monitor alarms sound indicating the presence of hydrogen sulfide on location, the following actions will be taken:

1) All personnel on location must don protective breathing equipment and immediately follow the "buddy system" as prescribed during H2S training drills.

2) The UPRC supervisor will take action to control any unintended flow of hydrogen sulfide from the pipeline as per company guidelines.

3) The UPRC supervisor on the flare site will notify the UPRC supervisor on the well site of the presence and possible location of the hydrogen sulfide.

4) Monitor for hydrogen sulfide with portable gas detection equipment while following the directions of the UPRC supervisor to reduce or eliminate the hydrogen sulfide present.

5. Verify the site "head count" by referencing location sign in sheet, and search out and assist any missing or distressed personnel.

6. Ensure that all non-essential personnel are in a safe upwind briefing area and that no new visitors are allowed on location.

IGNITING A PIPELINE LEAK

The decision to ignite any pipeline leak is the responsibility of the UPRC supervisor.

The decision to ignite any pipeline leak is to be made as a LAST RESORT when it is obvious that there is:

1. Imminent danger to human life and property in the immediate area

2. There is no hope of containing the leak under the current prevailing conditions.

In all cases, every effort should be made to notify the staff support personnel on the emergency call list of the situation, and of the need to ignite the pipeline.

Public in Roe

We have enclosed copies of an abstract from the Quest Consultants Inc. *Hazards Analysis/Risk Analysis Study of Union Pacific Resources Company's Wahsatch Gas Gathering Pipeline System* dated May 8, 1992 Appendix C - pages C1-C6. this study provided information to determine the radius of exposure calculations for hydrogen sulfide from the well. Should further detail be required, please refer to the original study.

APPENDIX C
BUREAU OF LAND MANAGEMENT
ONSHORE OIL AND GAS ORDER NO. 6 CALCULATIONS

Radius of Exposure Calculations

Dispersion calculations were made to determine the Radius Of Exposure (ROE) distances associated with the Wahsatch Gas Gathering System. Calculations were made for pipeline releases, as well as for well-head releases.

Flow rates used in the calculations were those defined by 43 CFR Part 3160, specifically Subpart 3164 - *Special Provisions*. Within this subpart is onshore oil and gas order number 6, which pertains to hydrogen sulfide (H_2S) operations. The release rate of gas containing H_2S is defined to be the maximum flow at that point in the system at the time of release. (This definition is identical to the definition in Texas Railroad Commission's Rule 36, which also defines H_2S exposure zones.) For the pipeline sections, this would correspond to the gas flow in the pipeline. For the wells, this would correspond to the Absolute Open Flow (AOF) of the well.

The rule recognizes the Gaussian dispersion formulation defined in the rule is not applicable for gas compositions containing more than 10 mole percent H_2S. Gas in the Wahsatch Gas Gathering System contains approximately 15 mole percent H_2S. The dispersion calculations presented in this appendix are performed with the momentum jet dispersion model used in the risk analysis. Full descriptions of the model, the algorithms, and the validation studies are presented in Appendix B.

Using the flow rates and dispersion model defined above, dispersion calculations were made to the 100 and 500 ppm H_2S concentration levels under low wind (1 mph) and stable (Pasquill stability class F) conditions. The calculations were made for all pipeline sections and well sites. Table C-1 presents a summary of distances to the 100 and 500 ppm H_2S levels.

The ROE limits (defined by the 100 and 500 ppm H_2S levels) can be overlaid onto the overall pipeline route. This overlay is presented in Figure C-1.

As discussed in the main report, only a small section of the Wahsatch Gathering System is located adjacent to a permanent population. When the ROE limits are overlaid onto this area, Figure C-2 results.

Flaring Calculations

In addition to the ROE calculations described above, onshore oil and gas order number 6 requires the calculation of dispersion distances for H_2S and SO_2 for the flaring operations. In the Wahsatch design, there is the potential for three different flaring rates. The lowest rate is associated with the individual flares at the well sites. The next lowest rate is produced by the Wahsatch flare. The highest rate that can be flared occurs at the inlet facility.

At all three locations, dispersion calculations were performed to determine the maximum dispersion distance for both the H_2S and SO_2 concentrations defined in onshore order number 6. For H_2S, this

Table C-1
Radius of Exposure (ROE) Limits
Using Texas Railroad Commission Rule 36 for Flow Rates and Momentum Jet Dispersion Model for ROE Distances

Well/Pipeline Section	Exposure Time (min)	Maximum Flow (mmscfd)	Mole Fraction H_2S	ROE (100 ppm) [feet]	ROE (500 ppm) [feet]
Harry Moon	60	10.6‡	0.15	2100.	510.
Bradbury	60	22.7‡	0.15	2770.	680.
Urroz "B"	60	11.3‡	0.15	2170.	530.
Celsius 4-36	60	7.5‡	0.15	1790.	450.
Urroz "1"	60	24.2‡	0.15	2880.	740.
Fawcett & Sons	60	23.5‡	0.15	2850.	730.
Kindler-Reese	60	7.5‡	0.15	1790.	450.
Champlin 375 C	60	7.5‡	0.15	1790.	450.
L1	5	15.5*	0.15	3600.	1010.
L2	5	8.7*	0.15	3130.	1130.
L3	5	9.0*	0.15	2700.	600.
L4	5	17.7*	0.15	3830.	980.
L5	5	6.3*	0.15	2320.	490.
L7	5	27.0*	0.15	4180.	920.
L8	5	14.4*	0.15	3220.	710.
L9	5	56.9*	0.15	5600.	1300.
L10	5	4.9*	0.15	2760.	1040.
L11	5	2.1*	0.15	1800.	615.
L12	5	7.0*	0.15	2990.	1130.
L13	5	63.9*	0.15	5830.	1290.
L14	5	20.7*	0.15	3810.	880.
L15	5	3.0*	0.15	2020.	600.
L16	5	8.7*	0.15	2680.	560.

‡Flow rate based on well AOF.

*Flow rate based on maintaining normal flow conditions during release.

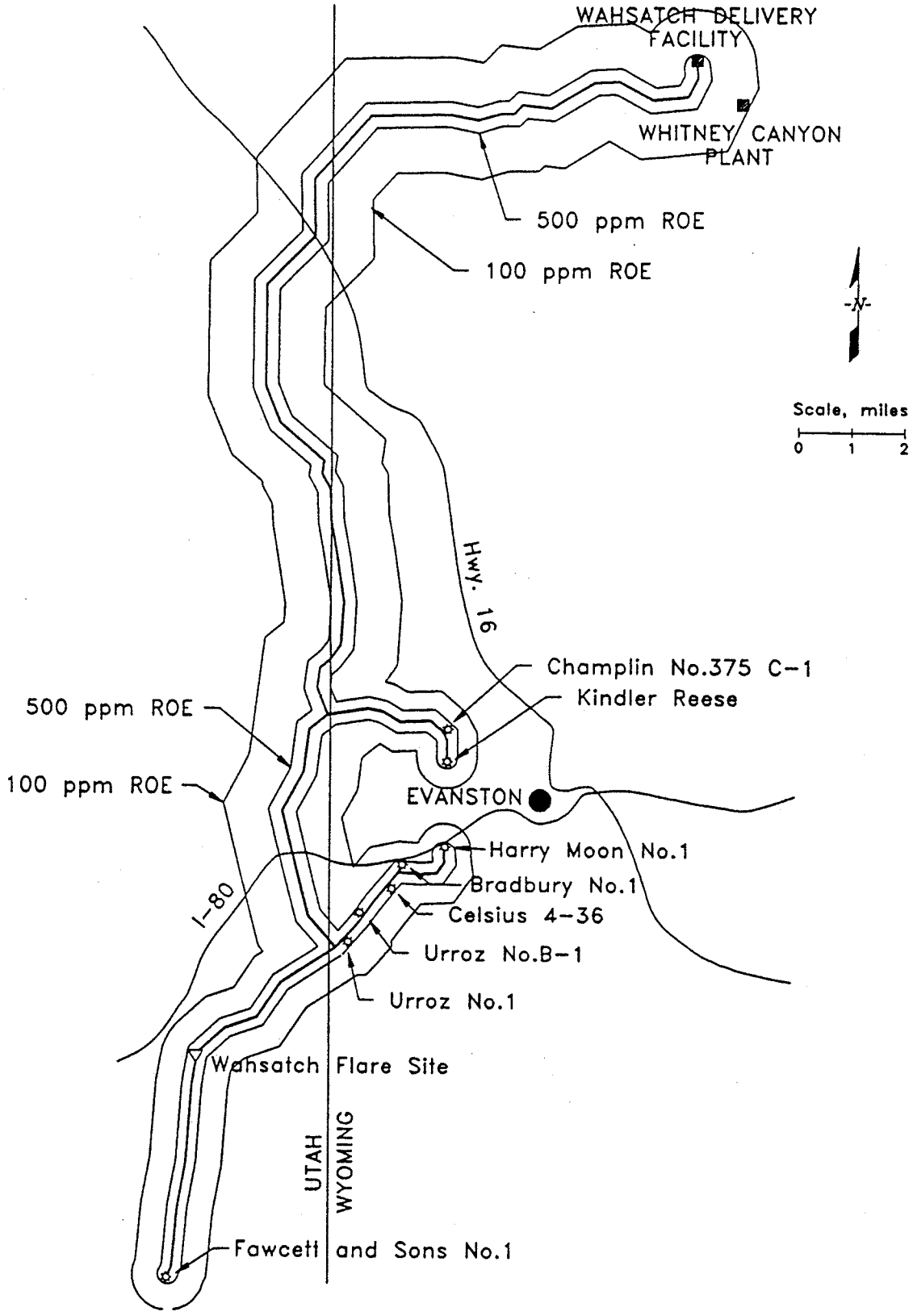


Figure C-1
Wahsatch Pipeline Area Map

QUEST

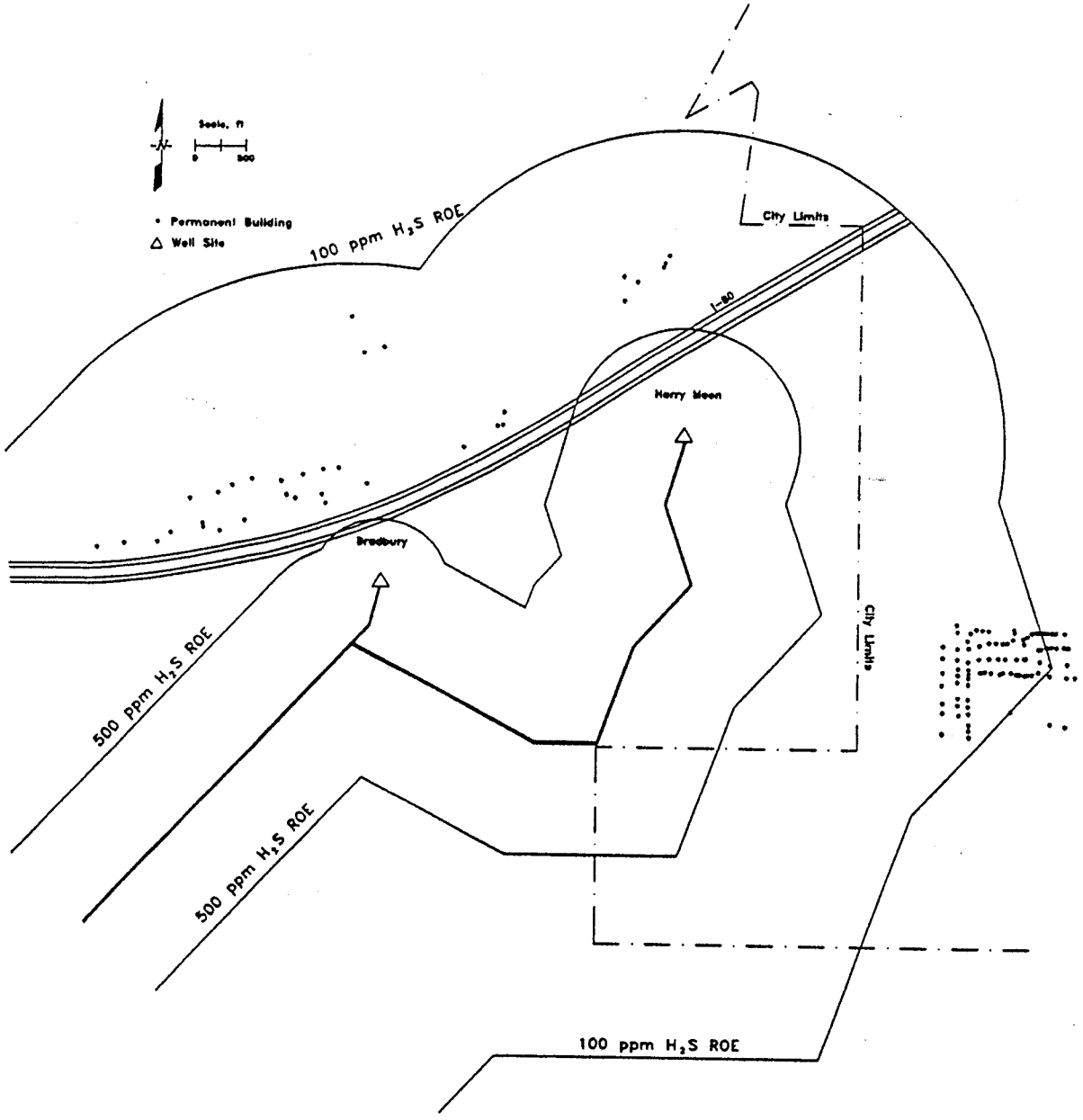


Figure C-2

QUEST

required the calculation to be made to 10 ppm H_2S while for SO_2, the concentration limit was defined to be 2 ppm.

The results of these calculations are presented in Table C-2.

Maximum Distances to Odor Concentrations

Onshore oil and gas order number 6 does not require the calculation of downwind distances at which the different toxic components can be smelled by persons in the area. These calculations are included in this section for reference only. As referenced in Section 4, the concentrations at which H_2S and SO_2 can be smelled by humans is low and, at these low concentrations, the materials do not pose a health hazard to the exposed public.

Since the concentrations at which the materials can be smelled varies over a range, the shortest and longest distances away from the release point at which the material can be smelled are presented. Note that in some cases, when the elevated plume does not reach grade at the concentrations defined, the distances will be zero. The zero distance means that gas concentration at or above the lowest smell concentration does not exist at grade. The results of these calculations are presented in Table C-3.

Table C-2
Dispersion Distances for Flaring Operations

Flare Site	Exposure Time (min)	Flaring Rate (mmscfd)	Ground Level Downwind Distance‡ (ft) to	
			10 ppm H_2S (unignited flare)	2 ppm SO_2 (ignited flare)
Individual Well Site	60	5	0	0
Wahsatch Flare	60	10	0	0
Inlet Facility Flare	60	100	0	0

Table C-3
Dispersion Distances to Reach Odor Threshold

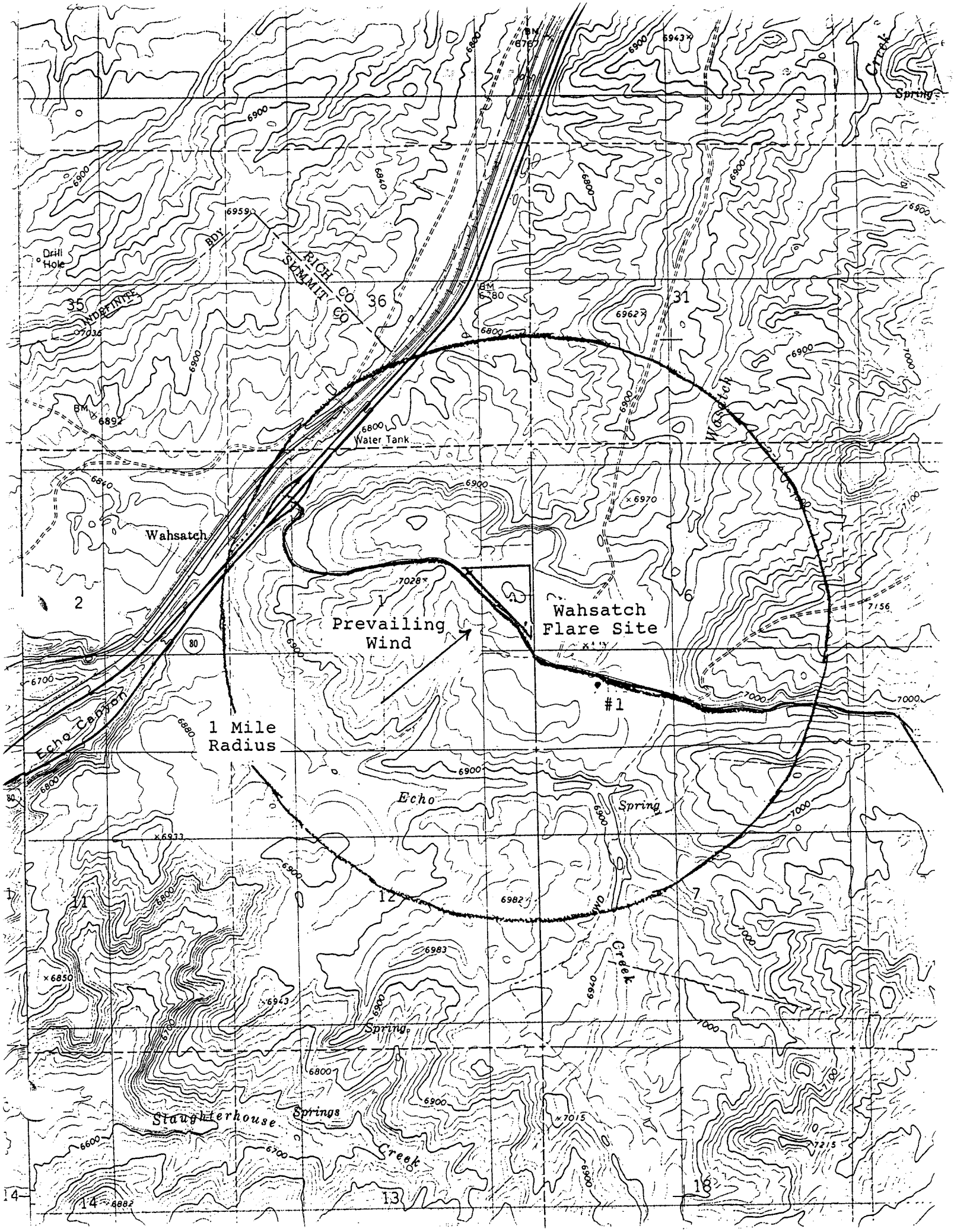
Flare Site	Exposure Time (min)	Flaring Rate (mmscfd)	Ground Level Dispersion Distance‡ (ft) to			
			0.13 ppm H_2S (unignited flare)		0.62 ppm SO_2 (ignited flare)	
			minimum	maximum	minimum	maximum
Individual Flare Site	60	5	800	6,600	0	0
Wahsatch Flare	60	10	1,400	8,000	0	0
Inlet Facility Flare	60	100	2,200	23,000	0	0

Pipeline Section	Exposure Time (min)	Gas Rate (mmscfd)	0.13 ppm H_2S	
			minimum	maximum
L2	5	8.7*	0	16,000
L3	5	9.0*	0	16,500
L4	5	17.7*	0	21,000
L16	5	8.7*	0	16,000

‡ Calculated during "worst case" atmospheric conditions.
* Flow rate based on maintaining normal flow conditoins during release.

RESIDENCES WITHIN ONE MILE RADIUS OF Wahsatch Flare Site

MAP REFERENCE NUMBER	NAME OF RESIDENT	NUMBER OF PERSONS	TELEPHONE NUMBER AREA CODE
1	Wasatch Ranch	2-5	Jesus Montero Joe Taylor at ranch 307-789-8403 801-289-8403 Merlin Kingston foreman Woods Cross, UT. 801-295-7927



Wahsatch
Prevailing Wind
Wahsatch Flare Site
#1
1 Mile Radius
Echo Canyon
Echo
Spring
Creek
Slaughterhouse
Springs
Creek
Water Tank
Drill Hole
INDEFINITE
BDY
RICH CO
SUMMIT CO
Wasatch
Creek
Spring
35
36
31
2
1
6
11
12
7
14
13
18
80

EMERGENCY CALL LIST - OPERATIONS

A. Union Pacific Resource Corporation.....(817) 877-6000
801 Cherry St.
Ft. Worth, TX. 76101

UPRC Wahsatch Gathering System.....(817) 789-1573
170 Yellow Creek Rd., Suite B
Evanston, WY. 82930

Operations Superintendent
Pete Straub
Office.....(307) 789-1573
Home.....(307) 789-1576
Mobil.....(307) 799-7848

Production Manager- Rocky Mountain District
Karl Nesselrode
Office.....(817) 877-7104
Home.....(817) 571-1011

Drilling Manager
Mike Walker
Office.....(817) 877-7683
Home.....(817) 461-8838

Senior Drilling Foreman.....Casper, Wyoming
Lyle Woelich
Office.....(307) 237-8039
Home .....(307) 234-9432
Mobil .....(307) 267-0685

Drilling Supervisor
Troy Schindler
Office.....(817) 877-7686
Home.....(817) 571-6322

UPRC Safety Department
Joe Gay
Office.....(817) 877-7018
Home.....(817) 236-8418

Kevin McDermott
Office.....(817) 877-7017
Home.....(817) 431-0773

Mark Hawkinson
Office.....(817) 877-7015
Home.....(817) 354-8041

Environmental
Davis Scharff
Office.....(817) 877-7009
Home.....(817) 457-6812

John Rector
Office.....(817) 877-7013
Home.....(817) 473-6009

Public Affairs
Jim Sailor
Office.....(817) 877-7527
Home.....(817) 477-2333

Ed Gladish
Office.....(817) 877-7526
Home.....(817) 370-1225

B. Well Testing Contractor

Norward Energy Services.....(307) 789-5590
Dave Garnier - Manager
Mobil.....(307) 799-8176
Home.....(307) 789-5686

C.Safety Contractor

Intermountain Safety Co., Inc.
66 Walker Rd.
Evanston, WY. 82930

Manager
Frank Kaunitz
Office.....(307) 789-3882
Home.....(307) 789-3882

Safety Supervisor
Ted Lye
Office.....(307) 789-3882
Home.....(307) 789-3345

Emergency Call List

Local Officials and Medical Contacts

All services are from Evanston, Wy. unless otherwise noted.

SHERIFF....Uinta County, Wy. Evanston, WY,#'s).....(307)789-2331

AMBULANCE....Evanston, WY.....911

HOSPITAL.....IHC Evanston.....(307)789-3636

DOCTOR.....On Call At Hospital Emergency Room

HIGHWAY PATROL....(Wyoming).....1-800-442-9090

HELICOPTER....Air Med - Salt Lake City, UT.....1-800-453-0120

FIRE.....Evanston, WY 911

SEARCH AND RESCUE..... (307)789-2331

POISON CONTROL ..Rocky Mt. Poison Center.....1-800-955-9119

Radio Answering Service Alexander Answering Service 307-780-9565

Additional Notification Numbers

1. BUREAU OF LAND MANAGEMENT (BLM).....(307) 877-3933
   Kemmerer, WY.

   John Pecor
   Petroleum Engineer

2. Wyoming Oil & Gas Commission.....(307) 234-7147
   Casper, Wyoming

3. EPA - Denver

   Oil Spills.....(800) 424-8802

   Toxic Substances Airborne .....(303) 293-1438

4. Uinta County Commissioners
   Pat Mulhall - Chairman
   County Complex.....(307) 789-1780
   Home.....(307) 789-2228

Addendum to Emergency Call List
Wahsatch Flare Site

Utah Oil, Gas & Mining Division.....801-538-5340

Utah State Highway Patrol.....801-336-4461

Summit County Commissioners
LeMar Richins - Home.....801-336-2589

Bureau of Land Management
Utah State Office...Oil & Gas.....801-539-4031

Fawcett & Sons No. 1 February 8, 1993
NW/4 Sec 36, T5N-R7E
Summit County, Utah

DETAILED REENTRY PROCEDURE

Note: 1. Perforating, production testing and acidizing are to be performed during daylight hours only.
2. All onsite supervisory personnel are to have well control and H_2S training.
3. If a BOP is nippled up: The BOP is to be function tested daily. BOP drills are to be held weekly. And both drills and tests are to be recorded in the morning reports.

Well Data:

7" Casing Volume to PBTD @ 11,382': 415 BBls.
$3^1/_2$" 9.2# Tubing Volume: 97 BBls.
7" X $3^1/_2$" Annular Volume: 282 bbls.
Bottom-hole Temperature: 190° F.
Max Recorded Bottom-hole Pressure Gradient: 5,035 psig @ 11,365'.

Note: See attached wellbore schematic for additional well data.

Rigging Up

1. Test anchors, setup tanks, build & test flowlines to onsite flare stack and conduct initial safety meetings. Train rig and service personnel in H_2S safety procedures. Plan H_2S safety positioning.

2. Clean out cellar and replace pressure gauges on tree if necessary. Check pressures on 7", $9^5/_8$", and $13^3/_8$" casing. Check fluid levels at each valve and fill if necessary w/ diesel. Operate all tree valves to assure all are functional. RU mud/gas seperator and flare system.

3. MIRU workover unit. Spot pump and tanks. RU H_2S safety equipment.

4. Set BPV in tbg hanger. Test BPV in hanger to 3000 psi.

Note: All BOPE and choke manifold should be H_2S certified and inspected. Test all H_2S sensors prior to circulating. SCBAs should be readily available while circulating.

5. Notify Utah Oil, Gas & Mining Division and the BLM 24 hrs before

testing BOPE. Strip off FMC X-mas tree equipment to top of tubing head. Install $7^1/_{16}$" 5M# BOP stack per attached drawing and pressure test $3^1/_2$" pipe rams, blinds, variable bore rams and valves to 5000 psi, annular to 3500 psi, and choke manifold to 5000 psi. Screw landing joint into lift threads in hanger. Back out lockdown screws. PU on tubing. Remove blanking plug and tubing hanger. Circulate down tubing w/ 8.7 ppg brine water, check for H_2S in returns. Circulate hole clean. Test 7" casing to 4000 psi. Monitor tubing pressure. Release test pressure. WITNESS WITNESS

Note: 7" csg was tested to 3500 psi for 30 mins, 9/2/92. ✓

Nipple Up New Tubing Head

49 jts

6. TOH with $3^1/_2$" L-80 9.2# VAM tubing laying down, stand back 1,500' (Total 360 jts w/ 2.562" 'R', EOT @ 11,176'). PU Baker Model "G" RBP on tbg. Set RBP @ 1500'. Release from RBP and test to 2000 psi. Dump 2 sxs sand on RBP. TOH w/ tbg. ND BOPE and FMC Type "TC" tbg head equipment.

7. Install new FMC Type "TCM-ET" tbg head with metal to metal seal. Cutoff casing stub as necessary. The 7" 35# SS-95 casing stub will have to be prepped for tubing head installation. Nipple up tubing head and pressure test ring gasket area and packoffs to 4,000 psi. WITNESS

8. Notify Utah Oil, Gas & Mining Division and the BLM 24 hrs before testing BOPE. Nipple up inspected and certified $7^1/_{16}$" 5M# BOP stack w/ $3^1/_2$" pipe rams, blind rams, variable bore rams and manifold per the attached drawing. Land BOP test plug in tbg head. Pressure test ring gasket area to 5,000 psi. TIH w/tbg, reverse out sand and retrieve bridge plug. TOH w/plug laying down tbg and bridge plug. WITNESS

9. Run wear bushing in tbg head. FMC to supply running tool.

Drill out CIBP and Cmt Plugs

10. TIH w/ $5^7/_8$" bit, Junk Basket, 8-$4^3/_4$" collars, on inspected $3^1/_2$" E 13.30# & $3^1/_2$" X-95 15.50# IF drill pipe. Close TIW valve and pressure test casing and VBRs to 4000 psi. Circulate with 8.7 ppg clear brine containing liquid H_2S scavenger & additives to maintain a minimum pH of 11.0. Function test BOP'S.

Note: 1) The workstring should have been previously inspected and hardness tested.
2) The Phosphoria, perforated 11,461'-484', 550'-570' & 626'-642', tested at 23 MMCFPD w/ 12% H_2S. The perfs were sqz'd w/ 1000 gal Temblock 50. The Temblock 50 has probably broken and the perfs should be considered open.

11. Drill out cmt cap and CIBP @ 11,382'-420'. Pump polymer sweeps as

necessary. TIH & tag pkr fish @ ~11,855'. Circulate hole clean of cmt. Make 10 stand short trip. Observe well static.

Note: 1. **Old Weber perfs 11,914'-12,215' sqz'd w/ 1500 gal Temblock 50, CIBP @ 11,890' capped w/ 2 sxs cmt.**
2. **Returns should be continuosly monitored for H_2S. Keep scavenger in circulating system. SCBAs should be readily accessible. No unnecessary personnel should be on location. Pump polymer sweeps to clean hole if necessary.**

12. POH standing back. Monitor pit volume and use trip tank. Keep hole full while tripping out. Do not swab in well.

Set Pkr, Run Production Tbg & NU Tree

13. MIRU WLU w/ H_2S service lubricator with grease injector and sour service line. Pressure test lubricator to **5,000 psi**. Run gauge ring to 11,850'. Run GR/CCL from 11,850' to 9,850'.

14. PU WL entry guide/pumpout plug, 8'X$2^7/_8$" pup, Otis 2.188" 'RN', flow cplg, 8'X$2^7/_8$" pup, Otis 2.188" 'R', flow cplg, 8'X$2^7/_8$" pup, 20' sealbore extension, & Baker Model DB pkr. Set pkr @ 11,300'.

Note: **Stump test pkr and tailpipe connections to 8000 psi. Set pump-out plug to shear at 10,000 psi (4900 psi surface).**

15. PU bullplug & perf sub on workstring. RIH. Rev CBU with clean 9.2 ppg brine water containing corrosion inhibitor and oxygen scavenger. POOH laying down.

16. Pull wear bushing. RU tubing tongs with calibrated torque gauge and hydrotest equipment. PU 'L-22' locator seal ass'y, 1 jt tbg, flow cplg, Otis 2.188" 'R' & flow cplg.

Note: 1. **The $2^7/_8$" should have been previously drifted on rack. All accesories should be drifted to pass Otis plugs.**
2. **Have VAM representative on location to visual threads and witness makeup. Make sure hydrotest tool will pass thru nipples and seat in tubing.**

17. RIH with $2^7/_8$" 7.7# L-80 VAM-ACE tbg, $^1/_4$" control lines w/ protectors every jt, methanol injection valve (set to open @ 2250 psi) @ 3500' and Camco SCSSV @ 150' (see attached schematic). Pressure test all tubulars and connections to **8000 psi** above slips. PU landing jt and land seals in pkr setting 5M# compression on pkr. Determine length of pups needed to spaceout, account for length of hanger. POOH w/ landing jt plus 1 additional jt while spooling control line back up. Run pups and extra jt w/ full jt on top. Test pups and jt to **8000 psi** above the slips. Maintain pressure on control lines while runnin g to monitor for leaks. Pump thru injection valve to assure integrity. Reverse 5 bbl of diesel down annulus. Land tbg.

Note: **EXTREME Caution needs to be taken if the tbg has to be rotated to get the seals in the pkr. The control lines and/or fitting could be damaged in the process.**

18. Make up hanger bushing and landing joint. Make up control line connection to hanger bushing. Lower hanger thru BOP'S and hang off tubing w/ 5 M# on pkr. Run in lockdown screws, test backside to 3500 psi. Strip off BOP's and nipple up composite master valve. Pressure test hanger/composite valve assembly to **5,000 psi.** Pressure test SCSSV control lines to **5,000 psi.** W 17/1/95

19. Nipple up remainder of wellhead tree. Pressure test tree components to **5,000 psi.** Function test SCSSV & SSV. Pressure up & release pumpout plug @ ~11,336'. RDMO workover rig. Begin RU Norward test equipment and tie into flare lines.

Perf, Stim and Test Phosphoria

20. RU OWP perforators and H_2S service lubricator with grease injector and sour service line. Pressure test lubricator to **5,000 psi.** RIH w/ 1-11/16" gauge ring t/ 11,850'.

Note: 1. **Equalize across swab valve before opening to prevent hydrate formation. Keep lubricator full of fluid.**
2. **Keep hole full while perforating.**

21. Perf the following w/ $1^{11}/_{16}$" 0° phased, magnetically decentralized, HSC gun w/ 3 g charges, 2 SPF:

11,770'-800'	11,675'-715'
11,620'-650'	11,570'-600'
11,515'-545'	11,425'-480'

Total of 430 holes.

Note: 1. Bottom perf is at -4955' SS TVD.
2. Other zones of interest:
Weber 11,914'-12,215' (tested 14.7 MMCFPD, 813 BWPD & 1980 psi on a $^{37}/_{64}$", 4/1/80)
Dinwoody 11,327'-356' (DST #6).

22. RU Halliburton & load hole. RU tree saver and surface lines, pressure test all to **10 Mpsi.** ACDZ the Phosphoria interval per the attached treatment program. Disp acid w/ 100% N_2. Maximum treatment pressure is **8,000 psi.** Hold 3,000 psi on backside and monitor. Set casing popoff for 3,500 psi. Shut well in, RDMO Halliburton. Take SIP's every 5 minutes. Finish RU Norward testers. Test all lines and manifolds to 5000 psi.

23. Open up well and unload treatment fluids through Norward test system during daylight hours. Check load water for the presence FeS.

Recover as much load as possible under the Utah Air Quaility Division permit guideline.

Note: Monitor all annular pressures for communication and thermal expansion.

Secure Well until Pipeline Tie-in

24. Set sour service 'PN' retrievable tubing plug in 'RN' @ ~11,326'. Blow down tubing volume to flare. Load tubing w/ inhibited fluids. Last 3 BBls of displacement to contain diesel. Purge all flare lines & test equipment w/ N_2.

25. Shut well in and close safety valve. Finish winterizing remainder of tree and secure wellhead equipment. Wait on pipeline connection. Estimate first production in November, 1993.

F.W. McDougal

concur: G.K. Beaird

concur: T. L. Schindler

approved: J.G. Neuner

cc: M.P. Staub (Evanston), Central File, Active File

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Union Pacific Resources
A Subsidiary of Union Pacific Corporation

February 17, 1993

VIA FEDERAL EXPRESS

Utah Department of Natural Resources
Division of Oil, Gas & Mining
355 N. Temple - 3 Triad Center
Suite 350
Salt Lake City, Utah 84180

RECEIVED
FEB 18 1993
DIVISION OF
OIL GAS & MINING

Re: Modified Re-Entry Procedures
Wahsatch Gathering System
#1 Fawcett & Sons 43-043-30078
SENENW Sec. 36-T5N-R7E
Summit City, Utah
Cave Creek Field

Gentlemen:

Please find attached your review and concurrence modified re-entry procedures for the above-mentioned wells.

We request that all agencies copied on these matters, acknowledge receipt of same, by returning one copy to the address provided below:

UNION PACIFIC RESOURCES COMPANY
P.O. BOX 7 - MS 3407
FORT WORTH, TEXAS 76101-0007
ATTN: JOY RECTOR - (817) 877-7956

Please contact me at (817) 877-7956, if additional information is needed.

Respectfully requested,

UNION PACIFIC RESOURCES COMPANY

J L Rector

Joy L. Rector

JLR/jrg

cc:

Also attached for your reference are packages for wells being re-entered in Wyoming as part of this Wahsatch Gathering system. This information will keep you updated with project as a whole.

State of Wyoming
Oil & Gas Conservation Commission
777 West First Street
Casper, Wyoming 82601
Attn: Chuck Farmer

Bureau of Land Management
Rock Springs District
Highway 191 North
Rock Springs, Wyoming 82901
Attn: Robert Chase

Bureau of Land Management
Bear River Divide Resource Area
2730 South 2300 West
Salt Lake City, Utah 84119
Attn: Phil Allard

Bureau of Land Management
Kemmerer Resource Area
312 Highway 189 North
Kemmerer, Wyoming 83101
Attn: John Pecor

FLARE POINT LOCATION
BILL KENSI

Union Pacific Resources Company
P.O. Box 7
Fort Worth, Texas 76101-0007
817 / 877-6000
TWX 910 893 5024
Telex 758-447

c:\wp51\rector\modified re-entry procedures

Form

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number

7. Indian Allottee or Tribe Name

8. Unit or Communitization Agreement

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT— for such proposals

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other (specify) Modified Re-entry Program

9. Well Name and Number
Fawcett & Sons #1

2. Name of Operator
UNION PACIFIC RESOURCES COMPANY ATTN: Joy Rector

10. API Well Number
43-043-30078

3. Address of Operator
P.O. Box 7 - MS 3407

4. Telephone Number
817-877-7956

11. Field and Pool, or Wildcat
Cave Creek

5. Location of Well
Footage : 694' FNL & 2159' FWL
QQ, Sec, T., R., M. : SENENW Sec. 36-T5N-R7E
County : Summit
State : UTAH

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- ☐ Abandonment
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Multiple Completion
- ☒ Other Modified Re-entry Procedure
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Recompletion
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Approximate Date Work Will Start Spring - 1993

SUBSEQUENT REPORT
(Submit Original Form Only)

- ☐ Abandonment *
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Other
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Date of Work Completion

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Modified Re-Entry Procedure

Attached for your review and subsequent approval are the modifications made to the previously approved re-entry procedure. These modifications were made to incorporate concerns and recommendations made as a result of the City of Evanston review process. If additional clarification is needed, please contact us at (817) 877-7956.

cc: BLM - Kemmerer
BLM - Rock Springs
BLM - Salt Lake

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS AND MINING
DATE: 5-24-93
BY: T.A. Matthews

RECEIVED
FEB 18 1993
DIVISION OF OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Name & Signature J. Rector /Joy Rector Title Sr. Regulatory Analyst Date 2-15-93

(State Use Only)

(8/90)

See Instructions on Reverse Side

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

February 17, 1993

VIA FEDERAL EXPRESS

Utah Department of Natural Resources
Division of Oil, Gas & Mining
355 N. Temple - 3 Triad Center
Suite 350
Salt Lake City, Utah 84180

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FEB 18 1993
WYOMING OIL & GAS
CONSERVATION COMMISSION

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JLR/jrg

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Attn: Robert Chase

Bureau of Land Management
Bear River Divide Resource Area
2730 South 2300 West
Salt Lake City, Utah 84119
Attn: Phil Allard

Bureau of Land Management
Kemmerer Resource Area
312 Highway 189 North
Kemmerer, Wyoming 83101
Attn: John Pecor

RECEIVED
MAR 01 1993
DIVISION OF
OIL GAS & MINING

Union Pacific Resources Company
P.O. Box 7
Fort Worth, Texas 76101-0007
817 / 877-6000
TWX 910 893 5024
Telex 758-447

c:\wp51\rector\modified re-entry procedures

Form 9

STATE OF UTAH
DEPARTMENT NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number

7. Indian Allottee or Tribe Name

8. Unit or Communitization Agreement

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County : Summit
State : UTAH

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- ☐ Abandonment
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Multiple Completion
- ☒ Other Modified Re-entry Procedure
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Recompletion
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Approximate Date Work Will Start Spring - 1993

SUBSEQUENT REPORT
(Submit Original Form Only)

- ☐ Abandonment *
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Other
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Date of Work Completion

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Modified Re-Entry Procedure

Attached for your review and subsequent approval are the modifications made to the previously approved re-entry procedure. These modifications were made to incorporate concerns and recommendations made as a result of the City of Evanston review process. If additional clarification is needed, please contact us at (817) 877-7956.

cc: BLM - Kemmerer
BLM - Rock Springs
BLM - Salt Lake

RECEIVED
MAR 01 1993
DIVISION OF
OIL GAS & MINING

RECEIVED
FEB 18 1993
WYOMING OIL & GAS
CONSERVATION COMMISSION

14. I hereby certify that the foregoing is true and correct

Name & Signature J. Rector /Joy Rector Title Sr. Regulatory Analyst Date 2-15-93

(State Use Only)

(8/90)

See Instructions on Reverse Side

Fawcett & Sons No. 1
NW/4 Sec 36, T5N-R7E
Summit County, Utah

February 8, 1993

DETAILED REENTRY PROCEDURE

Note: 1. Perforating, production testing and acidizing are to be performed during daylight hours only.
2. All onsite supervisory personnel are to have well control and H_2S training.
3. If a BOP is nippled up: The BOP is to be function tested daily. BOP drills are to be held weekly. And both drills and tests are to be recorded in the morning reports.

Well Data:

7" Casing Volume to PBTD @ 11,382': 415 BBls.
$3^1/_2$" 9.2# Tubing Volume: 97 BBls.
7" X $3^1/_2$" Annular Volume: 282 bbls.
Bottom-hole Temperature: 190° F.
Max Recorded Bottom-hole Pressure Gradient: 5,035 psig @ 11,365'.

Note: See attached wellbore schematic for additional well data.

Rigging Up

1. Test anchors, setup tanks, build & test flowlines to onsite flare stack and conduct initial safety meetings. Train rig and service personnel in H_2S safety procedures. Plan H_2S safety positioning.

2. Clean out cellar and replace pressure gauges on tree if necessary. Check pressures on 7", $9^5/_8$", and $13^3/_8$" casing. Check fluid levels at each valve and fill if necessary w/ diesel. Operate all tree valves to assure all are functional. RU mud/gas seperator and flare system.

3. MIRU workover unit. Spot pump and tanks. RU H_2S safety equipment.

4. Set BPV in tbg hanger. Test BPV in hanger to 3000 psi.

Note: All BOPE and choke manifold should be H_2S certified and inspected. Test all H_2S sensors prior to circulating. SCBAs should be readily available while circulating.

5. Notify Utah Oil, Gas & Mining Division and the BLM 24 hrs before

testing BOPE. Strip off FMC X-mas tree equipment to top of tubing head. Install $7^1/_{16}$" 5M# BOP stack per attached drawing and pressure test $3^1/_2$" pipe rams, blinds, variable bore rams and valves to 5000 psi, annular to 3500 psi, and choke manifold to 5000 psi. Screw landing joint into lift threads in hanger. Back out lockdown screws. PU on tubing. Remove blanking plug and tubing hanger. Circulate down tubing w/ 8.7 ppg brine water, check for H_2S in returns. Circulate hole clean. Test 7" casing to 4000 psi. Monitor tubing pressure. Release test pressure.

Note: 7" csg was tested to 3500 psi for 30 mins, 9/2/92.

Nipple Up New Tubing Head

6. TOH with $3^1/_2$" L-80 9.2# VAM tubing laying down, stand back 1,500' (Total 360 jts w/ 2.562" 'R', EOT @ 11,176'). PU Baker Model "G" RBP on tbg. Set RBP @ 1500'. Release from RBP and test to 2000 psi. Dump 2 sxs sand on RBP. TOH w/ tbg. ND BOPE and FMC Type "TC" tbg head equipment.

7. Install new FMC Type "TCM-ET" tbg head with metal to metal seal. Cutoff casing stub as necessary. The 7" 35# SS-95 casing stub will have to be prepped for tubing head installation. Nipple up tubing head and pressure test ring gasket area and packoffs to 4,000 psi.

8. Notify Utah Oil, Gas & Mining Division and the BLM 24 hrs before testing BOPE. Nipple up inspected and certified $7^1/_{16}$" 5M# BOP stack w/ $3^1/_2$" pipe rams, blind rams, variable bore rams and manifold per the attached drawing. Land BOP test plug in tbg head. Pressure test ring gasket area to 5,000 psi. TIH w/tbg, reverse out sand and retrieve bridge plug. TOH w/plug laying down tbg and bridge plug.

9. Run wear bushing in tbg head. FMC to supply running tool.

Drill out CIBP and Cmt Plugs

10. TIH w/ $5^7/_8$" bit, Junk Basket, 8-$4^3/_4$" collars, on inspected $3^1/_2$" E 13.30# & $3^1/_2$" X-95 15.50# IF drill pipe. Close TIW valve and pressure test casing and VBRs to 4000 psi. Circulate with 8.7 ppg clear brine containing liquid H_2S scavenger & additives to maintain a minimum pH of 11.0. Function test BOP'S.

Note: 1) The workstring should have been previously inspected and hardness tested.
2) The Phosphoria, perforated 11,461'-484', 550'-570' & 626'-642', tested at 23 MMCFPD w/ 12% H_2S. The perfs were sqz'd w/ 1000 gal Temblock 50. The Temblock 50 has probably broken and the perfs should be considered open.

11. Drill out cmt cap and CIBP @ 11,382'-420'. Pump polymer sweeps as

necessary. TIH & tag pkr fish @ ~11,855'. Circulate hole clean of cmt. Make 10 stand short trip. Observe well static.

Note: 1. Old Weber perfs 11,914'-12,215' sqz'd w/ 1500 gal Temblock 50, CIBP @ 11,890' capped w/ 2 sxs cmt.
2. Returns should be continuosly monitored for H_2S. Keep scavenger in circulating system. SCBAs should be readily accessible. No unnecessary personnel should be on location. Pump polymer sweeps to clean hole if necessary.

12. POH standing back. Monitor pit volume and use trip tank. Keep hole full while tripping out. Do not swab in well.

Set Pkr, Run Production Tbg & NU Tree

13. MIRU WLU w/ H_2S service lubricator with grease injector and sour service line. Pressure test lubricator to 5,000 psi. Run gauge ring to 11,850'. Run GR/CCL from 11,850' to 9,850'.

14. PU WL entry guide/pumpout plug, 8'X2$^7/_8$" pup, Otis 2.188" 'RN', flow cplg, 8'X2$^7/_8$" pup, Otis 2.188" 'R', flow cplg, 8'X2$^7/_8$" pup, 20' sealbore extension, & Baker Model DB pkr. Set pkr @ 11,300'.

Note: Stump test pkr and tailpipe connections to 8000 psi. Set pump-out plug to shear at 10,000 psi (4900 psi surface).

15. PU bullplug & perf sub on workstring. RIH. Rev CBU with clean 9.2 ppg brine water containing corrosion inhibitor and oxygen scavenger. POOH laying down.

16. Pull wear bushing. RU tubing tongs with calibrated torque gauge and hydrotest equipment. PU 'L-22' locator seal ass'y, 1 jt tbg, flow cplg, Otis 2.188" 'R' & flow cplg.

Note: 1. The 2$^7/_8$" should have been previously drifted on rack. All accesories should be drifted to pass Otis plugs.
2. Have VAM representative on location to visual threads and witness makeup. Make sure hydrotest tool will pass thru nipples and seat in tubing.

17. RIH with 2$^7/_8$" 7.7# L-80 VAM-ACE tbg, $^1/_4$" control lines w/ protectors every jt, methanol injection valve (set to open @ 2250 psi) @ 3500' and Camco SCSSV @ 150' (see attached schematic). Pressure test all tubulars and connections to 8000 psi above slips. PU landing jt and land seals in pkr setting 5M# compression on pkr. Determine length of pups needed to spaceout, account for length of hanger. POOH w/ landing jt plus 1 additional jt while spooling control line back up. Run pups and extra jt w/ full jt on top. Test pups and jt to 8000 psi above the slips. Maintain pressure on control lines while runnin g to monitor for leaks. Pump thru injection valve to assure integrity. Reverse 5 bbl of diesel down annulus. Land tbg.

Note: **EXTREME Caution needs to be taken if the tbg has to be rotated to get the seals in the pkr. The control lines and/or fitting could be damaged in the process.**

18. Make up hanger bushing and landing joint. Make up control line connection to hanger bushing. Lower hanger thru BOP'S and hang off tubing w/ 5 M# on pkr. Run in lockdown screws, test backside to 3500 psi. Strip off BOP's and nipple up composite master valve. Pressure test hanger/composite valve assembly to 5,000 psi. Pressure test SCSSV control lines to 5,000 psi.

19. Nipple up remainder of wellhead tree. Pressure test tree components to 5,000 psi. Function test SCSSV & SSV. Pressure up & release pumpout plug @ ~11,336'. RDMO workover rig. Begin RU Norward test equipment and tie into flare lines.

Perf, Stim and Test Phosphoria

20. RU OWP perforators and H_2S service lubricator with grease injector and sour service line. Pressure test lubricator to 5,000 psi. RIH w/ 1-11/16" gauge ring t/ 11,850'.

Note: 1. **Equalize across swab valve before opening to prevent hydrate formation. Keep lubricator full of fluid.**
2. **Keep hole full while perforating.**

21. Perf the following w/ $1^{11}/_{16}$" 0° phased, magnetically decentralized, HSC gun w/ 3 g charges, 2 SPF:

11,770'-800'	11,675'-715'
11,620'-650'	11,570'-600'
11,515'-545'	11,425'-480'

Total of 430 holes.

Note: 1. Bottom perf is at -4955' SS TVD.
2. Other zones of interest:
Weber 11,914'-12,215' (tested 14.7 MMCFPD, 813 BWPD & 1980 psi on a $^{37}/_{64}$", 4/1/80)
Dinwoody 11,327'-356' (DST #6).

22. RU Halliburton & load hole. RU tree saver and surface lines, pressure test all to 10 Mpsi. ACDZ the Phosphoria interval per the attached treatment program. Disp acid w/ 100% N_2. Maximum treatment pressure is 8,000 psi. Hold 3,000 psi on backside and monitor. Set casing popoff for 3,500 psi. Shut well in, RDMO Halliburton. Take SIP's every 5 minutes. Finish RU Norward testers. Test all lines and manifolds to 5000 psi.

23. Open up well and unload treatment fluids through Norward test system during daylight hours. Check load water for the presence FeS.

Recover as much load as possible under the Utah Air Quaility Division permit guideline.

Note: Monitor all annular pressures for communication and thermal expansion.

Secure Well until Pipeline Tie-in

24. Set sour service 'PN' retrievable tubing plug in 'RN' @ ~11,326'. Blow down tubing volume to flare. Load tubing w/ inhibited fluids. Last 3 BBls of displacement to contain diesel. Purge all flare lines & test equipment w/ N_2.

25. Shut well in and close safety valve. Finish winterizing remainder of tree and secure wellhead equipment. Wait on pipeline connection. Estimate first production in November, 1993.

F.W. McDougal

concur: G.K. Beaird

concur: T. L. Schindler

approved: J.G. Neuner

cc: M.P. Staub (Evanston), Central File, Active File

c:\wp51\pro\fawcl#1.pro

RECEIVED
JUN 16 1993
DIVISION OF
OIL GAS & MINING

June 11, 1993

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

NOTIFICATION OF REENTRY

Fawcett & Sons No. 1 43-043-30078
Cave Creek Field
NW/4 Sec 36, T5N-R7E
Summit County, Utah

Regulatory Agencies and other Concerned Parties:

This letter serves as written notification that Union Pacific Resources Company intends to reenter the above well and prepare it for production. This reentry has been permitted through the Utah Oil, Gas & Mining Division. The actual well work will commence on or near June 21, 1993. Initial production is scheduled for early November 1993 subject to completion of the Wahsatch Gathering System.

If you have any question concerning the reentry feel free to call me at (817)877-7887.

Very Truly Yours,

Fred McDougal
Petroleum Engineer

c:\wp51\ltr\f&s#1.ltr

STATE OF UTAH
DIVISION OF OIL GAS AND MINING
BOPE TEST INSPECTION FORM

COMPANY: UNION PACIFIC RESOURCES REPRESENTATIVE: BILL KENSKI

WELL NAME: FAUCETT & SONS #1 API NO: 43-043-30078

WELL SIGN: Y QTR/QTR NW NW SEC: 36 TWP: 5 N RANGE: 7 E

INSPECTOR: HEBERTSON TIME: 3:00 PM DATE: 6-30-93

DRILLING CONTRACTOR: NORRIS BROTHERS RIG: 1

DEPTH: _____ LAST CASING: PRODUCTION SET @: _____

TESTED BY: DOUBLE JACK WATER: Y MUD: _____

TEST PRESSURES: 5000/3500 KELLYCOCK: UPPER 5000 LOWER 5000

INSIDE BOP 5000 FULL OPENING VALVE ON FLOOR YES

WRENCH FOR FULL OPENING VALVE/KELLYCOCK ON FLOOR YES

STACK LISTED AS ARRANGED (FROM TOP TO BOTTOM): PRESSURE

1. DRILLING HEAD
2. ANNULAR HYDRIL 3500
3. RAMS 5000
4. RAMS 5000
5. RAMS 5000
6. MUD CROSS FILL AND KILL LINES 5000
7. CROSS OVER FLANGE
8. BRADEN HEAD AND CASING

CHOKE MANIFOLD AND VALVES:

DART VALVE: _____ FLOOR VALVE: 5000 HCR VALVE: 5000

INSIDE VALVES 5000 OUTSIDE VALVES 5000

ADDITIONAL COMMENTS: INSTALLATION OF NEW TUBING HEAD AND VALVES ALL STAINLESS AND METAL TO METAL SEALS CASING SLIPS TESTED TO 3000 LBS FOR 30 MIN. 7/2/93 HELD OKAY. SEAL DID NOT TEST FIRST TIME.

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

July 02, 1993

Mr. Frank Mathews, P.E.
Utah Division of Oil, Gas and Mining
355 W. North Temple
Salt Lake City, Utah 84180

43-047-30078
Sec 36 T5N R7E

Dear Mr. Mathews:

As a courtesy, we are suppling the enclosed the BOP test charts for the Fawcett and Son #1 Well.

If you should have any questions, please call. We will be happy to supply any information you may need.

Thank you,

Sharon Randall

Sharon Randall
for Dale Wickersham

Wickersham Consulting
307-362-9846 Residence
307-350-8260 Mobile

Enclosure

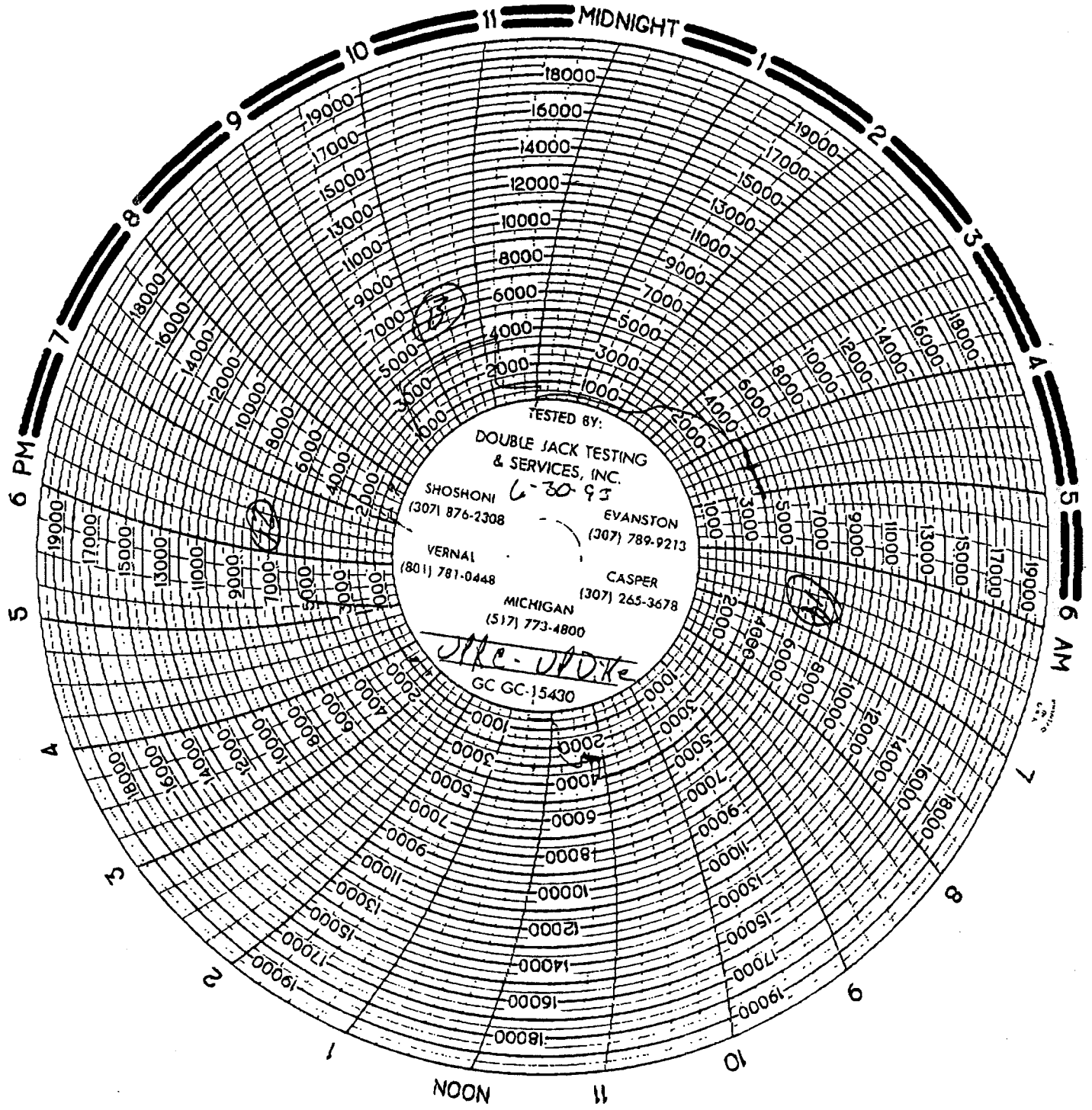
SR/sr

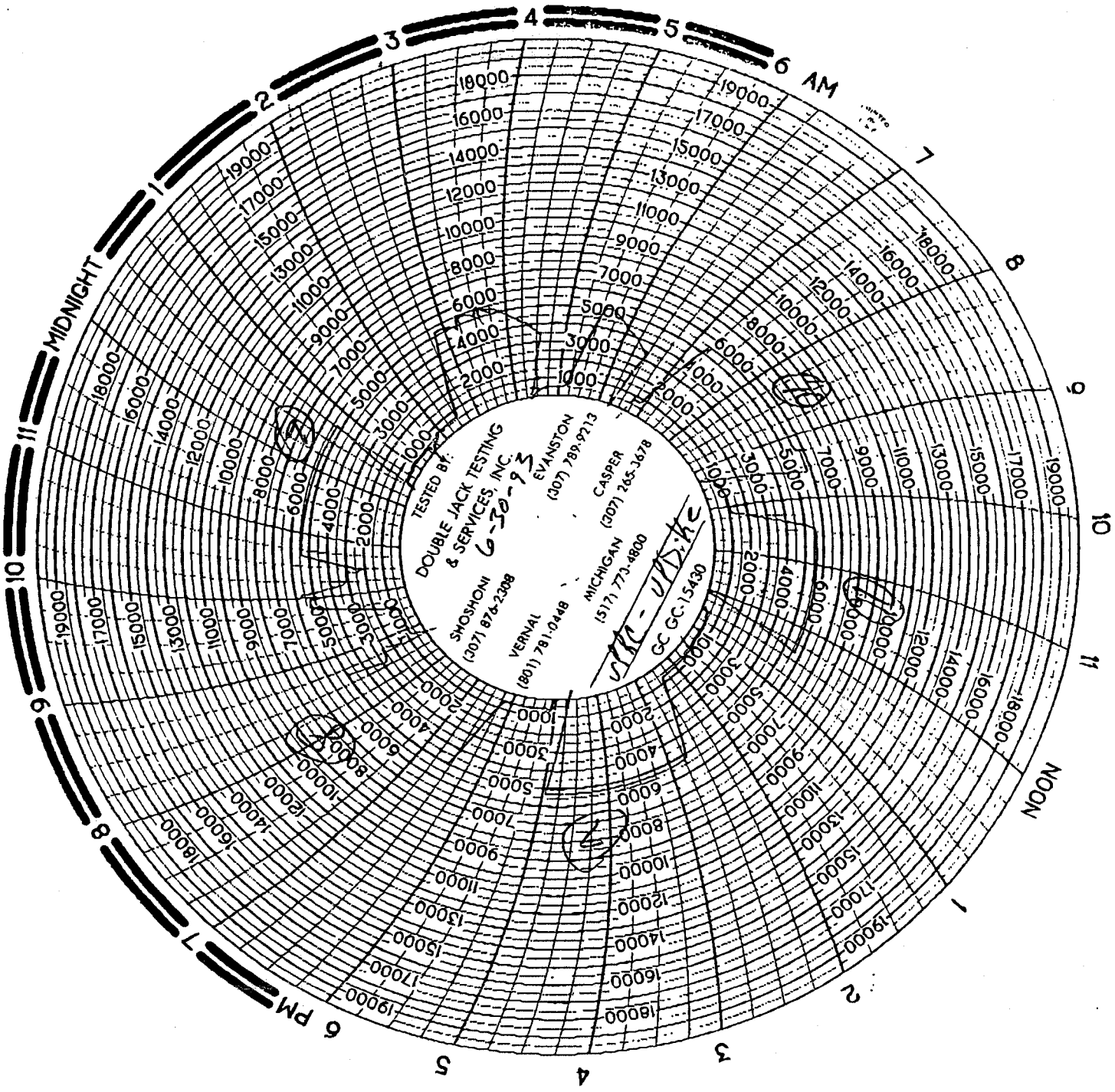
RECEIVED
JUL 06 1993
DIVISION OF
OIL GAS & MINING

Union Pacific Resources Company
Wahsatch Gathering System
86 Allegiance Circle
Evanston, WY 82930
Bus: 307/789-1573

COMPANY	LEASE AND WELL #	DATE OF TEST	RIG # AND NAME
VPRC	Fossil Sun #1	6-30-93	VP Dike

TEST #	TIME	
1	2:45-2:50	Test Variable Rams on stump
	2:50-3:00	250 psi 5 min. 5000 psi 10 min.
2	3:05-3:10	Blind Rams, inside Kill, inside Choke on stump
	3:10-3:20	250 psi 5 min. 5000 psi 10 min.
3	3:35-3:40	1st 2 7/8 TIW
	3:40-3:50	250 psi 5 min. 5000 psi 10 min.
4	4:10-4:15	2nd 2 7/8 TIW
	4:15-4:25	250 psi 5 min. 5000 psi 10 min.
5	4:35-4:40	1st 3 1/2 Vam TIW
	4:40-4:50	250 psi 5 min. 5000 psi 10 min.
6	4:55-5:00	2nd 3 1/2 Vam TIW
	5:00-5:10	250 psi 5 min. 5000 psi 10 min.
		nipple up Bop.
7	7:40-7:45	1st set of manifold Valves
	7:45-7:55	250 psi 5 min. 5000 psi 10 min.
8	8:00-8:05	2nd set of manifold Valves
	8:05-8:15	250 psi 5 min. 5000 psi 10 min.
9	8:20-8:25	super choke
	8:25-8:35	250 psi 5 min. 5000 psi 10 min.
10	8:45-8:50	Top Pipe Rams, outside Kill
	8:50-9:00	250 psi 5 min. 5000 psi 10 min.
11	9:05-9:10	Top Pipe Rams, check
	9:10-9:20	250 psi 5 min. 5000 psi 10 min.
12	9:35-9:40	Top Pipe Rams, HCR
	9:40-9:50	250 psi 5 min. 5000 psi 10 min.
13	10:00-10:05	H/Div
14	10:05-10:15	250 psi 5 min. 3500 psi 10 min.
		Casing
	10:35-11:05	4000 psi 30 min.


MIDNIGHT
6 AM
NOON
6 PM
TESTED BY:
DOUBLE JACK TESTING
& SERVICES, INC.
6-30-95
SHOSHONI
(307) 876-2308
EVANSTON
(307) 789-9213
VERNAL
(801) 781-0448
CASPER
(307) 265-3678
MICHIGAN
(517) 773-4800
GC GC-15430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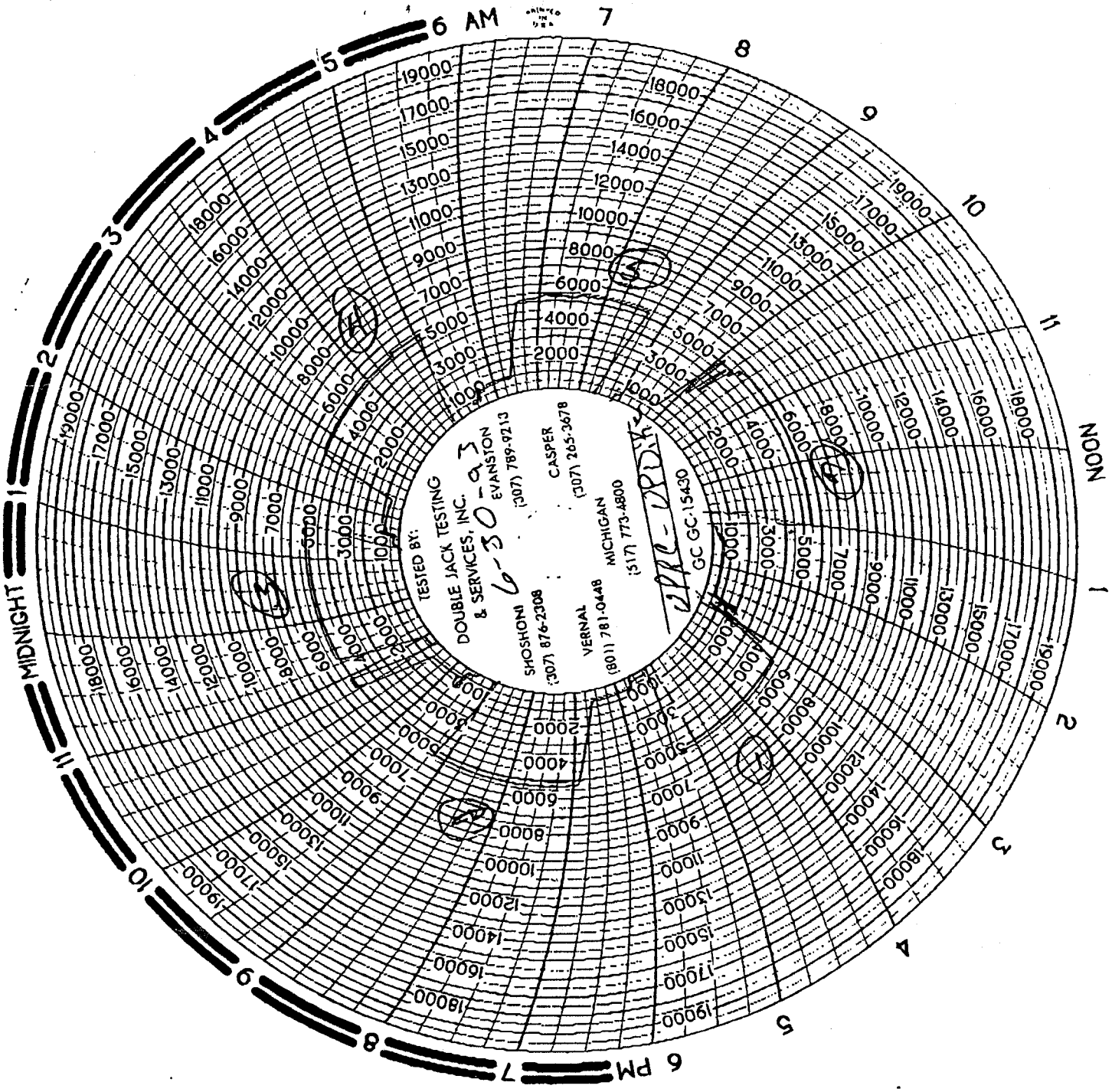
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(517) 773-4800
GC GC-15430

Fawcett + Son No 1
Dale Wickersham
307-389-4490

EPA
Cal Lange
Duke Wynn

Dale B. Wickersham
Petroleum Engineer

(307) 362-9846 Home
(307) [redacted] Mobile
389-4490

RECEIVED
DEC - 9 1996
DIV OF OIL, GAS & MINING

December 8, 1996

Utah Division of Oil, Gas,
1594 W. North Temple
Salt Lake City, Utah 8418

(801)-538-5340
(801)-359-3940

ATTN: Mr. Frank Mathews

Re: Union Pacific Resources Fawcett and Sons #1. NW Sec 36, T5N, R7E, Summit County,Utah

Dear Frank:

It was good talking with you on Friday. I have not had a chance to work or talk with you in quite a spell. As we discussed, UPR has asked me to put together a P&A procedure for the subject well. I am faxing you a procedure and the current well bore diagram. I believe that the procedure exceeds all of the requirements that we discussed on Friday. The current reservoir pressure is approximately 4500 psi, well below a 8.7 ppg gradient.

I appreciate you taking the time to review this procedure and let me know if it is satisfactory. UPR would like have this well P&A'd by the end of the year if it is possible. If everything is satisfactory, a sundry notice will be forthcoming.

Sincerely,

Dale B. Wickersham
Operations Consultant
Representing UPR

Dale B. Wickersham
Petroleum Engineer

WICKERSHAM CONSULTING
WC
P.O. Box 371
810 Moccasin Lane
Rock Springs, WY 82902
Providing Complete Well Site Supervision Services

(307) 362-9846 Home
(307) [redacted] Mobile
389-4490

RECEIVED
DEC - 9 1996
DIV OF OIL, GAS & MINING

December 8, 1996

Utah Division of Oil, Gas, and Mining
1594 W. North Temple
Salt Lake City, Utah 84180

(801)-538-5340
(801)-359-3940

ATTN: Mr. Frank Mathews

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Sincerely,

Dale B. Wickersham
Operations Consultant
Representing UPR

ATTACHMENT #2
FAWCETT & SONS #1
PLUG AND ABANDON
ESTIMATED TIME LINE

Day 1: Test anchors. MI equipment.

Day 2 & 3: RU Equipment. Set pump through plug

Day 4: Load tbg. NDWH. NU & test BOP. START LD

Day 5: Finish LD tbg. Set CICR.

Day 6: PU WS. .

Day 7: Sqz Phosphoria perfs. Cond fluid. TOOH. Set balance plug @ 8400'.

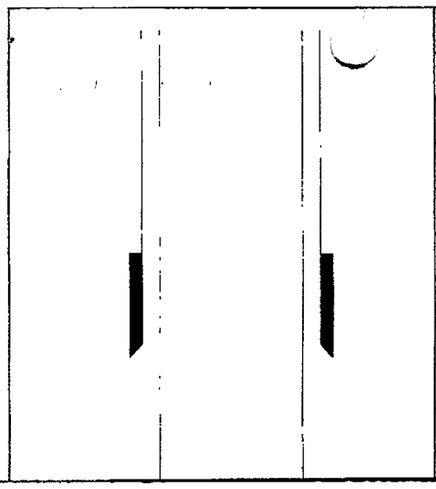
Day 8: Shoot sqx holes, set CICR, and sqz @ 5700'.

Day 9: Set balance plug @ 3600'. Shoot sqz holes @ 1625', set CICR, and sqz. LD tbg.

Day 10 & 11: RDMOSU

Day 12: Dig up cellar

Day 13: Cut off csg strings, set surface plugs, erect dry hole marker.



Isolation Pkr #2

	L	ID	OD	Depth
Otis BWD Set Per DIL @				11495
Pkr	4.01	2.347	5.686	11499.01
2⅞ 6.5# L-80 ABMod	8.11	2.347	3.668	11507.11
2.188" R	1.19	2.188	3.681	11508.30
Pup Jt	6.09	2.347	3.668	11514.39
WLREG	0.75	2.440	3.695	11515.14

10/26/95

1/3

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

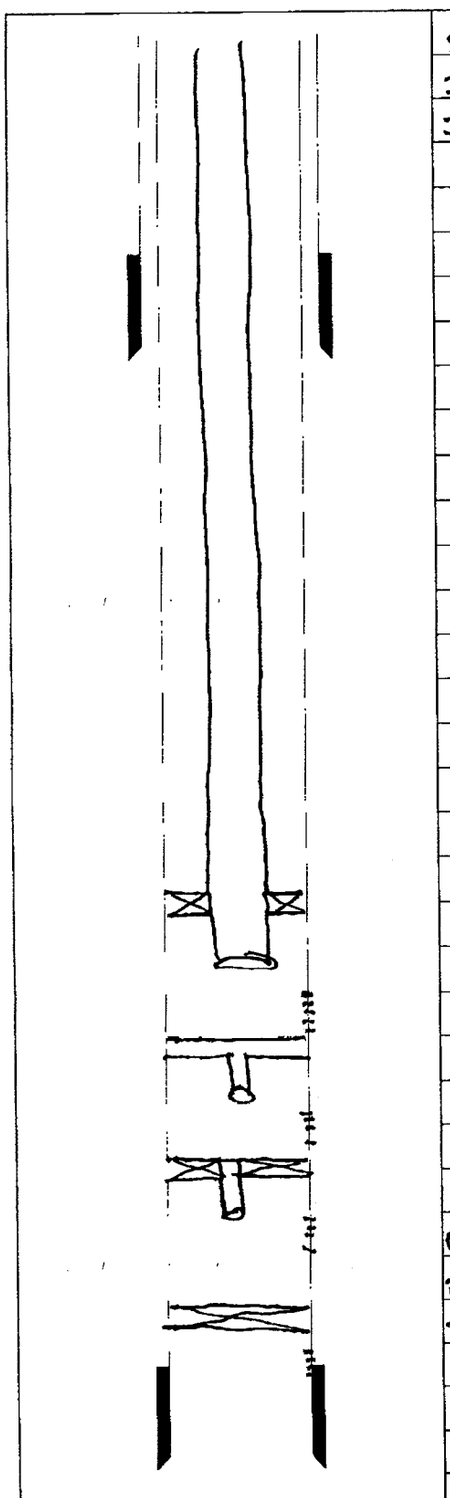
WELLBORE DIAGRAM

Location NWNW 'F L _____ 'F L Sec. 36 T. 5N R. 7E Well No. Fawcett & Sons #1

State Utah County Summitt API No. _____ Field Cave Creek

Spud _____ Comp. _____ WI _____ NRI _____ Lease _____

KB 6806½ GR 6781 TD _____ PBTD _____ Formation Phosphoria



Surface Csg: 20" 94# @ 1526'

Intermediate #1: 13⅜ 68# & 13⅝ 88# @ 5597'

Intermediate #2: 9⅝ 47# @ 11388'

Long String: 7" 35# S595 0-3656, 7" 32# L-80 3656-5183, 7" 29# L80 5183'-10079', 7" 26# S595 10079'-12377', DV Tool, 7" 26# S595 12377-13943', 7" 29# S595 - 13943'-16948', 7" 32# S595, 16948'-18055'.

Perfs:

Old Amoco Phosphoria: 11461'-84', 11550'-70', 11626'-42'.

Phosphoria Shot June '93: 11439'-80', 11515'-45', 11570'-600', 11620'-650', 11660'-706', 11770'-800'.

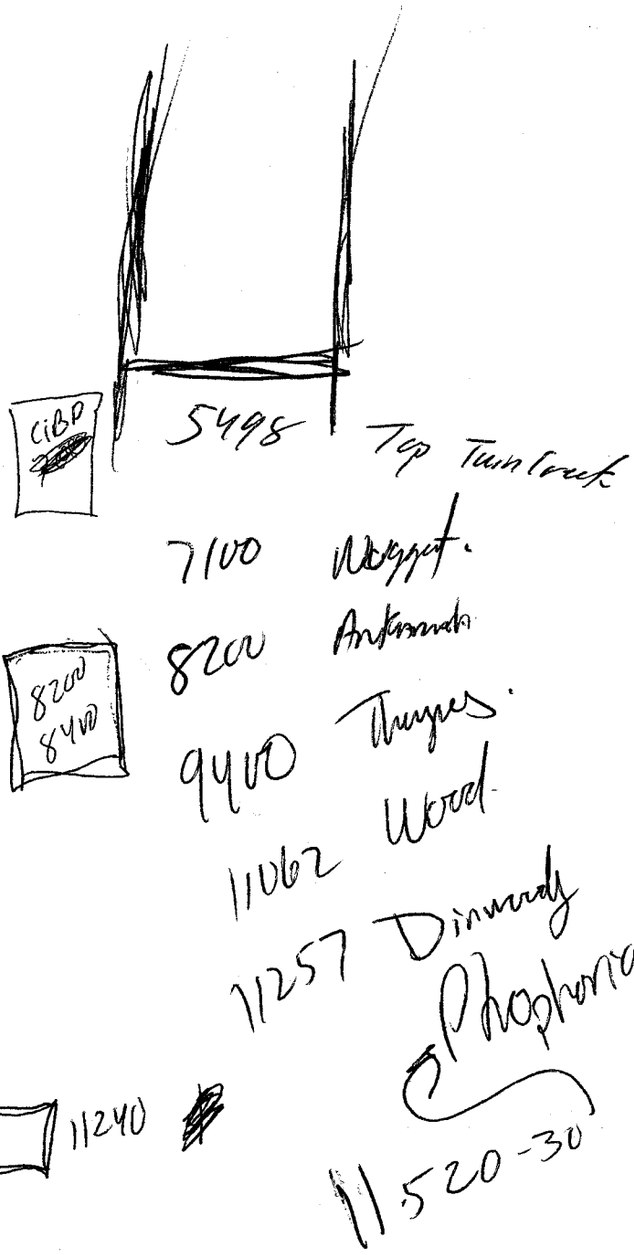
PBTD 9/95: CIBP @ 11863'

PBTD 10/26/95: CICR set @ 11750' per DIL. Sqzd perfs 11770'-800' w/ 75 sxs cmt to 2900 psi. 10' cmt left on CICR

Lower Isolation Pkr:

	L	ID	OD	Depth
Otis BWD Set Per DIL	4.01	2.347	5.685	11605
2⅞ 6.5# L-80 ABMod	8.08	2.347	3.668	11609.01
2.188" R Nipple	1.19	2.188	3.667	11617.09
Pup Jt	6.18	2.347	3.668	11618.28
WLREG	0.75	2.409	3.703	11624.46
				11625.21

PR-334 (09-92)


CIBP
5498
Top Twin Creek
7100
8200
8200
8400
9400
11062
11257
Phosphoria
11240
11520-30

RECEIVED
DEC - 9 1996
DIV OF OIL, GAS & MINING

ATTACHMENT #1

UNION PACIFIC RESOURCES
FAWCETT & SONS #1
NW/4 SEC 36, T5N, R7E
SUMMIT COUNTY, UTAH
P& A PROCEDURE
12/8/96

PERTINENT DATA

GL: 6833'
KB: 6858'
Surface Casing: 20" 94# H40 STC@ 1526'. Cemented to surface.
Intermediate #1: 13-3/8" 68# K55, J55, SS80, & 13-5/8" 88# SS95 LTC @ 5597'.
Intermediate #2: 9-5/8" 40# -47# LTC @ 11388'.
Production Casing: 7" 26#-35# L80 & SS95 LTC & BTC @ 18055'.
Tubing: 2-7/8" 7.7# L80 VAM ACE stung intoOtis BWD prod pkr set @ 11250'. EOTP @ 11336'. Isolation pkr #1 Otis BWD set @ 11495', EOTP @ 11515'. Tail pipe plugged w/ CIBP @ 11504'. Islolation pkr #2 Otis BWD set @ 11605', EOTP @ 11625'. Camco SCSSV @ 134', SPM @ 3010', 2.188" Otis R SN's @ 3095', 11208', & 11303'.
Pkr Fluid: FW w/ 2 ppb zinc chealate, and 1.5% Champion R2383 O2 scav, biocide, and corrosion inhibitor.
Phosphoria Perforations: 11439'-80', 11515'-45', 11570'-600', 11620'-650', 11660'-706', & 11770'-800' w/ 1-11/16", 3.2 gm, 0 deg, 2 JSPF. Perfs 11770'-800' sqzd w/ 75 sxs cmt. Perfs 11515'-45', 11570'-600', 11620'-50', & 11660'-706' isolated w/ CIBP in TP of PKR @ 11495'.
PBTD: 11495' w/ CIBP in TP of BWD pkr

PROCEDURE

1. Remove production equipment and location fence.

2. Test anchors.

3. MIRU workover rig w/ sub, flat tank, pump, cat walk, 2 sets pipe racks. Sub must be capable of standing over 17' BOP stack. RU Norward 30' flare stack and 2 phase low pressure seperator w/ sealed test tank w/ ammonia scrubber. Set 2-400 bbl working tanks.

4. RU slick line w/ sour service lub and line. Test lub to 5000 psi w/ MEOH. RIH set pump through plug in RN nipple @ 12459'. Bleed off tbg up flare stack to verify plug is holding.

5. Load tbg w/ FW. Close SCSSV. Set BPV

6. NDWH. NU 6" 5M# CIW Type U BOP consisting of single gate w/ 2-7/8" pipe rams, mud

10/26/95

2/3

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

WELLBORE DIAGRAM

Location _____ 'F L _____ 'F L Sec. _____ T. _____ R. _____ Well No. Fawcett & Sons #1

State _____ County _____ API No. _____ Field _____

Spud _____ Comp. _____ WI _____ NRI _____ Lease _____

KB _____ GR _____ TD _____ PBTD _____ Formation _____

Isolation Pkr #2				
	L	ID	OD	Depth
Otis BWD Set Per DIL				11495

Union Pacific Resources
A Subsidiary of Union Pacific Corporation

10/26/95 3/3

WELLBORE DIAGRAM

Location _____ 'F L _____ 'F L Sec. _____ T. _____ R. _____ Well No. Fawatt & Sons #1

State _____ County _____ API No. _____ Field Cable Creek

Spud _____ Comp. _____ WI _____ NRI _____ Lease _____

KB _____ GR _____ TD _____ PBTD _____ Formation _____

(cont)	Length	Depth
Pup Jt	5.71	3104.80
252 jts 2 7/8 7.7# L-80	8092.70	11197.50
Vam Ace (+19.08' + DTD→LTD)		
Pup	5.76	11203.26
Flow Cplg	3.98	11207.24
2.188" R Nipple	1.01	11208.25
Flow Cplg	3.98	11212.23
Pup	5.71	11217.94
1 jt tbg	32.06	11250.00
Seal Assy bk (below pkr top)	19.30	11269.30
Otis BWD Pkr (Set DIL)		11250.00
Pkr	3.88	11253.88
Seal Bore Ext	7.61	11261.49
Cplg	0.63	11262.02
Seal Bore Ext	7.61	11269.63
(X)	0.56	11270.19
1 jt 2 7/8 7.7# L-80 Vam Ace	32.06	11302.25
2.188" R Nipple	1.24	11303.49
1 jt 2 7/8 7.7# L-80 Vam Ace	32.12	11335.61
WLREG	0.58	11336.19

PR-334 (09-92)

cross w/ 2-2" 5M gate valves and 1-2" 5M# check valve on kill side and 2-2" 5m# gate valves (1 man & 1 HCR) on choke side, double gate w/ blinds in btm and 2-7/8" pipes in top, and 6" 5M# Schaeffer spherical. BOP to have been tested to 300 psi for 5 min and 5000 psi for 10 min w/ test flange prior to NU utilizing a 2-7/8" test mandrel. After NU BOP retest top rams and shell test BOP system against lift sub. Test annular to 300 psi for 5 min and 3500 psi for 10 min.

7. Unsting from pkr. TOOH LD. Keep hole full on trip out. Send tbg and all accessory equipment to respective manufacturers for inspection. **Tbg Should Be Cleaned & Inspected ASAP.**

8. RUWL w/ sour service line and lubricator. RIH w/ gauge ring/junk basket to 11240'. POOH. RIH set CICR @ 11240'. POOH. RDWL.

9. Load hole and test casing to 2000 psi.

10. PU TIH w/ CICR stinger on 2-7/8" L80 6.5# 8rd WS.

11. Sting into CICR @ 11240'. Test annulus to 2000 psi. Est inj. Sqz. Phosphoria perfs w/ 200 sxs low water loss cmt w/ 0 cc free water per DS rec. Sting out of CICR and spot 10 sxs cmt on top CICR.

12. Circ/cond fluid in hole to 8.7 ppg w/ salt & 1 ppb zinc chealate and 1.5% Champion R2383 corrosion inhib/O2 scav/biocide.

13. TOOH. Set 200' balance plug @ ±8200'-8400'. good plug

14. TOOH

15. RUWL. RIH perf 5700'-01' w/ 4" sqz gun, 4 jspf, 90 deg. → CIBP @ 5700 100'

16. PU TIH w/ mechanical set CICR. Set @ ± 5500'.

17. Test annulus 2000 psi. Est inj rate. Sqz perfs w/ 200 sxs cmt per DS rec. Sting out of CICR and spot 10 sxs on top CICR.

18. TOOH. Spot 200' plug ±3400'-3600' → ok

19. TOOH.

20. RUWL. Shoot 4" sqz gun at 1625' w/ 4 JS, 90 deg. RDWL 1625 – 1421

21. TIH w. Mechanical set CICR and set @ 1425'

22. Test annulus to 500 psi. Est inj rate. Sqz perfs w/ 100 sxs cmt per DS rec. Sting out and

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
DEC 2 0 1996
DIV OF OIL, GAS & MINING

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals

5. Lease Designation and Serial No.: Fee

6. If Indian, Allotee or Tribe Name: NA

7. Unit Agreement Name: NA

1. Type of Well: OIL ( ) GAS (X) OTHER: ( ) INJ. ( )

8. Well Name and Number: Fawcett & Sons No. 1

9. API Well Number: 43-043-30078

2. Name of Operator: Union Pacific Resources Company

10. Field and Pool, or Wildcat: Cave Creek

3. Address and Telephone Number
P. O. Box 7 MS 3006 Fort Worth, Texas 76101-0007
Telephone (817) 877-6000 (Main Number)

4. Location of Well
Footages 649' FNL, 2159' FWL Sec. 36 T. 5 N., R. 7 E. County Summit
QQ, Sec., T., R., M. (NE/4NW/4) Sec. 36, T. 5 N., R. 7 E. State Utah

11 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
(X) Abandonment	( ) New Construction	( ) Abandonment *	( ) New Construction
( ) Casing Repair	( ) Pull or Alter Casing	( ) Casing Repair	( ) Pull or Alter Casing
( ) Change of Plans	( ) Recompletion	( ) Change of Plans	( ) Shoot of Acidize
( ) Conversion to Injection	( ) Shoot or Acidize	( ) Conversion to Injection	( ) Vent or Flare
( ) Fracture Test	( ) Vent or Flare	( ) Fracture Treat	( ) Water Shut-Off Shutoff
( ) Multiple Completion	( ) Water Shutoff	( ) Other_____	
( ) Other:			
		Date of work completion_____	
Approximate date work will start: Upon Approval		Report results of Multiple Completions and Reclamations to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form. * Must be accompanied by a cement verification report.	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work).

Union Pacific Resources Company proposes to permanently plug and abandon the above referenced well according to the attached procedure.

Formation tops above 5500' MD in the wellbore are: Wasatch FM - Surface; Preuss Fm. - 3415' MD; Top of Salt - 4945' MD; Base of Salt - 5456' MD; Twin Creek Fm. - 5487' MD.

Your prompt attention to this proposal will be appreciated.

PLEASE CONSIDER ALL SUBMITTALS PERTAINING TO THIS WELL AS **"COMPANY CONFIDENTIAL"**
If additional information is needed, please contact the undersigned at (817) 877-7952, FAX (817) 877-7942

13.

Name/Signature: W. F. Brazelton W F Brazelton Title: Senior Regulatory Analyst Date: 96-12-19

(This space for State use only)
B Matthews Petroleum Engineer 12/23/96

(12/92)

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14. TOOH

15. RUWL. RIH perf 5700'-01' w/ 4" sqz gun, 4 jspf, 90 deg.

16. PU TIH w/ mechanical set CICR. Set @ ± 5500'.

17. Test annulus 2000 psi. Est inj rate. Sqz perfs w/ 200 sxs cmt per DS rec. Sting out of CICR and spot 10 sxs on top CICR.

18. TOOH. Spot 200' plug ±3400'-3600'

19. TOOH.

20. RUWL. Shoot 4" sqz gun at 1625' w/ 4 JS, 90 deg. RDWL

21. TIH w. Mechanical set CICR and set @ 1425'

22. Test annulus to 500 psi. Est inj rate. Sqz perfs w/ 100 sxs cmt per DS rec. Sting out and

spot 10 sxs on top CICR

23. TOOH LD.

24. NDBOP and install blind flange on 7-1/16" 5M# tbg head.

25. RDMOSU

26. Dig out concrete cellar.

27. Cut off all csg strings and WH equipment.

28. RIH w/ 60' of 1" tbg. Fill 7" csg and all annulus's w/ 50' cmt.

26. Erect 4" X 10' dry hole marker w/ at least 6' of marker above GL. Marker must have the following information on it: Operator, well name, well location, date plugged. Marker should have a 1/2" needle valve tapped into it so that it can be checked for pressure at a future date. NO!

28. Clean and reclaim loc.

D.B. Wickersham
Operations Consultant

ATTACHMENT #2
FAWCETT & SONS #1
PLUG AND ABANDON
ESTIMATED TIME LINE

Day 1: Test anchors. MI equipment.

Day 2 & 3: RU Equipment. Set pump through plug

Day 4: Load tbg. NDWH. NU & test BOP. START LD

Day 5: Finish LD tbg. Set CICR.

Day 6: PU WS. .

Day 7: Sqz Phosphoria perfs. Cond fluid. TOOH. Set balance plug @ 8400'.

Day 8: Shoot sqx holes, set CICR, and sqz @ 5700'.

Day 9: Set balance plug @ 3600'. Shoot sqz holes @ 1625', set CICR, and sqz. LD tbg.

Day 10 & 11: RDMOSU

Day 12: Dig up cellar

Day 13: Cut off csg strings, set surface plugs, erect dry hole marker.

ATTACHMENT #3

URROZ 'B' #1
P&A COST ESTIMATE

Anchors	$ 750
Rig (12 days @ $3300)	39,600
Mob/Demob Rig	14,000
Supervision	6,000
Rentals:	
Tanks	1,500
WS (6 days @ $725 + $1500 inspection)	5,850
BOPE (8 days @ $650 + $750 repairs)	5,950
Misc (trash basket, porta pots, etc)	500
BPV	2,000
Mob/Demob Rentals	10,000
Norward	5,500
Mob/Demob Norward	1,500
Haul Off Tubing and WH	1,300
Water:	
Brine	3,000
Fresh	3,000
Disposal	1,000
Corossion Inhib/Zinc Chealate	3,000
Solids Disposal	500
Roustabouts	2,500
Chemicals	1,000
LD Machine	9,000
Gate Gaurd	3,600
WH Service	1,500
BOP Tester	900
Welder	500
Wireline	11,500
H2S Safety	6,000
Thread Cleaning	2,500
Level Location	1,000
CICR's	4,500
Cement	15,000
Sub Total	**$164,450**
10% Contingency	16,445
TOTAL	**$180,895**

Note: This cost estimate does not include monies for inspecting/refurbishing production equipment or tubulars, reclamation, or removing production facility.

Dale B. Wickersham
Petroleum Engineer

WICKERSHAM CONSULTING
WC
P.O. Box 371
810 Moccasin Lane
Rock Springs, WY 82902
Providing Complete Well Site Supervision Services

(307) 362-9846 Home
(307) 350-8260 Mobile

December 15, 1996

Union Pacific Resources
86 Allegience Circle
Evanston, WY 82930

Attn: Pete Straub

Re: Fawcett & Sons #1 P&A

Pete:

I'm enclosing a copy of the procedure that I sent to the Utah Division of Oil, Gas, and Mining. They have not fully approved the procedure yet but they indicated to me that either it will be acceptable or they will require *less* than I have. I will talk to them again tomorrow (12/16/96) to see where we're at. With the procedure I have enclosed a tentative time line and a cost estimate, as well as the letter I sent Utah. The cost reflect actual P&A costs for the Urroz B #1 as well as a cushion for additional distance and winter. As noted, I did not include any money for equipment removal, location reclaim, or any production equipment and tubular inspection or refurbishment.

Most of the rigs capable of doing this job are currently working or on their way to work. Availability of competent supervision is also something we need to discuss. I'll call tomorrow.

Sincerely,

D.B. Wickersham
Operations Consultant

Dale B. Wickersham
Petroleum Engineer

WICKERSHAM CONSULTING
WC

P.O. Box 371
810 Moccasin Lane
Rock Springs, WY 82902
Providing Complete Well Site Supervision Services

(307) 362-9846 Home
(307) [redacted] Mobile
389-4490

December 8, 1996

Utah Division of Oil, Gas, and Mining
1594 W. North Temple
Salt Lake City, Utah 84180

(801)-538-5340
(801)-359-3940

ATTN: Mr. Frank Mathews

Re: Union Pacific Resources Fawcett and Sons #1. NW Sec 36, T5N, R7E, Summit County,Utah

Dear Frank:

It was good talking with you on Friday. I have not had a chance to work or talk with you in quite a spell. As we discussed, UPR has asked me to put together a P&A procedure for the subject well. I am faxing you a procedure and the current well bore diagram. I believe that the procedure exceeds all of the requirements that we discussed on Friday. The current reservoir pressure is approximately 4500 psi, well below a 8.7 ppg gradient.

I appreciate you taking the time to review this procedure and let me know if it is satisfactory. UPR would like have this well P&A'd by the end of the year if it is possible. If everything is satisfactory, a sundry notice will be forthcoming.

Sincerely,

Dale B. Wickersham
Operations Consultant
Representing UPR

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

December 23, 1996

STIPULATIONS FOR PLUGGING AND ABANDONMENT
FAWCETT & SONS # 1
SECTION 36, TOWNSHIP 5 NORTH, RANGE 7 EAST
SUMMIT COUNTY, UTAH
API # 43-043-30078

1. Notify DOGM at least 24 hrs. prior to starting plugging operations.

2. In step 15, **do not perforate casing** set CIBP @ ± 5700' and spot 200' of cement on top of the bridge plug.

3. In step 18, tag plug top at 3400'.

4. In step 20, **do not perforate casing**, set CIBP @ ± 1625' and spot 200' of cement on top of the bridge plug

5. In step 26, at least 4' of the marker must be above ground level. The marker must be sealed. **Do not put ½" needle valve in marker.**.

FORM 9

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial No.: Fee

SUNDRY NOTICES AND REPORTS ON WELLS

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State Utah

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( ) Multiple Completion	( ) Water Shutoff	( ) Other_____	
( ) Other:			

Approximate date work will start: Upon Approval

Date of work completion_____

Report results of Multiple Completions and Reclamations to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
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13.

Name/Signature: W. F. Brazelton W F Brazelton Title: Senior Regulatory Analyst Date: 96-12-19

(This space for State use only)
J R Matthews Petroleum Engineer 12/23/96
as per attached stips.

(12/92)

RECEIVED DEC 20 1996 DIV OF OIL, GAS & MINING

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9. Load hole and test casing to 2000 psi.

10. PU TIH w/ CICR stinger on 2-7/8" L80 6.5# 8rd WS.

11. Sting into CICR @ 11240'. Test annulus to 2000 psi. Est inj. Sqz. Phosphoria perfs w/ 200 sxs low water loss cmt w/ 0 cc free water per DS rec. Sting out of CICR and spot 10 sxs cmt on top CICR.

12. Circ/cond fluid in hole to 8.7 ppg w/ salt & 1 ppb zinc chealate and 1.5% Champion R2383 corrosion inhib/O2 scav/biocide.

13. TOOH. Set 200' balance plug @ ±8200'-8400'.

14. TOOH

15. RUWL. RIH perf 5700'-01' w/ 4" sqz gun, 4 jspf, 90 deg.

16. PU TIH w/ mechanical set CICR. Set @ ± 5500'.

17. Test annulus 2000 psi. Est inj rate. Sqz perfs w/ 200 sxs cmt per DS rec. Sting out of CICR and spot 10 sxs on top CICR.

18. TOOH. Spot 200' plug ±3400'-3600'

19. TOOH.

20. RUWL. Shoot 4" sqz gun at 1625' w/ 4 JS, 90 deg. RDWL

21. TIH w. Mechanical set CICR and set @ 1425'

22. Test annulus to 500 psi. Est inj rate. Sqz perfs w/ 100 sxs cmt per DS rec. Sting out and

spot 10 sxs on top CICR

23. TOOH LD.

24. NDBOP and install blind flange on 7-1/16" 5M# tbg head.

25. RDMOSU

26. Dig out concrete cellar.

27. Cut off all csg strings and WH equipment.

28. RIH w/ 60' of 1" tbg. Fill 7" csg and all annulus's w/ 50' cmt.

26. Erect 4" X 10' dry hole marker w/ at least 6' of marker above GL. Marker must have the following information on it: Operator, well name, well location, date plugged. Marker should have a 1/2" needle valve tapped into it so that it can be checked for pressure at a future date.

28. Clean and reclaim loc.

D.B. Wickersham
Operations Consultant

ATTACHMENT #2
FAWCETT & SONS #1
PLUG AND ABANDON
ESTIMATED TIME LINE

Day 1: Test anchors. MI equipment.

Day 2 & 3: RU Equipment. Set pump through plug

Day 4: Load tbg. NDWH. NU & test BOP. START LD

Day 5: Finish LD tbg. Set CICR.

Day 6: PU WS. .

Day 7: Sqz Phosphoria perfs. Cond fluid. TOOH. Set balance plug @ 8400'.

Day 8: Shoot sqx holes, set CICR, and sqz @ 5700'.

Day 9: Set balance plug @ 3600'. Shoot sqz holes @ 1625', set CICR, and sqz. LD tbg.

Day 10 & 11: RDMOSU

Day 12: Dig up cellar

Day 13: Cut off csg strings, set surface plugs, erect dry hole marker.

ATTACHMENT #3

URROZ 'B' #1
P&A COST ESTIMATE

Anchors	$ 750
Rig (12 days @ $3300)	39,600
Mob/Demob Rig	14,000
Supervision	6,000
Rentals:	
Tanks	1,500
WS (6 days @ $725 + $1500 inspection)	5,850
BOPE (8 days @ $650 + $750 repairs)	5,950
Misc (trash basket, porta pots, etc)	500
BPV	2,000
Mob/Demob Rentals	10,000
Norward	5,500
Mob/Demob Norward	1,500
Haul Off Tubing and WH	1,300
Water:	
Brine	3,000
Fresh	3,000
Disposal	1,000
Corossion Inhib/Zinc Chealate	3,000
Solids Disposal	500
Roustabouts	2,500
Chemicals	1,000
LD Machine	9,000
Gate Gaurd	3,600
WH Service	1,500
BOP Tester	900
Welder	500
Wireline	11,500
H2S Safety	6,000
Thread Cleaning	2,500
Level Location	1,000
CICR's	4,500
Cement	15,000
Sub Total	**$164,450**
10% Contingency	16,445
TOTAL	**$180,895**

Note: This cost estimate does not include monies for inspecting/refurbishing production equipment or tubulars, reclamation, or removing production facility.

Dale B. Wickersham
Petroleum Engineer

WICKERSHAM CONSULTING
WC
P.O. Box 371
810 Moccasin Lane
Rock Springs, WY 82902
Providing Complete Well Site Supervision Services

(307) 362-9846 Home
(307) 350-8260 Mobile

December 15, 1996

Union Pacific Resources
86 Allegience Circle
Evanston, WY 82930

Attn: Pete Straub

Re: Fawcett & Sons #1 P&A

Pete:

I'm enclosing a copy of the procedure that I sent to the Utah Division of Oil, Gas, and Mining. They have not fully approved the procedure yet but they indicated to me that either it will be acceptable or they will require *less* than I have. I will talk to them again tomorrow (12/16/96) to see where we're at. With the procedure I have enclosed a tentative time line and a cost estimate, as well as the letter I sent Utah. The cost reflect actual P&A costs for the Urroz B #1 as well as a cushion for additional distance and winter. As noted, I did not include any money for equipment removal, location reclaim, or any production equipment and tubular inspection or refurbishment.

Most of the rigs capable of doing this job are currently working or on their way to work. Availability of competent supervision is also something we need to discuss. I'll call tomorrow.

Sincerely,

D.B. Wickersham
Operations Consultant

Dale B. Wickersham
Petroleum Engineer

WICKERSHAM CONSULTING
WC

P.O. Box 371
810 Moccasin Lane
Rock Springs, WY 82902
Providing Complete Well Site Supervision Services

(307) 362-9846 Home
(307) [redacted] Mobile
389-4490

December 8, 1996

Utah Division of Oil, Gas, and Mining
1594 W. North Temple
Salt Lake City, Utah 84180

(801)-538-5340
(801)-359-3940

ATTN: Mr. Frank Mathews

Re: Union Pacific Resources Fawcett and Sons #1. NW Sec 36, T5N, R7E, Summit County,Utah

Dear Frank:

It was good talking with you on Friday. I have not had a chance to work or talk with you in quite a spell. As we discussed, UPR has asked me to put together a P&A procedure for the subject well. I am faxing you a procedure and the current well bore diagram. I believe that the procedure exceeds all of the requirements that we discussed on Friday. The current reservoir pressure is approximately 4500 psi, well below a 8.7 ppg gradient.

I appreciate you taking the time to review this procedure and let me know if it is satisfactory. UPR would like have this well P&A'd by the end of the year if it is possible. If everything is satisfactory, a sundry notice will be forthcoming.

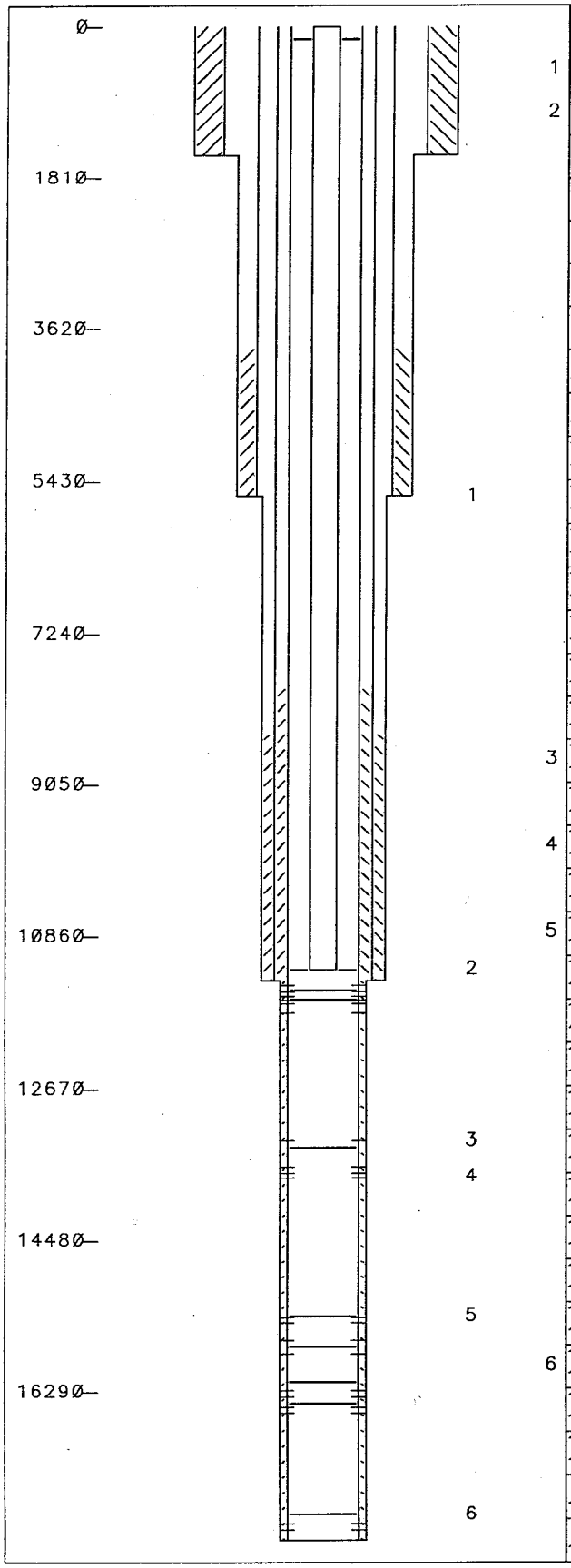
Sincerely,

Dale B. Wickersham
Operations Consultant
Representing UPR

Lease:FAWCETT & SONS
Well #:1

Spud Date:09/30/1978 Comp Date:12/31/1979
KB: 6858 ELEV: 6834
TD: 18055 PBTD: 13711

API #: 43-043-30078-
Location: Sec 36 Twn 05N Rng 07E
County: SUMMIT
State: UTAH
Field: WILDCAT
Operator: UNION PACIFIC RESOURCES



	Start End	Size Length	Description
1	0.0	13.375	Casing: SURFACE
	5601.0	5601.0	
2	0.0	2.875	Tubing: 7.7# L-80 VAM ACE
	11250.0	11250.0	
	11250.0	7.000	Packer: OTIS BWD PROD PKR @ 11250
	11258.0	8.0	EOTP @11336
	5601.0	12.250	Hole: INTERMEDIATE
	11384.0	5783.0	
	8450.0		Cement: 1325 SXS
	11384.0	2934.0	
	0.0	9.625	Casing: INTERMEDIATE
	11384.0	11384.0	
	11439.0		Perf: PHOSPHORIA
	11480.0	41.0	
	11495.0	7.000	Plug: CIBP
	11503.0	8.0	
	11504.0		Perf: CIBP IN TAIL PIPE
	11512.0	8.0	
	11515.0		Perf: PHOSPHORIA
	11545.0	30.0	
1	11570.0		Perf: PHOSPHORIA
	11600.0	30.0	
	11605.0	7.000	Packer: OTIS BWD ISOLATION PKR EOTP
	11613.0	8.0	@ 11515
	11605.0	7.000	Packer: OTIS BWD @ 11605 EOTP @11625
	11625.0	20.0	
	11620.0		Perf: PHOSPHORIA
	11650.0	30.0	
	11660.0		Perf: PHOSPHORIA
	11706.0	46.0	
	11770.0		Perf: PHOSPHORIA SQUEEZED W/75 SXS
	11800.0	30.0	
3	13278.0		Perf:
	13280.0	2.0	
	13350.0	7.000	Plug: CEMENT RETAINER
	13358.0	8.0	
4	13586.0		Perf:
	13702.0	116.0	
	13718.0		Perf: 15396
	13720.0	2.0	
5	15372.0	7.000	Plug: CIBP
	15380.0	8.0	
2	15396.0		Perf:
	15435.0	39.0	
	15460.0		Perf:
	15490.0	30.0	
	15663.0		Perf:
	15724.0	61.0	
	15740.0	7.000	Plug: CIBP
	15748.0	8.0	
3	15825.0		Perf:
	15885.0	60.0	
4	16163.0	7.000	Plug: CIBP
	16171.0	8.0	
	16270.0		Perf:
	16410.0	140.0	
	16423.0	7.000	Plug: CIBP
	16431.0	8.0	
5	16465.0		Perf:
	16600.0	135.0	
6	17733.0	7.000	Plug: CIBP
	17741.0	8.0	
	17850.0		Perf:
	17930.0	80.0	
	11384.0	8.500	Hole: PRODUCTION
	18055.0	6671.0	
	7900.0		Cement: 450 SXS
6	18055.0	10155.0	
	0.0	7.000	Casing: PRODUCTION
	18055.0	18055.0	

FORM 9

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial No.
Fee

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals

6. If Indian, Allotee or Tribe Name
NA

7. Unit Agreement Name
NA

1. Type of Well:
OIL ( ) GAS (X) OTHER: ( ) INJ. ( )

8. Well Name and Number
Fawcett & Sons No. 1

9. API Well Number
43-043-30078

2. Name of Operator
Union Pacific Resources Company

10. Field and Pool, or Wildcat
Cave Creek

3. Address and Telephone Number
P. O. Box 7 MS 3006 Fort Worth, Texas 76101-0007
Telephone (817) 877-6000 (Main Number)

4. Location of Well
Footages 649' FNL, 2159' FWL Sec. 36 T. 5 N., R. 7 E. County Summit
QQ, Sec., T., R., M. (NE/4NW/4) Sec. 36, T. 5 N., R. 7 E.
State Utah

11 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
( ) Abandonment	( ) New Construction	( ) Abandonment *	( ) New Construction
( ) Casing Repair	( ) Pull or Alter Casing	( ) Casing Repair	( ) Pull or Alter Casing
( ) Change of Plans	( ) Recompletion	( ) Change of Plans	( ) Shoot of Acidize
( ) Conversion to Injection	( ) Shoot or Acidize	( ) Conversion to Injection	( ) Vent or Flare
( ) Fracture Test	( ) Vent or Flare	( ) Fracture Treat	( ) Water Shut-Off Shutoff
( ) Multiple Completion	( ) Water Shutoff	(X) Other: Weekly Progress Report	
( ) Other:			
Approximate date work will start:		Date of work completion_____	

Report results of Multiple Completions and Reclamations to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work).

Weekly Progress Report No. 1, Week Ending February 1, 1997

P&A operations began January 28, 1997; dismantling wellhead equipment

Please refer to accompanying Daily Operations Summaries for detail.

RECEIVED
FEB 05 1997
DIV. OF OIL, GAS & MINING

PLEASE CONSIDER ALL SUBMITTALS PERTAINING TO THIS WELL AS **"COMPANY CONFIDENTIAL"**
If additional information is needed, please contact the undersigned at (817) 877-7952, FAX (817) 877-7942

13.

Name/Signature: W. F. Brazelton W. F. Brazelton Title: Senior Regulatory Analyst Date: 97-02-04

(This space for State use only)

(12/92)

Today's Date : 2/3/97

PERC OPERATIONS SUMMARY REPORT

WELLNAME :	FAWCETT & SONS #1	**AFE No. :**	A3482
RIG NAME :	CANNON RIG 9	**WELL ID No. :**	01729
FIELD :	YELLOW CREEK DEEP FIELD	**API No. :**	43-043-30078
EVENT No. :	4	EVENT DESC. :	ACTUALLY TO PLUG & ABANDON W

DATE : 1/28/97 **DSS :** **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
				**********FIRST REPORT OF OPERATIONS ********** AFE # A3482 IN THE AMOUNT OF $270M TO PLUG AND ABANDON THE FAWCETT & SONS #1 IN THE NW4 SEC. 36, T5N, R7E SUMMIT COUNTY UTAH.
11.00				MIRU CANNON RIG 9

DATE : 1/29/97 **DSS :** 1 **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
11.00	A	RU	RU	FINISH RU PUMP AND TANK, RU HES WIRELINE, TEST LUBE TO 5M#, RIH W/ PUMP THROUGH PLUG, TO 11303 WL MEASUREMENT, STE PLUG, PULL OFF, NOT SURE PLUG SET AS WE HAD DRAG @ ALL 3 R NIPS. ON THE WAY OUT, DIDN'T HAVE PLUG WHEN WE GOT OUT, PU RETREVING TOOL, RIH PLUG IN BOTTOM NIP. PULLED PLUG, POH, REBUILD PLUG AND RUN BACK IN PLUG EST OK. POH, RD HES, PU PUMP LINES, PUMP 100 BBL FRESH WATER DWN TBG. ON VACCUM @ 50 BBL.. BREAK DWN PUMP LINES, DRAIN UP SET FMC BP VALVE, SECURE WELL SDFN.

DATE : 1/30/97 **DSS :** 2 **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
12.00	A	RU	RU	MI RU SUB, FINISH RU RIG, ND TREE, NU BOP,TEST SAME, TEST CHOKE, TEST EVERY THING TO 250 LOW, AND 5M# HIGH, EXCEPT ANNULAR TESTED IT TO 3500#. RU NORWARD, WILL START PULLING TBG.IN AM. CLOSED PIPE RAMS, AND LOCKED DWN. SDFN.

DATE : 1/31/97 **DSS :** 3 **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
11.50	A	RU	RU	START EQUIP. HELD SAFETY MEETING. FINISH RU FLOOR, RU LD MACHINE, SETUP THREAD CLEANERS, CHECK PRESSURES, TBG., AND CSG. ON VACCUM. PULL HANGER, PULL BP VALVE. CUT INJECTION LINES, RU HES LINE SPOOLER. LD 9 PUP JTS. 6 FLOW COUPLINGS, 1- R NIPPLE, SCSSV, AND SIDE POCKET MANDREL. ALSO 190 JTS TBG. CLEANING ALL ENDS, BLOWING MOISTURE OUT OF TUBES, AND PUTTING ON PROTECTORS. SECURE WELL, SDFN.

DATE : 2/1/97 **DSS :** 4 **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
11.50	A	RU	RU	START EQUIP. HELD SAFETY MEETING. FINISH LD VAN, AND ACCS. RU OWP, RIH W/ 5.625" GUAGE RING, STACKED OUT @ 11250', POOH, PU 7" HES. WL SET EZSV CICR, RIH TO 11240', SET CICR, PU50' RETAG RETAINER, POOH. RD OWP, PU 90 JTS. 2 7/8" 6.5# L-80 WS. SECURE WELL, SDFN. SENT SIDE POCKET MANDREL TO TUBOSCOPE.SENT SCSSV INTO WGS., ALONG W/1-2' PUP JT TO SEND OFF FOR INSPECTION.EVERY THING ELSE WENT TO TUBOSCOPE EVANSTON.1- 10' BAKER FLOW CLOUPLING, 1-9', AND 4-4' COUPLINGS.2- OTIS "R" NIPPLES1- 2' , 1- 10', 1- 8', 5- 6',& 1- 4' PUP JTS.346 JTS 2 7/8" 7.7# VAM ACESENT SEAL ASSM. TO HES.

RECEIVED
FEB 05 1997
DIV. OF OIL, GAS & MINING

ATTACHMENT #1

UNION PACIFIC RESOURCES
FAWCETT & SONS #1
NW/4 SEC 36, T5N, R7E
SUMMIT COUNTY, UTAH
P& A PROCEDURE
REVISED 12/26/96

PERTINENT DATA

GL: 6833'
KB: 6858'
Surface Casing: 20" 94# H40 STC@ 1526'. Cemented to surface.
Intermediate #1: 13-3/8" 68# K55, J55, SS80, & 13-5/8" 88# SS95 LTC @ 5597'.
Intermediate #2: 9-5/8" 40# -47# LTC @ 11388'.
Production Casing: 7" 26#-35# L80 & SS95 LTC & BTC @ 18055'.
Tubing: 2-7/8" 7.7# L80 VAM ACE stung intoOtis BWD prod pkr set @ 11250'. EOTP @ 11336'. Isolation pkr #1 Otis BWD set @ 11495', EOTP @ 11515'. Tail pipe plugged w/ CIBP @ 11504'. Islolation pkr #2 Otis BWD set @ 11605', EOTP @ 11625'. Camco SCSSV @ 134', SPM @ 3010', 2.188" Otis R SN's @ 3095', 11208', & 11303'.
Pkr Fluid: FW w/ 2 ppb zinc chealate, and 1.5% Champion R2383 O2 scav, biocide, and corrosion inhibitor.
Phosphoria Perforations: 11439'-80', 11515'-45', 11570'-600', 11620'-650', 11660'-706', & 11770'-800' w/ 1-11/16", 3.2 gm, 0 deg, 2 JSPF. Perfs 11770'-800' sqzd w/ 75 sxs cmt. Perfs 11515'-45', 11570'-600', 11620'-50', & 11660'-706' isolated w/ CIBP in TP of PKR @ 11495'.
PBTD: 11495' w/ CIBP in TP of BWD pkr

PROCEDURE

1. Remove production equipment and location fence.

2. Test anchors.

3. MIRU workover rig w/ sub, flat tank, pump, cat walk, 2 sets pipe racks. Sub must be capable of standing over 17' BOP stack. RU Norward 30' flare stack and 2 phase low pressure seperator w/ sealed test tank w/ ammonia scrubber. Set 2-400 bbl working tanks.

NOTE: Notify Utah Division of Oil, Gas, and Mining at (801) 538-5340 24 hrs prior to commencing plugging operations.

4. RU slick line w/ sour service lub and line. Test lub to 5000 psi w/ MEOH. RIH set pump through plug in R nipple @ ~~12459'~~ 11303. Bleed off tbg up flare stack to verify plug is holding.

5. Load tbg w/ FW. Close SCSSV. Set BPV

6. NDWH. NU 6" 5M# CIW Type U BOP consisting of single gate w/ 2-7/8" pipe rams, mud cross w/ 2-2" 5M gate valves and 1-2" 5M# check valve on kill side and 2-2" 5m# gate valves (1 man & 1 HCR) on choke side, double gate w/ blinds in btm and 2-7/8" pipes in top, and 6" 5M# Schaeffer spherical. BOP to have been tested to 300 psi for 5 min and 5000 psi for 10 min w/ test flange prior to NU utilizing a 2-7/8" test mandrel. After NU BOP retest top rams and shell test BOP system against lift sub. Test annular to 300 psi for 5 min and 3500 psi for 10 min.

7. Unsting from pkr. TOOH LD. Keep hole full on trip out. Send tbg and all accessory equipment to respective manufacturers for inspection. **Tbg Should Be Cleaned & Inspected ASAP.**

8. RUWL w/ sour service line and lubricator. RIH w/ gauge ring/junk basket to 11240'. POOH. RIH set CICR @ 11240'. POOH. RDWL.

9. Load hole and test casing to 2000 psi.

10. PU TIH w/ CICR stinger on 2-7/8" L80 6.5# 8rd WS.

11. Sting into CICR @ 11240'. Test annulus to 2000 psi. Est inj. Sqz. Phosphoria perfs w/ 200 sxs low water loss cmt w/ 0 cc free water per DS rec. Sting out of CICR and spot 10 sxs cmt on top CICR.

12. Circ/cond fluid in hole to 8.7 ppg w/ salt & 1 ppb zinc chealate and 1.5% Champion R2383 corrosion inhib/O2 scav/biocide.

13. TOOH. Set 200' balance plug @ ±8200'-8400'.

14. TOOH

15. PU TIH w/ mechanical set CIBP. Set @ ± 5700'.

16. Spot 200' cmt plug on top of CIBP

17. TOOH. Spot 200' plug ±3400'-3600'. POOH 500'. Circ tbg clean. WOC min 8 hrs and TIH and tag TOC

18. TOOH.

19. TIH w/ Mechanical set CIBP and set @ ±1625'

20. Spot 200' cmt on top of CIBP.

21. TOOH LD.

22. NDBOP and install blind flange on 7-1/16" 5M# tbg head.

23. RDMOSU

24. Dig out concrete cellar.

25. Cut off all csg strings and WH equipment.

26. RIH w/ 60' of 1" tbg. Fill 7" csg and all annulus's w/ 50' cmt.

27. Erect 4" X 10' dry hole marker w/ at least 4' of marker above GL. Marker must have the following information on it: Operator, well name, well location, date plugged.

28. Clean and reclaim loc.

D.B. Wickersham
Operations Consultant

FORM 9

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial No.: Fee

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals

6. If Indian, Allotee or Tribe Name: NA

7. Unit Agreement Name: NA

1. Type of Well: OIL ( ) GAS (X) OTHER: ( ) INJ. ( )

8. Well Name and Number: Fawcett & Sons No. 1

9. API Well Number: 43-043-30078

2. Name of Operator: Union Pacific Resources Company

10. Field and Pool, or Wildcat: Cave Creek

3. Address and Telephone Number: P. O. Box 7 MS 3006 Fort Worth, Texas 76101-0007
Telephone (817) 877-6000 (Main Number)

4. Location of Well

Footages: 649' FNL, 2159' FWL Sec. 36 T. 5 N., R. 7 E. County: Summit

QQ, Sec., T., R., M.: (NE/4NW/4) Sec. 36, T. 5 N., R. 7 E. State: Utah

11 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
( )	( ) New Construction	(X) Abandonment *	( ) New Construction
( ) Casing Repair	( ) Pull or Alter Casing	( ) Casing Repair	( ) Pull or Alter Casing
( ) Change of Plans	( ) Recompletion	( ) Change of Plans	( ) Shoot of Acidize
( ) Conversion to Injection	( ) Shoot or Acidize	( ) Conversion to Injection	( ) Vent or Flare
( ) Fracture Test	( ) Vent or Flare	( ) Fracture Treat	( ) Water Shut-Off Shutoff
( ) Multiple Completion	( ) Water Shutoff	( ) Other:	
( ) Other:			
Approximate date work will start:		Date of work completion_____	

Report results of Multiple Completions and Reclamations to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work).

Please be advised that Union Pacific Resources Company permanently plugged and abandoned the above referenced well on February 8, 1997, as per the accompanying Daily Operations Reports. The following cement plugs were set in the wellbore:

1. 145 SX Class "G" at cut-off points of various strings of casing at the surface.
2. CIBP + 40 SX Class "G" @1603' MD
3. Balanced cement plug 3308' - 3588' (tagged this plug after 17 hours)
4. CIBP + 40 SX Class "G" @ 5699' MD
5. Balanced cement plug @ 8212' - 8412'
6. CMRT @ 11233' MD +200 SX Class "G" SQZ into Phosphoria Fm perfs, 101' on top of CMRT after SQZ

PLEASE CONSIDER ALL SUBMITTALS PERTAINING TO THIS WELL AS **"COMPANY CONFIDENTIAL"**
If additional information is needed, please contact the undersigned at (817) 877-7952, FAX (817) 877-7942

13.

Name/Signature: W. F. Brazelton W. F. Brazelton Title: Senior Regulatory Analyst Date: 97-02-11

(This space for State use only)

RECEIVED FEB 12 1997 DIV. OF OIL, GAS & MINING

(12/92)

Today's Date : 2/11/97

PERC OPERATIONS SUMMARY REPORT

WELLNAME :	FAWCETT & SONS #1	**AFE No. :**	A3482
RIG NAME :	CANNON RIG 9	**WELL ID No. :**	01729
FIELD :	YELLOW CREEK DEEP FIELD	**API No. :**	43-043-30078
EVENT No. :	4	EVENT DESC. :	ACTUALLY TO PLUG & ABANDON W

DATE : 1/28/97 **DSS :** **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
				**********FIRST REPORT OF OPERATIONS ********** AFE # A3482 IN THE AMOUNT OF $270M TO PLUG AND ABANDON THE FAWCETT & SONS #1 IN THE NW4 SEC. 36, T5N, R7E SUMMIT COUNTY UTAH.
11.00				MIRU CANNON RIG 9

DATE : 1/29/97 **DSS :** 1 **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
11.00	A	RU	RU	FINISH RU PUMP AND TANK, RU HES WIRELINE, TEST LUBE TO 5M#, RIH W/ PUMP THROUGH PLUG, TO 11303 WL MEASUREMENT, STE PLUG, PULL OFF, NOT SURE PLUG SET AS WE HAD DRAG @ ALL 3 R NIPS. ON THE WAY OUT, DIDN'T HAVE PLUG WHEN WE GOT OUT, PU RETREVING TOOL, RIH PLUG IN BOTTOM NIP. PULLED PLUG, POH, REBUILD PLUG AND RUN BACK IN PLUG EST OK. POH, RD HES, PU PUMP LINES, PUMP 100 BBL FRESH WATER DWN TBG. ON VACCUM @ 50 BBL.. BREAK DWN PUMP LINES, DRAIN UP SET FMC BP VALVE, SECURE WELL SDFN.

DATE : 1/30/97 **DSS :** 2 **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
12.00	A	RU	RU	MI RU SUB, FINISH RU RIG, ND TREE, NU BOP,TEST SAME, TEST CHOKE, TEST EVERY THING TO 250 LOW, AND 5M# HIGH, EXCEPT ANNULAR TESTED IT TO 3500#. RU NORWARD, WILL START PULLING TBG.IN AM. CLOSED PIPE RAMS, AND LOCKED DWN. SDFN.

DATE : 1/31/97 **DSS :** 3 **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
11.50	A	RU	RU	START EQUIP. HELD SAFETY MEETING. FINISH RU FLOOR, RU LD MACHINE, SETUP THREAD CLEANERS, CHECK PRESSURES, TBG., AND CSG. ON VACCUM. PULL HANGER, PULL BP VALVE. CUT INJECTION LINES, RU HES LINE SPOOLER. LD 9 PUP JTS. 6 FLOW COUPLINGS, 1- R NIPPLE, SCSSV, AND SIDE POCKET MANDREL. ALSO 190 JTS TBG. CLEANING ALL ENDS, BLOWING MOISTURE OUT OF TUBES, AND PUTTING ON PROTECTORS. SECURE WELL, SDFN.

DATE : 2/1/97 **DSS :** 4 **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
11.50	A	RU	RU	START EQUIP. HELD SAFETY MEETING. FINISH LD VAN, AND ACCS. RU OWP, RIH W/ 5.625" GUAGE RING, STACKED OUT @ 11250', POOH, PU 7" HES. WL SET EZSV CICR, RIH TO 11240', SET CICR, PU50' RETAG RETAINER, POOH. RD OWP, PU 90 JTS. 2 7/8" 6.5# L-80 WS. SECURE WELL, SDFN. SENT SIDE POCKET MANDREL TO TUBOSCOPE.SENT SCSSV INTO WGS., ALONG W/1-2' PUP JT TO SEND OFF FOR INSPECTION.EVERY THING ELSE WENT TO TUBOSCOPE EVANSTON.1- 10' BAKER FLOW CLOUPLING, 1-9', AND 4-4' COUPLINGS.2- OTIS "R" NIPPLES1- 2' , 1- 10', 1- 8', 5- 6',& 1- 4' PUP JTS.346 JTS 2 7/8" 7.7# VAM ACESENT SEAL ASSM. TO HES.

DATE : 2/2/97 **DSS :** 5 **DEPTH :** 11,740.00 **MUD WT :** 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
				SHUT DWN F/ SUNDAY

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PERC OPERATIONS SUMMARY REPORT

WELLNAME :	FAWCETT & SONS #1	**AFE No. :**	A3482
RIG NAME :	CANNON RIG 9	**WELL ID No. :**	01729
FIELD :	YELLOW CREEK DEEP FIELD	**API No. :**	43-043-30078
EVENT No. :	4	EVENT DESC. :	ACTUALLY TO PLUG & ABANDON W

DATE : 2/3/97 **DSS :** 6 DEPTH : 11,740.00 MUD WT : 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
14.00	C	LD	LD	START EQUIP. HELD SAFETY MEETING. FINISH PU 2 7/8" TBG. TAG UP ON RETAINER @11233', WO DS, RU DS TEST BACK SIDE TO 2M# F/ 5 MIN., STING INTO CICR, TEST BACK SIDE TO 2M#, EST. INJ. RATE, 2.5 BBL. /MIN 450#, MIX AND PUMP 210 SX. "G" YEILD= 1.15, WT.= 15.8 PPG. DISPLACE W/ 56 BBL. WATER, CAUGHT PRESSURE, FINISHED DISPLACEMENT OF 61 BBL., STING OUT OF REATINER, W/ 3250# PRESSURE. RD DS, LD 1 JT., AND STAND BACK 10 STANDS. SECURE WELL, SDFN.

DATE : 2/4/97 **DSS :** 7 DEPTH : 11,740.00 MUD WT : 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
11.00	C	LD	LD	START EQUIP. HELD SAFETY MEETING. TIH, TAG CEMENT @ 11114',119' ABOVE CICR. LD 4 JTS TBG. RU DS AND MIX PACKER FLUID 1 PPB ZINC CHEALATE, 1 1/2% CHAMPION R2383 CORROSION INHIB/ O2 SCAV/ BIOCIDE. AND ROLL HOLE, @ 11108'. LD TBG TO 8412' , MIX AND PUMP 40 SX. "G" W/ 1.15 YEILD, AND 15.8 PPG. 8412-8198', DISPLACE W/ 10 BBL FRESH WATER, 42 BBL. PACKER FLUID @ 8.7 PPG. F/ BALANCED PLUG, LD 87 JTS. TO 5699'. DRAIN UP, SECURE WELL, SDFN.

DATE : 2/5/97 **DSS :** 8 DEPTH : 11,740.00 MUD WT : 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
9.00	C	LD	LD	START EQUIP. HELD SAFETY MEETING. CHECK PRESSURS, "0", TOH, PU HES. CIBP, TIH TO 5699, SET BRIDGE PLUG, MIX AND PUMP 40 SX. OF "G", LD TBG. TO 3588', MIX AND PUMP 40 SX. BAL. PLUG, TOH 12 STANDS, SECURE WELL, DRAIN UP, SERVICE RIG,SECURE WELL, SDFN.

DATE : 2/6/97 **DSS :** 9 DEPTH : 11,740.00 MUD WT : 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
10.50	C	LD	LD	START EQUIP. HELD SAFETY MEETING. CHECK PRESSURS, "0", TIH TO 3308', TAG CEMENT, TOH 26 STANDS, LD 64 JTS., PU HES. CIBP, TIH TO 1603', SET CIBP, SHEAR OFF, RU DS, PUMP 40 SX. OF "G", LD 52 JTS. DP (NOTE: WO CER TO REPAIR AIR LINE TO CLUTCH 2 HRS.) ND BOP, STARTED TO ND TBG. HEAD, HAD PRESSURE UNDER IT, OPENED NEEDLE VALVE ON CSG. HEAD, HAD PRESSURE, W/ TRACE OF H2S, FIRST READING 25 PPM, PULLED A TUBE, FIRST TUBE SHOWING 6 PPM, LAST TUBE -0- PPM, LEFT SAFETY HAND ON LOCATION TO BLEED OFF BS OF SURFACE CSG. FMC TO BE ON LOCATION @ 07:00 IN AM W/ BLEED OFF TOOL TO CHECK PRESSURE ON TBG. HEAD. PLUGS IN WELL AS FOLLOWS:HALIBURTON EZSV @ 11233' WITH 200 SX CEMENT SQUEEZE INTO PHOSPHORIA, 101' OF CEMENT ON TOP OF RETAINER.BALANCED PLUG FROM 8412' - 8212'HALIBURTON CIBP @ 5699' WITH 40 SX. "G" ON TOP.BALANCED PLUG FROM 3588' - 3308', TAGGED THIS PLUG AFTER 17 HRS.HALIBURTON CIBP @ 1603', WITH 40 SX. OF "G" ON TOP.

DATE : 2/7/97 **DSS :** 10 DEPTH : 11,740.00 MUD WT : 0.00 **CUM COST TO DATE :**

Hours	PH	OP	ACT	Activity Description
10.50	C	LD	LD	START EQUIP. HELD SAFETY MEETING. BLEED PRESSURE OFF TBG. HEAD, ND TBG. HEAD.LOAD OUT TREE, AND SEND TO OKLAHOMA CITY FMC ON HARV'S HOTSHOT. RIG DWN SUB, RD RIG, LOAD OUT 2 7/8" TBG. STACK EQUIP. OFF LOCATION, ROAD RIG TO EVANSTON. PLUGS IN WELL AS FOLLOWS:HALIBURTON EZSV @ 11233' WITH 200 SX CEMENT SQUEEZE INTO PHOSPHORIA, 101' OF CEMENT ON TOP OF RETAINER.BALANCED PLUG FROM 8412' - 8212'HALIBURTON CIBP @ 5699' WITH 40 SX. "G" ON TOP.BALANCED PLUG FROM 3588' - 3308', TAGGED THIS PLUG AFTER 17 HRS.HALIBURTON CIBP @ 1603', WITH 40 SX. OF "G" ON TOP.

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Today's Date : 2/11/97

PERC OPERATIONS SUMMARY REPORT

WELLNAME :	FAWCETT & SONS #1	**AFE No. :**	A3482
RIG NAME :	CANNON RIG 9	**WELL ID No. :**	01729
FIELD :	YELLOW CREEK DEEP FIELD	**API No. :**	43-043-30078
EVENT No. :	4	EVENT DESC. :	ACTUALLY TO PLUG & ABANDON W

DATE : 2/8/97	**DSS :**	11	DEPTH :	11,740.00	MUD WT :	0.00	**CUM COST TO DATE :**		

Hours	PH	OP	ACT	Activity Description
10.50	C	LD	LD	START EQUIP. HELD SAFETY MEETING. DIG OUT AROUND CELLAR, BREAK OUT CEMENT, DIG OUT AROUND CSG.BLEED PRESSURE OFF 13 5/8", CUT AROUND 13 5/8, CUT AND DROP 9 58", CUT AND DROP 7", CUT OFF 13 5/8" CSG AND HEAD.RU DS, PUMP 5 SX "G" INSIDE 9 5/8", 20 SX. "G" INSIDE 7", AND 125 SX INSIDE 13 5/8", DID NOT CIRC CEMENT FROM 13 5/8", MAY HAVE TO USE REDIMIX TO TOP OUT, WILL DO THIS MONDAY, ALONG WITH WELDING ON THE DRY HOLE MARKER. FINAL REPORT. PLUGS IN WELL AS FOLLOWS:HALIBURTON EZSV @ 11233' WITH 200 SX CEMENT SQUEEZE INTO PHOSPHORIA, 101' OF CEMENT ON TOP OF RETAINER.BALANCED PLUG FROM 8412' - 8212'HALIBURTON CIBP @ 5699' WITH 40 SX. "G" ON TOP.BALANCED PLUG FROM 3588' - 3308', TAGGED THIS PLUG AFTER 17 HRS.HALIBURTON CIBP @ 1603', WITH 40 SX. OF "G" ON TOP.

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CEMENTING SERVICE REPORT

Schlumberger Dowell

DOWELL SCHLUMBERGER INCORPORATED

DS-496-A PRINTED IN U.S.A.

TREATMENT NUMBER 1509-2671 | DATE 3/3/97 | STAGE - | DS | DISTRICT Rock Springs, WY

WELL NAME AND NO. Fawcett Fed #1 | LOCATION (LEGAL) S36/T5N/R76

FIELD-POOL Lone Creek | FORMATION -

COUNTY/PARISH Sublette | STATE Wyo | API NO. -

NAME Union Pacific Resources

AND

ADDRESS

ZIP CODE

SPECIAL INSTRUCTIONS

Plug to 9500-400.

IS CASING/TUBING SECURED? ☒ YES ☐ NO

LIFT PRESSURE - PSI | CASING WEIGHT ÷ SURFACE AREA (3.14 x R²)

PRESSURE LIMIT 4500 PSI | BUMP PLUG TO - PSI

ROTATE - RPM | RECIPROCATE FT | No. of Centralizers -

RIG NAME:

WELL DATA:		BOTTOM				TOP
BIT SIZE	CSG/Liner Size					
TOTAL DEPTH	WEIGHT					
☐ ROT ☐ CABLE	FOOTAGE					
MUD TYPE	GRADE					
☐ BHST ☐ BHCT	THREAD					
MUD DENSITY	LESS FOOTAGE SHOE JOINT(S)					TOTAL
MUD VISC.	Disp. Capacity					

NOTE: Include Footage From Ground Level To Head In Disp. Capacity

Float			Stage Tool		
	TYPE			TYPE	
	DEPTH			DEPTH	
SHOE	TYPE			TYPE	
	DEPTH			DEPTH	

Head & Plugs	☒ TBG ☐ D.P.	SQUEEZE JOB	
☐ Double	SIZE 2⅞	TOOL TYPE Retainer	
☐ Single	☒ WEIGHT 6.5	DEPTH 11,033	
☐ Swage	☐ GRADE	TAIL PIPE SIZE -	DEPTH -
☐ Knockoff	☐ THREAD 8 RD	TUBING VOLUME 65	Bbls
TOP ☐R ☐W	☐ NEW ☒ USED	CASING VOL. BELOW TOOL -	Bbls
BOT ☐R ☐W	DEPTH 11,033	TOTAL 65	Bbls
		ANNUAL VOLUME	Bbls

JOB SCHEDULED FOR TIME: 1700 DATE: 3/3/97 | ARRIVE ON LOCATION TIME: 1130 DATE: 3/3/97 | LEFT LOCATION TIME: 1430 DATE: 3/6/97

TIME 0001 to 2400	PRESSURE TBG OR D.P.	PRESSURE CASING	VOLUME PUMPED BBL INCREMENT	VOLUME PUMPED BBL CUM	INJECT RATE	FLUID TYPE	FLUID DENSITY	SERVICE LOG DETAIL
1700								PRE-JOB SAFETY MEETING with crew
1738	5000	-	-	-	-	H2O	8.3	Pressure test lines
1741	3011	-	-	-	-	H2O	8.3	Pressure test annulus
1801	-	-	-	-	-	-	-	Sting in to retainer
1802	3071	-	-	-	-	H2O	8.3	Pressure test annulus
1807	450	1000	10	10	2.5	H2O	8.3	Injection test
1820	700		43	53	2.5	Lead cmt	15.8	Pump cement slurry
1833	130	100	61	114	3.5	H2O	8.3	Pump displacement
1845	400	100	-	-	-	-	-	Sting out
1853	3300	100	0	114	-	-	-	Shut down
3/1/97	-	-	-	-	-	-	-	
1147	1240	-	395	395	4	Packer fluid	8.7	Pump packer fluid to full hole
1330	10	-	0	395	-	-	-	Shut down
1517	770	-	10	10	2.5	H2O	8.3	Pump water ahead
1521	570	-	8	18	3	Lead cmt	15.8	Pump cement slurry
1527	900	-	2	20	1	H2O	8.3	Pump water behind
1530	500		45	65	3.5	Packer fluid	8.7	Pump packer fluid
REMARKS 1540	0	-	0	65	-	-	-	Shut down

Plug #1 @ 11033'

Plug #2 @ 9412'

SYSTEM CODE	NO. OF SACKS	YIELD CU. FT/SK	COMPOSITION OF CEMENTING SYSTEMS	SLURRY MIXED BBLS	SLURRY MIXED DENSITY
1.	310	1.15	Class G + 0.1% A65 + 0.25% A800 (Plug #1)	43	15.8
2.	40	1.15	Class G + 0.1% A65 + 0.25% A800 (Plug #2)	8	15.8
3.	40	1.15	Class G + 0.1% A65 + 0.1% A800 (Plug #3)	8	15.8
4.	40	1.15	Class G + 0.1% A65 (Plug #4)	8	15.8
5.	40	1.15	Class G + 0.1% A65 + 2% S1 (Plug #5)	8	15.8
6.					

BREAKDOWN FLUID TYPE - | VOLUME - | DENSITY | PRESSURE MAX. 5700 MIN: 1

☐ HESITATION SQ. ☒ RUNNING SQ. | CIRCULATION LOST - ☐ YES ☐ NO | Cement Circulated To Surf. ☐ YES ☐ NO - Bbls.

BREAKDOWN PSI | FINAL 3300 PSI | DISPLACEMENT VOL. - Bbls | TYPE OF WELL ☐ OIL ☒ GAS ☐ STORAGE ☐ INJECTION ☐ BRINE WATER ☐ WILDCAT

Washed Thru Perfs ☐ YES ☐ NO | TO - FT. | MEASURED DISPLACEMENT ☒ ☐ WIRELINE

PERFORATIONS TO TO TO TO

CUSTOMER REPRESENTATIVE Bobby Cooper

DS SUPERVISOR Dave Dewey

CEMENTING SERVICE REPORT
SUPPLEMENT LOG

DS 496 1 PRINTED IN U.S.A.

DATE 2/5/97

CUSTOMER WELL NAME AND NUMBER: Fawcett + Sons #1

LOCATION (LEGAL): 336/T52/R7E

DS LOCATION: Rock Springs, WY

TREATMENT NUMBER 1509 8434

PAGE 2 OF 2 PAGES

TIME 0001 to 2400	PRESSURE TBG OR D.P.	PRESSURE CASING	VOLUME PUMPED BBL INCREMENT	VOLUME PUMPED BBL CUM	INJECT RATE	FLUID TYPE	FLUID DENSITY	SERVICE LOG DETAIL	
1318	383	-	10	10	2.5	H2O	8.3	Pump water ahead	
1322	302	-	8	18	2	Cement	15.8	Pump cement slurry	
1330	47	-	2	20	1	H2O	8.3	Pump water behind	Plug #3 @ 5649'
1331	53	-	29.6	49.6	2.5	Packer fluid	8.7	Pump to balance plug	
1343	0	-	0	49.6	-	-	-	Shut down	
1454	157	-	10	10	2.5	H2O	8.3	Pump water ahead	
1458	95	-	8	18	2	Cement	15.8	Pump cement slurry	
1504	42	-	2	20	1	H2O	8.3	Pump water behind	Plug #4 @ 3588'
1506	40	-	17.4	37.4	2.5	Packer fluid	8.7	Pump to balance plug	
1512	0	-	0	37.4	-	-	-	Shut down	
2/6/97	-	-	-	-	-	-	-		
1500								Tag cement @ 3308'	
1316	89	-	10	10	2	H2O	8.3	Pump water ahead	
1321	157	-	8	18	2.5	Cement	15.8	Pump cement slurry	
1325	0	-	2	20	1	H2O	8.3	Pump water behind	Plug #5 @ 1603'
1327	17	-	6	26	2.25	Packer fluid	8.7	Pump to balance plug	
1330	0	-	0	26	-	-	-	Shut down	