

FILE NOTATIONS

Entered in NID File

Entered On S R Sheet _____

Location Map Pinned _____

Card Indexed

IWR for State or Fee Land _____

Checked by Chief _____

Copy NID to Field Office _____

Approval Letter _____

Disapproval Letter _____

COMPLETION DATA:

Date Well Completed _____

Location Inspected _____

OW _____ WW _____ TA _____

Bond released _____

GW _____ OS _____ PA _____

State of Fee Land _____

LOGS FILED

Driller's Log _____

Electric Logs (No.) _____

E _____ I _____ E-I _____ GR _____ GR-N _____ Micro _____

Lat _____ Mi-L _____ Sonic _____ Others _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Pacific Transmission Supply Company

3. ADDRESS OF OPERATOR
 P.O. Box 3093, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 AT SURFACE
 1172' FNL, 1750' FEL, NW 1/4 NE 1/4, Section 26, T12S, R15E
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 35 miles southwest of Myton, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit lne, if any)
 1172'

16. NO. OF ACRES IN LEASE
 1280+

17. NO. OF ACRES ASSIGNED TO THIS WELL
 640

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 5900'

19. PROPOSED DEPTH
 5900'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 5960' Ungr. ground

22. APPROX. DATE WORK WILL START*
 July 1, 1980

5. LEASE DESIGNATION AND SERIAL NO.
 U-8283

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
 Waco (Proposed)

8. FARM OR LEASE NAME
 Federal

9. WELL NO.
 31-26

10. FIELD AND POOL, OR WILDCAT
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Section 26, T12S, R15E

12. COUNTY OR PARISH
 Carbon

13. STATE
 Utah

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	54.5#	60	75 sacks <i>Cinc. To Surface</i>
12-1/4"	9-5/8"	40.0#	500	225 sacks "
7-7/8"	4-1/2"	11.6#	5900	450 sacks

Operator proposes to drill well to a depth of 5900' or 500' into the Cretaceous Mesaverde. All water flows and significant hydrocarbon shows will be evaluated and reported. Operations will be conducted according to the attached well program and procedure and in conformance with all applicable regulations. No abnormal pressures, temperatures or other potential hazards are anticipated. Operations are expected to commence about July 1, 1980 and be completed in about 30 days.

APPROVED BY THE DIVISION
 OF OIL, GAS, AND MINING
 DATE: 6-19-80
 BY: M.J. Mindes

RECEIVED
 JUN 6 1980

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 R. J. Firth TITLE Petroleum Engineer DATE May 28, 1980

(This space for Federal or State office use)

PERMIT NO. 43-007-30052 APPROVAL DATE 6/19/80

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:
 3-USGS, SLC, UT; 1-St. of UT, Div. of OG&M; 1-J.C. Osmond; 1-D.E. Beardsley; 1-E.R. Henry;

1980
660

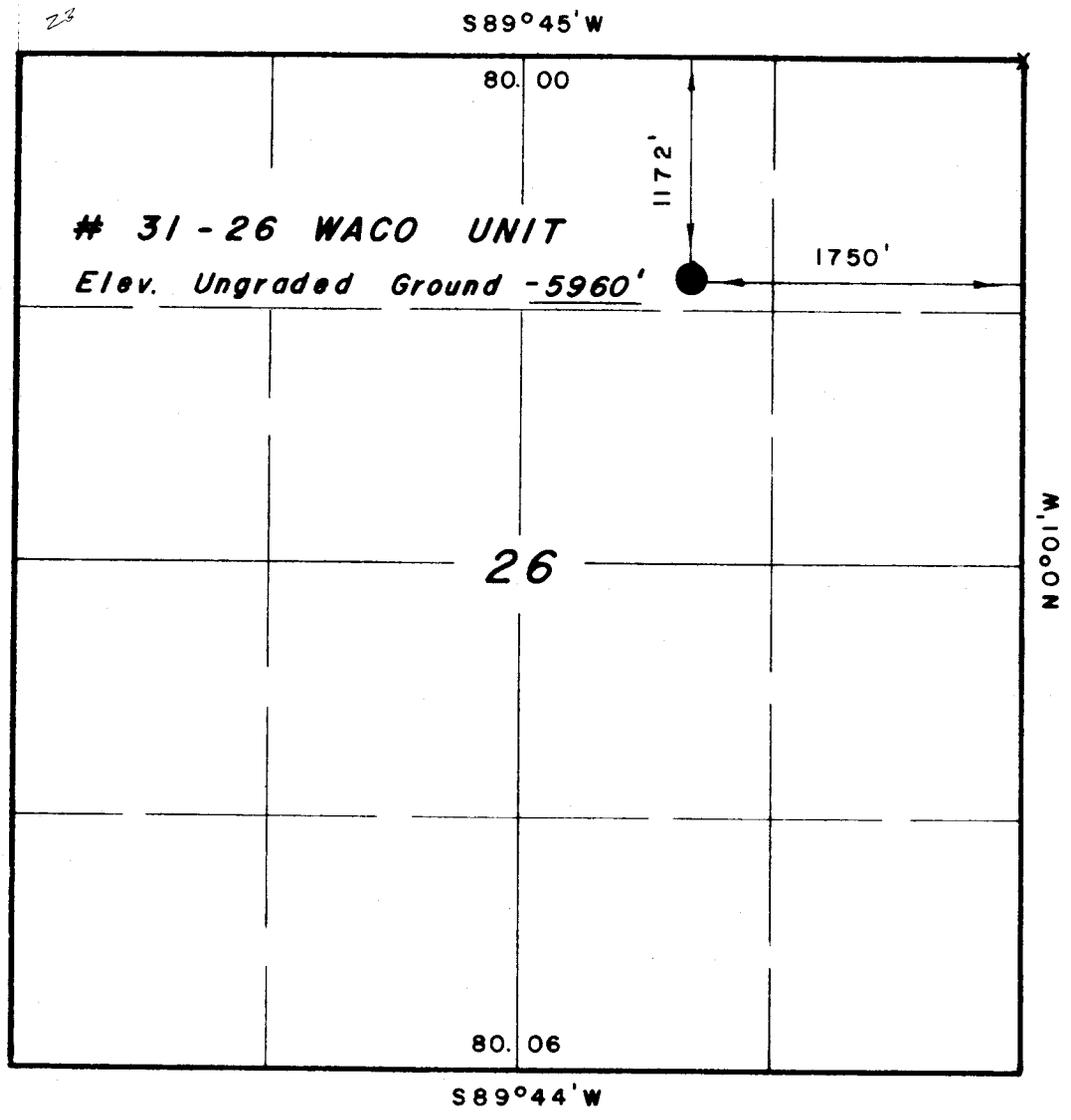
T 12 S, R 15 E, S.L.B. & M.

PROJECT

PACIFIC TRANSMISSION SUPPLY CO.

Well location, # 31-26 WACO UNIT,
located as shown in the NW 1/4 NE 1/4
Section 26, T12S, R15E, S.L.B. & M. Carbon
County, Utah.

1828
1663
*2822



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE
BEST OF MY KNOWLEDGE AND BELIEF.

Dene Stewart

REGISTERED LAND SURVEYOR
REGISTRATION NO 3154
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
P.O. BOX Q - 110 EAST - FIRST SOUTH
VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 5 / 28 / 80
PARTY G.S.	REFERENCES S.B. GLO Plat
WEATHER Fair	FILE P.T.S.

X = Section Corners Located

PACIFIC TRANSMISSION SUPPLY

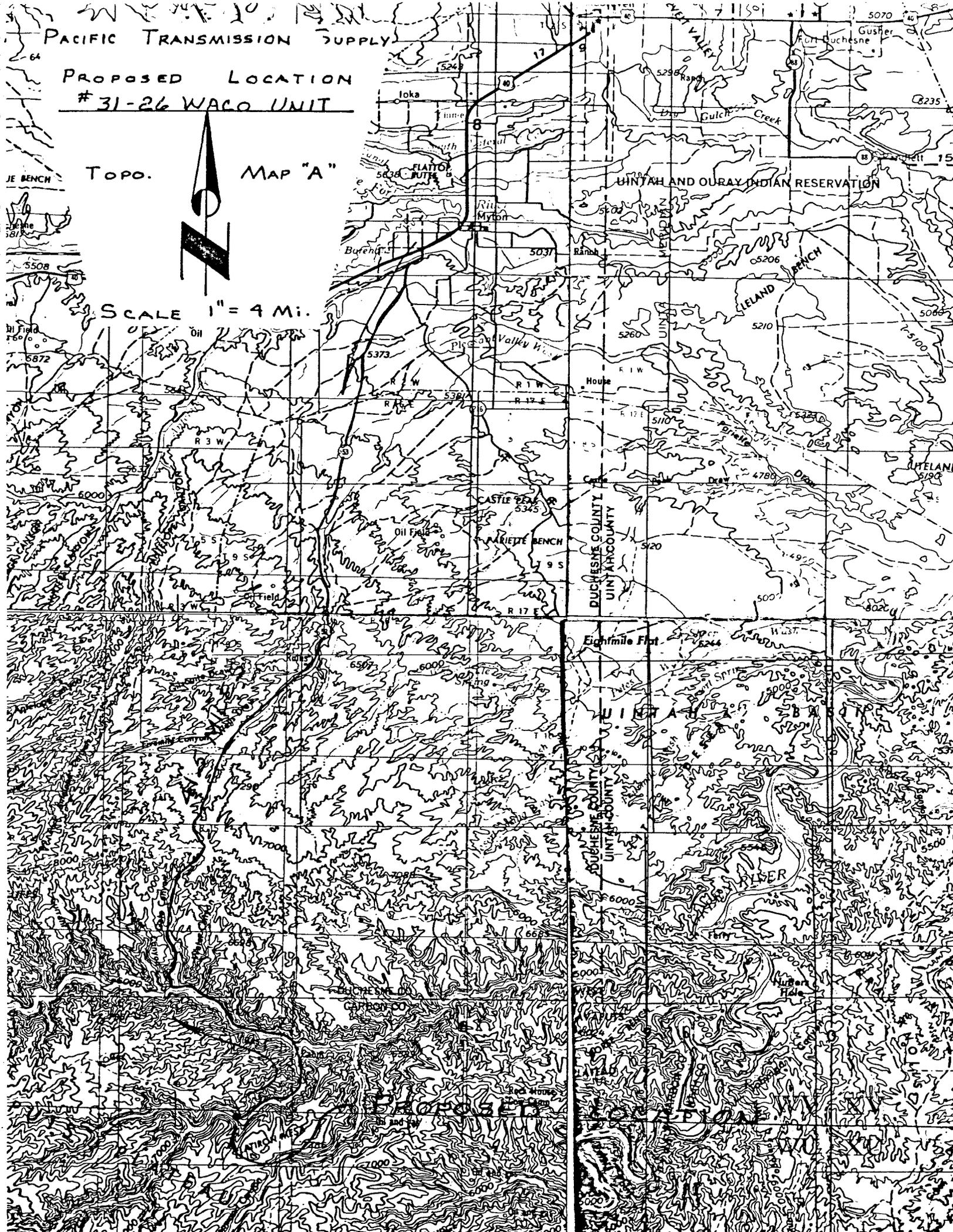
PROPOSED LOCATION
31-26 WACO UNIT

TOPO.

MAP "A"



SCALE 1" = 4 MI.



CONSETT

Eightmile Flat

UNITAH

RIVER

NUMBER FIVE

** FILE NOTATIONS **

DATE: June 6, 1980
OPERATOR: ~~Pacific Transmission Supply Company~~ NATURAL GAS CORPORATION
WELL NO: Federal # 31-26

Location: Sec. 26 T. 123 R. 15E County: Carbon

File Prepared:

Entered on N.I.D:

Card Indexed:

Completion Sheet:

API Number 43-007-30052

CHECKED BY:

Petroleum Engineer: W.C. Minder 6-19-80
Will request topo exception per call (6-16-80: R. Firth)

Director: _____

Administrative Aide: Rule C-3: too close to gte gte line

APPROVAL LETTER:

Bond Required:

Survey Plat Required:

Order No. _____

O.K. Rule C-3

Rule C-3(c), Topographic Exception - company owns or controls acreage within a 660' radius of proposed site

Lease Designation Ad

Plotted on Map

Approval Letter Written WCM

Hot Line

P.I.

#2

PACIFIC TRANSMISSION SUPPLY COMPANY
Natural Gas Corporation of California

85 South 200 East
Vernal, Utah 84078
(801) 789-4573

June 17, 1980

Mr. Michael T. Minder
State of Utah-Div. of Natural Resources
Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, UT 84116

Re: Well No. PTS #31-26 Federal
NW NE Section 26, T12S, R15E
Carbon County, Utah
Proposed Waco Unit
Lease No. U-8283

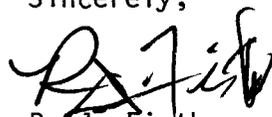
Dear Mr. Minder:

The proposed PTS #31-26 Federal well site, Federal Lease No. U-8283, has been staked and located contrary to Rule C-3, General Well Spacing Requirements. It is anticipated that approval of the Waco Unit submittal, which includes this lease, will be received in the near future.

However, in view of a possible delay in acceptance of this federal unit, Pacific Transmission Supply Company hereby requests an exception to the spacing requirements, as to this particular well location, due to the topographic conditions of the N 1/2 of Section 26 in the Dry Canyon drainage area. In addition, Pacific Transmission Supply Company controls the oil and gas leases within a radius of 660 feet of the proposed location.

Your consideration and early response to this request will be appreciated.

Sincerely,



R. J. Firth
Petroleum Engineer

RJF/kh

cc: Mr. D. E. Beardsley
Mr. J. C. Osmond

RECEIVED
JUN 18 1980

DIVISION OF
OIL, GAS & MINING

June 20, 1980

Pacific Transmission Supply Company
P.O. Box 3093
Casper, Wyoming 82602

Re: Well No. Federal #31-26
Sec. 26, T. 12S, R. 15E.,
Carbon County, Utah

Insofar as this office is concerned, approval to drill the above referred to gas well on said unorthodox location 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:

MICHAEL T. MINDER - Petroleum Engineer
Office: 533-5771
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

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 43-007-30052.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder
Petroleum Engineer

/b:tm

cc: USGS

Submit in Triplicate

Rule 30 CFR 221.20 requires well shall not be drilled closer than 200 ft. from the lease boundary or 200 ft. from any legal sub-division without adequate reasons or consent.

June 23, 1980

District Oil and Gas Engineer
U. S. Geological Survey
Conservation Division
2000 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104

[Stamp: RECEIVED JUN 25 1980]

Re: Stipulation

Dear Sir:

DIVISION OF
OIL, GAS & MINING

Pacific Transmission Supply Company _____ is the owner of U.S. Oil and Gas Lease U 8283, and proposes to drill a well on the leased premises to test for oil and gas at a location in the NW 1/4 NE 1/4 1/4 Section 26, T. 12S, R. 15E, S.L.B&M Mer., Carbon County, State of Utah, 1172 Ft. from the north _____ line and 1750 feet from the east _____ line of Section 26.

Section 221.20 of the Federal Oil and Gas Regulations requires that no well be drilled less than 200' from the boundary of any legal subdivision without the written consent of the Supervisor, United States Geological Survey. The proposed location is approximately 148 feet from the south boundary line of the NW 1/4 NE 1/4 of Section 26, but is considered to be necessary because of topographic conditions of the NE 1/4 of section 26 in the Dry Canyon drainage area.

Therefore, Pacific Transmission Supply Company, Lessee, requests the consent of the Supervisor to the drilling of the proposed well at the above-described location. In consideration of such consent, Pacific Transmission Supply Company, Lessee, hereby expressly covenants and agrees that he will make no separate assignments of the NW 1/4 NE 1/4 and the SW 1/4 NE 1/4, Section 26, T. 12S, R. 15E, S.L.B&M Mer., and that he will keep the two described subdivisions under joint assignment until the above-mentioned well has been plugged and abandoned with the approval of the Supervisor.

Very truly yours,

Pacific Transmission Supply Company

By _____

[Signature: R. J. Firth]
R. J. Firth
Petroleum Engineer

CC: C.T. Clark, Denver
D.E. Beardsley, Casper
State of Utah, Div. of O.G. & M ✓

Greg

Memorandum

To: District Oil and Gas Engineer, Mr. Edward Guynn

From: Mining, Supervisor, Mr. Jackson W. Moffitt

Subject: Application for Permit to Drill (form 9-331c) Federal oil and gas lease No. U-8283 Well No. 31-26

1. The location appears potentially valuable for:

strip mining*

underground mining** *oil shale*

has no known potential.

2. The proposed area is

under a Federal lease for _____ under the jurisdiction of this office.

not under a Federal lease under the jurisdiction of this office.

Please request the operator to furnish resistivity, density, Gamma-Ray, or other appropriate electric logs covering all formations containing potentially valuable minerals subject to the Mineral Leasing Act of 1920.

*If location has strip mining potential:

Surface casing should be set to at least 50 feet below the lowest strip minable zone at _____ and cemented to surface. Upon abandonment, a 300-foot cement plug should be set immediately below the base of the minable zone.

**If location has underground mining potential:

The minable zones should be isolated with cement from a point 100 feet below the formation to 100 feet above the formation. Water-bearing horizons should be cemented in like manner. Except for salines or water-bearing horizons with potential for mixing aquifers, a depth of 4,000 feet has been deemed the lowest limit for cementing.

Signed *Allen J. Vance*

✓

DRILLING PROGRAM
PTS #31-26
WACO Unit
Carbon County, Utah

Location: 1172' from the north line, 1750' from the east line,
Section 26, T12S, R15E.

Elevations: 5960' Ungr. Gr.
5974' KB (estimated)

<u>Geological Prognosis:</u>	<u>Depth</u>	<u>Datum</u>
Green River	Surface	
Wasatch	1635	+4325
Mesaverde	5360	+ 600
Total Depth	5900 or 500' into the Cretaceous Mesaverde	

Samples: Collect drill cutting samples at ten (10) foot intervals from under surface casing to T.D. or as directed by wellsite geologist. Samples to be collected by drilling contractor crews.

If any significant water flows are encountered, rates should be estimated and water samples obtained to determine salinities and resistivities.

Electric Logging: The following logs will be run from surface casing to T.D.:

Dual Laterolog with Gamma Ray, Formation Density and Compensated Neutron log with Caliper and Borehole Compensated Sonic log with Caliper.

If chloride content of the drilling fluid at the time of logging is less than 20,000 ppm, a Dual Induction log should be run instead of the Dual Laterolog.

Mud Logging: A portable mud logging unit will be operated by a contract mud logger from below surface casing to T.D. In addition, occasional geological inspection of samples by a company geologist will be necessary to determine and verify total depth correlations and, if applicable, zones to be drill stem tested.

Drill Stem Testing: All significant shows of oil and gas should be drill stem tested using conventional drill stem testing equipment and dual packers. Collect samples of all fluids recovered for further analysis.

Drilling Fluid:

<u>Interval (Ft.)</u>	<u>Mud Weight (lbs/gal)</u>	<u>Viscosity (sec/qt.)</u>	<u>Fluid Loss (ml/30 min)</u>
0'-60'			
Drill this interval with dry hole digger using air.			
60'-500'	8.4 - 8.6	26 - 29	No Control
Drill with fresh water. Maintain native solids at a minimum by adding lime and/or a selective flocculant and circulating the reserve pit. If unable to circulate the reserve pit, frequent dumping and cleaning of the mud tanks will be necessary to avoid recirculating drilled solids. Occasional sweeps of prehydrated bentonite may be necessary to ensure adequate hole cleaning while drilling 12-1/4" hole and to prepare hole to run casing.			
500'-4000'	8.4 - 9.0	30 - 36	10 - 20 cc
Drill with clear flocculated 2% KCl water inhibited with 300-400 ppm chromate. Increase weight as necessary with sodium chloride to control water flows in the Green River and possible gas kicks in the Wasatch. When hole conditions make it necessary, mud up with salt gel for viscosity, caustic soda for pH control and starch and preservative for fluid loss control. Occasional prehydrated gel sweeps may be necessary if tight connections or excessive fill is encountered.			
Some loss of circulation is anticipated in this interval. Fine mica is recommended for controlling minor seepage losses which might develop. If severe losses are encountered which require the use of high percentages of lost circulation material and bypassing the shaker screen, use pill treatments instead of maintaining lost circulation material in the system continuously. Lost circulation which cannot readily be controlled by more conventional means, may justify the use of cement plugs.			
4000'-5900' TD.	9.0 - 10.0	32 - 38	10 cc's or less
Continue drilling to total depth with this mud system, increasing the viscosity as necessary to provide proper hole cleaning. Higher than normal formation pressures should be anticipated in this interval. Fluid densities to 10.5 lbs/gal. may be required to safely balance formation pressures. Drilling fluid salinity can be adjusted as necessary to increase mud weight to 10.3-10.5 lbs/gal. without adding additional solids to the system.			
Seepage and slight loss of circulation may occur as the mud weight is increased. To avoid fracturing weak formations, maintain mud			

weight, yield point and gel strength as low as possible without sacrificing safe operations. Care should be taken to minimize swab and surge-pressure by avoiding excessive pipe speed while tripping.

A small stream of water should be run continuously while drilling and mud tanks cleaned frequently to minimize the recirculation of drilled solids and allow the addition of fresh materials to the system. Water should be reclaimed from the reserve pit to conserve water and also reduce some chemical additions. Wellsite interpretation of hole conditions will assist in determining the fluid properties necessary to ensure satisfactory logging and casing operations.

Casing:

Conductor:

0 - 60' 13-3/8", 54.5 lb./ft., K-55, ST&C, New
Capacity - .1546 bbls/lin. ft.

Surface Casing:

0 - 500' 9-5/8", 40.0 lb./ft., K-55, ST&C, New
Capacity - 7.58 bbls/100'

Production Casing:

0 - Total Depth 4-1/2", 11.6 lb./ft., N-80, LT&C, New
Capacity - 1.55 bbls/100'

Casing Equipment:

Conductor:

Float shoe on bottom joint.

Surface Casing:

Guide shoe on bottom with a float collar one joint off bottom. One centralizer 10' above the shoe and one every 3rd joint thereafter. Use total of 3 centralizers.

Production Casing:

Guide shoe on bottom and a differential fill float collar one joint off bottom. A stage collar may be run if sufficient shows are encountered in the upper Wasatch. Run cement baskets one joint above and one joint below stage collar. Exact placement of centralizers will be dependent upon location and number of productive intervals. Centralizers will be placed at one per joint across pay intervals and one per three joints across non-productive intervals to be cemented.

Cementing:

Conductor - 12-3/8", 54.5 lbs./ft., K-55

Cement to surface with 75 sacks of Class G cement with 2% calcium chloride. (Cement volume calculated using 100% excess.)

Surface Casing - 9-5/8", 40.0 lb./ft., K-55

Cement to surface with 175 sacks light weight slurry cement. Tail in with 50 sacks of Class G cement w/2% calcium chloride. If cement returns are not obtained at surface, recement hole from surface. (Cement volumes calculated using 100% excess.)

Production Casing: 4-1/2", 11.6 lbs./ft., N-80

Cement requirements to be determined using the Caliper log plus 25% excess. The length of necessary cement column and possible use of stage cementing equipment will be determined following electric log evaluation. If lost circulation occurs while drilling, consider using a light weight cement as an alternate to Class G neat.

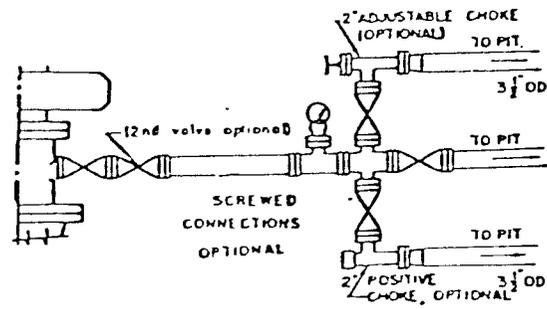
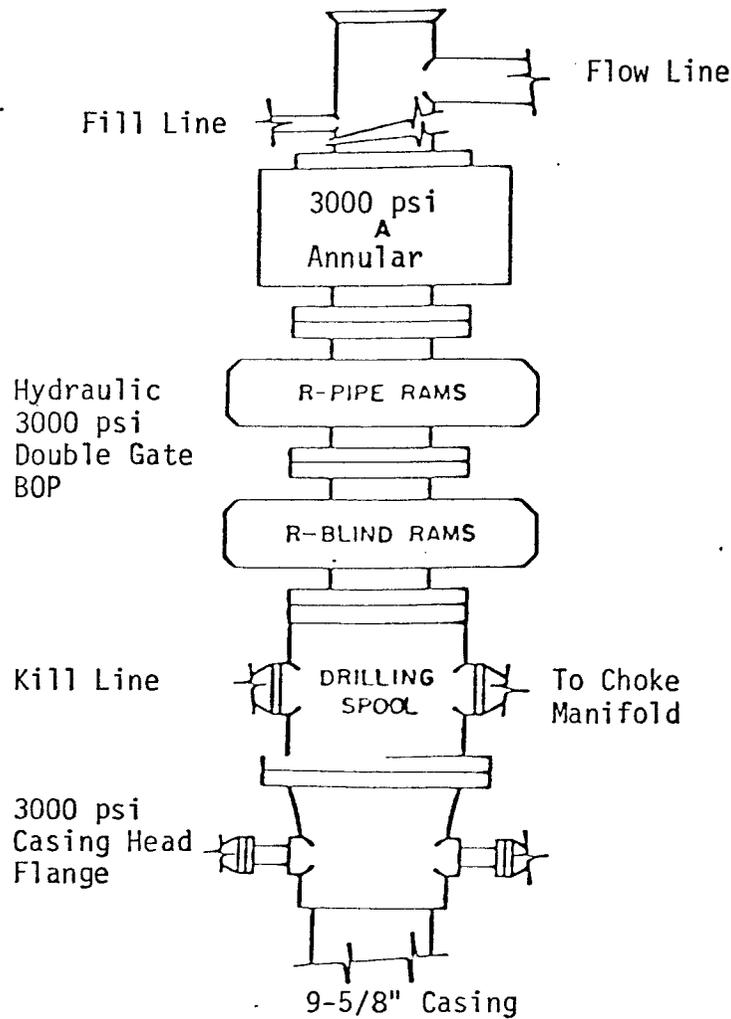
DRILLING PROCEDURE
PTS #31-26
WACO Unit
Carbon County, Utah

1. Drill 17-1/2" hole to 60'. Run and cement 13-3/8" O.D. conductor pipe with 75 sacks Class G cement with 2% calcium chloride.
2. Drill 12-1/4" hole to 500'. Run and cement 9-5/8" O.D. surface casing as specified.
3. WOC 8 hours. Cut off 9-5/8" casing and install 3000 psig casing flange. Nipple up BOP equipment and pressure test as specified.
4. Drill 7-7/8" hole to T.D. Perform drill stem testing as necessary, conduct electric logging and prepare hole for production casing.
5. Run and cement 4-1/2" casing as specified.
6. Release rig and clean location.

Special Instructions:

1. Run deviation surveys at regular intervals and in conjunction with bit trips.
2. Utilize a degasser and necessary solids control equipment.
3. Avoid surging hole on trips and fill hole properly when pulling pipe.
4. All drilling crew personnel should be familiar with the BOP operations. Operate pipe rams daily and close blind rams each trip out of the hole.
5. A regular daily mud check by the mud engineer is required. Drilling crews should observe to detect fluid level changes in mud pits.

PRESSURE CONTROL SPECIFICATIONS:



CHOKE-MANIFOLD DESIGN

Test Schedule - Double Ram Type Preventers

1. 10" BOP System and choke manifold to 2500 psi.
2. The BOP equipment will be well braced with hand controls extending clear of The drilling rig substructure.
3. The accumulator equipment will provide closing pressure in excess of that required with sufficient volume to operate all components.
4. Auxiliary equipment, stand pipe, valves and rotary hose will be tested as per test schedule or to the rated pressure of the equipment at the time of installation.
5. Modification of the pressure control equipment or testing procedures will be approved in writing on the tour sheets by the wellsite representative.

PACIFIC TRANSMISSION SUPPLY COMPANY

13 Point Surface Use Plan

Well Location

#31-26 Waco Unit

Located In

Section 26, T12S, R15E, S.L.B. & M.

Carbon County, Utah

PACIFIC TRANSMISSION SUPPLY COMPANY
#31-26 Waco Unit
Section 26, T12S, R15E, S.L.B. & M.

1. EXISTING ROADS

See attached Topographic Maps "A" & "B".

To reach the Pacific Transmission Supply Company well location, #31-26 Waco Unit, located in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 26, T12S, R15E, S.L.B. & M. from Myton, Utah.

Proceed Westerly out Myton, Utah along U.S. Highway 40-1.75 miles to its junction with Utah State Highway 53 to the South; proceed in a South-westerly direction along this Highway 29.0 miles to its junction with nine mile canyon road; proceed Southeasterly along this road 6 miles to its junction with a road to the South; proceed Southerly along this road 3.8 miles to the location site.

U.S. Highway 40 is a bituminous surfaced road. Utah State Highway 53 is a bituminous surfaced road for the First+ 5 miles, it then changes to be a dirt road to the junction of the road up nine mile canyon. The nine mile canyon road is an improved dirt County road. The Dry Canyon road is also a dirt road. The Highways mentioned above are maintained by state road crews. The county road is maintained by Carbon County road crews. The road up Dry Canyon will be maintained by Pacific Transmission Supply Co. or its subcontractors. This maintenance will consist of some minor grade work to smooth road surfaces and for snow removal.

None of the above described roads will require any construction, they will meet the necessary standards required to facilitate an orderly flow of traffic to and from this well during the drilling, completion and production phases of this well.

2. PLANNED ACCESS ROAD

See attached topographic Map "B".

A small access ramp will be required to gain access to this location site. This ramp will be approximately 75' long and will come onto the location site at the South end. The ground that this ramp traverses is relatively flat with very little elevation change, however the maximum grade will not exceed 8%. The vegetation along this ramp consists of sparse amount of sagebrush and grasses.

This ramp will be an 18" crown surface ramp (9' either side of the centerline), with drain ditches on the up hill side to drain off any water accumulated during rains or spring runoff. Side slopes will be 1 $\frac{1}{2}$:1 and terraced.

There will be no culverts required along this ramp as there are no major drainages encountered along it.

There are no existing fences, there will be no cattle guards or gates required.

PACIFIC TRANSMISSION SUPPLY COMPANY
#31-26 Waco Unit
Section 26, T12S, R15E, S.L.B. & M.

2. PLANNED ACCESS ROAD - cont...

There will be no turnouts required along this ramp.

All lands that will be disturbed by this action are under B.L.M. Jurisdiction.

3. LOCATION OF EXISTING AND PROPOSED FACILITIES

There are no known water wells, abandoned wells, disposal wells, producing wells, drilling wells, shut in wells, injection wells, monitoring or observation wells for other resources within a one mile radius of this location site.

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

There are no Pacific Transmission Supply Co. tank batteries, production facilities, oil gathering lines, gas gathering lines, injection lines, or disposal lines within a one mile radius of this location site.

In the event that production is established, all petroleum production facilities will be contained within the proposed location site (see location layout sheet). Plans for a flowline from this location to existing lines in the area will be submitted upon completion of the well. Plans will be submitted to the appropriate agencies upon completion of survey. The areas used for production facilities will be built using bulldozers, graders, and workman crews to lay lines, and set up equipment.

The rehabilitation of the disturbed area that is not required for the production of this well, will meet the requirements of Item #7 and #10 and these requirements and standards will be adhered to.

5. LOCATION OF AND TYPE OF WATER SUPPLY

Water to be used in the drilling of this well will be hauled from Nine Mile Creek, at a point located in the SW $\frac{1}{4}$ Section 7, T12S, R15E, S.L.B. & M. The water will be hauled by truck over the roads described in items #1 & #2 approximately 3.8 miles to the location site.

In the event the above can not be improvised other arrangements will be made and all concerned agencies will be notified. All necessary permits will be taken care of.

There will be no water well drilled at this location site.

6. SOURCE OF CONSTRUCTION MATERIALS

All construction materials for this location site and access ramp shall be borrow materials accumulated during the construction of the location site and access ramp. No additional road gravels or pit lining materials from other sources are anticipated at this time, but if they are required the appropriate actions will be taken to acquire them from private sources.

All surface disturbance is on B.L.M. lands.

PACIFIC TRANSMISSION SUPPLY COMPANY
#31-26 Waco Unit
Section 26, T12S, R15E, S.L.B. & M.

7. METHODS FOR HANDLING WASTE DISPOSAL

See location layout sheet.

A reserve pit will be approximately 8' deep and at least one half of this depth shall be below the surface of the existing ground.

One half of the reserve pit will be used as a fresh water storage area during the drilling of this well and the other one half will be used to store non-flammable materials such as cuttings, salts, drilling fluids, chemicals, produced fluids, etc.

If deemed necessary by the agencies concerned to prevent contamination to surrounding areas, the reserve pits will be lined with a gel.

The pits will have wire and overhead flagging installed if deemed necessary to protect the water fowl, wildlife, and domestic animals.

At the onset of drilling, the reserve pit will be fenced on three sides and at the time drilling activities are completed, it will be fenced on the fourth side and allowed to dry completely prior to the time that backfilling and other reclamation activities are attempted.

When the reserve pit dries and reclamation activities commence, the pits will be covered with a minimum of four feet of soil and all requirements in Item #10 will be followed.

All waste materials will be contained in a portable trash basket and will be hauled to the nearest sanitary land fill.

A portable toilet will be supplied for human waste.

8. ANCILLARY FACILITIES

There are no ancillary facilities planned for at the present time and none foreseen.

9. WELL SITE LAYOUT

See location layout sheet.

The B.L.M. District Manager shall be notified before any construction begins on the proposed location site.

As mentioned in Item #7, the pits will be unlined unless it is determined by the representatives of the agencies involved that the materials are too porous and would cause contamination to the surrounding area. Then the pits will be lined with a gel and any other type material necessary to make it safe and tight.

When drilling activities commence, all work shall proceed in a neat and orderly sequence.

PACIFIC TRANSMISSION SUPPLY COMPANY
#13-26 Waco Unit
Section 26, T12S, R15E, S.L.B. & M.

10. PLANS FOR RESTORATION OF SURFACE

As there is some topsoil on the locaiton site, all topsoil shall be stripped and stockpiled. (See location layout sheet and Item #9). When drilling and production activities have been completed the location site will be reshaped to the original contour and stockpiled topsoil spread over the disturbed area.

Any drainages re-routed during the construction activities shall be restored to their original line of flow as near as possible. Fences around pits are to be removed upon completion of drilling activities and all waste being contained in the trash basket will be hauled to the nearest sanitary land fill.

As mentioned in Item #7, the reserve pits will be completely fenced and wired and overhead flagging installed if there is oil in the pits, and then allowed to dry completely before covering.

Restoration activities shall begin within 90 days after completion of the well. Once completion activities have begun, they shall be completed within 30 days.

When restoration activities have been completed, the location site and access ramp shall be reseeded with a seed mixture recommended by the B.L.M. District Manager when the moisture content of the soil is adequate for germination. The Lessee further covenants and agrees that all of said clean-up and restoration activities shall be done and performed in a diligent and most workmanlike manner and in strict conformity with the above mentioned Items #7 and #10.

11. OTHER INFORMATION

The Topography of the General Area (See Topographic Map "A".)

The area is mountainous and is a portion on the Roan Cliffs.

The mountains are interlaced with numerous canyons and ridges formed by the nonperennial streams of the area. The sides of these canyons are extremely steep and ledges formed in sandstones, conglomerates, and shale deposits are extremely common to the area.

The geologic structures of the area that are visible are of the Green River formation (Eocene Epoch) Tertiary Period in the upper elevations and the cobblestone and younger alluvial deposits from the Quarternary Period and of the Duchesne River formation in the lower elevations.

Out corps of sandstone ledges, conglomerate deposits, and shale are common in this area.

The topsoil in the area range from a light brownish-gray shale (SM-ML) type soil poorly graded gravels and shales to a clayey (OL) type soil.

The majority of the numerous washes and streams in the area are of non-perennial nature flowing during the early spring run-off and extremely heavy rain storms of long duration which are extremely rare as the normal annual rainfall in

PACIFIC TRANSMISSION COMPANY
#13-26 Waco Unit
Section 26, T12S, R15E, S.L.B. & M.

11. OTHER INFORMATION - cont...

the area in only 8".

Nine Mile Creek to the North of this location is the only perennial stream that is affected by this location site.

Due to the low precipitation average, climate conditions and the marginal types of soils, the vegetation that is found in the area is common of the semi-arid region we are located in. It consists of areas of cedar trees, sagebrush, rabbitbrush, some grasses, and cacti as the primary flora. This is also true for the lower elevations.

The fauna of the area consists predominantly of the mule deer, elk, coyotes, rabbits and varieties of small squirrels and other types of rodents. The area is used by man for the primary purpose of grazing domestic sheep and cattle.

The birds of the area are raptors, finches, ground sparrows, magpies, crows, and jays.

The Topography of the Immediate Area (See Topographic Map "B".)

#31-26 Waco Unit sits on a very steep hill side just out of the bottom on the North side of a large nonperennial drainage known as Dry Canyon. The Dry Canyon drainage drains to the Northeast into the aforementioned Nine Mile Creek (perennial).

The ground slopes through this location to the Southeast at approximately a 11% grade into the above mentioned drainage.

The majority of the drainages in the area around this location drain to the Northeast into the Nine Mile Creek.

The vegetation in the immediate area surrounding the location site is predominantly cedar trees, sagebrush, and grasses. There are no occupied dwellings or other facilities of this nature in the general areas. There are no visible archaeological, historical or cultural sites within any reasonable proximity of the proposed location site. (See Topographic Map "B".)

12. LESSEE'S OR OPERATORS REPRESENTATIVE

R. J. Firth
85 South 200 East
Vernal, UT 84078

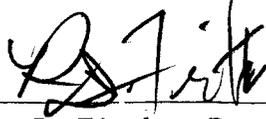
(801) 789-4573

PACIFIC TRANSMISSION COMPANY
#13-26 Waco Unit
Section 26, T12S, R15E, S.L.B. & M.

13. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge and belief, true and correct; that the work associated with the operations proposed herein will be performed by Pacific Transmission Supply Company and its contractors and subcontractors in conformity with this plan and terms and conditions under which it is approved.

Date

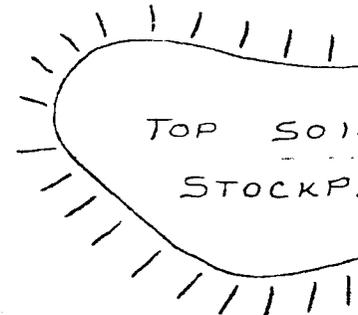
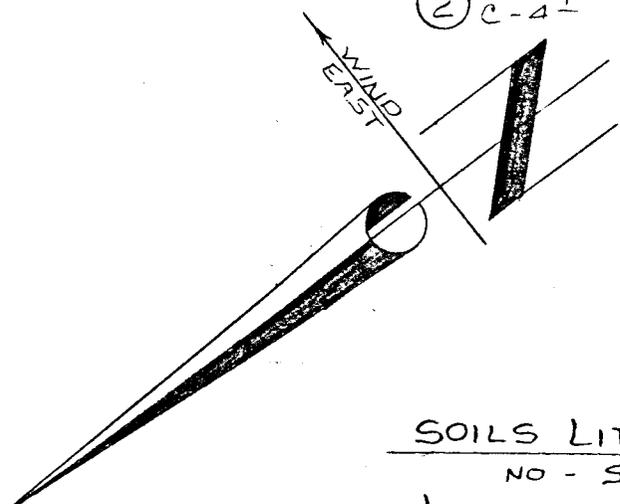
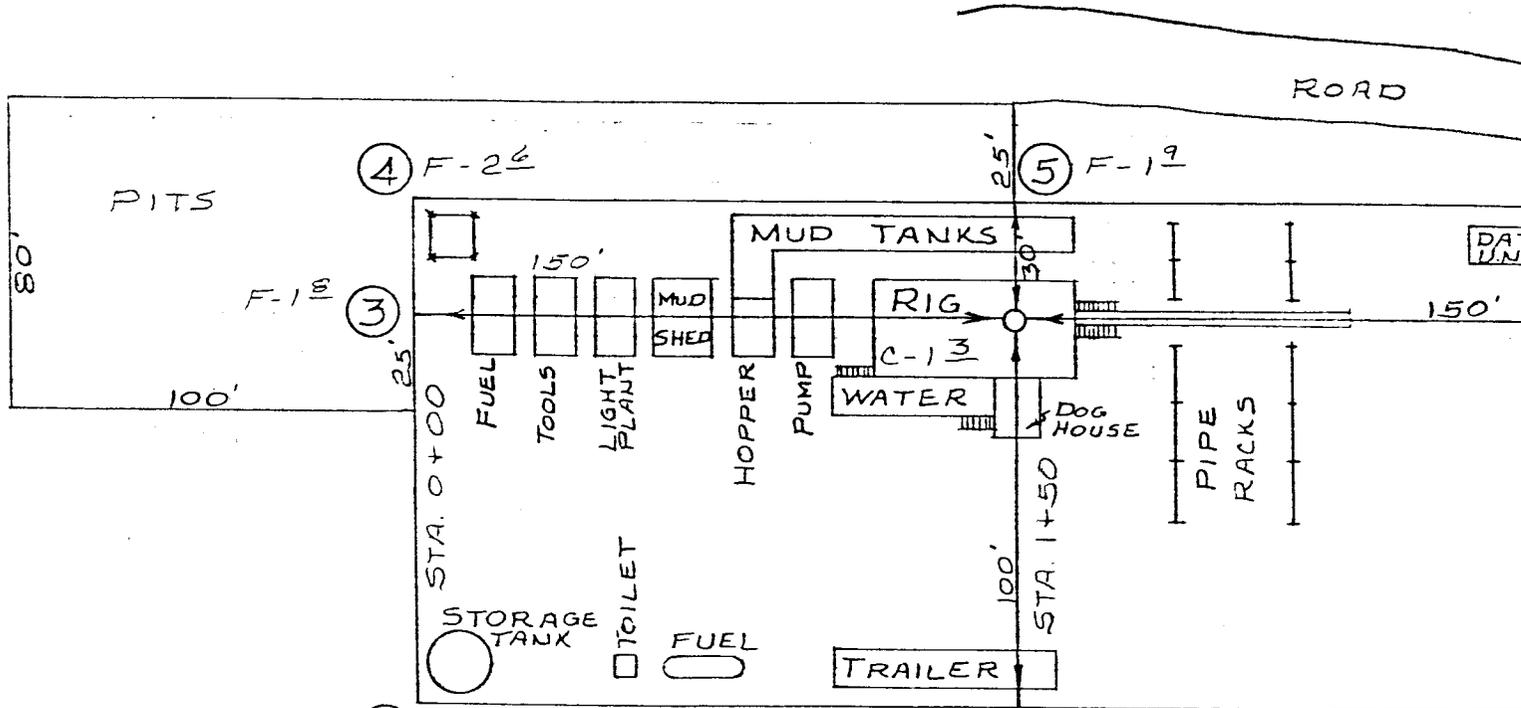


R. J. Firth - Petroleum Engineer

PACIFIC TRANSMISSION SUPPLY CO.

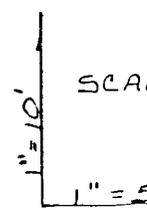
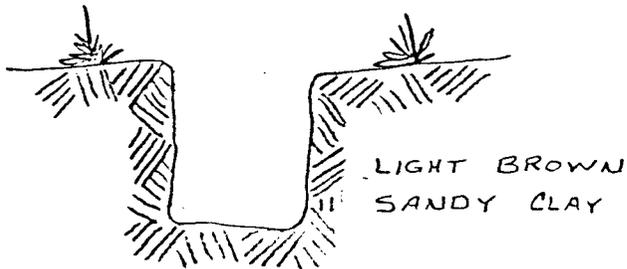
31-26 WACO UNIT

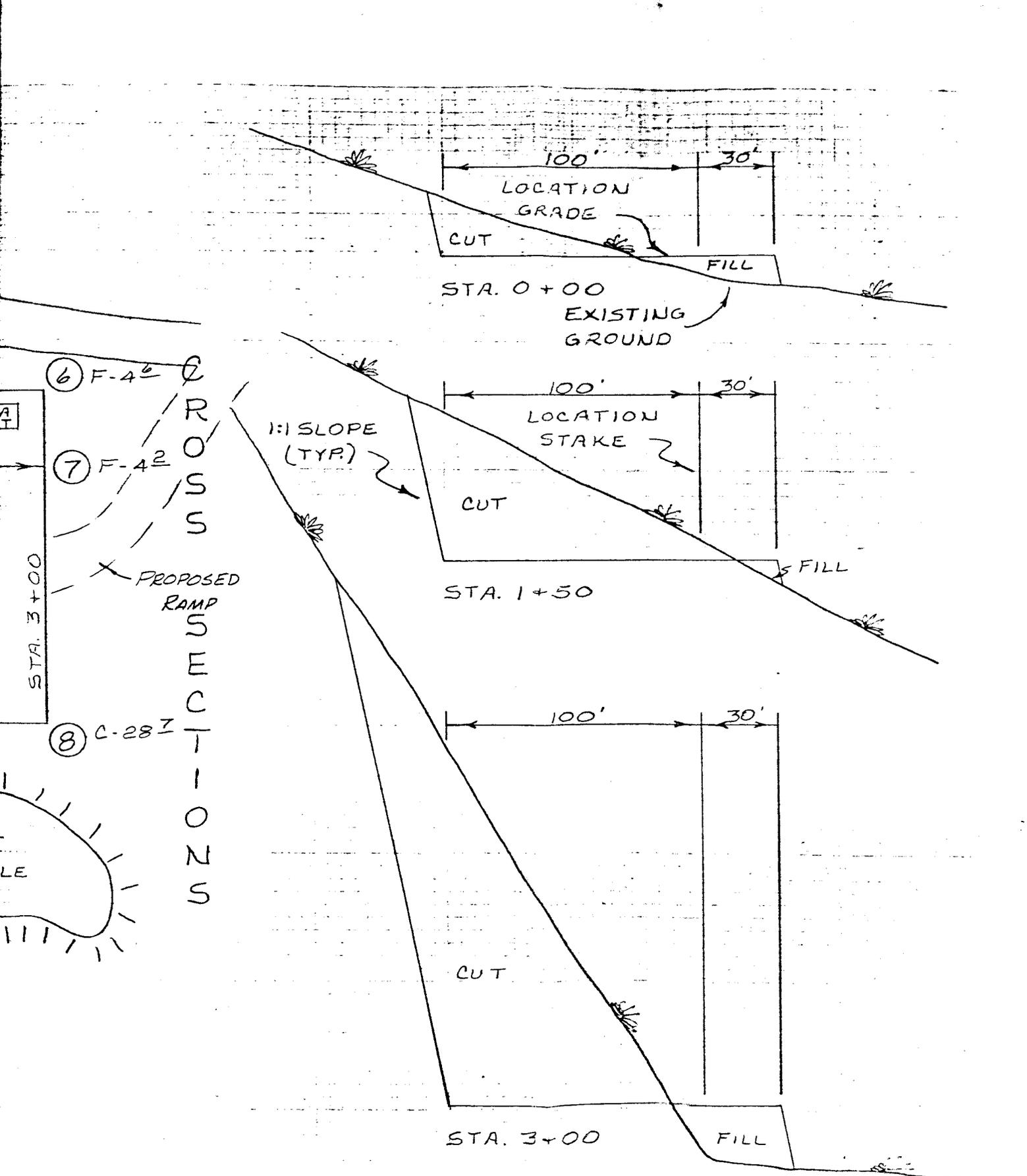
LOCATION LAYOUT & CUT SHEET



SOILS LITHOLOGY

NO - SCALE





APPROX. YARDAGES

CUT - 9,717 CU. YDS.
 FILL - 834 CU. YDS.

PACIFIC TRANSMISSION & SUPPLY

PROPOSED LOCATION

#31-26 WACO UNIT

TOPO.

MAP "B"



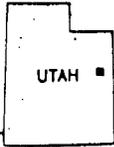
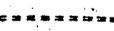
SCALE 1" = 2000'

ROAD CLASSIFICATION

Light-duty

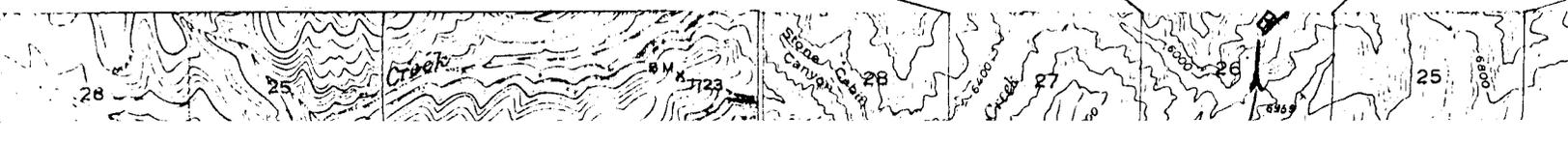
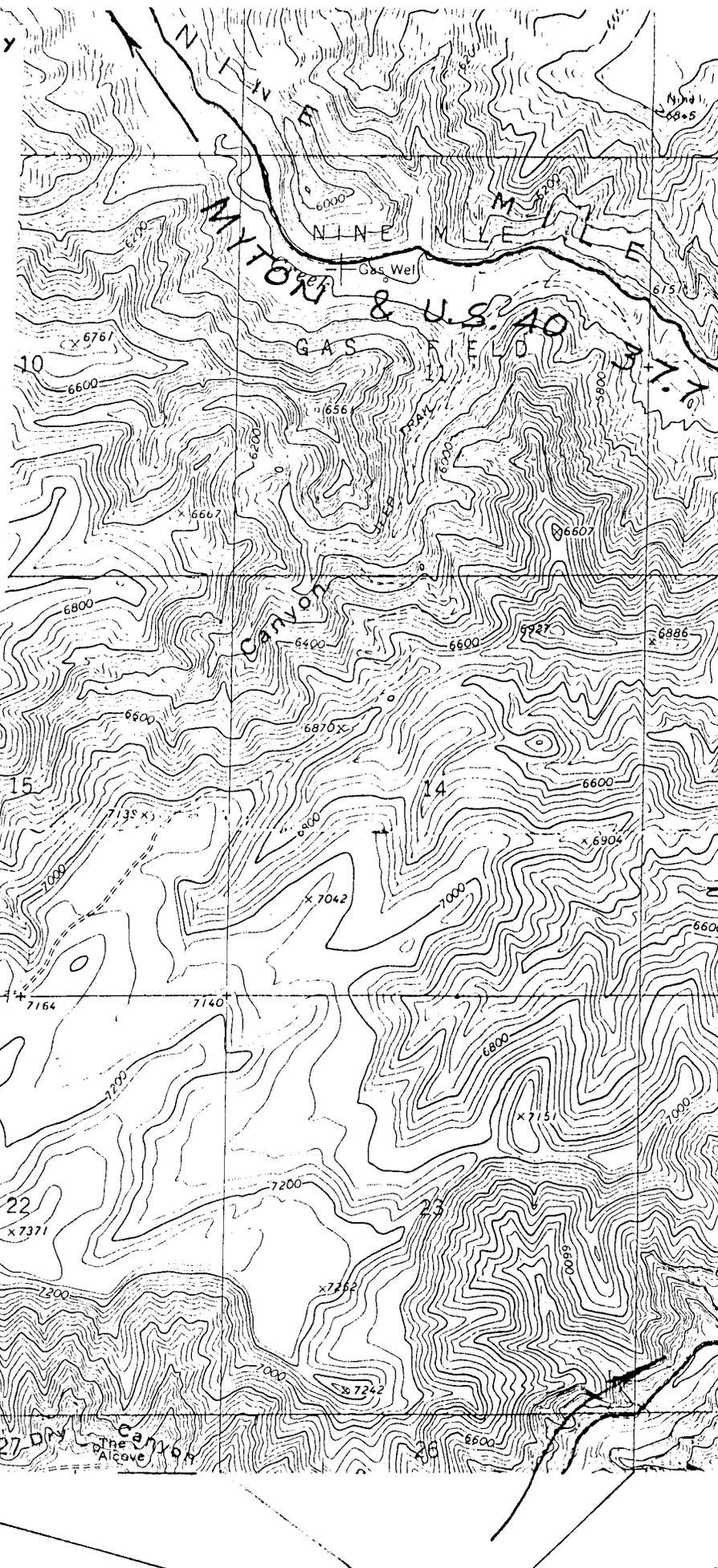


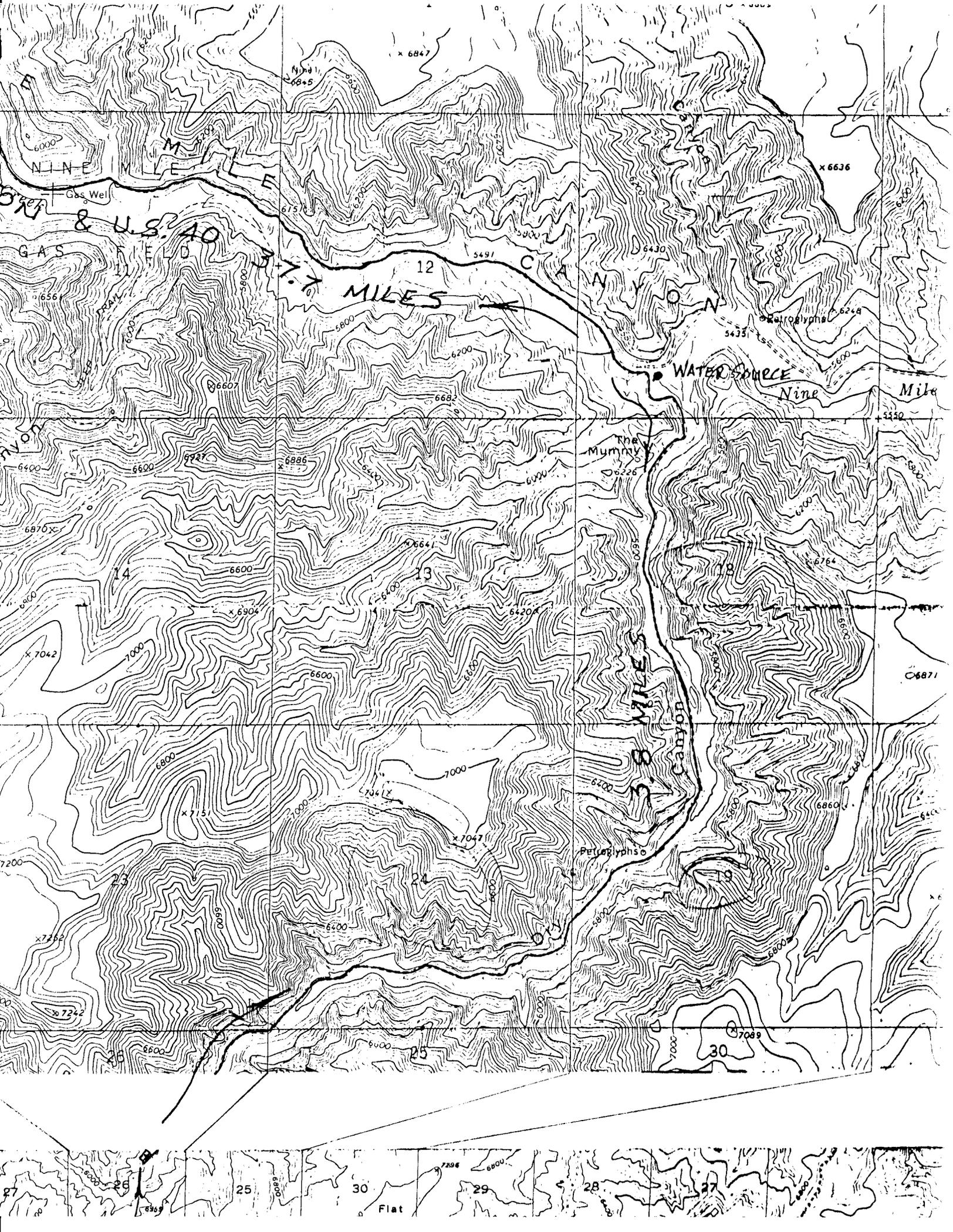
Unimproved dirt



UTAH

QUADRANGLE LOCATION





12 MILES

13 MILES

NINE MILE CANYON
GAS FIELD
K.K. & U.S. 40

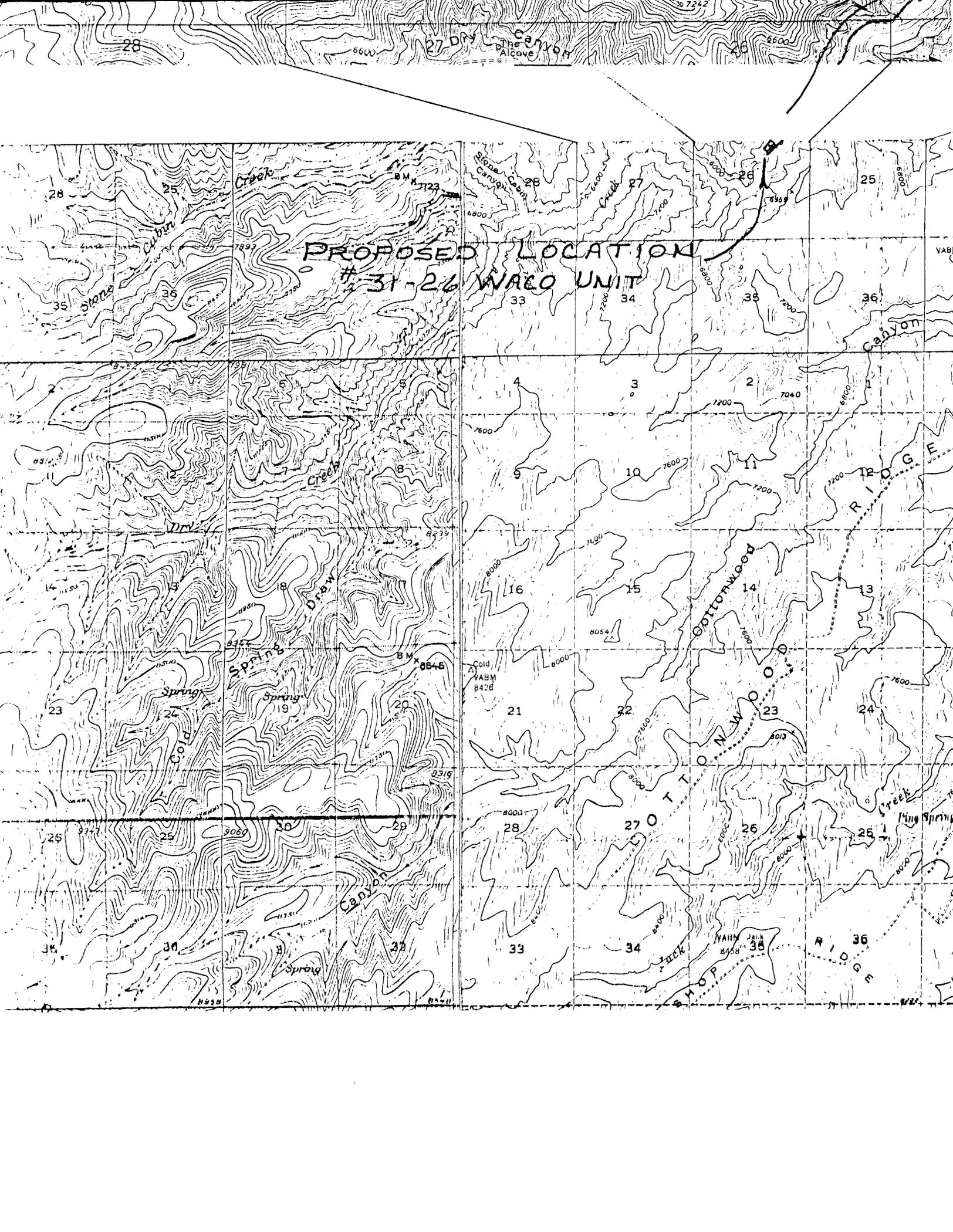
WATER SOURCE

The Mummy

Petroglyphs

Avon

25 30 29 28 27
Flat



PROPOSED LOCATION
#31-26 WACO UNIT

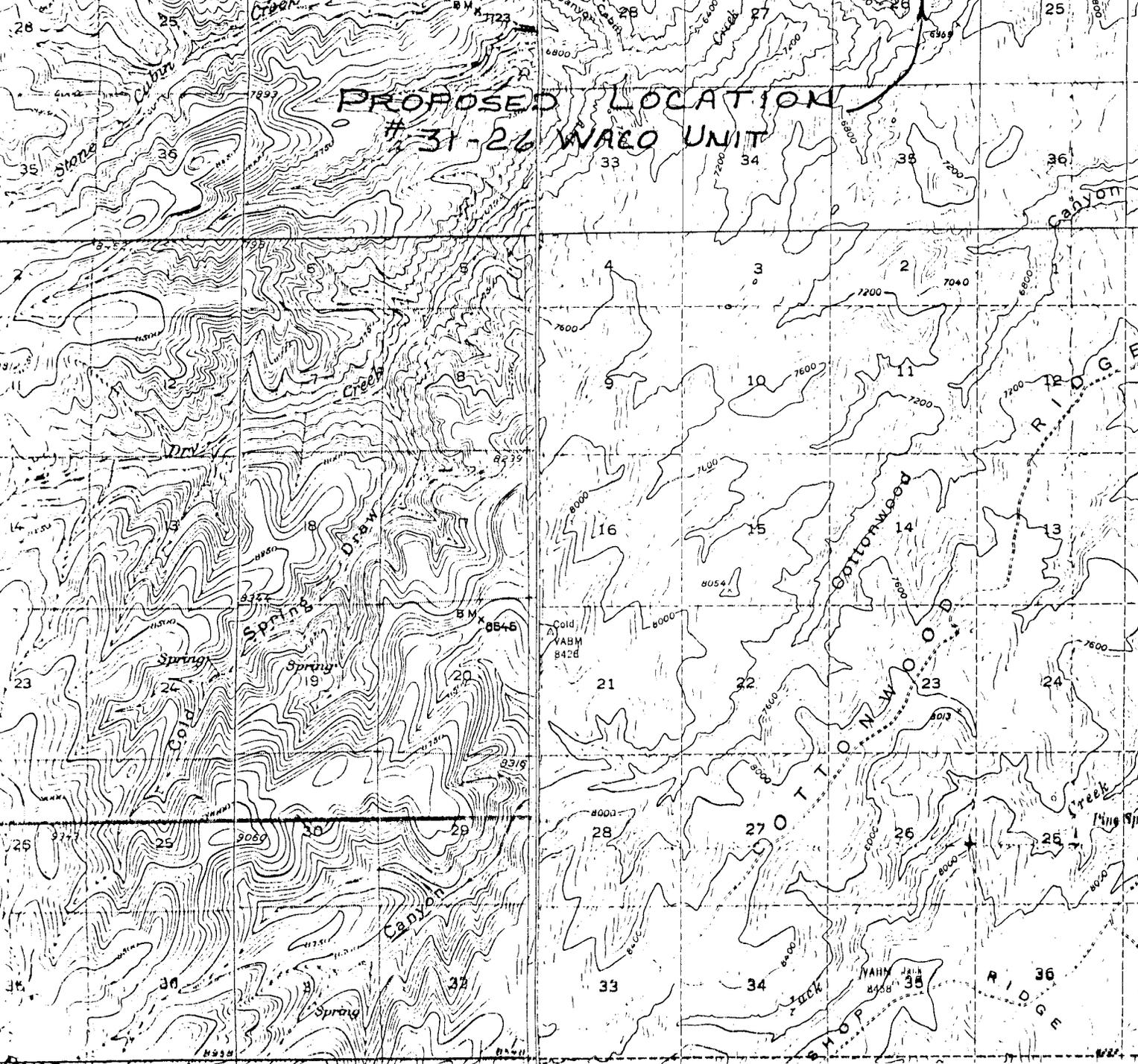
27 Dry The Canyon
Alcove

COTTONWOOD

RIDGE

RIDGE

STOP



28 25
35 Stone Canyon

Creek
B.M. 7123

28 27 26
6600 6800
6969

25
6850

28 25
35 Stone Canyon
7299

33 34 35
7200 7000
7200

36
7200

14 13
8960
8579

4 3 2
7600 7000 7040
7200

1 2
6800

23 24
8327
8546

16 15 14
8000 7100 8054
6000

13 14
7700

26 25
8319
9069

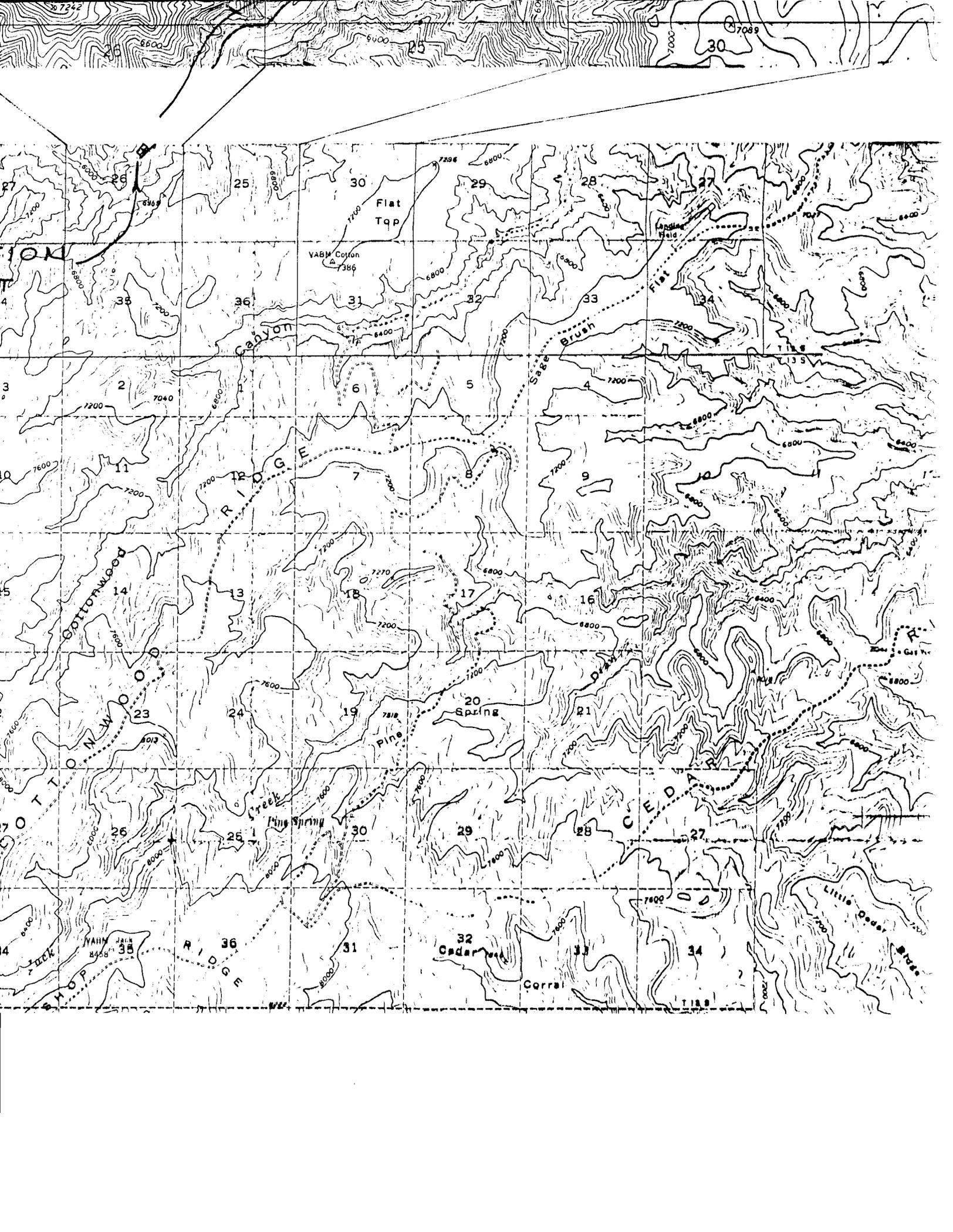
21 22 23
8000 7100 8013
6000

24 23
7600

30 29
8751
8441

28 27 26
8000 8400 8000
7400

26 25
8000





United States Department of the Interior

IN REPLY REFER TO

3100
U-8283
(U-601)

BUREAU OF LAND MANAGEMENT
Moab District
Price River Resource Area
P. O. Drawer AB
Price, Utah 84501

July 16, 1980

Memorandum

To: District Engineer, USGS, Salt Lake City, Utah
From: Area Manager, Price River
Subject: Pacific Transmission Supply Company APD (Well No. 31-26)

On July 11, 1980, a joint onsite inspection was made to determine the adequacy of PTS's proposed drilling plans. It was agreed to round off the proposed pad between corners 1 and 8 in order to avoid cutting into the slope. Also, the pad would be moved 50 feet to the southwest.

Please forward the following stipulations to PTS with your notice of approval.

1. Topsoil to a depth of 10 inches shall be stockpiled and respread when drilling is completed.
2. The impacted area shall be contoured to the original contour when reclamation begins. A roughened surface shall be left.
3. The impacted area shall be reseeded in the fall (October through November) with the use of a drill, using the following seeding mixture:

<u>Common Name</u>	<u>Botanical Name</u>	<u>Rate - lbs/Acre</u>
Great Basin wildrye	Elymus cinereus	5
Western wheatgrass	Agropyron Smithii	5
Winterfat	Ceratoides lanata	1½
Globemallow	Sphaeralcea grossulariaefolia	1

4. Drill pits shall be lined with either bentonite or plastic.

Leon E. Blyper

Arch. clear. per conversation w/ Leon 8-18-80 - copy for the com.

FROM: : DISTRICT GEOLOGIST, E, SALT LAKE CITY, UTAH

TO : DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-8283OPERATOR: Pacific Transmission Supply WELL NO. 31-26LOCATION: SE 1/4 NW 1/4 NE 1/4 sec. 26, T. 12S., R. 15E., SLMCarbon County, Utah

1. Stratigraphy: Operator tops appear reasonable

Green River	surface
Wasatch	1635'
Mesaverde	5360'
<u>TD</u>	5900'

2. Fresh Water:

None probable (useable water to 2000').

3. Leasable Minerals:

Possible minor oil shale occurrences in Green River (0 to 1633')
Minor coal seams in Mesaverde (5300' to 5700').4. Additional Logs Needed: Adequate5. Potential Geologic Hazards: None anticipated.

6. References and Remarks:

Doellings' Monograph # 3, p. 251Signature: Gregory W. WoodDate: 6-24-80

United States Department of the Interior
Geological Survey
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, Utah 84104

USUAL ENVIRONMENTAL ASSESSMENT

Date August 4, 1980

Operator: Pacific Transmission Supply Project or Well Name and No.: 31-26
Location: 1172' FNL & 1750' FEL Section: 26 Township: 12S Range: 15E
County: Carbon State: Utah Field/Unit: Waco (proposed Unit)
Lease No.: U-8283 Permit No.:
Joint Field Inspection Date: July 11, 1980

Prepared By: Greg Darlington

Field Inspection Participants, Titles and Organizations:

Greg Darlington USGS - Vernal
Mark Mackiewicz BLM - Price
Ernie Bvist Bvist Construction
David Stubbs Ross Construction
Jim Hacking D.E. Casada Construction
Ron Dettloffson Natural Gas Corporation

Related Environmental Documents:

Unit Resource Analysis, Range Creek Planning Unit, BLM, Price

jh 8-18-80

*Admin Council?
Pad 130x350
Pt 80x100
50' x 30' new corners
3/4" x 30' improved
→ Pts proposed
→ Cond. of P. 7
182
2006*

1. A drill pad 130' wide x 350' long and a lined reserve pit 80' x 100' would be constructed. Approximately 50 feet of new access road, averaging 18' driving surface, would be constructed and approximately 3.8 miles of existing road would be improved to 18' driving surface from a maintained road. 1.6 acres of disturbed surface would be associated with the project. Maximum disturbed width of access road would be limited to 30'. The existing road along the South half of the East side would be widened to about 50 feet width to allow for turnout and additional parking area, (50' x 200'). This would facilitate access to the pad. Improvements to the existing road consist of an improved low water crossing of Nine Mile Creek and widening about 3 places where erosion caused by Dry Creek has narrowed this road.
2. Drilling would be to a proposed depth of 5900 feet.
3. Waste disposal
4. Traffic
5. Water requirements
6. Completion
7. Production
8. Transportation of hydrocarbons

Details of the proposed action are described in the Application for Permit to Drill.

The location was redimensioned to modify impacts to existing high canyon walls and allow for adequate sized area of operations. This will still be a tight location.

Environmental Considerations of the Proposed Action:

Regional Setting/Topography: The location is in a narrow canyon with high rock walls and a sizeable stream flows through this canyon in Dry Creek just to the East of this proposed pad. The existing road passes on the East edge of the proposed pad.

PARAMETER

A. Geology

1. Other Local Mineral Resources to be Protected: Possible minor oil shale in the Green River Formation. Minor coal seams are possible in the Mesaverde (5300' to 5900').

Information Source: Mineral Evaluation Report

2. Hazards:

a. Land Stability: The land is apparently quite stable for this proposed project. There is however some hazard arising from the steep rock walls on the West side of the location especially if any explosives are used to remove rock from the proposed pad.

Information Source: Field Observation

b. Subsidence: Subsidence is not likely to be a major problem other than that there is some potential for rockslides. Contouring the pad away from the high canyon walls may partially mitigate this hazard.

Information Source: Field Observation

c. Seismicity: The location is in an area of moderate seismic risk.

Information Source: Geologic Atlas of the Rocky Mountain Region

d. High Pressure Zones/Blowout Prevention: Some loss of circulation is anticipated from 500-4000 feet. Higher than normal formation pressures should be anticipated from 4000-5900 feet. BOP equipment and methods of dealing with these problems are described in the APD.

Information Source: APD

B. Soils:

1. Soil Character: The soil is a sandy clay with rock fragments and some alluvial characteristics are present.

Information Source: Field Observation

2. Erosion/Sedimentation: There is no new road construction other than construction of a turnout and entrance ramp and the minor upgrading of existing road. The pad is located on fairly level ground once corner 8 is contoured off. (The Southwest corner)

Information Source: Field Observation and APD

C. Air Quality: There would be temporary impacts during construction and drilling operations.

Information Source: Field Observation

D. Noise Levels: There would be temporary impacts during construction and drilling operations. Any rock blasting could present a special hazard due to the narrow canyon walls.

Information Source: Field Observation

E. Water Resources

1. Hydrologic Character

a. Surface Waters: The bed of Dry Creek is located 30-100 feet East of the proposed pad the present existing road is the boundary of the proposed pad. Dry Creek proceeds about 3.8 miles to Nine Mile Creek which then flows to the Green River.

Information Source: APD and Field Observation

b. Ground Waters: No fresh water is probable. Useable water is possible to 2000'.

Information Source: Mineral Evaluation Report

2. Water Quality

a. Surface Waters: There is considerable potential for contamination of Dry Creek. The pits have been repositioned to the West side of the access road to possibly mitigate some of this potentially serious problem. They would be about 30-40' from the creek.

Information Source: Field Observation

b. Ground Waters: No particular impacts to ground water quality are foreseen. The casing and mud drilling program and pressure control descriptions in the APD describe what appears to be an adequate program for the protection of ground water aquifers.

Information Source: APD

F. Flora and Fauna

1. Endangered and Threatened Species Determination

Based on the BLM comments received from Price, BLM on August 4, 1980, we determine that there would be no effect on endangered and threatened species and their critical habitat.

2. Flora: Sagebrush, greewood, cottonwood trees, native grasses and juniper.

Information Source: Field Observation

3. Fauna: Mule deer, elk, coyotes, rabbits, small rodents, and birds such as raptors, finches, ground sparrows, magpies, crows and jays.

Information Source: APD

G. Land Uses

1. General: Primarily the grazing of domestic sheep and cattle.

Information Source: APD

2. Affected Floodplains and/or Wetlands: None. The location is close to Dry Creek and any spills could follow the Creek Channel to Nine Mile Creek. Primarily, this is a gas well and significant shows of oil are perhaps not expected.

Information Source: APD

3. Roadless/Wilderness Area: The area on the opposite side of the access road up Dry Creek to this pad was under wilderness consideration in August 1979, but has not been recommended for Intensive Wilderness Inventory.

Information Source: BLM Wilderness Inventory Map, August 1979 and BLM Proposed Wilderness Study Areas Map, April 1980

- H. Aesthetics: The location is in a remote area and presents some aesthetic intrusion into the scenic features of the high canyon walls. Upon completion of the location most visually aesthetic impacts would be mitigated. Production facilities are not thought to be much of an aesthetic problem at this location.

Information Source: Field Observation

- I. Socioeconomics: One well is not likely to have a highly significant impact although considerable related cumulative impacts may be involved. Employment may increase and new pipelines would be required to bring the hydrocarbon resources to market.

Information Source: Field Observation

- J. Cultural Resources Determination: Based on the BLM comments received from Mark Mackiewicz on July 11, 1980, we determine that there would be no effect on cultural resources subject to this action.

Information Source: Mark Mackiewicz, BLM, Price

- K. Adequacy of Restoration Plans: Adequate with the incorporation of BLM stipulations agreement to rehabilitate any disturbed areas involved in the turnout area added to the pad at the onsite. Turnout area and entrance ramp were designed at the onsite to facilitate pad access.

Information Source: BLM stipulations letter, onsite discussion and APD

Alternatives to the Proposed Action:

1. Disapproving the proposed action or no action - If the proposed action is denied, no action would occur, the existing environment would remain in its present state, the lessee/operator would not realize any return on investments and the public would be denied a potential energy source.
2. Approving the project with the recommended stipulations - Under federal oil and gas leasing provisions, the Geological Survey has a responsibility to approve mineral development if the environmental consequences are not too severe or irreversible. Permanent damage to the surface and subsurface would be prevented as much as possible under USGS and Surface Management Agency supervision. Environmental impacts would be significantly mitigated.

Adverse Environmental Effects:

1. If approved as proposed:
 - a. About 1.6 acres of vegetation would be removed, increasing and accelerating erosion potential.
 - b. Pollution of groundwater systems could occur with the introduction of drilling fluids into the aquifer(s). The potential for interaquifer leakage and lost circulation is ever-present, depending on the casing program.
 - c. Minor air pollution would be induced on a temporary basis due to exhaust emissions from rig engines and support traffic.
 - d. The potential for fires, leaks, spills of gas and oil or water exists.
 - e. During construction and drilling phases of the operation, noise and dust levels would increase.
 - f. Distractions from aesthetics during the lifetime of the project would exist.
 - g. Erosion from the site would eventually be carried as sediment in the Nine Mile Creek. The potential for pollution to Dry Creek would exist through leaks and spills.
 - h. If hydrocarbons would be discovered and produced, further development of the area could be expected to occur, which would result in the extraction of irreplaceable resource, and further negative environmental impacts. These impacts include the cumulative loss of wildlife habitat due to the areas necessary for roads, pipelines, drillsites, and transmission lines. These actions may disrupt wildlife social behavior and force habitat relocation over an extended period of time. In addition, the cumulative effects of non-point erosion become substantial in a developing field, primarily those located near perennial streams where siltation and sedimentation are critical to aquatic life cycles.

Recommended Approval Conditions:

Drilling should be allowed, provided the following mitigative measures are incorporated into the proposed APD and adhered to by the operator:

1. See attached Lease Stipulations.
2. See attached BLM Stipulations.
3. Reserve pits will be lined with bentonite or similarly suitable substance. Southeast corner of the pad will be extended by 50' to compensate for a contoured Southwest corner where disturbing an existing cliff would pose a geologic hazard to the operation. Topsoil will be at the South side of the location and other excavation dirt may be piled along the access road. A turnout area just East of the pad will allowed for turnout access to the pad and additional parking. (50' x 200')

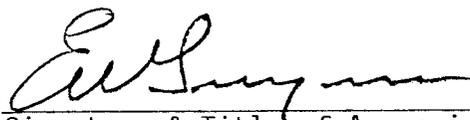
Controversial Issues and Conservation Division Response:

None are apparent at present.

We have considered the proposed action in the preceding pages of this EA and find, based on the analysis of environmental considerations provided therein, no evidence to indicate that it will significantly (40 CFR 1508.27) impact the quality of the human environment.

Determination:

I determine that the proposed action (as modified by the recommended approval conditions) does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, Section 102 (2)(C).

 DISTRICT ENGINEER

Signature & Title of Approving Official

AUG 18 1980
Date

USO-3103.2-100
(Oct. 22, 1968)

Serial No. U- 8283

STIPULATIONS FOR LANDS IN OIL SHALE WITHDRAWAL,
EXECUTIVE ORDER 5327 OF APRIL 15, 1930

The lessee under the above oil and gas lease hereby agrees that the following agreement and stipulations are by this reference incorporated as terms and conditions of said lease as to the following lands:

All the lands in the lease.

The lessee agrees that:

1. No wells will be drilled for oil or gas except upon approval of the Regional Oil and Gas Supervisor of the Geological Survey, it being understood that drilling will be permitted only in the event that it is established to the satisfaction of the Supervisor that such drilling will not interfere with the mining and recovery of oil shale deposits or the extraction of shale oil by in situ methods or that the interest of the United States would best be served thereby.
2. No wells will be drilled for oil or gas at a location which, in the opinion of the Regional Oil and Gas Supervisor of the Geological Survey, would result in undue waste of oil shale deposits or constitute a hazard to or unduly interfere with mining or other operations being conducted for the mining and recovery of oil shale deposits or the extraction of shale oil by in situ methods.
3. When it is determined by the Regional Oil and Gas Supervisor of the Geological Survey that unitization is necessary for orderly oil and gas development and proper protection of oil shale deposits, no well shall be drilled for oil or gas except pursuant to an approved unit plan.
4. The drilling or the abandonment of any well on this lease shall be done in accordance with applicable oil and gas operating regulations including such requirements as the Regional Oil and Gas Supervisor of the Geological Survey may prescribe as necessary to prevent the infiltration of oil, gas or water into formations containing oil shale deposits or into mines or workings being utilized in the extraction of such deposits.

(Date)

(Signature of Lessee)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER
 SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Pacific Transmission Supply Company

3. ADDRESS OF OPERATOR
 P.O. Box 3093, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface
 1172' FNL, 1750' FEL, NW 1/4 NE 1/4, Section 26, T12S, R15E
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 35 miles southwest of Myton, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1172'
 16. NO. OF ACRES IN LEASE 1280+
 17. NO. OF ACRES ASSIGNED TO THIS WELL 640

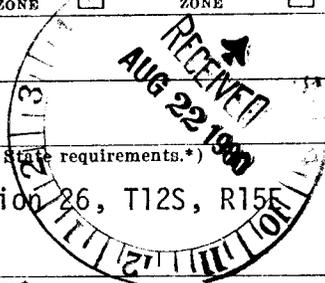
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 5900'
 20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5960' Ungr. ground
 22. APPROX. DATE WORK WILL START* July 1, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	54.5#	60	75 sacks
12-1/4"	9-5/8"	40.0#	500	225 sacks
7-7/8"	4-1/2"	11.6#	5900	450 sacks

5. LEASE DESIGNATION AND SERIAL NO. U-8283
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 7. UNIT AGREEMENT NAME Waco (Proposed)
 8. FARM OR LEASE NAME Federal
 9. WELL NO. 31-26
 10. FIELD AND POOL, OR WILDCAT Wildcat
 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 26, T12S, R15E
 12. COUNTY OR PARISH Carbon
 13. STATE Utah



Operator proposes to drill well to a depth of 5900' or 500' into the Cretaceous Mesaverde. All water flows and significant hydrocarbon shows will be evaluated and reported. Operations will be conducted according to the attached well program and procedure and in conformance with all applicable regulations. No abnormal pressures, temperatures or other potential hazards are anticipated. Operations are expected to commence about July 1, 1980 and be completed in about 30 days.

State of Utah, Department of Natural Resources
 Division of Oil, Gas, and Mining
 1588 West North Temple
 Salt Lake City, Utah 84116

DUPLICATE COPY

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 R. J. Firth TITLE Petroleum Engineer DATE May 28, 1980
 (This space for Federal or State office use)

PERMIT NO. APPROVAL DATE
 APPROVED BY W. P. Macton FOR E. W. GYNN DISTRICT ENGINEER DATE AUG 18 1980
 CONDITIONS OF APPROVAL, IF ANY:

3-USGS, SLC, UT; 1-St. of UT, Div. of OG&M; 1-J.C. Osmond; 1-D.E. Beardsley; 1-E.R. Henry;

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

State O. G.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Pacific Transmission Supply

WELL NAME: Federal #31-26

SECTION 26 NW NE TOWNSHIP 12S RANGE 15E COUNTY Carbon

DRILLING CONTRACTOR _____

RIG # _____

SPUDDED: DATE 8/30/80

TIME 11:30 p.m.

How dry hole spudder

DRILLING WILL COMMENCE ASAP

REPORTED BY Ron Firth

TELEPHONE # _____

DATE September 2, 1980

SIGNED *M. J. M.*

cc: USGS

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR
Natural Gas Corporation of Calif. for Pacific

3. ADDRESS OF OPERATOR Transmission Supply Co.
85 South 200 East, Vernal, UT 84078

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1172' FNL, 1750' FEL, NW/4 SE/4,
AT TOP PROD. INTERVAL: Section 26, T12S, R15E
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) Spudding Operations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

5. LEASE
U-8283

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
WACO

8. FARM OR LEASE NAME
Federal

9. WELL NO.
31-26

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 26, T12S, R15E

12. COUNTY OR PARISH
Carbon

13. STATE
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Rigged up air drilling rig and equipment.

Spudded 17-1/2" surface hole at 11:30 p.m. August 30, 1980. Drilled surface hole to 65'. Set 2 jts. 13-3/8", 48.0#, K-55 conductor casing at 65' and cemented to surface with 75 sacks cement.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED R. J. Firth TITLE District Supt. DATE September 8, 1980

(This space for Federal or State office use)

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

3-USGS, UT; 1-St. of Utah OG&M; 1-J. C. Bendler; 1-E. R. Henry

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

SUNDRY NOTICES AND REPORTS ON WELLS

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1. oil well gas well other

2. NAME OF OPERATOR
Natural Gas Corporation of California

3. ADDRESS OF OPERATOR
85 South 200 East, Vernal, UT 84078

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1172' fn1, 1750' fe1, NW/4 SE/4,
AT TOP PROD. INTERVAL: Section 26, T12S, R15E
AT TOTAL DEPTH:

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SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) <u>Change of Operator</u>	<input checked="" type="checkbox"/>	

5. LEASE
U-8283

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
WACO

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Federal

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11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 26, T12S, R15E

12. COUNTY OR PARISH
Carbon

13. STATE
Utah

14. API NO.
43-007-30052

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5960' Ungr. gr.

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Application for Permit to Drill submitted on May 28, 1980 and approved August 18, 1980, indicated Pacific Transmission Supply Company as Name of Operator. Name of Operator should be changed to Natural Gas Corporation of California, Operator of the WACO Unit.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED R. J. Firth TITLE District Supt. DATE October 27, 1980

(This space for Federal or State office use)

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

cc: 3-USGS, UT; 1-OG&M, UT; 1-JCBendler; 1-ERHenry; 1-CTClark

**NATURAL GAS CORPORATION
OF CALIFORNIA**

85 South 200 East
Vernal, Utah 84078

November 18, 1980

Mr. E. W. Gynn
GEOLOGICAL SURVEY-CONSERVATION DIV.
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, UT 84104

Mr. Frank M. Hamner
DIVISION OF OIL, GAS & MINING
1588 West North Temple
Salt Lake City, UT 84116

Re: NGC #31-26 Federal, Waco Unit
Section 26, T12S, R15E
Uintah County, Utah

Gentlemen:

Enclosed are your copies of Form 9-331, Sundry Notices and Reports on Wells, Subsequent Report of Setting and Cementing Surface Casing for the above referenced well.

Very truly yours,



R. J. Firth
District Supt.

RJF/kh

Encls.

cc: J. C. Bendler
E. R. Henry
C. T. Clark (Cover Letter Only)

RECEIVED

NOV 19 1980

DIVISION OF
OIL, GAS & MINING

*2 hole #
789-4573
Rone - Firth*

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

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Natural Gas Corporation of California

3. ADDRESS OF OPERATOR
85 South 200 East, Vernal, UT 84078

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1172' fnl, 1750' fe1, NW¼ SE¼,
AT TOP PROD. INTERVAL: Section 26, T12S, R15E
AT TOTAL DEPTH:

5. LEASE
U-8283

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Waco

8. FARM OR LEASE NAME
Federal

9. WELL NO.
31-26

10. FIELD OR WILDCAT NAME

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Section 26, T12S, R15E

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Carbon

13. STATE
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SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) Setting & Cementing Surface Casing	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

October 28, 1980 - MI & RU air drilling rig & equipment.
 October 29, 1980 - TD 70'. Started drilling 12¼" surface hole.
 October 30, 1980 - TD 75'. Drilling. Encountered water flow @ 70'-75'. RU additional air drilling equipment to continue drilling.
 October 31, 1980 - TD 90'. Drilling. Sand & shale.
 November 1 thru 7, 1980 - TD 90'. Shut down for rig repairs to hydraulic power assembly. MI & RU mud mixing equipment.
 November 8, 1980 - TD 180'. Drilling. Sand & shale.
 November 9, 1980 - TD 300'. Drilling. Shale.
 November 10, 1980 - TD 407'. Drilling. Shale.
 November 11, 1980 - TD 497'. Drilling. Shale.
 November 12, 1980 - TD 500'. Circulate & condition hole for casing. Ran 13 jts. 9-5/8" 36.0# K55 surface casing with guide shoe, float collar & 3 centralizers.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

Continued . . .

SIGNED R. J. Firth TITLE District Supt. DATE November 14, 1980

(This space for Federal or State office use)

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

cc: USGS; UT Div. of Oil, Gas & Mining; J. C. Bendler; E. R. Henry

Page 2

Cemented with 275 sacks Class G cement. Cement did not circulate. Recemented thru 1" pipe with 35 sacks Class G cement. Cement to surface.

November 13, 1980 - TD 500'. R.D. air drilling rig and equipment. Waiting on rotary drilling rig.

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

SUNDRY NOTICES AND REPORTS ON WELLS

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1. oil well gas well other

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3. ADDRESS OF OPERATOR
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U-8283

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Waco

8. FARM OR LEASE NAME
Federal

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31-26

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 26, T12S, R15E

12. COUNTY OR PARISH | 13. STATE
Carbon | Utah

14. API NO.
43-007-30052

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REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) Commencing Drilling Operations		

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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xy

Rigged up air drilling rig and equipment. Spudded 17-1/2" surface hole at 11:30 p.m. August 30, 1980. Drilled surface hole to 65' and ran 2 jts. 13-3/8", 48.0#, K-55 conductor casing. Cemented casing to surface with 75 sacks cement. Rigged down air drilling rig and equipment on September 5, 1980. Wait on rotary drilling rig availability. Due to the lack of rotary rig availability, rigged up air drilling rig and equipment, drilled 12-1/4" hole to 500' and set 9-5/8", 40.0#, K-55 new surface casing. Cemented casing to surface with 315 sacks Class G cement. Rigged down air drilling rig and equipment on November 13, 1980. Moved in and rigged up rotary drilling rig, December 20 thru 26, 1980. Nippled up and pressure tested BOP equipment and manifold. Drilled plug and cement in 9-5/8" casing and drilled out below 9-5/8" surface casing with 7-7/8" bit at 2:00 p.m. December 27, 1980.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED R. J. Firth TITLE District Supt. DATE December 30, 1980

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:
cc: USGS, UT; OG&M, UT; E. J. Gelwick; E. R. Henry

RECEIVED
JAN 2 1980

*See Instructions on Reverse Side

Contractor Carmack Drlg.
Rig No. 5
Spot --
Sec. 26
Twp. 12 S
Rng. 15 E
Field Wildcat
County Carbon
State Utah
Elevation 5970' K.B.
Formation Mesa Verde

Top Choke 1/2"
Bottom Choke 1/4"
Size Hole 7 7/8"
Size Rat Hole --
Size & Wt. D. P. 3 1/2" 13.30
Size Wt. Pipe --
I. D. of D. C. --
Length of D. C. 432.29'
Total Depth 5516'
Interval Tested 5483-5516'
Type of Test Bottom Hole
Conventional

Flow No. 1 30* Min.
Shut-in No. 1 90* Min.
Flow No. 2 120* Min.
Shut-in No. 2 240 Min.
Flow No. 3 -- Min.
Shut-in No. 3 -- Min.

Bottom
Hole Temp. 148°
Mud Weight 10.2
Gravity --
Viscosity 31

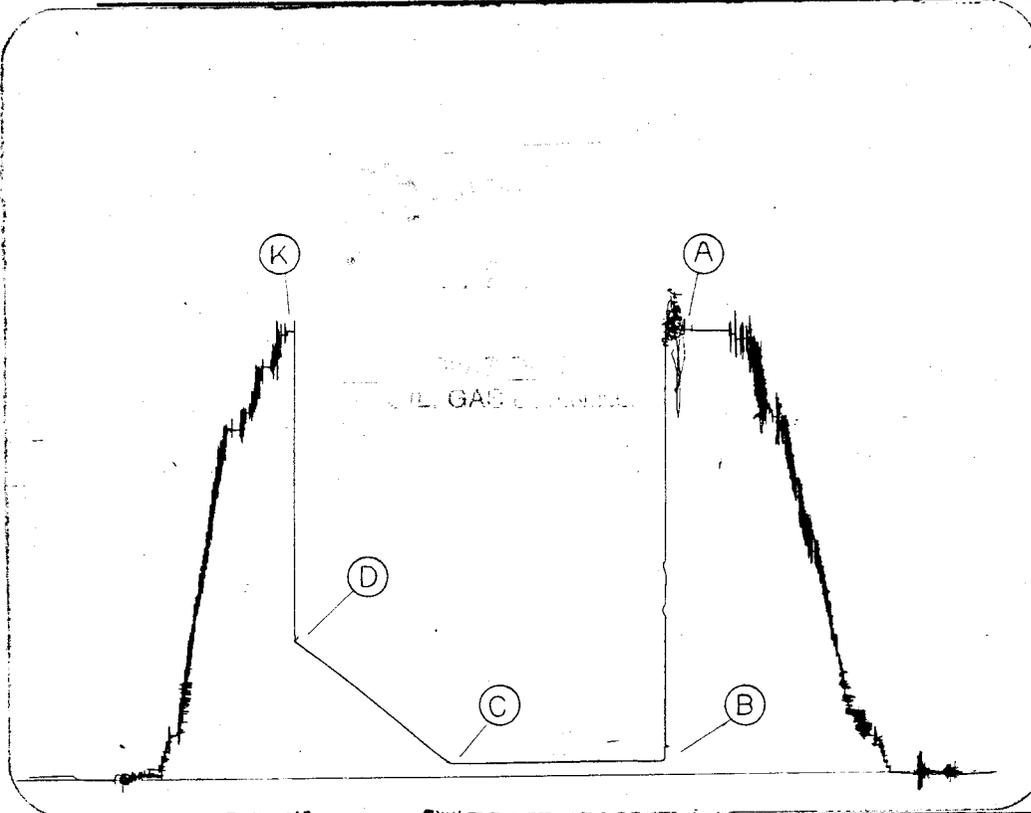
Tool opened @ 4:02 AM

Outside Recorder

PRD Make Kuster AK-1
No. 2559 Cap. 5050 @ 5505'

	Press	Corrected
Initial Hydrostatic	A	2918
Final Hydrostatic	K	2917
Initial Flow	B	85
Final Initial Flow	C	76
Initial Shut-in	D	885
Second Initial Flow	E	--
Second Final Flow	F	--
Second Shut-in	G	--
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
		--
		--

Lynes Dist.: Rock Springs, Wy.
Our Tester: Stormy Hayes
Witnessed By: John Brize



Did Well Flow - Gas No Oil No Water No

RECOVERY IN PIPE: 65'

Top Sample:

Bottom Sample:

Drilling mud

R.W. .08 @ 65° = 110,000 ppm. cl.

R.W. .09 @ 70° = 92,000 ppm. cl.

Blow Description:

Tool opened with a bottom of bucket blow, decreased to a 1" underwater blow in 15 minutes, died in 123 minutes, increased to a 2" underwater blow in 210 minutes and remained thru flow period. After shut-in blow died in 10 minutes.

* Chart indicates initial shut-in period could not be obtained, therefore, test consisted of a 240 minute flow period and a 240 minute shut-in period.

Operator Natural Gas Corp. of California
Address See Distribution
Well Name and No. Waco Federal #36-21
Ticket No. 23113
Date 3-1-81
No. Final Copies 10
DST No. 2

WEI' NAME: WACO FEDERAL 36-21

DST NUMBER: 002

RECORDER NUMBER: 002559

INTERVAL TESTED: 5483FT TO 5516FT

RECORDER DEPTH: 5505.000FT

TOTAL FLOW TIME: 240.0MIN

FIRST SHUT IN PRESSURE (LIQUID)

TIME (MIN)	(T+PHI)	PRESSURE
PHI	/PHI	(PSI)
.0	.0000	76.0
1.0	241.0000	76.0
2.0	121.0000	77.0
3.0	81.0000	77.0
4.0	61.0000	78.0
5.0	49.0000	79.0
6.0	41.0000	81.0
7.0	35.2857	83.0
8.0	31.0000	85.0
9.0	27.6667	88.0
10.0	25.0000	90.0
12.0	21.0000	96.0
14.0	18.1429	102.0
16.0	16.0000	109.0
18.0	14.3333	115.0
20.0	13.0000	121.0
22.0	11.9091	127.0
24.0	11.0000	134.0
26.0	10.2308	141.0
28.0	9.5714	147.0
30.0	9.0000	154.0
40.0	7.0000	190.0
50.0	5.8000	226.0
60.0	5.0000	265.0
70.0	4.4286	301.0
80.0	4.0000	340.0
90.0	3.6667	377.0
100.0	3.4000	412.0
110.0	3.1818	448.0
120.0	3.0000	485.0
130.0	2.8462	520.0
140.0	2.7143	555.0
150.0	2.6000	592.0
160.0	2.5000	625.0
170.0	2.4118	659.0
180.0	2.3333	693.0

CONTINUED ON NEXT PAGE

FIRST SHUT IN PRESSURE (LIQUIP)

TIME (MIN) PHI	(T+PHI) /PHI	PRESSURE (PSI)
190.0	2.2632	726.0
200.0	2.2000	759.0
210.0	2.1429	791.0
220.0	2.0909	822.0
230.0	2.0435	852.0
240.0	2.0000	885.0

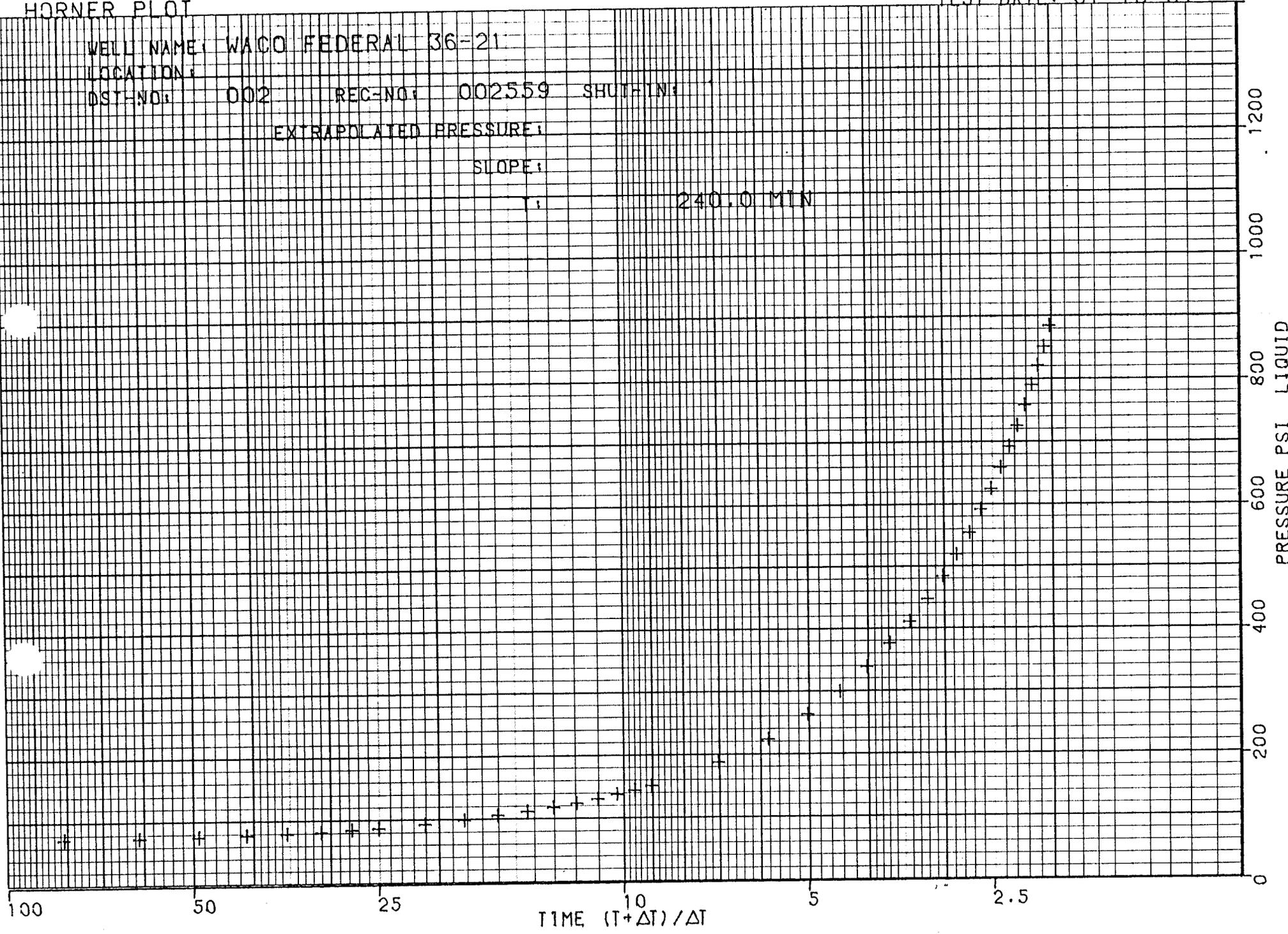
The shut-in pressure build-up curve has insufficient character to permit the use of a Horner plot to determine a reliable extrapolated shut-in pressure.

HORNER PLOT

TEST DATE: 01 18 81

WELL NAME: WACO FEDERAL 36-21
LOCATION:
DST-NO: 002 REC-NO: 002559 SHUT-IN:

EXTRAPOLATED PRESSURE:
SLOPE:
T: 240.0 MIN



LYNES, INC.

Sampler Report

Company Natural Gas Corp. of California Date 1-18-81
Well Name & No. Waco Federal #36-21 Ticket No. 33113
County Carbon State Utah
Test Interval 5483-5516' DST No. 2

Total Volume of Sampler: 2150 cc.
Total Volume of Sample: 2000 cc.
Pressure in Sampler: 5 psig
Oil: None cc.
Water: None cc.
Mud: 2000 cc.
Gas: None cu. ft.
Other: None

Sample: R.W. .09 @ 70° = 92,000 ppm. cl.

Resistivity

Make Up Water 8.0 @ 50° of Chloride Content 900 ppm.

Mud Pit Sample 3.0 @ 70° of Chloride Content 1900 ppm.

Gas/Oil Ratio _____ Gravity _____ °API @ _____ °F

Where was sample drained On location

Remarks: _____

LYNES, INC.

Distribution of Final Reports

Natural Gas Corp. of California
Operator

Waco Federal #36-21
Well Name and No.

Original: Natural Gas Corp. of California, 85 S. 200 E. Vernal, Utah 84078

2 copies: Natural Gas Corp. of California, 717th St., Suite 2300, Denver, Co. 80202

Attn: Rod Boschee (1) Attn: E.J. Gilwick (1)

1 copy: Natural Gas Corp. of California, 245 Market St., Rm. 1326, San Francisco,
California 94105 Attn: E.R. Henry

3 copies: Geological Survey, 8440 Federal Bldg., 125 S. State, Salt Lake City, Utah
84138

1 copy: Oil, Gas & Mineral, 1588 West, North Temple, Salt Lake City, Utah 84116

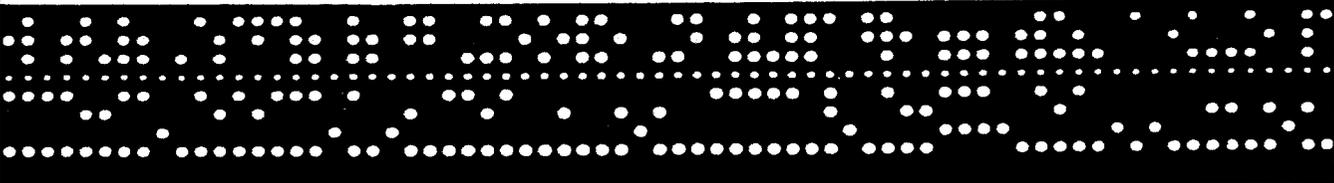
1 copy: Mr. Bob Gilmore, DeGolyer & MacNaughton, #1 Energy Square, Dallas, Texas 75201

1 copy: Chorney Oil Co., 401 Lincoln Tower Bldg., Denver, Co. 80295 Attn: L.S. Stanley

COMPANY NATURAL GAS CORP. OF CALIFORNIA
WELL WACO FEDERAL #31-26
TEST NO. 1
COUNTY CARBON
STATE UTAH

JOHNSTON
Schlumberger

**computerized
data
analysis**



JOHNSTON

Schlumberger**COMPUTERIZED DATA ANALYSIS**

JANUARY 19, 1981

GENTLEMEN:

THE ENCLOSED TEST APPEARS TO BE A GOOD MECHANICAL DRILL STEM TEST DURING WHICH THE TOOLS DID FUNCTION PROPERLY. THE FORMATION PRODUCED ENOUGH RESERVOIR FLUID FOR PROPER IDENTIFICATION. RESERVOIR PRESSURE DRAWDOWN WAS SUFFICIENT AND ADEQUATE SHUT-IN BUILD-UPS DID OCCUR FOR RELIABLE QUANTITATIVE ANALYSIS. AFTERFLOW WAS STILL IN EFFECT ON THE INITIAL SHUT-IN BUILD-UP TO THE EXTENT THAT THE PLOT IS CONSIDERED UNRELIABLE FOR ANALYSIS. RESERVOIR PARAMETERS WERE CALCULATED BY THE HORNER METHOD.

1. FLOW RATE: A FLOW RATE OF 10 MCF/DAY OF GAS WAS NOTED DURING THIS TEST.
2. RESERVOIR PRESSURE: EXTRAPOLATION OF THE FINAL SHUT-IN PRESSURE BUILD-UP INDICATES A MAXIMUM RESERVOIR PRESSURE OF 1905 P.S.I.G. AT RECORDER DEPTH.
3. PERMEABILITY: THE CALCULATED TRANSMISSIBILITY FACTOR OF 14.69 MD.-FT./CP. INDICATES AN AVERAGE EFFECTIVE PERMEABILITY TO GAS OF 0.008 MD. FOR THE REPORTED 25 FOOT NET INTERVAL. THE CALCULATIONS WERE BASED ON A SLOPE OF 280 P.S.I./LOG CYCLE OBTAINED FROM THE FINAL SHUT-IN BUILD-UP PLOT. IT WAS ASSUMED FOR THESE CALCULATIONS: (A) GAS GRAVITY 0.70, (B) VISCOSITY 0.013 CP., (C) AND GAS DEVIATION FACTOR 0.86. THESE FIGURES WERE OBTAINED FROM THE AVAILABLE TECHNICAL LITERATURE.
4. WELLBORE DAMAGE: THE CALCULATED DAMAGE RATIO OF 3.54 INDICATES THAT WELLBORE DAMAGE IS PRESENT AT THE TIME AND CONDITIONS OF THIS TEST. THE PRESSURE DROP DUE TO DAMAGE IS ESTIMATED TO BE 1321 P.S.I.
5. RADIUS OF INVESTIGATION: THE CALCULATED RADIUS OF INVESTIGATION OF THIS TEST IS 4 FEET BASED ON AN ASSUMED POROSITY OF 10%, COMPRESSIBILITY OF 1.14×10^{-3} , AND OTHER ASSUMPTIONS MADE IN NUMBER 3 ABOVE.
6. GENERAL COMMENTS: THE FORMATION EXHIBITS THE CHARACTERISTICS OF RELATIVELY LOW PERMEABILITY EFFECTIVE TO THE RESERVOIR FLUID AND INDICATES THE PRESENCE OF WELLBORE DAMAGE.

P. K. Suresh
P.K. SURESH
RESERVOIR EVALUATION
DEPARTMENT

NATURAL GAS CORPORATION OF CALIFORNIA
WACO FEDERAL #31-26; CARBON COUNTY, UTAH
TEST #1; 4297' TO 4322'
LOCATION: SEC. 26 - T12S - R15E

FIELD REPORT # 32230 D

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

Gas Reservoir Engineering Data



Instrument No. J-080

Field Report No. 32230 D

Damage Ratio	DR	3.54	Effective Transmissibility GAS	$\frac{Kh}{\mu}$	14.69	$\frac{Md-ft.}{Cp.}$
Maximum Reservoir Pressure FINAL SHUT-IN	P_o	1905 P.S.I.G.	Flow Rate	GAS	Q_g	10 MCF/day
Slope of Shut-in Curve FINAL SHUT-IN	M_g	280 PSI/log cycle	Flow Rate		Q	-
Potentiometric Surface (Datum Plane, Sea Level)	PS	- ft.	Pressure Gradient			0.443 PSI/ft.
Radius of Investigation		4 ft.	K (Effective to GAS)		0.008 Md.

SLOPE $M_G = 1905 - 1625 = 280$

Assumptions made for Calculations for Gas Recoveries

1. Q_g is taken as steady state flow and unless stated otherwise at standard conditions 14.7 P.S.I. and 60°F.
2. P_f is final formation flowing pressure at steady state flow.
3. Formation flow is taken as single phase flow. If liquid (condensate) is produced at surface, condensation is assumed to have occurred in drill pipe.
4. Radial flow is assumed.
5. Unless given, gas specific gravity is assumed to be 0.7 (air 1.0) and having pseudo critical temperature at 385° Rankin and pseudo critical pressure of 666 P.S.t.A.
6. Other standard radial flow, steady state assumptions.

Empirical Equations:

1. $EDR = \frac{P_o^2 - P_f^2}{M_g(\log T + 2.65)}$ where $M_g = \frac{P_i^2 - P_{i0}^2}{\text{Log Cycle}}$

2. Transmissibility $\frac{Kh}{\mu Z} = \frac{1637^\circ T_f Q_g}{M_g}$

3. P.S. = $\left[P_o \times 2.309 \text{ ft./PSI} \right] - \left[\text{Recorder depth to sea level.} \right]$

4. Radius of Investigation, $r_{1i} = \sqrt{\frac{Kt}{40cb(1 - S_w)\mu c}}$ where t = time in days

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness or any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

ΔT (MIN)

0.3 0.5 0.8 1.3 2.1 3.4 5.8 10 20 52 ∞

HORNER PLOT FIELD REPORT NO. 322300

INSTRUMENT:

NUMBER: J-080
CAPACITY: 2800 PSI
DEPTH: 4299 FT

SHUT-IN #1:

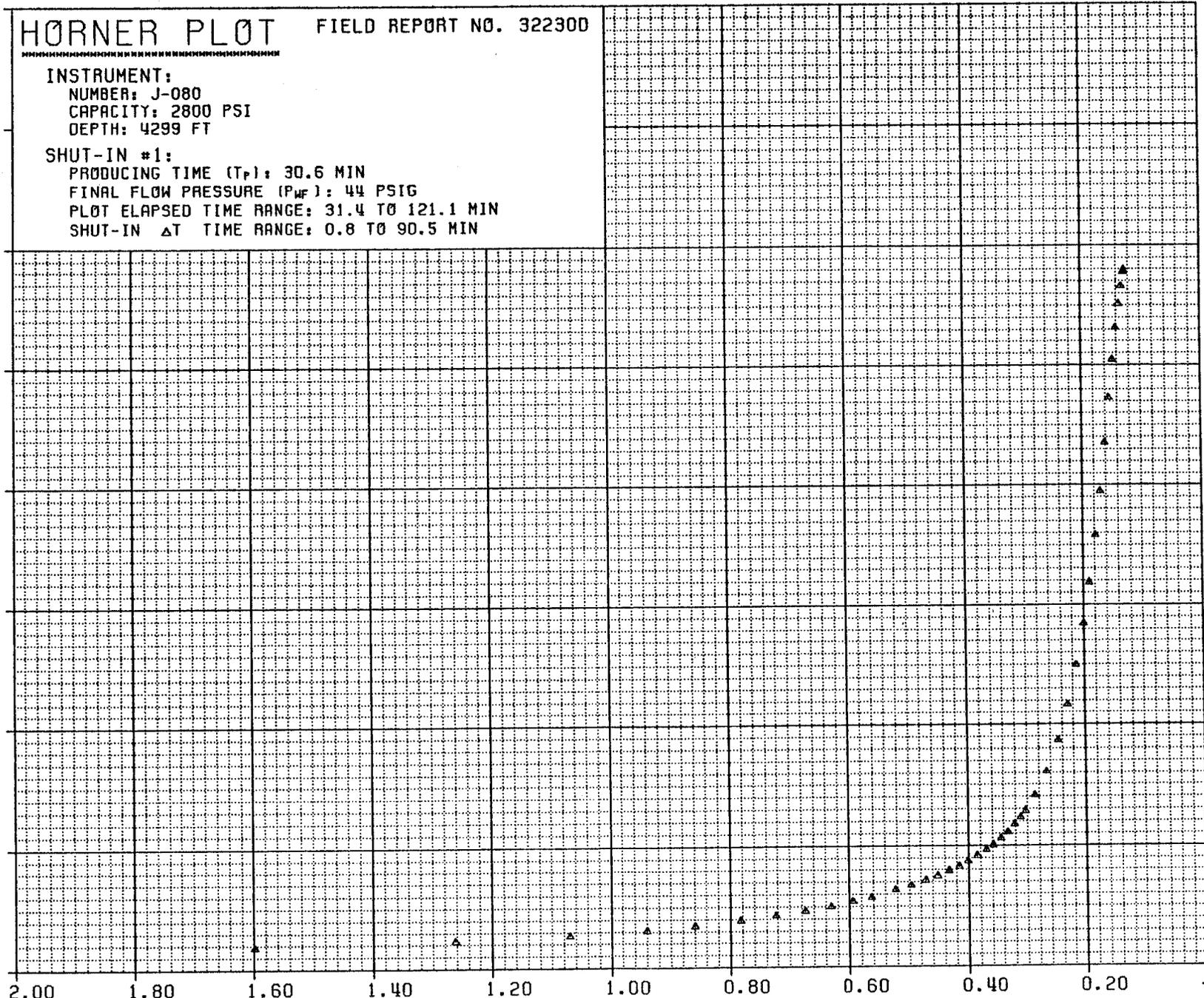
PRODUCING TIME (T_P): 30.6 MIN
FINAL FLOW PRESSURE (P_{WF}): 44 PSIG
PLOT ELAPSED TIME RANGE: 31.4 TO 121.1 MIN
SHUT-IN ΔT TIME RANGE: 0.8 TO 90.5 MIN

SHUT-IN PRESSURE (PSIG)

2400
2100
1800
1500
1200
900
600
300
0

2.00 1.80 1.60 1.40 1.20 1.00 0.80 0.60 0.40 0.20 -0.00

$$\text{LOG} \left[\frac{T_P + \Delta T}{\Delta T} \right]$$



ΔT (MIN)

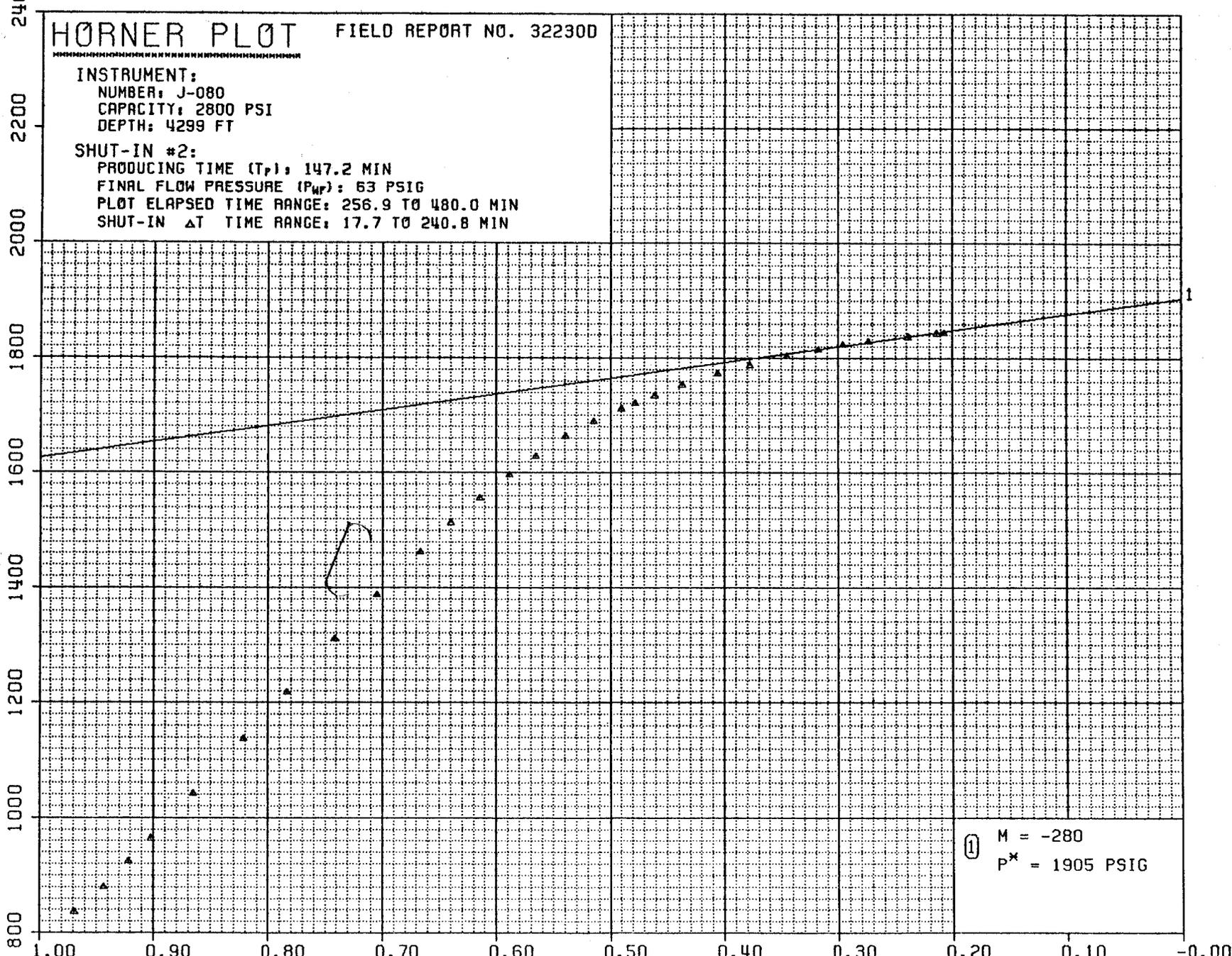
16 21 28 37 49 68 97 148 252 569 ∞

HORNER PLOT FIELD REPORT NO. 322300

INSTRUMENT:
NUMBER: J-080
CAPACITY: 2800 PSI
DEPTH: 4299 FT

SHUT-IN #2:
PRODUCING TIME (T_p): 147.2 MIN
FINAL FLOW PRESSURE (P_{wf}): 63 PSIG
PLOT ELAPSED TIME RANGE: 256.9 TO 480.0 MIN
SHUT-IN ΔT TIME RANGE: 17.7 TO 240.8 MIN

SHUT-IN PRESSURE (PSIG)



① $M = -280$
 $P^* = 1905$ PSIG

$\log \left[\frac{T_p + \Delta T}{\Delta T} \right]$

FIELD REPORT NO. 322300

INSTRUMENT:

NUMBER: J-080

CAPACITY: 2800 PSI

DEPTH: 4299 FT

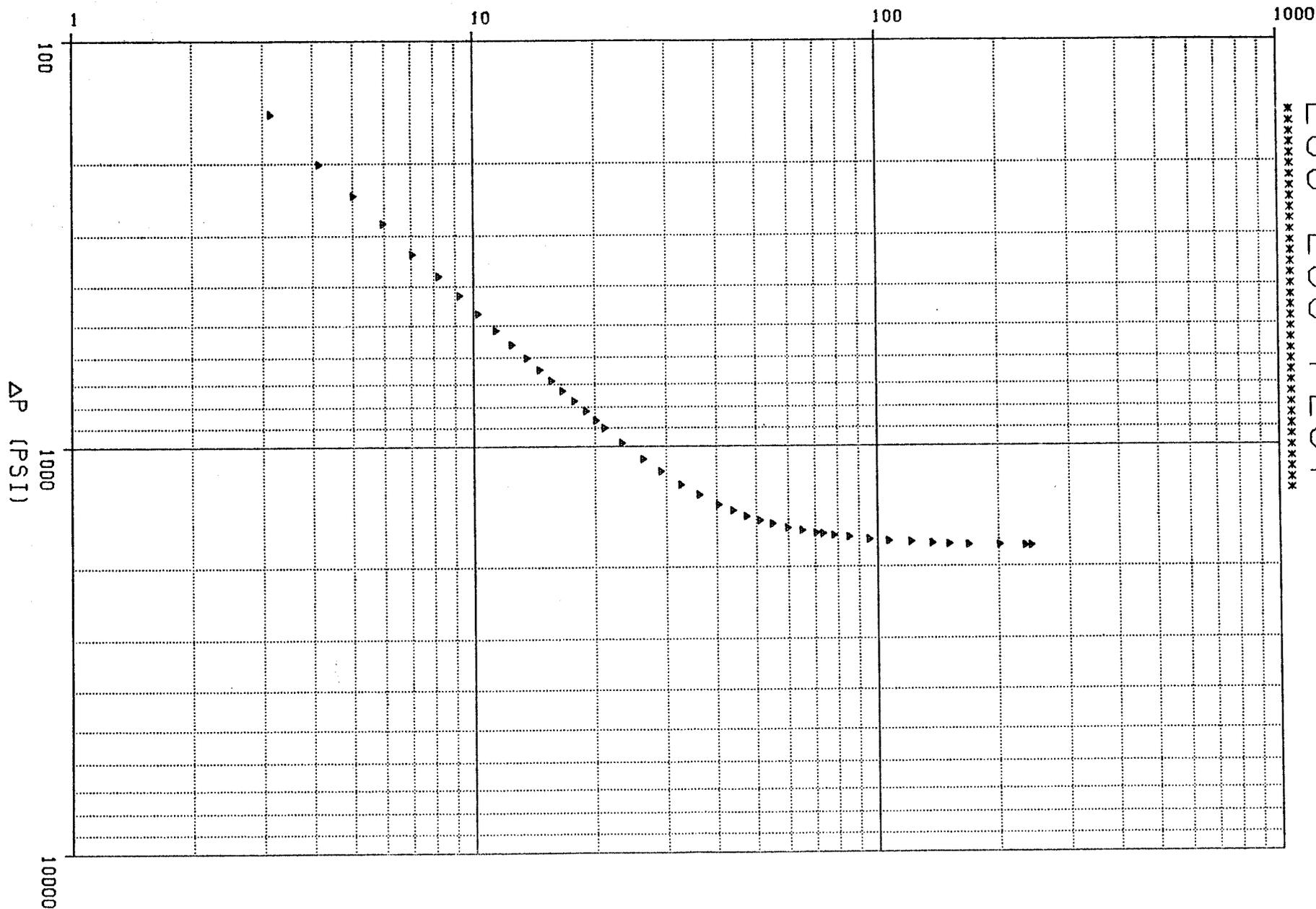
SHUT-IN #2:

FINAL FLOW PRESSURE (P_{WF}): 63 PSIG

PLOT ELAPSED TIME RANGE: 242.3 TO 480.0 MIN

SHUT-IN ΔT TIME RANGE: 3.1 TO 240.8 MIN

ΔT (MIN)



LOG-LOG PLOT

----- WELL IDENTIFICATION -----

COMPANY:	NATURAL GAS CORP. OF CALIFORNIA	CUSTOMER:	SAME
	85 S. 200 E.		
	VERNAL, UTAH 84078		
WELL:	WACO FEDERAL #31-26	LOCATION:	SEC. 26, T12S R15E
TEST INTERVAL:	4297' TO 4322'	FIELD:	WILD CAT
TEST NO:	1	TEST DATE:	1-10-81
COUNTY:	CARBON	STATE:	UTAH
TECHNICIAN:	PITT	TEST APPROVED BY:	-

----- EQUIPMENT AND HOLE DATA -----

TEST TYPE:	M.F.E. OPEN HOLE	DRILL PIPE LENGTH:	3684	FT.
ELEVATION:	-	DRILL PIPE I.D.:	-	IN.
TOTAL DEPTH:	4322	DRILL COLLAR LENGTH:	571	FT.
MAIN HOLE/CASING SIZE:	7 7/8	DRILL COLLAR I.D.:	-	IN.
RAT HOLE/LINER SIZE:	-	PACKER DEPTHS:	4293 & 4297	FT.
FORMATION TESTED:	WASATCH		&	FT.
NET PROD. INTERVAL:	25	DEPTHS REF. TO:	KELLY BUSHING	FT.
POROSITY:	-			%

----- TEST TOOL CHAMBER DATA -----

SAMPLER PRESSURE:	55	PSIG
RECOVERED OIL GRAVITY:	-	API @ - DEG. F.
RECOVERY GOR:	-	FT3/BBL.

SAMPLE CHAMBER CONTENTS

FLUID	VOLUME	RESIST. (OHM-M)	MEAS. TEMP. (DEG F.)	CHLOR. (PPM)
GAS:	.04 FT.3			
OIL:	- CC			
WATER:	- CC	-	-	-
MUD:	- CC	-	-	-
FILTRATE:	-	-	-	-
TOTAL LIQUID:	- CC			

----- MUD DATA -----

TYPE:	KCL BRINE, POLYMER		
WEIGHT:	9.8	LB/GAL.	
VISCOSITY:	28-30	SEC.	
WATER LOSS:	8.5	CC	
FLUID	RESIST (OHM-M)	TEMP (DEG F)	CHLOR (PPM)
MUD:	.13	50	
FILTRATE:	.12	50	150000

----- REMARKS -----

NO. OF REPORTS REQUESTED: 5

FIELD REPORT NO. 32230D

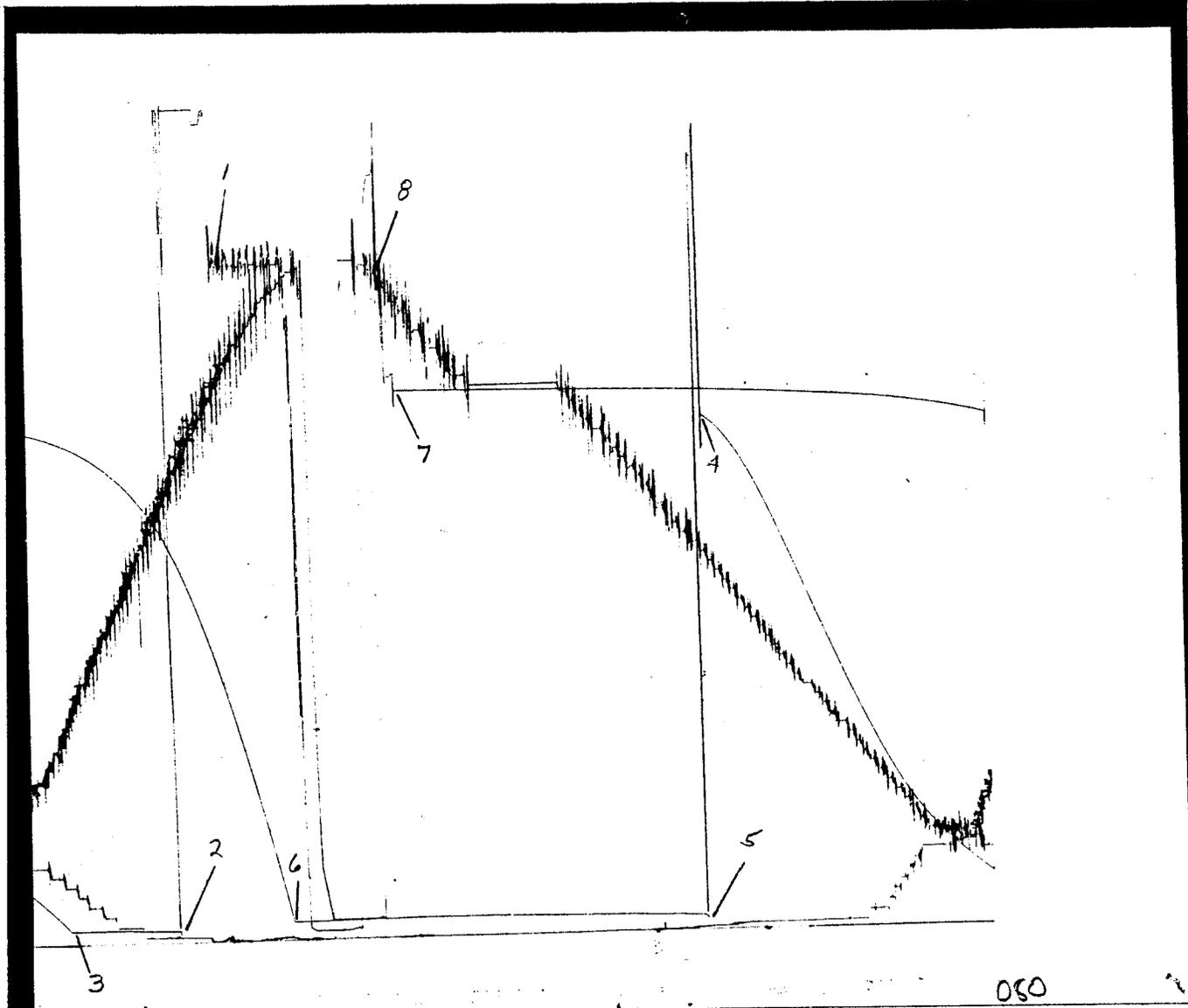
FIELD REPORT NO.: 32230D

CAPACITY: 2800#

INSTRUMENT NO.: J-080

NUMBER OF REPORTS: 5

JOHNSTON
Schlumberger



PRESSURE LOG

FIELD REPORT NO. 322300

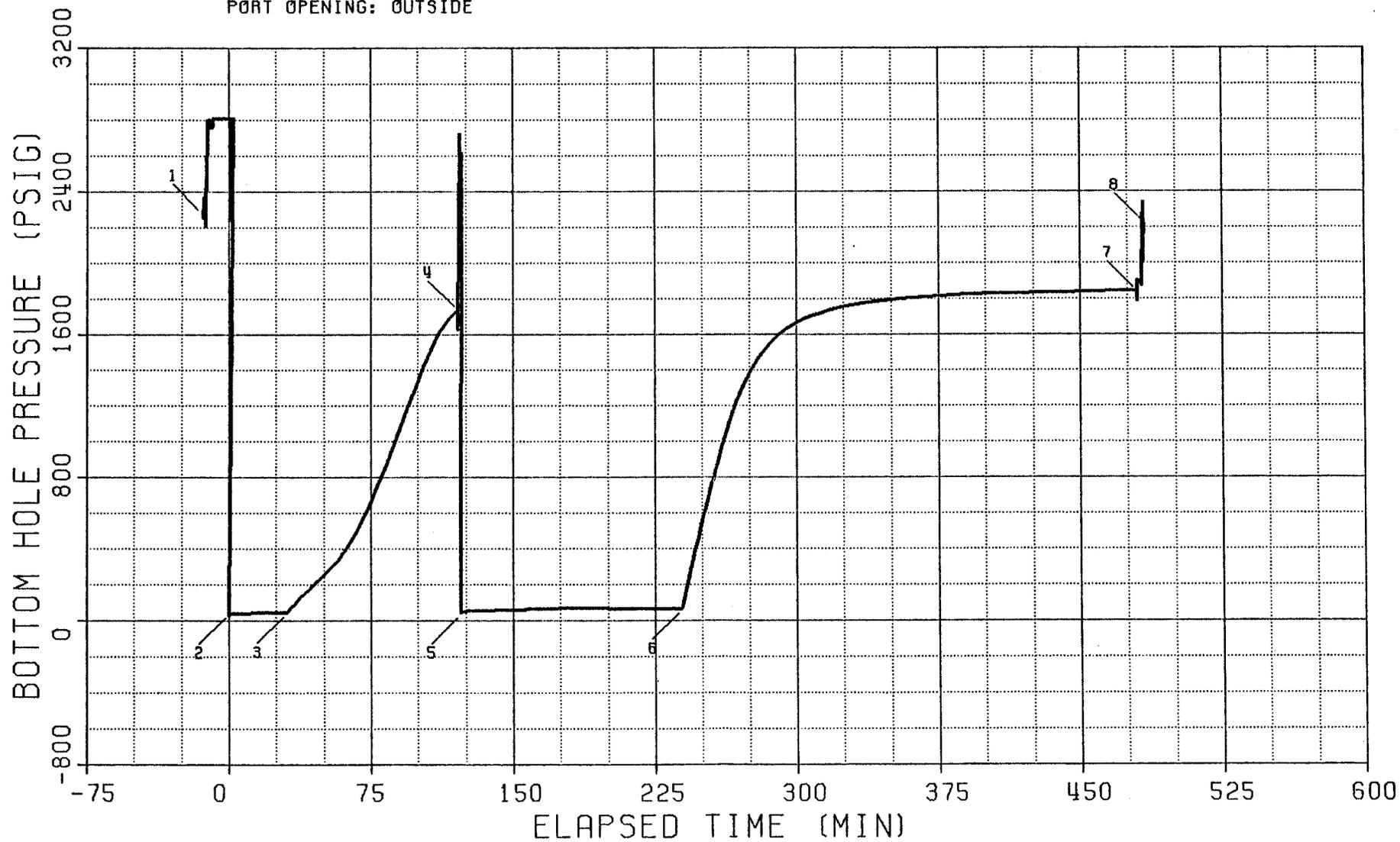
INSTRUMENT:

NUMBER: J-080

CAPACITY: 2800 PSI

DEPTH: 4299 FT

PORT OPENING: OUTSIDE



BOTTOM HOLE PRESSURE AND TIME DATA

INSTRUMENT NO.: J-080
 PORT OPENING: OUTSIDE

CAPACITY (PSI): 2800
 BOTTOM HOLE TEMP (F): 126

DEPTH (FT): 4299
 PAGE 1

EXPLANATION	LABELLED POINT	PRESSURE (PSIG)	ELAPSED TIME (MIN)
HYDROSTATIC MUD	1	2279	-14.2
START FLOW	2	39	0.0
END FLOW & START SHUT-IN	3	44	30.6
END SHUT-IN	4	1737	121.1
START FLOW	5	39	122.5
END FLOW & START SHUT-IN	6	63	239.2
END SHUT-IN	7	1843	480.0
HYDROSTATIC MUD	8	2222	484.0

 * SUMMARY OF FLOW PERIODS *

FLOW PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF FLOW (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)
1	0.0	30.6	30.6	39	44
2	122.5	239.2	116.6	39	63

 * SUMMARY OF SHUT-IN PERIODS *

SHUT-IN PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF SHUT-IN (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)	FINAL FLOW PRESSURE (PSIG)	PRODUCING TIME (MIN)
1	30.6	121.1	90.5	44	1737	44	30.6
2	239.2	480.0	240.8	63	1843	63	147.2

FIELD REPORT NO. 32230D
INSTRUMENT NO. J-080TEST PHASE : FLOW PERIOD # 1

ELAPSED TIME (MIN) *****	DELTA TIME (MIN) *****	FLOWING PRESSURE (PSIG) *****
0.0	0.0	39
5.0	5.0	40
10.0	10.0	42
15.0	15.0	45
20.0	20.0	45
25.0	25.0	44
30.0	30.0	44
30.6	30.6	44

TEST PHASE : SHUT-IN PERIOD # 1

1. FINAL FLOW PRESSURE ["P "] = 44 PSIG
WF
2. PRODUCING TIME ["T "] = 30.6 MIN
P

ELAPSED TIME (MIN) *****	DELTA TIME ["DT"] (MIN) *****	SHUT-IN PRESSURE ["P "] WS (PSIG) *****	LOG [(T +DT)/DT] P *****	DELTA PRESSURE [P - P] WS WF *****
30.6	0.0	44		0
31.6	1.0	58	1.499	14
32.6	2.0	71	1.212	27
33.6	3.0	82	1.049	38
34.6	4.0	93	0.937	49
35.6	5.0	104	0.852	60
36.6	6.0	116	0.785	72
37.6	7.0	127	0.730	83
38.6	8.0	137	0.683	93
39.6	9.0	147	0.643	103
40.6	10.0	157	0.608	114
42.6	12.0	178	0.550	134
44.6	14.0	198	0.503	155
46.6	16.0	218	0.464	174
48.6	18.0	238	0.431	195
50.6	20.0	258	0.403	215
52.6	22.0	280	0.378	237
54.6	24.0	302	0.357	258
56.6	26.0	326	0.338	282
58.6	28.0	353	0.321	309
60.6	30.0	381	0.305	337
65.6	35.0	463	0.273	420
70.6	40.0	560	0.247	517
75.6	45.0	677	0.225	634
80.6	50.0	803	0.207	759
85.6	55.0	936	0.192	892

FIELD REPORT NO. 322300
INSTRUMENT NO. J-080

TEST PHASE : SHUT-IN PERIOD # 2

1. FINAL FLOW PRESSURE ["P "] = 63 PSIG

2. PRODUCING TIME ["T "] = 147.2 MIN
P

ELAPSED TIME (MIN)	DELTA TIME ["DT"] (MIN)	SHUT-IN PRESSURE ["P "] (PSIG)	LOG [(T +DT)/DT] P	DELTA PRESSURE [P - P] WS WF
*****	*****	*****	*****	*****
239.2	0.0	63		0
240.2	1.0	114	2.171	51
241.2	2.0	167	1.873	104
242.2	3.0	209	1.700	146
243.2	4.0	257	1.578	194
244.2	5.0	302	1.483	239
245.2	6.0	346	1.407	283
246.2	7.0	394	1.343	331
247.2	8.0	433	1.288	370
248.2	9.0	475	1.239	412
249.2	10.0	521	1.196	458
251.2	12.0	605	1.123	542
253.2	14.0	688	1.061	625
255.2	16.0	771	1.009	708
257.2	18.0	846	0.963	783
259.2	20.0	922	0.922	859
261.2	22.0	997	0.886	934
263.2	24.0	1066	0.853	1003
265.2	26.0	1131	0.824	1068
267.2	28.0	1189	0.796	1126
269.2	30.0	1243	0.771	1180
279.2	40.0	1454	0.670	1391
289.2	50.0	1584	0.596	1521
299.2	60.0	1663	0.538	1600
309.2	70.0	1710	0.492	1646
319.2	80.0	1739	0.453	1676
329.2	90.0	1763	0.421	1700
339.2	100.0	1779	0.393	1716
349.2	110.0	1792	0.369	1729
359.2	120.0	1802	0.348	1739
369.2	130.0	1810	0.329	1747
379.2	140.0	1817	0.312	1753
389.2	150.0	1823	0.297	1760
399.2	160.0	1826	0.283	1763
409.2	170.0	1829	0.271	1766
419.2	180.0	1832	0.260	1769
429.2	190.0	1834	0.249	1771
439.2	200.0	1837	0.240	1774
449.2	210.0	1839	0.231	1776
459.2	220.0	1840	0.222	1777
469.2	230.0	1842	0.215	1779
479.2	240.0	1843	0.208	1780
480.0	240.8	1843	0.207	1780

N. URAL GAS CORPORATION
OF CALIFORNIA

85 South 200 East
Vernal, Utah 84078
(801) 789-4573

February 4, 1981

Mr. E. W. Gynn
Geological Survey-Conservation Div.
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, UT 84104

Mr. Sam Boltz, Jr.
Chorney Oil Company
401 Lincoln Tower Bldg.
Denver, CO 80295

Mr. Frank M. Hamner
Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, UT 84116

Mr. Bob Gilmore
DeGolyer & MacNaughton
No. 1 Energy Square
Dallas, TX 75206

Re: NGC #31-26 Federal, Waco Unit
Section 26, T12S, R15E
Uintah County, Utah

Gentlemen:

Enclosed are your copies of Form 9-331, Sundry Notices and Reports
on Wells, Subsequent Report of Setting and Cementing Production Casing
for the above referenced well.

Sincerely,



R. J. Firth
District Supt.

/kh

Encls.

cc: E. J. Gelwick
C. T. Clark (Cover Letter Only)
E. R. Henry

RECEIVED

FEB 5 1981

DIVISION OF
OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR
Natural Gas Corporation of California

3. ADDRESS OF OPERATOR
85 South 200 East, Vernal, UT 84078

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1172' fnl, 1750' fel, NW/4 SE/4,
AT TOP PROD. INTERVAL: Section 26, T12S, R15E
AT TOTAL DEPTH:

5. LEASE
U-8283

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
WACO

8. FARM OR LEASE NAME
Federal

9. WELL NO.
31-26

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 26, T12S, R15E

12. COUNTY OR PARISH
Carbon

13. STATE
Utah

14. API NO.
43-007-30052

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5960' Ungr. gr.

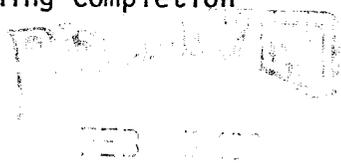
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) Setting and Cementing Production Casing		

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Drilled 7-7/8" hole to TD to 6064' and conducted electric logging operations. Ran 159 jts., 4-1/2", 11.6#, N-80 production casing with guide shoe and float collar. Land casing at 6063' and cemented with 835 sacks RFC cement. Good circulation throughout cement operations. W.O.C. Ran temperature log and determined cement top at 2100'. Released rotary drilling rig and equipment January 31, 1981. Waiting on completion unit and determining completion procedures.



Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft. OIL, GAS & MINING

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

SIGNED R. J. Firth TITLE District Supt. DATE February 4, 1981

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

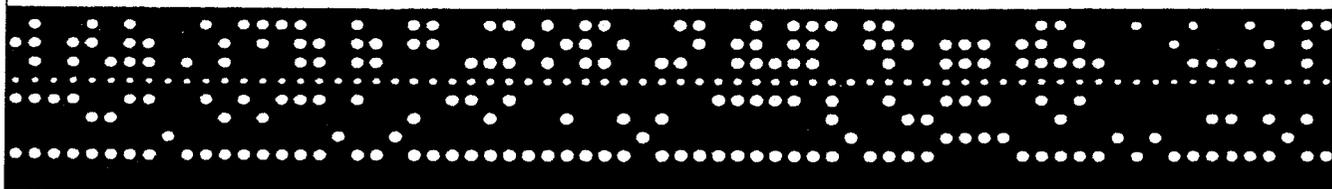
CONDITIONS OF APPROVAL, IF ANY:
cc: USGS, UT (3); OG&M, UT (1); Chorney Oil; DeGolyer & MacNaughton;
E. J. Gelwick; E. R. Henry

COMPANY NATURAL GAS CORPORATION OF CALIFORNIA
WELL WACO FEDERAL #31-26
TEST NO. 3
COUNTY CARBON
STATE UTAH

JS-165

JOHNSTON
Schlumberger

computerized
data
analysis



FIELD REPORT # 32232 D

JOHNSTON

Schlumberger**COMPUTERIZED DATA ANALYSIS**

FEBRUARY 5, 1981

GENTLEMEN:

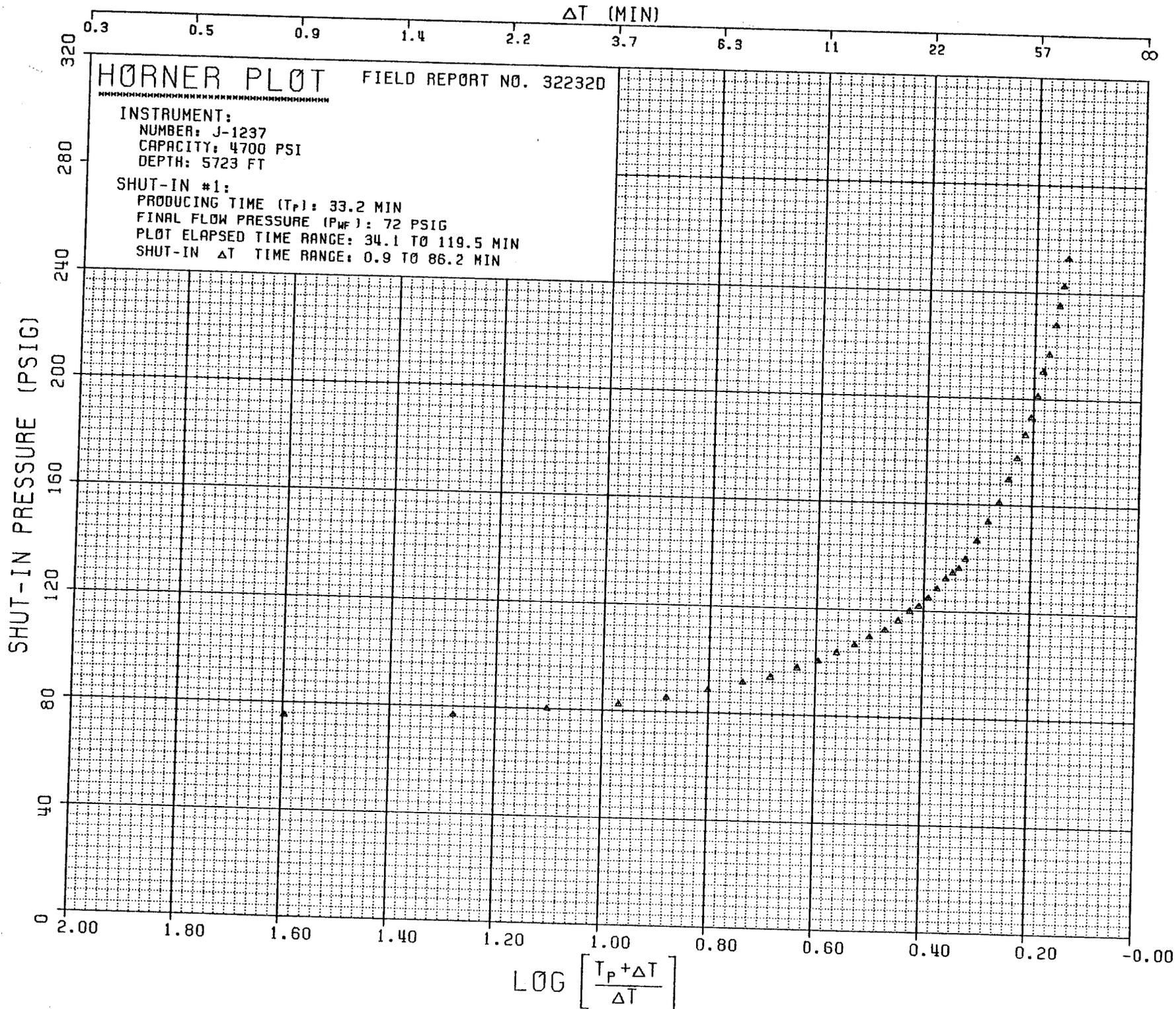
THE ENCLOSED TEST APPEARS TO BE A GOOD MECHANICAL DRILL STEM TEST DURING WHICH THE TOOLS DID FUNCTION PROPERLY. THE FORMATION PRODUCED ENOUGH RESERVOIR FLUID FOR PROPER IDENTIFICATION. RESERVOIR PRESSURE DRAWDOWN WAS SUFFICIENT BUT ADEQUATE SHUT-IN BUILD-UPS DID NOT OCCUR FOR RELIABLE QUANTITATIVE ANALYSIS. AFTERFLOW WAS STILL IN EFFECT ON THE INITIAL AND FINAL SHUT-IN BUILD-UPS TO THE EXTENT THAT THE PLOTS ARE CONSIDERED UNRELIABLE FOR ANALYSIS.

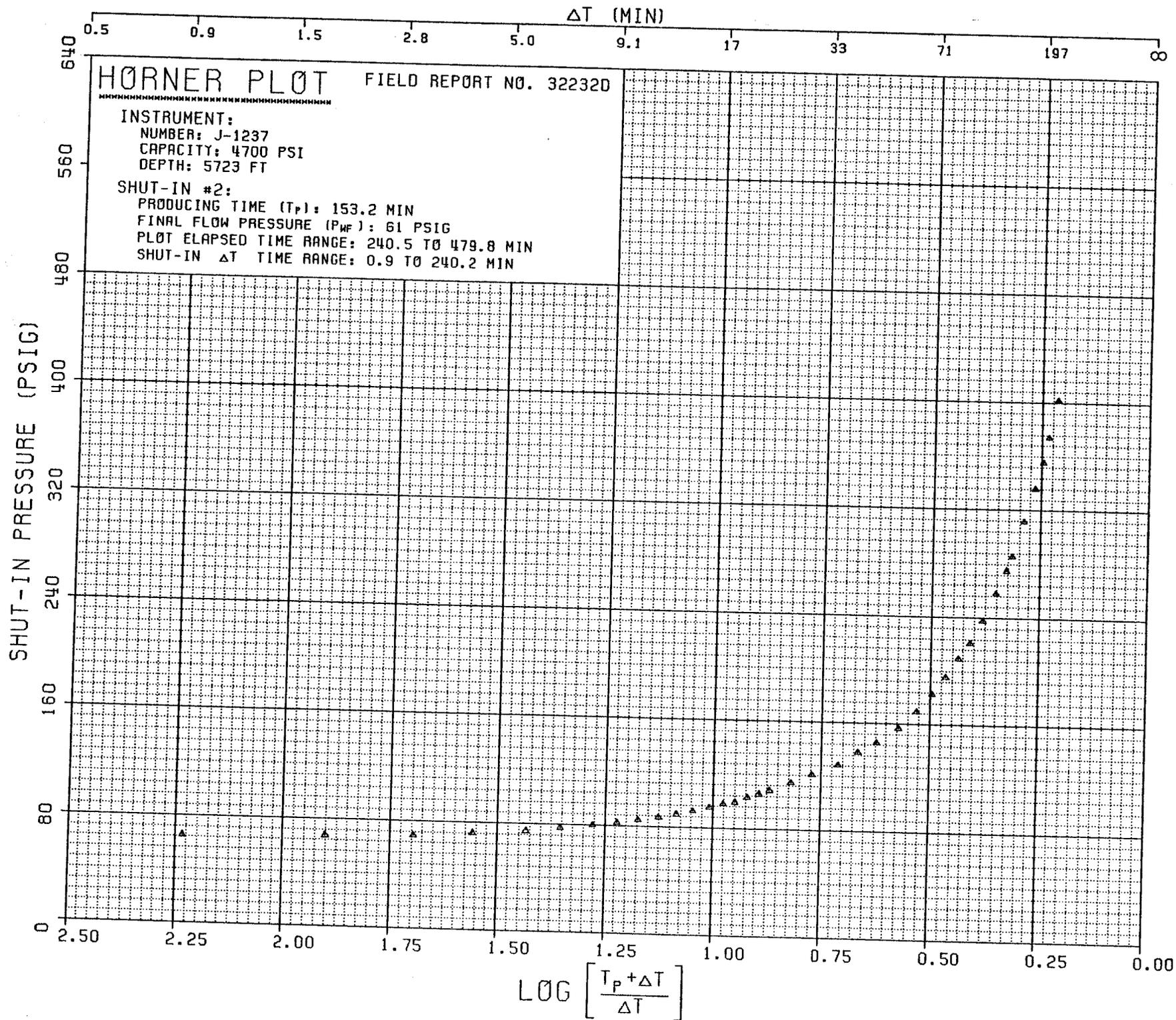
D. J. Simper
D. J. SIMPER
RESERVOIR EVALUATION
DEPARTMENT

NATURAL GAS CORPORATION OF CALIFORNIA
WACO FEDERAL #31-26; CARBON COUNTY, UTAH
TEST #3; 5721' TO 5766'
LOCATION: SEC. 26 - T12S - R15E

FIELD REPORT # 32232 D

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.





FIELD REPORT NO. 322320

INSTRUMENT:

NUMBER: J-1237

CAPACITY: 4700 PSI

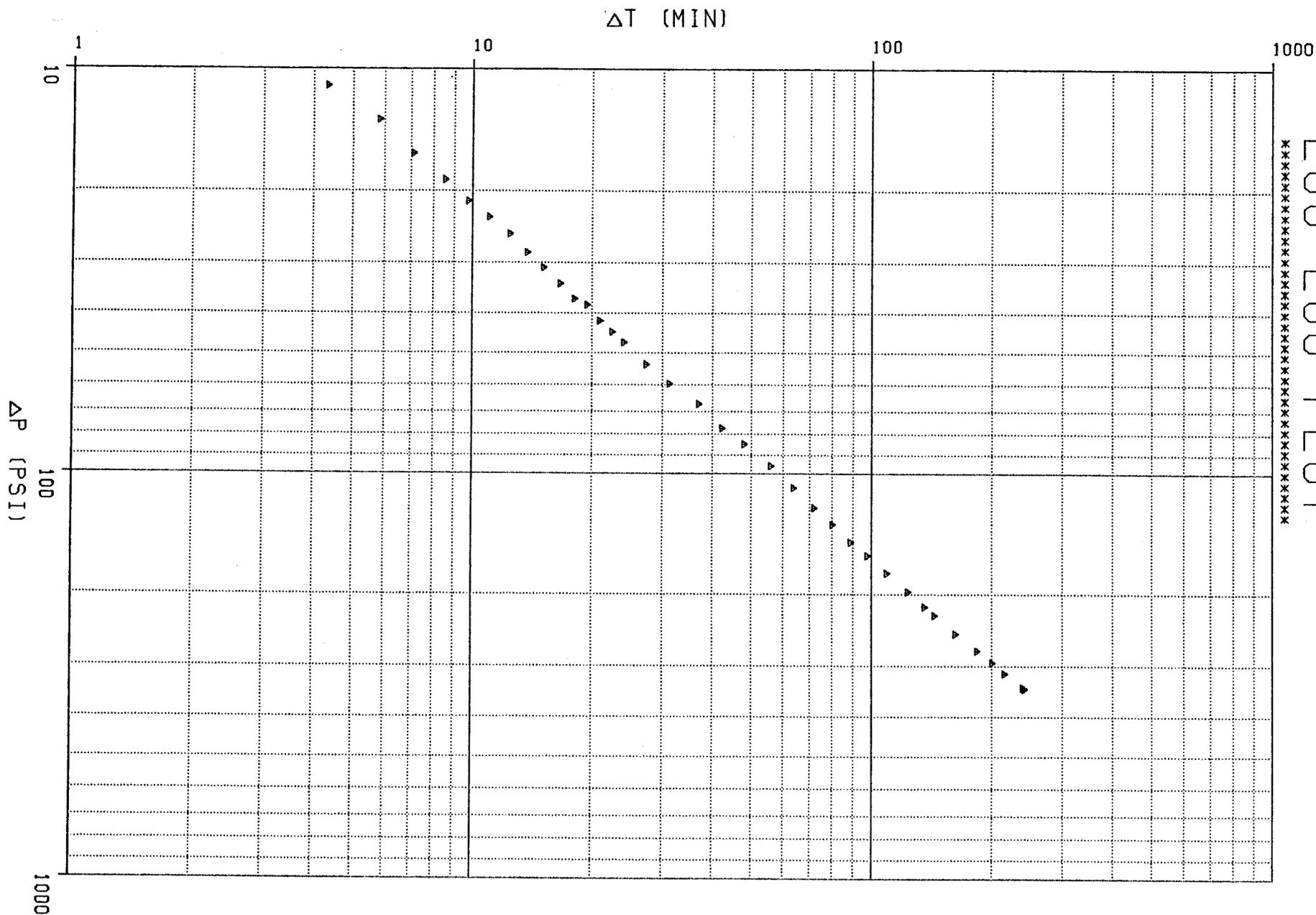
DEPTH: 5723 FT

SHUT-IN #2:

FINAL FLOW PRESSURE (P_{WF}): 61 PSIG

PLOT ELAPSED TIME RANGE: 244.0 TO 479.8 MIN

SHUT-IN ΔT TIME RANGE: 4.3 TO 240.2 MIN



LOG-LOG PLOT

----- WELL IDENTIFICATION -----

COMPANY:	NATURAL GAS CORPORATION OF CALIFORNIA	VERNAL, UTAH	84078
WELL:	85 SOUTH 200 EAST	LOCATION:	SEC. 26 - T12S - R15E
TEST INTERVAL:	WACO FEDERAL #31-26	FIELD:	WILD CAT
TEST NO:	5721' TO 5766'	TEST DATE:	1-26-81
COUNTY:	3	STATE:	UTAH
TECHNICIAN:	CARBON	TEST APPROVED BY:	MR. JOHN BRIESE
	PITT (VERNAL)		

----- EQUIPMENT AND HOLE DATA -----

TEST TYPE:	M.F.E. OPEN HOLE	DRILL PIPE LENGTH:	5205	FT.
ELEVATION:	-	DRILL PIPE I.D.:	3.25	IN.
TOTAL DEPTH:	5766	DRILL COLLAR LENGTH:	473	FT.
MAIN HOLE/CASING SIZE:	7 7/8	DRILL COLLAR I.D.:	2.50	IN.
RAT HOLE/LINER SIZE:	-	PACKER DEPTHS:	5715 & 5721	FT.
FORMATION TESTED:	MESA VERDE		&	FT.
NET PROD. INTERVAL:	41	DEPTHS REF. TO:	KELLY BUSHING	FT.
POROSITY:	.2			%

----- TEST TOOL CHAMBER DATA -----

SAMPLER PRESSURE:	50	PSIG
RECOVERED OIL GRAVITY:	- API @	DEG. F.
RECOVERY GOR:	-	FT3/BBL.

SAMPLE CHAMBER CONTENTS

FLUID	VOLUME	RESIST. (OHM-M)	MEAS. TEMP. (DEG F.)	CHLOR. (PPM)
GAS:	.07 FT.3			
OIL:	- CC			
WATER:	- CC			
MUD:	1600 CC	.06	40	
FILTRATE:		.06	40	120000
TOTAL LIQUID:	1600 CC			

----- MUD DATA -----

TYPE:	KCL BRINE POLYMER
WEIGHT:	10.0 LB/GAL.
VISCOSITY:	30-32 SEC.
WATER LOSS:	8.0 CC
FLUID	RESIST (OHM-M) TEMP (DEG F) CHLOR (PPM)
MUD:	.07 40
FILTRATE:	.06 40 126000

----- REMARKS -----

|
|
|

NO. OF REPORTS REQUESTED: 11 (4X)

FIELD REPORT NO. 32232D

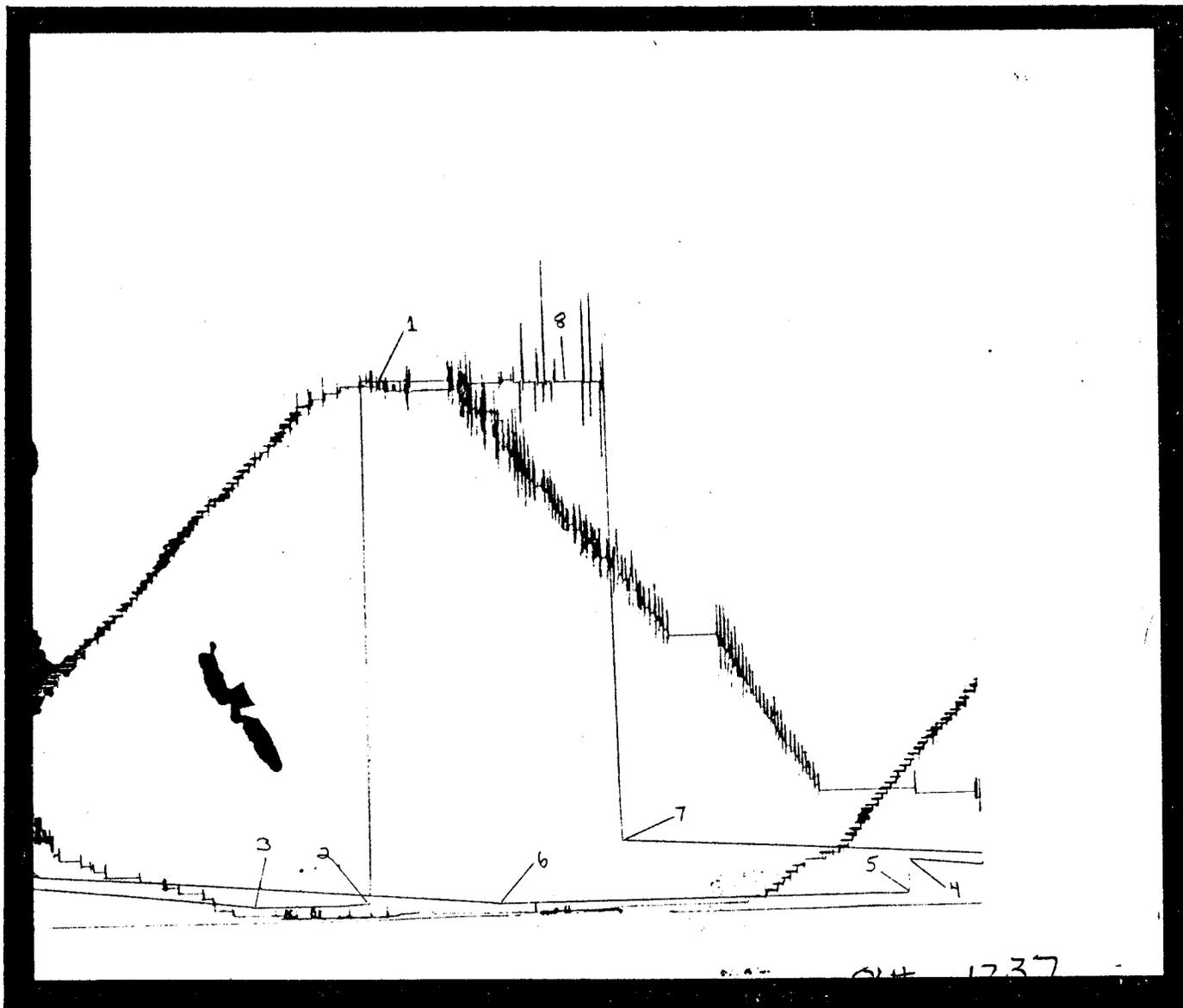
FIELD REPORT NO.: 32232 D

CAPACITY: 4700#

JOHNSTON
Schlumberger

INSTRUMENT NO.: J-1237

NUMBER OF REPORTS: 11



PRESSURE LOG

FIELD REPORT NO. 322320

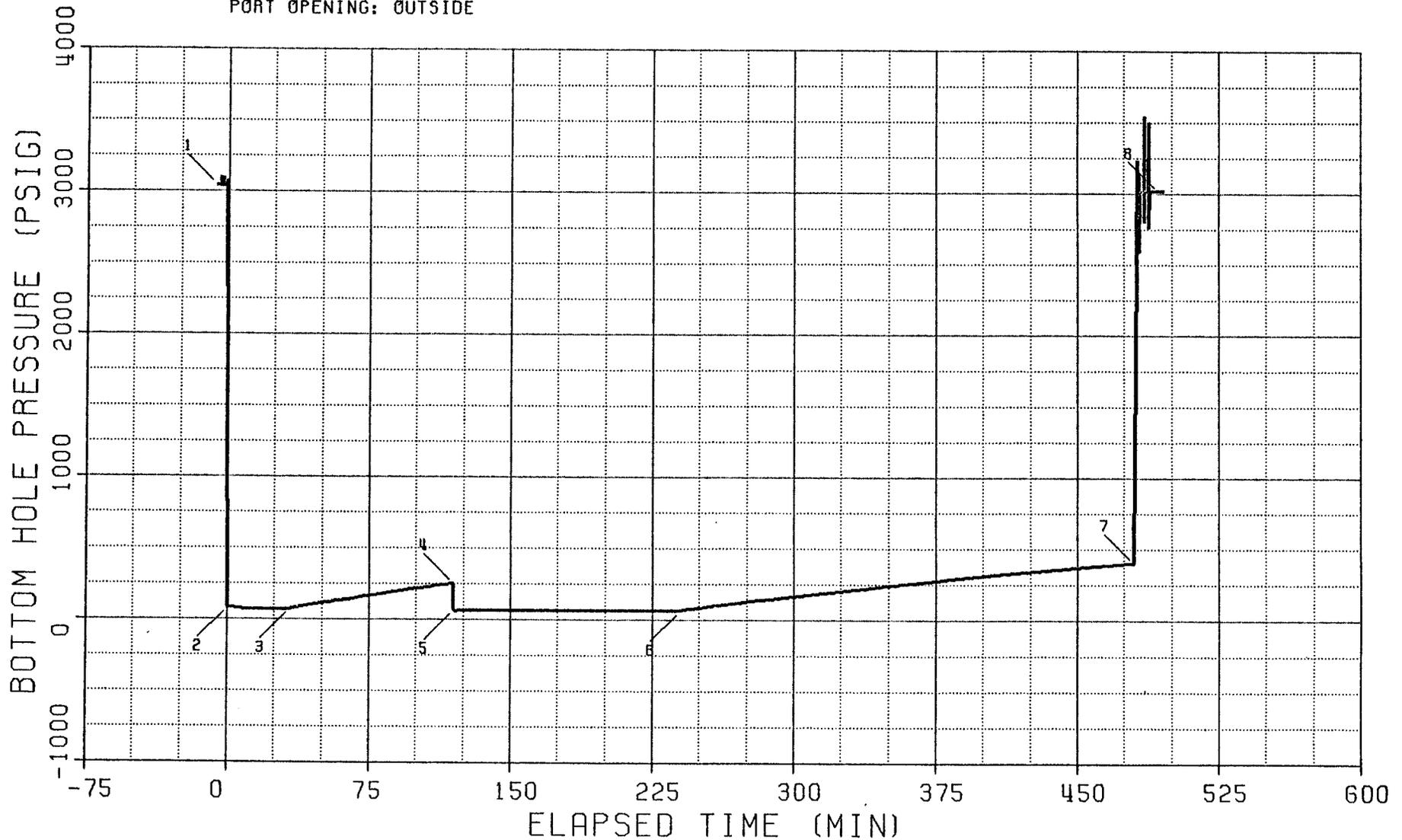
INSTRUMENT:

NUMBER: J-1237

CAPACITY: 4700 PSI

DEPTH: 5723 FT

PORT OPENING: OUTSIDE



BOTTOM HOLE PRESSURE AND TIME DATA

INSTRUMENT NO.: J-1237
 PORT OPENING: OUTSIDE

CAPACITY (PSI): 4700
 BOTTOM HOLE TEMP (F): 128

DEPTH (FT): 5723
 PAGE 1

EXPLANATION	LABELLED POINT	PRESSURE (PSIG)	ELAPSED TIME (MIN)
HYDROSTATIC MUD	1	3045	-6.7
START FLOW	2	80	0.0
END FLOW & START SHUT-IN	3	72	33.2
END SHUT-IN	4	253	119.4
START FLOW	5	68	119.7
END FLOW & START SHUT-IN	6	61	239.6
END SHUT-IN	7	402	479.8
HYDROSTATIC MUD	8	3018	492.8

 * SUMMARY OF FLOW PERIODS *

FLOW PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF FLOW (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)
1	0.0	33.2	33.2	80	72
2	119.7	239.6	119.9	68	61

 * SUMMARY OF SHUT-IN PERIODS *

SHUT-IN PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF SHUT-IN (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)	FINAL FLOW PRESSURE (PSIG)	PRODUCING TIME (MIN)
1	33.2	119.4	86.2	72	253	72	33.2
2	239.6	479.8	240.2	61	402	61	153.2

FIELD REPORT NO. 32232D
INSTRUMENT NO. J-1237TEST PHASE : FLOW PERIOD # 1

ELAPSED TIME (MIN)	DELTA TIME (MIN)	FLOWING PRESSURE (PSIG)
0.0	0.0	80
5.0	5.0	75
10.0	10.0	71
15.0	15.0	71
20.0	20.0	71
25.0	25.0	72
30.0	30.0	72
33.2	33.2	72

TEST PHASE : SHUT-IN PERIOD # 1

1. FINAL FLOW PRESSURE ["P "] = 72 PSIG
WF
2. PRODUCING TIME ["T "] = 33.2 MIN
P

ELAPSED TIME (MIN)	DELTA TIME ["DT"] (MIN)	SHUT-IN PRESSURE ["P "] (PSIG)	LOG [(T +DT)/DT] P	DELTA PRESSURE [P - P] WS WF
33.2	0.0	72		0
34.2	1.0	75	1.535	4
35.2	2.0	77	1.246	6
36.2	3.0	80	1.082	9
37.2	4.0	82	0.969	11
38.2	5.0	85	0.884	13
39.2	6.0	88	0.816	16
40.2	7.0	90	0.760	19
41.2	8.0	93	0.712	21
42.2	9.0	95	0.671	23
43.2	10.0	97	0.636	26
45.2	12.0	102	0.576	30
47.2	14.0	107	0.528	35
49.2	16.0	111	0.488	39
51.2	18.0	115	0.454	43
53.2	20.0	120	0.425	48
55.2	22.0	123	0.400	52
57.2	24.0	128	0.377	56
59.2	26.0	132	0.358	61
61.2	28.0	135	0.340	64
63.2	30.0	139	0.324	67
68.2	35.0	151	0.290	79
73.2	40.0	160	0.263	89
78.2	45.0	172	0.240	100
83.2	50.0	183	0.221	111
88.2	55.0	192	0.205	121

FIELD REPORT NO. 32232D
INSTRUMENT NO. J-1237TEST PHASE : SHUT-IN PERIOD # 1

1. FINAL FLOW PRESSURE ["P "] = 72 PSIG
 2. PRODUCING TIME ["T "] = ^{WF} 33.2 MIN
 P

ELAPSED TIME (MIN)	DELTA TIME ["DT"] (MIN)	SHUT-IN PRESSURE ["P "] WS (PSIG)	LOG [(T +DT)/DT] P	DELTA PRESSURE [P - P] WS WF
*****	*****	*****	*****	*****
93.2	60.0	203	0.191	131
98.2	65.0	213	0.179	141
103.2	70.0	221	0.169	149
108.2	75.0	231	0.159	159
113.2	80.0	240	0.151	168
118.2	85.0	250	0.143	178
119.5	86.2	253	0.142	181

TEST PHASE : FLOW PERIOD # 2.

ELAPSED TIME (MIN)	DELTA TIME (MIN)	FLOWING PRESSURE (PSIG)
*****	*****	*****
119.7	0.0	68
124.7	5.0	60
129.7	10.0	61
134.7	15.0	62
139.7	20.0	63
144.7	25.0	63
149.7	30.0	62
154.7	35.0	62
159.7	40.0	62
164.7	45.0	62
169.7	50.0	62
174.7	55.0	62
179.7	60.0	62
184.7	65.0	62
189.7	70.0	62
194.7	75.0	62
199.7	80.0	62
204.7	85.0	62
209.7	90.0	62
214.7	95.0	61
219.7	100.0	61
224.7	105.0	61
229.7	110.0	61
234.7	115.0	61
239.6	119.9	61

FIELD REPORT NO. 32232D
INSTRUMENT NO. J-1237TEST PHASE : SHUT-IN PERIOD # 2

1. FINAL FLOW PRESSURE ["P "] = 61 PSIG
 2. PRODUCING TIME ["T "] = ^{WF} 153.2 MIN
 P

ELAPSED TIME (MIN) *****	DELTA TIME ["DT"] (MIN) *****	SHUT-IN PRESSURE ["P "] WS (PSIG) *****	LOG [(T +DT)/DT] P *****	DELTA PRESSURE [P - P] WS WF *****
239.6	0.0	61		0
240.6	1.0	65	2.188	4
241.6	2.0	67	1.890	6
242.6	3.0	69	1.716	8
243.6	4.0	71	1.594	10
244.6	5.0	73	1.500	12
245.6	6.0	75	1.424	14
246.6	7.0	77	1.359	16
247.6	8.0	79	1.304	18
248.6	9.0	81	1.256	20
249.6	10.0	82	1.213	21
251.6	12.0	86	1.139	25
253.6	14.0	90	1.077	29
255.6	16.0	94	1.024	33
257.6	18.0	98	0.978	37
259.6	20.0	101	0.937	40
261.6	22.0	105	0.901	44
263.6	24.0	108	0.868	47
265.6	26.0	112	0.838	51
267.6	28.0	116	0.811	55
269.6	30.0	119	0.786	58
274.6	35.0	126	0.730	65
279.6	40.0	134	0.684	73
284.6	45.0	142	0.644	81
289.6	50.0	148	0.609	87
294.6	55.0	155	0.578	94
299.6	60.0	163	0.551	102
304.6	65.0	171	0.526	110
309.6	70.0	180	0.503	119
314.6	75.0	188	0.483	127
319.6	80.0	195	0.465	134
324.6	85.0	203	0.447	142
329.6	90.0	211	0.432	150
334.6	95.0	218	0.417	157
339.6	100.0	225	0.403	164
344.6	105.0	232	0.391	171
349.6	110.0	239	0.379	178
354.6	115.0	246	0.368	185
359.6	120.0	253	0.357	192
364.6	125.0	261	0.347	200
369.6	130.0	268	0.338	207
374.6	135.0	274	0.329	213

FIELD REPORT NO. 32232D
INSTRUMENT NO. J-1237TEST PHASE : SHUT-IN PERIOD # 2

1. FINAL FLOW PRESSURE ["P "] = 61 PSIG

2. PRODUCING TIME ["T "] = ^{WF}_P 153.2 MIN

ELAPSED TIME (MIN) *****	DELTA TIME ["DT"] (MIN) *****	SHUT-IN PRESSURE ["P "] WS (PSIG) *****	LOG [(T +DT)/DT] P *****	DELTA PRESSURE [P - P] WS WF *****
379.6	140.0	281	0.321	220
384.6	145.0	288	0.313	227
389.6	150.0	295	0.306	234
394.6	155.0	302	0.298	241
399.6	160.0	309	0.292	248
404.6	165.0	315	0.285	254
409.6	170.0	321	0.279	260
414.6	175.0	327	0.273	266
419.6	180.0	333	0.267	272
424.6	185.0	338	0.262	277
429.6	190.0	344	0.257	283
434.6	195.0	350	0.252	289
439.6	200.0	356	0.247	295
444.6	205.0	362	0.242	301
449.6	210.0	368	0.238	307
454.6	215.0	374	0.234	313
459.6	220.0	380	0.229	319
464.6	225.0	386	0.225	325
469.6	230.0	392	0.222	331
474.6	235.0	398	0.218	337
479.6	240.0	402	0.214	341
479.8	240.2	402	0.214	341

NATURAL GAS CORPORATION
OF CALIFORNIA

85 South 200 East
Vernal, Utah 84078
(801) 789-4573

February 24, 1981

Mr. E. W. Gynn
Geological Survey-Conservation Div.
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, UT 84104

Mr. Sam Boltz, Jr.
Chorney Oil Company
401 Lincoln Tower Bldg.
Denver, CO 80295

Mr. Michael T. Minder
~~Division of Oil, Gas & Mining~~
1588 West North Temple
Salt Lake City, UT 84116

Mr. Bob Gilmore
DeGolyer & MacNaughton
No. 1 Energy Square
Dallas, TX 75206

Re: NGC #31-26 Federal, Waco Unit
Section 26, T12S, R15E
Carbon County, Utah

Gentlemen:

Enclosed are copies of Form 9-331, Sundry Notices and Reports on Wells,
Request for Approval to Perform Completion Operations, dated 2/24/81 for
the above referenced well.

Sincerely,


R. J. Firth
District Supt.

/kh

Encls.

cc: E. J. Gelwick
E. R. Henry
C. T. Clark (Cover Letter Only)


FEB 25 1981
DIVISION OF
OIL, GAS & MINING

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR
Natural Gas Corporation of California

3. ADDRESS OF OPERATOR
85 South 200 East, Vernal, UT 84078

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1172' FNL, 1750' FEL, NW/4 SE/4,
AT TOP PROD. INTERVAL: Section 26, T12S, R15E
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) Perform Completion Operations		

5. LEASE
U-8283

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Waco

8. FARM OR LEASE NAME
Federal

9. WELL NO.
31-26

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 26, T12S, R15E

12. COUNTY OR PARISH
Carbon

13. STATE
Utah

14. API NO.
43-007-30052

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5960' GL, 5966' KB

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Operator proposes to commence completion operations as outlined in the attached Completion Procedure. No additional surface disturbance or damage will result from these operations. Operations are expected to commence about February 26, 1981 and will continue for approximately 10 days.

**APPROVED BY THE DIVISION
OF OIL, GAS, AND MINING**
DATE: 3-27-81
BY: M. J. Menden

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED R. J. Firth TITLE District Supt. DATE February 24, 1981

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

cc: USGS; UT OG&M; Chorney Oil; DeGolyer & MacNaughton; E. J. Gelwick;
E. R. Henry

COMPLETION PROCEDURE
NGC #31-26 Waco Unit

Location: 1172' FNL, 1750' FEL, NW/4 SE/4
Section 26, T12S, R15E
Carbon County, Utah

Elevation: 5960' GL
5966' KB

Depths: TD 6064'
PBTID 6020' (estimated)

Production Casing: 4½", 11.6#, N-80 at 6063' with 835 sacks RFC cement.
Estimated TOC at 2100'.

Procedure: Depth measurements from Dresser Atlas Compensated Density-Neutron log.

- 1) MI and RU completion rig and equipment. Cut off 4½" casing, install tubing head assembly and pressure test. NU and pressure test 6"-5000 psi BOP equipment.
- 2) PU 2-3/8" tubing with 3-7/8" bit and casing scraper and clean out to plugged back total depth at approximately 6020'. Pull 2-3/8" tubing, bit and casing scraper.
- 3) RU logging equipment. Run cement bond log and gamma ray collar correlation log from PBTID to TOC depth.
- 4) RIH with 2-3/8" tubing with Baker F nipple at top of tailpipe joint. Land tubing at about 5800' and swab well down to approximately 3000'.
- 5) Perforate with through-tubing perforating equipment 5932'-56' (24') with 1 SPF. Swab and/or flow test well following perforating to establish rate of gas or water entry. If necessary, breakdown formation and acidize thru perforations with mud removal acid (about 50 gals./perforation) and continue testing.
- 6) Following evaluation of interval 5932'-56', utilize retrievable bridge plug to isolate presently perforated interval and perforate 5786'-5814' (28') with 1 SPF. Swab and flow test to obtain accurate gas and water rates. Perform acidizing operations if necessary.
- 7) Further completion operations will be determined following evaluation of test results.

NATURAL GAS CORPORATION
OF CALIFORNIA

85 South 200 East
Vernal, Utah 84078
(801) 789-4573

March 25, 1981

Mr. E. W. Guynn
Geological Survey-Conservation Div.
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, UT 84104

Mr. Michael T. Minder
~~Division of Oil, Gas & Mining~~
1588 West North Temple
Salt Lake City, UT 84116

Mr. Sam Boltz, Jr.
Chorney Oil Company
401 Lincoln Tower Bldg.
Denver, CO 80295

Mr. Bob Gilmore
DeGolyer & MacNaughton
No. 1 Energy Square
Dallas, TX 75206

Re: NGC #31-26 Federal, Waco Unit
Section 26, T12S, R15E
Carbon County, Utah

Gentlemen:

Enclosed are copies of Form 9-331, Sundry Notices and Reports on Wells,
Request for Approval to Abandon the above referenced well.

Sincerely,



R. J. Firth
District Superintendent

/kh

Encls.

cc: E. J. Gelwick
C. T. Clark
E. R. Henry

RECEIVED

MAR 27 1981

DIVISION OF
OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR
Natural Gas Corporation of California

3. ADDRESS OF OPERATOR Telephone 801-789-4573
85 South 200 East, Vernal, UT 84078

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1172' FNL, 1750' FEL, NW SE
AT TOP PROD. INTERVAL: Section 26, T12S, R15E
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

5. LEASE
U-8283

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Waco

8. FARM OR LEASE NAME
Federal

9. WELL NO.
31-26

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 26, T12S, R15E

12. COUNTY OR PARISH | 13. STATE
Carbon | Utah

14. API NO.
43-007-30052

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5960' GL, 5966' KB

REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

PULL OR ALTER CASING

MULTIPLE COMPLETE

CHANGE ZONES

ABANDON*

(other)

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
DATE: 5-11-81
BY: M.S. Minder

Providing oil shale & coal zones are plugged.

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.)*

TD 6064'. PBSD 6010'.
4 1/2", 11.6#, N-80 production casing at 6063' cemented with 835 sacks cement. TOC @ 2100'. Perforations: Mesaverde formation - 5786'-5814' (28') w/1 SPF
5932'-5956' (24') w/1 SPF

Propose to set abandonment cement plugs as follows:

Plug no. 1	Cast iron bridge plug @ 5600' w/ cement 5600'-5400' inside 4 1/2" csg.	15 sacks cement
Plug no. 2	2500'-2300' inside 4 1/2" csg. 4 1/2" csg. will shoot off and pull 4 1/2" csg. @ 2100'.	15 sacks cement
Plug no. 3	200' in and out of casing stub.	55 sacks cement
Plug no. 4	600'-400'	85 sacks cement
Plug no. 5	at surface w/marker	15 sacks cement

Continued - Page 2

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED R.J. Firth TITLE District Supt. DATE March 25, 1981

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE 3/25/81
CONDITIONS OF APPROVAL, IF ANY:

cc: USGS; OG&M, UT; Chorney; DeGolyer & MacNaughton; EJGelwick; ERHenry; CTCIark

MAR 27 1981

*See Instructions on Reverse Side

DIVISION OF
OIL, GAS & MINING

17. Continued . . .

A regulation dryhole marker will be installed and the location site cleaned, restored and rehabilitated in conformance with the approved surface use plan. The above described abandonment procedures discussed with Mr. Assad Raffoul, USGS, March 24, 1981.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.6

2

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
Natural Gas Corporation of California

3. ADDRESS OF OPERATOR
85 South 200 East, Vernal, UT 84078 Telephone 801-789-4573

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 1172' FNL, 1750' FEL, NW SE Section 26, T12S, R15E
At top prod. interval reported below
At total depth

14. PERMIT NO. 43-007-30052 DATE ISSUED _____

15. DATE SPUDDED 8/30/81 16. DATE T.D. REACHED 1/30/81 17. DATE COMPL. (Ready to prod.) P & A 3/27/81 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 5960' GL, 5966' KB 19. ELEV. CASINGHEAD _____

20. TOTAL DEPTH, MD & TVD 6064' 21. PLUG, BACK T.D., MD & TVD 6010' 22. IF MULTIPLE COMPL., HOW MANY* _____ 23. INTERVALS DRILLED BY _____ ROTARY TOOLS X CABLE TOOLS _____

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* None 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN Dual Laterolog, FDC-CNL, BHC Acoustilog, GRCC-CBL Sample 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
13-3/8"	48.0	65'	17 1/2"	75 sacks	
9-5/8"	40.0	500'	12 1/4"	315 sacks	
4-1/2"	11.6	6063'	7-7/8"	835 sacks	2118'

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
None					None		

31. PERFORATION RECORD (Interval, size and number) 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

INTERVAL	SIZE	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5786'-5814'	(28') w/1 SPF	5786'-5814'	1500 gals. 7 1/2% HCL acid.
5932'-56'	(24') w/1 SPF	5932'-56'	1500 gals. 7 1/2% MSR acid.
5786'-5956'		5786'-5956'	36,375 gals gelled water, 11,000# sand and 65,000# 20/40 mesh sand.

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
P & A 3/27/81		P & A

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

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

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY _____

35. LIST OF ATTACHMENTS
Geological well report previously submitted.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
SIGNED R. L. Firth TITLE District Supt. DATE 3/27/81

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

cc: USGS; Ut. Div. OG&M; Chorney; DeGolyer; Operations Supt.; ERHenry; CTCIark; RBoschee; JMKunz; JLangman; KReed; R. B. Edmundson

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		38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	
			NAME	
			MEAS. DEPTH	
			TOP	
			TRUE VERT. DEPTH	
			Wasatch	1475'
			Chapita Zone	2140'
			Lower Wasatch	2592'
			North Horn	3620'
			Mesaverde	5020'

NATURAL GAS CORPORATION
OF CALIFORNIA

85 South 200 East
Vernal, Utah 84078
(801) 789-4573

April 7, 1981

APR 9 1981

DIVISION OF
OIL, GAS & MINING

Mr. E. W. Guynn
Geological Survey-Conservation Div.
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, UT 84104

Mr. Sam Boltz, Jr.
Chorney Oil Company
401 Lincoln Tower Bldg.
Denver, CO 80295

Mr. Michael T. Minder
Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, UT 84116

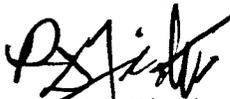
Mr. Bob Gilmore
DeGolyer & MacNaughton
No. 1 Energy Square
Dallas, TX 75206

Re: NGC #31-26 Federal, Waco Unit
Section 26, T12S, R15E
Carbon County, Wyoming

Gentlemen:

Enclosed are copies of Form 9-330, Sundry Notices and Reports on Wells,
Subsequent Report of Abandonment, for the above referenced well.

Sincerely,



R. J. Firth
District Superintendent

/kh

Encls.

cc: E. J. Gelwick
E. R. Henry
C. T. Clark

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APR 9 1981

DIVISION OF
OIL, GAS & 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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR
Natural Gas Corporation of California

3. ADDRESS OF OPERATOR
85 South 200 East, Vernal, UT 84078

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1172' FNL, 1750' FEL, NW SE
AT TOP PROD. INTERVAL: Section 26, T12S, R15E
AT TOTAL DEPTH:

5. LEASE
U-8283

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Waco

8. FARM OR LEASE NAME
Federal

9. WELL NO.
31-26

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 26, T12S, R15E

12. COUNTY OR PARISH
Carbon

13. STATE
Utah

14. API NO.
43-007-30052

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5960' GL, 5966' KB

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(other)		

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

TD 6064' PBD 6010'
 4 1/2", 11.6#, N-80 production casing at 6063' cemented with 835 sacks cement. TOC @ 2100'. Perforations: Mesaverde formation - 5786'-5814' (28') w/1 SPF
 5932'-5956' (24') w/1 SPF

Equalized and set abandonment cement plugs as follows:

Plug no. 1	Cast iron bridge plug @ 5600' with cement @ 5600'-5400' inside 4 1/2" casing.	15 sacks cement
Plug no. 2	2500'-2300' inside 4 1/2" casing. Shot off 4 1/2" casing @ 2118' and pulled 56 jts. casing.	15 sacks cement
Plug no. 3	2215'-2015'	55 sacks cement
Plug no. 4	600'-400'	85 sacks cement
Plug no. 5	at surface w/marker	15 sacks cement

Continued - Page 2

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED R. D. Firth TITLE District Supt. DATE April 7, 1981

(This space for Federal or State office use)

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

cc: USGS; UT Div. OG&M; Chorney; DeGolyer; EJJGelwick; ERHenry; CTClark

17. Continued . . .

A regulation dryhole marker was installed and the location site cleaned, restored and rehabilitated in conformance with the approved surface use plan. A notification will be submitted following final location restoration and reseeding.

May 1, 1981

Natural Gas Corporation of Cal.
85 South 200 East,
Vernal, Utah 84078

Re; Well No. Federal 31-26
Sec. 26, T. 12S. R. 15E.
Carbon County, Utah

Gentlemen:

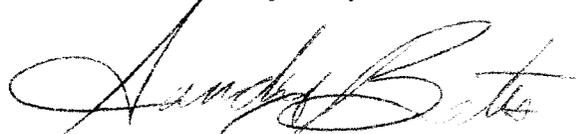
According to our records, a "Well Completion Report" filed with this office 3-27-81, from above referred to well indicates the following electric logs were run: DUAL BATEROLOG, FDC-CNL, BHC ACOUSTILOG, GRCC-CBL. As of today's date this office has not received these logs. GRCC-CBL

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



SANDY BATES
CLERK-TYPIST

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: Natural Gas Corp.

WELL NAME: Fed. #31-26

SECTION 26 TOWNSHIP 12S RANGE 15E COUNTY Carbon

VERBAL APPROVAL GIVEN TO PLUG AND ABOVE REFERRED TO WELL IN THE FOLLOWING MANNER:

TOTAL DEPTH: 6064' PBTD 6010'

CASING PROGRAM:

- 13 3/8", 48# @ 65'
- 9 5/8", 40# @ 500'
- 4 1/2", 11.6# @ 6063' TOC 2100'

FORMATION TOPS:

- Green Rv.- surface
- Wasatch- 1475'
- Chapita- 2140'
- L. Wasatch- 2592'
- N. Horn- 3620'

Perfs: 5932-56'; 5786-5814'

PLUGS SET AS FOLLOWS:

- 1) Set CIBP @ 5600' (w/15sx, 5600-5400)
- 2) 2500-2300'
- 3) Part 4 1/2" casing at 2100' set 200'
plug 1/2 in 1/2 out
- 4) 600-400'
- 5) 35-'surface

Place 9.2# fresh water gel based abandonment mud between plugs; clean, restore and regrade site, erect regulation dryhole marker.

DATE 5-11-81 SIGNED MTM

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE
(Other instructions
reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

U-8283

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

WACO

8. FARM OR LEASE NAME

Federal

9. WELL NO.

31-26

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., E., M., OR BLK. AND SURVEY OR ARMA

Sec. 26, T. 12S., R. 15E.

12. COUNTY OR PARISH 13. STATE

Carbon Utah

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

JUN 14 1984

DIVISION OF OIL
GAS & MINING

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
Natural Gas Corporation of California

3. ADDRESS OF OPERATOR
85 South 200 East, Vernal, UT 84078

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
1172' FNL, 1750' FEL, NW $\frac{1}{4}$ SE $\frac{1}{4}$

14. PERMIT NO.
43-007-30052

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5960' GL, 5966' KB

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

PULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other)

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

(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.)*

Operator reports the following plugs have been set:

Plug no. 1 Cast iron bridge plug @ 5600' w/15 sx
Plug no. 2 2508' w/15 sx plug
Plug no. 3 Cut off csg. @ 2118'
Plug no. 4 2180' w/55 sx plug
Plug no. 5 600' w/85 sx plug
Plug no. 6 At surface 15 sx plus dry hole marker

This location has been recontoured and seeded. Operator respectfully requests a final release on this location.

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

SIGNED William A. Ryan

TITLE Petroleum Engineer

DATE 6/12/84

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

*See Instructions on Reverse Side