

FILE NOTATIONS

Entered in NID File

Location Map Pinned

Card Indexed

Checked by Chief

Approval Letter

Disapproval Letter

COMPLETION DATA:

Date Well Completed *10/2/78*

Location Inspected

OW..... WW..... TA.....

GW..... OS..... PA.....

Bond released

State or Fee Land

LOGS FILED

Driller's Log

Electric Logs (No.)

E..... I..... Dual I Lat..... GR-N..... Micro.....

BHC Sonic GR..... Lat..... MI-L..... Sonic.....

CGLog..... CCLog..... Others.....

UTAH DIVISION OF OIL AND GAS CONSERVATION

REMARKS: WELL LOG ELECTRIC LOGS FILE WATER SANDS LOCATION INSPECTED SUB. REPORT/abd. 2-1-78

*9/13/79 - Plugging program issued #989520 APPRV Re-Entry, chg
 Name FR PTS 32-29 Federal, #1000807 APD, Cancelled, eff 8-31-00!

DATE FILED 12-29-77

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. U-7358 INDIAN

DRILLING APPROVED: 12-27-77 #5-20-98 Re Entry

SPUDDED IN: 1-31-78

COMPLETED: 10-2-78 SIOW PUT TO PRODUCING:

INITIAL PRODUCTION: 15 BOED; 6 BWPD

GRAVITY A.P.I. 35⁰

GOR:

PRODUCING ZONES: Green River

TOTAL DEPTH: 14,245'

WELL ELEVATION: 5297' KB

DATE ABANDONED: * Plugged & Abandoned - 9/13/79 *** 8-31-00 APD Cancelled for Re-Entry

FIELD: Wildcat 3/96 Treaty Boundary

UNIT:

COUNTY: Duchesne

WELL NO. ~~PTS 32-29 Federal~~ * Tar Sand Federal 7-29A APT. NO: 43-013-30435

LOCATION 1978' FT. FROM (N) ~~XX~~ LINE, 1982' FT. FROM (E) ~~XX~~ LINE. C SW NE 1/4-1/4 SEC. 29

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR:
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PACIFIC TRANSMISSION SUPPLY COMPANY

212 GOODSTEIN BUILDING
P. O. BOX 3093
CASPER, WYOMING 82602
(307) 265-1027

December 22, 1977

Mr. Cleon B. Feight
Division of Oil, Gas & Mining
State of Utah
1588 West North Temple
Salt Lake City, Utah 84116

Reference: PTS #32-29 Federal
Sec. 29-T8S-R17E, SLM
Duchesne County, Utah



Dear Mr. Feight,

Pacific Transmission Supply Company proposes to drill the captioned well. Enclosed are the following documents relative to the well:

1. Application for Permit to Drill
2. Well Prognosis
3. Casing, BOP and Pressure Containment Data
4. Thirteen Point Surface Use Plan
5. Surveyor's Plat

Should your office require additional information, please do not hesitate to contact this office.

Very truly yours,

Dee E. Beardsley
DEE E. BEARDSLEY
District Manager

DEB:a

cc: Mr. Edgar W. Guynn
Mr. J. L. Wroble

encl.

43-013-30435

**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, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface
SW-NE Section 29, Township 8 South, Range 17 East
 At proposed prod. zone
1978' FUL & 1982' FER CSWNE

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
11-1/2 miles south of Myton, Utah

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

16. NO. OF ACRES IN LEASE
1119.89

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.

19. PROPOSED DEPTH
8850'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5280 Ground

22. APPROX. DATE WORK WILL START*

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
24"	20"	Line pipe	30'	Cement to surface
17-1/2"	13-3/8"	48#	150'	Cement to surface
12-1/4"	9-5/8"	36#	2000'	250 sacks
7-7/8"	4-1/2"	11.6# N-80	As required	

Operator proposes to drill an 8850' Wasatch test or 1000' into the Wasatch, whichever is the lessor, to test the upper Wasatch formation. Should oil or gas be found in commercial quantities, 4-1/2" production casing will be run and cemented. The well will be drilled according to the attached prognosis and BOP equipment will be maintained at all times as per the pressure containment plan attached.



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 Dec E. Beardsley TITLE District Manager DATE Dec 22, 1977
 (This space for Federal or State office use)

PERMIT NO. 43-013-30435 APPROVAL DATE _____

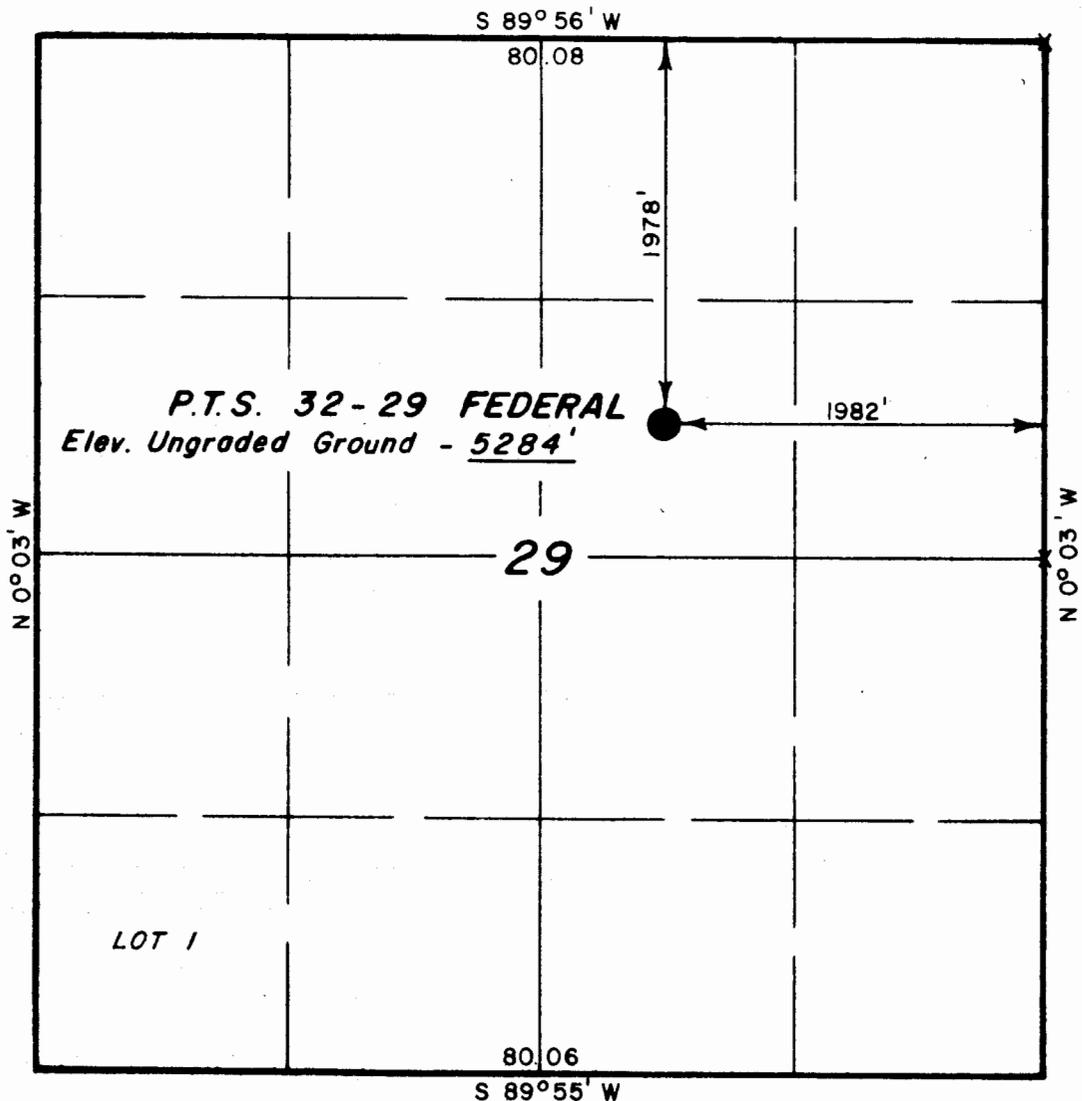
APPROVED BY _____ TITLE _____ DATE _____
 CONDITIONS OF APPROVAL, IF ANY :

PROJECT

PACIFIC TRANSMISSION SUPPLY

Well location, *P.T.S. 32-29 FEDERAL*, located as shown in the SW 1/4 NE 1/4 Section 29, T 8 S, R 17 E, S.L.B. & M. Duchesne County, Utah.

T 8 S, R 17 E, S.L.B. & M.



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

[Signature]
 REGISTERED LAND SURVEYOR
 REGISTRATION NO 2454
 STATE OF UTAH

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

SCALE	1" = 1000'	DATE	12/19/77
PARTY	DA DS BN	DJ	REFERENCES GLO Plat
WEATHER	COLD	FILE	PACIFIC TRANS. SUPPLY

X = Section Corners Located

ATTACHMENT 2-A

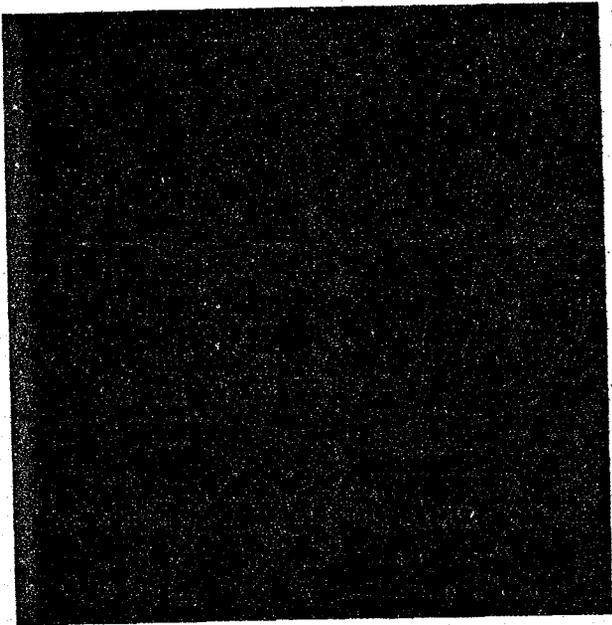
SUMMARY OF ENVIRONMENTAL IMPACT EVALUATION EIA NO. 875
DATE JAN 18, 78

OPERATOR PTS Co
LEASE # U-7358
WELL NO. 32-29
LOC. 1/4 SW 1/4 SEC. 29
T. 87 N. R. 17 E
COUNTY Duchesne STATE UT

FIELD wildcat
USGS EVANS
BLM Arnold
REP: Dahlforsen
DIRT COOK (Ross Cove)
 ENHANCES
 NO IMPACT
 MINOR IMPACT
 MAJOR IMPACT

	Construction	Pollution	Drilling Production	Transport Operations	Accidents	Others
Roads, bridges, airports						
Transmission lines, pipelines						
Dams & impoundments						
Others (pump stations, compressor stations, etc.)						
Burning, noise, junk disposal						
Liquid effluent discharge						
Subsurface disposal						
Others (toxic gases, noxious gas, etc.)						
Well drilling						
Fluid removal (Prod. wells, facilities)						
Secondary Recovery						
Noise or obstruction of scenic views						
Mineral processing (ext. facilities)						
Others						
Trucks						
Pipelines						
Others						
Spills and leaks						
Operational failure						

Forestry						
Grazing						
Wilderness						
Agriculture						
Residential-Commercial						
Mineral Extraction						
Recreation						
Scenic Views						
Parks, Reserves, Monuments						
Historical Sites						
Unique Physical Features						
Birds						
Land Animals						
Fish						
Endangered Species						
Trees, Grass, Etc.						
Surface Water						
Underground Water						
Air Quality						
Erosion						
Other						
Effect On Local Economy						
Safety & Health						



Others
Orig. File
cc: Reg. & Planning
Ben & Norma
State Oil and Gas Utah

LEASE U-7358DATE JAN 18, 78WELL NO. 32-29 Castle FederalLOCATION: SW ¼ NE ¼, SEC. 29, T. 8S, R. 17EFIELD wildcat COUNTY Duchesne STATE UtENVIRONMENTAL IMPACT ANALYSIS - ATTACHMENT 2-BI. PROPOSED ACTION

Pacific Transmission Supply Company (COMPANY) PROPOSES TO DRILL AN OIL AND GAS TEST WELL WITH ROTARY TOOLS TO ABOUT 8850 FT. TD. 2) TO CONSTRUCT A DRILL PAD 300 FT. X 175 FT. AND A RESERVE PIT 125 FT. X 110' FT. 3) TO CONSTRUCT 18 FT. WIDE X 250' MILES ACCESS ROAD AND UPGRADE 18' FT. WIDE X 1.4 MILES ACCESS ROAD FROM AN EXISTING AND IMPROVED ROAD. TO GAS OIL PRODUCTION FACILITIES ON THE DISTURBED AREA FOR THE DRILL PAD AND TRUCK TRANSPORT THE PRODUCTION THROUGH A PIPELINE TO A TIE-IN IN SECTION _____, T. _____, R. NOT KNOWN AT THIS TIME

2. LOCATION AND NATURAL SETTING (EXISTING ENVIRONMENTAL SITUATION).

(1) TOPOGRAPHY: ROLLING HILLS DISSECTED TOPOGRAPHY DESERT OR PLAINS STEEP CANYON SIDES NARROW CANYON FLOORS ^{MINOR} DEEP DRAINAGE IN AREA SURFACE WATER AS REFERENCED IN OPERATORS 13pt plan a canal is approx 2000' N of Locations. Proposed activity should have little or no effect on surface water in area. Well is on hill with some drainage (minor) on sides - blocking of these drainage pose no major environmental damage.

(2) VEGETATION: SAGEBRUSH PINION-JUNIPER PINE/FIR FARMLAND (CULTIVATED) NATIVE GRASSES OTHER * In immediate area no farmland exist however approx 1 to 2 miles to north some irrigated farmland is present. Proposed activity should have no effect on these lands.

(3) WILDLIFE: DEER ANTELOPE ELK BEAR SMALL
MAMMAL BIRDS ^{NONE KNOWN} ENDANGERED SPECIES OTHER _____

(4) LAND USE: RECREATION LIVESTOCK GRAZING AGRICULTURE
 MINING INDUSTRIAL RESIDENTIAL OIL & GAS OPERATIONS

Old parietle mine which is rept to be abandon is aprox 1 mile SW
of location. Drilling of this well will probably have little if any effect
on this mining site. if a unknown circulation hazard exists the mines are
abandon and rept to have water in them already.

REF: BLM UMBRELLA EAR
USFS EAR
OTHER ENVIRONMENTAL ANALYSIS

3. Effects on Environment by Proposed Action (potential impact)

- 1) EXHAUST EMISSIONS FROM THE DRILLING RIG POWER UNITS AND SUPPORT TRAFFIC ENGINES WOULD ADD MINOR POLLUTION TO THE ATMOSPHERE IN THE LOCAL VICINITY.
- 2) MINOR INDUCED AND ACCELERATED EROSION POTENTIAL DUE TO SURFACE DISTURBANCE AND SUPPORT TRAFFIC USE.
- 3) MINOR VISUAL IMPACTS FOR A SHORT TERM DUE TO OPERATIONAL EQUIPMENT AND SURFACE DISTURBANCE.
- 4) TEMPORARY DISTURBANCE OF WILDLIFE AND LIVESTOCK.
- 5) MINOR DISTRACTION FROM AESTHETICS FOR SHORT TERM.
- 6)

4. Alternatives to the Proposed Action

1) NOT APPROVING THE PROPOSED PERMIT -- THE OIL AND GAS LEASE GRANTS THE LESSEE EXCLUSIVE RIGHT TO DRILL FOR, MINE, EXTRACT, REMOVE AND DISPOSE OF ALL OIL AND GAS DEPOSITS.

2) DENY THE PROPOSED PERMIT AND SUGGEST AN ALTERNATE LOCATION TO MINIMIZE ENVIRONMENTAL IMPACTS. NO ALTERNATE LOCATION ON THIS LEASE WOULD JUSTIFY THIS ACTION.

3) LOCATION WAS MOVED _____ TO AVOID _____
 LARGE SIDEHILL CUTS NATURAL DRAINAGE OTHER _____

4) Note: Operator plans to spud with a small rig to hold lease till larger rig is available. (OVER)

5. Adverse Environmental Effects Which Cannot Be Avoided

1) MINOR AIR POLLUTION DUE TO EXHAUST EMISSIONS FROM RIG ENGINES AND SUPPORT TRAFFIC ENGINES.

2) MINOR INDUCED AND ACCELERATED EROSION POTENTIAL DUE TO SURFACE DISTURBANCE AND SUPPORT TRAFFIC USE.

3) MINOR AND TEMPORARY DISTURBANCE OF WILDLIFE.

4) TEMPORARY DISTURBANCE OF LIVESTOCK.

5) MINOR AND SHORT-TERM VISUAL IMPACTS.

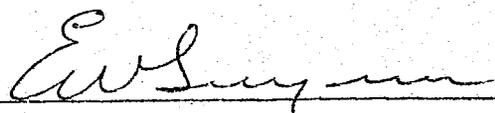
6)

6. DETERMINATION:

(THIS REQUESTED ACTION ~~DOES~~ (DOES NOT) CONSTITUTE A MAJOR FEDERAL ACTION SIGNIFICANTLY AFFECTING THE ENVIRONMENT IN THE SENSE OF NEPA, SECTION 102(2) (C).

DATE INSPECTED Jan 18, 78

INSPECTOR J. EVANS


U. S. GEOLOGICAL SURVEY
CONSERVATION DIVISION - OIL & GAS OPERATIONS
SALT LAKE CITY DISTRICT

- 1) cultural clearance may be a problem due to snow cover. In the event clearance of entire site would not possible, it was discussed but not decided that an area large enough for small rig to start operations with out building site might be cleared. This stipulates rest of site to be cleared prior to major construction. Operator should be inform of risk due to 60 day time frame to drill with ~~the~~ large rig and consequences if site can not be cleared.
- 2) Roads 24' max disturbed area -
- 3) Trunk Road permit required of lease - (In process & near final approval)
- 4) Access Road junction is near crest of hill with main road. possible Hazards were jointly assessed and felt to be minimized as access Road traffic has ~~clear~~ view of approaching traffic and cross traffic will be coming up hill slowing them some. Use of warning signs was discussed but jointly felt not necessary -
- 5) Storage of excess cut material on East side of Loc near cutwalk -

SALT LAKE COUNTY

2016/01/11

11:00 AM

2016/01/11

U.S. GEOLOGICAL SURVEY, CONSERVATION DIVISION

FROM: DISTRICT GEOLOGIST, SALT LAKE CITY, UTAH

TO: DISTRICT ENGINEER, SALT LAKE CITY, UTAH

Well	Location	Lease No.
PACIFIC TRANSMISSION Supply Co. #32-29	SW-NE S. 29, T8S R17E, SLM, Duchesne, UTAH, GREL 5275 (topo est.)	U-7358
<p>1. Stratigraphy and Potential Oil and Gas Horizons. <i>The well will spud in the Uintah Fm.</i></p> <p><i>Skyline Oil Co. well 31-2, Sec. 31 same township, reports:</i> <i>Uintah - Surf - possible water</i> <i>Green River - 1522 - possible water</i> <i>Horse Ranch - 2310 - possible water</i> <i>Douglas Creek Mb - 4674 - 5300' - possible oil & gas</i></p> <p>2. Fresh Water Sands. <i>Water sands may occur in the Uinta, Bridger, Green River and Wasatch Fms.</i></p> <p>3. Other Mineral Bearing Formations. (Coal, Oil Shale, Potash, Etc.) <i>Oil shale beds may occur in the Parachute Creek Member of the Green River Fm. Mahogany zone may occur between 3000 to 4000' elevation. Kieselite veins occur north east of the well proposed (± 1 mile).</i></p> <p>4. Possible Lost Circulation Zones. <i>Unknown.</i></p> <p>5. Other Horizons Which May Need Special Mud, Casing, or Cementing Programs. <i>Casing to protected fresh water aquifer zones in the Uintah, Bridger, Green River & Wasatch Fms. also to protect the Oil Shale & Kieselite occurrences.</i></p> <p>6. Possible Abnormal Pressure Zones and Temperature Gradients. <i>Unknown.</i></p> <p>7. Competency of Beds at Proposed Casing Setting Points. <i>Unknown.</i></p> <p>8. Additional Logs or Samples Needed. <i>Density log for identification of oil shale intervals.</i></p> <p>9. References and Remarks <i>U.S.G.S. Files</i></p>		

Date: 1-11-78

Signed: emp

Utah State Oil and Gas

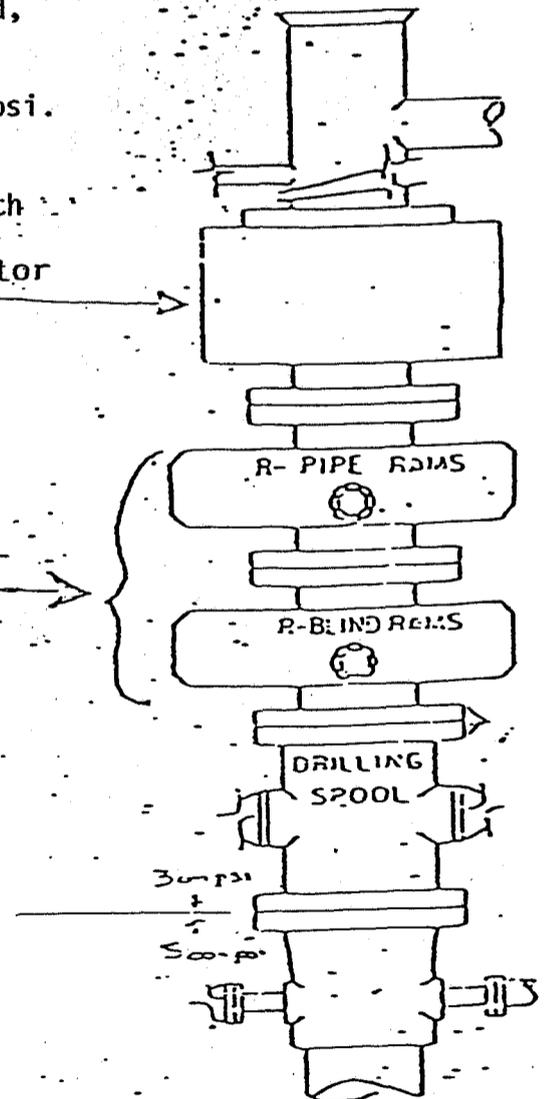
PTS #32-29 Federal
SW-NE Sec. 9-T8S-R17E
Duchesne County, Utah

CASING, BOP AND PRESSURE CONTAINMENT DATA

1. Surface casing: 13-3/8", 75', K-55, 48#/ft, new. Casing will be set and cemented to surface. WOC 12 hours.
2. Casing heads, flanges and spools: All casing heads, flanges and spools to be 900 series or stronger. The christmas tree to be installed, if required, will be at sufficient strength to contain pressures encountered in well.
3. Intermediate string: 9-5/8", 36#, 2000'.
4. Production casing: 4-1/2" as required, N-80, 11.6#/ft., LTC, new. Casing will be set and cemented through productive formations. WOC a minimum of 12 hours.
5. Blowout Preventer: The rig to be used on the location will be equipped with a 10" - 900 series double gate BOP and a Hydril, 900 series BOP. See below. Blowout preventers shall be mechanically checked at least once a day while drilling.
6. Auxiliary equipment to be used: Lower kelly cock, open stabbing floor valve, 2-1/2" choke manifold, 3000 psi W.P. or better
7. Formation pressure anticipated is 3700 to 3900 psi.
8. Drilling Fluid: Salt water and salt water base low solids mud system. Rig will be equipped with a degasser through expected gas-bearing zones.

10" Annular Preventor
900 series

10"
900 Series
Double Gate



WELL PROGNOSIS
PTS 32-29 FEDERAL
DUCHESNE COUNTY, UTAH

LOCATION:

SW-NE Section 29, Township 8 South, Range 17 East, SLM
Duchesne County, Utah

The PTS 32-29 Federal will be drilled by Pacific Transmission
Supply Company.

OPERATOR: Pacific Transmission Supply Company
LEASE: U-7358
ELEVATION: 5280' Ground
DRILLING CONTRACTOR:

FORMATION TOPS AND DATUM:

<u>Formation</u>	<u>Depth</u>	<u>Datum</u>
Green River	1711'	(+3509')
Parachute Creek	3635'	(+1645')
H-Marker	4272'	(+1008')
Douglas Creek	5052'	(+ 228')
Green River Tongue	6505'	(-1225')
Wasatch	6855'	(-1575')
Total Depth	8850'	

SAMPLE COLLECTION:

Ten (10) foot samples from under surface to total depth. Samples will be collected by drilling crew for the wellsite geologist. Two sets of samples will be caught in the oil shale section of the Green River Formation - one set to be sent to the Bureau of Mines, Laramie Energy Research Center, 9th and Lewis, Laramie, Wyoming 82070, attention Pete Dana.

LOGGING PROGRAM:

- Run #1 Log interval under surface casing to total depth prior to running 9-5/8" casing
- Dual Induction Laterolog
- Run #2 - Dual Laterolog to total depth
- Borehole Compensated Sonic with Gamma Ray and Hole Caliper
- Compensated Formation Density with Gamma Ray and Hole Caliper

All logs to be recorded on magnetic tape

MUD LOGGING:

Portable mud logging unit operated by wellsite geologist. Mud logging unit should be in operation from below surface casing.

DRILLSTEM TESTING:

All significant shows of oil and gas will be drillstem tested.

WELL PROGNOSIS
PTS 32-29 FEDERAL
Duchesne County, Utah

-2-

<u>Interval feet</u>	<u>Mud Weight lb/gal</u>	<u>Viscosity sec./qt</u>	<u>Fluid Loss ML/30 Min.</u>	<u>Mud - Type</u>
0-75'	Dry hole digger			
75-2000'	8.4-8.7	26-29	No control	Water/floculent
2000-5000'	8.7-9.0	26-29	No control	Salt water 60-80,000 PPM
5000-TD	9.2-9.5	34-45	12 cc/less	Salt mud 60,000 PPM

Mud system from under surface to total depth to contain approximately 180 PPM nitrates to verify filtrate water.

DRILLING PROGRAM:

- 1) Move in dry hole digger, set 30' of 20" conductor pipe cemented to surface and drill 17-1/2" hole for surface casing. Set surface and WOC. Surface to be 10-3/4", 40.5#/ft., K-55. Air compressors and booster should be on standby and rigged up to areate the mud system in the event loss circulation occurs. ARRANGEMENTS FOR AIR EQUIPMENT SHOULD BE CONFIRMED A MINIMUM OF 30 DAYS IN ADVANCE OF SPUD DATE.
- 2) Move on main drilling rig and drill out from under 13-3/8" casing with 12-1/4" hole to 2000'. Log and prepare hole for intermediate casing.
- 3) Set 2000' of 9-5/8", 36#/ft., K-55 casing; WOC
- 4) Drill out from under 9-5/8" casing with 7-7/8" hole to total depth. Log and evaluate well.
- 5) In the event that the Mesaverde and/or Wasatch is found productive, a string of 4-1/2", 11.6#/ft, N-80 casing will be run and cemented across the potential zones.
- 6) Release rig and develop completion procedure.

PERSONNEL AND MAILING INFORMATION:

Dee E. Beardsley, District Manager
Pacific Transmission Supply Company
P. O. Box 3039
Casper, Wyoming 82602
Telephone: Office (307)265-1027
Home (307)234-7666

E. E. Mulholland, Operations Engineer
Pacific Transmission Supply Company
P. O. Box 3093
Casper, Wyoming 82602
Telephone: Office (307)265-1027
Home (307)265-4191

B. W. Allen, Engineer
P. O. Box 2352
Casper, Wyoming 82602
Telephone: Office (307)234-3571
Home (307)237-9023

WELL PROGNOSIS
PTS 32-29 FEDERAL
Duchesne County, Utah

-3-

NOTIFICATION OF SHOWS, DST'S AND UNUSUAL PROBLEMS:

Dee E. Beardsley	OFFICE: (307)265-1027	HOME: (307)234-7666
J. L. Wroble	(303)571-1662	(303)798-6175
Sam Boltz, Jr.	(303)861-5858	(303)355-4881
E. E. Mulholland	(307)265-1027	(307)265-4191
B. W. Allen	(307)234-3571	(307)237-9023

DISTRIBUTION OF INFORMATION:

PACIFIC TRANSMISSION SUPPLY COMPANY - Attention Dee E. Beardsley
P.O. Box 3093
Casper, Wyoming 82602

PACIFIC TRANSMISSION SUPPLY COMPANY - J. L. Wroble
633-17th Street, Suite 2140
Denver, Colorado 80202

CHORNEY OIL COMPANY - Attention Sam Boltz, Jr.
401 Lincoln Tower Building
Denver, Colorado 80295

B. W. Allen, Engineer
P. O. Box 2352
Casper, Wyoming 82602

DIVISION OF OIL, GAS AND MINING - Chief Petroleum Engineer
1588 West North Temple
Salt Lake City, Utah 84116

U. S. GEOLOGICAL SURVEY - Attention Edgar W. Gynn, District Engineer
8426 Federal Building
Salt Lake City, Utah 84138

PACIFIC TRANSMISSION SUPPLY COMPANY

13 Point Surface Use Plan

for

Well Location

P.T.S. 32-29 Federal

Located In

Section 29, T8S, R17E, S.L.B. & M.

1. EXISTING ROADS

See attached Topographic Map "A", to reach the Pacific Transmission Supply Company well location, P.T.S. 32-29 Federal, located in Section 29, T8S, R17E, S.L.B. & M., from Myton, Utah.

Proceed Southwesterly out of Myton, Utah along U.S. Highway 40, 1.75 miles to the junction of this Highway and a state road to the South. Proceed Southerly along this road 9.5 miles to the junction of this road and a jeep trail to the East. Proceed Easterly along this jeep trail 1.4 miles to the proposed access road to be discussed in item 2.

The last 1.4 miles of the above described road will need to be upgraded to meet the requirements in Item #2.

There is no construction anticipated on any other of the above described road. It will meet the standards necessary, for the hauling of equipment during the drilling and production of this well.

2. PLANNED ACCESS ROAD

See Topographic Map "B".

The proposed access road leaves the existing access road described in Item #1 in the SW 1/4 NE 1/4 Section 29, T8S, R17E, S.L.B. & M. and proceeds in a Southeasterly direction 250' to the proposed well location site.

In order to facilitate the anticipated traffic flow necessary to drill and produce this well, the following standards will be met.

The proposed access road will be an 18' crown road (9' either side of the centerline) with drain ditches along either side of the proposed road where it is determined necessary in order to handle any run-off from any normal meteorological conditions that are prevalent to this area.

Back slopes along the cut areas of the road will be 1 1/2 to 1 slopes and terraced.

The road will be centerline flagged prior to the commencement of construction.

The grade of this road will vary from flat to 8%, but will not exceed this limit. This road will be constructed from native borrow accumulated during construction.

If deemed necessary by the local governmental agencies or their representatives turnouts will be installed for safety purposes every 0.25 miles or on the top of ridges that will provide the greatest sight distance. These turnouts will be 200' in length and 12' in width and will be tapered from the shoulder of the road for a distance of 50' in length at both the access and the outlet end.

Any fences that are encountered along this access road will be cut and replaced with a cattleguard with a minimum width of 18' and a loading factor large enough to facilitate the heavy trucks required in the drilling and production of this well.

2. PLANNED ACCESS ROAD - CON'T.

If cattleguards are to be located at existing gates, they will be installed with the above requirements and with a new gate installed at one end of the cattleguard.

The access from the road to the gate will be of such a nature that there will be no impedance of traffic flow along the main access road and no difficulties encountered by traffic utilizing the gate, either leaving or entering the proposed access road.

The terrain that is traversed by this road is relatively flat and is vegetated with sparse amounts of sagebrush and grasses.

3. LOCATION OF EXISTING WELLS

As shown on Topographic Map "B", there are no other wells within a one mile radius of the proposed well site. (See location plat for placement of Pacific Transmission Supply Co., well within the Section.)

4. LOCATION OF TANK BATTERIES, PRODUCTION FACILITIES, AND PRODUCTION GATHERING AND SERVICE LINES

All petroleum production facilities are to be contained within the proposed location site. There are no other Pacific Transmission Supply Co. flow gathering, injection, or disposal lines within a one-mile radius of this location.

In the event production is established, plans for a gas flow line from this location to existing gathering lines of a main production line shall be submitted to the appropriate agencies for approval.

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

5. LOCATION AND TYPE OF WATER SUPPLY

The proposed water source to be utilized for the drilling of this well is from the Upper Pleasant Valley Canal at a source located in the NW 1/4 SW 1/4 Section 19, T4S, R1W, U.S.B. & M. This water will be hauled by truck approximately 0.95 road miles West along an existing County Road to the point where it intersects with State Highway 216, in the SW 1/4 SW 1/4 Section, 24 T4S, R2W U.S.B. & M.; thence Southerly utilizing existing roads described in Item #1, approximately 3.25 miles to the location site.

In the event this water source is not acceptable, other arrangements will be made with the proper authorities.

6. SOURCE OF CONSTRUCTION MATERIALS

All construction materials for this location site and access road shall be borrow materials accumulated during construction of the location site and access road. No additional road gravels or pit lining material 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.

7. METHODS FOR HANDLING WASTE DISPOSAL

See Location Layout Sheet.

A reserve and burn pit will be constructed.

The 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 an overhead flagging installed at such time as deemed necessary to protect the water fowl, wildlife, and domesticated animals.

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

When the reserve pit dries and the 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.

The burn pits will be constructed and fenced on all four sides with a small mesh wire to prevent and flammable materials from escaping and creating a fire hazard.

A portable chemical toilet will be supplied for human waste.

8. ANCILLARY FACILITIES

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

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.

10. PLANS FOR RESTORATION OF SURFACE

As there is some topsoil on the location site, all topsoil shall be stripped and stockpiled. See Location Layout Sheet and Item #9. When all drilling and production activities have been completed, and the location site and access road 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 pit shall be buried with a minimum of 5' of cover.

As mentioned in Item #7, the reserve pit will be completely fenced and wired and overhead wire and flagging installed, if there is oil in the pits, and then allowed to completely dry 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 cleanup and restoration activities shall be done and performed in a diligent and most workmanlike manner and in strict conformity with the above mentioned Item #7 and # 10.

11. OTHER INFORMATION

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

The area is a basin formed by the Uinta Mountains to the North and Roan Plateau to the South.

The basin floor is interlaced with numerous canyons and ridges formed by the non-perennial streams of the area. The sides of these canyons are 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 Uintah formation (Eocene Epoch) Tertiary Period in the upper elevations and the cobblestone and younger Alluvial deposits from the Quaternary Period, and of the Duchesne River formation in the lower elevations.

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

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

11. OTHER INFORMATION - continued

The majority of the numerous washes and streams in the area are of a 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 the area is only 8".

The Duchesne River 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 sagebrush, rabbit brush, 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, coyotes, rabbits and varieties of small squirrels and other types of rodents. The area is used by man for the primary purpose of grazing domesticated 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".)

P.T.S. 32-29 Federal, is located on a relatively flat area approximately 2000' South of the 'upper Pleasant Valley Canal.

The majority of the drainages in the area around this location run in a Northeasterly direction into the Duchesne River, which is a tributary to to the Green River and are non-perennial streams.

The terrain in the vicinity of the location slopes to the East through the location site at approximately a 2% grade.

The vegetation in the immediate area surrounding the location site is predominantly sagebrush, and grasses. There are no occupied dwelling or other facilities of this nature in the general area. 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

Dee E. Beardsley, District Manager
Pacific Transmission Supply Company
P. O. Box 3093
Casper, Wyoming 82602

Telephone: Office - (307) 265-1027
Home - (307) 234-7666

Pacific Transmission Supply Company
P.T.S. 32-29 Federal
Section 29, T8S, R17E, 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 Co. and its Contractors and Sub-Contractors in conformity with this plan and terms and conditions under which it is approved.

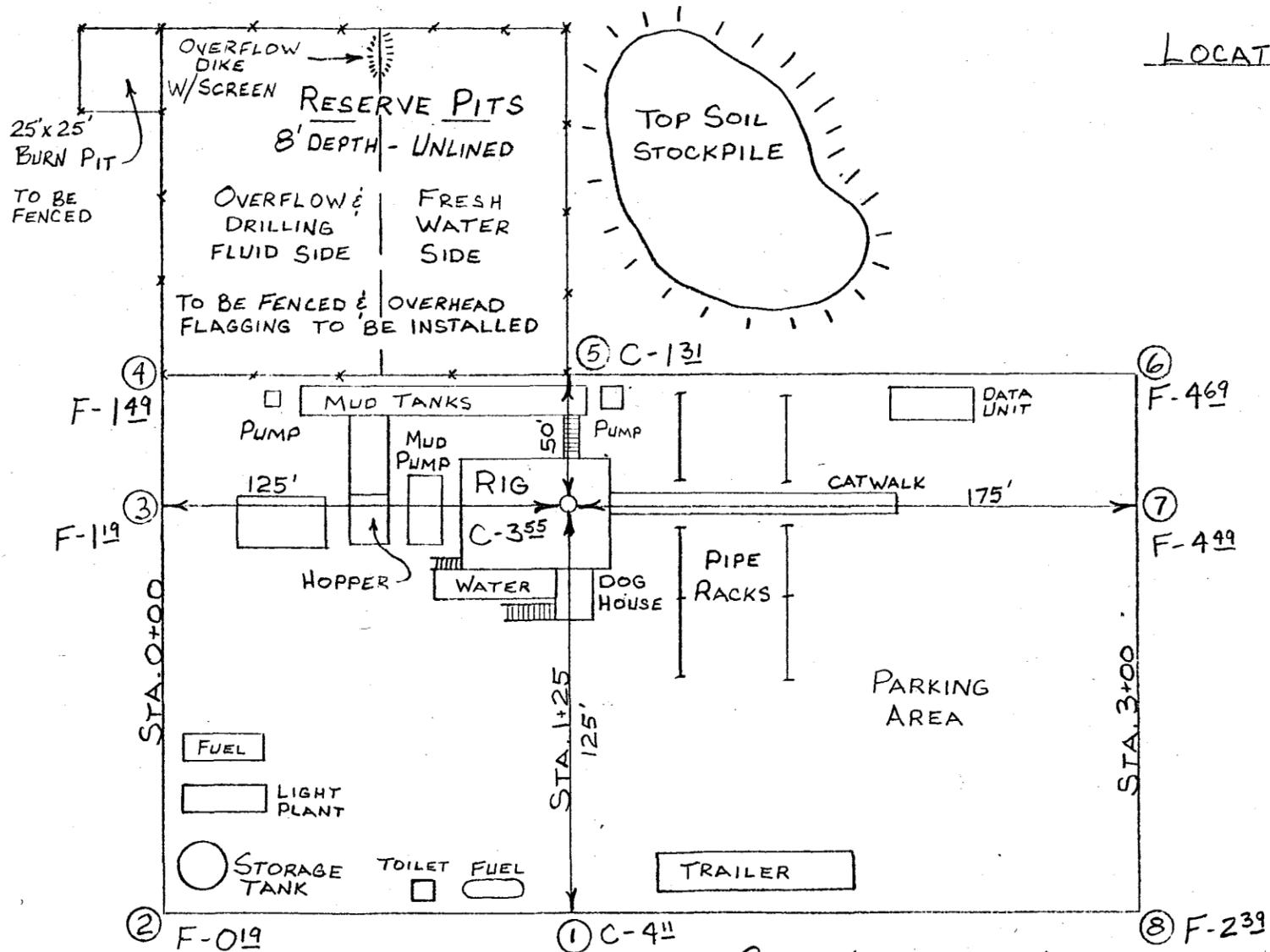
December 22, 1977

Date

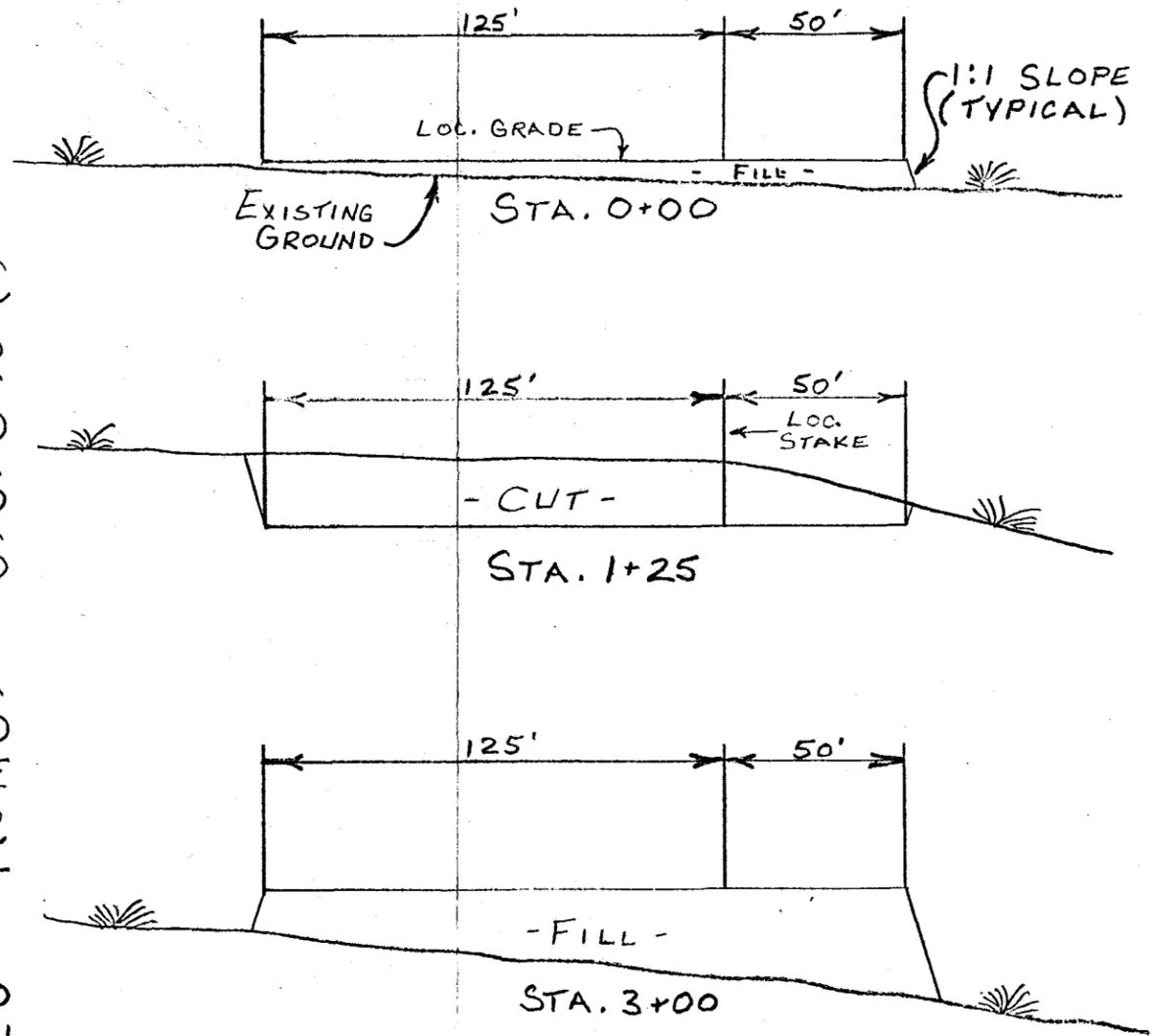

Dee E. Beardsley, District Manager

PACIFIC TRANSMISSION SUPPLY
P.T.S. 32-29 FEDERAL
SECTION 29-TBS-R17E-S.L.B. & M.

LOCATION LAYOUT

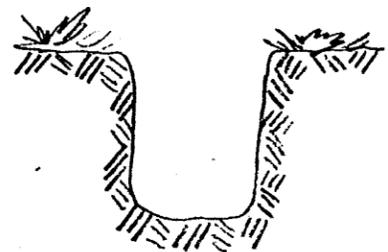


CROSS SECTIONS

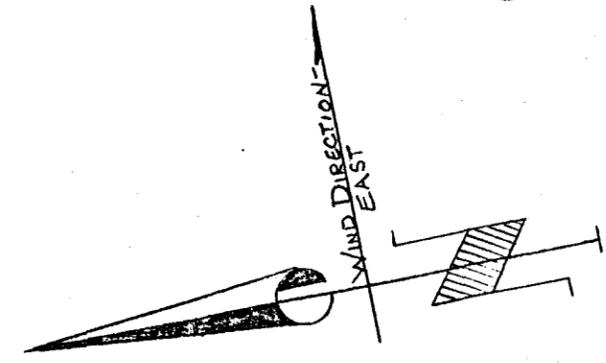


SOIL LITHOLOGY

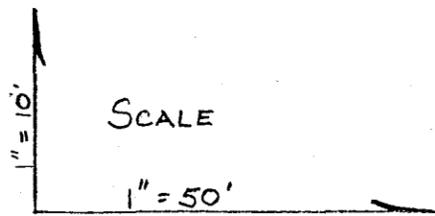
NO SCALE



LIGHT SANDY BROWN - CLAY (SM-ML)



SCALE - 1" = 50'



APPROX. YARDAGES

CUT - 3386 CU. YDS.

FILL - 2541 CU. YDS.

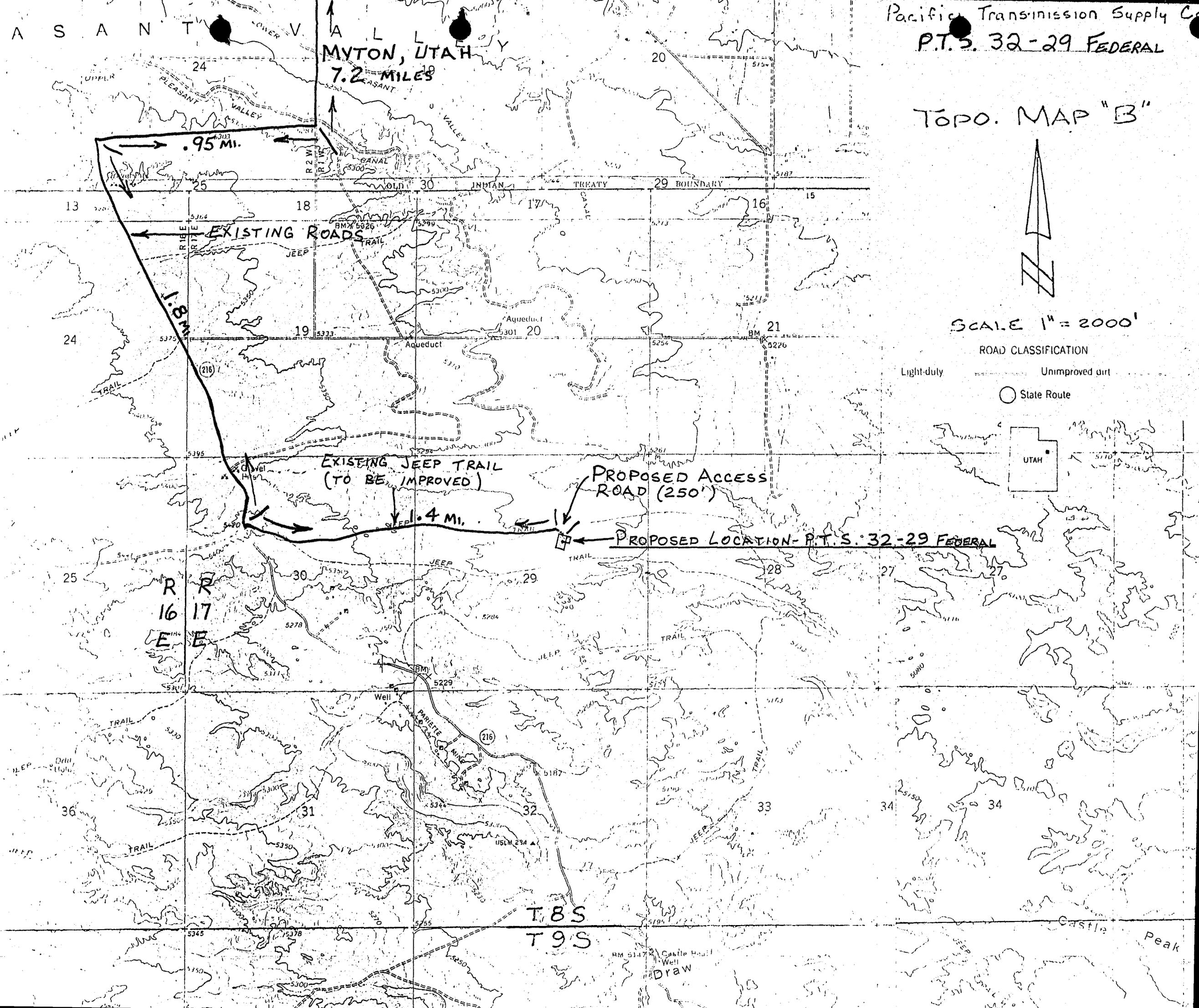
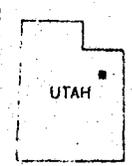
TOPO. MAP "B"



SCALE 1" = 2000'

ROAD CLASSIFICATION

- Light-duty
- Unimproved dirt
- State Route



MYTON, UTAH
7.2 MILES

.95 MI.

EXISTING ROADS

1.8 MI.

EXISTING JEEP TRAIL
(TO BE IMPROVED)

PROPOSED ACCESS ROAD (250')

1.4 MI.

PROPOSED LOCATION - P.T.S. 32-29 FEDERAL

R 16 E
R 17 E

T 8 S
T 9 S

Castle Peak

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

** FILE NOTATIONS **

Date: Dec. 27-
Operator: Pacific Transmission
Well No: PTS 32-29 1st.
Location: Sec. 29 T. 8S R. 17E County: Duchesne

File Prepared: Entered on N.I.D.:
Card Indexed: Completion Sheet:

API NUMBER: B-013-30435

CHECKED BY:

Administrative Assistant SA
Remarks: No other wells in Sec. 29 -

Petroleum Engineer _____

Remarks: _____
Director 7

Remarks: _____

INCLUDE WITHIN APPROVAL LETTER:

Bond Required: Survey Plat Required:
Order No. _____ Surface Casing Change
to _____

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

O.K. Rule C-3 O.K. In _____ Unit

Other: _____

Letter Written/Approved

December 27, 1977

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

Re: Well No. PTS 32-29 Federal
Sec. 29, T. 8 S, R. 17 E,
Duchesne County, Utah

Gentlemen:

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

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

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

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

The API number assigned to this well is 43 013-30435.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

CLEON B. FEIGHT
Director

/sw
cc: U.S. Geological Survey

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, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface.
SW-NE Section 29, Township 8 South, Range

At proposed prod. zone
1978' FNL and 1982' FEL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
11-1/2 miles south of Myton, Utah

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

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

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
58 Ungraded ground

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
24"	20"	Line pipe	30'	Cement to surface
17-1/2"	13-3/8"	48#	150'	Cement to surface
12-1/4"	9-5/8"	36#	2000'	250 sacks
7-7/8"	4-1/2"	11.6# N-80	As required	

Utah State Oil and Gas

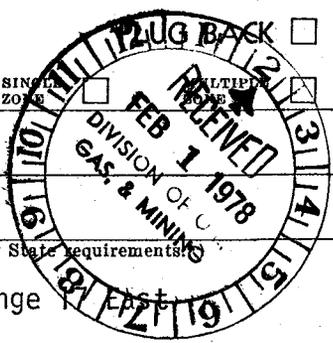
NOTICE OF APPROVAL

Operator proposes to drill an 8850' Wasatch test or 1000' into the Wasatch, whichever is the lessor, to test the upper Wasatch formation. Should oil or gas be found in commercial quantities, 4-1/2" production casing will be run and cemented. The well will be drilled according to the attached prognosis and BOP equipment will be maintained at all times as per the pressure containment plan attached.

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 Dee E. Beardsley TITLE District Manager DATE Dec 22, 1977
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY (ORIG. SGD.) E. W. GUYNN TITLE DISTRICT ENGINEER DATE JAN 30 1978
CONDITIONS OF APPROVAL, IF ANY:



5. LEASE DESIGNATION AND SERIAL NO.
U-7358
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
Castle
8. FARM OR LEASE NAME
Federal
9. WELL NO.
32-29 Castle Federal
10. FIELD AND POOL, OR WILDCAT
Wildcat
11. SEC., T., R., M., OR BLEK. AND SURVEY OR AREA
Sec. 29-T8S-R17E, SLM
12. COUNTY OR PARISH
Duchesne
13. STATE
Utah

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-7358

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
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.*
See also space 17 below.)
At surface
1978' FNL, 1982' FEL, (SW NE) Section 29, T8S, R17E, SLM

7. UNIT AGREEMENT NAME

Castle Unit

8. FARM OR LEASE NAME

Federal

9. WELL NO.

32-29

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 29-T8S-R17E, SLM

14. PERMIT NO.
43-013-30435

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5284 Ungraded Ground

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

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON*

SHOOTING OR ACIDIZING

ABANDONMENT*

REPAIR WELL

CHANGE PLANS

(Other)

(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.)*

Spud with air percussion rig at 12:30 P.M., 1/31/78. Drilled 17 1/2" hole to 160'. Set 125' 13-3/8", 54.5#, STC new csg and cemented to surface with 130 sx. Class G cement. Cementing complete at 1:00 A.M., 2/1/78. Rigged down air-percussion tools. Will rig up rotary tools within 60 days to complete drilling.



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

SIGNED

E. E. Mulholland
E. E. Mulholland

TITLE

Operations Engineer

DATE

2/1/78

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

3-USGS - SLC, Utah

1-O&GCC - SLC, Utah

1-E. R. Henry, 1 - J. L. Wroble, *See Instructions on Reverse Side

1-File

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
(FORM 9-329)
(2/76)
OMB 42-RO 356

MONTHLY REPORT
OF
OPERATIONS

Lease No. 71-00735
Communitization Agreement No. N/A
Field Name N/A
Unit Name Castle
Participating Area N/A
County Duchesne State Utah
Operator Pacific Transmission Supply Company
 Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of February, 19 78
(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
32-29	SWNE 29	8S	17E	DRG	None	None	None	None	Depth 160'



*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	None	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Produced	"	None	None
*Sold	"	"	XXXXXXXXXXXXXXXXXX
*Spilled or Lost	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXX	None	XXXXXXXXXXXXXXXXXX
*Used on Lease	None	"	XXXXXXXXXXXXXXXXXX
*Injected	"	"	None
*Surface Pits	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	"
*Other (Identify)	None	None	"
*On hand, End of Month	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	"	None	XXXXXXXXXXXXXXXXXX

Authorized Signature: [Signature] Address: 245 Market St., San Francisco, CA 94105
Title: Manager, Contract Administration Page 1 of 1

Contractor Anderson Drilling Co. Top Choke 1/4"
 Rig No. 6 Bottom Choke 3/4"
 Spot SW-NE Size Hole 7 7/8"
 Sec. 29 Size Rat Hole --
 Twp. 8 S Size & Wt. D. P. 4 1/2" 16.60
 Rng. 17 E Size Wt. Pipe --
 Field Wildcat I. D. of D. C. 2 1/4"
 County Duchesne Length of D. C. 528'
 State Utah Total Depth 6350'
 Elevation 5297' "K.B. Interval Tested 6310-6350'
 Formation Wasatch Type of Test Bottom Hole
Conventional

Flow No. 1 30 Min.
 Shut-in No. 1 60 Min.
 Flow No. 2 60 Min.
 Shut-in No. 2 180 Min.
 Flow No. 3 -- Min.
 Shut-in No. 3 -- Min.

Bottom Hole Temp. 141°F
 Mud Weight 9.9
 Gravity --
 Viscosity 36

Tool opened @ 3:50 AM.

Inside Recorder

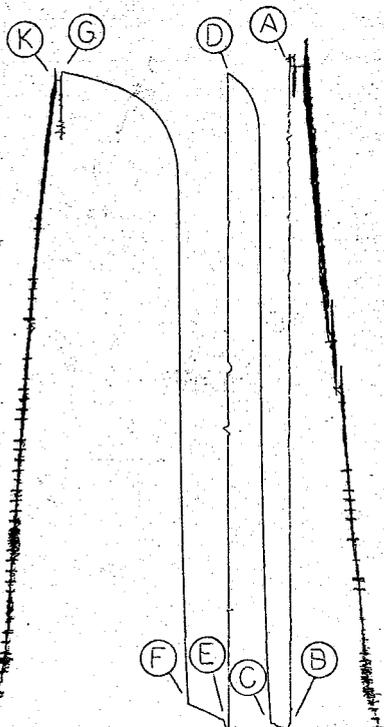
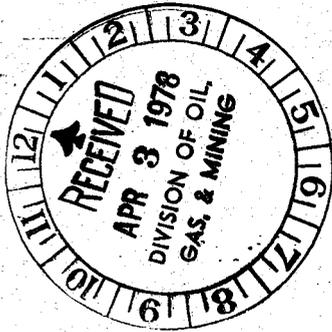
PRD Make Kuster AK-1
 No. 3697 Cap. 3700 @ 6325'

	Press	Corrected
Initial Hydrostatic	A	3274
Final Hydrostatic	K	3221
Initial Flow	B	116
Final Initial Flow	C	139
Initial Shut-in	D	3246
Second Initial Flow	E	120
Second Final Flow	F	237
Second Shut-in	G	3263
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs, Wy.

Our Tester: John Webb

Witnessed By: W.W. Stewart



Did Well Flow - Gas Yes Oil No Water No

RECOVERY IN PIPE: 708' Total Fluid
690' Gas cut oil = 5.06 bbl.
18' Oil & gas cut mud = 0.09 bbl.

REMARKS:

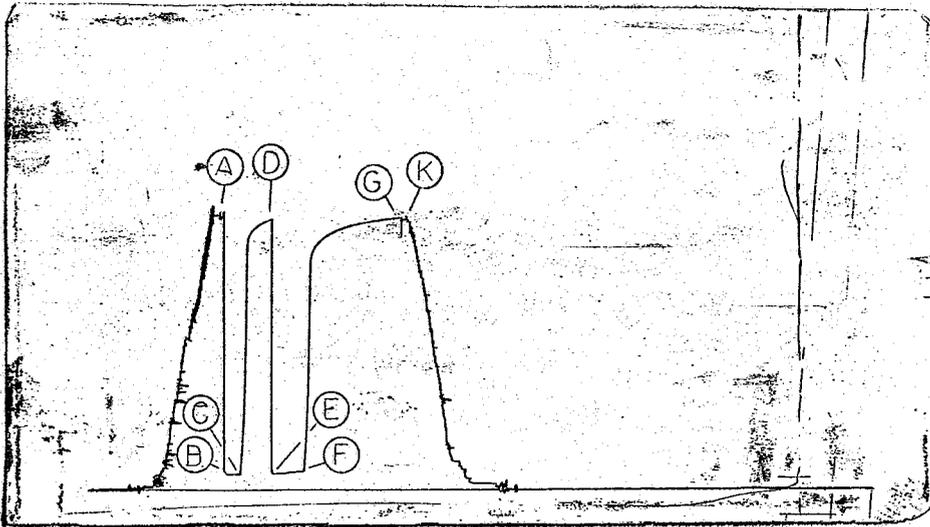
1st Flow - Tool opened with a 3" underwater blow, increased to bottom of bucket in 3 minutes and continued to increase thru remainder of flow period. Gas to surface 10 minutes into shut-in period.

2nd Flow - Tool opened with gas to surface, see gas volume report.

Operator: Pacific Transmission Supply Co. Well Name and No.: PIS-Federal #32-29
 Address: See Distribution Ticket No. 10314 Date 3-22-78
 No. Final Copies 6 DST No. 2

LYNES, INC.

Operator Pacific Transmission Supply Co. Lease & No. PTS-Federal #32-29 DST No. 2



Outside Recorder

PRD Make Kuster K-3
 No. 5804 Cap. 5500 @ 6350'

	Press	Corrected
Initial Hydrostatic	A	3311
Final Hydrostatic	K	3240
Initial Flow	B	197
Final Initial Flow	C	199
Initial Shut-in	D	3240
Second Initial Flow	E	204
Second Final Flow	F	474
Second Shut-in	G	3258
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		

PRD Make _____
 No. _____ Cap. _____ @ _____

	Press	Corrected
Initial Hydrostatic	A	
Final Hydrostatic	K	
Initial Flow	B	
Final Initial Flow	C	
Initial Shut-in	D	
Second Initial Flow	E	
Second Final Flow	F	
Second Shut-in	G	
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-in	J	
Pressure Below Bottom Packer Bled To		

LYNES, INC.

Fluid Sample Report

Date 3-22-78 Ticket No. 10314
Company Pacific Transmission Supply CODST No. 2
Well Name & No. PTS-Federal #32-29 State Utah
County Duchesne Test Interval 6310-6350'

Pressure in Sampler 180 PSIG BHT 141 °F

Total Volume of Sampler: 2100 cc.
Total Volume of Sample: 1000 cc.
Oil: 1000 cc.
Water: None cc.
Mud: None cc.
Gas: 2.0 cu. ft.
Other: None

Resistivity

Make Up Water 3.5 @ 65°F of Chloride Content 1700 ppm.
Mud Pit Sample 0.08 @ 85°F of Chloride Content 80,000 ppm.
Gas/Oil Ratio 300-1 Gravity _____ °API @ _____ °F

Where was sample drained _____

Remarks: _____

LYNES, INC.

Operator Pacific Transmission Supply Lease & No. PTS-Federal #32-29 DST No. 2
Co.

Comments relative to the analysis of the pressure chart from DST #2, Interval: 6310-6350', which was run in the captioned well located in the SW NE Section 29, T8S-R17E, Duchesne County, Utah:

The numerical results obtained in this analysis are based on the liquid recovery only and the Horner equations applicable to liquid recovery tests.

For purposes of this analysis, the following reservoir and fluid properties and test parameters have been used:

BHT = 141°F., $\mu = 1.0$ cp., $h = 10$ feet (estimated),
 $t = 90$ minutes, $m = 745$ psi/log cycle.

1. Extrapolation of the Initial Shut-in pressure build-up curve indicates a maximum reservoir pressure of 3371 psi at the recorder depth of 6325 feet. Extrapolation of the Final Shut-in pressure build-up curve indicates a maximum reservoir pressure of 3394 psi. The difference between the extrapolated Initial and Final Shut-in pressures (23 psi) is considered insignificant and is most probably due to the use of insufficient time for the Initial Shut-in period.

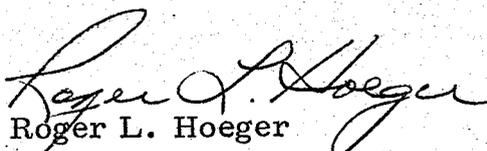
The indicated maximum reservoir pressure at the recorder depth is equivalent to a subsurface pressure gradient of 0.537 psi/ft. This pressure gradient is anomalously high when compared to a hydrostatic pressure gradient which generally ranges from 0.43 to 0.46 psi/ft., depending upon the formation water salinity. The anomalously high subsurface pressure gradient is therefore indicative of a "super-normal" reservoir pressure environment in the tested formation at this test location. This anomalous condition also implies that the reservoir tested is lenticular or exists as a pod of porosity totally enclosed within rock types which have extremely low transmissibility.

2. The calculated Average Production Rate which was used in this analysis, 82.4 BPD, is based upon the total liquid recovery of 5.15 barrels and the total flowing time of 90 minutes.

Pacific Transmission Supply Co., PTS-Federal #32-29
Interval: 6310-6350' (DST #2)

Comments - Page 2

3. The calculated Damage Ratio of 0.8 indicates that no significant well-bore damage was present at the time of this formation test.
4. The calculated Effective Transmissibility of 18.0 md.-ft./cp. indicates an Average Permeability to the produced fluid of 1.8 md. for the estimated 10 feet of effective porosity within the total 40 feet of interval tested.
5. The evaluation criteria used in the Drill-Stem-Test Analysis System indicate that the results obtained in this analysis should be reliable within reasonable limits relative to the assumptions which have been made.


Roger L. Hoeger
Consultant for Lynes, Inc.

LYNES INC.

REPORT # 317

WELL NAME - FEDERAL 32-29

WELL OPERATOR - PACIFIC TRANSMISSION SUPPLY CO.

DST NUMBER - 2

RECORDER NUMBER - 3697

FIRST SHUT IN PRESSURE

<u>TIME(MIN)</u> <u>PHI</u>	<u>(T+PHI)</u> <u>/PHI</u>	<u>PSIG</u>
.0	.0000	139
6.0	6.0000	470
12.0	3.5000	3010
18.0	2.6667	3092
24.0	2.2500	3133
30.0	2.0000	3165
36.0	1.8333	3188
42.0	1.7143	3205
48.0	1.6250	3221
54.0	1.5556	3235
60.0	1.5000	3246

EXTRAPOLATION OF FIRST SHUT IN = 3371.39

LYNES INC.

REPORT # 317

WELL NAME - FEDERAL 32-29

WELL OPERATOR - PACIFIC TRANSMISSION SUPPLY CO.

DST NUMBER - 2

RECORDER NUMBER - 3697

SECOND SHUT IN PRESSURE

TIME(MIN) PHI	(T+PHI) /PHI	PSIG
-----	-----	-----
.0	.0000	237
18.0	6.0000	2925
36.0	3.5000	3036
54.0	2.6667	3100
72.0	2.2500	3143
90.0	2.0000	3176
108.0	1.8333	3198
126.0	1.7143	3218
144.0	1.6250	3235
162.0	1.5556	3249
180.0	1.5000	3263

FITTED LINE: $\text{LOG}((T+PHI)/PHI) = -.00134 \text{ PSIG} + 4.55365$

EXTRAPOLATION OF SECOND SHUT IN = 3394.26 M = 745.39

RESERVOIR PARAMETERS:

COLLAR RECOV	528.000	PIPE RECOVERY	180.000	INIT FLO TIM	30.000
FINL FLO TIM	60.000	MUD EXPANSN	1.000	BOTTM HOL TM	141.000
API GRAVITY	35.000	SPEC GRAVITY	1.000	VISCOSITY	1.000
PAY THICKNES	10.000	SUBSEA DEPTH	-1028.000	WATER GRADNT	.433

LYNES INC.

REPORT # 317

WELL NAME - FEDERAL 32-29

WELL OPERATOR - PACIFIC TRANSMISSION SUPPLY CO.

DST NUMBER - 2

RECORDER NUMBER - 3697

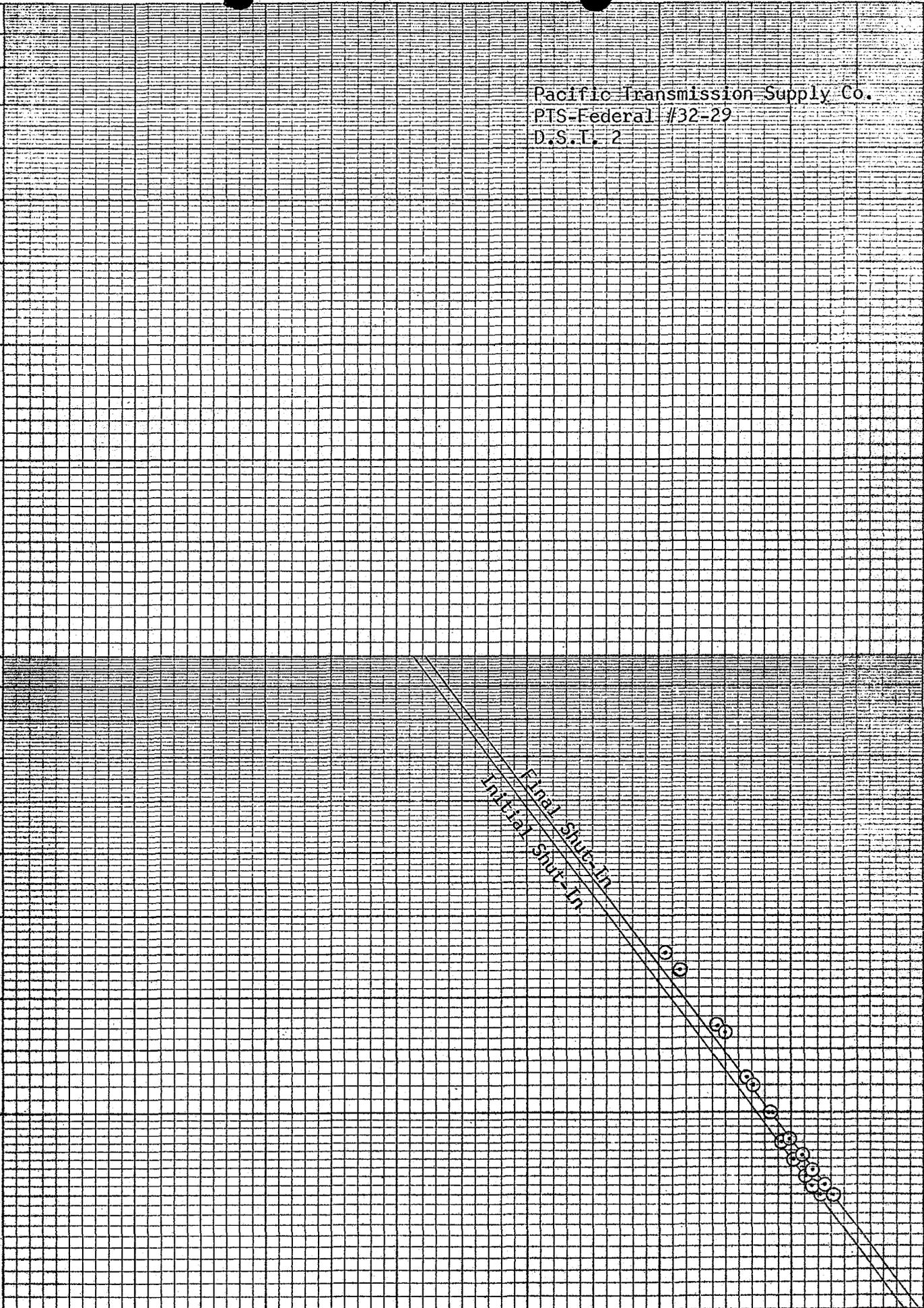
CALCULATIONS: SECOND SHUT IN

EXTRAPOLATED RESERVOIR PRESS.(PSIG)	3394.3
NO. OF POINTS ENTERED.....	11.0
NO. OF POINTS USED IN EXTRAPOLATION	6.0
ROOT MEAN SQUARE DEVIATION OF BEST FIT LINE(PSI) ..	.004
TOTAL FLOW TIME(MIN)	90.0
AVERAGE PRODUCTION RATE DURING TEST(BBLS/DAY)	82.4
TRANSMISSIBILITY(MD-FT/CP)	18.0
IN SITU CAPACITY(MD-FT)	18.0
AVERAGE EFFECTIVE PERMEABILITY(MD)	1.80
PRODUCTIVITY INDEX(BBLS/DAY-PSI)026
DAMAGE RATIO8
PRODUCTIVITY INDEX WITH DAMAGE REMOVED(BBLS/DAY-PSI)020
RADIUS OF INVESTIGATION(FT)	12.7
DRAWDOWN FACTOR(%)0
POTENTIOMETRIC SURFACE(FT)	6810.9

Pacific Transmission Supply Co.
PTS-Federal #32-29
D.S.T. 2

$t + \frac{\phi_i}{\phi_s}$

Final Shut-In
Initial Shut-In



LYNES, INC.

Distribution of Final Reports

Operator Pacific Transmission Supply Co. Well Name and No. PTS-Federal #32-29

Original: Pacific Transmission Supply Co., P.O. Box 3093, Casper, Wyoming 82602

Attn: D.E. Beardsley

1 copy: Pacific Transmission Supply Co., 633 17th St., Suite 2140, Denver, Colorado

80202 Attn: J.L. Wroble

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

Stanley

1 copy: Mr. B.W. Allen, Almac Operating Co., P.O. Box 2352, Casper, Wyoming 82602

1 copy: U.S. Geological Survey, 8426 Federal Bldg., Salt Lake City, Utah 84138

Attn: Mr. E.W. Gynn

1 copy: Division of Oil, Gas, and Mining, 1588 West, North Temple, Salt Lake City, Utah

84116 Attn: Mr. P.L. Driscoll

Contractor Anderson Drlg. Co.
 Rig No. 6
 Spot SW-NE
 Sec. 29
 Twp. 8 S
 Rng. 17 E
 Field Wildcat
 County Duchesne
 State Utah
 Elevation 5280' "Ground"
 Formation --

Top Choke 1"
 Bottom Choke 5/8"
 Size Hole 7 7/8"
 Size Rat Hole --
 Size & Wt. D. P. 4 1/2" 16.60
 Size Wt. Pipe --
 I. D. of D. C. 2 1/4"
 Length of D. C. 435'
 Total Depth 5810'
 Interval Tested 5695-5810'
 Type of Test Bottom Hole Conventional

Flow No. 1 30 Min.
 Shut-in No. 1 60 Min.
 Flow No. 2 60 Min.
 Shut-in No. 2 180 Min.
 Flow No. 3 -- Min.
 Shut-in No. 3 -- Min.

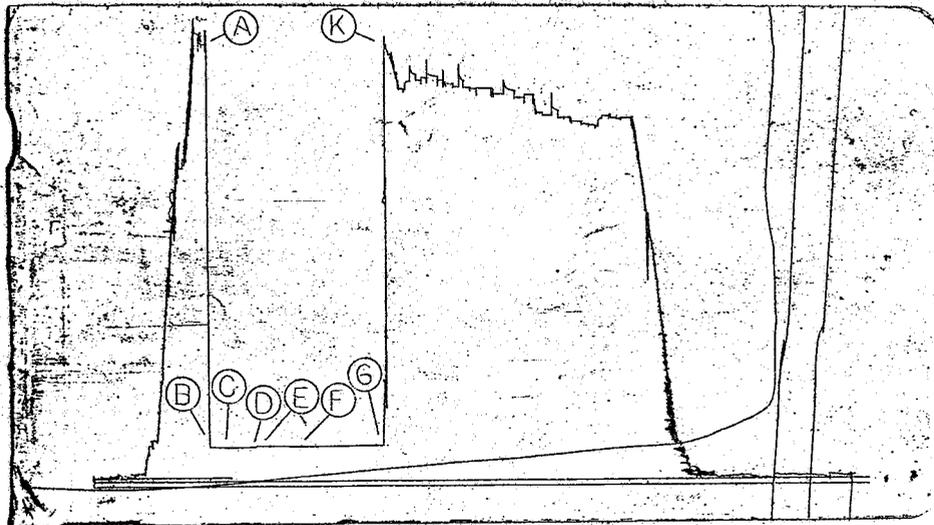
Bottom Hole Temp. 149°F
 Mud Weight 9.5
 Gravity --
 Viscosity 42

Tool opened @ 4:35 PM.

Inside Recorder

PRD Make Kuster K-3
 No. 9990 Cap. 3000 @ 5676'

	Press	Corrected
Initial Hydrostatic	A	2810
Final Hydrostatic	K	2803
Initial Flow	B	192
Final Initial Flow	C	192
Initial Shut-in	D	191
Second Initial Flow	E	197
Second Final Flow	F	195
Second Shut-in	G	200
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--



Lynes Dist.: Rock Springs, Wyo.
 Our Tester: Charles Tuzicka
 Witnessed By: --

Did Well Flow - Gas Yes Oil No Water No
 RECOVERY IN PIPE: 370' Gas cut mud = 1.81 bbl.

 1st Flow - Tool opened with a strong blow, increased to 9 psig. at end of flow period. Gas to surface 15 minutes into initial shut-in period.
 2nd Flow - Tool opened with gas to surface, too small to measure.

REMARKS:

Operator Pacific Transmission Supply Co. Well Name and No. PTS - Federal #32-29
 Address See Distribution Ticket No. 10359 Date 3-18-78
 No. Final Copies 6 DST No. 1

LYNES, INC.

Fluid Sample Report

Date 3-18-78 Ticket No. 10359
Company Pacific Transmission Supply Co. DST No. 1
Well Name & No. PTS-Federal #32-29 State Utah
County Duchesne Test Interval 5695-5810'

Pressure in Sampler 15 PSIG BHT 149 °F

Total Volume of Sampler: 2000 cc.
Total Volume of Sample: 1000 cc.
Oil: None cc.
Water: None cc.
Mud: 1000 cc.
Gas: None cu. ft.
Other: None

R.W. 0.2 @ 79°F = 19,000 ppm.chl.

Resistivity
Make Up Water 4.0 @ 65°F of Chloride Content 1500 ppm.
Mud Pit Sample 0.2 @ 70°F of Chloride Content 22,000 ppm.
Gas/Oil Ratio _____ Gravity _____ °API @ _____ °F

Where was sample drained On location

Remarks: Recovery - R.W. 0.2 @ 70°F = 22,000 ppm.chl.

LYNES, INC.

Distribution of Final Reports

Operator Pacific Transmission Supply Co. Well Name and No. PTS-Federal #32-29

Original: Pacific Transmission Supply Co., P.O. Box 3093, Casper, Wyoming 82602

Attn: D.E. Beardsley

1 copy: Pacific Transmission Supply Co., 633 17th St., Suite 2140, Denver, Colorado

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1 copy: U.S. Geological Survey, 8426 Federal Bldg., Salt Lake City, Utah 84138

Attn: Mr. E.W. Guynn

1 copy: Division of Oil, Gas, and Mining, 1588 West, North Temple, Salt Lake City, Utah

84116 Attn: Mr. P.L. Driscoll

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. U-7358
2. NAME OF OPERATOR PACIFIC TRANSMISSION SUPPLY COMPANY		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P.O. Box 3093, Casper, WY 82602		7. UNIT AGREEMENT NAME Castle Unit
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1978' FNL, 1982' FEL (SW NE) Section 29, T8S, R17E, SLM		8. FARM OR LEASE NAME Federal
14. PERMIT NO. 43-013-30435	15. ELEVATIONS (Show whether DF, RT, GR, etc.) 5284 Ungraded Ground	9. WELL NO. 32-29
		10. FIELD AND POOL, OR WILDCAT Wildcat
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 29-T8S-R17E, SLM
		12. COUNTY OR PARISH 13. STATE Duchesne Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>	(Other) <input type="checkbox"/>	

(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.)*

The original APD, approved January 30, 1978, called for 8850' Wasatch test or 1000' into the Wasatch whichever is the lesser. Revised plans now anticipate drilling to the Castle gate member of the Mesaverde formation at approximately 14,000. No significant changes will be required in the drilling, mud, logging or pressure containment programs as set forth in the original APD.

APPROVED BY THE DIVISION OF
OIL, GAS, AND MINING
DATE: April 12, 1978
BY: P. L. Burwell

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

SIGNED E. E. Mulholland TITLE Operations Engineer DATE 4/11/78
E. E. MULHOLLAND

(This space for Federal or State office use)

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

cc: **W&GC-St. of UT, SLC**
E.R. Henry, J.L. Wroble,
B.W. Allen, Stanley-Chorney *See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

(FORM 9-329)
(2/76)

OMB 42-RO 356

MONTHLY REPORT
OF
OPERATIONS

Lease No. 71-007358
Communitization Agreement No. N/A
Field Name N/A
Unit Name Castle
Participating Area N/A
County Duchesne State Utah
Operator Pacific Transmission Supply Company
 Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of March, 19 78

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
32-29	SWNE 29	8S	17E	DRG	None	None	None	None	Depth <u>8,058'</u>

*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	None	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Produced	"	None	None
*Sold	"	"	XXXXXXXXXXXXXXXXXX
*Spilled or Lost	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXX	None	XXXXXXXXXXXXXXXXXX
*Used on Lease	None	"	XXXXXXXXXXXXXXXXXX
*Injected	"	"	None
*Surface Pits	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	"
*Other (Identify)	None	None	"
*On hand, End of Month	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	"	None	XXXXXXXXXXXXXXXXXX

Authorized Signature: [Signature]
Title: Manager, Contract Administration

Address: 245 Market St., San Francisco, CA 94105
Page 1 of 1

PACIFIC TRANSMISSION SUPPLY COMPANY

212 GOODSTEIN BUILDING
P. O. BOX 3093
CASPER, WYOMING 82602
(307) 265-1027

April 11, 1978

Mr. E. W. Guynn
U. S. Geological Survey
8426 Federal Building
Salt Lake City, UT 84138

Re: U.S.G.S. Sundry Notice
Form 9-331
Castle Unit
Well #32-29 Federal

Dear Sir:

Please find attached in triplicate Form 9-331 Sundry Notice notifying you change of plans for the Castle Unit well #32-29 Federal.



Yours very truly,

E. E. Mulholland
E. E. MULHOLLAND
Operations Engineer

ks

cc: O&GC-St. of UT-SLC ✓
E.R. Henry
J.L. Wroble
B.W. Allen
L. Stanley

Attach.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-7358	
2. NAME OF OPERATOR PACIFIC TRANSMISSION SUPPLY COMPANY		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
3. ADDRESS OF OPERATOR P.O. Box 3093, Casper, WY 82602		7. UNIT AGREEMENT NAME Castle Unit	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1978' FNL, 1982' FEL (SW NE) Section 29, T8S, R17E		8. FARM OR LEASE NAME Federal	
14. PERMIT NO. 43-013-30435		9. WELL NO. 32-29	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 5297 KB		10. FIELD AND POOL, OR WILDCAT Wildcat	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 29-T8S-R17E, SLM	
		12. COUNTY OR PARISH Duchesne	13. STATE Utah

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

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

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

7-7/8" hole was drilled from below 9-5/8" intermediate csg @ 2007 KB to 14,245 TD. Drill stem tests conducted as follows: DST #1 (5810-5695) rec. 370' GCM; DST #2 (6310-6350) rec. 690' GCO & 18' O&GCM; DST #3 (10325-10381) rec. 90' SWCM; DST #4 (11975-12035) rec. 2900' WC & 30' mud; DST #5 (12728-12944) rec. 2700' WC & 300' GCM; DST #6 (13460-13556) rec. 3050' WC, 180' GCM. No significant shows encountered below 6500'. Verbal approval to plug back from E. W. Guynn, USGS, 6/2/78 as follows: Plug #1 (13200-13300) - 35 sx; Plug #2 (11000-11,100) - 35 sx; Plug #3 (8700-8850 adjusted to 8650-8800) - 50 sx; Plug #4 (6600-6750) - 50 sx. 5 1/2" csg to be run to +6500 for completion attempt in Green River form.



APPROVED BY THE DIVISION OF
OIL, GAS AND MINING
DATE: June 8, 1978
BY: Ph. Buswell

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

Original Signed By **Operations Engineer** DATE **6/6/78**

SIGNED **E. E. MULLHOLLAND** TITLE _____ DATE _____

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

3-USGS-SLC, UT, 1-Div. of Oil, Gas & Mining-SLC, UT
1-J.L. Krobale, 1-E.R. Henry, 1-Partners, 1-File

*See Instructions on Reverse Side

June 2, 1978

MEMO TO FILE

Re: Pacific Transmission and Supply
Well No. Castle Unit #32-29
Sec. 29, T. 8S., R. 17E.
Duchesne County, Utah

The following plugging program was received for the above named well on June 2, 1978. The plugging program has been approved by the U.S.G.S. The pertinent information is as follows:

Plugs set as Follows:	Casing Program:
6,600' - 6,750' 50 sacks	9 5/8" @ 2,007'
8,650' - 8,800' 50 sacks	13 5/8" @ 125'
11,000' - 11,100' 35 sacks	
13,200' - 13,300' 35 sacks	will set 5 1/2" to 6,500'

Formation Tops:

Garden Gulch	3,404'
Douglas Creek	4,277'
Green River	6,356'
Wasatch	6,480'
Mesaverde	7,065'
Castlegate	13,232'

SCHEREE WILCOX
ADMINISTRATIVE ASSISTANT
DIVISION OF OIL, GAS, AND MINING

SW/ksw

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

(FORM 9-329)
(2/76)

OMB 42-RO 356

MONTHLY REPORT
OF
OPERATIONS

Lease No. 71-007358
Communitization Agreement No. N/A
Field Name N/A
Unit Name Castle
Participating Area N/A
County Duchesne State Utah
Operator Pacific Transmission Supply Company
 Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of May, 19 78

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
32-29	SWNE 29	8S	17E	DRG	None	None	None	None	Depth <u>14219'</u>

*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	None	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*Produced	"	None	None
*Sold	"	"	XXXXXXXXXXXXXXXXXXXX
*Spilled or Lost	"	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXXXX	None	XXXXXXXXXXXXXXXXXXXX
*Used on Lease	None	"	XXXXXXXXXXXXXXXXXXXX
*Injected	"	"	None
*Surface Pits	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	"
*Other (Identify)	None	None	"
*On hand, End of Month	"	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	"	None	XXXXXXXXXXXXXXXXXXXX

Authorized Signature: [Signature]
Title: Manager, Contract Administration

Address: 245 Market St., San Francisco, CA 94105
Page 1 of 1

Contractor Anderson Drlg. Co. Top Choke 1/4"
 Rig No. 6 Bottom Choke 3/4"
 Spot SW-NE Size Hole 7 7/8"
 Sec. 29 Size Rat Hole --
 Twp. 8 S Size & Wt. D. P. 4 1/2" 16.60
 Rng. 17 E Size Wt. Pipe --
 Field Wildcat I. D. of D. C. 2 1/4"
 County Duchesne Length of D. C. 560'
 State Utah Total Depth 13556'
 Elevation 5297' "K.B." Interval Tested 13460-13556'
 Formation Mesa Verde Type of Test Bottom Hole
Conventional

Flow No. 1 15 Min. P
 Shut-in No. 1 30 * Min.
 Flow No. 2 60 Min.
 Shut-in No. 2 180 Min.
 Flow No. 3 -- Min.
 Shut-in No. 3 -- Min.

Bottom Hole Temp. 245°F
 Mud Weight 10.0
 Gravity --
 Viscosity 47

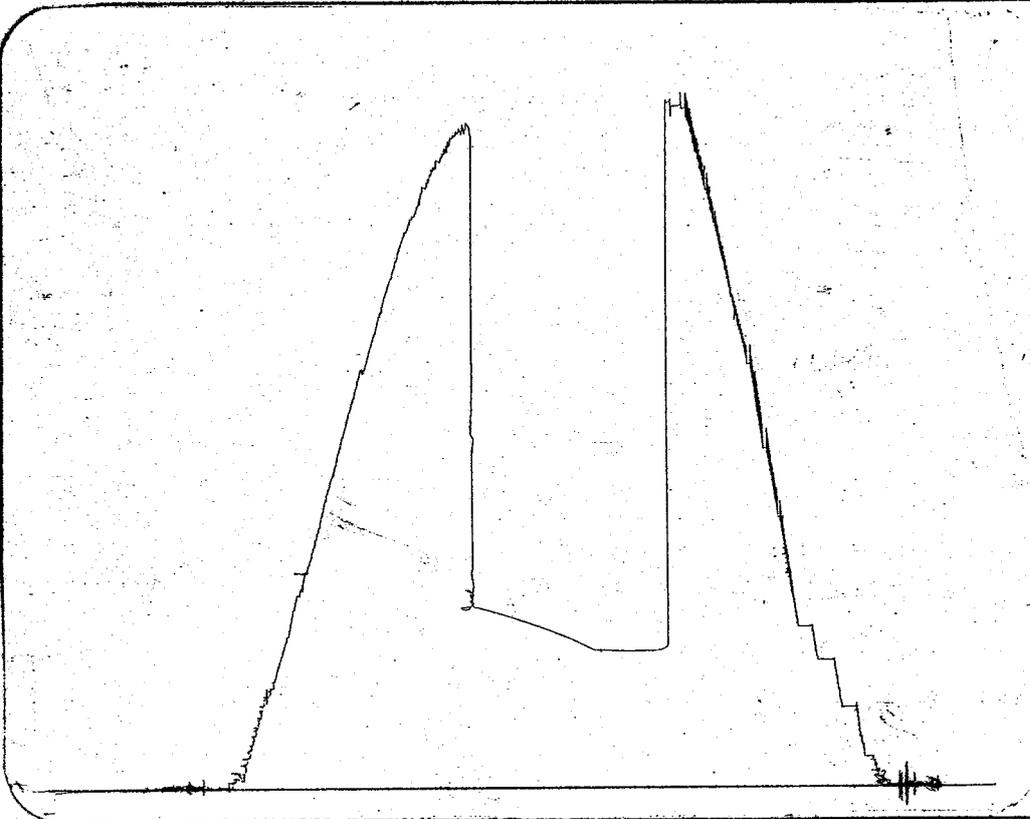
Tool opened @ 6:00 PM.

Inside Recorder

PRD Make Kuster AK-1
 No. 973 Cap. 7900 @ 13445'

	Press	Corrected
Initial Hydrostatic	A	7028
Final Hydrostatic	K	6864
Initial Flow	B	1490
Final Initial Flow	C	1437
Initial Shut-in	D	1433*
Second Initial Flow	E	1431
Second Final Flow	F	1445
Second Shut-in	G	1886
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs, Wy.
 Our Tester: John Webb
 Witnessed By: Bob Alston



Did Well Flow - Gas No Oil No Water No

RECOVERY IN PIPE: 3230' Total fluid. (Ran 3050' water cushion.)
3050' Water cushion = 39.77 bbl.
180' Gas cut mud = .88 bbl.

REMARKS:

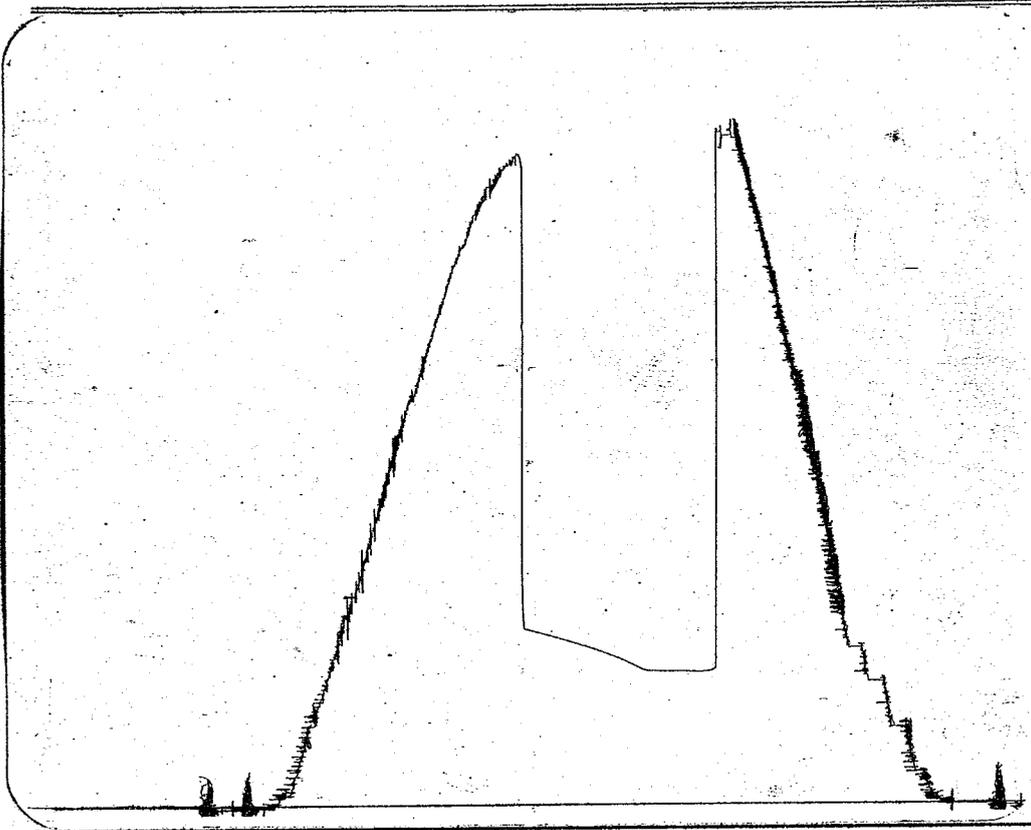
1st Flow - Tool opened with a 1" underwater blow, increased to a 2" underwater blow at end of flow period.
 2nd Flow - Tool opened with a 1" underwater blow, increased to bottom of bucket in 25 minutes, and continued to increase thru remainder of flow period.

* The blow at surface during the test indicates tool was closed for the first shut-in period, but the charts indicate tool may not have been closed. This may have been due to excessive torque in drill string.

Operator Pacific Transmission Supply Co. Well Name and No. PTS - Federal #32-29 DST No. 6
 Address See Distribution Ticket No. 10319 Date 5-21-78 No. Final Copies 6

LYNES, INC.

Operator Pacific Transmission Supply Co Lease & No. PTS - Federal #32-29 DST No. 6



Outside Recorder

PRD Make Kuster AK-1
 No. 1478 Cap. 8100 @ 13554'

	Press	Corrected
Initial Hydrostatic	A	7066
Final Hydrostatic	K	6895
Initial Flow	B	1487
Final Initial Flow	C	1445
Initial Shut-in	D	1443
Second Initial Flow	E	1441
Second Final Flow	F	1456
Second Shut-in	G	1898
Third Initial Flow	H	---
Third Final Flow	I	---
Third Shut-in	J	---
Pressure Below Bottom Packer Bled To		

PRD Make _____
 No. _____ Cap. _____ @ _____

	Press	Corrected
Initial Hydrostatic	A	
Final Hydrostatic	K	
Initial Flow	B	
Final Initial Flow	C	
Initial Shut-in	D	
Second Initial Flow	E	
Second Final Flow	F	
Second Shut-in	G	
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-in	J	
Pressure Below Bottom Packer Bled To		

LYNES, INC.

Operator Pacific Transmission Supply Co Lease & No. PTS - Federal #32-29 DST No. 6

Recorder No. 973 @ 13445'

Initial Shut-In

0 min.	1437	psig.
3 "	1435	"
6 "	1433	"
9 "	1433	"
12 "	1433	"
15 "	1433	"
18 "	1433	"
21 "	1433	"
24 "	1433	"
27 "	1433	"
30 "	1433	"

Final Shut-In

0 min.	1445	psig.
18 "	1492	"
36 "	1553	"
54 "	1604	"
72 "	1653	"
90 "	1696	"
108 "	1739	"
126 "	1782	"
144 "	1820	"
162 "	1855	"
180 "	1886	"

LYNES, INC.

Fluid Sample Report

Date 5-21-78 Ticket No. 10319
Company Pacific Transmission Supply Co. DST No. 6
Well Name & No. PTS - Federal #32-29 State Utah
County Duchesne Test Interval 13460-13556'

Pressure in Sampler 1400 PSIG BHT 245 °F

Total Volume of Sampler: 2100 cc.
Total Volume of Sample: 900 cc.
Oil: None cc.
Water: None cc.
Mud: 900 Gas cut cc.
Gas: 4.2 cu. ft.
Other: None

R.W. 1.0 @ 95°F = 4500 ppm.chl.

Resistivity

Make Up Water 10.0 @ 70°F of Chloride Content 525 ppm.

Mud Pit Sample .9 @ 80°F of Chloride Content 6000 ppm.

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

Where was sample drained On location

Remarks: Recovery: Top Sample - R.W. 10.0 @ 90°F = 425 ppm.chl.

Middle Sample - R.W. 10.0 @ 90°F = 425 ppm.chl.

Bottom Sample - R.W. 1.0 @ 95°F = 4500 ppm.chl.

LYNES, INC.

Distribution of Final Reports

Operator Pacific Transmission Supply Co. Well Name and No. PTS-Federal #32-29

Original: Pacific Transmission Supply Co., P.O. Box 3093, Casper, Wyoming 82602

Attn: D.E. Beardsley

1 copy: Pacific Transmission Supply Co., 633 17th St., Suite 2140, Denver, Colorado

80202 Attn: J.L. Wroble

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

Stanley

1 copy: Mr. B.W. Allen, Almac Operating Co., P.O. Box 2352, Casper, Wyoming 82602

1 copy: U.S. Geological Survey, 8426 Federal Bldg., Salt Lake City, Utah 84138

Attn: Mr. E.W. Guynn

1 copy: Division of Oil, Gas, and Mining, 1588 West, North Temple, Salt Lake City, Utah

84116 Attn: Mr. P.L. Driscoll

Contractor Anderson Drlg. Co.
 Rig No. 6
 Spot SW-NE
 Sec. 29
 Twp. 8 S
 Rng. 17 E
 Field Wildcat
 County Duchesne
 State Utah
 Elevation 5297' "K.B."
 Formation --

Top Choke 1/4"
 Bottom Choke 5/8"
 Size Hole 7 7/8"
 Size Rat Hole --
 Size & Wt. D. P. 4 1/2" 16.60
 Size Wt. Pipe --
 I. D. of D. C. 2 1/4"
 Length of D. C. 342'
 Total Depth 12944
 Interval Tested 12728-12944'
 Type of Test Bottom Hole
Conventional

Flow No. 1 10 Min.
 Shut-in No. 1 45 Min.
 Flow No. 2 60 Min.
 Shut-in No. 2 180 Min.
 Flow No. 3 -- Min.
 Shut-in No. 3 -- Min.
 Bottom Hole Temp. 248°F
 Mud Weight 9.4
 Gravity --
 Viscosity 42

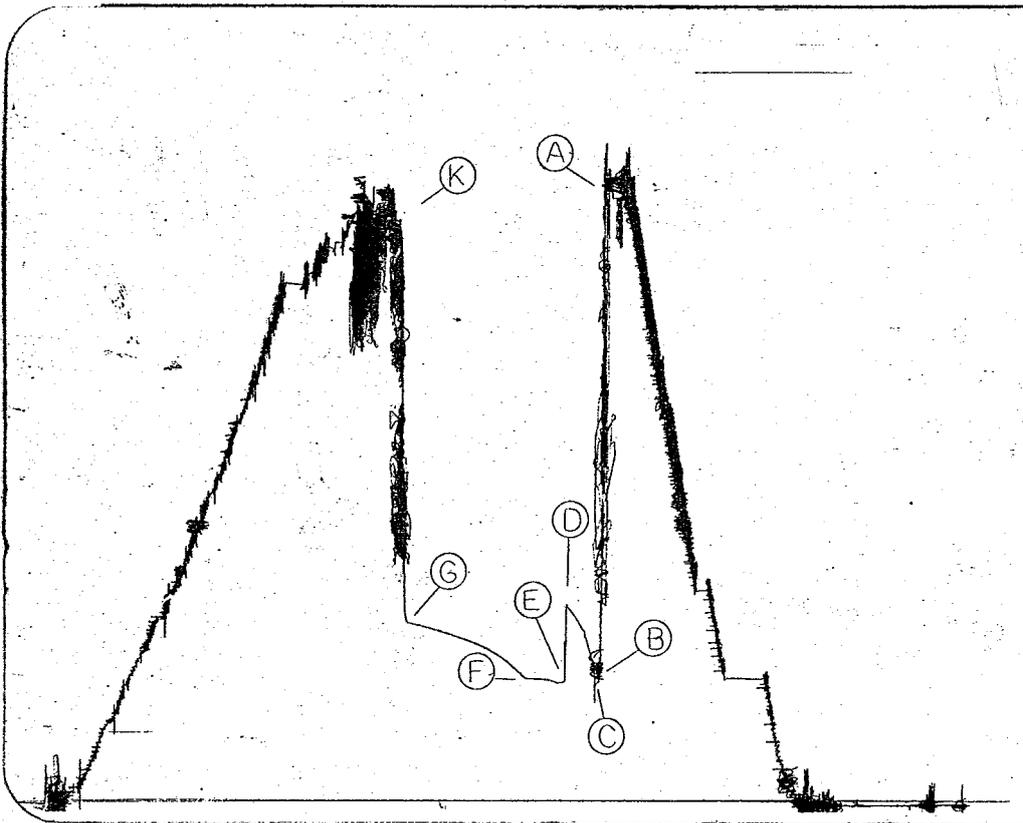
Tool opened @ 5:10 AM.

Inside Recorder

PRD Make Kuster AK-1
 No. 1478 Cap. 8100 @ 12610'

	Press	Corrected
Initial Hydrostatic	A	6319
Final Hydrostatic	K	6082
Initial Flow	B	1251
Final Initial Flow	C	1212
Initial Shut-in	D	2049
Second Initial Flow	E	1249
Second Final Flow	F	1279
Second Shut-in	G	1865
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs. Wy.
 Our Tester: Charles Tuzicka
 Witnessed By: Bob Alston



Did Well Flow - Gas Yes Oil No Water No

RECOVERY IN PIPE: 3000' Total fluid. (Ran 2700' water cushion.)
 2700' Gas cut water = 38.34 bbl.
 300' Gas cut mud = 1.47 bbl.

1st Flow - Tool opened with a weak blow, increased to a 4" underwater blow and remained thru flow period.
 2nd Flow - Tool opened with a strong blow, increased to a 9.0 psig. at end of flow period. Gas to surface 5 minutes into the final shut-in period.

REMARKS:

Operator Pacific Transmission Supply Co. Well Name and No. PTS - Federal #32-29
 Address See Distribution Ticket No. 10366 Date 5-9-78
 DST No. 5
 No. Final Copies 6

LYNES, INC.

Operator Pacific Transmission Supply Co Lease & No. PTS-Federal #32-29 DST No. 5

Recorder No. 1478 @ 12610'

Initial Shut-In

0 min.	1212	psig.
4.5 "	1465	"
9.0 "	1578	"
13.5 "	1686	"
18.0 "	1782	"
22.5 "	1826	"
27.0 "	1880	"
31.5 "	1927	"
36.0 "	1967	"
40.5 "	2000	"
45.0 "	2049	"

Final Shut-In

0 min.	1279	psig.
18 "	1384	"
36 "	1487	"
54 "	1566	"
72 "	1629	"
90 "	1678	"
108 "	1720	"
126 "	1761	"
144 "	1800	"
162 "	1833	"
180 "	1865	"

LYNES, INC.

Fluid Sample Report

Date 5-10-78 Ticket No. 10366
Company Pacific Transmission Supply Co. DST No. 5
Well Name & No. PTS-Federal #32-29 State Utah
County Duchesne Test Interval 12728-12944'

Pressure in Sampler 700 PSIG BHT 248 °F

Total Volume of Sampler: 2000 cc.
Total Volume of Sample: 400 cc.
Oil: None cc.
Water: None cc.
Mud: 400 cc.
Gas: 1.75 cu. ft.
Other: None

R.W. .9 @ 70°F = 6800 ppm.chl.

Resistivity

Make Up Water 10.0 @ 60°F of Chloride Content 620 ppm.

Mud Pit Sample .7 @ 65°F of Chloride Content 8100 ppm.

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

Where was sample drained On location

Remarks: Recovery; Top Sample - R.W. 4.5 @ 80°F = 1100 ppm.chl.

Middle Sample - R.W. 10.0 @ 65°F = 580 ppm.chl.

Bottom Sample - R.W. 1.0 @ 80°F = 5100 ppm.chl.

LYNES, INC.

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Attn: Mr. E.W. Gynn

1 copy: Division of Oil, Gas, and Mining, 1588 West, North Temple, Salt Lake City, Utah

84116 Attn: Mr. P.L. Driscoll

Contractor Anderson Drlg. Co.
 Rig No. 6
 Spot SW-NE
 Sec. 29
 Twp. 8 S
 Rng. 17 E
 Field Wildcat
 County Duchesne
 State Utah
 Elevation 5297' "K.B."
 Formation Mesa Verde

Top Choke 1/4"
 Bottom Choke 3/4"
 Size Hole 7 7/8"
 Size Rat Hole --
 Size & Wt. D. P. 4 1/2" 16.60
 Size Wt. Pipe --
 I. D. of D. C. 2 1/4"
 Length of D. C. 590'
 Total Depth 12035'
 Interval Tested 11975-12035'
 Type of Test Bottom Hole
Conventional

Flow No. 1 10 Min.
 Shut-in No. 1 45 Min.
 Flow No. 2 60 Min.
 Shut-in No. 2 120 Min.
 Flow No. 3 -- Min.
 Shut-in No. 3 -- Min.

Bottom Hole Temp. 218°F
 Mud Weight 9.7
 Gravity --
 Viscosity 40

Tool opened @ 8:29 AM.

Inside Recorder

PRD Make Kuster AK-1
 No. 973 Cap. 7900 @ 11955'

	Press	Corrected
Initial Hydrostatic	A	6053
Final Hydrostatic	K	6018
Initial Flow	B	1276
Final Initial Flow	C	1278
Initial Shut-in	D	1863
Second Initial Flow	E	1270
Second Final Flow	F	1270
Second Shut-in	G	1657
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs, Wy.
 Our Tester: John Webb
 Witnessed By: Harold E. Hutton

Did Well Flow - Gas No Oil No Water No

RECOVERY IN PIPE: 2930' Total fluid. (Ran 2900' water cushion.)
 2900' Water cushion = 35.97 bbl.
 30' Mud = .15 bbl.

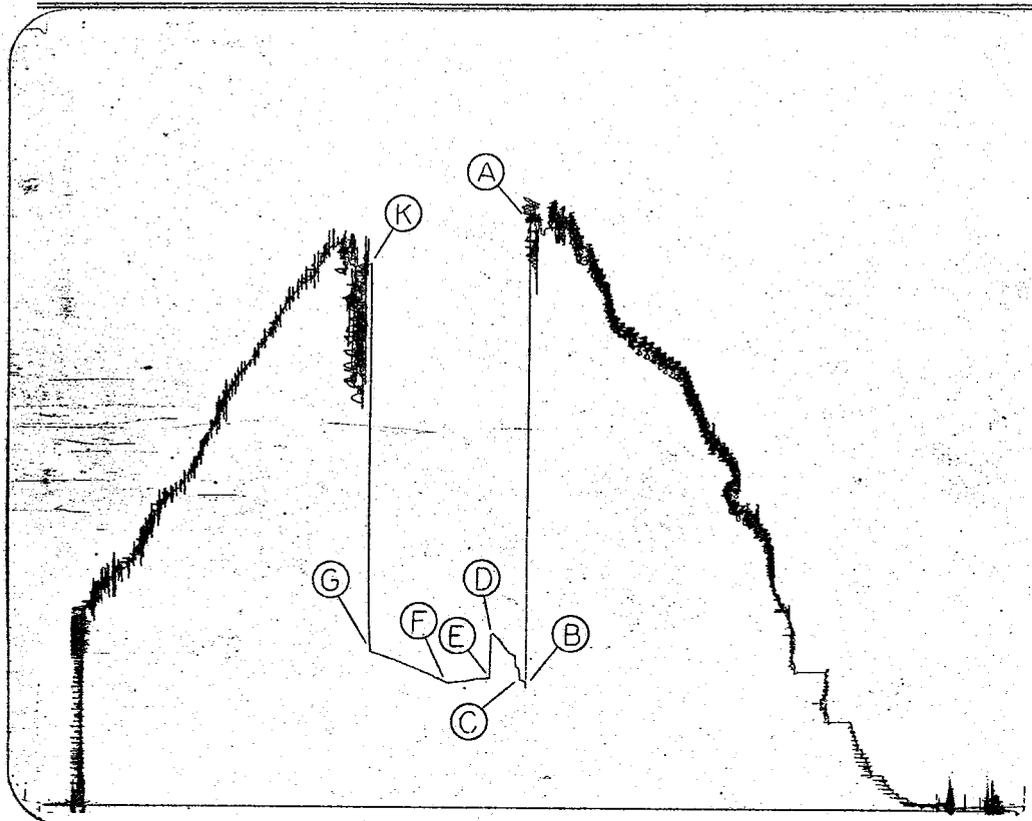
 1st Flow - Tool opened with a 1/2" underwater blow and remained thru flow period.
 2nd Flow - Tool opened with no blow and remained thru flow period.

REMARKS:

Operator Pacific Transmission Supply Co. Well Name and No. PTS-Federal #32-29
 Address See Distribution Ticket No. 10317 Date 5-3-78 No. Final Copies 6
 DST No. 4

LYNES, INC.

Operator Pacific Transmission Supply Co Lease & No. PTS-Federal #32-29 DST No. 4



Outside Recorder

PRD Make Kuster AK-1
 No. 1478 Cap. 8100 @ 12035'

	Press	Corrected
Initial Hydrostatic	A	6067
Final Hydrostatic	K	6039
Initial Flow	B	1277
Final Initial Flow	C	1307
Initial Shut-in	D	1878
Second Initial Flow	E	1317
Second Final Flow	F	1285
Second Shut-in	G	1649
Third Initial Flow	H	---
Third Final Flow	I	---
Third Shut-in	J	---

Pressure Below Bottom
Packer Bled To

PRD Make _____
 No. _____ Cap. _____ @ _____

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

Pressure Below Bottom
Packer Bled To

LYNES, INC.

Operator Pacific Transmission Supply Co Lease & No. PTS-Federal #32-29 DST No. 4

Recorder No. 973 @11955'

Initial Shut-In

0 min.	1278	psig.
4.5 "	1426	"
9.0 "	1512	"
13.5 "	1580	"
18.0 "	1633	"
22.5 "	1680	"
27.0 "	1726	"
31.5 "	1763	"
36.0 "	1798	"
40.5 "	1831	"
45.0 "	1863	"

Final Shut-In

0 min.	1270	"
12 "	1349	"
24 "	1394	"
36 "	1437	"
48 "	1477	"
60 "	1512	"
72 "	1543	"
84 "	1571	"
96 "	1604	"
108 "	1629	"
120 "	1657	"

LYNES, INC.

Fluid Sample Report

Date 5-3-78 Ticket No. 10317
Company Pacific Transmission Supply Co. DST No. 4
Well Name & No. PTS-Federal #32-29 State Utah
County Duchesne Test Interval 11975-12035'

Pressure in Sampler 20 PSIG BHT 218 °F

Total Volume of Sampler: 2100 cc.
Total Volume of Sample: 2100 cc.
Oil: None cc.
Water: None cc.
Mud: 2100 cc.
Gas: None cu. ft.
Other: None

R.W. 1.1 @ 65°F = 6000 ppm.chl.

Resistivity

Make Up Water 10.0 @ 75°F of Chloride Content 500 ppm.

Mud Pit Sample 1.2 @ 80°F of Chloride Content 4300 ppm.

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

Where was sample drained On location

Remarks: Recovery: Top Sample - R.W. 10.0 @ 85°F = 450 ppm.chl.

Middle Sample - R.W. 10.0 @ 85°F = 450 ppm.chl.

Bottom Sample - R.W. 1.4 @ 75°F = 3800 ppm.chl.

LYNES, INC.

Distribution of Final Reports

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Attn: Mr. E.W. Guynn

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84116 Attn: Mr. P.L. Driscoll

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

(FORM 9-329)
(2/76)

OMB 42-RO 356

MONTHLY REPORT
OF
OPERATIONS

Lease No. 71-007358
Communitization Agreement No. N/A
Field Name N/A
Unit Name Castle
Participating Area N/A
County Duchesne State Utah
Operator Pacific Transmission Supply Company
 Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of April, 19 78

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
32-29	SWNE 29	8S	17E	DRG	None	None	None	None	Depth <u>11,635'</u>

*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	None	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Produced	"	None	None
*Sold	"	"	XXXXXXXXXXXXXXXXXX
*Spilled or Lost	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXX	None	XXXXXXXXXXXXXXXXXX
*Used on Lease	None	"	XXXXXXXXXXXXXXXXXX
*Injected	"	"	None
*Surface Pits	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	"
*Other (Identify)	None	None	"
*On hand, End of Month	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	"	None	XXXXXXXXXXXXXXXXXX

Authorized Signature: [Signature]
Title: Manager, Contract Administration

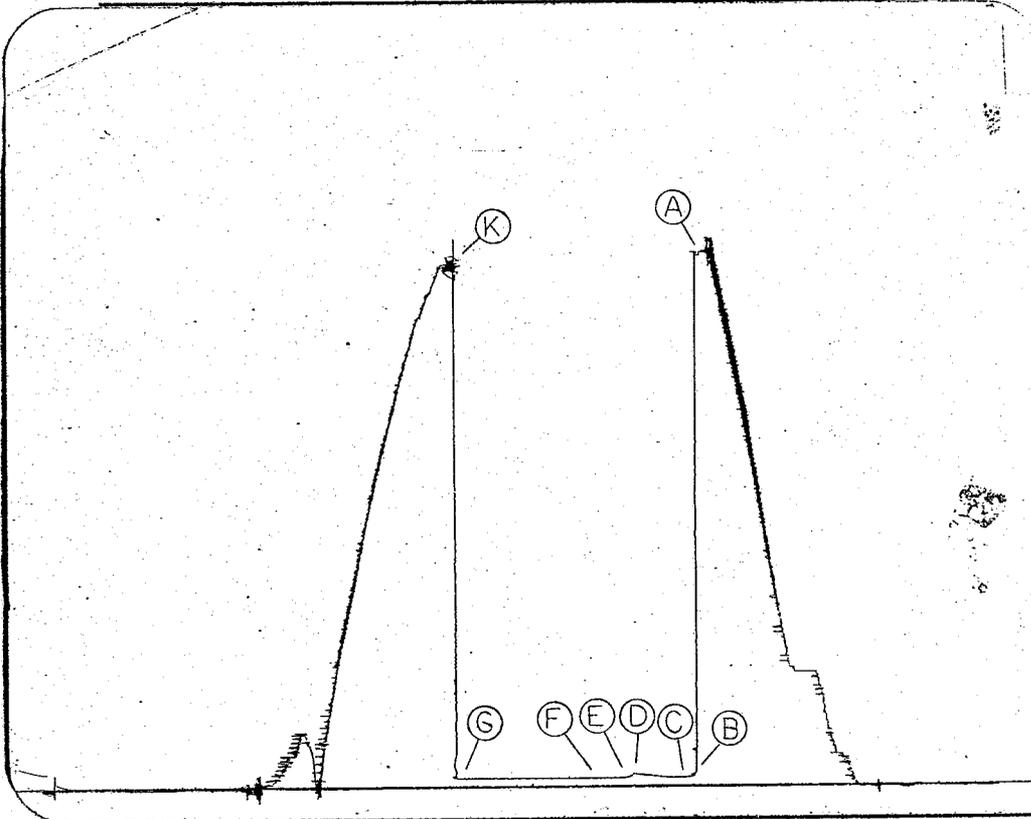
Address: 245 Market St., San Francisco, CA 94105
Page 1 of 1

Contractor Anderson Drlg. Co. Top Choke 1/4"
 Rig No. 6 Bottom Choke 5/8"
 Spot SW-NE Size Hole 7 7/8"
 Sec. 29 Size Rat Hole --
 Twp. 85 Size & Wt. D. P. 4 1/2" 16.60
 Rng. 17 E Size Wt. Pipe --
 Field Wildcat I. D. of D. C. 2 1/4"
 County Duchesne Length of D. C. 622'
 State Utah Total Depth 10381'
 Elevation 5297' "K.B." Interval Tested 10325-10381'
 Formation Wasatch Type of Test Bottom Hole Conventional

Flow No. 1 30 Min.
 Shut-in No. 1 60 Min.
 Flow No. 2 70 Min.
 Shut-in No. 2 180 Min.
 Flow No. 3 -- Min.
 Shut-in No. 3 -- Min.

Bottom
 Hole Temp. 210°F
 Mud Weight 10.2
 Gravity --
 Viscosity 37

Tool opened @ 6:50 A.M.



Inside Recorder

PRD Make Kuster AK-1
 No. 973 Cap. 7900 @ 10335'

	Press	Corrected
Initial Hydrostatic	A	5517
Final Hydrostatic	K	5404
Initial Flow	B	125
Final Initial Flow	C	103
Initial Shut-in	D	144
Second Initial Flow	E	112
Second Final Flow	F	99
Second Shut-in	G	100
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs, WY
 Our Tester: Charles Tuzicka
 Witnessed By: --

Did Well Flow - Gas No Oil No Water No

RECOVERY IN PIPE: 90' Very slightly water cut drilling mud. = .44 bbl.

1st Flow - Tool opened with a strong blow increased to bottom of bucket in 2 minutes and remained thru flow period.
 2nd Flow - Tool opened with a weak blow, increased to bottom of bucket in 4 minutes. Blow began to decrease to dead in 67 minutes and remained thru flow period.

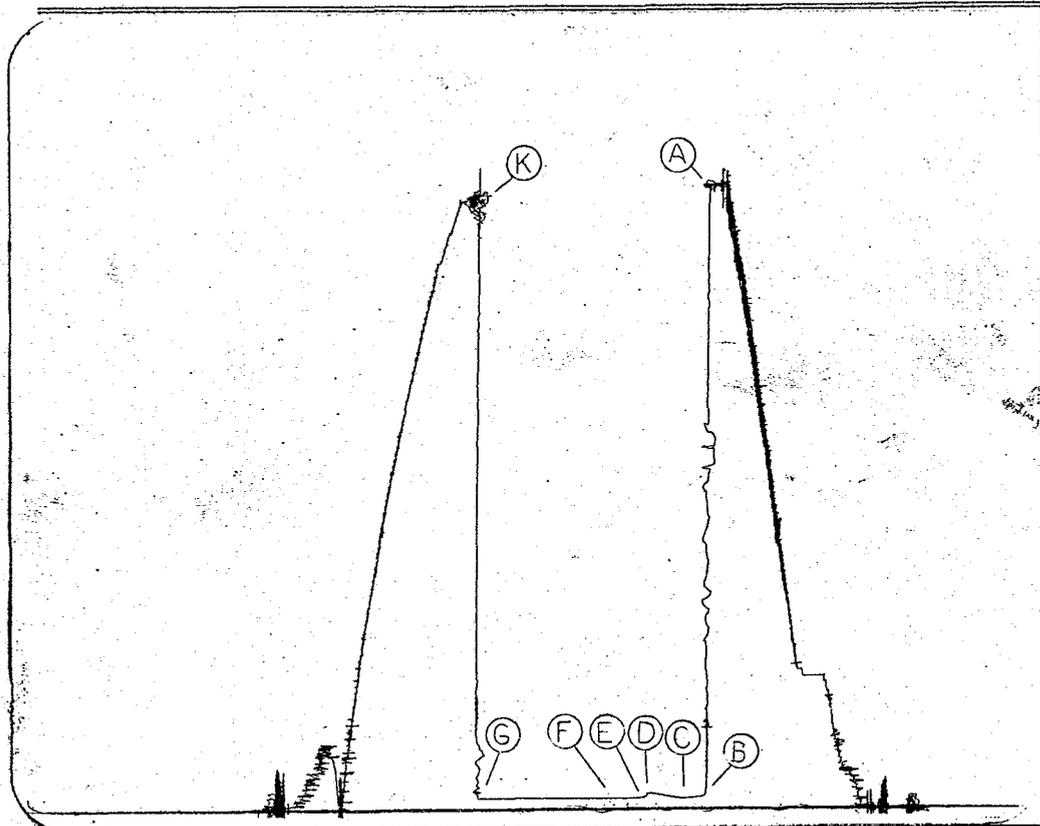
REMARKS:

Breakdown of shut-in pressures not practical for Horner extrapolations.

Operator Pacific Transmission Supply Co. Well Name and No. PTS - Federal #32-29
 Address See Distribution Ticket No. 10363 Date 4-17-78
 No. Final Copies 6 US1 No. 3

LYNES, INC.

Operator Pacific Transmission Supply Co Lease & No. PTS - Federal #32-29 DST No. 3



Inside Recorder

PRD Make Kuster AK-1
 No. 7424 Cap. 6750 @ 10330'

	Press	Corrected
Initial Hydrostatic	A	5499
Final Hydrostatic	K	5391
Initial Flow	B	125
Final Initial Flow	C	104
Initial Shut-in	D	152
Second Initial Flow	E	114
Second Final Flow	F	106
Second Shut-in	G	107
Third Initial Flow	H	---
Third Final Flow	I	---
Third Shut-in	J	---
Pressure Below Bottom Packer Bled To		

PRD Make _____
 No. _____ Cap. _____ @ _____

	Press	Corrected
Initial Hydrostatic	A	
Final Hydrostatic	K	
Initial Flow	B	
Final Initial Flow	C	
Initial Shut-in	D	
Second Initial Flow	E	
Second Final Flow	F	
Second Shut-in	G	
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-in	J	
Pressure Below Bottom Packer Bled To		

LYNES, INC.

Fluid Sample Report

Date 4-17-78 Ticket No. 10363
Company Pacific Transmission Supply Co. DST No. 3
Well Name & No. PTS - Federal #32-29 State Utah
County Duchesne Test Interval 10325-10381'

Pressure in Sampler 50 PSIG BHT 210 °F

Total Volume of Sampler: 2100 cc.
Total Volume of Sample: 1000 cc.
Oil: None cc.
Water: None cc.
Mud: 1000 cc.
Gas: None cu. ft.
Other: None

R.W. .5 @ 50°F = 17,000 ppm. chl.

Resistivity

Make Up Water 5 @ 58° of Chloride Content 1300 ppm.

Mud Pit Sample .3 @ 88° of Chloride Content 17,000 ppm.

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

Where was sample drained On Location

Remarks: Recovery - Top Sample - R.W. .36 @ 85°F = 13,500 ppm. chl.

Middle Sample - R.W. 1.0 @ 72°F = 5,800 ppm. chl.

Bottom Sample - R.W. .5 @ 50°F = 5,800 ppm. chl.

LYNES, INC.

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PACIFIC TRANSMISSION SUPPLY COMPANY

212 GOODSTEIN BUILDING
P. O. BOX 3093
CASPER, WYOMING 82602
(307) 265-1027

June 6, 1978

Mr. P.L. Driscoll
Division of Oil, Gas & Mining
1588 West
North Temple
Salt Lake City, UT 84116

Re: Sundry Notice,
U.S.G.S. Form 9-331 -
PTS #32-29 Federal
Sec. 29-T8S-R17E
Duchesne Co., Utah
Castle Unit

Dear Mr. Driscoll:

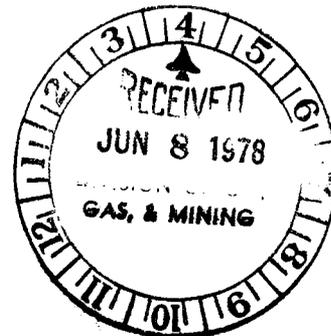
We are enclosing herewith a copy of U.S.G.S. Form 9-331, Sundry Notice, dated 6/6/78, outlining the plug back procedure for the above captioned well. This notice is being submitted to your office for information and file.

Very truly yours,

E. E. Mulholland
E. E. MULHOLLAND
OPERATIONS ENGINEER

/ks

Encl.



GEOLOGICAL WELL REPORT

Pacific Transmission Supply Company
32-29 Federal
SW NE Section 29, T8S - R17E
Duchesne County, Utah

Submitted by:

H. E. Hutton
317 Goodstein Bldg.
P. O. Box 1138
Casper, Wyoming 82602
Phone: (307) 266-6108



Wallace W. Stewart
303 Western Resources Bldg.
Casper, Wyoming 82601
Phone: (307) 234-5827

I N D E X

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FORMATION TOPS	9
FIELD LOG CALCULATIONS	10
MUD CHECKS	11
BIT RECORD	13
DRILL STEM TEST RECORD	14
CUTTINGS - SAMPLE DESCRIPTION.	17

WELL DATA

Operator: Pacific Transmission Supply Company

Well Name: PTS 32-29 Castle Unit Federal

Legal Location: 1978' FNL and 1928' FEL SW NE Sec. 29, T8S - R17E

County and State: Duchesne County, Utah

Elevations: 5280 GR 5294 DF 5297 KB

Contractor: Anderson-Myers Drilling Company

Equipment: Rig #6
Pusher Vince Wirtz

Commenced: Spud 1 March, 1978
(Surface conductor set earlier with Dryhole Digger.)

Surface Casing: 9-5/8" @ 1994' with 250 sacks Class G cement

Production Casing: 155 Joints 5 1/2" 17# J55 @ 6512' with 70 sacks RFC
and 50 sacks Class G cement

Plugs: 13200'-13300' with 35 sacks, 11000'-11100' with 35 sacks,
8650'-8800' with 50 sacks, 6600'-6750' with 50 sacks

Hole Size: 12 1/4" 120'-2005'; 7 7/8" 2005'-14245'

Drilling Fluid: Contractor: Milchem, Roosevelt, Utah
120-2005 Water & Gel
2005-14245 Salt mud changed programatically to Gel & Bar

Drill Stem Tests: DST #1 5695- 5810 DST #4 11975-12035
DST #2 6310- 6350 DST #5 12728-12944
DST #3 10325-10381 DST #6 13460-13556

Logging: Schlumberger: 2" 142'-2004' Dual Induction Laterolog
5" 142'-2004' " " "
5" 1995'-14241 " " "
5" 4200'-14238 BHC Sonic-Gamma Ray with
Caliper plus F overlay
5" 4200'-14247 Compensated Neutron &
Density-Caliper

Mud Logging: Tooke Engineering Portable manned by wellsite geologist.

Cores: None

WELL DATA

DRILLING TIME: TOTCO

TOTAL DEPTH 14245'

CEASED DRILLING: 31 May, 1978

SAMPLES DELIVERED: AMSTRAT, Casper, Wyoming 120'-TD
1700'-5300' Laramie Research Center
Laramie, Wyoming

SAMPLE INTERVALS: 10' 120-TD

GEOLOGIST: W. W. Stewart Surf-9120
H. E. Hutton 9120-13413, 13556-14245
Z. S. Merritt 13413'to13556'

STATUS Awaiting Completion

WELL HISTORY

<u>Date</u>	<u>Drilled To:</u>	<u>Hrs. Drlg.</u>	<u>Activity</u>
3-1-78	436'	14	Complete rigging up. Drilling.
3-2-78	1108'	23 1/4	Drilling.
3-3-78	1540'	20 3/4	Drilling, trip for Bit #2, drilling.
3-4-78	1873'	23 3/4	Drilling.
3-5-78	2005'	11	Drilling, logging, running casing.
3-6-78	2005'	0	Ran casing, nipple up.
3-7-78	2342'	15 1/4	Nipple up, Bit #3 in, drilling.
3-8-78	2803'	22 3/4	Drilling.
3-9-78	3261'	23	Drilling.
3-10-78	3615'	20 1/2	Drilling.
3-11-78	4022'	23 3/4	Drilling.
3-12-78	4405'	23 1/4	Drilling.
3-13-78	4655'	17	Drilling, trip for Bit #4, drilling.
3-14-78	4984'	23 1/4	Drilling.
3-15-78	5304'	23 3/4	Drilling.
3-16-78	5519'	16 3/4	Drilling, trip for Bit #5, drilling.
3-17-78	5755'	23 1/4	Drilling.
3-18-78	5810'	5 1/4	Drilling, DST #1 5695'-5810'.
3-19-78	5952'	10 3/4	Completed DST #1, Bit #6 in, drilling.
3-20-78	6282'	23 3/4	Drilling.
3-21-78	6350'	4 3/4	Drilling, circulate and condition hole for DST #2, trip out for DST #2 6310'-6350'.
3-22-78	6423'	6 3/4	Completed DST #2, drilling.
3-23-78	6673'	23	Drilling.
3-24-78	6891'	23 3/4	Drilling.
3-25-78	7053'	18	Drilling, trip for Bit #7, drilling.

WELL HISTORY (continued)

<u>Date</u>	<u>Drilled To:</u>	<u>Hrs. Drlg.</u>	<u>Activity</u>
3-26-78	7232'	19 1/4	Drilling, pump repairs, drilling.
3-27-78	7440'	23 3/4	Drilling.
3-28-78	7647'	23 3/4	Drilling.
3-29-78	7840'	23 3/4	Drilling.
3-30-78	7996'	16	Drilling, trip for Bit #8, drilling.
3-31-78	8123'	13 3/4	Drilling, trip for Bit #9.
4-1-78	8296'	17 1/4	Drilling, trip for Bit #10.
4-2-78	8463'	18 1/4	Trip in, drilling, trip for Bit #11.
4-3-78	8628'	17 1/2	Finish trip, drilling.
4-4-78	8886'	23 1/4	Drilling.
4-5-78	9094'	21 3/4	Drilling, trip for Bit #12.
4-6-78	9143'	9 1/4	W. W. Stewart relieved by H. E. Hutton. Drilling, trip for Bit #13.
4-7-78	9249'	15 1/4	Drilling, trip for Bit #14, drilling, trip for Bit #15.
4-8-78	9366'	17 1/4	Drilling.
4-9-78	9542'	23 3/4	Drilling.
4-10-78	9726'	18 1/2	Drilling.
4-11-78	9807'	17 1/4	Drilling, trip for Bit #16, rig repairs.
4-12-78	9925'	15 3/4	Drilling, trip for Bit #17.
4-13-78	10125'	23 3/4	Drilling.
4-14-78	10223'	14 1/2	Drilling, trip for Bit #18.
4-15-78	10354'	19 3/4	Drilling.
4-16-78	10381'	4 3/4	Drilling, DST, trip, rerun Bit #12, drilling, trip for Bit #19.
4-17-78	10383'	3/4	DST #3 completed, SIM correction 10381' = 10383'.
4-18-78	10471'	14	Drilling, trip for Bit #20.
4-19-78	10548'	15 3/4	Drilling, trip, rerun Bit #18.

WELL HISTORY (continued)

<u>Date</u>	<u>Drilled To:</u>	<u>Hrs. Drig.</u>	<u>Activity</u>
4-20-78	10611'	13 1/2	Drilling, trip for Bit #21.
4-21-78	10768'	23 3/4	Drilling.
4-22-78	10923'	23 3/4	Drilling.
4-23-78	11087'	23 3/4	Drilling.
4-24-78	11128'	9	Drilling, trip for Bit #22.
4-25-78	11162'	5 1/2	Drilling, and drilling on junk, trip for Bit #23.
4-26-78	11267'	16	Drilling, trip for Bit #24, drilling, trip for Bit #25.
4-27-78	11446'	23 1/2	Drilling.
4-28-78	11516'	12 3/4	Drilling, trip for Bit #26.
4-29-78	11577'	10	Drilling, rig repairs, trip for Bit #27.
4-30-78	11764'	22 1/2	Drilling.
5-1-78	11958'	23 3/4	Drilling.
5-2-78	12035'	10 1/2	Drilling, prepare for DST #4, SIM correction to 12035'.
5-3-78	12035'	0	DST #4, Magnaflux drill collars, Bit #28 in.
5-4-78	12123'	10 1/4	Ream after DST, drilling.
5-5-78	12284'	23 1/2	Drilling.
5-6-78	12400'	13	Drilling, trip for Bit #29, SIM.
5-7-78	12600'	20	Drilling.
5-8-78	12830'	23 3/4	Drilling.
5-9-78	12944'	11 3/4	DST #5, trip for Bit #30.
5-10-78	12944'	0	DST #5, Bit #30 in.
5-11-78	12966'	3 1/4	Wash to bottom after DST, drilling rubber in hole, drilling, trip for Bit #31.
5-12-78	13092'	17 1/4	Drilling.
5-13-78	13120'	6	Drilling, trip for Bit #32, Magnaflux, laying down pipe.
5-14-78	13153'	6	Condition mud, drilling, trip for Bit #33.
5-15-78	13211'	11 1/4	Drilling.

DEVIATION SURVEY

<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>
1/2	226	1-1/2	9249
1/2	493	1-1/4	9728
3/4	1321	1-3/4	9925
3/4	2005	1-1/2	10223
2-1/4	2536	1-1/2	10359
1-3/4	2998	1-1/4	10512
2-1/4	3508	1-1/4	11112
2-3/4	4010	Miss Run	11479
2-1/4	4561	1	11540
2-1/4	5447	1-3/4	12035
1-1/4	5810	No Picture	12400
2	6350	1-3/4	12944
2-1/4	6942	1-3/4	13153
1	7901	No Picture	13413
No good	8123	1-1/2	13556
1-3/4	8296	2	13770
1-1/2	8463	1-3/4	13938
1-1/2	9094	2	14018
		2-1/4	14245

WELL HISTORY (continued)

<u>Date</u>	<u>Drilled To:</u>	<u>Hrs. Drlg.</u>	<u>Activity</u>
5-16-78	13263'	11	Drilling, trip for Bit #34.
5-17-78	13316'	13	Drilling, trip for Bit #35.
5-18-78	13413'	18 1/4	Drilling, trip for Bit #36.
5-19-78	13445'	7 3/4	Drilling, trip for Bit #37.
5-20-78	13553'	16 3/4	Drilling, trip for Bit #38.
5-21-78	13556'	0	DST #6, SLM 13553' = 13556'.
5-22-78	13609'	10 1/4	Drilling.
5-23-78	13665'	8 3/4	Drilling, trip for Bit #39.
5-24-78	13770'	12 1/2	Drilling, trip for Bit #40.
5-25-78	13859'	12 1/2	Drilling, trip for Bit #41.
5-26-78	13938'	10 3/4	Drilling, trip for Bit #42, reaming.
5-27-78	14018'	13 1/2	Drilling, trip for Bit #43.
5-28-78	14062'	8 3/4	Drilling, trip for Bit #44.
5-29-78	14131'	11	Drilling.
5-30-78	14210'	13	SLM 14210' = 14208', drilling, trip for Bit #45.
5-31-78	14245'	7 1/2	Drilling, TD, logging.
6-1-78	14245'		Logging.
6-2-78	14245'		Waiting on orders, lay down drill pipe.
6-3-78	14245'		Circulating, set bridge plugs.
6-4-78	14245'		Circulating, waiting on casing.
6-5-78	14245'		Ran 5 1/2" casing.
6-6-78	14245'		Starting to rig down.

FORMATION TOPS

<u>FORMATION</u>	<u>LOG DEPTH</u>	<u>DATUM (5297 KB)</u>
Green River Marker	1747	+3550
Green River Shale	1860	+3437
Green River Garden Gulch	3404	+1893
Green River Douglas Creek	4277	+1020
Green River Tongue	6356	-1059
Wasatch	6470	-1183
Mesa Verde	11065	-5768
Castlegate	13232	-7935

FIELD LOG CALCULATIONS

<u>DEPTH</u>	<u>Rt</u>	<u>Rw *</u>	<u>F</u>	<u>$\frac{\phi_n + \phi_d}{2}$</u>	<u>Sw</u>	<u>Remarks</u>
4252-4260	20	.22	76	11.5	91	
4376-4386	30	.18	39	16	48	
6740-6758	50 avg.	.27	49	14.5	51	
11853-11869	15	.1	113	9	90	
12559-12568	42	.2	156	8	86	
12769-12778	60	.25	236	6.5	98	
12869-12879	36	.25	123	9	92	
13062-13070	120	.23	236	6.5	67	

* Rw from Sonic F

BIT RECORD

BIT NO.	MFGR.	SIZE INCHES	BIT TYPE	DEPTH OUT	FOOTAGE	HOURS
1	Smith	12¼"	DGH	1321	1221	46¼
2	Smith	12¼"	4JS	2005	684	46½
3	Hughes	7-7/8	J33	4561	2556	137-3/4
4	Security	7-7/8	S86F	5447	886	64¼
5	Smith	7-7/8	F45	5810	363	35
6	Smith	7-7/8	F-3	6942	1132	98-3/4
7	Hughes	7-7/8	J22	7901	959	107½
8	Smith	7-7/8	SDG	8123	222	21
9	Hughes	7-7/8	OSC1K	8296	173	17½
10	Smith	7-7/8	V2	8463	167	18¼
11	Security	7-7/8	S84F	9094	631	62½
12	Hughes	7-7/8	J44	9119	25	5½
13	Smith	7-7/8	F2	9213	94	14
14	Hughes	7-7/8	OSC1GJ	9249	36	4-3/4
15	Smith	7-7/8	F3	9728	477	65
16	Hughes	7-7/8	J22	9925	197	26-3/4
17	Smith	7-7/8	F3	10223	298	38¼
RR 12	Hughes	7-7/8	J44	10359	136	20½
18	Smith	7-7/8	F4	10381	22	4-3/4
19	Reed	7-7/8	FP54	10439	58	10¼
RR 18	Smith	7-7/8	F4	10512	73	15½
20	Hughes	7-7/8	J55	10568	56	16-3/4
21	Smith	7-7/8	F45	11112	544	83
22	Smith	7-7/8	V2H5	11128	16	4-3/4
23	Reed	7-7/8	FP53J	11162	34	3½
24	Security	7-7/8	S86F	11223	61	7-3/4
25	Smith	7-7/8	F5	11479	256	36¼
26	Reed	7-7/8	FP63	11540	61	12¼
27	Smith	7-7/8	F4	12035	495	61¼
28	Reed	7-7/8	PP62X	12400	365	46-3/4
29	Smith	7-7/8	F45	12944	540	55
30	Reed	7-7/8	F21J	12966	22	3¼
31	Smith	7-7/8	F45	13120	154	23¼
32	Reed	7-7/8	FP62BJ	13153	33	6
33	Smith	7-7/8	F7	13249	96	19¼
34	Reed	7-7/8	FP62B	13285	36	9
35	Smith	7-7/8	F57	13413	128	25¼
36	Security	7-7/8	M89TF	13445	32	7-3/4
37	Smith	7-7/8	F57	13553	16-3/4	41
38	Smith	7-7/8	F57	13665	109	19
39	Reed	7-7/8	FP62X	13770	105	12½
40	Smith	7-7/8	F5	13859	89	15¼
41	Smith	7-7/8	F45	13938	79	13½
42	Hughes	7-7/8	J44	14018	80	12¼
43	Smith	7-7/8	F57	14062	44	7¼
44	Hughes	7-7/8	J77	14210	148	24
45	Smith	7-7/8	F6	14245	37	2½

MUD CHECKS

<u>Date</u> <u>1978</u>	<u>Depth</u> <u>Checked</u>	<u>Weight</u>	<u>Vis.</u>	<u>Water</u> <u>Loss</u>	<u>pH</u>	<u>Filter</u> <u>Cake</u>	<u>Plastic</u> <u>Vis.</u>	<u>Yield</u> <u>Point</u>	<u>Remarks</u>
3-1	349	8.7	30	40	12	4/32	7	7	gel and water
3-2	852	8.8	34	40	11.5	4/32	7	7	
3-3	1488	9.2	30	30	10.5	4/32	8	5	
3-4	1661	9.2	30	30	11	4/32	8	5	
3-8	2516	8.8	32	NC	10.5	8/32	7	9	brine salt gel
3-9	2977	8.8	31	NC	10.5	8/32	8	8	
3-10	3368	8.8	32	NC	10.5	8/32	9	11	
3-11	3746	8.9	32	NC	10.5	8/32	9	13	
3-12	4159	8.8	33	NC	10.5	8/32	8	10	
3-13	4535	8.9	32	NC	10.5	8/32	8	10	
3-14	4796	9.0	34	NC	11.0	8/32	10	10	
3-16	5446	9.1	34	NC	10	8/32	10	10	salt mud
3-17	5634	9.1	32	NC	10	6/32	10	10	
3-18	5810	9.4	42	NC	10	6/32	10	12	
3-19	5873	9.3	40	NC	10.5	6/32	10	12	
3-20	6106	9.4	35	NC	10.5	6/32	10	10	
3-21	6350	9.4	36	NC	10	6/32	10	12	
3-22	6350	9.6	38	50	10	5/32	10	12	nitrate = 90
3-24	6805	9.9	38	NC	11	6/32	9	11	N = 90
3-25	6942	9.8	38	NC	10	5/32	10	12	
3-26	7128	9.9	48	18	10	3/32	11	12	N = 100
3-27	7287	9.8	40	17	10	3/32	10	10	
3-28	7494	9.8	42	16	10	3/32	10	10	
3-29	7693	9.8	40	16	9.5	3/32	10	10	
3-30	7878	9.8	38	16	9.5	3/32	10	10	N = 100
3-31	8058	9.8	40	15	10	2/32	11	12	
4-1	8170	9.7	40	15	10	2/32	10	8	
4-2	8344	9.8+	39	15	9	3/32	10	9	N = 100
4-3	8463	9.8	39	15	8.5	2/32	10	9	
4-4	8694	9.8	40	16	8.5	3/32	10	10	N = 100
4-6	9119	9.6+	38	15	8.5	2/32	12	8	
4-7	9196	9.8	38	16	9.0	3/32	12	9	
4-8	9249	9.8	38	16	9.0	3/32	12	9	Chromate = 600
4-8	9352	9.8	37	15	9.0	2/32	11	9	
4-9	9411	9.7	37	16	9.0	3/32	11	9	Chromate = 800
4-10	9587	9.6	37	15	9.0	2/32	10	8	" "
4-10	9664	9.8	37	16	9.0	3/32	11	9	Chromate = 700
4-11	9740	9.7	37	15	9.0	2/32	11	8	" "
4-12	9857	9.6	35	16	9.0	3/32	11	8	" "
4-12	9925	9.6	37	16	9.0	3/32	12	8	" "
4-13	9980	9.8	36	16	9.0	2/32	12	9	" "
4-13	10071	9.8	37	16	9.0	3/32	12	8	Chromate = 800
4-14	10169	9.7	37	15	9.0	2/32	12	8	Chromate = 700
4-15	10236	9.7	37	16	9.5	3/32	12	9	Chromate = 800
4-16	10360	9.6+	36	16	9.0	2/32	12	9	" "
4-17	10381	9.7	37	16	9.5	2/32	12	9	" "
4-18	10418	9.8	37	16	9.0	2/32	13	10	Chromate = 700
4-19	10512	9.8	36	16	10.0	2/32	12	8	Chromate = 800

MUD CHECKS

<u>Date</u> <u>1978</u>	<u>Depth</u> <u>Checked</u>	<u>Weight</u>	<u>Vis.</u>	<u>Water</u> <u>Loss</u>	<u>pH</u>	<u>Filter</u> <u>Cake</u>	<u>Plastic</u> <u>Vis.</u>	<u>Yield</u> <u>Point</u>	<u>Remarks</u>
4-20	10568	9.7	37	16	9.5	2/32	12	9	Chromate = 800
4-21	10658	9.7	37	16	9.5	2/32	10	10	Chromate = 700
4-22	10808	9.7	39	18.4	9.5	2/32	8	9	Chromate = 650
4-23	10960	9.5	38	16	9.0	2/32	8	8	Chromate = 700
4-24	11112	9.6	37	15	9.5	2/32	7	5	" "
4-25	11131	9.5+	38	15	9.5	2/32	13	8	" "
4-26	11163	9.6	39	15	10.0	2/32	14	5	" "
4-27	11291	9.6	37	15	9.5	2/32	11	4	Chromate = 600
4-28	11479	9.5	35	15	9.5	2/32	9	4	Chromate = 650
4-29	11517	9.6	35	15	9.5	2/32	9	4	Chromate = 700
4-30	11642	9.7	37	15	9.0	2/32	14	8	" "
5-1	11811	9.5	43	15	9.5	2/32	14	4	" "
5-2	12021	9.5	37	15	10.0	2/32	9	3	Chromate = 600
5-3	12035	9.6	39	15	10.0	2/32	10	4	Chromate = 700
5-4	12035	9.6	41	15	10.0	2/32	14	7	Chromate = 600 Pit Samp
5-5	12164	9.5	40	15	10.0	2/32	12	3	Chromate = 900
5-6	12400	9.4	45	15	10.0	2/32	13	7	Chromate = 800
5-7	12448	9.5	44	15	10.5	2/32	15	9	" "
5-8	12663	9.5	39	15	10.0	3/32	15	8	Chromate = 900
5-8	12815	9.5	41	16	10.0	2/32	16	7	Chromate = 800
5-9	12905	9.4	45	15	10.0	2/32	18	6	" "
5-10	12944	9.6	56	14	9.5	2/32	25	10	" " Pit Samp.
5-11	12944	9.7	54	16	10.0	2/32	26	9	" "
5-12	12966	9.8	43	12	10.0	2/32	27	10	" "
5-13	13092	9.8	41	13.7	10.5	2/32	28	9	" "
5-14	13120	9.8	42	12	10.0	2/32	27	10	Chromate = 900
5-15	13153	10.0	43	12	10.0	2/32	31	11	" "
5-16	13211	9.9	42	12	9.5	2/32	31	11	Chromate = 800
5-17	13265	10.0	39	12.8	9.5	2/32	29	10	" "
5-18	13316	10.0	40	10.6	9.5	2/32	30	11	Chromate = 900
5-20	13482	9.9	55	13.0	9.5	2/32	24	14	
5-20	13553	10.0	47	12.4	10.5	2/32	22	15	
5-23	13647	10.0	41	13.2	10.3	2/32	17	6	Chromate = 700
5-24	13720	10.0	40	12	9.8	2/32	16	7	Chromate = 600
5-25	13783	10.0	44	11.6	9.5	2/32	22	9	" "
5-26	13859	9.8	38	11.3	9.5	2/32	14	4	Chromate = 500
5-27	13938	9.8	39	12	10.0	2/32	15	5	Chromate = 400
5-28	14018	9.8	45	13.6	9.5	2/32	21	9	Chromate = 500
5-29	14165	9.8	41	10.8	9.7	2/32	17	6	" "
5-30	14215	9.8	43	10.8	9.5	2/32	20	8	Chromate = 300

DRILL STEM TEST RECORD

DST #1 5695'-5812' Open 30", SI 60", open 60", SI 180"
 Opened with strong blow, with 9# in 30".
 GTS in 47" (during ISI period).
 2nd open, a weak blow which continued throughout 60" period.
 GTS throughout. Too small to measure.
 Recovered 370' gas cut mud.
 IH 2793# IFP 233# - 233# ISIP 246#
 FH 2791# FFP 233# - 233# FSIP 233# BHT 149°
 Bottom hole sampler: Recovered 1000 cc mud. Pressure 15#
 Resistivities of recovery: Same as pit sample (not measured at rig).
 Nitrates in recovery: 90 ppm Before 110 ppm After 90 ppm

DST #2 6310'-6350' Open 30", SI 60", open 60", SI 180"
 Opened with weak blow, increased to strong blow in 3".
 Increased to 12 1/2# on surface in 30".
 No GTS during initial open.
 GTS in 40" (or 10" into ISI period).
 2nd flow period - opened with strong blow to bottom of bucket in 30" seconds.
 Surface pressure 1# in 1 minute, 7# in 5 minute, 8# in 15 minutes
 and remained 8# for 45 minutes to end of test period.

Gas Volume Report:	Surface			
	Minutes	Choke	PSI	Volume (MCFPD)
	5	1/4"	7	25
	10	1/4"	7.5	26.1
	15	1/4"	8	27
	20	1/4"	8	27
	30	1/4"	8	27
	40	1/4"	8	27
	50	1/4"	8	27
	60	1/4"	8	27

Recovered 708' fluid consisting of 690' oil, gas cut,
 plus 18' oil and gas cut mud.
 Bottom hole sampler: 1000 cc oil + 2 cubic feet gas. Pressure 180#
 BHT 141°
 IH 3276# IF 113# - 132# ISIP 3248#
 FH 3229# FF 122# - 235# FSIP 3257#
 Gravity 35.5°
 Pour Point 110° F

DRILL STEM TEST

DST #3: 10325'-10381'
 No Gas To Surface

Initial open with a strong blow increasing and blowing from the bottom of the bucket in 2 minutes. Blow increased to 10 oz. in 20 min., then decreased to 6 oz. on manifold gauge.

Final Flow opened with weak blow gradually increasing to off bottom of the bucket in 4 minutes, then decreasing and dead 67 minutes into final flow period.

Pressures:	I.H.H.	6394#
	F.H.H.	6477#
	I.F.P.	86#→(30 minutes)
	F.F.P.	138# (70 minutes)
	I.S.I.P.	138# (60 minutes)
	F.S.I.P.	172# (180 minutes)
	B.H.T.	210°F

Recovered 90' very slightly water cut drilling mud.

DST #4: 11975'-12035'
 No Gas To Surface

Initial flow open with a weak blow and steady. Final flow open with no blow throughout flow period.

Pressures:	I.H.H.	6055#
	F.H.H.	5890#
	I.F.P.	1265#→1325# (10 minutes)
	F.F.P.	1366#→1305# (60 minutes)
	I.S.I.P.	1832# (45 minutes)
	F.S.I.P.	1629# (120 minutes)
	B.H.T.	218°F

Recovered: 2900' water cushion and 30' drilling mud.

DRILL STEM TEST

DST #5: 12728-12944'

Gas to surface 5 minutes into final shut in period.

Initial flow opened with weak blow increased to blow 4" water.
Final flow opened with strong blow increasing on manifold gauge as below.

10 minutes	2#
20 minutes	6#
30 minutes	8#
60 minutes	9# (=29MCFPD)

Pressures:	I.H.H.	6605#
	F.H.H.	6445#
	I.F.P.	1022# → (10 minutes)
	F.F.P.	1264# → 1035# (60 minutes)
	I.S.I.P.	2036# (45 minutes)
	F.S.I.P.	1873# (180 minutes)
	B.H.T.	248° _F

Recovered: 1-3/4 cubic feet of gas; 2700' gas cut water cushion and 300' gas cut mud.

DST #6: 13460'-13556'

No Gas To Surface

Initial flow opened weak and increased to 2" blow at completion of initial flow period.

Final flow opened with weak blow and increased until blowing from the bottom of the bucket in 25 minutes @ 6 oz. on manifold gauge and increasing gradually to 14 oz. @ end of 60 minute initial flow period.

Pressures:	I.H.H.	7086#
	F.H.H.	6884#
	I.F.P.	1496# → 1437# (15 minutes)
	F.F.P.	1437# → 1457# (60 minutes)
	I.S.I.P.	1457# (30 minutes)
	F.S.I.P.	1829# (180 minutes)
	B.H.T.	245° _F

Recovered: 3050' water cushion and 180' gas cut mud.

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY (Samples unlagged)</u>
120-130	Sandstone, green and green gray, medium grained, with green, black, orange grains, subangular, fair sorting, calcareous in part. Siltstone, red-maroon red, sandy, firm. Shale, red, maroon, green, firm-blocky, subwaxy.	
130-150	As above, with reddish-brown, and brown siltstone, sandy in part. Sandstone, medium-trace coarse grained, with heavy black residue. Looks like asphalt-gilsonite. No fluorescence. Good-excellent yellow white cut.	
150-160	As above, with slight increase in reddish brown shale and siltstone. Still carrying sandstone in part with oil-asphalt residue.	
160-170	As above, good increase tan-tan brown siltstone.	
170-190	Siltstone, brown-tan, very argillaceous, firm.	
190-200	Siltstone as above, with shale, reddish brown, maroon, very silty in part. Sandstone, green gray, medium grained-trace coarse grained, calcareous in part, well sorted to fair sorted, slightly friable, abundant clay fill.	
200-210	Siltstone as above.	
210-230	Siltstone, reddish brown-red, sandy in part, very argillaceous. Sandstone, green, gray green, medium grained, slightly friable-friable.	
230-240	As above, with sandstone, black asphaltic residue, and shale, green, firm, blocky.	
240-250	As above, increase sandstone, heavy asphalt residue, sandstone slightly calcareous.	
250-260	Shale and siltstone, gray, reddish brown, reddish tan, argillaceous, firm. Sandstone, green, green gray, medium grained, firm-slightly friable.	
260-300	Sandstone, greenish white, mostly white and green grains, not black or gray as above, medium and coarse grained, subangular, very heavy black asphaltic residue, good cut. No fluorescence without cut. Shale, green-apple green, firm, waxy. Also 290-300 green, sandy siltstone.	
300-310	As above, with shale, red, firm, slightly blocky, and siltstone, red-reddish brown, argillaceous.	
310-330	Shale, gray green-green, subwaxy, blocky, firm, and with sandstone as above. With brown-gray shale and siltstone.	
330-340	Shale, brown, smooth, subwaxy, firm; shale, slightly reddish brown, and trace green and gray shale.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
340-380	Shale, red-reddish brown, firm, subwaxy, silty in part; siltstone, rusty reddish brown, very calcareous and argillaceous.	
380-390	No sample.	
390-410	Sandstone, gray-white, fine-medium grained, abundant heavy oil residue stain, tar-asphalt globules. Shale, green-green gray, subwaxy, soft-firm.	
410-420	Shale, green as above, siltstone, brown-reddish brown, very argillaceous and sandy in part.	
420-430	Shale, green gray, subwaxy, firm, and siltstone, gray, very argillaceous.	
430-450	As above, with sandstone, white-gray, fine-medium grained, in part with asphaltic residue; shale, red-brown, silty, firm. Limestone, buff-creamy, micritic.	
450-460	Shale, green, dark green-gray, and reddish brown, firm, subwaxy, very silty in part; siltstone, green and red, argillaceous.	
460-500	Shale, mostly green as above, with red-brown shale. Sandstone, white-gray, fine grained, trace asphaltic residue, abundant limestone, cream-buff, very fine grained.	
500-520	Shale and siltstone, green-green gray, firm, shaley, subwaxy-waxy. Limestone, buff-cream, very fine crystalline, scattered amount.	
520-530	As above, with sandstone, white, green white, fine grained, grades to gray siltstone, firm-hard.	
530-550	Sandstone, white, green-white, with black, green, brown, chert grains, medium-coarse grained, conglomeratic appearance, subangular-subrounded, fair sorting, abundant clay fill, very calcareous. No show.	
550-580	Sandstone as above, increasing to all coarse grained; conglomerate.	
580-600	Shale, green, subwaxy, firm; siltstone, gray, argillaceous, hard.	
600-620	Shale as above, with limestone, buff-cream, micritic.	
620-650	Shale, gray-green gray, firm, subwaxy-waxy, in part silty; siltstone, gray, firm, argillaceous.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
650-660	As above, with increase siltstone, gray, green-gray, argillaceous in part, firm-hard.	
660-670	No sample.	
670-680	Shale, gray, gray green, reddish brown, soft, firm, silty in part, subwaxy. Siltstone, gray, red brown, very argillaceous.	
680-690	Sandstone, white-tan, medium-coarse grained, calcareous, slightly friable, subangular-subrounded. No show.	
690-700	As above, with gray, green shale and siltstone.	
700-710	Limestone, buff-cream, very fine crystalline-micritic. Shale, as above.	
710-720	Sandstone, gray, very fine grained-fine grained, calcareous, hard and tight, grades to siltstone.	
720-730	Sandstone as above, and sandstone, medium grained, subangular-subrounded, calcareous, argillaceous in part, salt and pepper.	
730-740	Shale and siltstone, green-gray green-gray. Shale firm-subwaxy. Siltstone hard, tight.	
740-750	Siltstone as above, grading to very fine grained-fine grained, calcareous, gray-green gray, sandstone.	
750-760	Sandstone, becoming subangular, coarse grained, conglomeratic appearance. Shale, dull green, waxy.	
760-800	Shale, green gray, green, firm, hard, and with siltstone, gray green, hard, all very calcareous.	
800-810	Limestone, brown-tan-buff, very fine crystalline-micritic, with sandstone, white-gray, fine grained, hard and tight. Shale and siltstone as above.	
810-830	Sandstone, gray-gray white, fine-medium grained, well sorted, calcareous, low porosity and permeability. Siltstone, gray, firm-hard.	
830-860	Sandstone, greenish white-gray white, medium-coarse grained, subangular-subrounded, salt and pepper, with pyrite, mica (biotite, muscovite), slightly friable, very calcareous, has fair porosity and permeability.	
860-870	Sandstone as above, with shale, green, firm, subwaxy.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
870-880	Siltstone, gray-light tan, grades to very fine grained sandstone, hard, tight.	
880-900	Sandstone, white-greenish white, medium-coarse grained, very calcareous, subrounded, fair sorting, fair porosity and permeability. No show.	
900-920	Limestone, buff-cream, trace brown, micrite, with some shale, dark gray to green.	
920-930	Sandstone, gray-gray white, very fine grained-fine grained, calcareous, tight, grades to light gray siltstone.	
930-950	Shale and siltstone, gray, firm, gradational.	
950-970	Sandstone, gray-slightly greenish gray, very fine grained-fine grained, calcareous, hard, tight. Also grading to siltstone.	
970-990	Sandstone, green gray, very fine grained-fine grained, slightly friable, calcareous, grades to siltstone.	
990-1010	As above, with shale, green-green gray, firm, subwaxy, trace sandstone, coarse grained, slightly friable, gray.	
1010-1020	Sandstone, medium-coarse grained, increasing. Shale and siltstone as above.	
1020-1040	Sandstone, white, gray white, green, medium-coarse grained, calcareous, argillaceous, subrounded, fair sorting, with black grains, chert grains, micaceous.	
1040-1070	Siltstone, gray, calcareous, firm. Shale, gray, firm, grades to siltstone.	
1070-1080	Sandstone, gray-green gray, fine-medium grained, calcareous, fair sorting; shale and siltstone as above.	
1080-1090	Shale and siltstone as above.	
1090-1100	Sandstone, gray-gray white, salt and pepper, medium grained, calcareous, fair sorting, abundant clay fill. Poor porosity and permeability.	
1100-1120	No samples.	
1120-1140	Sandstone as above, and sandstone from fine to trace coarse grained, conglomeratic appearance, with shale, green-blue green, trace limestone, buff-tan, very fine crystalline.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
1140-1160	Shale, dull gray green, subwaxy, firm. Siltstone, green, firm.	
1160-1180	Limestone, cream-buff, fine crystalline.	
1180-1200	Shale and siltstone, gray green and green, firm-hard.	
1200-1210	Shale, green and gray, subwaxy-waxy, firm-hard.	
1210-1220	As above, with siltstone and sandstone, very fine grained-fine grained, calcareous, tight.	
1220-1250	As above, with limestone, buff-cream, very fine crystalline. Limestone, sandy in part.	
1250-1280	Siltstone, and shale, gray-light gray, firm-hard.	
1280-1290	As above, with sandstone, gray and green gray, medium-coarse grained, slightly friable, calcareous. No show, fair porosity and permeability.	
1290-1300	No sample.	
1300-1310	As above (1280-1290).	
1310-1320	As above, with sandstone, dark green, very fine grained, abundant black grains, tight.	
1320-1330	As above, with sandstone, white-gray, fine grained, salt and pepper, and limestone, tan-buff, very fine crystalline.	
1330-1390	Sandstone, siltstone and shale, all gray to gray green, calcareous. Sandstone is very fine grained-fine grained.	
1390-1400	Marlstone, white-very light gray. Bentonite. (Note: calcareous-firm-very clean appearance.) Clay residue.	
1400-1410	Shale and siltstone, gray-green gray, firm-hard.	
1410-1420	Limestone, buff-tan-cream. Siltstone as above.	
1420-1440	Siltstone and shale, gray-light gray, very calcareous, firm. Also sandstone, gray, very fine grained-calcareous.	
1440-1460	As above, with limestone, tan-buff, argillaceous.	
1460-1470	Sandstone, gray-gray white, fine grained-very fine grained, slightly calcareous, and siltstone, gray, firm-hard.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY (Samples unlagged)</u>
1470-1550	As above, with sandstone, gray green-gray, fine grained-trace medium grained, bentonite, white, calcareous.	
1550-1560	As above, with shale and siltstone, tan-brown earthy appearance, firm.	
1560-1570	With sandstone, very fine grained, gray, argillaceous, and siltstone, gray, firm-hard.	
1570-1580	Marlstone (shale), brown-tan, calcareous, and with sandstone and shale as above.	
1580-1610	Sandstone, gray-green gray, very fine grained-fine grained, calcareous, and grades to siltstone, gray.	
1610-1620	Siltstone, gray, firm, and shale, gray-gray green-green, subwaxy, firm.	
1620-1640	Siltstone, shale, and sandstone, sand is very fine grained, calcareous, all gray-green gray-brown-tan, firm-hard.	
1640-1660	As above, with sandstone-siltstone, shale mostly gray-gray tan. Sandstone is very fine grained-fine grained.	
1660-1680	Sandstone, gray-gray white, salt and pepper, fine-medium grained, calcareous, friable. No show.	
1680-1690	As above, with siltstone, gray-white, calcareous, argillaceous. Bentonite.	
1690-1700	Siltstone and shale, gray and gray tan, firm, calcareous, with trace sandstone, gray, fine grained, calcareous.	
1700-1720	As above, with increase brown-tan siltstone and shale.	
1720-1730	As above, now mostly gray siltstone and shale.	
1730-1740	As above, with sandstone, gray-gray green, salt and pepper, fine grained, calcareous.	
1740-1760	Siltstone, light brown-tan, and gray, calcareous, very hard and tight.	
1760-1780	As above with red-dark brown, marlstone "oil shale", red, rusty, argillaceous siltstone.	
1780-1800	Siltstone, grades to sandstone, very fine grained, tan, gray, calcareous, argillaceous.	
1800-1820	Siltstone, gray-green gray, firm-soft, argillaceous, grades to sandstone, gray, very fine grained-fine grained. (predominately siltstone)	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
1820-1850	Shale or "marlstone", tan-brown-dark brown, rich rusty color, very calcareous-slightly calcareous.	
1850-1870	Shale, very calcareous, dark gray brown, firm, slightly subwaxy; also brown and gray tan-gray, calcareous shale.	
1870-1880	As above, with sandstone, gray, fine grained, salt and pepper, calcareous.	
1880-1930	As above, with dark brown, brown, earthy, slightly silty shale, calcareous; shale, chocolate brown, tan.	
1930-1950	As above, with sandstone, gray, fine grained, salt and pepper, calcareous.	
1950-2005	Shale, very calcareous, brown-dark brown, tan, grades to limestone, dull fluorescence. No cut.	
2005-2040	Shale, brown-tan, very calcareous, trace calcite filled fractures or veins, trace sandstone, gray, fine grained. Shale grades to argillaceous limestone.	
2040-2060	Shale, dark brown-chocolate brown, hard, very firm, calcareous, grades to limestone, argillaceous, abundant calcite filled veins.	
2060-2070	Shale-limestone as above, light tan, firm.	
2070-2140	As above, increase dark brown-chocolate brown, calcareous shale. Claystone, light tan, very soft.	
2140-2180	As above, with good increase claystone as above.	
2180-2190	No sample.	
2190-2240	As above at 2180'. Also with limestone, gray, tan, very fine crystalline, pyritic in part. Abundant gold (dull) fluorescence.	
2240-2280	As above, shale, very calcareous, graded to limestone, firm-hard, dull yellow fluorescence, claystone, light tan-tan, very soft, mushy.	
2280-2360	As above, increasing tan, soft claystone.	
2360-2400	Shale, dark brown-brown-tan, very calcareous, dull orange fluorescence; claystone, tan, soft, mushy. Pyrite.	
2400-2410	No sample.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
2410-2460	Shale, dark brown-brown, very calcareous, hard, dull orange yellow fluorescence, claystone, light tan-tan, very soft-mushy; pyrite.	
2460-2480	Shale as above.	
2480-2490	Shale as above, with possible gradation to limestone, brown, shaley, trace sandstone, white, clear, medium-coarse grained, friable, heavy tar globules.	
2490-2550	Shale, dark brown-brown, hard, very calcareous, and claystone, tan-brown, soft.	
2550-2560	As above, with trace sandstone, gray green, fine grained. No show. Heavy tar-asphalt on shaker.	
2560-2590	Shale, dark brown, hard-dense, very calcareous, orange fluorescence.	
2590-2630	Shale, dark brown-brown, very hard, brittle, very calcareous, orange fluorescence, "oil shale".	
2630-2650	As above, with sandstone, gray, salt and pepper, very fine grained-fine grained, siltstone, gray, very hard, tight, shale, gray.	
2650-2660	Siltstone, gray, hard, tight, calcareous.	
2660-2670	Limestone, tan-gray tan, very fine crystalline-argillaceous in part, trace fossiliferous.	
2670-2680	Sandstone, reddish tan-tan, fine grained, very calcareous, heavy oil globules in sand, brown oil stain, cut. No porosity and permeability. Heavy tar and asphalt on pits.	
2680-2690	No sample.	
2690-2700	Sandstone as above.	
2700-2710	No sample.	
2710-2730	Limestone and shale, brown-dark brown, very hard, brittle, gradational. Limestone in part appears dolomitic or grades to dolomite, free calcite.	
2730-2750	Poor samples, appears as above.	
2750-2780	Limestone and dolomite, brown-dark brown, very fine crystalline-dense.	
2780-2810	As above, with dolomite, dark brown, sucrosic, and claystone, tan, soft.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY (Samples unlagged)</u>
2810-2840	As above, with shale, dark brown, calcareous, firm, trace sandstone, gray, very fine grained-fine grained, calcareous.	
2840-2890	Shale, very dark brown, calcareous, hard-firm, grades to limestone.	
2890-2970	As above, with claystone, tan-brown, soft-firm.	
2970-3010	No samples.	
3010-3070	Shale, dark brown-tan, firm-hard, limestone, very argillaceous, grades to shale. Claystone, tan-brown, firm-soft.	
3070-3160	As above, with great increase in claystone, tan, soft, shale-limestone, dark brown-brown, firm, gradational.	
3160-3200	Shale, gray and brown-tan, organic rich, heavy oil (brown) viscous globules throughout samples and on shale faces and fractures, trace fine grained oil saturated sandstone.	
3200-3220	Shale, gray and brown-tan, firm, calcareous, scattered heavy brown viscous oil globules.	
3220-3240	Shale as above, limestone and dolomite, oil saturated, good cut, heavy black oil stain, trace sandstone, fine grained, slightly friable.	
3240-3280	Shale as above, very dark brown-black, in part heavy oil stain, strong odor on heat, abundant brown-black oil globules. No reservoir apparent. Shale will give cut. Circulated samples.	
3280-3300	As above, with limestone and dolomite, dark tan, trace very heavy oil stains, free black oil globules.	
3300-3330	Shale, tan and gray, gray is soft, micaceous, tan as above, but no oil stain.	
3330-3350	Shale, green-gray, silty, and siltstone-sandstone, gray-green gray, sandstone is very fine grained. No show. Trace sandstone, fine grained, white, few black grains. No show.	
3350-3360	Sandstone, white-gray-white, fine grained-very fine grained, well sorted, rounded, calcareous, scattered black residue in sand grains, yellow cut, poor porosity and permeability.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY (Samples unlagged)</u>
3360-3370	Shale, gray, calcareous, and siltstone, gray, argillaceous.	
3370-3400	Sandstone, white, tan white, medium grained-coarse grained, slightly consolidated to loose, slightly calcareous. Black residual oil spots. In part good cut. No fluorescence. Poor show. Fair porosity and permeability. No gas increase.	
3400-3420	Shale, light tan-tan, calcareous, firm.	
3420-3480	Shale, dark brown-brown, organic appearance, firm, "oily", calcareous, trace brown and black heavy oil globules.	
3480-3490	As above, with shale, gray, soft-firm.	
3490-3530	Shale, tan-gray tan, very calcareous, hard, and shale, dark brown-brown, calcareous, firm-hard.	
3530-3550	Sandstone, white, fine grained, slightly friable-friable, black oil-tar residue, Siltstone, gray, firm-soft, argillaceous in part.	
3550-3590	Shale, light tan, gray, firm, and siltstone, gray, soft-firm, argillaceous.	
3590-3600	As above, with shale, brown and trace dark brown, firm-hard, scattered brown oil globules.	
3600-3610	Shale, light tan-light gray, soft-firm, calcareous, trace siltstone, gray, soft, argillaceous.	
3610-3640	Shale, tan-dark brown-brown, firm-hard, very calcareous, dull orange fluorescence.	
3640-3680	As above, becoming mostly dark brown, firm, "oily".	
3680-3710	As above, with shale, gray, soft, and trace siltstone and sandstone, gray, argillaceous.	
3710-3720	Shale, tan-brown, trace dark brown, very calcareous, firm-hard.	
3720-3730	As above, with siltstone and sandstone, gray, firm, calcareous; sandstone is very fine grained-fine grained, argillaceous.	
3730-3750	Shale, light tan, gray tan, very calcareous, grades to limestone, very fine crystalline-dense, argillaceous, becoming darker gray in last sample.	
3750-3760	Shale, tan-brown-dark brown, soft-firm, very calcareous, organic appearance.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
3760-3790	As above, with shale, gray-green gray, subwaxy, firm.	
3790-3830	Shale, tan-dark brown, very calcareous, soft-firm, organic appearance.	
3830-3860	Shale, brown-dark brown, calcareous, "oily", "marlstone".	
3860-3870	As above, with limestone, light tan, very fine, possibly very fine grained, oolitic.	
3870-3880	Shale, gray and light tan, very calcareous, firm to hard.	
3880-3890	Siltstone, white-gray white, very clean appearance, calcareous, hard and tight. Sandstone, white-gray, silty-shaley. No show.	
3890-3900	As above, with shale, light tan-gray, calcareous, firm.	
3900-3910	Shale as above, with shale, dark brown-tan, very calcareous, firm-hard.	
3910-3940	Shale and siltstone, light gray, firm to hard. Actually more siltstone than shale and may grade to very fine grained sandstone.	
3940-3960	As above, with sandstone, white and gray white, very fine grained-fine grained, slightly calcareous, hard and tight. No show. (3950-3960 Sandstone, tan, very calcareous to sandy limestone.)	
3960-3980	As above, with shale, gray, soft-firm, calcareous.	
3980-4000	Shale, gray and gray tan, firm, blocky, calcareous, subwaxy in part, and with siltstone, gray, firm, very argillaceous.	
4000-4030	As above, with shale, dark brown, soft, very calcareous, "oil shale", increasing toward base of interval.	
4030-4040	Shale, gray, firm-hard, calcareous, and siltstone, gray, calcareous, argillaceous.	
4040-4050	As above, with sandstone, white-gray, very fine grained-fine grained, calcareous, very hard, tight. No show.	
4050-4090	Shale and siltstone, gray, calcareous, shale is blocky and subwaxy in part.	
4090-4120	As above, with shale, dark brown-brown, soft-firm, calcareous, limestone, tan-brown. "Oil shale".	
4120-4130	No samples.	
4130-4190	Shale and limestone as above, tan-dark brown, "oil shale".	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
4190-4260	Shale, gray-green-gray green, subwaxy-calcareous, siltstone, gray, grades to sandstone, greenish gray, very fine grained. No show.	
4260-4270	As above, with sandstone, white, very fine grained, slightly calcareous, hard and tight.	
4270-4280	Shale, gray-green gray, subwaxy, and shale, tan-brown, very calcareous, grades to limestone, tan, argillaceous. "Oil shale" in part.	
4280-4290	No sample.	
4290-4310	Shale, tan-brown-dark brown, very calcareous, "oil shale", scattered sandstone, white, very fine grained, tight.	
4310-4320	Shale as above, with shale, gray-green gray-green, subwaxy, firm.	
4320-4380	Shale, gray and green, subwaxy, calcareous in part, with siltstone, white-gray, firm-hard. No shows.	
4380-4390	Sandstone, gray, very fine grained-fine grained, scattered black oil residue, fair porosity and permeability, good streaming, milk white cut, fair show. 200+ units gas.	
4390-4400	No sample.	
4400-4420	Shale, tan-brown-dark brown, very calcareous, "oil shale".	
4420-4430	As above, with shale, gray-gray green, subwaxy, calcareous, and siltstone, gray, firm.	
4430-4440	As above, with sandstone, fine grained, white-clear, subrounded, well sorted, friable, oil residue in specks, good white cut, fair porosity and permeability and show.	
4440-4480	Shale, gray-gray green, subwaxy, firm, and siltstone, gray, firm. Still some brown oil shale.	
4480-4500	Shale and siltstone as above, no "oil shale".	
4500-4550	As above, with brown "oil shale".	
4550-4580	Shale and siltstone, gray-gray green, subwaxy shale, firm-hard siltstone.	
4580-4650	As above, with scattered tan-dark brown, calcareous, shale and sandstone, white, fine grained. No show.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
4650-4660	Shale, gray and green gray, subwaxy, calcareous, firm.	
4660-4680	As above, with siltstone, gray-dark gray, calcareous, firm-hard.	
4680-4690	Shale, dark brown-tan, very calcareous, organic appearance, soft-firm, "oil shale".	
4690-4700	Siltstone-sandstone, very fine grained, white-gray white, clean appearance, calcareous in part, hard and tight.	
4700-4720	As above, becoming dark gray and very argillaceous, and with shale, pale green gray, subwaxy, firm.	
4720-4730	No sample.	
4730-4760	Shale, brown-dark brown-black, soft-firm, very calcareous, "oil shale".	
4760-4770	As above, with trace limestone, tan, oolitic, trace red and maroon shale.	
4770-4780	As above, with shale, gray-green gray, subwaxy, firm.	
4780-4790	As above, with increase shale, dark brown-black, firm, very calcareous.	
4790-4800	Shale, gray, oolitic in part, subwaxy, soft, firm, and shale, dark brown, very calcareous, with oolitic gray limestone, ostracodal limestone. Shale also has ostracods.	
4800-4830	Shale and siltstone, gray, calcareous in part, firm-hard.	
4830-4840	Sandstone, white, very fine grained-fine grained, slightly calcareous, slightly friable. No show.	
4840-4870	As above, with shale and siltstone, gray-green gray.	
4870-4900	Shale, gray, firm, calcareous.	
4900-4910	Shale, dark brown, calcareous, in part fossiliferous, and dolomite, brown, tan. Limestone, tan-brown, fragmental, oolitic and/or ostracodal.	
4910-4920	As above, with sandstone and siltstone, gray, calcareous. Sandstone is very fine grained, argillaceous.	
4920-4930	Shale and siltstone, gray, calcareous.	
4930-4940	Sandstone, white, light gray-white, very fine grained-fine grained, calcareous, tight.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
4940-4950	Shale and siltstone, gray, calcareous, with sandstone, gray, very fine grained, argillaceous. Limestone, tan-brown, fossiliferous, and shale, dark brown, very calcareous.	
4950-4960	Mostly gray shale and siltstone as above.	
4960-4970	As above, with shale, very dark brown-black, calcareous, "oil shale".	
4970-4990	Shale and siltstone, gray-light gray, calcareous, firm.	
4990-5010	As above, with sandstone, white, very fine grained, slightly calcareous, hard and tight. No shows.	
5010-5020	Sandstone, white, very fine grained, clean appearance, calcareous, hard and tight. No shows.	
5020-5030	No sample.	
5030-5040	Shale, gray, calcareous, subwaxy, with siltstone, gray, calcareous, argillaceous.	
5040-5060	Shale, gray-dark gray, subwaxy, blocky in part, firm.	
5060-5070	Shale, gray-gray tan, subwaxy, calcareous, firm, trace limestone, tan, ostracodal.	
5070-5080	With shale, green, green gray, and shale, dark brown-brownish black, "oil shale".	
5080-5090	As above, with siltstone, white, calcareous, hard, grades to sandstone, white, very fine grained. No show.	
5090-5120	Shale and siltstone, gray, calcareous, firm-hard.	
5120-5130	As above, with shale, dark tan-dark brown, soft-firm, very calcareous.	
5130-5140	Sandstone, tan, very fine grained-fine grained, slightly calcareous, dull yellow fluorescence, possible oil stain, cut on drying dish. No effective porosity and permeability. Poor show.	
5140-5150	Shale-siltstone, gray and green, subwaxy. Shale, calcareous, firm. Trace sandstone as above.	
5150-5160	Shale and siltstone as above, now mostly gray, with sandstone, white, very fine grained-fine grained, white fluorescence, slow white cut, very slightly friable, poor porosity and permeability.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY (Samples unlagged)</u>
5160-5170	Sandstone, white-tan, very fine grained-fine grained, calcareous, brown oil stain, good quick streaming cut, slightly friable, fair porosity and permeability. Fair show.	
5170-5190	Shale-siltstone, gray as above, with shale, tan-brown-black, very calcareous, and limestone, tan, argillaceous, fossiliferous, and oölitic in part. (In part, oil shale.)	
5190-5210	Shale, gray and green, subwaxy, blocky, very calcareous.	
5210-5220	Siltstone-sandstone, gray-green gray, argillaceous, calcareous. Sandstone is very fine grained, tight. With shale, gray, firm.	
5220-5240	As above, but with great increase shale as above, and shale, green, gray, slightly blocky, subwaxy. (5230-5240 Shale 100%.)	
5240-5250	As above, with siltstone, gray and gray white, sandstone, white-gray, very fine grained, calcareous, tight.	
5250-5260	As above, with shale, tan-dark brown, very calcareous.	
5260-5270	Shale, gray, firm, siltstone, gray-white, calcareous, and sandstone, white, very fine grained, calcareous, hard and tight.	
5270-5290	Shale and siltstone as above, and with shale, slightly tan-tan, very calcareous, firm.	
5290-5300	No sample.	
5300-5350	Shale, dark brown-black, organic, very calcareous, "oil shale".	
5350-5380	With shale, gray and green gray, subwaxy, firm.	
5380-5400	Siltstone, gray, calcareous, hard and tight, and sandstone, gray, very fine grained, calcareous, tight.	
5400-5430	Shale and siltstone, gray, calcareous, firm-hard, with sandstone, very fine grained, calcareous, hard and tight.	
5430-5440	Shale, gray, subwaxy, blocky, firm.	
5440-5450	No value, trip sample.	
5450-5470	Shale, gray, light green, green gray, subwaxy, calcareous, soft-firm.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
5470-5480	As above, with shale, dark brown-tan, very calcareous, and trace sandstone, coarse grained, conglomerate appearance.	
5480-5490	Shale, gray, green gray, fissile, platy, subwaxy-waxy; limestone and dolomite, reddish brown.	
5490-5500	Shale as above, with shale, tan-brown, calcareous, and still with abundant reddish brown and orange red dolomite and limestone.	
5500-5550	As above, mostly shale, gray, green gray, brown. (Still with abundant limestone-dolomite, reddish brown.)	
5550-5590	Shale as above, with scattered sandstone, tan, slight oil stain, slow cut, and limestone, brown-orange, and dolomite, brown. (Poor show in sand.)	
5590-5600	Sandstone, tan-white, fine grained and trace coarse grained. Fine grained sandstone, slightly calcareous and slightly friable, no cut, possible scattered oil stain, poor porosity and permeability, no fluorescence. Sandstone, white-green, coarse grained, white, subangular, slight streaming cut, trace porosity and permeability, poor show; abundant dark brown-black shale, "oil shale" in samples.	
5600-5620	Shale, green, gray, tan, slightly waxy-blocky, calcareous; trace brown-black, carbonaceous shale. Limestone and dolomite, brown-tan, very fine crystalline, hard. (Note: lagged coarse grained sandstone back to 5600'.)	
5620-5640	Shale, gray, green gray, and black, slightly waxy-blocky; with siltstone, gray, argillaceous.	
5640-5650	Siltstone, and sandstone, white-gray-tan, calcareous, argillaceous in part. No shows. Sandstone is very fine grained, tight.	
5650-5670	As above, but with increase sandstone, very fine grained-fine grained, calcareous, argillaceous, soft-firm.	
5670-5680	Sandstone, brown-tan, very fine grained, calcareous, slightly friable, argillaceous sand.	
5680-5700	Sandstone, brown, heavy oil stain, good cut, sand is calcareous and very argillaceous, oil saturated, poor porosity, good show.	
5700-5710	Sandstone as above, with sandstone, gray, with heavy tar residue throughout, poor porosity and permeability, no fluorescence, excellent cut.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
5710-5730	As above, with shale, gray and green gray, fissile, subwaxy, calcareous.	
5730-5740	Shale, gray, green, green gray, and tan, subwaxy, platy, fissile in part, calcareous, with sandstone, in small part as above.	
5740-5750	Shale as above, with shale, dark brown-black, calcareous, soft, carbonaceous or organic appearance.	
5750-5770	Shales as above, with sandstone, dark brown, oil stained, saturated, very fine grained-fine grained, very calcareous and argillaceous, friable, mushy, dull yellow fluorescence, rapid yellow white cut, poor porosity, good show.	
5770-5780	As above, with shale, increase gray-green gray, firm, calcareous, and fissile, platy. Sandstone as above, dull fluorescence, good yellow white cut, poor porosity and permeability, due to clay or argillaceous content.	
5780-5810	Samples as above, increase shale towards base of interval.	
5810-5830	Poor samples after DST. Mostly shale, gray and green gray, subwaxy, calcareous, fissile.	
5830-5860	Shale, gray, green, tan and brown-dark brown, calcareous, firm, blocky and fissile.	
5860-5890	As above, with siltstone, gray, calcareous, firm.	
5890-5920	As above.	
5920-5940	Shale and siltstone, gray and tan, calcareous, firm. Trace sandstone, tan, very fine grained, calcareous, tight.	
5940-5980	Shale, dark brown, black brown, soft-firm, very calcareous, "oil shale", very organic appearance.	
5980-5990	Shale as above, with sandstone, brown-tan, very fine grained, slightly friable, oil stain, yellow white fluorescence, streaming cut, poor porosity and permeability, fair show, and with limestone, tan-brown, very fine crystalline, soft.	
5990-6010	Shale, gray and green gray, soft-firm, calcareous; and limestone, white-light tan, very fine crystalline-slightly mushy, soft appearance; and trace sandstone and siltstone, gray. Sand is very fine grained, all very calcareous.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
6010-6020	Sandstone, white-gray white, very fine grained, very calcareous, friable to firm. No show. Siltstone, white-gray, hard, calcareous, with gray-tan-brown shale. Limestone, white, gray, soft.	
6020-6040	Shale, dark brown-black, soft, very calcareous.	
6040-6050	Shale, gray-green gray, firm, platy, calcareous, with siltstone and sandstone; sand is very fine grained-fine grained, both are calcareous, slightly friable-firm.	
6050-6100	As above, with sandstone, white-gray, fine grained-medium grained, very calcareous, slightly fluorescence, very slow cut, no porosity and permeability, poor show. Sand-shale interbedded.	
6100-6120	Shale, dark brown-blackish brown, soft-firm, very calcareous, "oil shale". Still with abundant siltstone and sandstone, very fine grained.	
6120-6130	Shale, gray-green gray, subwaxy, very calcareous, firm.	
6130-6140	Shale as above, with siltstone, gray, calcareous, and sandstone, very fine grained, calcareous, slightly friable. No show. Limestone, white-soft mushy.	
6140-6150	Sandstone, white-gray white, fine-medium grained, very calcareous to limey, micaceous, few red, orange and green grains. Trace oil stain, no fluorescence, slight yellow cut. No porosity and permeability. Poor show.	
6150-6170	Shale, gray and green gray-green, firm, calcareous, and siltstone, gray-white, calcareous, soft. Limestone, reddish brown, very fine crystalline-dense.	
6170-6190	Shale, gray, greenish gray, gray green, subwaxy, calcareous, soft, and shale, brown, slightly reddish brown, soft-firm, very calcareous. Limestone, reddish tan, brown-orange, dense. Sandstone, fine grained, gray, and brown oil stain, very slow white cut, no fluorescence, slightly friable in part, very calcareous and argillaceous. No porosity and permeability. Poor show.	
6190-6200	Essentially as above, with few fossil fragments and fossiliferous shale.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
6200-6220	Shale, gray, green, tan, subwaxy-waxy, calcareous, fissile in part, splintery, and shale, dark brown, very calcareous. Limestone, tan, brown, reddish brown, very fine crystalline-dense, trace fossiliferous. Marlstone, reddish brown.	
6220-6240	As above, with increase in limestone, dark reddish brown-tan, brown, and shale, dark brown-blackish brown.	
6240-6260	As above, still increasing in dark brown-black shale, and limestone, dark brown-brown, very fine crystalline-dense, dolomite, brown-red brown. Shale-marlstone, reddish brown, red.	
6260-6280	Shale, gray, green, brown, red, orange red, and dark brown-black. Abundant reddish brown-brownish red, very calcareous shale-marlstone. Shales, especially gray, green and brown, subwaxy-waxy-highly fissile.	
6280-6300	Shales as above, predominately gray, green, browns. Abundant varicolored shales, including brownish reds, and red. Trace sandstone, very fine grained, white, spotted black oil stain, slow cut, fair porosity and permeability, fair show.	
6300-6310	Shale as above, but 80% dark brown-brown black, organic appearance, soft-firm.	
6310-6320	Shale as above, increase varicolored.	
6320-6350	Shale as above, increase dark brown-black brown, trace sandstone, fine grained-medium grained, white and gray, calcareous. No show. Fair porosity and permeability.	
6350-6360	Sample of no value.	
6360-6430	Shale, dark gray, dark brown-black, firm-hard, very calcareous; limestone, coal black, very argillaceous.	
6430-6460	Shale as above, with decrease in black, mostly dark tan-dark brown. Trace limestone as above.	
6460-6520	With shale as above, increase very dark brown-black, and limestone, black, dense.	
6520-6560	As above, with limestone, light tan-tan, in part fossiliferous, and sandstone, gray, salt and pepper, fine grained-medium grained, calcareous, trace coarse grained, subangular sand.	
6560-6570	Shale, tan-brown-dark brown, calcareous, and sandstone, white-clear, medium-coarse grained, salt and pepper, subangular-subrounded, calcareous, spotted oil stain, good yellow white fluorescence, sample cut on drying. Poor porosity and permeability. Fair show.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY (Samples unlagged)</u>
6570-6590	Sandstone, white-clear grains, with black, green, few red-tan grains, subangular-subrounded, fair sorting, calcareous, white yellow fluorescence, in part brown oil stain, yellow ring cut on drying. Fair show, poor porosity and permeability.	
6590-6600	Shale, gray, green gray, tan, calcareous, soft-firm. With limestone, tan-brown-dark brown, very fine crystalline-crystalline, in part fossiliferous, argillaceous.	
6600-6620	As above, with increase shale.	
6620-6630	Shale as above, decrease in limestone, with siltstone, gray, argillaceous, soft, trace brown, tan, and reddish brown, soft shale.	
6630-6660	Shale, varicolored, soft, and limestone, dark brown, brown, tan, fossiliferous in part; sandstone, white-gray, salt and pepper, medium grained-coarse grained, very calcareous. No show.	
6660-6670	Shale, gray, green gray, tan, and siltstone, gray, slightly salt and pepper, firm. Still carrying limestone, brown, crystalline, fossiliferous. Trace red, calcareous shale.	
6670-6680	Shale and siltstone as above, with sandstone, white and gray, very fine grained-fine grained, argillaceous and calcareous; sandstone, gray and tan, dull oil stain, poor porosity and permeability. No fluorescence or cut.	
6680-6700	Siltstone, gray, green, slightly salt and pepper, very calcareous, and sandstone, white-gray-green, very fine grained, calcareous, all soft-firm.	
6700-6720	Sandstone as above, trace pink, fine grained sand, trace shale, red, maroon, brown.	
6720-6750	Siltstone and sandstone as above, and with sandstone, white-gray, salt and pepper, medium grained, subangular-subrounded, heavy tar stain, slight yellow cut. (uphole or stringers?)	
6740-6760	(lagged back) Sandstone, brown, oil stained throughout, medium grained, slightly calcareous, slightly friable, scattered dull yellow fluorescence, very slow to no cut, excellent cut on crushing; 30 units gas, oily taste, fair show, poor porosity and permeability.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
6760-6770	Siltstone, gray white, gray, very calcareous and argillaceous; abundant pyrite.	
6770-6790	As above with sandstone, very fine grained, gray, green gray, calcareous, argillaceous.	
6790-6810	Sandstone, white-gray white, slightly salt and pepper, very fine grained-fine grained, scattered blue white (dull) fluorescence, no cut, poor porosity and permeability, poor show.	
6810-6820	As above with shale, gray and green gray, subwaxy, trace shale, red, reddish brown.	
6820-6850	Shale, gray, green gray, and siltstone, gray, calcareous, argillaceous. Also abundant brick red and orange red siltstone and shale. First "red" sample.	
6850-6880	As above with sandstone, white, very fine grained, calcareous, slightly friable-hard and tight. No show.	
6880-6890	Sandstone, white, very fine grained-fine grained, calcareous, argillaceous. No show. Scattered varicolored shale, mostly red-brown-green.	
6890-6900	As above, with abundant red-brown shale and siltstone. Also shale, dark brown, very calcareous.	
6900-6910	Sandstone, white-gray-salmon pink, reddish, fine grained, salt and pepper, calcareous, argillaceous.	
6910-6940	As above, with shale, brick red, orange and brown, firm-soft. Shale, green, subwaxy.	
6940-6960	Shale, red, gray, green, subwaxy-waxy, calcareous in part, firm.	
6960-6970	As above, with sandstone, white, salt and pepper, fine grained, calcareous, trace blue white fluorescence, tight.	
6970-6990	Shale as above, with increase varicolored shale, maroon, brown, tan, purple, also trace varigated.	
6990-7030	As above, with siltstone, red, orange, calcareous and argillaceous.	
7030-7050	Shale as above, trace dark brown-black, calcareous.	
7050-7070	Shale, red, and varicolored, with sandstone, reddish, brown, pink-white, with black and green grains, fine-medium grained, subangular-subrounded, calcareous, hard and tight.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
7070-7080	Shale and sandstone as above, with sandstone, more flesh-salmon colored, increase in medium grained sandstone.	
7080-7090	Sandstone-shale as above, with siltstone, red, argillaceous.	
7090-7120	As above, with increase shale, decrease sandstone.	
7120-7180	Shale, varicolored, red and green predominate, and with siltstone, red-pink, argillaceous.	
7180-7200	Shale, red as above, and increase green and gray, waxy, splintery-fissile.	
7200-7220	As above, with sandstone, white-pink, salt and pepper, fine grained, calcareous, argillaceous.	
7220-7230	Shale, red, green, subwaxy-waxy.	
7230-7250	As above, with sandstone, white-pinkish, medium grained, subangular, salt and pepper.	
7250-7290	Shale, red and green, gray, subwaxy-waxy, fissile, slightly blocky, firm; with scattered sandstone, medium-coarse grained, subangular, calcareous throughout.	
7290-7370	Shale as above, with siltstone, red, argillaceous; shale varigated colors, full range.	
7370-7390	As above, with sandstone, red-white, medium grained, calcareous, salt and pepper.	
7390-7410	Shale, varicolored as above.	
7410-7460	Shale, varicolored, with interbedded siltstone, red and gray, trace sandstone, very fine grained-fine grained, argillaceous throughout.	
7460-7480	Sandstone, white-gray-pinkish white, salt and pepper, very fine grained- fine grained, calcareous, subrounded, fair sorting, argillaceous.	
7480-7500	Shale, varicolored, with red-green-gray predominating; with siltstone, red-reddish gray, calcareous.	
7500-7510	Sandstone, reddish white, fine grained, salt and pepper, very calcareous, argillaceous. No show. No porosity and permeability.	
7510-7520	Siltstone, and sandstone, light gray-gray tan, calcareous, argillaceous, firm. Sand is very fine grained. No porosity and permeability.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
7520-7550	Shale, varicolored, predominately brick red; with scattered siltstone, red, argillaceous.	
7550-7570	As above, with increase siltstone, and scattered sandstone, fine grained-medium grained, calcareous, slightly friable. No show.	
7570-7620	Shale and siltstone as above. DFSIDK	
7620-7630	Shale, red and green, subwaxy, firm, with abundant other various colors; with trace siltstone and sandstone.	
7630-7640	As above, with sandstone, white, pink white, reddish brown, salt and pepper, fine-medium grained, calcareous, slightly friable. No show.	
7640-7650	Shale and siltstone, trace sandstone as above, in part quartzitic. Increase in varigated shale.	
7650-7660	Shale, varicolored and varigated, subwaxy, firm, calcareous.	
7660-7670	As above, with siltstone and very fine grained sandstone, calcareous, red-brownish red, firm-hard.	
7670-7680	Siltstone, red orange-brick red, calcareous, firm-hard, with sandstone as above.	
7680-7690	As above, with significant increase in sandstone.	
7690-7700	Shale, varicolored, red-green-gray, and others, calcareous, firm.	
7700-7720	As above, with siltstone, red-orange, calcareous, hard.	
7720-7730	As above, with sandstone, white-pinkish white, gray, salt and pepper, medium grained, calcareous, slightly friable, subangular. No show.	
7730-7740	As above, with limestone, dark gray-black, oölitic.	
7740-7780	Sandstone, white, reddish white, gray, salt and pepper, very calcareous, subrounded, and with scattered dense limestone, in part oölitic; still abundant varicolored shale, blocky, waxy, fissile, firm-hard.	
7780-7800	Shale, varicolored and in part varigated, subwaxy-waxy, firm-hard, predominately red.	
7800-7820	Sandstone, white, fine-medium grained, salt and pepper, very calcareous. No show.	
7820-7850	Shale, red, with gray-green gray, firm.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
7850-7870	As above, with siltstone, orange red, red, and brownish red, argillaceous and calcareous, soft-firm; and sandstone, brown, slightly reddish, argillaceous, very calcareous. No show.	
7870-7900	Shale varicolored, red predominate.	
7900-7910	Shale as above, abundant caving after trip.	
7910-7920	Shale as above, with increase green gray and gray shale; also sandstone, very fine grained-fine grained, gray, calcareous.	
7920-7940	Shale, varicolored as above.	
7940-7960	Sandstone, white-greenish white, salt and pepper, with green, black, tan grains, medium grained-trace coarse grained, subrounded, fair sorting, calcareous, some clay filled, slightly friable. No show. No gas increase.	
7960-7970	Shale, varicolored, red and gray, subwaxy-waxy, however there is a decrease in red shale overall. Still sandstone as above.	
7960-7980	(Lagged back) Sandstone, white, salt and pepper, fine grained-medium grained, calcareous. No shows. No porosity and permeability.	
7980-8000	Shale, red, green gray and gray, subwaxy-waxy, red and gray 50-50. Sandstone as above decreasing.	
8000-8020	Shale as above.	
8020-8040	As above, with sandstone, gray and white, fine grained, slightly salt and pepper, calcareous, tight. No show.	
8040-8060	As above, with increase sandstone, and white, calcareous shale, and shaley, flakey limestone.	
8060-8080	Shale and sandstone as above, and with siltstone, red and gray.	
8080-8110	Shale, varicolored, and limestone, white, soft, flakey. Sandstone, white-gray, very fine grained-fine grained, calcareous.	
8110-8120	Shale varicolored, and siltstone, gray, argillaceous.	
8120-8140	As above, with sandstone, fine grained.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY</u> (Samples unlagged)
8140-8170	Shale varicolored, red and green gray predominately.	
8170-8200	Sandstone, white, salt and pepper, fine grained, calcareous. No show.	
8200-8240	As above, with shale, varicolored.	
8240-8270	As above, with shale, siltstone and sandstone interbedded.	
8270-8280	As above, increase sandstone, gray-white, fine grained, salt and pepper, calcareous.	
8280-8290	Sandstone, gray-gray white, salt and pepper, very fine grained-fine grained, calcareous; siltstone, gray, firm, argillaceous.	
8290-8300	No value - trip sample.	
8300-8340	Sandstone, white-greenish white, salt and pepper, fine-medium grained, subangular-subrounded, calcareous. No porosity and permeability. No show.	
8340-8390	As above, with sandstone decreasing; and shale, red, green gray, subwaxy. (Samples have abundant brown, dense limestone.) (Mineral fluorescence.) (Last 5 samples 50-50 sandstone-shale.)	
8390-8430	Sandstone, gray, very fine grained, calcareous, argillaceous, grades to siltstone, gray, argillaceous.	
8430-8440	Shale varicolored, siltstone-sandstone as above.	
8440-8460	Sandstone, white and gray, salt and pepper, with black, green, orange grains, fine-medium grained, calcareous, argillaceous, subangular-subrounded. No porosity and permeability. No show.	
8460-8520	Shale, varicolored, predominately brick red; with scattered and interbedded sandstone and siltstone.	
8520-8540	As above shale, with great increase sandstone, white, green gray, salt and pepper, calcareous, tight.	
8540-8560	Shale, red, firm; and sandstone, white-gray white, trace very glauconitic, fine grained, calcareous, soft-firm. No show.	

CUTTINGS - SAMPLE DESCRIPTION

<u>DEPTH</u>	<u>10' SAMPLES</u>	<u>LITHOLOGY (Samples unlagged)</u>
8560-8580	As above, increase sandstone.	
8580-8600	Shale, red, green, subwaxy, firm, in part calcareous; and siltstone, very argillaceous, red; still carrying some white sandstone as above.	
8600-8640	Shale and siltstone as above, with sandstone, white-gray, salt and pepper, fine grained, very calcareous, argillaceous. No show.	
8640-8660	As above, shale and siltstone as above, with decrease sandstone.	
8660-8670	Siltstone, gray, calcareous, argillaceous, and shale, red and increase gray, firm, gray, slightly blocky. Still scattered interbedded sandstone, fine grained.	
8670-8690	As above, with siltstone increasing; and sandstone, gray, very fine grained, argillaceous increasing.	
8690-8720	Shale, increasing siltstone and sandstone as above.	
8720-8790	Sandstone, gray, salt and pepper, very fine grained, calcareous; with shale and siltstone as above.	
8790-8810	Shale, varicolored, predominately red-gray and green. Still with some siltstone and sandstone.	
8810-8850	As above, with increase sandstone, white-gray, fine grained, salt and pepper, argillaceous, and calcareous.	
8850-8870	Siltstone, gray, argillaceous, and sandstone and shale as above.	
8870-8880	Siltstone as above, with gray shale, subwaxy.	

April 6, 1978 W. W. Stewart relieved by H. E. Hutton.

Depth	Description
8880-8890	AA/shale, red; and sandstone, white-gray, salt & pepper, fine grain, calcareous, argillaceous.
8890-8910	Shale, red and gray, subwaxy, firm/some tan, maroon and green etc.
8910-8920	AA/siltstone grading to very fine grain sandstone, gray, calcareous, argillaceous.
8920-8930	Shale, varicolored and siltstone AA.
8930-8990	AA with sandstone, gray salt and pepper, very fine to fine grain, calcareous.
8990-9010	AA with much gray, very fine to fine grain sandstone.
9010-9020	Shale, varicolored.
9020-9030	Shale AA with increase in gray, soft-firm; siltstone, gray argillaceous, an interbedded sandstone, white-gray, fine grain, salt & pepper, argillaceous.
9030-9060	Shale, mostly gray-green gray, soft-firm with siltstone and sandstone AA.
9060-9070	Shale, gray predominate/red-green.
9070-9090	AA/ trace of dark tan-gray dense limestone.
9090-9100	Shale, gray predominate/minor dark red/minor sandstone AA.
9100-9110	Shale, varicolored, predominately dark gray green/admixed dark maroon red and minor siltstone and sandstone, mica in part.
9110-9120	Shale, varicolored becoming predominately dark reddish brown and sandstone 15%. light gray-white, fine, subangular, fairly well sorted, fairly dense-friable, dark accessory, no show.
9120-9130	AA/increased sandstone 25%.
9130-9150	Sandstone, white, increased to 40%, and trace of pyrite.
9150-9190	Shale and sandstone, varicolored shales, dark brown, red-dark green gray-dark gray and salt and pepper, medium gray-white, fine, sub-angular to sub-round, fairly well sorted, friable/moderately abundant white clay matrix; sandstone 60%. No visible shows/dark mica accessory and trace of limestone.
9190-9200	AA/decreased sandstone.
9200-9210	Sandstone 30% and shale, white-light gray, fine, sub-round, dense-slightly friable, dark accessory, mica; and shale, varicolored, red brown-gray green, limy grades to crystalline limestone 10%.
9210-9220	Shale, varicolored AA, limy; limestone, dark brown, micro-crystalline, dense/trace calcareous (varicolors light gray-dark gray-dark reddish brown-black green gray and dark brown limestone).
9220-9260	Shales, varicolored AA/very decreased limestone, 5%/some minor sandstone, 5%-10%.
9260-9270	Siltstone-sandstone and shale; sandstone 20%, light gray-white, fine, sub-round, fairly sorted, dense-friable, dark accessory; siltstone-sandstone, 15%, moderate brown, fine-very fine, sub-round, well-fairly well sorted.
9270-9280	Shale 60%, varicolored, dark reddish brown-dark green gray, silty in part, calcareous-non calcareous/minor white clay. AA, predominately reddish brown, trace of dark brown limestone.

Depth	Description
9280-9290	AA, minor sandstone.
9290-9310	Sandstone 60%, light gray-light brownish gray, fine, sub-round fairly well sorted/dark black-brown accessory/some white clay in matrix shales, varicolored, reddish brown-gray green.
9310-9320	Shales, reddish brown, silty non calcareous-slightly calcareous/minor varicolor.
9320-9330	AA, minor silty.
9330-9340	Shales, predominately reddish brown, silty AA/admixed black and green gray/20% sandstone, white-brownish gray, fine, sub-round, fairly well sorted, no show.
9340-9350	Sandstone decreased.
9350-9360	Sandstone, brownish gray-white, fine, sub-round, -sub-angular, calcareous-clay matrix, fairly well sorted, mica, dark accessory, sandstone 60% grades to siltstone and varicolored shales AA.
9360-9370	AA/sandstone 5% and shales varicolored 95%.
9370-9440	Sandstone and siltstone, gray-brownish gray, fine-very fine, 10%; shale, varicolored, predominately reddish brown/green gray, medium gray and black.
9440-9460	Shales, varicolored, reddish brown, dark green gray, black and pinkish white clay/minor limestone, light gray white and dark brown, microcrystalline, limestone 5%; shales calcareous-non calcareous.
9460-9480	Sandstone, light gray-white, fine, subangular-subround, fairly well sorted, dark brown-black accessory, no shows. Shales, varicolored, calcareous-non calcareous AA. 50% each.
9480-9500	(trace of Tertiary Green River oil admixed-uphole oil), no gas detector kicks, no sand, no other show.
9500-9560	Shales, varicolored, black-green gray-reddish brown, calcareous-non calcareous, silty in part/minor sandstone and siltstone AA, 5%/maroon pinkish white and light gray clay.
9560-9630	Shales, varicolored, green gray-reddish brown-black-light gray/minor pinkish white clay/calcareous-non calcareous, slightly carbonaceous and pyrite in part, silty in part. Sandstone, white-light gray-brownish gray, fine, subround-subangular, fairly clean/dark accessory mica and minerals.
9630-9650	Shales, varicolored, calcareous-non calcareous 90%; limestone, dark brown, microcrystalline 5%. Sandstone, light gray, fine, subround to brownish gray 5%.
9650-9700	Shales, varicolored-gray-reddish brown-light gray/minor black, silty in part, calcareous-non calcareous and minor sandstone AA, no florescence, cut or stain 5% † sandstone.
9700-9720	Shales, varicolored, green gray-reddish brown-light gray, calcareous-non calcareous/some limestone, dark brown, microcrystalline, and trace of sandstone, very silty shale in part/very rare trace of carbonaceous shale grades to coal.
9720-9730	Shales, varicolored, predominately green gray/reddish brown, light gray and black, silty in part, some carbonaceous shale grading to coal, calcareous-non calcareous/limestone 10% dark brown, microcrystalline, dense, and minor sandstone AA, and minor white clay.
9730-9790	AA less limestone, more reddish brown.
9790-9800	AA, becoming sandier.

Depth	Description
9800-9820	Shales, varicolored, dark green gray-reddish brown-black, silty in part, calcareous-non calcareous, rare red-green mottled, minor carbonaceous shale grades to coal and sandstone (5% white-gray, clear-frosted, fine, subround, quartz grained, some white clay matrix, some limy matrix/dark accessory minerals, no show.
9820-9880	AA/coal increasing (less than 5%).
9880-9890	AA/minor dark brown-light tan, microcrystalline limestone. Limestone florescence dull yellow, not petroleum florescence? Minerals? Cuts to light yellow in trichlorethane (1 fragment florescence only), very very slight stain/ [±] 30% sandstone, light gray-white, frosty-clear quartz grains, fine-medium, subround-subangular, dark accessory.
9890-9920	<u>Very slight show.</u> Drilling break 9892-9903. Gas detector 2X show 56 units/39 unit background. Shales 65%, varicolored; sandstone 30%, white-light gray, frosty-clear quartz grained sandstone, mostly fine/some medium, subround limy-white clay matrix, dark accessory minerals, slightly porous, no observed show. Limestone 5% silty (limy siltstone), dark brown-light tan, microcrystalline, very dull yellow florescence (dead oil stain?), very slight stain when cut in trichlorethane/cut florescence light bright yellow gold. No visible porosity, dense.
9920-9930	AA, increased florescence but after trip (contaminated sample?)
9930-9970	Sandstone 50%, light gray-medium gray, fine, some medium, subround-subangular, white clay-limy matrix, dark accessory minerals, no obvious porosity or shows. Silty limestone 10% (limy siltstone) dark brown-light tan, microcrystalline; shales 40%, varicolor, silty, dark green gray-reddish brown-black, carbonaceous coal, calcareous-non calcareous.
9970-9980	Shales 40%. varicolor, AA and sandstone 40%, white-light gray, salt & pepper, clear-frosty quartz, fine, some medium, subround, fairly well sorted, white clay-limy matrix, dark accessory and siltstone, dark brown, very fine, subround, shaly, no visible shows.
9880-10020	AA, Sandstone 85%, very light salt & pepper, (with sand?)
10020-10040	Shales 90-95%, varicolored, predominately reddish brown, silty/light gray-dark green gray-black, trace of coal; shales, calcareous-non calcareous, less than 5% sandstone.
10040-10070	AA/15% sandstone to siltstone, brown, fine-very fine, subround. No shows/slight increased coal.
10070-10080	AA/20% siltstone-sandstone/less coal.
10080-10100	Shales 95%, varicolored, green gray-light gray-reddish brown-black, silty in part, carbonaceous-coal, calcareous-non calcareous, very little sandstone, less than 5% dark brown, dense, microcrystalline, silty limestone.
10100-10110	Shales varicolored AA and siltstone-sandstone, fine-very fine, 20% siltstone-sandstone.
10110-10120	AA/good coal, less than 5% sample.
10120-10140	AA siltstone-sandstone up to 30-35%/trace of pyrite coal, less than 5% sample.
10140-10170	Siltstone 15%, reddish brown, fine-very fine; and 15% sandstone, gray, fine, subround, dark accessory; and shales, varicolored, predominately reddish brown/light gray, green gray and black/rare coal fragments.
10170-10180	Missing sample.
10180-10200	Shales, varicolor-reddish brown-green gray-black, fairly silty, trace of mottled shale, calcareous-non calcareous-carbonaceous in

Depth	Description
	part/very minor sandstone and limestone fragments. <u>Lithology</u> <u>changing to darker colors.</u>
10200-10240	Shales AA/coal inclusions. Less than 5% coal and 10% sandstone, light gray-white, fine, subround, no shows.
10240-10280	AA/slight increased coal, still minimal, less than 5%, pyrite coals.
10280-10300	Shales, dark gray-dark gray green-dark reddish brown, silty, cal- careous-non calcareous, AA/good pyrite coal.
10300-10310	Shales, brown-reddish brown-medium green gray, silty in most, calcareous-non calcareous/minor black carbonaceous shales grading to coal; and sandstone, light gray, fine, subround, less than 5%.
10310-10320	AA/slight increased sandstone.
10320-10330	Shales AA.sandstone, light-dark gray-white, fine, subround, fairly well sorted, some white clay matrix, some limy matrix, dark access- ory minerals.
10330-10340	AA 30% sandstone, no visible shows and 5% coal, hard, black/pyrite interlaminations/some scattered, very rare, dull yellow mineral florescence in sample. Not a show.
10340-10360	Shales, dark green gray-brownish red-black, silty in part, calcareous to non calcareous-carbonaceous/trace pyrite coal; and sandstone, less than 10%, light gray-brownish gray, fine, subround, frosting, no shows/minor porosity.
10360-10370	AA/very silty shales.
10370-10375 }	Sample caught when show arrived.
10370-10380 }	Sandstone 60%, light-medium gray-white, fair sorting, subround, no shows/estimated 5-10% porosity, 5% black, pyrite, coal, shale 35%, green-gray-brown red-light gray-black varicolors. AA, good gas kick, 496/20, don't believe it is coal gas.
10380-10400	AA/admixed, trip slough 40% sandstone, 5%+ coal, rest shales, some coal slough.
10400-10410	Sandstone 40%, white-gray, fine, some medium, clear-frosted, sub- round, quartz grained sandstone, calcareous-white clay matrix/dark mica and accessory minerals, varicolors shales, 40% brown red, silty, 35%+ gray-green gray, tints-minor black/trace carbonaceous coal- some coal slough.
10410-10460	Shales 85%, varicolored, predominately green gray/reddish brown- black, silty in part, calcareous-non calcareous, sandstone 15%, light gray-white, clear-frosty, quartz grained, fine, subround, dark accessory, limy cement-decreasing downward.
10460-10480	AA/shales predominating, reddish brown; and shales becoming very limy grading to limestone to dolimitic (marlstone).
10480-10490	Shales AA 50%; and sandstone 50% white-gray, fine, subround, fairly well sorted, dense, limy cement.
10490-10510	AA, sandstone increased to 80%.
10500-10510	AA, sandstone 65%.
10510-10520	Shales, varicolored, green gray-reddish brown, some mottled/minor black-gray silty in part, calcareous-dolimitic-limestone 65%. Sandstone, white-tray, fine, subround, well sorted/dark brown-black accessory. Very dense, predominately limestone cement/trace chert fragments.

Depth	Description
10520-10530	AA, sandstone 50%, very dense, hard. Shale 35% AA, dolmitic, trace cherty shales, green gray-reddish brown. Limestone 15%, white, cryptocrystalline, chalky, hard.
10530-10540	AA/trace coal and trace of carbonaceous sandstone inclusions. Less limestone 5% [†] , sandstone 50%, shales 45%/minimal florescence in dark brown crystalline limestone.
10540-10570	AA, trace calcareous crystals; slight limestone increasing 22%. Sandstone 20%, shales 60%
10570-10580	/coal, black, hard, pyrite 5%/sandstone decreased to 5%.
10580-10600	Shales, dark gray-medium gray, silty, hard, calcareous-non calcareous grading to siltstone-very fine grained sandstone. (Siltstone-sandstone 15%)/small carbonaceous silty shale grading to pyrite coal 10% [†] . No shows/still moderate brown, red silty shales 10% and minor limestone 5% mostly gray to black tints.
10600-10610	Silty limestone 70% (or limy siltstone), light-medium gray, very fine cryptocrystalline, soft-firm, somewhat shaly and shale, dark-medium gray, carbonaceous part to reddish brown and silty, calcareous-non calcareous.
10610-10700	AA siltstones grade to sandstone, very limy cement, 80% sandstone-siltstone/trace coal/shales, dark gray green-gray-black/some reddish brown, no odor, florescence or cut, fairly tight sandstone.
10700-10800	Sandstone 30-60%, light-dark gray, fine/some medium, moderate sorting, subangular-subround, mostly calcareous cement/some white clay cement, fairly tight, friable-firm, no shows; siltstone, light-to medium gray, finr-very fine, subround, very limy, firm-soft; shales, reddish brown-green gray, silty, calcareous-non calcareous/minor black.
10800-10810	Sandstone 60%. medium-dark gray, satl & pepper, fine/some medium, subround in most, friable-firm, dark accessory, calcareous cement in most, no odor or show. Siltstone 20%, light gray, very fine-fine, subround, very limy; shales 20%, dark gray-reddish brown, calcareous-non calcareous, silty in part.
10810-10820	Sandstone increased to 70%, siltstone 15%, shale 15%.
10820-10830	Sandstone 40%, siltstone 20%, shale 20%.
10830-10840	Sandstone 30%, siltstone 40%, shale 30%/trace of coal/noticeable Tertiary Green River oil.
10840-10850	AA/minor coal less than 5% and some Tertiary Green River oil, no florescence, odor, cut or florescence cut.
10850-10870	AA 50% sandstone.
10870-10890	AA 60% siltstone, 20% sandstone, the rest shale.
10900-10920	Sandstone 70%, light-medium gray, fine-very fine, subround, frost-clear, fairly well sorted, quartz grains, limy to white clay matrix, dark accessory, salt & pepper, grades to siltstone; shales 25%, dark-medium gray to reddish brown/minor black, silty, calcareous-non calcareous; limestone 5%, white, microcrystalline-soft and coal and carbonaceous shales. Sandstone becoming more increased, silt porosity, no florescence, stain, cut or odor.
10920-10930	/trace more coal.
10930-10940	Less coal.
10940-10950	Sandstone AA decreasing to 50%, siltstone increasing/fairly noticeable
*Losing Circ.	coal fragments still less than 5%.
10950-10960	Still noticeable and slight increase in coal.
10960-10970	AA, decreased coal.
10970-10990	Sandstone 80%, light-medium gray, fine-some medium, subround, fairly
Lost Circ.	well sorted, dark salt & pepper accessory, limy-white clay, silt
Meager Samples	porosity, no stain, cut, odor or florescence. Shale 15%, reddish-
10970-11000	brown-dark gray, silty, calcareous-non calcareous; coal 5%,

Depth	Description
	carbonaceous shales and limestone, white, soft.
10990-11000	AA/slight increased coals.
11000 -11030	Sandstone 60%, medium gray-white, salt & pepper, fine-some medium, subround, fairly well sorted, dark accessory, limy-white clay matrix, slightly porous, no stain, florescence, odor or cut. Shales 35%, light-dark gray-medium green gray/minor reddish brown, silty, calcareous-non calcareous; coal 5% and carbonaceous shale, black, silty.
11030-11040	Sandstone 70%, increased medium grained sandstone/silt porosity.
11040-11050	Sandstone 60%, good clean sandstone (H ₂ O sandstone?).
11050-11070	Sandstone 80%.
11070-11090	Slightly decreased sandstone, 65%/slightly increased shale.
11090-11100	Slightly decreased sandstone, 50%/increased shale.
11100-11110	Shales, 60%, dark gray-dark green gray-light medium gray, silty, calcareous-non calcareous/minor reddish brown, silty, calcareous-non calcareous shale/trace of carbonaceous shale and coal. Siltstone 20%, light gray, fine-very fine, subround, shaley, calcareous-non calcareous; Sandstone 20%, medium-dark gray/minor white, fine-to medium, subround, fairly well sorted, dark accessory, limy-white clay matrix, very minor sandstone/trace of admixed coal laminated NOSCOF.
Trip 11112	
11110-11130	Shales, 70% dark gray; siltstone 20%, sandstone 10%/minor dark brown microcrystalline limy siltstone which florescence dull gold/cut florescence light yellow in less than 5% sample, very tight, no gas anomaly. Lag time 11130±110"
11130-11140	AA, still very silty show in dark brown microcrystalline limy siltstone, tight, 5% ⁺ pyrite coal, very little sandstone; shale 85%, less than 5% siltstone has show.
11140-11160	AA, shale very decreased. Total siltstone 15%, shale 85%/trace coal and sandstone only. (Lots of Lost Circulation mica).
11160-11170	AA, predominately shales.
11170-11180	AA, no shows.
11180-11200	Shales 85%, Medium gray-dark gray-black-reddish brown, hard, very silty in part, carbonaceous in part, calcareous-non calcareous; Siltstone 10%, dark-medium gray, very fine, firm-soft, limy-non calcareous/trace of florescence and cut in dark brown limy siltstone AA; Shales 5% and coal; sandstone, dark gray-black, salt & pepper, fine-medium, subround, moderately well sorted, limy in most and coal, black, shiny, firm.
11200-11210	Shales 80%, medium-dark gray-black, silty, carbonaceous in part, fairly firm, mostly non calcareous; siltstone 15%, medium gray, very fine-fine, subround, mostly non calcareous, firm-dense; sandstone 5% and coal AA.
11210-11220	AA, shales 90%; siltstone 10%; sandstone and coal minimal.
11220-11230	AA, siltstone 10%, sandstone and coals less than 5%, shales 85%.
11230-11240	AA/5% plus coal containing trace of pyrite.
11240-11250	Shale, 75%, medium-dark gray-black-green gray/minor reddish brown, silty, carbonaceous in part, mostly non calcareous; siltstone 10%, medium gray-very dark gray, very fine-fine, dense; sandstone 10%, medium-dark gray, firm subround, fairly well sorted, tight, dense, mostly limy cement, no shows; coal 5%.

Depth	Description
11250-11260	AA, coal decreasing.
11260-11270	AA, sandstone 15%, coal 5%, siltstone 5%; rest shale.
11270-11290	AA, shales 85%; sandstone 5%, siltstone 5%, coal less than 5%.
11290-11300	Shales 85%, dark gray-dark green gray-reddish brown, silty, firm, mostly noncalcareous; sandstone 10%, light gray-gray white, slightly salt & pepper, fine, subround, fairly well sorted, dark accessory/limy cement in most/some white clay matrix; siltstone 5%, dark gray, fine-very fine, subround, dense/minor coal.
11300-11340	AA 20%-40% sandstone, siltstone 10%, rest shale, no shows.
11340-11370	Siltstone 30%, dark gray-black, very fine-fine, slightly shaley, limy grades to 40% sandstone, medium-dark gray, slightly salt & pepper, fine to medium, subround, fairly well sorted, limy-crypto-crystalline, dark accessory; shale 25%, dark gray-green gray-reddish brown, mostly non calcareous, less than 5% coal and carbonaceous sandstone-shale; no florescence, cut or odor, slightly porous.
11370-11380	AA, sandstone 80%/some siltstone and the rest shale. No florescence cut, odor, moderately porous, no shows.
11380-11440	Sandstone 80%, light gray, salt & pepper, fine to medium, subround, fairly well sorted, moderately porous, clean, dark accessory, NOSCOF; shale 20% and siltstone AA.
11440-11470	AA, sandstone decreasing, less that 60%/increased green gray shales. Still NOSCOF.
11470-11480	Shale 50%, black-medium gray-dark gray-green gray/some reddish brown, silty, noncalcareous in most; sandstone 50%, light gray salt & pepper, fine to medium, subround, fairly well sorted, limy matrix most, clean, NOSCOF, moderately porous, H ₂ O? sandstone/some white clay matrix in part.
11480-11500	AA, shales 80%/some admixed, very dense, limy siltstone.
11500-11510	Shales 90%, medium gray-dark gray/minor black and reddish brown, firm, mostly noncalcareous; siltstone and sandstone 10%, dark-medium gray, very fine-fine, subround, dense, non porous/minor dark brown, dense limy siltstone/gold florescence in dark brown siltstone. Less that 2-3% sample, no other show.
11510-11530	AA, no florescence.
11530-11560	AA/5%-less than 10% dark gray siltstone, very fine, subround, dense.
11560-11590	AA/increased siltstone 20%/10% sandstone.
11590-11720	Shales, medium green gray-gray-dark gray/minor black and very minor reddish brown, slightly silty, non calcareous in most; sandstone 20-6-%, dark-medium gray, salt & pappet, medium-fine, subangular-subround, fairly well sorted, dark accessory, limy cement mostly/minor white clay matrix, slightly porous, no shows, grades to siltstone.
11720 -11800	Sandstone 25%-50%, mdium-dark gray, salt & pepper, fine-medium, subangular-subround, fairly well sorted, dark accessory, slightly porous, NOSCOF/limy cement in most and minor white clay matrix;
11800-11820	shale 70%, medium-dark gray-medium green gray/minor black and reddish brown, silty, mostly non calcareous; shale less than 5%, dark gray-black, very carbonaceous and coal. Sandstone 60%, medium-light gray, salt & pepper/minor white, medium-fine, subangular-subround, fairly well sorted, slightly porous, dark accessory, limy cement mostly/some white clay matrix. NOSCOF. Shales 40%, dark-medium gray-green gray/some black and reddish brown in very minor quantity, carbonaceous in part, silty, non calcareous in most/grace of coal.
11820-11840	AA/slightly increased white clay matrix in sandstone.
11840-11850	AA/sparse coal admixed.
11850-11870	/slight increased coal, less that 5%.

Depth	Description
11870-11880	AA/sandstone decreased to 50%-very little coal.
11880-11890	AA/sandstone decreased 40% and slightly increased white clay matrix.
11890-11900	AA/40% sandstone.
11900-11920	Shale 80%, dark gray-medium dark gray-black, silty in part, carbonaceous in part, firm/minor reddish brown shale, non calcareous in most. Noticeable bit shavings 910-920; sandstone 20%, white-medium-dark gray, salt & pepper, medium-fine, subangular, subround, fairly well sorted, dark accessory, limy cement in most/minor white clay matrix, slightly porous, NOSCOF.
11920-11930	AA/sandstone decreased to 15%, trace of coal.
11930-11940	AA/very minor admixed, dark brown, limy siltstone/dead oil fluorescence, dark yellow, slightly white/light gold cut florescence, very tight, no porosity, no odor, no gas kick.
11940-11990	AA/trace of good quality coal.
11990-12020	Shale 60%, dark-medium gray, silty, carbonaceous in part, non-calcareous, firm; sandstone 40%, medium-dark gray, salt & pepper, medium fine grained, quartz, subround mostly/some subangular, fairly well sorted, dark accessory, limy cement, slightly porous, NOSCOF; trace of good quality coal, very minimal, less than 1% [±] estimated.
12020-12040	Recommend testing. Sandstone decreasing to 30%. SLM for DST at 12040 Correct depth to 12035'.
12040-12070	Shale 50%, dark gray-dark medium gray-black, silty, very carbonaceous in part, mostly non calcareous. Siltstone 40%. dark gray, very fine-fine, subround, firm, grades to 10% [±] sandstone, light-medium gray, fine to very fine, subround, fairly well sorted, firm-tight, NOSCOF; less than 5% minimal coal.
12070-12080	AA/sandstone increased to 30%, very little porosity, no show; siltstone 30% AA; and shale 40% predominately dark-dark medium gray, very carbonaceous and non calcareous/very minor reddish brown shale, still minimal coal, less than 5%.
12080-12100	Sandstone increased to 40%.
12100-12110	Shale 80%, dark gray-black-dark medium gray, very carbonaceous, silty, non calcareous, mostly some brades to low quality coal; siltstone 15%, dark gray-black, very fine-fine, subround; sandstone 5%, light gray, salt & pepper, medium, subround, well frosted, friable, slightly porous to no visible shows.
12110-12120	AA, sandstone increased to 50%.
12120-12150	AA, sandstone increased to 70%.
12150-12160	Sandstone 50%,
12160-12190	Shale 45%, dark-medium dark gray-black, silty, carbonaceous in much, mostly non calcareous; sandstone 50%, light gray-white, medium-fine, subround, fairly well sorted, dark accessory, mostly limy cement, slightly porous, NOSCOF; many loose quartz sand grains; less than 5%-minimal scattering of dirty coal.
12190-12200	AA/coal increased but still less than 5%.
12200-12220	Shale 70%, dark-mudium dark gray-black, silty, very carbonaceous in most, non calcareous most. Sandstone 25%, medium-dark gray, salt & pepper, fine-medium, subround, fairly well sorted, limy cement mostly, dark accessory, slightly porous, NOSCOF. Coal 5% [±] , silty, dirty, poor quality.

Depth	Description
12220-12240	AA, less than 20% sandstone.
12240-11260	AA/40% sandstone.
12260-12270	AA/decreased sandstone to 20%.
12270-12290	AA/40% sandstone and slightly increased coal.
12290-12300	AA/20% sandstone.
12300-12330	Shale 70%, dark gray-medium dark gray-black, silty, (40% sample very carbonaceous) sandstone 30%, dark-medium dark gray, medium-fine, subround, fairly well sorted, dark accessory, limy cement, NOSCOF, slightly porous.
12330-12340	Sandstone increased-50%/noticeable coal.
12340-12350	/slightly decreased coal.
(12350-12356)	Gas up from drilling break, AA-samples sandstone increased 60%.
12350-12360	" " " " " " " " " " "
12360-12370	AA, sandstone decreased to 30%.
12370-12400	Sandstone 60% AA, 40% very carbonaceous shale and coal AA. Corrected depth @12400 SLM to 12404
12405-12410	AA, much tripslough, sample contaminated with spilled rig oil, NOSCOF.
12410-12420	Shale, medium gray-dark gray-black, silty, very carbonaceous, non-calcareous in most/admixed reddish brown, silty, non calcareous shales; sandstone, medium-light gray, salt & pepper, medium, quartz, subround, fairly well sorted/ dark accessory, limy cement, slightly porous/still noticeable slough.
12420-12440	Shale 70%, medium-dark gray-black, silty, very carbonaceous, mostly non calcareous/minor reddish brown; sandstone 30%, medium-light gray, salt & pepper, medium-fine grained, subround, fairly well sorted, dark accessory, limy cement mostly, slightly porous, NOSCOF.
12440-12450	AA, sandstone increased to 60%.
12450-12460	AA, shale 70%, sandstone 30%.
12460-12470	AA, sandstone increased to 60%, shale decreased to 40%; sandstone, clean and lighter gray.
12470-12480	AA, sandstone less than 5% carbonaceous; shale 95%.
12480-12500	Sandstone 50%, light-medium gray, salt & pepper, medium, subround, well sorted, frosty, quartz grains, some dark accessory, mostly limy cement, medium porous, clean looking, water?, sand?; shale 50% medium-dark gray-black, silty, very carbonaceous, mostly non calcareous/minor low quality coal. NOSCOF.
12500-12510	Sandstone increased to 75%, very clean and moderately porous-water?
12510-12520	Sandstone decreased to 25%.
12520-12530	Sandstone increased to 40%; shales very carbonaceous/some low quality coal.
12530-12540	AA, sandstone decreased to 30%/30% siltstone.
12540-12560	AA, sandstone decreased to 15%/20% siltstone.
12560-12600	AA/sandstone 60%/moderately poor quality coal, containing an abundant pyrite.
12600-12610	Sandstone 60%, light-medium gray, salt & pepper, medium-fine, sub-round, well sorted, dark accessory, limy cement, some porosity. Shale 40%, dark gray-black, silty, non calcareous, very carbonaceous.
12610-12640	50% each.
12640-12650	Sandstone 60%, medium porosity.
12650-12690	Sandstone 75%.
12690-12700	AA, sandstone decreased to 60%.
12700-12710	Shale 60%, dark gray-black, silty, very carbonaceous; sandstone 40%, medium-light gray, salt & pepper, medium, subround, well sorted, frosty quartz, slightly porous, grains/dark accessory, limy

Depth	Description
	cement, no shows.
12710-12720	Shale 70%.
12710-12740	AA/sandstone decreased to less than 5% but containing 20% dark gray carbonaceous siltstone.
12740-12750	Sandstone 60%, dark-medium gray-brownish gray, salt & pepper, fine-medium, subround, fairly well sorted, dark accessory, limy cement, friable, slightly porous but fairly tight, NOSCOF. Shale 40%, dark gray-black, silty, very carbonaceous/some admixed low quality pyrite coal and very carbonaceous dark gray, subround siltstone.
12750-12760	Sandstone 40%, shale 60% and siltstone 60%.
12760-12770	AA, sandstone 70%, shale 30%, quite a bit of loose sand grains, fairly porous.
12770-12790	AA/some minor admixed reddish brown, silty shales.
12790-12800	AA/± 5% coal, fair quality, conchoidal breaking, mostly vitraire.
12800-12820	Sandstone 85%, light-medium gray, fine-medium, subround, well sorted, loose-friable, limy cement mostly, some with clay matrix, moderately porous, NOSCOF. Shale 15%, dark gray-black, silty, carbonaceous and coal AA.
12820-12830	AA/±5% coal, still abundant sandstone.
12830-12850	AA, less coal.
12850-12870	Sandstone 70%, AA, 30% very carbonaceous shale AA/minor admixed reddish brown silty shale.
12870-12890	Sandstone decreased to 60%.
12890-12900	Sandstone, light-dark gray, salt & pepper, medium-fine, subround, fairly well sorted, frosty quartz sand grains, dark accessory, limy cement in most/very minor white clay matrix, loose sand grains, slightly-moderately porous, NOSCOF. Shale, dark gray-black, silty, very carbonaceous, non calcareous/low quality coal.
12900-12910	Sandstone 90%, medium-dark gray, slightly salt & pepper, moderately fine, subround, well sorted, loose-friable, frosty quartz sand grains, dark accessory, mostly limy cement, dark accessory, moderately porous, NOSCOF; Shale 10%, dark gray-black, silty, vary carbonaceous, mostly non calcareous.
12910-12920	Sandstone decreased to 75%; shales AA/minor medium gray shale.
12910-12040	Sandstone AA, decreased to 60%/± 2-3% medium quality coal.
12940-12950	Shale 85%, black-very dark gray, very silty, very carbonaceous, grades-siltstone in part/minor admixed coal and reddish brown silty shale slough; sandstone 15%, medium-light gray, salt & pepper, medium-fine, subround, frosty quartz grains, dark accessory, limy cement, fairly tight, NOSCOF.
12950-12970	Shale 95%/slight increased trace of coal; sandstone 5% AA.
12970-12980	AA but with contamination, florescence dull grayish green, not a show.
12980-13000	AA-no florescence, slight sandstone increase.
13000 -13020	Shale 90%, dark gray-black, silty, carbonaceous, non calcareous-grained to siltstone in part/very minor coal. Sandstone 10%, medium brownish gray to salt & pepper, medium fine, subround, fairly well sorted, dark accessory, partly limy cement/minor white clay matrix, fairly tight, NOSCOF.
13020-13030	AA, shale 50%, sandstone 50%, dense, tight, cherty?
13030-13040	AA, sandstone decreased to 30%, shale 70%.
13040-13050	AA/brownish gray sandstone increased/noticeable loose sand grains/slight porosity?/some medium gray shale.
13050-13060	Sandstone 50%, light brownish gray-light gray-medium gray, mostly fine, mostly subround, well sorted, dense, quartzie-cherty, tight, many loose sand grains, siliceous-slightly limy cement, no porosity, NOSCOF. Shale 50%, dark gray-black, non calcareous, silty, firm,

Depth	Description
	some carbonaceous.
13060-13070	AA, sandstone 35%, shale 65%/trace pyrite.
13070-13100	AA, increased sandstone to 75%, shale 25%/some white clays, very fine, dense, tight, gas show only.
13100-13140	Shale 95%, black-gray-reddish brown, firm, non calcareous, carbonaceous; sandstone 5%, medium gray-brown, fine-medium, subround, dense, tight, no chows.
13140-13150	Sandstone 35%, light-medium gray-light brownish gray, fine-medium subround, well sorted siliceous cement, dense, tight, NOSCOF. Shale 65%, black-dark gray, very silty, carbonaceous, non calcareous, grades to siltstone in part/subround, very fine, tight, shaley siltstone/ a trace of gas bubbles?
Shaker Out 13165	
13150-13170	AA/many loose sand grains, <u>Bypassing Shaker</u>
13170-13190	<u>Sand 60%/much</u>
13190-13220	Sandstone 98%, light gray, fine-medium, frosty, subround, quartz grains, mostly believed recirculated, loose/clean \pm 2% shale, black-brown, silty, slightly non calcareous; 60% loose, frosty, quartz, sand grains AA; shale 40%, black, silty, non calcareous/minor red brown silty shales.
13220-13250	
13250-13260	<u>Shaker repaired</u> Shales 85%, black-medium gray-dark gray/some reddish brown, silty, slight calcareous-non calcareous; and sandstone 15%, gray, firm-medium, subround, frosty, tight.
13260-13270	AA, sandstone 60%, many loose sand grains.
13270-13290	Shale, black-gray, silty, slightly carbonaceous, grades-siltstone, Bubbling gas and sandstone, fine-very fine, gray, subround, tight and some dense brown, limy sandstone, very fine, subround, slough? Shale 75%.
13290-13300	Shale 70%, black-dark medium gray, silty, carbonaceous, calcareous-non calcareous/some bubbling gas; coal 10%/trace pyrite; sandstone 20%, light-medium gray, medium fine, subround, fairly well sorted, dense siliceous, cherty, and siltstone, dark tray, very fine-fine, sub-round. No shows or porosity.
13300-13320	Sandstone 60%, light-medium gray, fine, subround, well sorted, tight, NOSCOF or porosity; shale 40%, black-medium gray, silty, carbonaceous/minor admixed coal and brown shale, mostly non calcareous.
13320-13330	Coal, 15% to 20%;; siltstone 10%, and shale, light-medium gray, medium-very fine, subround, fairly well sorted, tight, dense, very silty in part. Shale 70%, black-dark-medium gray/admixed reddish brown, silty, very carbonaceous in part, mostly non calcareous, grades to siltstone in part, bubbling gas in coals and dark carbonaceous shales.
13330-13360	AA/coal slightly decreased to 15% \pm .
13360-13370	AA, coal 10%, siltstone 25% and sandstone 25%, the rest shale.
13370-13380	AA, sandstone 40% and siltstone 40%, coal decreased to 5% \pm .
13380-13420	Sandstone 75%, brownish gray-medium gray, medium-fine, subround, well sorted, slightly-moderately porous?, firm-friable, mostly siliceous cement/minor white clay matrix, grades to dark gray, very fine, subround siltstone in part, NOSCOF: coal 5%, shale 20%. black-very dark gray, silty, carbonaceous, mostly non calcareous.
13420-13430	Sandstone, as above 40%; siltstone, dark gray 50%; shale, medium gray 10%.
13430-13460	AA in 13380-13420. Sandstone silty, calcareous in part.
13460-13470	Sandstone, AA, 40%; shale dark gray, carbonaceous, calcareous in part 55%; coal 5%.

Depth	Description
13470-13490	Sandstone 70%, light gray, medium-fine, slightly varied, well sorted, salt & pepper, calcareous in part, siliceous in part, moderately porous, NOSCOF; shale 25%, dark gray, carbonaceous, 5% bentonite, white-light grain.
13490-13520	AA, minor coal, siltstones bleeding gas.
13520-13530	AA, sandstone 60%; siltstone 35%.
13530-13550	Sandstone 80%, light-medium gray, medium fine, subround, fairly well sorted, friable-firm, slightly porous; shale 20%, black-dark gray, silty, carbonaceous in part, mostly non calcareous.
13550-13560	No sample.
13560-13570	Shale 95%, black-dark gray, silty, mostly non calcareous, grades to shaley siltstone in part/bubbling gas, very tight/minor brownish shale.
13570-13580	AA, 20% sample siltstone; shale 70%, less than 10% sandstone, brown gray, fine, subround, well sorted, tight, dense, NOSCOF, no porosity/moderate scattered loose frosty quartz sand grains.
13580-13590	AA, siltstone 30%; shale 60%; less than 10% sandstone.
13590-13600	AA/minor medium-light gray shale.
13600-13620	Shale 90%, grades to siltstone, black-dark gray, carbonaceous in most, firm/trace of coal; 10% ⁺ sandstone, light-medium gray, firm-medium, subround, well sorted, silica in most, slightly calcareous in some, hard, dense, tight, NOSCOF.
13620-13630	AA, sandstone 30%; shale 70%/some admixed light gray and brown-reddish brown shale in minor amounts.
13630-13660	AA, sandstone 40%.
13660-13680	AA, sandstone ± 30%; shales very slightly grading to shaley siltstones.
13680-13690	Shale 80%, black-dark gray, silty, firm and reddish brown in part, grades to siltstone and 10% sandstone, brownish gray-gray, fine, subround, well sorted, dense, siliceous, tight, no visible shows, grades to siltstone.
13690-13700	AA, sandstone increasing to 35%, fine and tight/trace of coal and and trace of gray limestone.
13700-13720	AA/sandstone showing slightly porous but no shows.
13720-13730	AA, fine-very fine grained sandstone/admixed coal less than 5%/minor admixed gray, dense, limestone.
13730-13740	Sandstone 30%, brownish gray-gray, fine, subround, well sorted, silica in most, admixed with clay in some and grading to siltstone in part; 30% shaley siltstone, black-dark gray, fine to very fine, subround, firm, tight; shale 40%, dark gray and black, silty, mostly non calcareous/trace of gray limestone, coal and brown silty shales.
13740-13750	AA/15% coal; sandstone 40%, the rest shale/bubbling coal gas.
13750-13760	/30% coal,; sandstone 40%, the rest shale.
13760-13770	Sandstone 50%, brownish gray-gray, medium fine, subround, well sorted, very firm-dense, very slightly porous in part, mostly tight and dense, silica cement in most/minor limy and white clay cement and matrix, NOSCOF. Coal 10%, bubbling gas; shale 40%, black-gray, very silty, carbonaceous in part, slightly limy in part but mostly non calcareous/trace of admixed light gray cherty limestone.
13770-13800	Coal 10-15%,; shale 70%; siltstone-sandstone. Slight show, siltstone dark brown, very fine, subround, dense, tight, slightly limy matrix, no visible porosity, gold florescence, light gold cut flor-escence, no odor.
13800-13810	Sandstone 30%, medium-dark gray, fine-medium, subround, well sorted, dense-firm, tight, grades to 20% siltstone, dark gray, very fine, subround, hard, shaley; shale 45%, dark gray-black, silty, slightly carbonaceous in part, less than 5% coal. NOSCOF.

Depth	Description
13810-13820	Sandstone increasing to 50%; siltstone to 20%, the rest shale.
13820-13830	AA/50% sandstone; siltstone 10%, coal 5%, the rest shale
13830-13840	AA, sandstone 60%.
13840-13850	AA, sandstone 60%/slight porosity/increased coal and abundant pyrite, \pm 5% to 10% bubbling gas.
Trip	
13850-13860	AA, sandstone decreasing to 40%, tight sand.
13860-13870	AA
13870-13890	Shale 65%, black-greenish gray, silty fissile, slightly carbonaceous in part, mostly non calcareous/trace of reddish brown and green gray mottled shale/minor admixed, reddish brown, silty shale; sandstone 30%, light-medium gray, medium-fine, subround, well sorted, slightly porous, NOSCOF. /very minor trace of greenish gray, limy shale, \pm 5% coal
13890-13900	AA, sandstone increasing to 60%, dense, tight, NOSCOF.
13900-13910	Shale 70%, black-gray/minor reddish brown, silty-fine sandstone, mostly non calcareous/minor limy and trace only of coal; sandstone 30%, gray-brownish gray, fine-medium, subround, well sorted, dense, tight, silica cement mostly, dark accessory, NOSCOF.
13810-13820	Sandstone 60%; shale 40%; shales becoming more gray,
13920-13930	Sandstone 80%; shale 20%.
13930-13940	Shale 50%, black-gray-reddish brown, mostly non calcareous-slightly limy; siltstone 20%, dark brown, fine, dense, tight/slight gold florescence and slight light gold cut florescence. Sandstone 30%, light-medium gray, fine-medium, subround, well sorted, dense, tight, NOSCOF, mostly silica cement/minor white clay matrix.
13940-13950	Shale 80%, medium gray-brownish red-black, slightly waxy and fissile, silty in part, non-slightly calcareous, pyrite/some black silty shale; less than \pm 5% coal and siltstone AA. Sandstone 15% AA. Changing here.
13950-13960	Sandstone 50%; shale 50%, NOSCOF.
13960-13980	Sandstone 40%; shale 60%.
13980-13990	Sandstone 70%; shale 30%. 13990' to 14110'
13990-14000	Shaker out; catching samples off valve on side of shaker; mostly recirculated fine grained loose sand--poor samples; not believed a true observation.
14000-14010	New shaker motor on right at 14010 sample. Poor sample. Sandstone 50%; shale 50%.
	Trip 14018
14010-14030	Shale 80%, dark gray-black, silty, mostly non calcareous, hard and shale, Medium gray, firm, limy/minor reddish brown shale, dark brown limy siltstone and very minor white clays (gypsum?); sandstone 20%, medium-light gray, fine-medium, subround, well sorted, hard, dense, silica mostly, tight, dark accessory, NOSCOF.
14030-14040	Sandstone increasing to 40%; shale 60%.
14040-14050	Sandstone increasing to 60%.
14050-14060	Sandstone 80%, light gray-white, fine-medium, subround, well sorted, hard, dense, tight, silica cement, no porosity, NOSCOF/dark accessory and very minor organic chert fragments. Shale 20%, black-gray, silty in part, limy in part, hard, firm.
	Trip.
14060-14070	Sandstone AA 60%; shale 40%.
14070-14080	AA, sandstone 75%; shale 35%, less than 5% coal, reddish brown shale, and dark brown siltstone. (\pm 2%-3% coal).

Depth	Description
14080-14090	AA, no coal.
14090-14100	Sandstone 80%; the rest shale; less than \pm 2%-3% coal.
14100-14120	Sandstone 80%, light gray-medium gray, fine-medium, subround, well sorted, dark accessory, silica cement mostly, white clay matrix in some, firm-slightly friable, slightly porous, NOSCOF. Shale, 20%, dark-medium gray, mostly non calcareous-slightly limy, firm-hard, slightly silty in part/trace of good quality slightly pyrite coal.
14120-14150	AA/but very little coal; moderate porosity in sandstone; NOSCOF.
14150-14180	AA, sandstone 60%; shale 40%.
14180-14230	AA, sandstone 80%; shale 20%; no coal.
14230-14245	Trip. AA, sandstone 60%; shale 40%/trace of coal only.
	Total Depth

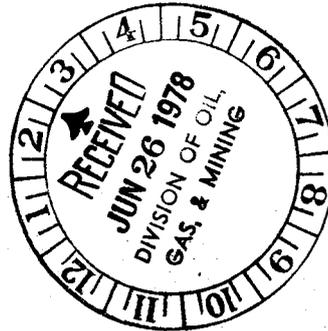
PACIFIC TRANSMISSION SUPPLY COMPANY

212 GOODSTEIN BUILDING
P. O. BOX 3093
CASPER, WYOMING 82602
(307) 265-1027

June 21, 1978

Mr. L. Stanley
CHORNEY OIL COMPANY
401 Lincoln Tower Building
Denver, Colorado 80202

Reference: PTS #32-29 Federal
SW-NE Sec. 29-T8S-R17E
Duchesne County, Utah



Dear Mr. Stanley,

We are enclosing herewith your required number of copies of the Geological Well Report and Drilling Time and Gas Detector Log for the captioned well.

Very truly yours,

Original Signed By
DEE E. BEARDSLEY

DEE E. BEARDSLEY
Manager of Operations

DEB:a

cc: Mr. J. L. Wroble
Mr. E. E. Mulholland
Mr. B. W. Allen
Mr. R. J. Firth
Mr. E. W. Gynn (USGS, Salt Lake City)
Mr. P. L. Driscoll (Div. of Oil, Gas & Mining
Salt Lake City) ←

encl.

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

SUBMIT IN TRIPlicate*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-7358

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
PACIFIC TRANSMISSION SUPPLY COMPANY

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface
1978' FNL, 1982' FEL (SWNE) Section 29, T8S, R27E, SLB&M

7. UNIT AGREEMENT NAME
Castle Unit

8. FARM OR LEASE NAME
Federal

9. WELL NO.
32-29

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 29, T8S, R17E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5297' KB

12. COUNTY OR PARISH
Duchesne

13. STATE
Utah

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) Completion Activity <input checked="" type="checkbox"/>	

(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.)*

Drilled 7-7/8" hole to 14,245' and ran electric logs. Equalized cement plugs as follows:

13,300' - 13,200'	35 sacks cement
11,100' - 11,000'	35 sacks cement
8,800' - 8,650'	50 sacks cement
6,750' - 6,600'	50 sacks cement

Ran 5-1/2", 17#, K-55 production casing to 6512' and cemented with 120 sacks cement. Released rotary drilling rig 6/5/78.

Rigged up completion unit August 10, 1978. Installed tubing head assembly and BOP equipment. PU tubing, scraper and bit and check PBTB @ 6450'. Pressure test casing and POOH with tubing, scraper and bit. Ran cement bond log and Gamma Ray Correlation log. Perforated 6440' w/ 2 shots and 6430' w/ 4 shots and performed cement squeeze job with 125 sacks cement. WOC, drill cement and pressure tested. Ran cement bond log. Perforated 6360'-70' w/ 2 SPF and acidized w/ 2500 gallons 15% acid. Flowed and swab tested. Set retrievable bridge plug @ 6345' and perforated 6322'-28' w/ 2 SPF. Acidized w/ 1500 gallons 15% acid and flow and swab tested. Pulled retrievable bridge plug, ran tubing to 6295' and swab tested.

Well Status - September 1, 1978: Swab testing perforations 6322' - 28' and 6360' - 70' to determine stimulation procedures.

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

SIGNED R. J. Firth

TITLE Petroleum Engineer

DATE September 12, 1978

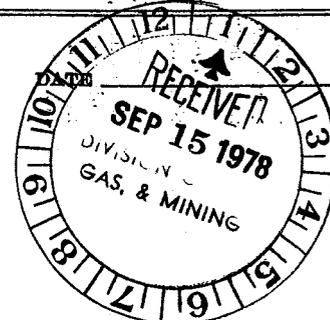
(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

*See Instructions on Reverse Side

3-USGS, _____, 1-JLWroble, 1-ERHenry, 1-EEMulholland, 1-File



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.
5. LEASE DESIGNATION AND SERIAL NO.

U-7358

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> Dryhole		7. UNIT AGREEMENT NAME Castle Unit
2. NAME OF OPERATOR PACIFIC TRANSMISSION SUPPLY COMPANY		8. FARM OR LEASE NAME Federal
3. ADDRESS OF OPERATOR P.O. Box 3093, Casper WY 82602		9. WELL NO. 32-29
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1978' FNL, 1982' FEL, SW NE Sec. 29, T8S, R17E, SLB&M		10. FIELD AND POOL, OR WILDCAT Wildcat
14. PERMIT NO. 43-013-30435		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 29, T8S, R17E
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 5297' KB		12. COUNTY OR PARISH Duchesne
		13. STATE Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input checked="" type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input checked="" type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>

(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 proposes to plug and abandon the PTS 32-29 Federal. Currently the well is equipped with 142', 13-3/8" conductor pipe; 1994', 9-5/8" surface pipe and 6510', 5 1/2" production csg. Perforations exist from 6322-28 and 6360-70'. Upon approval, we will MIRU completion rig, install BOP, spot 50 sx Class "G" ^{OK} cmt across perforations, 200H w/tbg., determine free point of 5 1/2" csg, shoot off & rec as much csg as possible. One hundred foot cmt plugs will be sptd at top of remaining 5 1/2" csg, 3600-3500', and 1950-2050' (btm of surface csg). ^{OK} Install dryhole marker at surface w/10 sx cmt. Surface restoration will be completed as recommended by USGS and as weather permits.

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

SIGNED Richard L. Crum TITLE Petroleum Engineer DATE 6/28/79
R. L. CRUM

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:
3-USGS, 1-O&GCC, 1-JLWroble, 1-ERHenry, 1-Partners, 1-File

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

6. LEASE DESIGNATION AND SERIAL NO.

U-7358

8. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL GAS WELL OTHER

7. UNIT AGREEMENT NAME
Castle Unit

2. NAME OF OPERATOR
PACIFIC TRANSMISSION SUPPLY COMPANY

8. FARM OR LEASE NAME
Federal

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

9. WELL NO.
32-29

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface
1978' FNL, 1982' FEL (SW NE), Section 29, T8S, R17E, S.L.B. & M.

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA
Sec. 29, T8S, R17E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5297' KB

12. COUNTY OR PARISH
Duchesne

18. STATE
Utah

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)

FULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

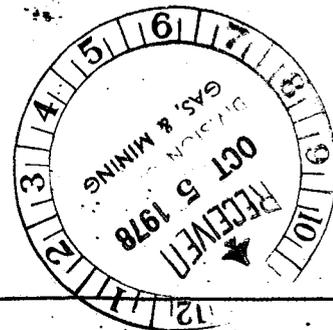
(Other) Progress Report - Sept. 1978

(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.)*

Perforations: 6322'- 28', 2SPF and 6360'- 70', 2SPF.
Tubing: 2-3/8" @ 6295'

September 1 and 2, 1978 — Swab testing, 22 bbls. fluid per day.
September 3 thru 10, 1978 — Preparing for stimulation treatment.
September 11, 1978 — Stimulated well with 772 bbls. Stratafrac II (water and diesel oil), 12,000# 100 mesh sand and 40,000# 10/20 mesh sand. Staged treatment with ball sealers. Average treatment pressure 4000 psig and average treatment rate 20 bpm.
September 12 thru 19, 1978 — Swab testing at 5 bbls. fluid per hr. rate (60% oil). 561 bbls. total fluid recovery during swab period.
September 20 thru 28, 1978 — Well shut in for pressure buildup.
September 29 and 30, 1978 — Swab testing at 9 bbls. fluid per hr. rate (70% oil). 130 bbls. total fluid recovery during this swab period.



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

SIGNED R. G. FITCH
(This space for Federal or State office use)

TITLE Petroleum Engineer

DATE September 2, 1978

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

3-USGS, SLC, Utah; [redacted], OG&M; 1-JLWroble; 1-ERHenry; 1-EEMulholland; 1-WGStelling; 1-File

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

(FORM 9-329)
(2/76)

OMB 42-RO 356

MONTHLY REPORT
OF
OPERATIONS

Lease No. 71-007358
Communitization Agreement No. N/A
Field Name N/A
Unit Name Castle
Participating Area N/A
County Duchesne State Utah
Operator Pacific Transmission Supply Company
 Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of August, 19 78

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & ¼ of ¼	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
32-29	SWNE 29	8S	17E	DRG	None	None	None	None	Depth <u>14245'</u>

*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	None	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Produced	"	None	None
*Sold	"	"	XXXXXXXXXXXXXXXXXX
*Spilled or Lost	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXX	None	XXXXXXXXXXXXXXXXXX
*Used on Lease	None	"	XXXXXXXXXXXXXXXXXX
*Injected	"	"	None
*Surface Pits	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	"
*Other (Identify)	None	None	"
*On hand, End of Month	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	"	None	XXXXXXXXXXXXXXXXXX

Authorized Signature: [Signature]
Title: Manager, Contract Administration

Address: 245 Market St., San Francisco, CA 94105
Page 1 of 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
(FORM 9-329)
(2/76)
OMB 42-RO 356

MONTHLY REPORT
OF
OPERATIONS

Lease No. 71-007358
Communitization Agreement No. N/A
Field Name N/A
Unit Name Castle
Participating Area N/A
County Duchesne State Utah
Operator Pacific Transmission Supply Company
 Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of July, 19 78

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
32-29	SWNE 29	8S	17E	DRG	None	None	None	None	Depth <u>14,245'</u>

*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	None	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Produced	"	None	None
*Sold	"	"	XXXXXXXXXXXXXXXXXX
*Spilled or Lost	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXX	None	XXXXXXXXXXXXXXXXXX
*Used on Lease	None	"	XXXXXXXXXXXXXXXXXX
*Injected	"	"	None
*Surface Pits	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	"
*Other (Identify)	None	None	"
*On hand, End of Month	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	"	None	XXXXXXXXXXXXXXXXXX

Authorized Signature: [Signature]
Title: Manager, Contract Administration

Address: 245 Market St., San Francisco, CA 94105

Lease No. 71-007358
Communitization Agreement No. N/A
Field Name N/A
Unit Name Castle
Participating Area N/A
County Duchesne State Utah
Operator Pacific Transmission Supply Company
 Amended Report

MONTHLY REPORT
OF
OPERATIONS

The following is a correct report of operations and production (including status of all unplugged wells) for the month of June, 19 78

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & ¼ of ¼	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
32-29	SWNE 29	8S	17E	DRG	None	None	None	None	Depth <u>17245'</u>

*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	None	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Produced	"	None	None
*Sold	"	"	XXXXXXXXXXXXXXXXXX
*Spilled or Lost	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXX	None	XXXXXXXXXXXXXXXXXX
*Used on Lease	None	"	XXXXXXXXXXXXXXXXXX
*Injected	"	"	None
*Surface Pits	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	"
*Other (Identify)	None	None	"
*On hand, End of Month	"	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	"	None	XXXXXXXXXXXXXXXXXX

Authorized Signature: [Signature]
Title: Manager, Contract Administration

Address: 245 Market St., San Francisco, CA 94105
Page 1 of 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5

7

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1. TYPE OF WELL: OIL WELL GAS WELL DRY Other

2. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. REVS. Other

2. NAME OF OPERATOR
PACIFIC TRANSMISSION SUPPLY COMPANY

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

4. LOCATION OF WELL (Report location clearly and in accordance with appropriate requirements)*
At surface 1978' FNL, 1982' FEL, SWNE Section 29, T8S, R17E, S. & M.
At top prod. interval reported below
At total depth

14. PERMIT NO. DATE ISSUED

15. DATE SPUNDED 1/31/78
16. DATE T.D. REACHED 5/31/78
17. DATE COMPL. (Ready to prod.) 10/2/78
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 5297' KB

20. TOTAL DEPTH, MD & TVD 14,245'
21. PLUG, BACK T.D., MD & TVD 6402'
22. IF MULTIPLE COMPL., HOW MANY*
23. INTERVALS DRILLED BY ROTARY TOOLS 150'-14,245' CABLE TOOLS 0-150'

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Green River
25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN
DIL 142'-2004', DIL 1995'-14,245', CNL/FDC & BHC Sonic/GR 4200'-14,245'

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"	54.5	142'	17-1/2"	150' Sks Class G	
9-5/8"	36.0	1994'	12-1/4"	250' Sks Class G	
5-1/2"	17.0	6510'	7-7/8"	120' Sks Class G & RFC	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-3/8"	6295'	

31. PERFORATION RECORD (Interval, size and number)

Interval	Size	Number
6322'-28'	2SPF	
6360'-70'	2SPF	

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
6322'-28'	1500 gals. MSR-100 15% acid
6360'-70'	2500 gals. MSR-100 15% acid
6322'-28' & 6360'-70'	Frac treatment w/ 772 bbls. gelle water (5% diesel oil), 12,000# 100 mesh sand & 40,000# 10/20 mesh sand.

33.* PRODUCTION
DATE FIRST PRODUCTION Shut-in
PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Swab testing - 9/12 thru 10/2/78
WELL STATUS (Producing or shut-in) Shut-in

DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10/2/78	24			15	TSTM	6	

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

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
SIGNED R. J. Firth TITLE Petroleum Engineer DATE 12/15/78

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

2-USGS, SLC, Ut.; 1-JLWroble; 1-ERHenry; 1-EEMulholland; 1-WGStelling; 1-File.

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form, and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 32, 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: "Stacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS		TRUE VERT. DEPTH
				NAME	MEAS. DEPTH	
			Green River Marker			
			Shale			
			Garden Gulch			
			Douglas Creek			
			Tongue			
			Wasatch			
			Mesaverde			
			Castlegate			
				1747'		
				1860'		
				3404'		
				4277'		
				6356'		
				6470'		
				11,065'		
				13,232'		

SH

NATURAL GAS CORPORATION OF CALIFORNIA

OPERATIONS HEADQUARTERS
308 DURBIN CENTER BUILDING
145 SOUTH DURBIN STREET
P. O. BOX 3093
CASPER, WYOMING 82602
(307) 265-1027

RECEIVED

DEC 28 1979

DIVISION OF
OIL, GAS & MINING

December 24, 1979

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

Re: Well No. Federal #32-29
Sec. 29, T8S, R17E
Duchesne County, Utah

Gentlemen:

This letter is in reply to your letter dated 12/21/79, requesting a Subsequent Report of Abandonment for the above subject well.

The work has not been commenced. When it is completed the required forms will be submitted.

Very truly yours,



R. L. Crum
PETROLEUM ENGINEER

cc: USGS - SLC
E.E.Mulholland
D.E.Beardsley
J.L.Wroble



SCOTT M. MATHESON
Governor

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

CLEON B. FEIGHT
Director

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

OIL, GAS, AND MINING BOARD

CHARLES R. HENDERSON
Chairman

JOHN L. BELL
C. RAY JUVELIN
THADIS W. BOX
CONSTANCE K. LUNDBERG
EDWARD T. BECK
E. STEELE McINTYRE

December 21, 1979

Pacific Transmission Supply CO.
P. O. box 3093
Casper, Wyoming 82602

RE: Well No. Federal # 32-29
Sec. 29, T. 8S, R. 17E,
Duchesne County, Utah

Gentlemen:

Our records indicate that you have not filed a Subsequent Report of Abandonment for the above subject well.

Rule D-2, General Rules and Regulations and Rules of Practice and Procedure, requires that said reports be filed within (30) days after the plugging of any well.

In order that we may keep our records accurate and complete, please complete the enclosed Form OGC-1b in duplicate, and forward them to this office as soon as possible.

Your prompt attention to the above will be greatly appreciated.

Very truly yours.

DIVISION OF OIL, GAS, AND MINING

Debbie Beauregard
DEBBIE BEAUREGARD
CLERK-TYPIST

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: Pacific Transmission Supply Company

WELL NAME: Federal #32-29

SECTION 29 SW NE TOWNSHIP 8S RANGE 17E COUNTY Duchesne

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

TOTAL DEPTH: 6450'

CASING PROGRAM:

FORMATION TOPS:

17½" set @ 142' with 50 sx

12½" set @ 1994' with 250 sx

5½" set @ 6510' with 120 sx

PLUGS SET AS FOLLOWS:

100' plug @ csg stub after shooting pipe off (+5963')

100' plug @ csg stub after shooting pipe off (3600'-3500')

100' plug @ csg stub after shooting pipe off (1950'-2050')

50 sx squeeze over perms, 6322'-6628'; 6360'-6370'.

DATE September 13, 1979

SIGNED

Frank M. Hamner

cc: USGS

Frank M. Hamner

PACIFIC TRANSMISSION SUPPLY COMPANY
NATURAL GAS CORPORATION OF CALIFORNIA

308 DURBIN CENTER BUILDING
145 SOUTH DURBIN STREET
P. O. BOX 3093
CASPER, WYOMING 82602
(307) 265.1027

E. E. MULHOLLAND
OPERATIONS ENGINEER

September 5, 1979

Mr. E. W. Guynn (3)
U. S. GEOLOGICAL SURVEY
8440 Federal Building
Salt Lake City, UT 84138

Mr. L. Stanley (1)
CHORNEY OIL COMPANY
401 Lincoln Tower Building
Denver, CO 80295

Mr. P. L. Driscoll (1)
DIVISION OF OIL, GAS, & MINING
1588 West North Temple
Salt Lake City, UT 84116

Mr. J. Milton Wege (1)
RALPH E. DAVIS & ASSOCIATES
500 Jefferson, Suite 2031
Houston, TX 77002

Re: PTS #32-29 Federal
Sec. 29, T8S, R17E
Duchesne County, UT

Gentlemen:

Enclosed for your information and files is your required number of copies of the Sundry Notice and Report on Wells for the above captioned well.

Very truly yours,

E. E. Mulholland

E. E. MULHOLLAND
Operations Engineer

/pv

cc: JLVroble
ERHenry

Encl. (dated 6/28/79)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-7358

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL GAS WELL OTHER Dry hole

7. UNIT AGREEMENT NAME

2. NAME OF OPERATOR
Pacific Transmission Supply Company

8. FARM OR LEASE NAME

Federal

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

9. WELL NO.

32-29

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
1978 fac FNL, 1982' FEL, SW NE Sec. 29, T8S, R17E, SLB&M

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Section 29, T8S, R17E

14. PERMIT NO.

43-013-30435

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

5297' KB

12. COUNTY OR PARISH

Duchesne

13. STATE

Utah

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.)*

PBTD 6402'. 5-1/2" 17.0# K55 production casing at 6510'. Perforations: 6322'-28' and 6360'-70' w/2 SPF. 9-5/8" 36.0# K55 intermediate casing at 1994'.

Propose to plug and abandon well as follows:

Plug no. 1	6370'-5935'	50 sacks cement
Plug no. 2	5200'-5050'	20 sacks cement
	Perforate 4 holes in 5-1/2" casing at 3600'.	
Plug no. 3	3600'-3450'	60 sacks cement
Plug no. 4	2000'-1850'	20 sacks cement
Plug no. 5	50' - surface	10 sacks cement inside 5-1/2" csg.
		15 sacks cement 5-1/2"-9-5/8" csg.
		annulus
		35 sacks cement 9-5/8"-13-3/8" csg.
		annulus

A regulation dry hole marker will be installed and the location site cleaned, restored and rehabilitated in conformance with the surface use plan. The above described abandonment procedures discussed with Mr. R. A. Henricks June 25, 1980. These procedures will replace those described in the Approved Notice of Intention to Abandon dated October 10, 1979 due to eliminating the attempted operations.

APPROVED BY THE DIVISION OF
OIL, GAS, AND MINING

DATE: 7-29-80

RECEIVED
JUL 03 1980

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

BY: R. J. Firth
TITLE Petroleum Engineer

SIGNED

R. J. Firth

DIVISION OF
OIL, GAS & MINING
DATE: 7-29-1980

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

3-USGS,UT; 1-OG&M,UT; 1-JCOsmond; 1-ERHenry; 1-DEBeardsley; 1-Rod Boschee; 1-DeGolyer & MacNaughton

*See Instructions on Reverse Side

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

SUBMIT IN DUPLICATE

(See instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

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
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 1978' FNL, 1982' FEL, SW NE Sec. 29, T8S, R17E, SLB&M
At top prod. interval reported below
At total depth

***ORIGINALLY COMPLETED PERMIT NO. DATE ISSUED
AS SIOW*** 43-013-30435

15. DATE SPUDDED 1/31/78 16. DATE T.D. REACHED 5/31/78 17. DATE COMPL. (Ready to prod.) ***10/2/78 18. ELEVATIONS (DP, RKB, RT, GR, ETC.) * P&A-9-13-79 5297' KB 19. ELEV. CASING HEAD _____

20. TOTAL DEPTH, MD & TVD 14,245' 21. PLUG BACK T.D., MD & TVD 6402' 22. IF MULTIPLE COMPL., HOW MANY* _____ 23. INTERVALS DRILLED BY ROTARY TOOLS 150'-14,245' CABLE TOOLS 0-150'

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* _____ 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN DIL 142'-2004', DIL 1995'-14,245', CNL/FDC & BHC Sonic/GR 4200'-14,245' 27. WAS WELL CORRED 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"	54.5	142'	17-1/2"	150 sacks Class G	None
9-5/8"	36.0	1994'	12-1/4"	250 sacks Class G	None
5-1/2"	17.0	6510'	7-7/8"	120 sacks Class G & RFC	None

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
None		

31. PERFORATION RECORD (Interval, size and number)

<u>6322'-28'</u>	<u>2 SPF</u>	<u>EM</u>
<u>6360'-70'</u>	<u>2 SPF</u>	<u>EM</u>

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
<u>6322'-28'</u>	<u>1500 gals. MSR-100 15% acid</u>
<u>6360'-70'</u>	<u>2500 gals. MSR-100 15% acid</u>
<u>6322'-28' & 6360'-70'</u>	<u>Frac Treatment w/772 bbls gelled water (5% diesel oil) 12,000#</u>

33.* PRODUCTION 100 mesh sand & 40,000# 10/20 mesh sand

DATE FIRST PRODUCTION P&A 6/27/80 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) _____ WELL STATUS (Producing or shut-in) 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. _____ (CORR.) _____

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) _____ TEST DATES 9-8-1980

35. LIST OF ATTACHMENTS _____ DIVISION OF OIL, GAS & MINING

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

SIGNED R. J. Firth TITLE Petroleum Engineer DATE 6/30/80

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

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures, and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers', geologists', sample-and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom (s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Stacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	CORING INTERVALS	DRILL-STEM TESTS	PRESSURE	RECOVERY	GEOLOGIC MARKERS	NAME	MEAS. DEPTH	TOP	TRUE VERT. DEPTH
Green River			Marker									
Shale			Garden Gulch									
			Douglas Creek									
			Tongue									
			Wasatch									
			Mesaverde									
			Castlegate									

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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 RE-ENTER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
Inland Production Company

3. ADDRESS OF OPERATOR
P.O. Box 1446 Roosevelt, Utah 84066

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface SW/NE
 At proposed prod. zone 1978' FNL & 1982' FEL

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

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)
1978'

16. NO. OF ACRES IN LEASE
1968.01

17. NO. OF ACRES ASSIGNED TO THIS WELL
40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
2487'

19. PROPOSED DEPTH
6510'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5281.5' GR

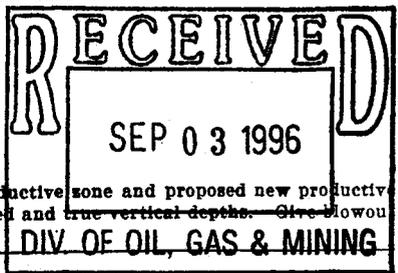
22. APPROX. DATE WORK WILL START*
4th quarter 1996

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
7 1/2"	13 3/8"	54.5#	142'	150 sx Class G
12 1/4"	9 5/8"	36.0#	1994'	250 sx Class G
7 7/8"	5 1/2"	17.0#	6510'	120 sx Class G

Inland Production Company is proposing to enter the existing well bore by drilling out the cement plugs as follows: 35 sx cmt plug from 13,200' - 13,300', 35 sx cmt plug from 11,000' - 11,100', 50 sx cmt plug from 8650' - 8800' and 50 sx cmt plug from 6600' - 6750'. The well was originally drilled to 14,245'. Inland proposes to re-enter the well to the end of the 5 1/2" csg @ 6512'.

Inland Production Company is requesting that this well known as PTS #32-29 (Pacific Transmission Supply Co.) API #43-013-30435, be renamed the Tar Sands Federal #7-29 R.



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 Brad Mechem *Brad Mechem* TITLE District Operations Manager DATE 7/8/96

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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

*See Instructions On Reverse Side

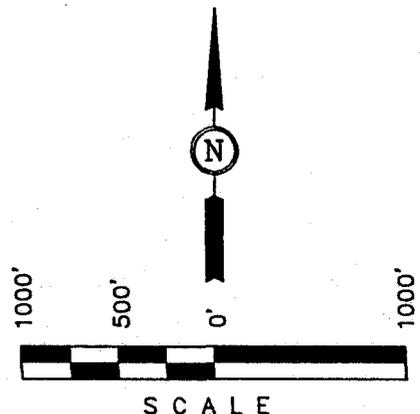
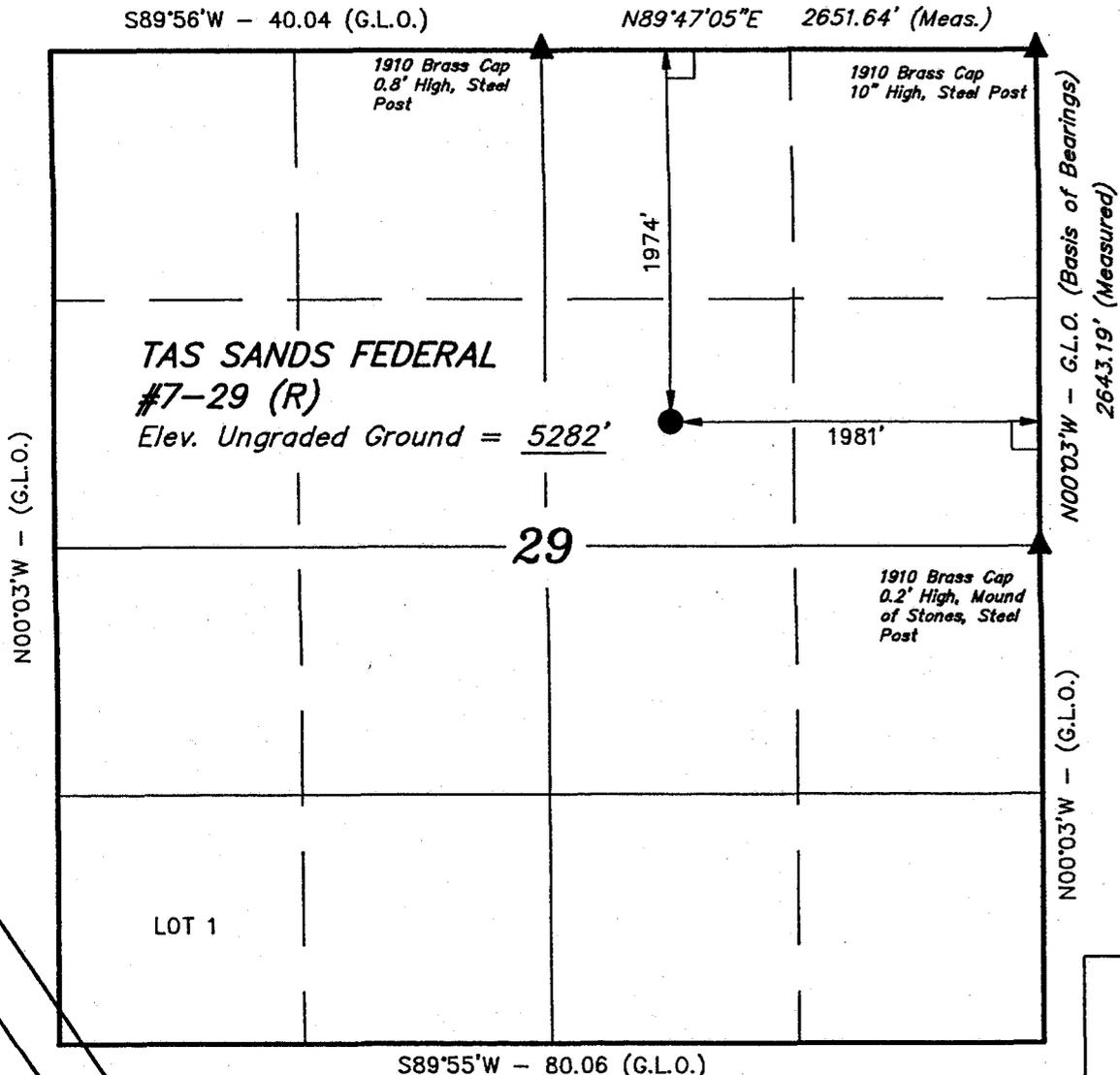
INLAND PRODUCTION CO.

T8S, R17E, S.L.B.&M.

Well location, TAR SANDS FEDERAL #7-29 (R), located as shown in the SW 1/4 NE 1/4 of Section 29, T8S, R17E, S.L.B.&M. Duchesne County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT THE NORTHEAST CORNER OF SECTION 29, T8S, R17E, S.L.B.&M. TAKEN FROM THE MYTON SE QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5261 FEET.



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.

Robert L. Hoy
 REGISTERED LAND SURVEYOR
 REGISTRATION NO. 161319
 STATE OF UTAH

UNTAH ENGINEERING & LAND SURVEYING
 85 SOUTH 200 EAST - VERNAL, UTAH 84078
 (801) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 4-26-96	DATE DRAWN: 4-30-96
PARTY G.S. G.C. D.R.B.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE INLAND PRODUCTION CO.	

LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED.

INLAND PRODUCTION COMPANY
TAR SANDS FEDERAL #7-29 R
SW/NE SECTION 29, T8S, R17E
DUCHESNE COUNTY, UTAH

TEN POINT WELL PROGRAM

1. GEOLOGIC SURFACE FORMATION:

Uinta formation of Upper Eocene Age

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

Uinta	0' - 3050'
Green River	3050'
Wasatch	6500'

3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:

Green River Formation 3050'-6500' - oil

4. EXISTING CASING

13 3/8" J-55 54.5# existing csg @ 142'
9 5/8" 36# existing csg @ 1994'
5 1/2" 17# existing csg @ 6510'

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

The operators minimum specifications for pressure control equipment are as follows:

A 6" 3000# BOP will be utilized. Function tests of the BOP'S will be checked daily.
See Exhibit "F"

6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:

The existing plugs will be drilled out with 2% KCL wtr.

7. AUXILIARY SAFETY EQUIPMENT TO BE USED:

A TIW valve with 8rd threads.

8. TESTING, LOGGING AND CORING PROGRAMS:

Existing logs will be used. It is anticipated at this time that no new logs are to be run.

9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:

The anticipated bottom hole pressure is 1800 psi. It is not anticipated that abnormal temperatures will be encountered; nor that any other abnormal hazards such as H₂S will be encountered in this area.

10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:

It is anticipated that the workover operations will commence in October, 1996 and take approximately four days to complete.

**INLAND PRODUCTION COMPANY
TAR SANDS FEDERAL #7-29R
SW/NE SECTION 31, T8S, R17E
DUCHESNE COUNTY, UTAH**

THIRTEEN POINT WELL PROGRAM

1. EXISTING ROADS

See attached Topographic Map "A"

To reach Inland Production Company well location site Tar Sands Federal #7-29R located in SW 1/4 NE 1/4 Section 29, T8S, R17E, S.L.B. & M. Duchesne County, Utah:

Proceed westerly out of Myton, Utah along Highway 40, 1.5 miles \pm to the junction of this highway and Utah State Highway 53; proceed southerly along Utah State Highway 53 - 6.3 miles to its junction with an existing dirt road to the southeast. Proceed southeasterly along this road 1.6 miles to its junction with an existing dirt road to the east; proceed easterly along this road 1.3 miles to the beginning of the existing access road, to be discussed in Item #2.

The highways mentioned in the foregoing paragraph are bituminous surfaced roads to the point where Highway 53 ends, thereafter the roads are constructed with existing materials and gravel. The highways are maintained by Utah State road crews. All other roads are maintained by County Crews.

The aforementioned dirt oilfield service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads required for access during the drilling, completion and production phase will be maintained at the standards required by the BLM or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal.

2. PLANNED ACCESS ROAD

See Topographic Map "B"

The proposed access road leaves the existing road in the SW 1/4 NE 1/4 Section 29, T8S, R17E, S.L.B., and proceeds in a southeasterly direction approximately 300' to the proposed location site.

The planned access road will be upgraded with an 18' crown road (9' either side of the centerline) with drainage ditches along either side of the proposed road whether it is determined necessary in order to handle any run-off from normal meteorological conditions that are prevalent to this area. The maximum grade will be less than 8%.

There will no culverts required along this access road. There will be no water turnouts constructed along this road.

TAR SANDS FEDERAL #7-29 R

There will no culverts required along this access road. There will no water turnouts constructed along this road.

There are no fences encountered along this proposed road. There will no new gates or cattle guards required.

All construction material for this access road will be borrowed material accumulated during construction of the access road.

3. LOCATION OF EXISTING WELLS

There are nine (9) producing, one (1) injection, and one (1) P&A Inland Production wells within a one (1) mile radius of this location. (See exhibit "D").

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

There are no existing facilities that will be used by this well.

It is anticipated that this well will be a producing oil well.

Upon construction of a tank battery the well pad will be surrounded by a dike of sufficient capacity to contain at minimum the entire contents of the largest tank within the facility battery.

Tank batteries will be built to BLM specifications.

5. LOCATION AND TYPE OF WATER SUPPLY

Inland Production Company has purchased a 3" water connection with Johnson Water District to supply the Monument Butte, Travis, and Gilsonite oil fields. Johnson Water District has given permission to Inland Production Company to use water from this system for the purpose completing the Tar Sands Federal #7-29 R.

Existing water for this well will be trucked from Inland Production Company's water supply line, located at the Gilsonite State #7-32 (SW/NE Sec. 32, T8S, R17E), or the Monument Butte Federal #5-35 (SW/NW Sec. 35, T8S, R17E), or the Travis Federal #15-28 (SW/SE Sec. 28, T8S, R16E). See Exhibit "C".

There will be no water well drilled at this site.

6. SOURCE OF CONSTRUCTION MATERIALS

See Location Layout Sheet - Exhibit "E".

All construction material for this location shall be borrowed material accumulated during construction of the location site and access road.

A mineral material application is not required for this location.

7. METHODS FOR HANDLING WASTE DISPOSAL

See Location Layout Sheet - Exhibit "E".

A small pit will be constructed from native soil to hold cuttings from cement plugs. The pit will be promptly reclaimed after the workover operations are completed.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the drilling activities.

Immediately upon first production, all produced water will be confined in storage tanks. Inland requests temporary approval to transfer the produced water to Inland's nearby waterflood, for reinjection into the waterflood reservoirs via existing approved injection wells. Within 90 days of first production, a water analysis will be submitted to the Authorized Officer, along with an application for approval of this, as a permanent disposal method.

8. ANCILLARY FACILITIES

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

9. WELL SITE LAYOUT

See attached Location Layout Sheet - Exhibit "E".

The temporary pit will be located on the north, between stakes 4 & 5.

No flare pit will be used at this location.

The stockpiled topsoil (first six (6) inches) will be stored on the east, between stakes 6 & 8.

Access to the well pad will be from the west, between stakes 2 & 3.

Fencing Requirements

All pits will be fenced according to the following minimum standards:

- a) 39 inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- c) Corner posts shall be cemented and/or braced in such a manner to keep tight at all times.

TAR SANDS FEDERAL #7-29 R

- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.
- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on four (4) sides during workover operations. Pits will be fenced and maintained until cleanup.

10. PLANS FOR RESTORATION OF SURFACE

a) *Producing Location*

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, material, trash and junk not required for production.

The reserve pit and that portion of the location not needed for production facilities/operations will be re contoured to the approximated natural contours. The reserve pit will be reclaimed within one hundred twenty (120) days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons, removed.

When the drilling and completion phase ends, reclamation of unused disturbed areas on the well pad/access road no longer needed for operations, such as cut slopes, and fill areas will be accomplished by grading, leveling and seeding as recommended by the Authorized Officer. The seed mixture will be per B.L.M. and stated in the conditions of approval.

b) *Dry Hole Abandoned Location*

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the B.L.M. will attach the appropriate surface rehabilitation conditions of approval.

11. SURFACE OWNERSHIP - Bureau Of Land Management

12. OTHER ADDITIONAL INFORMATION

- a) Inland Production Company is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, Inland is to immediately stop work that might further disturb such materials, and contact the Authorized Officer.
- b) Inland Production will control noxious weeds along rights-of-way for roads, pipelines, well sites, or other applicable facilities. On B.L.M. administered land it is required that a Pesticide Use Proposal shall be submitted, and given approval, prior to the application of herbicides or other possible hazardous chemicals.

TAR SANDS FEDERAL #7-29 R

- c) Completion rigs and/or equipment used during operations on this well site will not be stacked or stored on Federal Lands after the conclusion of completion operations or at any other time without B.L.M. authorization. However, if B.L.M. authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

There are no dwellings or facilities in the general area. There are no visible archaeological, historical or cultural sites within any reasonable proximity of the proposed location site. No cultural properties were found during a one acre survey, conducted by W. Wyoming State College on February 3, 1978. Records on file with the BLM.

Additional Surface Stipulations

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations. Onshore Oil and Gas Orders, the approved plan of operations, and any applicable Notice to Lessees. Inland Production is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

Hazardous Material Declaration

Inland Production Company guarantees that during the workover of the Tar Sands Federal #7-29 R, we will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Inland also guarantees that during the workover of the Tar Sands Federal #7-29 R, we will use, produce, store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and workover activities.

Inland Production Company or a contractor employed by Inland Production, shall contact the B.L.M. office at (801) 789-1362, 48 hours prior to construction activities.

The B.L.M. office shall be notified upon site completion prior to moving on the workover rig.

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Representative

Name: Brad Mecham
Address: P.O. Box 1446 Roosevelt, Utah 84066
Telephone: (801) 722-5103

Certification

Please be advised that INLAND PRODUCTION COMPANY is considered to be the operator of Well #7-29R SW/NE Section 29, Township 9S, Range 15E: Lease #U-74869 Duchesne County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4488944.

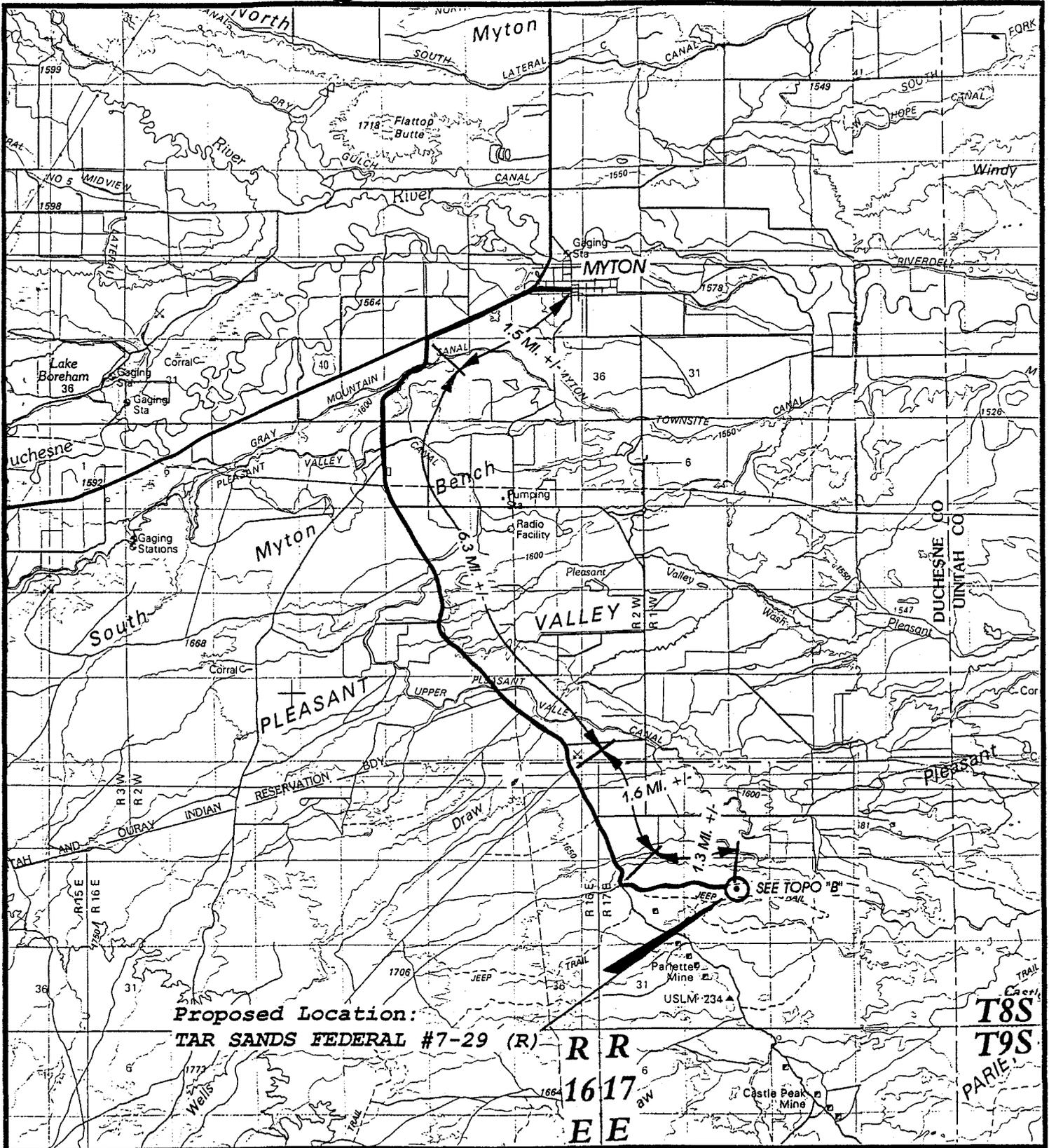
I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Inland Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

8-29-96

Date



Brad Mecham
District Operations Manager



Proposed Location:
TAR SANDS FEDERAL #7-29 (R)

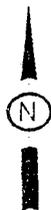
R R
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T8S
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UELS

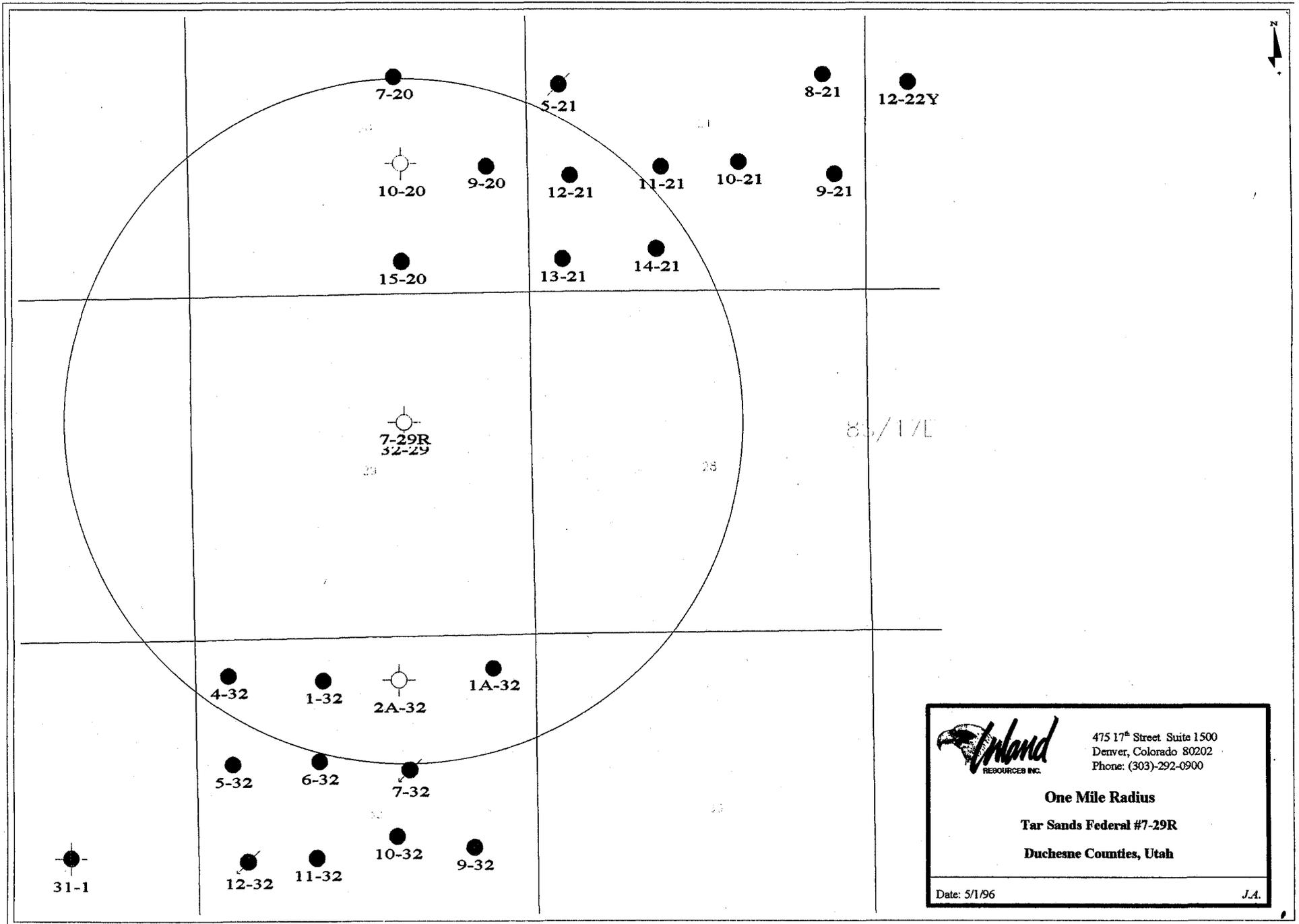
**TOPOGRAPHIC
MAP "A"**

DATE: 5-1-96
Drawn by: D. COX



INLAND PRODUCTION CO.
TAR SANDS FEDERAL #7-29 (R)
SECTION 29, T8S, R17E, S.L.B.&M.
1974' FNL 1981' FEL

EXHIBIT "D"



 **Inland**
RESOURCES INC.

475 17th Street Suite 1500
Denver, Colorado 80202
Phone: (303)-292-0900

One Mile Radius

Tar Sands Federal #7-29R

Duchesne Counties, Utah

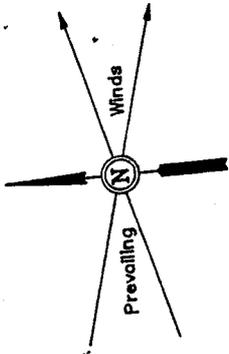
Date: 5/1/96 J.A.

INLAND PRODUCTION CO.

LOCATION LAYOUT FOR

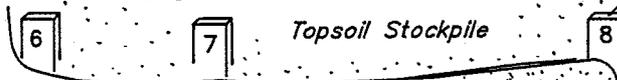
TAR SANDS FEDERAL #7-29 (R)
SECTION 29, T8S, R17E, S.L.B.&M.
1974' FNL 1981' FEL

Handwritten signature



SCALE: 1" = 50'
DATE: 4-30-96
Drawn By: D.R.B.

F-0.4' El. 81.1' C-0.2' El. 81.7' F-3.7' El. 77.8'



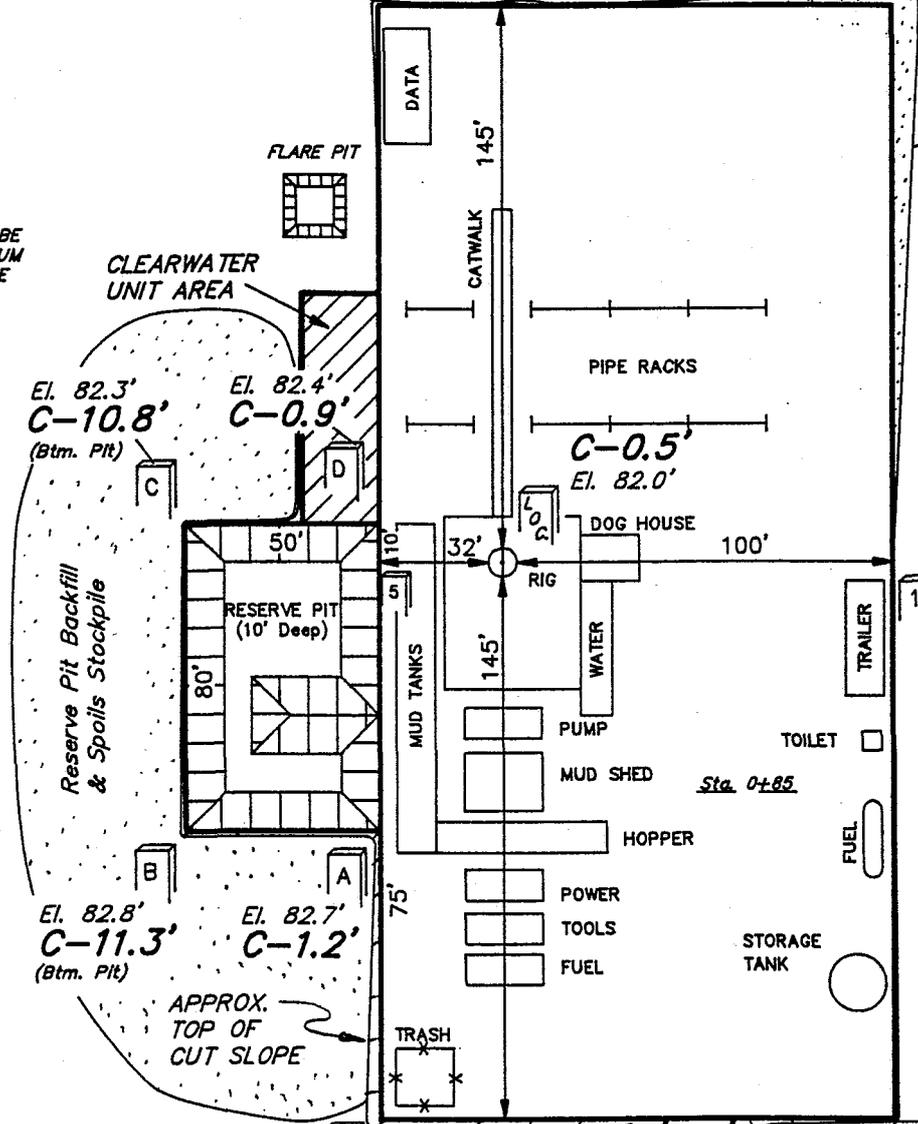
Sta. 2+90

APPROX. TOE OF FILL SLOPE

NOTE:

FLARE PIT IS TO BE LOCATED A MINIMUM OF 125' FROM THE WELL HEAD.

NOTE:
PIT CAPACITY WITH 2' OF FREEBOARD = 3,080 Bbls.



Sta. 1+45

El. 82.0' C-0.5'

Sta. 0+85

Sta. 0+00

El. 82.3' C-10.8' (Btm. Pit)

El. 82.4' C-0.9'

El. 82.8' C-11.3' (Btm. Pit)

El. 82.7' C-1.2'

APPROX. TOP OF CUT SLOPE

El. 84.5' C-3.0'

El. 84.3' C-2.8'

El. 82.6' C-1.1'

Proposed Access Road

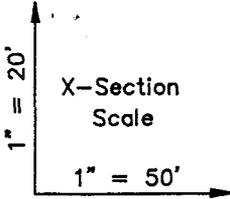
Elev. Ungraded Ground at Location Stake = 5282.0'
Elev. Graded Ground at Location Stake = 5281.5'

INLAND PRODUCTION CO.

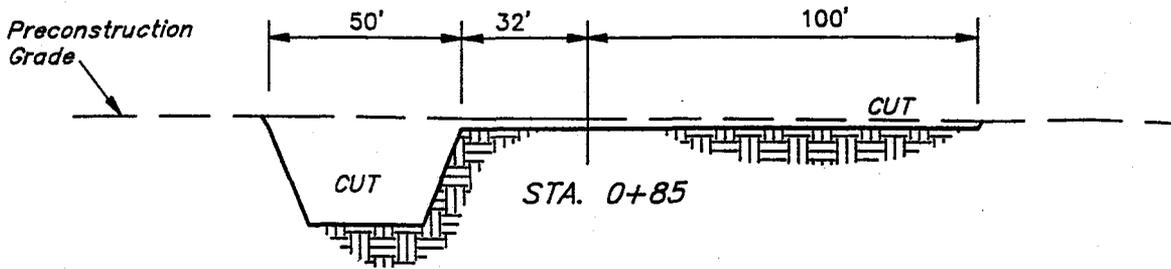
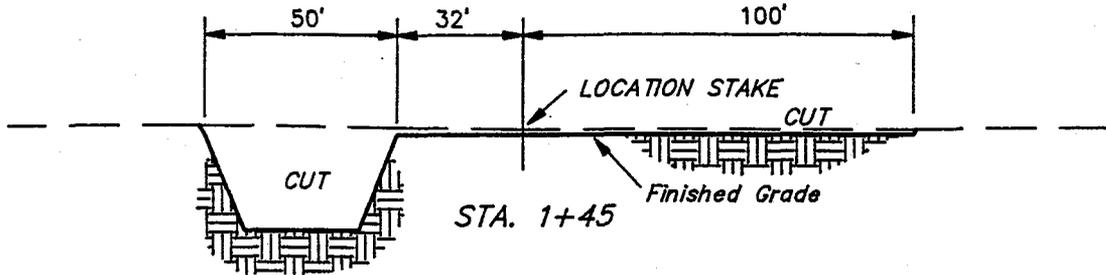
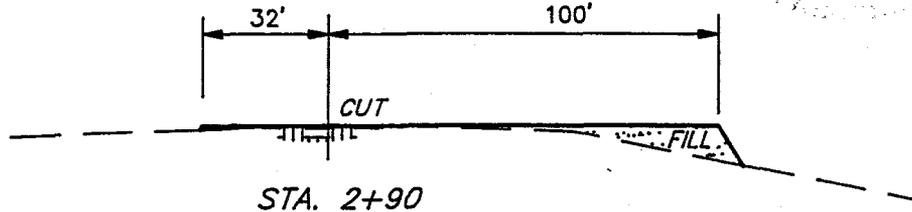
TYPICAL CROSS SECTIONS FOR

TAR SANDS FEDERAL #7-29 (R)
SECTION 29, T8S, R17E, S.L.B.&M.
1974' FNL 1981' FEL

Polay

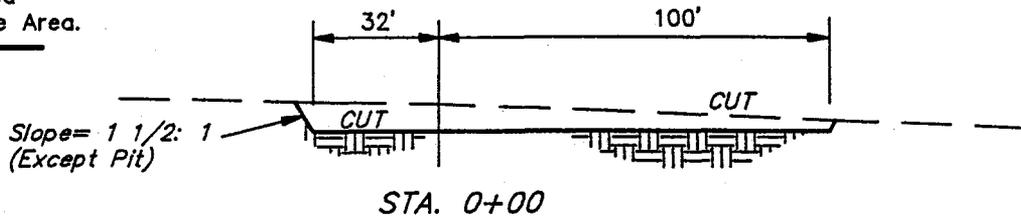


DATE: 4-30-96
Drawn By: D.R.B.



NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.



APPROXIMATE YARDAGES

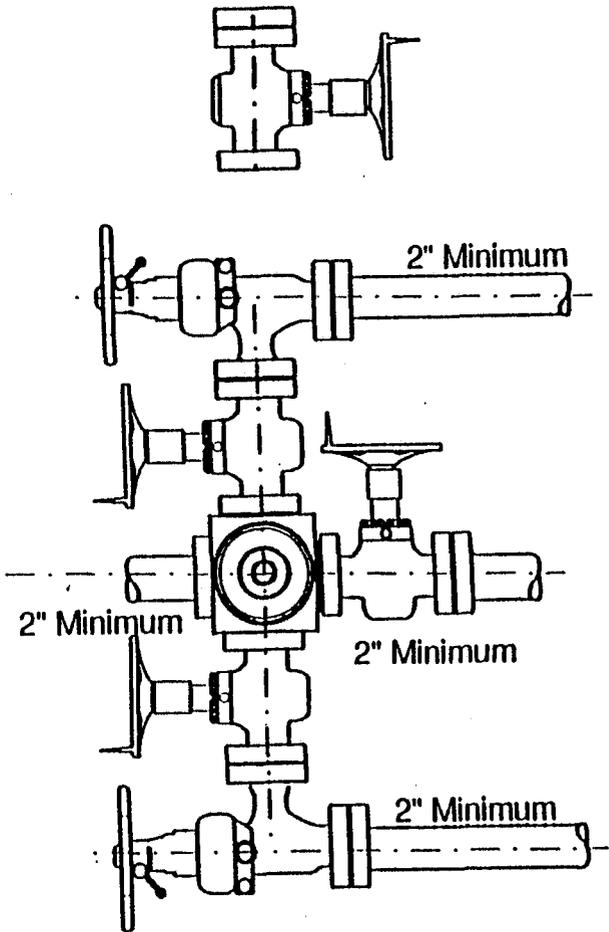
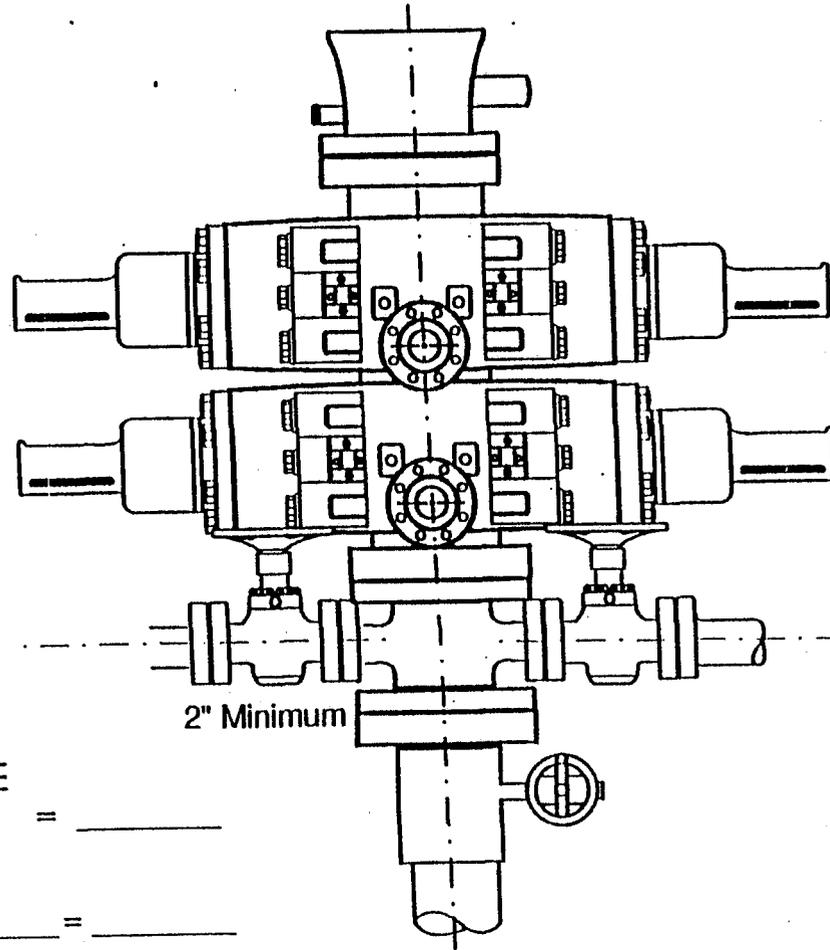
CUT	
(6") Topsoil Stripping	= 780 Cu. Yds.
Remaining Location	= 1,530 Cu. Yds.
TOTAL CUT	= 2,310 CU.YDS.
FILL	= 420 CU.YDS.

EXCESS MATERIAL AFTER 5% COMPACTION	= 1,870 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 1,240 Cu. Yds.
EXCESS MATERIAL After Reserve Pit is Backfilled & Topsoil is Re-distributed	= 630 Cu. Yds.

2-M SYSTEM

EXHIBIT F

RAM TYPE B.O.P.
 Make:
 Size:
 Model:



GAL TO CLOSE
 Annular BOP = _____
 Ramtype BOP
 _____ Rams x _____ = _____
 = _____ Gal.
 _____ x 2 = _____ Total Gal.

Rounding off to the next higher
 increment of 10 gal. would require
 _____ Gal. (total fluid & nitro volume)

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK **DRILL** **DEEPEN** **OTHER** **RE-ENTER**

1b. TYPE OF WELL
OIL **GAS** **REVISIED** **SINGLE** **MULTIPLE**
WELL **WELL** **ZONE** **ZONE**

2. NAME OF OPERATOR
INLAND PRODUCTION COMPANY

3. ADDRESS OF OPERATOR
P.O. Box 1446 Roosevelt, Utah 84066 Phone: (801)722-5103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At Surface **SW/NE**
At proposed Prod. Zone **1978' FNL & 1982' FEL**

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

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)
1978'

16. NO. OF ACRES IN LEASE
1968.01

17. NO. OF ACRES ASSIGNED TO THIS WELL
40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT.
2487'

19. PROPOSED DEPTH
6510'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5281.5' GR

22. APPROX. DATE WORK WILL START*
4th quarter 1996

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
7 1/2"	13 3/8"	54.5#	142'	150 sx Class G
12 1/4"	9 5/8"	36.0#	1994'	250 sx Class G
7 7/8 "	1/2"	17.0#	6510'	120 sx Class G

5. LEASE DESIGNATION AND SERIAL NO.
U-74869

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Tar Sands Federal

9. WELL NO.
7-29R

10. FIELD AND POOL OR WILDCAT

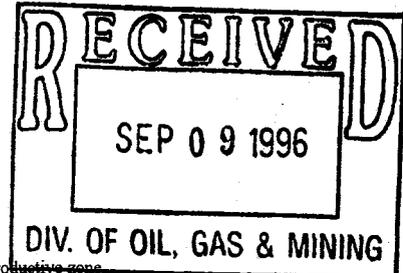
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 29, T8S, R17E

12. County
Duchesne

13. STATE
Utah

Inland Production Company is proposing to enter the existing well bore by drilling the existing plugs to the end of the 5 1/2" csg @ 6512'.

Inland Production Company is requesting that this well, known as PTS #32-29 (Pacific Transmission Supply Co.) API #43-013-30435, be renamed the Tar Sands Federal #7-29 R.



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 Brad Mecham TITLE District Operations Manager DATE 9/6/96

(This space for Federal or State office use)
PERMIT NO. [REDACTED] APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY: **Federal Approval of this Action is Necessary**

APPROVED BY Bradley G Hill TITLE **BRADLEY G. HILL** DATE 5/20/98
RECLAMATION SPECIALIST III

***See Instructions On Reverse Side**

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 09/30/96

API NO. ASSIGNED: 43-013-30435

WELL NAME: TAR SANDS FED 7-29 R (REENTRY)
 OPERATOR: INLAND PRODUCTION COMPANY (N5160)

PROPOSED LOCATION:
 SWNE 29 - T08S - R17E
 SURFACE: 1978-FNL-1982-FEL
 BOTTOM: 1978-FNL-1982-FEL
 DUCHESNE COUNTY
 TREATY BOUNDARY FIELD (130)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: FED
 LEASE NUMBER: U - 74869

PROPOSED PRODUCING FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

___ Plat
 ___ Bond: Federal[] State[] Fee[]
 (Number _____)
 ___ Potash (Y/N)
 ___ Oil shale (Y/N)
 ___ Water permit
 (Number _____)
 ___ RDCC Review (Y/N)
 (Date: _____)

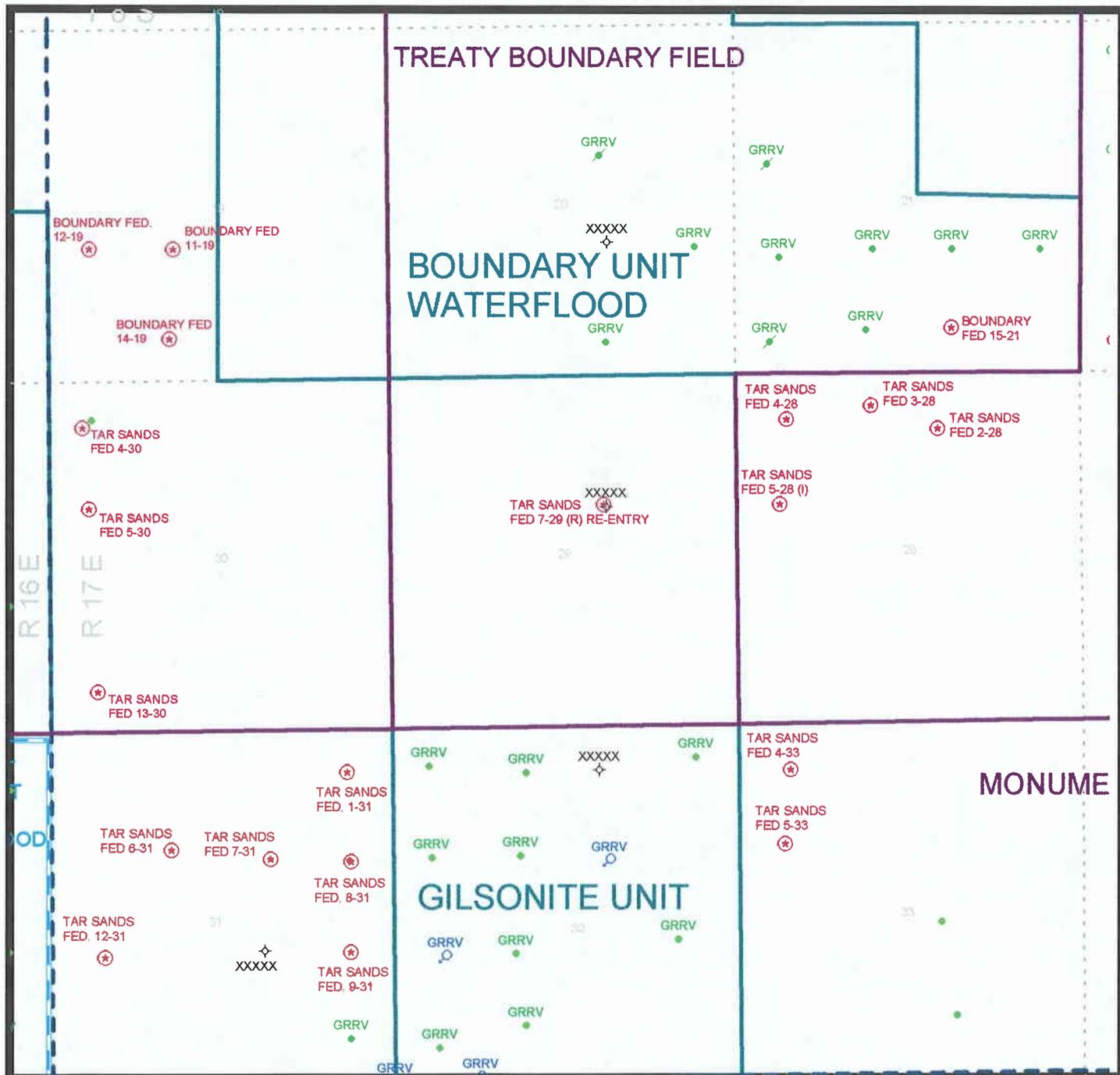
LOCATION AND SITING:

___ R649-2-3. Unit: _____
 ✓ R649-3-2. General.
 ___ R649-3-3. Exception.
 ___ Drilling Unit.
 Board Cause no: _____
 Date: _____

COMMENTS: _____

STIPULATIONS: ① FEDERAL APPROVAL

OPERATOR: INLAND PRODUCTION
 FIELD: UNDESIGNATED (002)
 SECTION: 29, T8S, R17E
 COUNTY: DUCHESNE
 SPACING: UAC R649-3-2



PREPARED:
 DATE: 3-SEPT-96



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

May 20, 1998

*See plat map
direct footages
are 1974' FNL 1981' FEL*

Inland Production Company
P.O. Box 790233
Vernal, Utah 84079

Re: Tar Sands Federal 7-29R Well, 1978' FNL, 1982' FEL, SW NE,
Sec. 29, T. 8 S., R. 17 E., Duchesne County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-013-30435.

Sincerely,


John R. Baza
Associate Director

lwp

Enclosures

cc: Duchesne County Assessor
Bureau of Land Management, Vernal District Office

Operator: Inland Production Company
Well Name & Number: Tar Sands Federal 7-29R
API Number: 43-013-30435
Lease: U-74869
Location: SW NE Sec. 29 T. 8 S. R. 17 E.

Conditions of Approval

1. General
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.
2. Notification Requirements
Notify the Division within 24 hours prior to spudding the well or commencing drilling operations. Contact Jim Thompson at (801) 538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Dan Jarvis at (801) 538-5338 or Robert Krueger at (801) 538-5274.
3. Reporting Requirements
All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.
4. State approval of this well does not supercede the required federal approval which must be obtained prior to drilling.

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

5. LEASE DESIGNATION AND SERIAL NO.
~~U-74869~~ **U-76956**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Greater Boundary

8. FARM OR LEASE NAME
Tar Sands Federal

9. WELL NO.
7-29R

10. FIELD AND POOL OR WILDCAT

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA
Sec. 29, T8S, R17E

12. County
Duchesne

13. STATE
Utah

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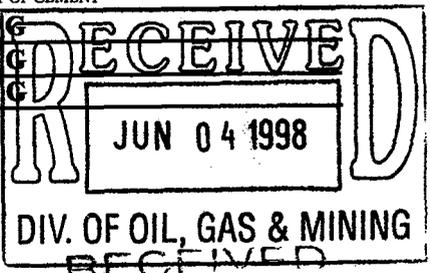
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4th quarter 1996

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SEP 09 1996

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24. SIGNED Brad Mecham TITLE District Operations Manager DATE 9/6/96

PERMIT NO. **NOTICE OF APPROVAL** APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY Howard R. Cleaving TITLE Assistant Field Manager DATE 5/26/98
Mineral Resources

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UT080-6M-206

CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Inland Production Company

Well Name & Number: Tar Sands Fed. 7-29R

API Number: 43-013-30435

Lease Number: U-74869

Location: SWNE Sec. 29 T. 8S R. 17E

NOTIFICATION REQUIREMENTS

- Location Construction - at least forty-eight (48) hours prior to construction of location and access roads.
- Location Completion - prior to moving on the drilling rig.
- Spud Notice - at least twenty-four (24) hours prior to spudding the well.
- Casing String and Cementing - at least twenty-four (24) hours prior to running casing and cementing all casing strings.
- BOP and Related Equipment Tests - at least twenty-four (24) hours prior to initiating pressure tests.
- First Production Notice - within five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days.

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative by the operator to insure compliance.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

All usable water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a 3M system and individual components shall be function tested prior to drilling out any plugs.

3. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

4. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. One copy of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

6. Notifications of Operations

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The Vernal Field Office shall be notified, during regular work hours (7:45 a.m.-4:30 p.m., Monday through Friday except holidays), at least 24 hours prior to spudding the well.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five (5) days following the date on which the well is placed on production.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

A schematic facilities diagram as required by 43 CFR 3162.7-5 (b.9. d.), and shall be submitted to the appropriate District Office within sixty (60) days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5 (b. 4).

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

All loading lines will be placed inside the berm surrounding the tank battery.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted following initial installation and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hours approval or notification is necessary, please contact one of the following individuals:

Wayne Bankert (801) 789-4170
Petroleum Engineer

Ed Forsman (801) 789-7077
Petroleum Engineer

Jerry Kenczka (801) 789-1190
Petroleum Engineer

BLM FAX Machine (801) 781-4410

EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubrication oils
- Waste compressor oil, filters, and blowdown
- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation and miscellaneous solids.

SURFACE USE PROGRAM
Conditions of Approval (COA)

Facilities

All permanent above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color Desert Brown (10YR 6/3).

Location Reclamation

The following seed mixture will be used on the stock piled topsoil, reclamation of the reserve pit and for final reclamation: (All poundages are in Pure Live Seed)

needle and thread	Stipa comata	3 lbs/acre
shadscale	Atriplex confertifolia	3 lbs/acre
fourwing saltbush	Atriplex canescens	4 lbs/acre
western wheatgrass	Agropyron smithii	2 lbs/acre

The location topsoil pile shall be seeded immediately after site construction by broadcasting the seed, then walking the topsoil pile with the dozer to plant the seed.

The reserve pit shall have a small amount of topsoil stock piled near by as shown on the cut sheet to be used to spread over the reserve pit area at the time the reserve pit is reclaimed.

At the time of final abandonment the location and access will be recontoured to natural topography and topsoil spread over the area and the surface seeded immediately. If the previously reclaimed surface of the reserve pit needs additional contouring, the topsoil over the pit will be scraped off and then used as additional topsoil for final reclamation.

Other Information

mountain plover

According to the timeframes listed on the following chart and prior to new construction and drilling activities, a detailed survey of the area within 0.5 mile of a proposed location and 300 feet either side of the center line of a proposed access route will be made by BLM or a qualified biologist to detect the presence of plovers. Extreme care shall be exercised to locate plovers due to their highly secretive and quiet nature. Where possible, the survey shall first be made from a stationary vehicle. All plovers located will be observed long enough to determine if a nest is present. If no visual sightings are made from the vehicle, the area will be surveyed again on foot.

Starting Date of Construction or Drilling Activity	Number of Surveys
From March 15 through April 15	1
From April 16 through July 15	2
From July 16 through August 15	1

The surveys will be conducted no more than 14 days prior to the date actual construction or drilling activities begin. If two surveys are required, they will be made at least 14 days apart with the last survey no more than 14 days prior to the start-up date.

If an active nest or chicks are found in the area, the planned activity will be delayed until the chicks are out of downy plumage; the brood vacates the area of influence; or, the nest has failed.

burrowing owl

Due to the proximity of the location to active prairie dog towns, there is the potential to encounter nesting burrowing owls between April 1 and July 15. No new construction or surface disturbing activities will be allowed between April 1 and July 15 within a 0.5 mile radius of any active burrowing owl nest.

2-M SYSTEM

Blowout Prevention Equipment Systems

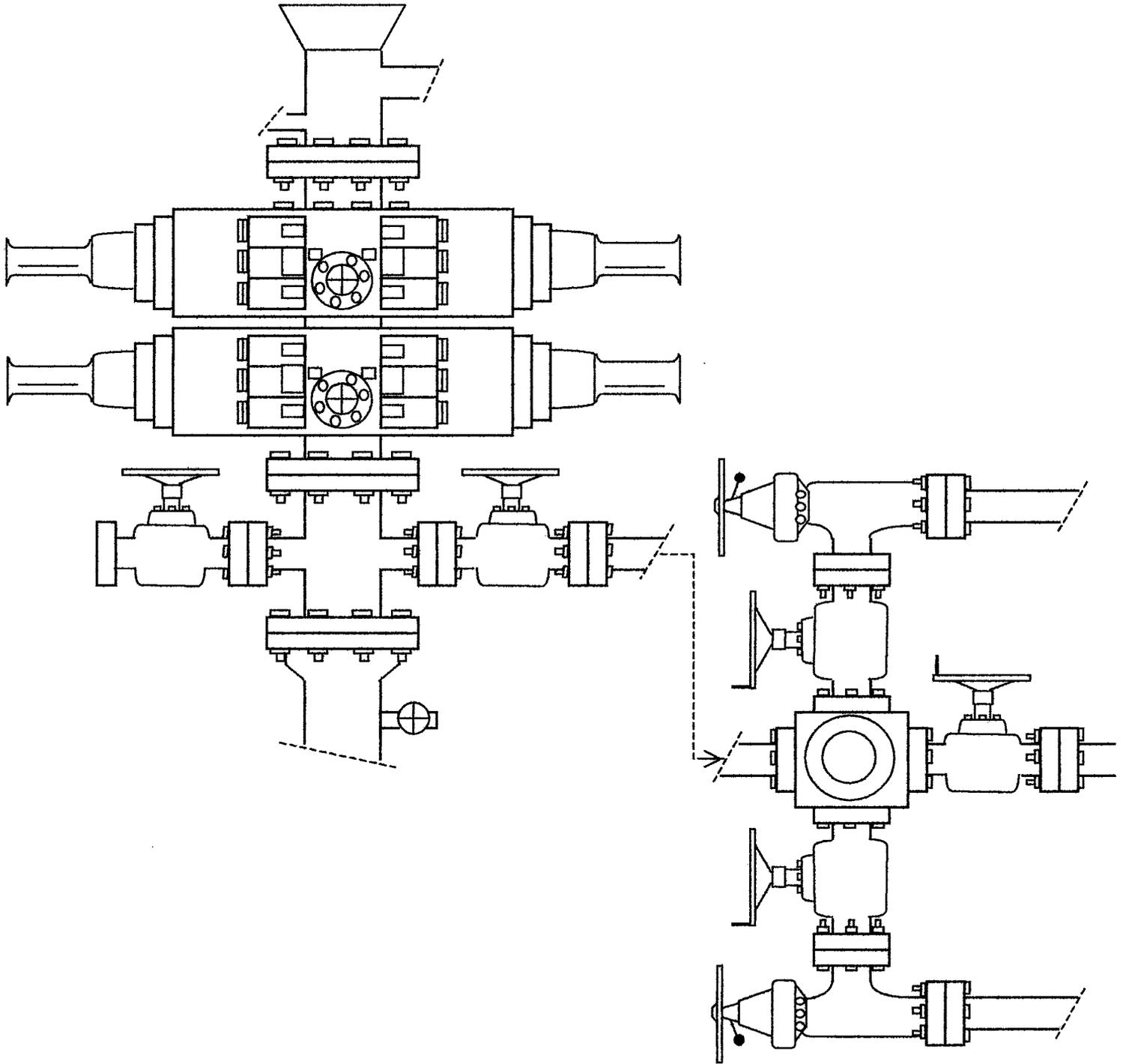


EXHIBIT C

DOGm
"LA"
DATE 8/31/2000

NOTES From Margie Hermann
BLM - Vernal - email to Don Staley
dated 8/30/2000.
Comments Highlighted

WELL FILE

Company Name	API	Well Name	Approval Date	Extension Date	Twp	Rng	Sec	County	Lease Type
COASTAL OIL & GAS CORP	4304733278	OURAY 3-74 NO BIA CONCURRENCE	08-Feb-99		090S	210E	03	UINTAH	INDIAN
DOMINION EXPL & PROD INC	4304733361	RBU 5-3F DRILLING	03-Aug-99		100S	200E	03	UINTAH	FEDERAL
EOG RESOURCES INC	4304733135	NBU 490-30E SPUD 9/21/98	09-Jul-98		090S	210E	30	UINTAH	FEDERAL
EOG RESOURCES INC	4304733214	CWU 569-28 NOT APPROVED YET	22-Oct-98		090S	220E	28	UINTAH	FEDERAL
FALCON CREEK RESOURCES	4301331997	TWIN KNOLLS 11-9 J EXPIRED 1/00	26-Jan-98	26-Jan-00	110S	170E	09	DUCHESNE	FEDERAL
INLAND PRODUCTION COMPANY	4301332123	UTE TRIBAL 8-30-4-2 NOT APPROVED YET	25-Nov-98		040S	020W	30	DUCHESNE	INDIAN
INLAND PRODUCTION COMPANY	4301331951	WELLS DRAW 9-30 EXTENDED TO 6/01	09-Jul-98		080S	160E	30	DUCHESNE	FEDERAL
INLAND PRODUCTION COMPANY	4301332114	WEST POINT 5-31-8-16 EXPIRES 12/11/00	09-Sep-98		080S	160E	31	DUCHESNE	FEDERAL
INLAND PRODUCTION COMPANY	4301332115	WEST POINT 6-31-8-16 EXPIRES 12/14/00	09-Sep-98		080S	160E	31	DUCHESNE	FEDERAL
INLAND PRODUCTION COMPANY	4301332116	WEST POINT 7-31-8-16 EXPIRES 12/14/00	09-Sep-98		080S	160E	31	DUCHESNE	FEDERAL
INLAND PRODUCTION COMPANY	4301332119	WEST POINT 9-31-8-16 EXPIRES 11/10/00	09-Sep-98		080S	160E	31	DUCHESNE	FEDERAL
INLAND PRODUCTION COMPANY	4301332120	WEST POINT 11-31-8-16 EXPIRES 11/10/00	09-Sep-98		080S	160E	31	DUCHESNE	FEDERAL
INLAND PRODUCTION COMPANY	4301332032	MONUMENT BUTTE 7N-35-8-16 NOT APPROVED YET	09-Jul-98		080S	160E	35	DUCHESNE	FEDERAL
INLAND PRODUCTION COMPANY	4301332106	SOUTH WELLS DRAW 13-3-9-16 EXPIRES 10/8/00	10-Aug-98		090S	160E	03	DUCHESNE	FEDERAL
LONE MTN PRODUCTION CO	4304733184	A FED H 41-28 EXPIRES 12/3/00	09-Sep-98		100S	240E	28	UINTAH	FEDERAL
LONE MTN PRODUCTION CO	4304733165	FED H 14-30 PRODUCING GAS WELL	19-Aug-98		100S	240E	30	UINTAH	FEDERAL
LONE MTN PRODUCTION CO	4304733183	FED T 31-11 HOLDING FOR NOW	14-Sep-98		120S	240E	11	UINTAH	FEDERAL
LONE MTN PRODUCTION CO	4304733323	FED V 12-21 DRILLING 4/27/99	24-Mar-99		130S	210E	21	UINTAH	FEDERAL
PACIFIC TRANS SUPPLY	4301330435	PTS 32-29 FEDERAL EXPIRED 5/00	20-May-98		080S	170E	29	DUCHESNE	FEDERAL
PETROGLYPH OPERATING CO	4301331930	UTE TRIBAL 30-13 NOT APPROVED YET	01-Jun-98		050S	030W	30	DUCHESNE	INDIAN
RETAMCO OPERATING INC	4304733311	RIVER BEND 13-27 EXPIRES 3/7/01	18-Mar-99		090S	190E	27	UINTAH	FEDERAL
RETAMCO OPERATING INC	4304733312	ROCK HOUSE 11-31 APPROVED 8/25/00	18-Mar-99		100S	230E	31	UINTAH	FEDERAL
RETAMCO OPERATING INC	4304733369	ATCHEE RIDGE 11-27-13-25 EXPIRES 8/31/00	20-Aug-99		130S	250E	27	UINTAH	FEDERAL
ROSEWOOD RESOURCES INC	4304733263	FEDERAL H 34-30 EXPIRES 4/22/01	18-Feb-99		100S	240E	30	UINTAH	FEDERAL
ROSEWOOD RESOURCES INC	4304733242	FEDERAL K 23-22 EXPIRES 4/22/01	10-Dec-98		110S	210E	22	UINTAH	FEDERAL
ROSEWOOD RESOURCES INC	4304733264	FEDERAL N 42-22 HOLDING FOR NOW	15-Dec-98		110S	240E	22	UINTAH	FEDERAL
ROSEWOOD RESOURCES INC	4304733217	HANGING ROCK I 4-14 HOLDING FOR NOW	20-Oct-98		120S	230E	04	UINTAH	FEDERAL
ROSEWOOD RESOURCES INC	4304733218	HANGING ROCK I 5-16 HOLDING FOR NOW	19-Oct-98		120S	230E	05	UINTAH	FEDERAL
ROSEWOOD RESOURCES INC	4304733234	HANGING ROCK I 6-2 HOLDING FOR NOW	10-Nov-98		120S	230E	06	UINTAH	FEDERAL
ROSEWOOD RESOURCES INC	4304733219	HANGING ROCK I 9-11 HOLDING FOR NOW	20-Oct-98		120S	230E	09	UINTAH	FEDERAL
SHENANDOAH ENERGY INC	4304733269	WVFU 18 WG NOT APPROVED YET	06-Jan-99		080S	210E	14	UINTAH	INDIAN



December 3, 2003

State of Utah
Division of Oil, Gas & Mining
Attn: Diana Whitney
1594 West North Temple - Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

RE: Applications for Permit to Drill: Greater Boundary Federal 7-29R-8-17 and
10-29-8-17.

Dear Diana:

Enclosed find APD's on the above referenced wells. The proposed Greater Boundary Federal 10-29-8-17 will be a directional well drilled off of the 7-29R-8-17 well pad. The proposed Greater Boundary Federal 7-29R-8-17 had previously been approved as the T.S.F. 7-29R. If you have any questions, feel free to give either Brad or myself a call.

Sincerely,

Mandie Crozier
Regulatory Specialist

mc
enclosures

RECEIVED

DEC 05 2003

DIV. OF OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. UTU-76956	
6. If Indian, Allottee or Tribe Name N/A	
7. If Unit or CA Agreement, Name and No. Greater Boundary Unit	
8. Lease Name and Well No. Greater Boundary Federal 7-29R-8-17	
9. API Well No. 43-013-32519	
10. Field and Pool, or Exploratory Monument Butte	
11. Sec., T., R., M., or Blk. and Survey or Area SW/NE Sec. 29, T8S R17E	
12. County or Parish Duchesne	13. State UT
14. Distance in miles and direction from nearest town or post office* Approximatley 11.2 miles southeast of Myton, Utah	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <small>Approx. 1981' f/ise, 3299' f/unit</small>	16. No. of Acres in lease 600.00
17. Spacing Unit dedicated to this well 40 Acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1314'	19. Proposed Depth 6500'
20. BLM/BIA Bond No. on file #4488944	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5281' GR	22. Approximate date work will start* 2nd Quarter 2004
23. Estimated duration <small>Approximately seven (7) days from spud to rig release.</small>	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Mandie Crozier</i>	Name (Printed/Typed) Mandie Crozier	Date 12/3/03
Title Regulatory Specialist		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

Federal Approval of this
Action is Necessary

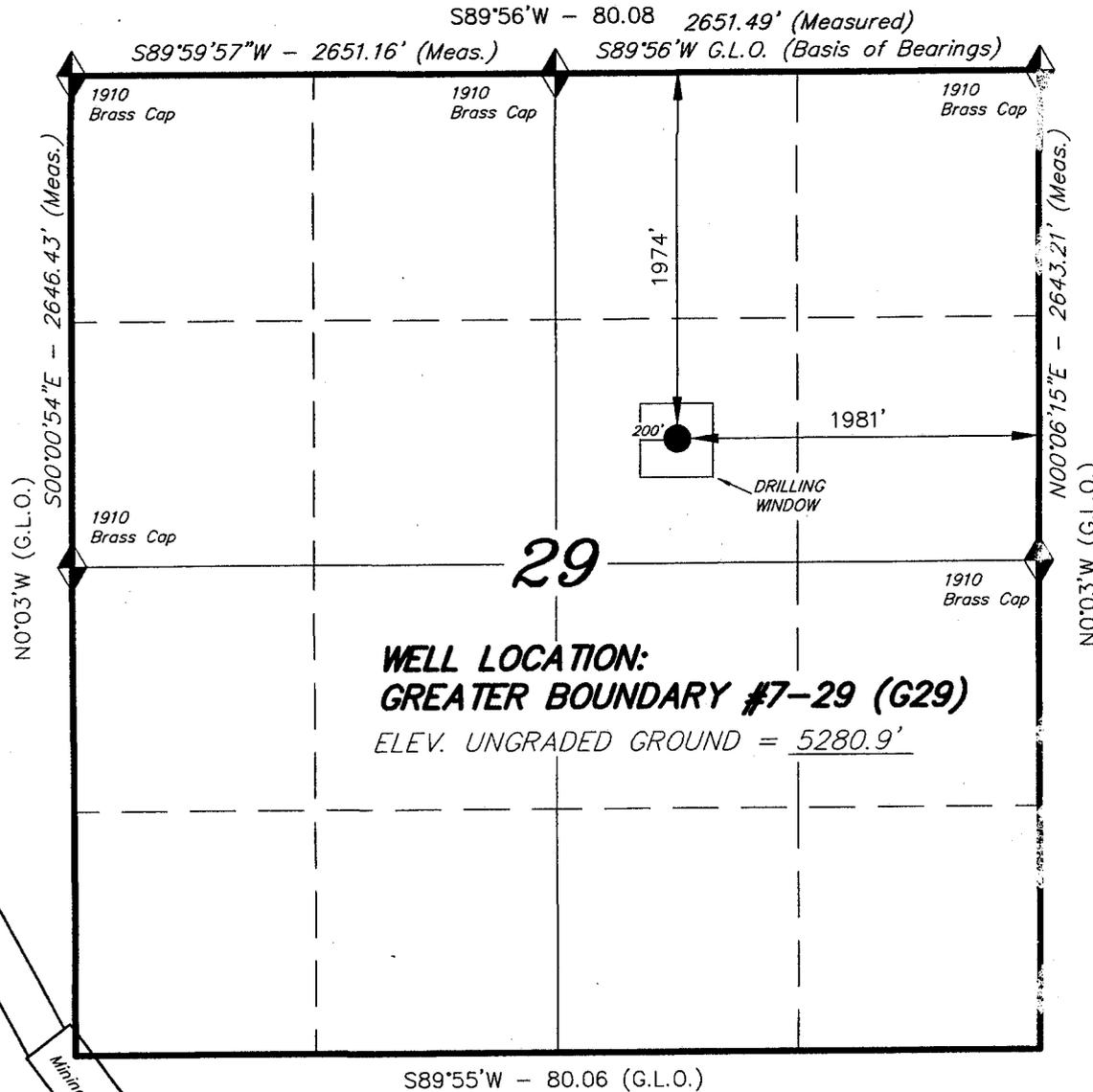
**APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING**
DATE: 12-16-03
BY: [Signature]

RECEIVED
DEC 05 2003
DIV. OF OIL, GAS & MINING

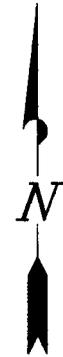
T8S, R17E, S.L.B.&M.

INLAND PRODUCTION COMPANY

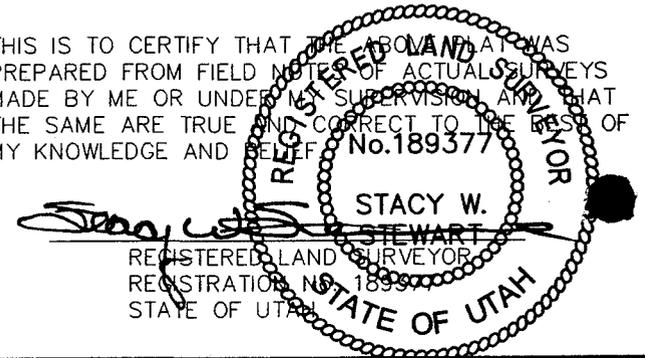
WELL LOCATION, GREATER BOUNDARY #7-29 (G29), LOCATED AS SHOWN IN THE SW 1/4 NE 1/4 OF SECTION 29, T8S, R17E, S.L.B.&M. DUCHESNE COUNTY, UTAH.



WELL LOCATION:
GREATER BOUNDARY #7-29 (G29)
 ELEV. UNGRADED GROUND = 5280.9'



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. No. 189377



TRI STATE LAND SURVEYING & CONSULTING
 38 WEST 100 NORTH - VERNAL, UTAH 84078
 (435) 781-2501

SCALE: 1" = 1000'	SURVEYED BY: D.J.S.
DATE: 4-13-03	DRAWN BY: R.V.C.
NOTES:	FILE #

◆ = SECTION CORNERS LOCATED
 BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD
 (MYTON SE)

Greater Boundary #7-29 (G29)
 (Surface Location)
 LATITUDE = 40° 05' 26.80"
 LONGITUDE = 110° 01' 40.77"

Mining Claims

**INLAND PRODUCTION COMPANY
GREATER BOUNDARY FEDERAL #7-29R-8-17
SW/NE SECTION 29, T8S, R17E
DUCHESNE COUNTY, UTAH**

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. GEOLOGIC SURFACE FORMATION:

Uinta formation of Upper Eocene Age

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

Uinta	0' – 3050'
Green River	3050'
Wasatch	6475'

3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:

Green River Formation 3050' – 6475' - Oil

4. PROPOSED CASING PROGRAM

13 3/8" J-55 54.5# existing csg @ 142'
9 5/8" 36# existing csg @ 1994'
5 1/2" 17# existing csg @ 6510'

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

The operators minimum specifications for pressure control equipment are are follows:

An 8" Double Ram Hydraulic unit with a closing unit will be utilized. Function test of BOP's will be checked daily.

See Exhibit "C" for a diagram of BOP equipment that will be used on this well.

6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:

The existing plugs will be drilled out with fresh water and KCL, or KCL substitute.

7. AUXILIARY SAFETY EQUIPMENT TO BE USED:

Auxiliary safety equipment will be a TIW valve with drill pipe threads.

8. TESTING, LOGGING AND CORING PROGRAMS:

Logs have already been run on this well and are on file with the Bureau of Land Management. It is anticipated that no new logs will be run on this well.

9. **ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**

The anticipated maximum bottom hole pressure is 2000 psi. It is not anticipated that abnormal temperatures will be encountered; or that any abnormal hazards such as H₂S will be encountered in this area.

10. **ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

It is anticipated that the re-entry operations will commence in 2004, and take approximately four (4) days to complete.

**INLAND PRODUCTION COMPANY
GREATER BOUNDARY FEDERAL #7-29R-8-17
SW/NE SECTION 29, T8S, R17E
DUCHESNE COUNTY, UTAH**

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. EXISTING ROADS

See attached Topographic Map "A"

To reach Inland Production Company well location site Greater Boundary Federal #7-29R-8-17 located in the SW 1/4 NE 1/4 Section 29, T8S, R17E, Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.6 miles \pm to the junction of this highway and UT State Hwy 53; proceed southeasterly along Hwy 53 - 8.3 miles \pm to its junction with an existing road to the east; proceed easterly 1.3 miles \pm to its junction with the beginning of the access road; proceed southeasterly along the access road 225' \pm to the well location.

The highways mentioned in the foregoing paragraph are bituminous surfaced roads to the point where Highway 216 exists to the South, thereafter the roads are constructed with existing materials and gravel. The highways are maintained by Utah State road crews. All other roads are maintained by County crews.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads for access during the re-entry process will be maintained at the standards required by the State of Utah, or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal.

2. PLANNED ACCESS ROAD

No new access road is proposed. See Topographic Map "B" for the location of the existing access road.

3. LOCATION OF EXISTING WELLS

Refer to Exhibit "B".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

This will be a two well pad. The proposed Greater Boundary Federal 10-29-8-17 will also be drilled from this well pad.

There are no existing facilities that will be used by this well.

It is anticipated that this well will be a producing oil well.

Upon construction of a tank battery, the well pad will be surrounded by a dike of sufficient capacity to contain a minimum 110% of the largest tank volume within the facility battery.

Tank batteries will be built to BLM specifications.

All permanent (on site for six (6) months or longer) structures, constructed or installed (including pumping units), will be painted Desert Tan. All facilities will be painted within six months of installation.

5. **LOCATION AND TYPE OF WATER SUPPLY**

Fresh water purchased from the Johnson Water District will be used for dilling. A temporary poly pipeline may be used for water transportation from our existing supply line from Johnson Water District, or trucked from Inland Production Company's injection facilities. See Exhibit "A".

There will be no water well drilled at this site.

A 2" dry gas line will be run along the existing access road to supply dry gas to the drilling rig.

6. **SOURCE OF CONSTRUCTION MATERIALS**

All construction material for this location shall be borrowed material accumulated during construction of the location site and access road.

A mineral material application is not required for this location.

7. **METHODS FOR HANDLING WASTE DISPOSAL**

A small reserve pit (140' x 50' x 8' deep, or less) will be constructed from native soil and clay materials. The reserve pit will receive the cement cuttings removed from the wellbore.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the dilling activities.

Immediately upon first production, all produced water will be confined in storage tanks. Inland requests temporary approval to transfer the produced water to Inland's nearby waterflood, for re-injection into the waterflood reservoirs via existing approved injection wells. Within 90 days of first production, a water analysis will be submitted to the Authorized Officer along with an application for approval of this, as a permanent disposal method.

8. **ANCILLARY FACILITIES**

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

9. **WELL SITE LAYOUT**

See attached Location Layout Diagram.

Fencing Requirements

All pits will be fenced according to the following minimum standards:

- a) A 39-inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- c) Corner posts shall be centered and/or braced in such a manner to keep tight at all times
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.

- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three (3) sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

10. **PLANS FOR RESTORATION OF SURFACE**

a) **Producing Location**

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, material, trash and junk not required for production.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximated natural contours. Weather permitting, the reserve pit will be reclaimed within one hundred twenty (120) days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed.

b) **Dry Hole Abandoned Location**

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the State of Utah will attach the appropriate surface rehabilitation conditions of approval.

11. **SURFACE OWNERSHIP** - Bureau Of Land Management

12. **OTHER ADDITIONAL INFORMATION**

- a) Inland Production Company is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, Inland is to immediately stop work that might further disturb such materials and contact the Authorized Officer.
- b) Inland Production will control noxious weeds along rights-of-way for roads, pipelines, well sites or other applicable facilities. On State administered land it is required that a Pesticide Use Proposal shall be submitted and given approval prior to the application of herbicides or other possible hazardous chemicals.
- c) Drilling rigs and/or equipment used during re-entry operations on this well site will not be stacked or stored on State Lands after the conclusion of drilling operations or at any other time without State authorization. However, if State authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

Inland Production Company requests a 60' ROW for the Greater Boundary Federal #7-29R-8-17 to allow for construction of a 3" gas gathering line, and a 2" poly fuel gas line. Both lines will tie in to the existing pipeline infrastructure. **Refer to Topographic Map "C."** For a ROW plan of development, please refer to the Monument Butte Field SOP.

Inland Production Company also requests a 60' ROW be granted for the Greater Boundary Federal #7-29R-8-17 to allow for construction of a 3" steel water injection line and a 3" poly water return line. **Refer to Topographic Map "C."** For a ROW plan of development, please refer to the Monument Butte Field SOP.

The Paleontological Resource Survey and Archaeological Resource Survey for this area are on file with the Bureau of Land Management.

Additional Surface Stipulations

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations, Onshore Oil and Gas Orders, the approved plan of operations and any applicable Notice to Lessees. A copy of these conditions will be furnished to the field representative to ensure compliance.

Hazardous Material Declaration

Inland Production Company guarantees that during the re-entry operation and completion of the Greater Boundary Federal 7-29R-8-17, Inland will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Inland also guarantees that during the drilling and completion of the Greater Boundary Federal 7-29R-8-17; Inland will use, produce, store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and drilling activities.

Inland Production Company or a contractor employed by Inland Production shall contact the B.L.M. office at (435) 781-4400, 48 hours prior to construction activities.

The B.L.M. office shall be notified upon site completion prior to moving on the drilling rig.

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Representative

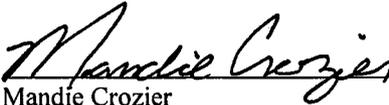
Name: Brad Mecham
Address: Route #3 Box 3630
Myton, UT 84052
Telephone: (435) 646-3721

Certification

Please be advised that INLAND PRODUCTION COMPANY is considered to be the operator of well #7-29R-8-17 SW/NE Section 29, Township 8S, Range 17E: Lease UTU-76956 Duchesne County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4488944.

I hereby certify that the proposed drillsite and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Inland Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

12/3/03
Date

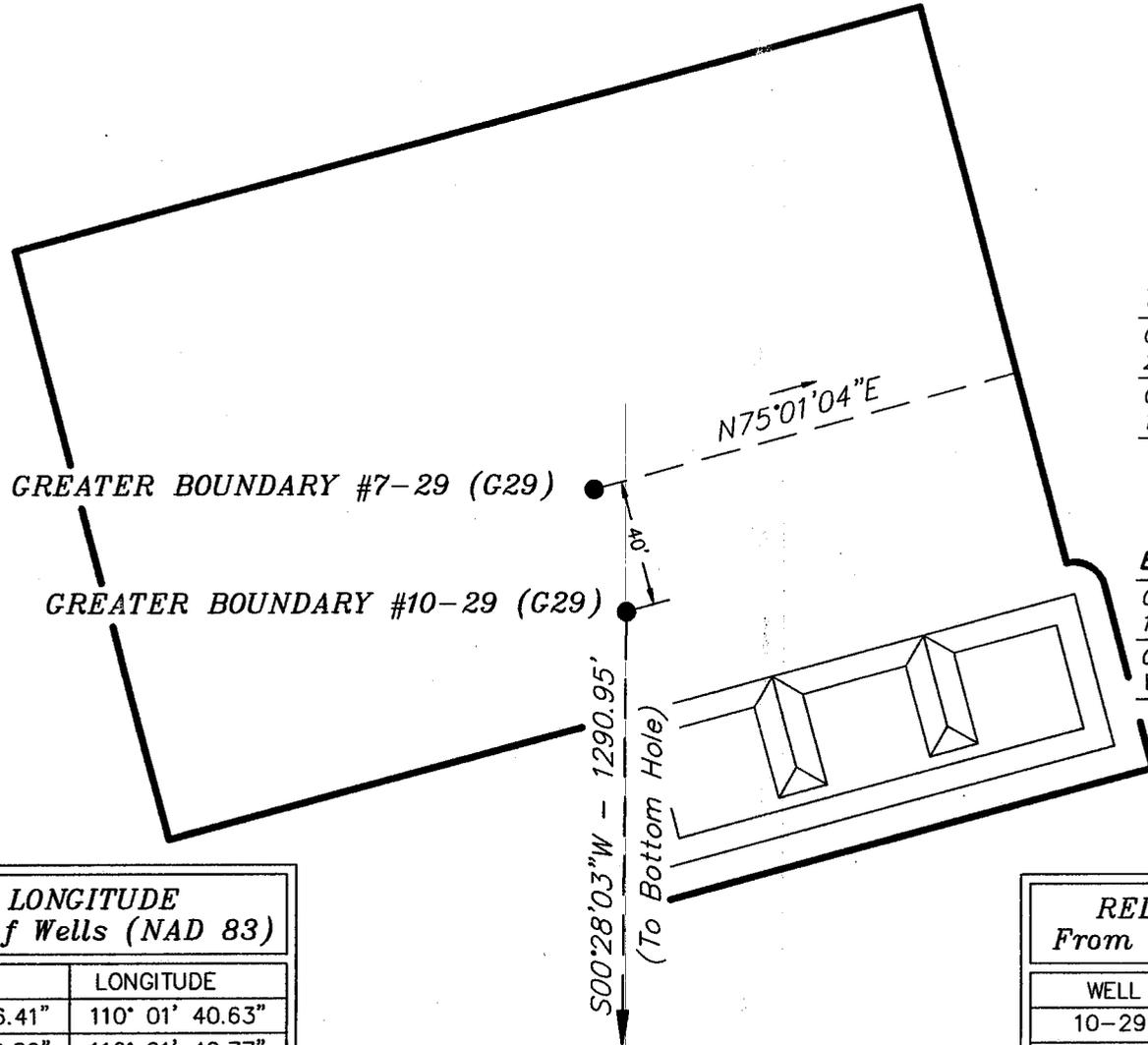
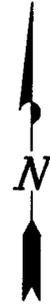

Mandie Crozier
Regulatory Specialist

INLAND PRODUCTION COMPANY

WELL PAD INTERFERENCE PLAT

WELL PAD (G29)

Section 29, T8S, R17E, S.L.B.&M.



TOP HOLE FOOTAGES

GREATER BOUNDARY 10-29 (G29)
2013' FNL & 1970' FEL

GREATER BOUNDARY #7-29 (G29)
1974' FNL & 1981' FEL

BOTTOM HOLE FOOTAGES

GREATER BOUNDARY 10-29 (G29)
1980' FSL & 1980' FEL

GREATER BOUNDARY #7-29 (G29)
Vertical

LATITUDE & LONGITUDE
Surface position of Wells (NAD 83)

WELL	LATITUDE	LONGITUDE
10-29	40° 05' 26.41"	110° 01' 40.63"
7-29	40° 05' 26.80"	110° 01' 40.77"

RELATIVE COORDINATES
From top hole to bottom hole

WELL	NORTH	EAST
10-29	-1,291'	-11'
7-29	Vertical	

SURVEYED BY: D.J.S.

SCALE: 1" = 60'

DRAWN BY: R.V.C.

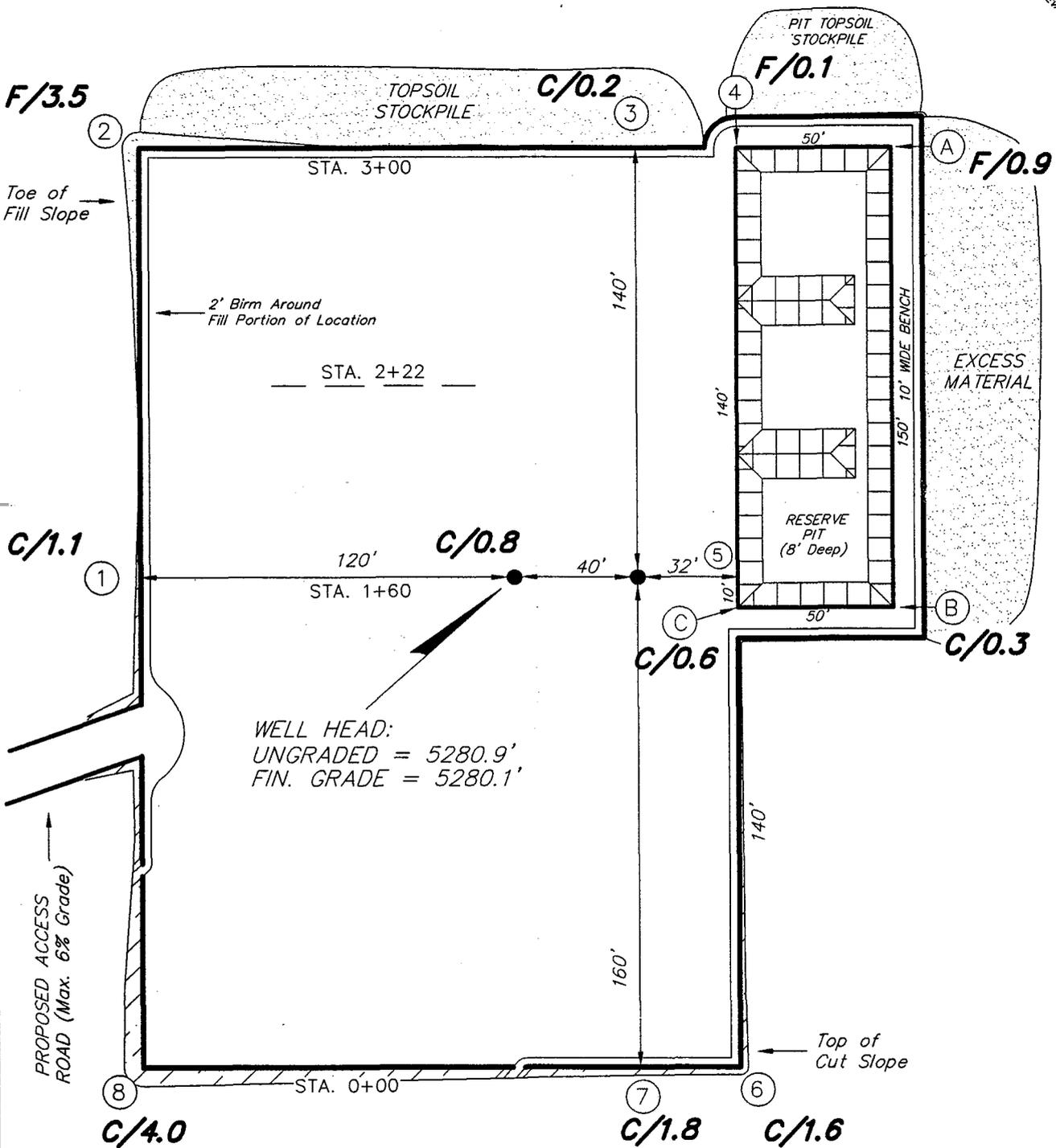
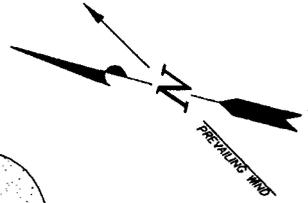
DATE: 4-14-03

Tri State (435) 781-2501
Land Surveying, Inc.
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

INLAND PRODUCTION COMPANY

WELL PAD (G29)

SECTION 29, T8S, R17E, S.L.B.&M.



REFERENCE POINTS

- 210' NORTH = 5,277.8'
- 260' NORTH = 5,277.8'
- 190' EAST = 5,278.8'
- 240' EAST = 5,277.9'

SURVEYED BY: D.J.S.	SCALE: 1" = 50'
DRAWN BY: R.V.C.	DATE: 4-14-03

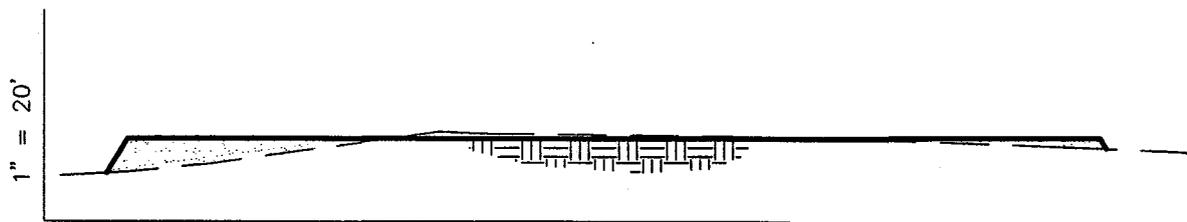
Tri State
Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078

(435) 781-2501

INLAND PRODUCTION COMPANY

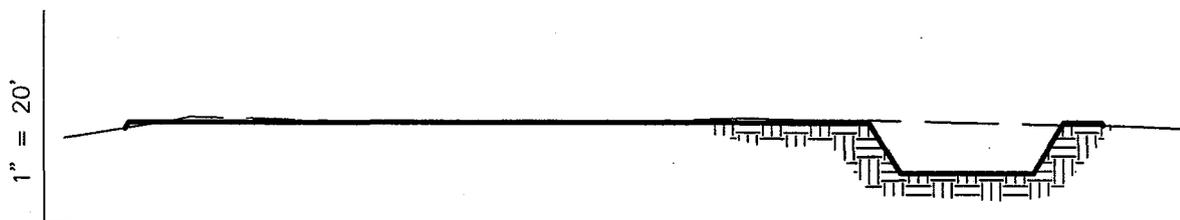
CROSS SECTIONS

WELL PAD (G29)



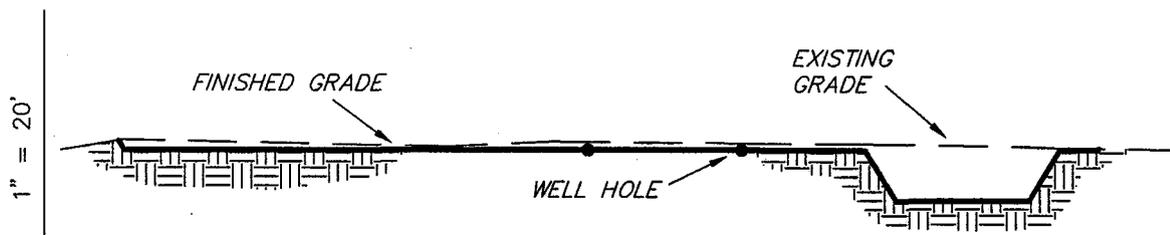
1" = 50'

STA. 3+00



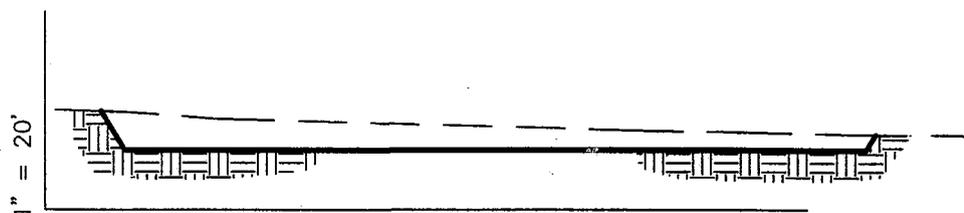
1" = 50'

STA. 2+22



1" = 50'

STA. 1+60



1" = 50'

STA. 0+00

NOTE:
UNLESS OTHERWISE NOTED
ALL CUT/FILL SLOPES ARE
AT 1.5:1

ESTIMATED EARTHWORK QUANTITIES

(Expressed in Cubic Yards)

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	520	520	Topsoil is not included in Pad Cut	0
PIT	1,620	0		1,620
TOTALS	2,140	520	1,260	1,620

SURVEYED BY: D.J.S.

SCALE: 1" = 50'

DRAWN BY: R.V.C.

DATE: 4-14-03

Tri State
Land Surveying, Inc.

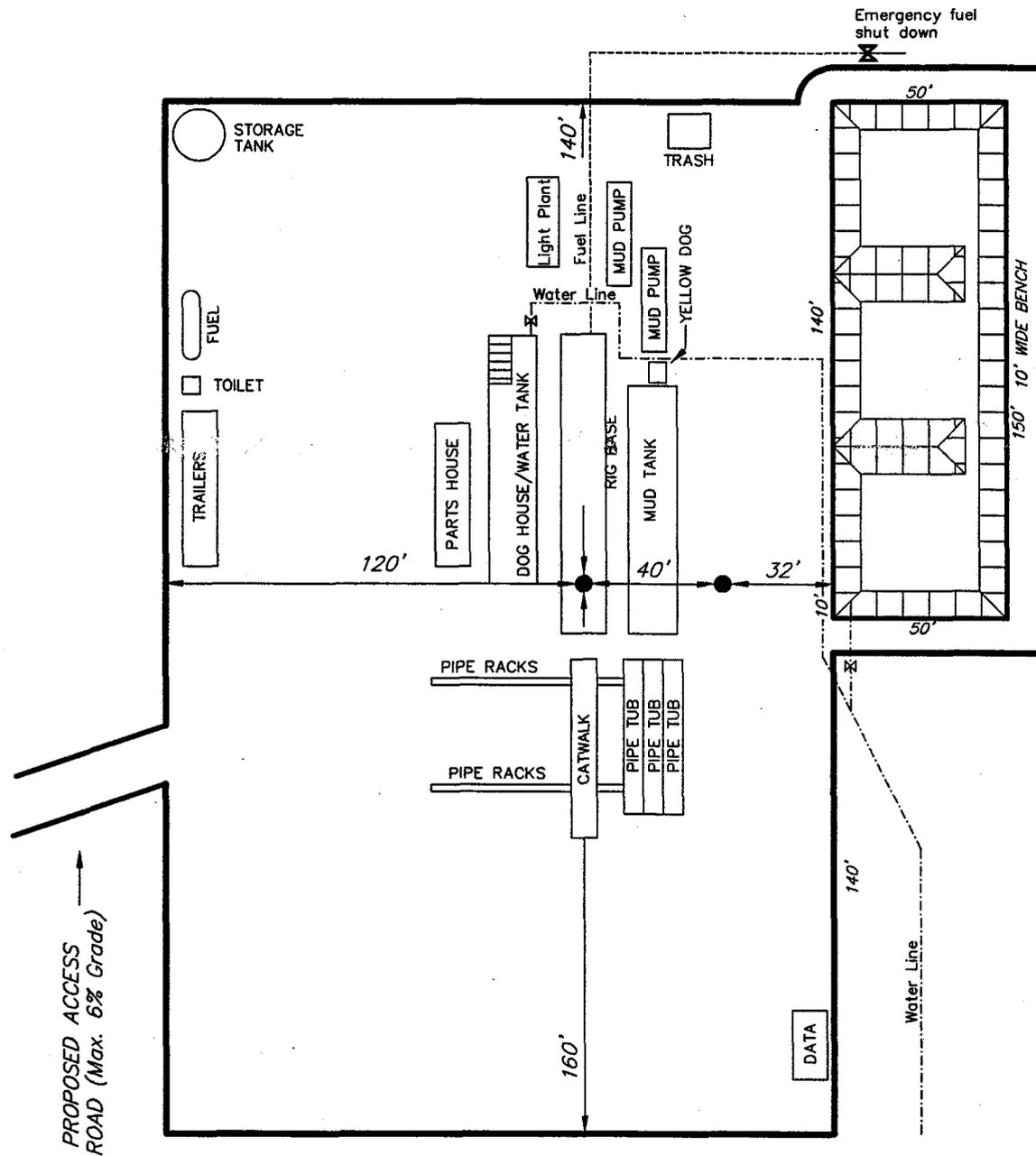
(435) 781-2501

38 WEST 100 NORTH VERNAL, UTAH 84078

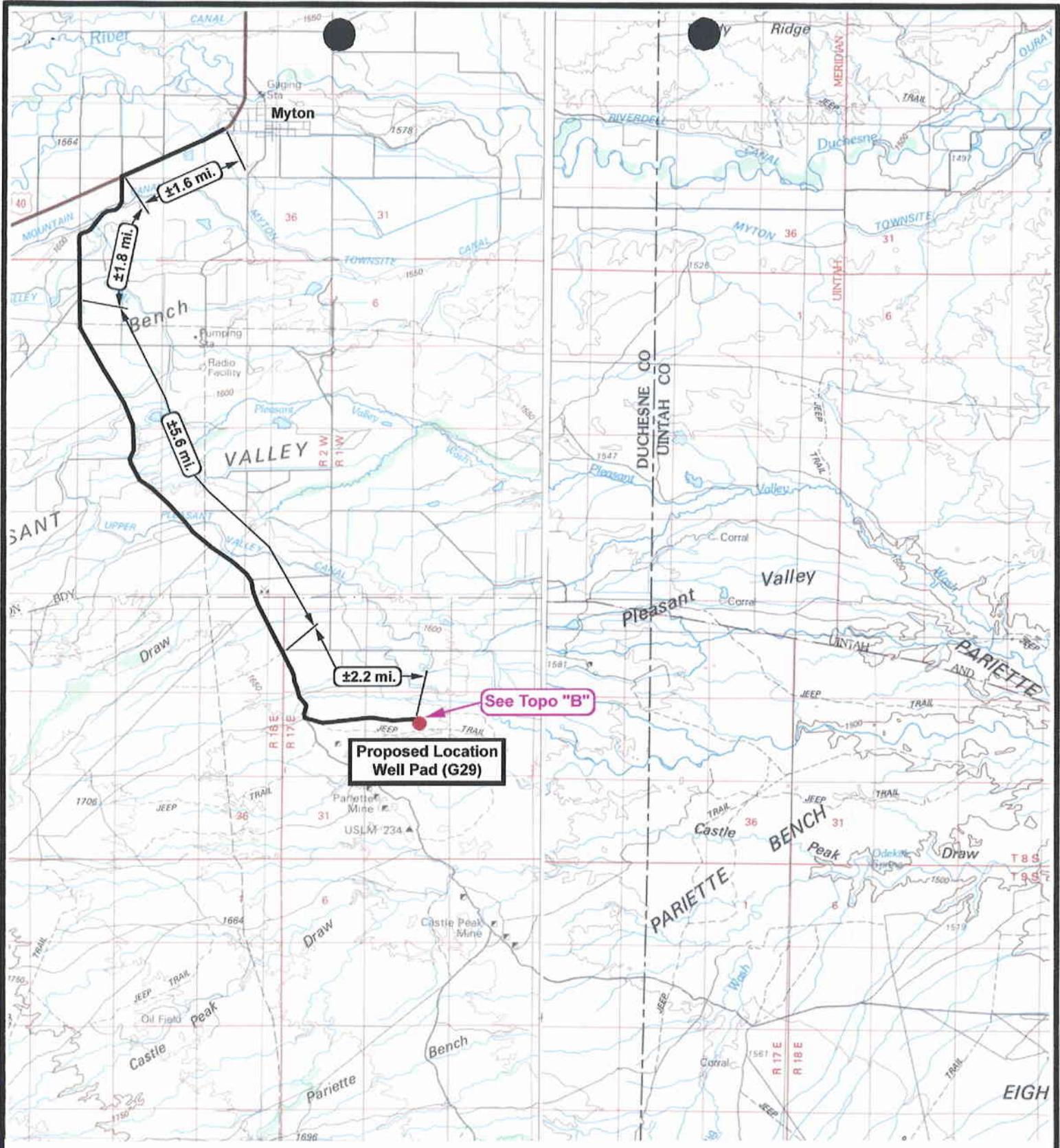
INLAND PRODUCTION COMPANY

TYPICAL RIG LAYOUT

WELL PAD (G29)



SURVEYED BY: D.J.S.	SCALE: 1" = 50'	 Tri State Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078 (435) 781-2501
DRAWN BY: R.V.C.	DATE: 4-14-03	



Well Pad (G29)
SEC. 29, T8S, R17E, S.L.B.&M.



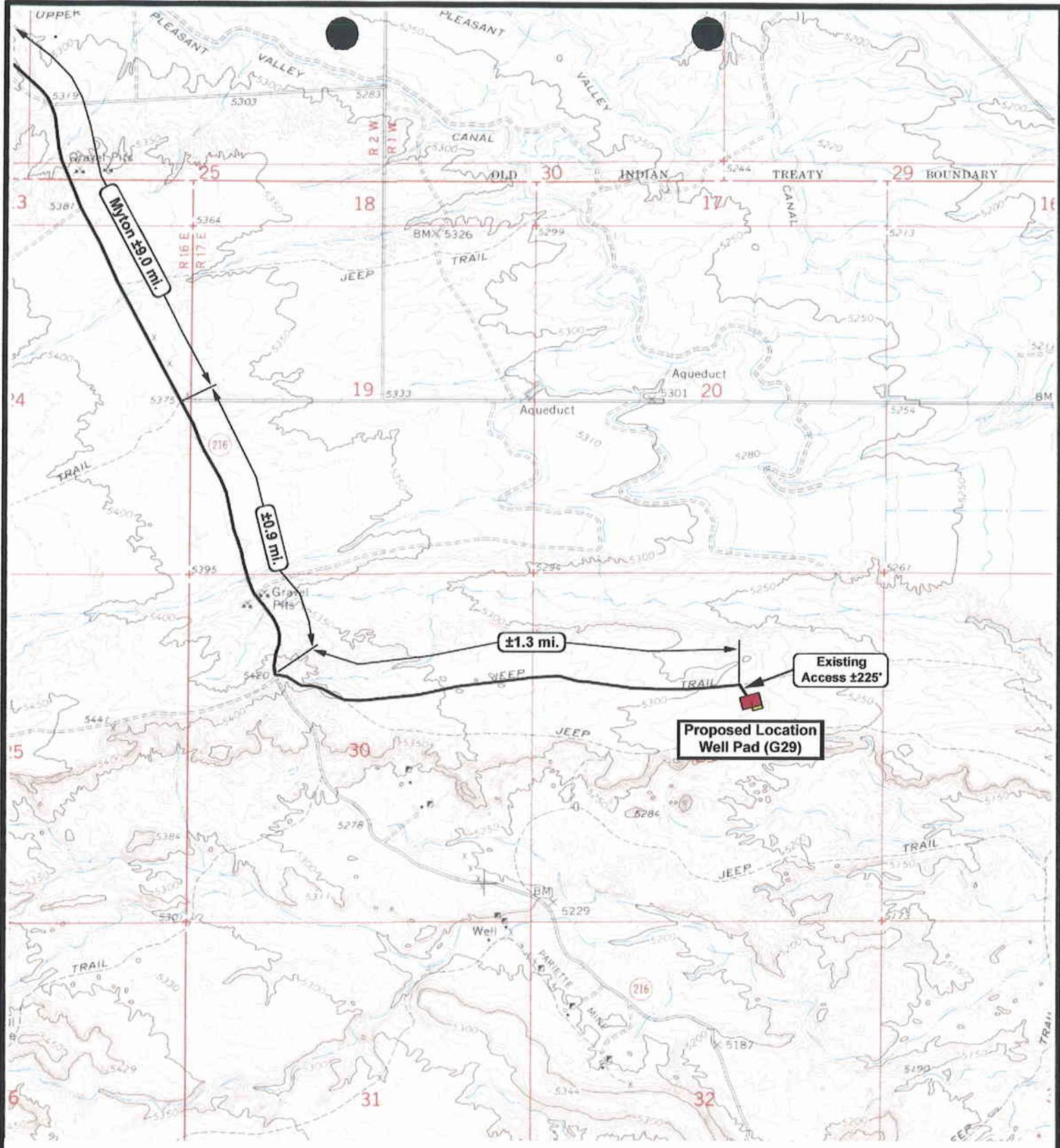
Tri-State
Land Surveying Inc.
 (435) 781-2501
 180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1 = 100,000
 DRAWN BY: R.A.B.
 DATE: 04-14-2003

Legend

Existing Road

TOPOGRAPHIC MAP
"A"



Well Pad (G29)
SEC. 29, T8S, R17E, S.L.B.&M.



Tri-State
Land Surveying Inc.
 (435) 781-2501
 180 North Vernal Ave. Vernal, Utah 84078

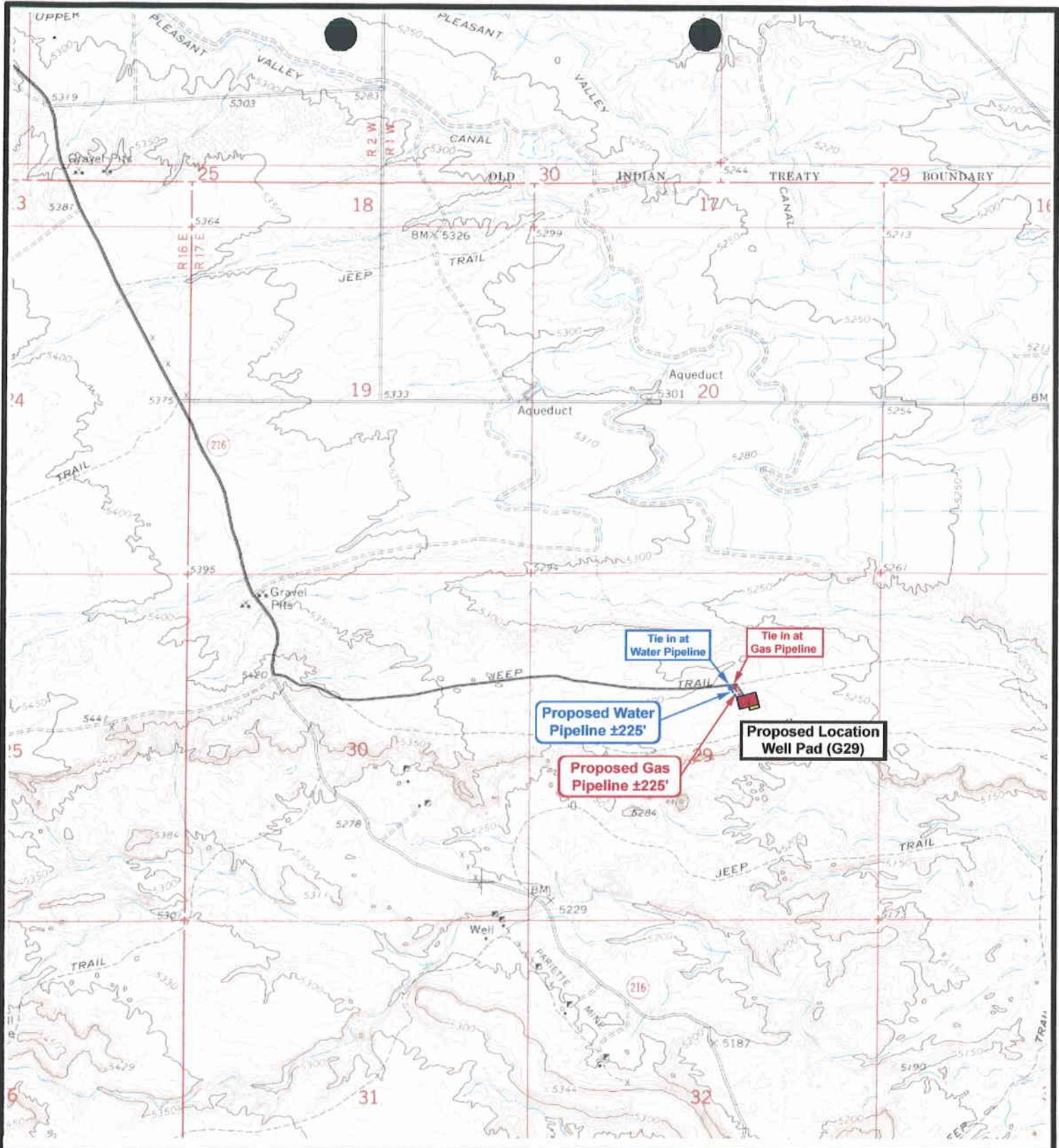
SCALE: 1" = 2,000'
 DRAWN BY: R.A.B.
 DATE: 04-14-2003

Legend

Existing Road

TOPOGRAPHIC MAP

"B"



**Well Pad (G29)
SEC. 29, T8S, R17E, S.L.B.&M.**



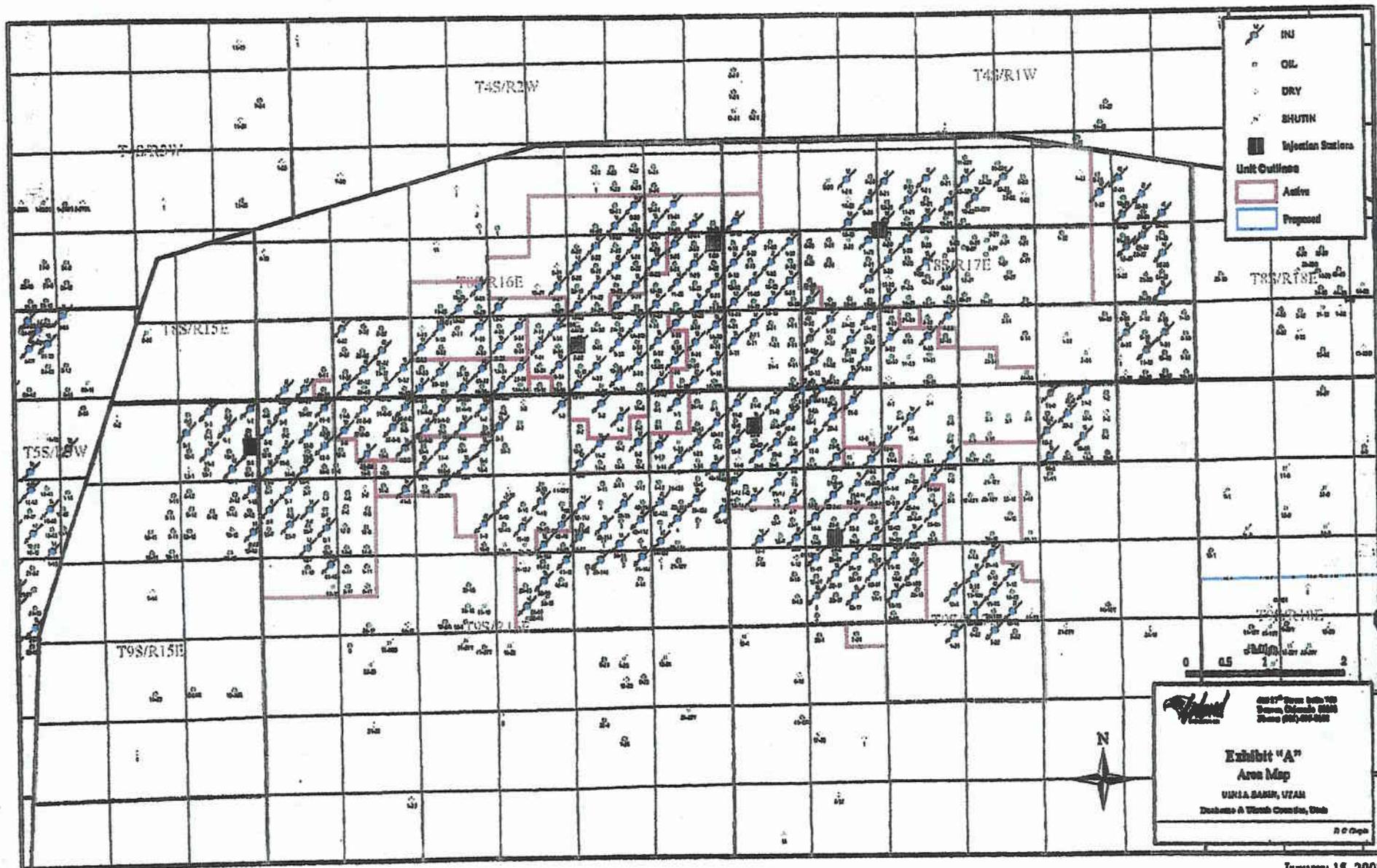
**Tri-State
Land Surveying Inc.**
(435) 781-2501
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'
DRAWN BY: R.A.B.
DATE: 04-17-2003

Legend	
	Roads
	Existing Gas Line
	Proposed Gas Line
	Existing Water Line
	Proposed Water Line

TOPOGRAPHIC MAP

"C"

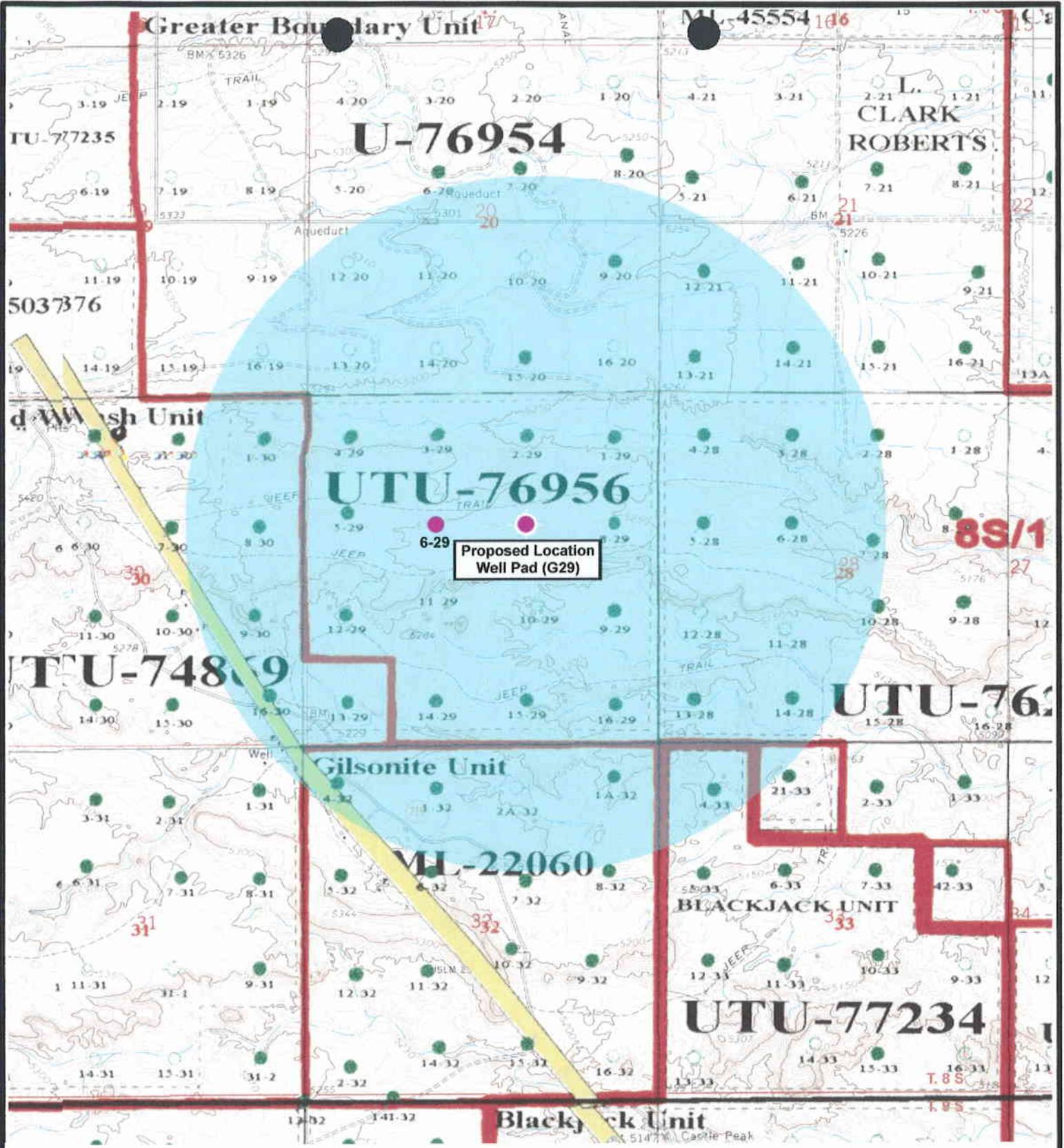


IN
 OL
 DRY
 SHUTIN
 Injection Stations
 Unit Outlines
 Active
 Proposed


 600 West 10th St
 Salt Lake City, UT 84119
 Phone (801) 524-4000

Exhibit "A"
Area Map
 URIA BASIN, UTAH
 Deane & Worth Consulting, Utah
 11/02/03

January 15, 2003



Proposed Location
Well Pad (G29)



Well Pad (G29)
SEC. 29, T8S, R17E, S.L.B.&M.



Tri-State
Land Surveying Inc.
(435) 781-2501
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'
DRAWN BY: R.A.B.
DATE: 04-14-2003

Legend

- Proposed Location
- One-Mile Radius

Exhibit "B"

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 12/05/2003

API NO. ASSIGNED: 43-013-30435

WELL NAME: GB FED 7-29R-8-17
 OPERATOR: INLAND PRODUCTION (N5160)
 CONTACT: MANDIE CROZIER

PHONE NUMBER: 435-646-3721

PROPOSED LOCATION:
 SWNE 29 080S 170E
 SURFACE: 1974 FNL 1981 FEL
 BOTTOM: 1974 FNL 1981 FEL
 DUCHESNE
 MONUMENT BUTTE (105)

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal
 LEASE NUMBER: UTU-76956
 SURFACE OWNER: 1 - Federal
 PROPOSED FORMATION: GRRV

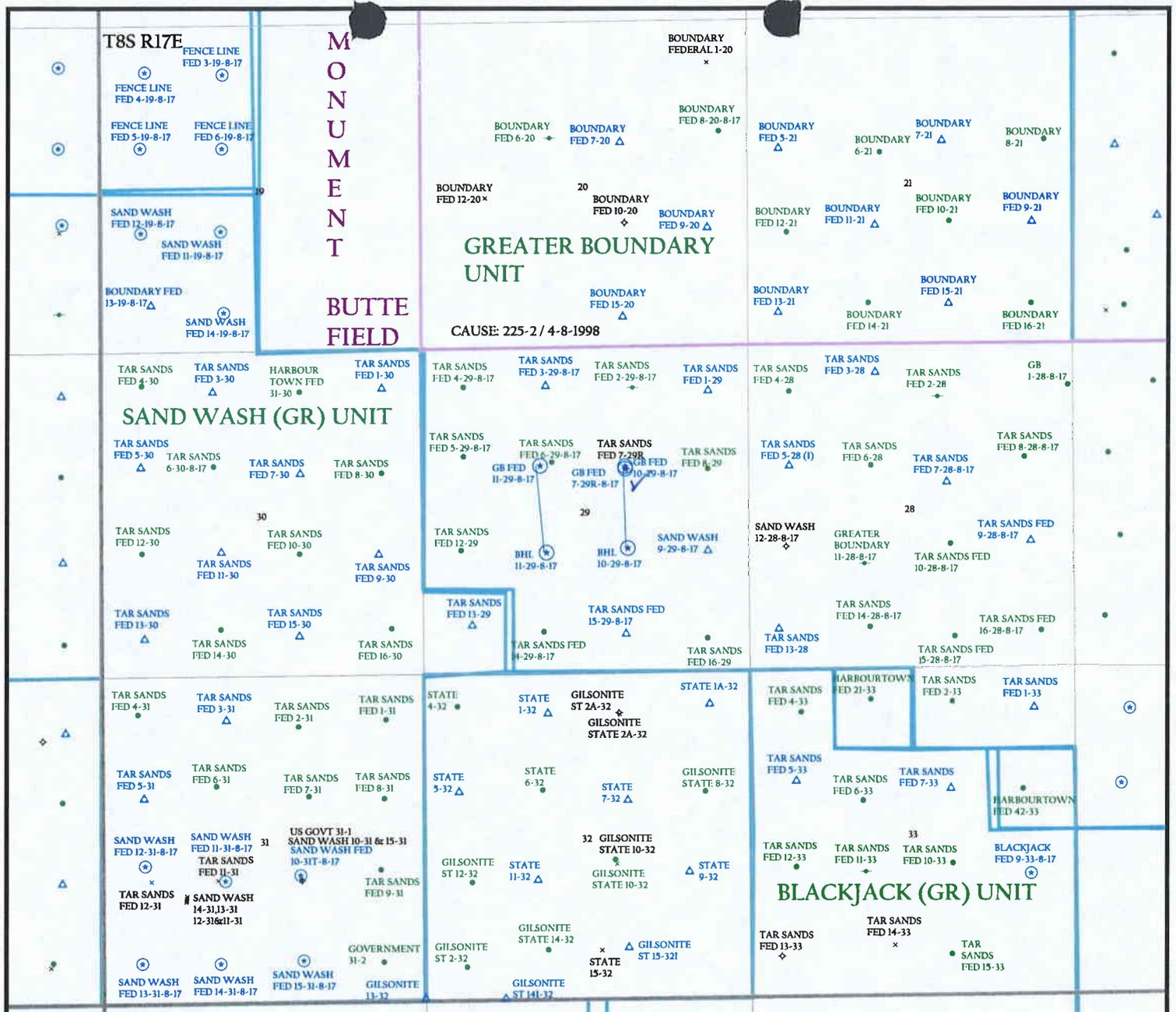
LATITUDE: 40.09090
 LONGITUDE: 110.02731

RECEIVED AND/OR REVIEWED:
 Plat
 Bond: Fed[1] Ind[] Sta[] Fee[]
 (No. 4488944)
 Potash (Y/N)
 Oil Shale 190-5 (B) or 190-3 or 190-13
 Water Permit
 (No. MUNICIPAL)
 RDCC Review (Y/N)
 (Date: _____)
 Fee Surf Agreement (Y/N)

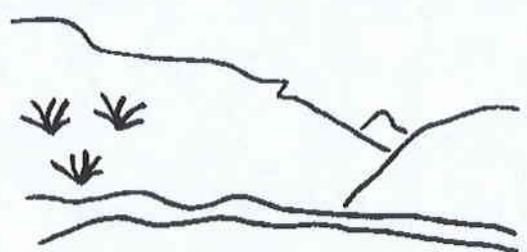
LOCATION AND SITING:
 _____ R649-2-3.
 Unit GREATER BOUNDARY (GR)
 _____ R649-3-2. General
 Siting: 460 From Qtr/Qtr & 920' Between Wells
 _____ R649-3-3. Exception
 Drilling Unit
 Board Cause No: 225-2
 Eff Date: 4-8-1998
 Siting: Suspends General Siting
 _____ R649-3-11. Directional Drill

COMMENTS: _____

STIPULATIONS: 1-Federal approval



OPERATOR: INLAND PRODUCTION CO (N5160)
SEC. 29 T.8S, R.17E
FIELD: MONUMENT BUTTE (105)
COUNTY: DUCHESNE
CAUSE: 225-2 / 4-8-1998



Utah Oil Gas and Mining

- Wells**
- ✓ GAS INJECTION
 - GAS STORAGE
 - LOCATION ABANDONED
 - NEW LOCATION
 - PLUGGED & ABANDONED
 - PRODUCING GAS
 - PRODUCING OIL
 - SHUT-IN GAS
 - SHUT-IN OIL
 - × TEMP. ABANDONED
 - TEST WELL
 - △ WATER INJECTION
 - WATER SUPPLY
 - WATER DISPOSAL

- Unit Status**
- EXPLORATORY
 - GAS STORAGE
 - NF PP OIL
 - NF SECONDARY
 - PENDING
 - PI OIL
 - PP GAS
 - PP GEOTHERML
 - PP OIL
 - SECONDARY
 - TERMINATED

- Field Status**
- ABANDONED
 - ACTIVE
 - COMBINED
 - INACTIVE
 - PROPOSED
 - STORAGE
 - TERMINATED



PREPARED BY: DIANA WHITNEY
 DATE: 08-DECEMBER-2003

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

December 12, 2003

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2003 Plan of Development Greater Boundary
Unit, Duchesne County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following well is planned for calendar year 2003 within the Greater Boundary Unit, Duchesne County, Utah.

API #	WELL NAME	LOCATION
-------	-----------	----------

(Proposed PZ Green River)

43-013-30435 Greater Boundary 7-29R-8-17 Sec 29 T8S R17E 1974 FNL 1981 FEL

The well was previously permitted on May 20, 1998 and the location is slightly different. This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Greater Boundary Unit
Division of Oil Gas and Mining
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:12-12-03



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340 telephone
(801) 359-3940 fax
(801) 538-7223 TTY
www.nr.utah.gov

Michael O. Leavitt
Governor

Robert L. Morgan
Executive Director

Lowell P. Braxton
Division Director

December 16, 2003

Inland Production Company
Route 3, Box 3630
Myton, UT 84052

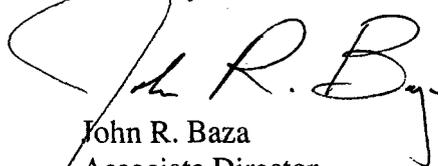
Re: Greater Boundary Federal 7-29R-8-17 Well, 1974' FNL, 1981' FEL, SW NE, Sec. 29,
T. 8 South, R. 17 East, Duchesne County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-013-30435.

Sincerely,



John R. Baza
Associate Director

pab
Enclosures

cc: Duchesne County Assessor
Bureau of Land Management, Vernal District Office

Operator: Inland Production Company

Well Name & Number Greater Boundary Federal 7-29R-8-17

API Number: 43-013-30435

Lease: UTU-76956

Location: SW NE **Sec.** 29 **T.** 8 South **R.** 17 East

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dan Jarvis at (801) 538-5338

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
<http://www.blm.gov>

IN REPLY REFER TO:
3106
(UT-924)

September 16, 2004

Memorandum

To: Vernal Field Office

From: Acting Chief, Branch of Fluid Minerals

Subject: Merger Approval

Attached is an approved copy of the name change recognized by the Utah State Office. We have updated our records to reflect the merger from Inland Production Company into Newfield Production Company on September 2, 2004.

Michael Coulthard
Acting Chief, Branch of
Fluid Minerals

Enclosure

1. State of Texas Certificate of Registration

cc: MMS, Reference Data Branch, James Sykes, PO Box 25165, Denver CO 80225
State of Utah, DOGM, Attn: Earlene Russell, PO Box 145801, SLC UT 84114
Teresa Thompson
Joe Incardine
Connie Seare

UTSL-	15855	61052	73088	76561	
071572A	16535	62848	73089	76787	
065914	16539	63073B	73520A	76808	
	16544	63073D	74108	76813	
	17036	63073E	74805	76954	63073X
	17424	63073O	74806	76956	63098A
	18048	64917	74807	77233	68528A
UTU-	18399	64379	74808	77234	72086A
	19267	64380	74389	77235	72613A
02458	26026A	64381	74390	77337	73520X
03563	30096	64805	74391	77338	74477X
03563A	30103	64806	74392	77339	75023X
04493	31260	64917	74393	77357	76189X
05843	33992	65207	74398	77359	76331X
07978	34173	65210	74399	77365	76788X
09803	34346	65635	74400	77369	77098X
017439B	36442	65967	74404	77370	77107X
017985	36846	65969	74405	77546	77236X
017991	38411	65970	74406	77553	77376X
017992	38428	66184	74411	77554	78560X
018073	38429	66185	74805	78022	79485X
019222	38431	66191	74806	79013	79641X
020252	39713	67168	74826	79014	80207X
020252A	39714	67170	74827	79015	81307X
020254	40026	67208	74835	79016	
020255	40652	67549	74868	79017	
020309D	40894	67586	74869	79831	
022684A	41377	67845	74870	79832	
027345	44210	68105	74872	79833	
034217A	44426	68548	74970	79831	
035521	44430	68618	75036	79834	
035521A	45431	69060	75037	80450	
038797	47171	69061	75038	80915	
058149	49092	69744	75039	81000	
063597A	49430	70821	75075		
075174	49950	72103	75078		
096547	50376	72104	75089		
096550	50385	72105	75090		
	50376	72106	75234		
	50750	72107	75238		
10760	51081	72108	76239		
11385	52013	73086	76240		
13905	52018	73087	76241		
15392	58546	73807	76560		



Office of the Secretary of State

The undersigned, as Secretary of State of Texas, does hereby certify that the attached is a true and correct copy of each document on file in this office as described below:

Newfield Production Company
Filing Number: 41530400

Articles of Amendment

September 02, 2004

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on September 10, 2004.



A handwritten signature in black ink, appearing to read "G. Connor".

Secretary of State

ARTICLES OF AMENDMENT
TO THE
ARTICLES OF INCORPORATION
OF
INLAND PRODUCTION COMPANY

FILED
In the Office of the
Secretary of State of Texas
SEP 02 2004
Corporations Section

Pursuant to the provisions of Article 4.04 of the Texas Business Corporation Act (the "TBCA"), the undersigned corporation adopts the following articles of amendment to the articles of incorporation:

ARTICLE 1 – Name

The name of the corporation is Inland Production Company.

ARTICLE 2 – Amended Name

The following amendment to the Articles of Incorporation was approved by the Board of Directors and adopted by the shareholders of the corporation on August 27, 2004.

The amendment alters or changes Article One of the Articles of Incorporation to change the name of the corporation so that, as amended, Article One shall read in its entirety as follows:

"ARTICLE ONE – The name of the corporation is Newfield Production Company."

ARTICLE 3 – Effective Date of Filing

This document will become effective upon filing.

The holder of all of the shares outstanding and entitled to vote on said amendment has signed a consent in writing pursuant to Article 9.10 of the TBCA, adopting said amendment, and any written notice required has been given.

IN WITNESS WHEREOF, the undersigned corporation has executed these Articles of Amendment as of the 1st day of September, 2004.

INLAND RESOURCES INC.

By: Susan G. Riggs
Susan G. Riggs, Treasurer

OPERATOR CHANGE WORKSHEET

ROUTING

1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

X Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective:		9/1/2004
FROM: (Old Operator): N5160-Inland Production Company Route 3 Box 3630 Myton, UT 84052 Phone: 1-(435) 646-3721	TO: (New Operator): N2695-Newfield Production Company Route 3 Box 3630 Myton, UT 84052 Phone: 1-(435) 646-3721	

CA No. Unit: GREATER BOUNDARY (GR)

WELL(S)									
NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS	
BOUNDARY FED 15-20	20	080S	170E	4301330667	12391	Federal	WI	A	
BOUNDARY FED 9-20	20	080S	170E	4301330690	12391	Federal	WI	A	
BOUNDARY FED 7-20	20	080S	170E	4301330750	12391	Federal	WI	A	
BOUNDARY FED 6-20	20	080S	170E	4301331626	12391	Federal	OW	S	
BOUNDARY FED 13-21	21	080S	170E	4301330665	12391	Federal	WI	A	
BOUNDARY FED 11-21	21	080S	170E	4301330752	12391	Federal	WI	A	
BOUNDARY FED 5-21	21	080S	170E	4301330822	12391	Federal	WI	A	
BOUNDARY FED 12-21	21	080S	170E	4301331440	12391	Federal	OW	S	
BOUNDARY FED 14-21	21	080S	170E	4301331441	12391	Federal	OW	P	
BOUNDARY FED 10-21	21	080S	170E	4301331532	12391	Federal	OW	P	
BOUNDARY FED 9-21	21	080S	170E	4301331542	12391	Federal	WI	A	
BOUNDARY 8-21	21	080S	170E	4301331557	12391	Fee	OW	P	
BOUNDARY FED 15-21	21	080S	170E	4301331622	12391	Federal	WI	A	
BOUNDARY FED 16-21	21	080S	170E	4301331627	12391	Federal	OW	P	
BOUNDARY 7-21	21	080S	170E	4301331640	12391	Fee	WI	A	
TAR SANDS FED 3-28	28	080S	170E	4301331623	12391	Federal	WI	A	
TAR SANDS FED 4-28	28	080S	170E	4301331641	12391	Federal	OW	P	
TAR SANDS FED 2-28	28	080S	170E	4301331642	12391	Federal	OW	S	
TAR SANDS FED 5-28 (I)	28	080S	170E	4301331697	12391	Federal	WI	A	
GB FED 7-29R-8-17	29	080S	170E	4301330435		Federal	D	PA	K

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 9/15/2004
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 9/15/2004
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 2/23/2005
- Is the new operator registered in the State of Utah: YES Business Number: 755627-0143
- If **NO**, the operator was contacted on:

6a. (R649-9-2)Waste Management Plan has been received on: IN PLACE
6b. Inspections of LA PA state/fee well sites complete on: waived

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM BIA

8. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: n/a

9. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: na/

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 2/23/2005

DATA ENTRY:

- 1. Changes entered in the Oil and Gas Database on: 2/28/2005
- 2. Changes have been entered on the Monthly Operator Change Spread Sheet on: 2/28/2005
- 3. Bond information entered in RBDMS on: 2/28/2005
- 4. Fee/State wells attached to bond in RBDMS on: 2/28/2005
- 5. Injection Projects to new operator in RBDMS on: 2/28/2005
- 6. Receipt of Acceptance of Drilling Procedures for APD/New on: waived

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: UT 0056

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: 61BSBDH2912

FEE & STATE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 61BSBDH2919

2. The **FORMER** operator has requested a release of liability from their bond on: n/a*
The Division sent response by letter on: n/a

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS:

*Bond rider changed operator name from Inland Production Company to Newfield Production Company - received 2/23/05

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

UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number See Attached List		API Number
Location of Well		Field or Unit Name See Attached List
Footage :	County :	Lease Designation and Number
QQ, Section, Township, Range:		State : UTAH

EFFECTIVE DATE OF TRANSFER: 9/1/2004

CURRENT OPERATOR

Company: Inland Production Company
 Address: 1401 17th Street Suite 1000
city Denver state Co zip 80202
 Phone: (303) 893-0102
 Comments:

Name: Brian Harris
 Signature: *Brian Harris*
 Title: Engineering Tech.
 Date: 9/15/2004

NEW OPERATOR

Company: Newfield Production Company
 Address: 1401 17th Street Suite 1000
city Denver state Co zip 80202
 Phone: _____
 Comments:

Name: Brian Harris
 Signature: *Brian Harris*
 Title: Engineering Tech.
 Date: 9/15/2004

(This space for State use only)

Transfer approved by: *A. Hunt*
 Title: *Tech Services Manager*

Approval Date: 9-20-04

Comments: Note: Indian Country wells will require EPA approval.

RECEIVED
SEP 20 2004
DIV. OF OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.
UTU-76956

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA, Agreement Designation
GREATER BOUNDARY

8. Well Name and No.
GREATER BOUNDARY FED 7-29R-8-17

9. API Well No.
43-013-30435

10. Field and Pool, or Exploratory Area
MONUMENT BUTTE

11. County or Parish, State
DUCHESNE COUNTY, UT.

SUBMIT IN TRIPLICATE

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
INEWFIELD PRODUCTION COMPANY

3. Address and Telephone No.
Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)
1974 FNL 1981 FEL SW/NE Section 29, T8S R17E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent <input type="checkbox"/> Subsequent Report <input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Abandonment <input type="checkbox"/> Recompletion <input type="checkbox"/> Plugging Back <input type="checkbox"/> Casing Repair <input type="checkbox"/> Altering Casing <input checked="" type="checkbox"/> Other Permit Extension
	<input type="checkbox"/> Change of Plans <input type="checkbox"/> New Construction <input type="checkbox"/> Non-Routine Fracturing <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Dispose Water

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

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Newfield Production Company requests to extend the Permit to Drill this well for one year. The original approval date was 12/16/03 (expiration 12/16/04).

3

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 12-01-04

By: [Signature]

RECEIVED

NOV 30 2004

DIV. OF OIL, GAS & MINING

COPY SENT TO OPERATOR
Date: 12-2-04
Initials: CHD

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

Signed Mandie Crozier Title Regulatory Specialist Date 11/29/2004
Mandie Crozier

CC: UTAH DOGM

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

CC: Utah DOGM

RESET

**Application for Permit to Drill
Request for Permit Extension
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

API: 43-013-30435
Well Name: Greater Boundary Federal 7-29R-8-17
Location: SW/NE Section 29, T8S R17E
Company Permit Issued to: Newfield Production Company
Date Original Permit Issued: 12/16/2003

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No

Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes No

Has the approved source of water for drilling changed? Yes No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

Is bonding still in place, which covers this proposed well? Yes No


Signature

11/29/2004
Date

Title: Regulatory Specialist

Representing: Newfield Production Company

RECEIVED
 DEC - 4 2003
 By _____

Form 3160-3
(September 2001)

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input type="checkbox"/> DRILL <input checked="" type="checkbox"/> REENTER		5. Lease Serial No. UTU-76956	
		6. If Indian, Allottee or Tribe Name N/A	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No. Greater Boundary Unit 1172-100-10	
2. Name of Operator Inland Production Company		8. Lease Name and Well No. Greater Boundary Federal 7-29R-8-17	
3a. Address Route #3 Box 3630, Myton UT 84052		9. API Well No. 43-013-20435	
3b. Phone No. (include area code) (435) 646-3721		10. Field and Pool, or Exploratory Monument Butte	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SW/NE 1974' FNL 1981' FEL At proposed prod. zone		11. Sec., T., R., M., or Blk. and Survey or Area SW/NE Sec. 29, T8S R17E	
14. Distance in miles and direction from nearest town or post office* Approximatley 11.2 miles southeast of Myton, Utah		12. County or Parish Duchesne	13. State UT
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 1981' f/se, 3299' f/unit	16. No. of Acres in lease 600.00	17. Spacing Unit dedicated to this well 40 Acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1314'	19. Proposed Depth 6500'	20. BLM/BIA Bond No. on file #4488944	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5281' GR	22. Approximate date work will start* 2nd Quarter 2004	23. Estimated duration Approximately seven (7) days from spud to rig release.	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer. |
|--|---|

25. Signature <i>Mandie Crozier</i>	Name (Printed/Typed) Mandie Crozier	Date 12/3/03
Title Regulatory Specialist		
Approved by (Signature) <i>Thomas B. Cleary</i>	Name (Printed/Typed)	Date 03/15/2005
Title Assistant Field Manager Mineral Resources		

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

RECEIVED

APR 01 2005

DIV. OF OIL, GAS & MINING

ROW 31362
NOTICE OF APPROVAL
U.D.O.G.M.

CONDITIONS OF APPROVAL ATTACHED

CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Inland Production Company
Well Name & Number: GREATER BOUNDARY FEDERAL 7-29R-8-17
API Number: 43-013-30435
Lease Number: UTU - 76956
Location: SWNE Sec. 29 TWN: 08S RNG: 17E
Agreement: N/A

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Submit an electronic copy of all logs run on this well in LAS format. This submission will replace the requirement for submittal of paper logs to the BLM.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

1. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a **2M** system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

Well No.: GREATER BOUNDARY FEDERAL 7-29R-8-17

CONDITIONS OF APPROVAL
FOR THE SURFACE USE PROGRAM OF THE
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Inland Production Company.

API Number: 43-013-30435

Well Name & Number: Federal 7-29R-8-17

Lease Number: U-76956

Location: SWNE Sec. 29 T. 8 S. R. 17 E.

Surface Ownership: BLM

Date NOS Received: None

Date APD Received: 12-4-03

-No construction or drilling shall occur during the ferruginous hawk nesting season of March 1 through July 15 without first conducting a survey by a wildlife biologist to determine if the nest is active.

-To reduce noise levels in the area, the pumping unit shall be equipped with a hospital-type muffler or other similar devise.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.

UTU-76956

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

GREATER BOUNDARY

8. Well Name and No.

GTR BOUND FED 7-29R-8-17

9. API Well No.

43-013-30435

10. Field and Pool, or Exploratory Area

MONUMENT BUTTE

11. County or Parish, State

DUCHESNE COUNTY, UT.

SUBMIT IN TRIPLICATE

1. Type of Well

<input checked="" type="checkbox"/> Oil Well	<input type="checkbox"/> Gas Well	<input type="checkbox"/> Other
--	-----------------------------------	--------------------------------

2. Name of Operator

NEWFIELD PRODUCTION COMPANY

3. Address and Telephone No.

Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

1974 FNL 1981 FEL SW/NE Section 29, T8S R17E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

<input checked="" type="checkbox"/> Notice of Intent
<input type="checkbox"/> Subsequent Report
<input type="checkbox"/> Final Abandonment Notice

<input type="checkbox"/> Abandonment
<input type="checkbox"/> Recompletion
<input type="checkbox"/> Plugging Back
<input type="checkbox"/> Casing Repair
<input type="checkbox"/> Altering Casing
<input checked="" type="checkbox"/> Other Permit Extension

<input type="checkbox"/> Change of Plans
<input type="checkbox"/> New Construction
<input type="checkbox"/> Non-Routine Fracturing
<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Conversion to Injection
<input type="checkbox"/> Dispose Water

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

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Newfield Production Company requests to extend the Permit to Drill this well for one year. The original approval date was 12/16/03 (expiration 12/16/05).

This APD was approved by the BLM on 3/15/05.

**Approved by the
Utah Division of
Oil, Gas and Mining**

Date: 12-2-05
By: *[Signature]*

SENT TO OPERATOR
Date: 12-2-05
By: CJD

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

Signed Mandie Crozier Title Regulatory Specialist Date 11/29/2005
Mandie Crozier

CC: UTAH DOGM

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

CC: Utah DOGM

RECEIVED

NOV 30 2005

RESPT

**Application for Permit to Drill
Request for Permit Extension
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

API: 43-013-30435
Well Name: Greater Boundary Federal 7-29R-8-17
Location: SW/NE Section 29, T8S R17E
Company Permit Issued to: Newfield Production Company
Date Original Permit Issued: 12/16/2003

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No NA

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No

Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes No

Has the approved source of water for drilling changed? Yes No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

Is bonding still in place, which covers this proposed well? Yes No

Mamie Crozier
Signature

11/29/2005
Date

Title: Regulatory Specialist

Representing: Newfield Production Company

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NOV 30 2005

DIV. OF OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS MAR 01 2006

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.
UTU-76956

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or C.A. Agreement Designation
GREATER BOUNDARY II

8. Well Name and No.
GTR BOUND FED 7-29R-8-17

9. API Well No.
43-013-30435

10. Field and Pool, or Exploratory Area
MONUMENT BUTTE

11. County or Parish, State
DUCHESNE COUNTY, UT.

SUBMIT IN TRIPLICATE

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
NEWFIELD PRODUCTION COMPANY

3. Address and Telephone No.
Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)
1974 FNL 1981 FEL SW/NE Section 29, T8S R17E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent <input type="checkbox"/> Subsequent Report <input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Abandonment <input type="checkbox"/> Recompletion <input type="checkbox"/> Plugging Back <input type="checkbox"/> Casing Repair <input type="checkbox"/> Altering Casing <input checked="" type="checkbox"/> Other Permit Extension
	<input type="checkbox"/> Change of Plans <input type="checkbox"/> New Construction <input type="checkbox"/> Non-Routine Fracturing <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Dispose Water

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

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Newfield Production Company requests to extend the Permit to Drill this well for one year. The original approval date was 3/15/05 (expiration 3/15/06).

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY**

**RECEIVED
APR 04 2006**

CONDITIONS OF APPROVAL ATTACHEE

DIV. OF OIL, GAS & MINING

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

Signed Mandie Crozier Title Regulatory Specialist Date 2/28/2006
Mandie Crozier

CC: UTAH DOGM **Petroleum Engineer**

(This space for Federal or State office use) **Michael Lee**

Approved by _____ Title _____ Date 3-15-2006

INewfield Production Co.
APD Extension

Well: Greater Boundary Federal 7-29R- 8-17 (43-013-30435)

Location: SWNE Sec. 29, T08S, R17E

Lease: U-76956

Conditions of Approval

An extension for the referenced APD is granted with the following condition(s):

1. The extension will expire 3/15/2007
2. No other extensions beyond that period will be granted or allowed.

If you have any other questions concerning this matter, please contact Michael Lee at (435) 781-4432.

2006-03-21

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.
UTU-76956

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA, Agreement Designation
GREATER BOUNDARY II

8. Well Name and No.
GRTR BOUND # FED 7-29R-8-17

9. API Well No.
43-013-30435

10. Field and Pool, or Exploratory Area
MONUMENT BUTTE

11. County or Parish, State
DUCHESNE COUNTY, UT.

SUBMIT IN TRIPLICATE

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
NEWFIELD PRODUCTION COMPANY

3. Address and Telephone No.
Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)
1974 FNL 1981 FEL SW/NE Section 29, T8S R17E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>Permit Extension</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

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

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Newfield Production Company requests to extend the Permit to Drill this well for one year. The original approval date was 12/16/03 (expiration 12/16/06).

This APD will not expire with the BLM until March of 2007.

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 12-05-06
By: [Signature]

COPY SENT TO OPERATOR
Date: 12-16-06
Initials: RM

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

Signed [Signature] Title Regulatory Specialist Date 12/4/2006
Mandie Crozier

CC: UTAH DOGM

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

CC: Utah DOGM

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECEIVED

DEC 05 2006

DIV. OF OIL, GAS & MINING

**Application for Permit to Drill
Request for Permit Extension
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

API: 43-013-30435
Well Name: Greater Boundary II Federal 7-29R-8-17
Location: SW/NE Section 29,T8S R17E
Company Permit Issued to: Newfield Production Company
Date Original Permit Issued: 12/16/2003

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No NA

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No

Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes No

Has the approved source of water for drilling changed? Yes No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

Is bonding still in place, which covers this proposed well? Yes No


Signature

12/4/2006
Date

Title: Regulatory Specialist

Representing: Newfield Production Company

RECEIVED
DEC 05 2006
DIV. OF OIL, GAS & MINING

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.
UTU-76956

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA, Agreement Designation
GREATER BOUNDARY II

8. Well Name and No.
GRTR BOUND II FED 7-29R-8-17

9. API Well No.
43-013-30435

10. Field and Pool, or Exploratory Area
MONUMENT BUTTE

11. County or Parish, State
DUCHESNE COUNTY, UT.

SUBMIT IN TRIPLICATE

**RECEIVED
DEC 03 2007
DIV. OF OIL, GAS & MINING**

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
NEWFIELD PRODUCTION COMPANY

3. Address and Telephone No.
Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)
1974 FNL 1981 FEL SW/NE Section 29, T8S R17E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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	<input type="checkbox"/> Altering Casing
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	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

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13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Newfield Production Company requests to extend the Permit to Drill this well for one year. The original approval date was 12/16/03 (expiration 12/16/07).

This APD is not yet due to expire with the BLM.

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 12-04-07
By: [Signature]

COPY SENT TO OPERATOR
Date: 12/5/07
Initials: [Signature]

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

Signed Mandie Crozier Title Regulatory Specialist Date 11/30/2007
Mandie Crozier

CC: UTAH DOGM

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

CC: Utah DOGM

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



RECEIVED
DEC 13 2007
OIL & MINING

**Application for Permit to Drill
Request for Permit Extension
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

API: 43-013-30435
Well Name: Greater Boundary II Federal 7-29R-8-17
Location: SW/NE Section 29,T8S R17E
Company Permit Issued to: Newfield Production Company
Date Original Permit Issued: 12/16/2003

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Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes No

Has the approved source of water for drilling changed? Yes No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

Is bonding still in place, which covers this proposed well? Yes No

Mandie Curjin
Signature

11/30/2007
Date

Title: Regulatory Specialist

Representing: Newfield Production Company



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Vernal Field Office

170 South 500 East

Vernal, UT 84078

(435) 781-4400 Fax: (435) 781-4410

<http://www.blm.gov/ut/st/en/fo/vernal/html>



IN REPLY REFER TO:

3160

UT08300

April 21, 2008

Mandie Crozier
Newfield Production Company
Route 3, Box 3630
Myton, UT 84052

43-013-30435

Re: Notice of Expiration
Well No. GB Federal 7-29R-8-17
SWNE, Sec. 29, T8S, R17E
Duchesne County, Utah
Lease No. UTU-76956
Greater Boundary Unit

Dear Ms. Crozier:

The Application for Permit to Drill the above-referenced well was approved on March 15, 2005. A one (1) year extension of the original APD was requested. The request was reviewed and the extension approved until March 15, 2007. According to our records, no known activity has transpired at the approved location. In view of the foregoing, this office is notifying you that the approval of the referenced application has expired. If you intend to drill at this location in the future, a new Application for Permit to Drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for this drill site. Any surface disturbance associated with the approved location of this well is to be rehabilitated. A schedule for this rehabilitation must be submitted to this office. Your cooperation in this matter is appreciated.

If you have any questions regarding this matter, please contact me at (435) 781-4455.

Sincerely,

Cindy Severson

Cindy Severson
Land Law Examiner

cc: UDOGM – Diana Mason

RECEIVED

APR 24 2008

DIV. OF OIL, GAS & MINING