

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

(Other instructions on reverse side)

5. Lease Designation and Serial No.
U-12942

6. If Indian, Allottee or Tribe Name
N/A

7. Unit Agreement Name
Bradford Canyon Unit

8. Farm or Lease Name
Bradford Canyon Fed.

9. Well No.
#2-23

10. Field and Pool, or Wildcat
Bradford Canyon

11. Sec., T., R., M., or Bk. and Survey or Area
Sec. 23, T37S-R24E

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
Raymond T. Duncan - 303/759-3303 *Walter Duncan Oil Properties*

3. Address of Operator
1777 S. Harrison St., Penthouse 1, Denver, CO 80210

4. Location of Well (Report location clearly and in accordance with any State requirements.)
At surface **2330' FNL & 661' FWL**
At proposed prod. zone **SW NW**

14. Distance in miles and direction from nearest town or post office*
16.8 miles NE of the Hatch Trading Post

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) **330'**

16. No. of acres in lease **1920**

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. **1500'**

19. Proposed depth **5630'** *Chinle Rock Shale*

20. Rotary or cable tools **Rotary**

21. Elevations (Show whether DF, RT, GR, etc.)
5117' GR

22. Approx. date work will start*
Upon Approval

23. **PROPOSED CASING AND CEMENTING PROGRAM**

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	8-5/8"	24#	2500'	Sufficient to circ to surface.
7-7/8"	5-1/2"	15.5#	5630'	200 sx or sufficient to cover zones of interest.

Raymond T. Duncan proposes to drill a well to 5630' to test the Ismay and Desert Creek formations. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

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 W. J. Falli Title Production Manager Date 5/10/84

(This space for Federal or State office use)

Permit No. _____ Approved by _____ Title _____

Approved by _____ Title _____

Conditions of approval, if any: _____

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING

DATE: 5/15/84

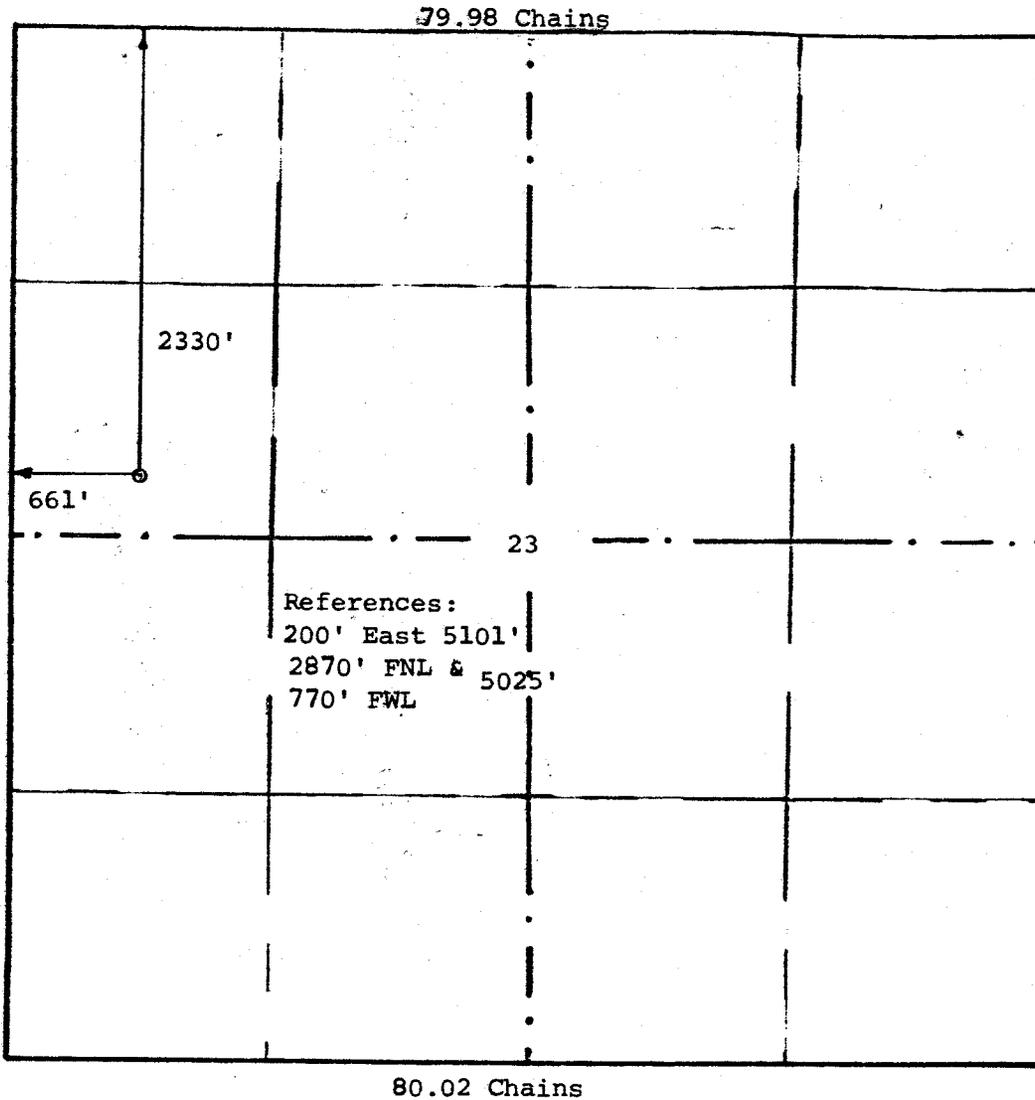
BY: John R. Payne

*See Instructions On Reverse Side



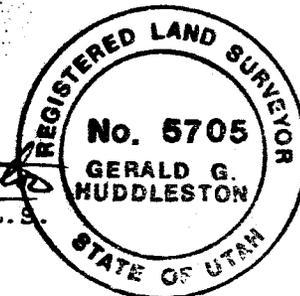
POWERS ELEVATION

Well Location Plat



1"=1000'

Operator R.T. Duncan		Well name 2-23 Bradford Canyon	
Section 23	Township 37 South	Range 24 East	Meridian S.L.M.
Footages 2330' FNL & 661' FWL		County/State San Juan, Utah	
Elevation 5117'	Requested by Lisa Green		
<p>The above plat is true and correct to the best of my knowledge and belief.</p> <p>2 May '84</p> <p style="text-align: center;"><i>Gerald G. Huddleston</i> Gerald G. Huddleston, L.S.</p>			



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
 Raymond T. Duncan 303/759-3303

3. ADDRESS OF OPERATOR
 1777 S. Harrison Street, Penthouse 1, Denver, CO 80210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface 2330' FNL & 661' FWL
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 16.8 miles NE of Hatch Trading Post

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 330'

16. NO. OF ACRES IN LEASE 1920

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. 1500'

19. PROPOSED DEPTH 5630'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5117'

22. APPROX. DATE WORK WILL START* Upon approval

5. LEASE DESIGNATION AND SERIAL NO.
 U-12942

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 N/A

7. UNIT AGREEMENT NAME
 Bradford Canyon Unit

8. FARM OR LEASE NAME
 Bradford Canyon Fed.

9. WELL NO.
 #2-23

10. FIELD AND POOL, OR WILDCAT
 Bradford Canyon

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 23, T37S-R24E

12. COUNTY OR PARISH
 San Juan

13. STATE
 Utah

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	2500'	Sufficient to circ. to surface
7-7/8"	5-1/2"	15.5#	5630'	200 sx or sufficient to cover zones of interest.

Raymond T. Duncan proposes to drill a well to 5630' to test the Ismay and Desert Creek formations. If productive, casing will be run and the well completed. If dry the well will be plugged and abandoned as per BLM and State of Utah requirements.

RECEIVED
 MAY 25 1984
 DIVISION OF OIL
 GAS & MINING

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

24. SIGNED W. S. Falls TITLE Production Manager DATE 5/10/84

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
 APPROVED BY /s/ C. Delano Backus TITLE Acting DISTRICT MANAGER DATE 23 MAY 1984
 CONDITIONS OF APPROVAL, IF ANY:

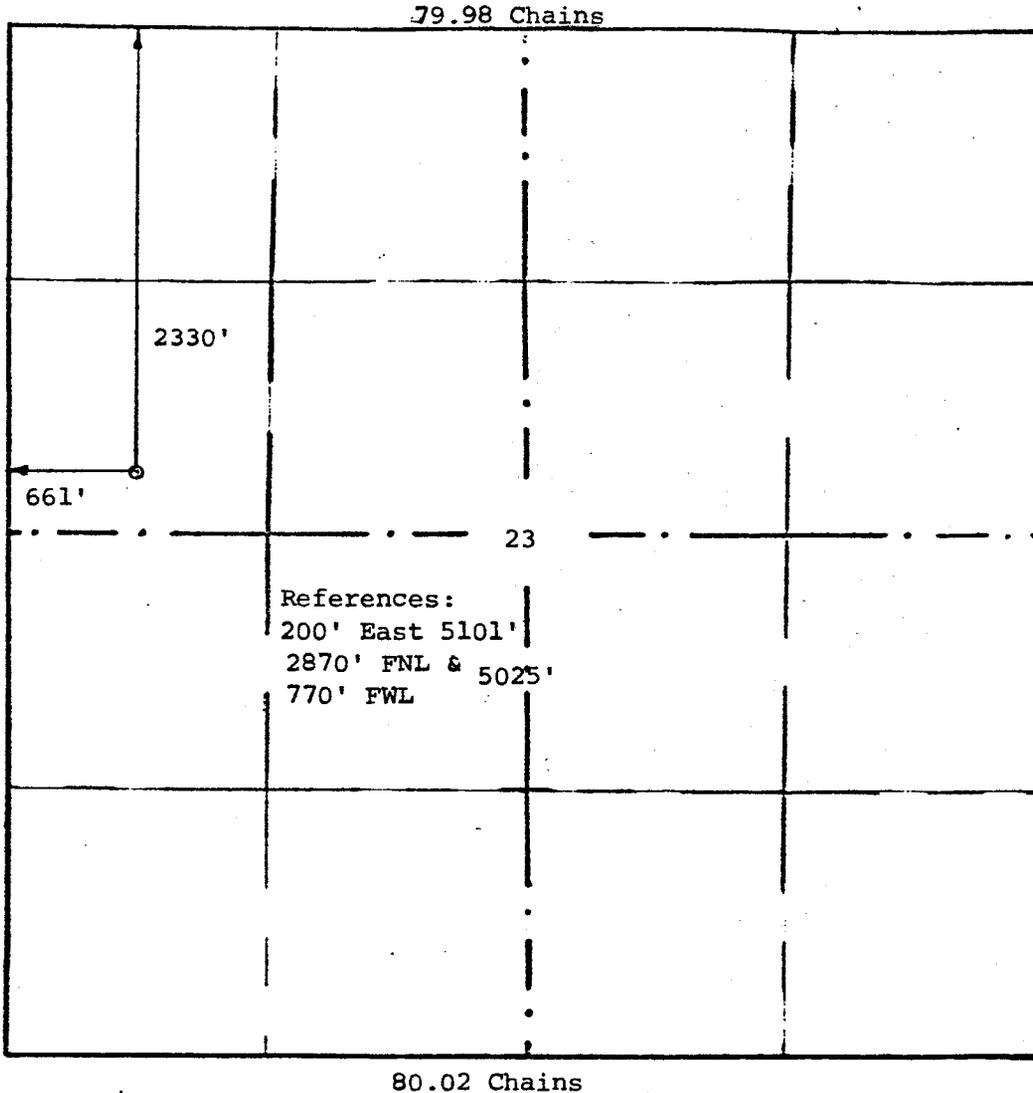
NOTICE OF APPROVAL

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

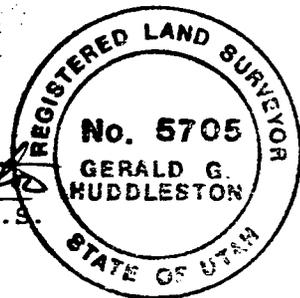


POWERS ELEVATION

Well Location Plat



Operator R.T. Duncan		Well name 2-23 Bradford Canyon	
Section 23	Township 37 South	Range 24 East	Meridian S.L.M.
Footages 2330' FNL & 661' FWL		County/State San Juan, Utah	
Elevation 5117'	Requested by Lisa Green		
<p>The above plat is true and correct to the best of my knowledge and belief.</p> <p style="text-align: center;"> <i>Gerald G. Huddleston</i> Gerald G. Huddleston, L.S. </p> <p>2 May '84</p>			



ONSITE

DATE: May 1, 1984

PARTICIPANTS:

TITLES:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Your contact with the District Office is: Robert (Bob) Graff

Office Phone: 801-259-6111 Ext 216

City: Moab State: Utah

Resource Area Manager's address and contacts are:

Address: P.O. Box 7, Monticello, UT 84532

Your contact is: Brian Wood

Office Phone: 801-587-2201

Hone Phone: 801-587-2087

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A Petroleum Permitting Company

RECEIVED

JUN 4 1984

May 10, 1984

DIVISION OF OIL
GAS & MINING

State of Utah
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 84114

RE: Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

Gentlemen:

Raymond T. Duncan proposes to drill a well at the above-mentioned location.

We realize that this location is a non-standard location in accordance with the spacing rules for the State of Utah. This location was picked due to topography and extensive seismic work which was done in the immediate area.

Raymond T. Duncan is the lease holder of the following:

T 37 S - R 24 E:	Section 23: All
	Section 26: All
	Section 27: All

Therefore, no other lease holders will be affected by the drilling of the above-proposed well. We, therefore, request your permission to drill this well at a non-standard location.

Sincerely,

PERMITCO



Lisa L. Green
Consultant for Raymond
T. Duncan

LLG:jan

Encl.



1777 SOUTH HARRISON STREET • PENTHOUSE ONE
TELEPHONE (303) 759-3303 • DENVER, COLORADO 80210

May 7, 1984

Bureau of Land Management
Oil & Gas Division
Monticello District
P.O. Box 7
Monticello, UT 84535

RE: 2-23 Bradford Canyon Federal
Section 23-37S-24E
San Juan County, UT

Gentlemen:

This letter is to certify that PERMITCO, a petroleum permitting company, is authorized as our agent to prepare the NTL-6 program on our behalf for the above-captioned well, and to attend to any subsequent related matters.

Please contact our office if you have questions regarding this.

Very truly yours,
RAYMOND T. DUNCAN

W.S. Fallin
Production Manager

WSF:c1

ONSHORE OIL & GAS ORDER NO. 1;

Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

BRADFORD CANYON FEDERAL #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

Prepared For:

Raymond T. Duncan

BY:

PERMITCO
1020-15th Street, Suite 22-E
Denver, Colorado 80202

Copies Sent To:

- 4 - BLM - Moab, Utah
- 1 - BLM - Monticello, Utah
- 3 - Raymond T. Duncan - Denver, CO

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ONSHORE OIL & GAS ORDER NO. 1;

Drilling Program

Raymond T. Duncan
Bradford Canyon Fed. #2-23
 2330' FNL & 661' FWL
 Sec. 23, T37S-R24E
 San Juan County, Utah

1. The surface formation and estimated formation tops to be encountered are as follows:

<u>Formation</u>	<u>Depth</u>	<u>Subsea</u>
Dakota	Surface	-----
De Chelly	2365'	+2750'
Hermosa	4174'	+ 941'
Ismay	5195'	- 80'
Lower Ismay	5375'	- 260'
Gothic Shale	5428'	- 313'
Desert Creek	5450'	- 335'
Lower Desert Creek	5512'	- 397'
Chimney Rock Shale	5544'	- 429'
T.D.	5630'	- 498'

2. The estimated depths at which oil, gas, water or other mineral bearing zones are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Anticipated Depth</u>
Gas	Ismay	5195'
Oil	Desert Creek	5450'

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth cased and cemented. All oil and gas shows will be tested to determine commercial potential.

3. Pressure control equipment will consist of a 10" 3000# WP BOP. (See BOP Diagram attached.)

Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

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Raymond T. Duncan
 Bradford Canyon Fed. #2-23
 2330' FNL & 661' FWL
 Sec. 23, T37S-R24E
 San Juan County, Utah

DRILLING PROGRAM (Cont.)

4. a. Casing

The proposed casing program is as follows:

<u>Purpose</u>	<u>Depth</u>	<u>Hole Size</u>	<u>O.D.</u>	<u>Wt.</u>	<u>Grade</u>	<u>Type</u>	<u>New or Used</u>
Surface	2500'	12-1/4"	8-5/8"	24#	K-55	ST&C	New
Production	5630'	7-7/8"	5-1/2"	15.5#	K-55	ST&C	New

b. Cement

The cementing program will be as follows:

<u>Surface</u>	<u>Type and Amount</u>
0-2500'	Cement to surface with Class "G" cement with additives.

<u>Production</u>	<u>Type and Amount</u>
0-5630'	200 sx Class "G" with additives; or sufficient to cover zones of interest.

c. Auxiliary equipment will be as follows:

1. Kelly cock.
2. Float above the bit.
3. A sub with a full opening valve will be on the floor when the kelly is not in use.
4. Monitoring of the system will be done visually.

5. Drilling fluid will be as follows:

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>F/L</u>
0-4200'	Natural	9.0-9.2	35	---
4200-5600'	Chem. Gel	9.5-12.0	45	10

6. Coring, logging and testing programs are as follows:

- a. No cores will be run.

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Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

DRILLING PROGRAM (Cont.)

6. Coring, logging and testing programs are as follows: (Cont.)
- b. The logging program will consist of a Dual Induction and BHC/Density/CNL from 2500' to T.D. and a Dipmeter (if productive) from 5100' to T.D.
 - c. Drill stem tests will be run in the Ismay @ 5195' and the Desert Creek @ 5450' (one each zone).

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 15 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analysis, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, work-over, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the District Manager.

7. Abnormal conditions, bottom hole pressures and potential hazards.
- a. The maximum bottom hole pressure to be expected is 3400 psi.
 - b. No abnormal pressures or potential hazards are anticipated.
8. Anticipated starting dates and notification of operations.
- a. Construction of roads and well pad will commence upon approval of this application.
 - b. Raymond T. Duncan plans to spud the Bradford Canyon Fed. #2-23 upon approval of the A.P.D. and intends to complete the well within approximately one month after the well has reached T.D.
 - c. The operator will contact the San Juan Resource Area at 801/587-2201, 48 hours prior to beginning any dirt work on this location.
 - d. 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 District Manager. If operations are to be suspended, prior approval of the District Manager will be obtained and notification given before resumption of operations.

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A Petroleum Permitting Company

Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

DRILLING PROGRAM (Cont.)

8. Anticipated starting dated and notifications of operations (Cont.).
- e. The spud date will be reported orally to the San Juan Area Manager, a minimum of 24 hours before spudding. A Sundry Notice (Form 3160-5) will be sent within 24 hours of spudding, reporting the spud date and time. The Sundry will be sent to the District Manager.
 - f. In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 9-329 "Monthly Report of Operations", starting with the month in which operations begin and continue each month until the well is physically plugged and abandoned. This report will be sent to the Moab BLM District Office, P. O. Box 970, Moab, Utah 84532.
 - g. If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the District Manager. All conditions of this approved plan are applicable during all operations conducted with the replacement rig.
 - h. If the well is successfully completed for production, then the District Manager will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, no later than the first business day following the date on which the well is placed on production.
 - i. No well abandonment operations will begin without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Manager. A "Subsequent Report of Abandonment" (Form 3160-5), will be filed with the District Manager within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration.
 - j. Final abandonment will not be approved until surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the San Juan Area Manager or his representative, or the appropriate Surface Managing Agency.
 - k. A first production conference will be scheduled within 15 days after receipt of the first production notice. The operator will schedule the conference with the San Juan Area Manager.

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Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

Thirteen Point Surface Use Plan

1. Existing Roads

- a. The proposed well site is located 16.8 miles from Hatch Trading Post.
- b. Directions to the location from the Hatch Trading Post are as follows:

Proceed north 8.9 miles on County Road 446 & 246 to a Y intersection. Continue northerly 6.6 miles on county road #146 (along Montezuma Creek). Thence southwesterly approximately 3/10 mile to the producing Bradford Canyon #1-23 location. Cross Montezuma Creek and follow the flagging approximately 3000' to the location.

- c. For location and description of roads in the area, see Map #1 & #2.
- d. Improvement to the existing access will not be necessary and will be limited to the total existing disturbed width. The maximum total disturbed width will be 20 feet.
- e. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.
- f. An encroachment permit will be obtained from the San Juan County Road Department, 801/587-2231, ext. 43.

2. Planned Access Roads

- a. The maximum total disturbed width will be 20 feet.
- b. Maximum grades will be 10%.
- c. No turnouts will be necessary.
- d. The access road was centerline flagged at the time of staking.
- e. Drainage will be installed as deemed necessary by the dirt contractor.
- f. No gates, cattleguards or fence cuts will be necessary.
- g. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

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A Petroleum Permitting Company

Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

2. Planned Access Roads (Cont.)

- h. The access road will be water barred or brought to Class III Road Standards within 60 days of dismantling of the drilling rig. If this time frame cannot be met, the San Juan Area Manager will be notified so that temporary drainage control can be installed along the access road.
- j. The Class III Road Standards which ensure drainage control over the entire road through the use of natural, rolling topography; ditch turnouts; drainage dips; outsloping; crowning; low water crossings; and culverts will be determined at the appropriate field inspection.
- k. No culverts will be necessary. One hard bottom crossing will be installed where the access crosses Montezuma Creek. See Map #2.
- l. Surfacing material will not be placed on the access road or location without prior BLM approval.

3. Location of Existing Wells Within a One-Mile Radius of the Proposed Location. See Map #3.

- a. Water wells - 0
- b. Injection or disposal wells - 0
- c. Producing wells - 1
- d. Drilling wells - 0

4. Location of Tank Batteries and Production Facilities

- a. All permanent structures (onsite for six months or longer) constructed or installed (including oil well pump jacks) will be painted a flat, nonreflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The color to be used is the same as the #1-23 Bradford Canyon well.

Permitco

A Petroleum Permitting Company

Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

4. Location of Tank Batteries and Production Facilities (Cont.)

- b. Production facilities will be located at the Bradford Canyon Federal #1-23 wellpad, (1990' FSL & 1600' FWL, Sec. 23, T37S-R24E). One additional production tank, a separator and a gas meter will be installed to service the Bradford Canyon Federal #2-23. See Diagram #1.
- c. Both wells are located within Lease #U-12942 and Federal royalties will remain the same and will not be affected.
- d. All loading lines will be placed inside the berm surrounding the tank battery.
- e. Any necessary pits will be properly fenced to prevent any wild-life entry. The production pit will be flagged overhead.
- f. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.
- g. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.
- h. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.
- i. Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.
- j. 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 monthly for the first three months on new meter installations and at least quarterly thereafter. The San Juan Area Manager 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 Moab District Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

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A Petroleum Permitting Company

ONSHORE OIL & GAS ORDER NO. 1;

Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

5. Location and Type of Water Supply

- a. All water needed for drilling purposes will be obtained from either the Max Dalton artesian well in the SE NW Sec. 24, T37S-R24E or the Bonnie Dalton artesian well located in the SE SW Sec. 36, T37S-R24E. Directions to the water source are shown on Maps #1 and #2.
- b. Water will be trucked to location over the roads marked on Maps #1 and #2.
- c. No water well is to be drilled on this lease.
- d. Use of water for this operation will be approved by obtaining a temporary use permit from the Utah State Engineer, 801/637-1303, and by receiving permission from the land owner or surface management agency to use the land containing the water source.

6. Source of Construction Material

- a. Road surfacing and pad construction material will be obtained from the Perkins Ranch gravel pit or a private source.
- b. The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3. Construction material will and will not be located on the lease.

7. Methods of Handling Waste Disposal

- a. The reserve pit will be lined with commercial bentonite sufficient to prevent seepage. At least half of the capacity will be in cut.
- b. Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.
- c. A trash pit will be constructed near the mud tanks and dug at least six feet into solid, undisturbed material. It will be totally enclosed with a fine wire mesh before the rig moves in. The road and pad will be kept litter free.
- d. A burning permit is required for burning trash between May 1 and October 31. This can be acquired by contacting the State Fire Warden, John Baker, at 801/587-2705.

Permitco

A Petroleum Permitting Company

Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

7. Methods of Handling Waste Disposal (Cont.)

- e. Produced waste water will be confined to a lined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval. Failure to file an application within the time allowed will be considered an incident of noncompliance, and will be grounds for issuing a shut-in order.

8. Ancillary Facilities

- a. There are no airstrips, camps, or other facilities planned during the drilling of the proposed well.

9. Well Site Layout

- a. See Diagram #2 for rig layout. See Diagram #3 for cross section of drill pad. See Diagram #4 for cuts and fills.
- b. The location of mud tanks; reserve, burn and trash pits; pipe racks; living facilities and soil stockpiles will be shown on Diagrams #2 and #4. The location will be laid out and constructed as discussed during the predrill conference.
- c. The top 4 inches of soil material will be removed from the location and stockpiled separate from the trees on the SW side. Topsoil along the access will be reserved in place.
- d. Access to the well pad will be from the NE. See Diagram #2.

10. Reclamation

- a. Immediately on completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash pit and will then be compacted and buried under a minimum of two feet of compacted soil.
- b. The operator or his contractor will contact the San Juan Resource Area office in Monticello, Utah (801/587-2201) 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.

Permitco

A Petroleum Permitting Company

Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

10. Reclamation (Cont.)

- c. Before any dirt work to restore the location takes place, the reserve pit must be completely dry.
- d. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.
- e. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be ripped 12 inches deep with the contour.
- f. Water bars will be built as follows to control erosion:

<u>Grade</u>	<u>Spacing</u>
2%	Every 200 feet.
2-4%	Every 100 feet.
4-5%	Every 75 feet.
5+%	Every 50 feet.

- g. Seed will be broadcast between October 1 and February 28 with the following prescription. A harrow or similar implement will be dragged over the area to assure seed cover.
 - 2 lbs/acre Indian ricegrass (*Oryzopsis hymenoides*)
 - 1 lbs/acre Curlygrass (*Hilaria jamesii*)
 - 1 lbs/acre Alkali sacaton (*Sporobolus airoides*)
 - 2 lbs/acre Fourwing saltbush (*Atriplex canescens*)
 - 2 lbs/acre Wild sunflower (*Helianthus annuus*)
- h. After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.
- i. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

- 11. a. Surface Ownership - Federal
- b. Mineral Ownership - Federal

Permitco

A Petroleum Permitting Company

Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

12. Other Information

- a. There will be no change from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.
- b. "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 3164.
- c. The contractor will be provided with an approved copy of the surface use plan.
- d. If subsurface cultural materials are exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All people who are in the area will be informed by the operator that they are subject to prosecution for disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will be done by a BLM approved archaeologist only if damage occurs.
- e. This permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.
- f. An archaeological study was performed by LaPlata Archaeological Consultants. Road construction will be monitored from the #1-23 Bradford Canyon producing location to the first rocky bench. This report will be submitted directly by LaPlata Archeological Consultants.

13. Lessee's or Operator's Representative and Certification

PERMIT MATTERS

Permitco
Lisa L. Green
1020-15th Street
Suite 22-E
Denver, Colorado 80202
303/595-4051

DRILLING AND COMPLETION MATTERS

Raymond T. Duncan
1777 S. Harrison
Penthouse 1
Denver, Colorado 80210
Steve Fallin - 303/774-0705 (H)
John Bettridge - 303/773-3604 (H)
303/759-3303 (W)

Permitco

A Petroleum Permitting Company

Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

SURFACE USE PLAN (Cont.)

13. Lessee's or Operator's Representative and Certification (Cont.)

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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, true and correct; and, that the work associated with the operations proposed herein will be performed by Raymond T. Duncan and its contractors and subcontractors in conformity with the plan and the terms and conditions under which it is approved.

5/10/84
(Date)

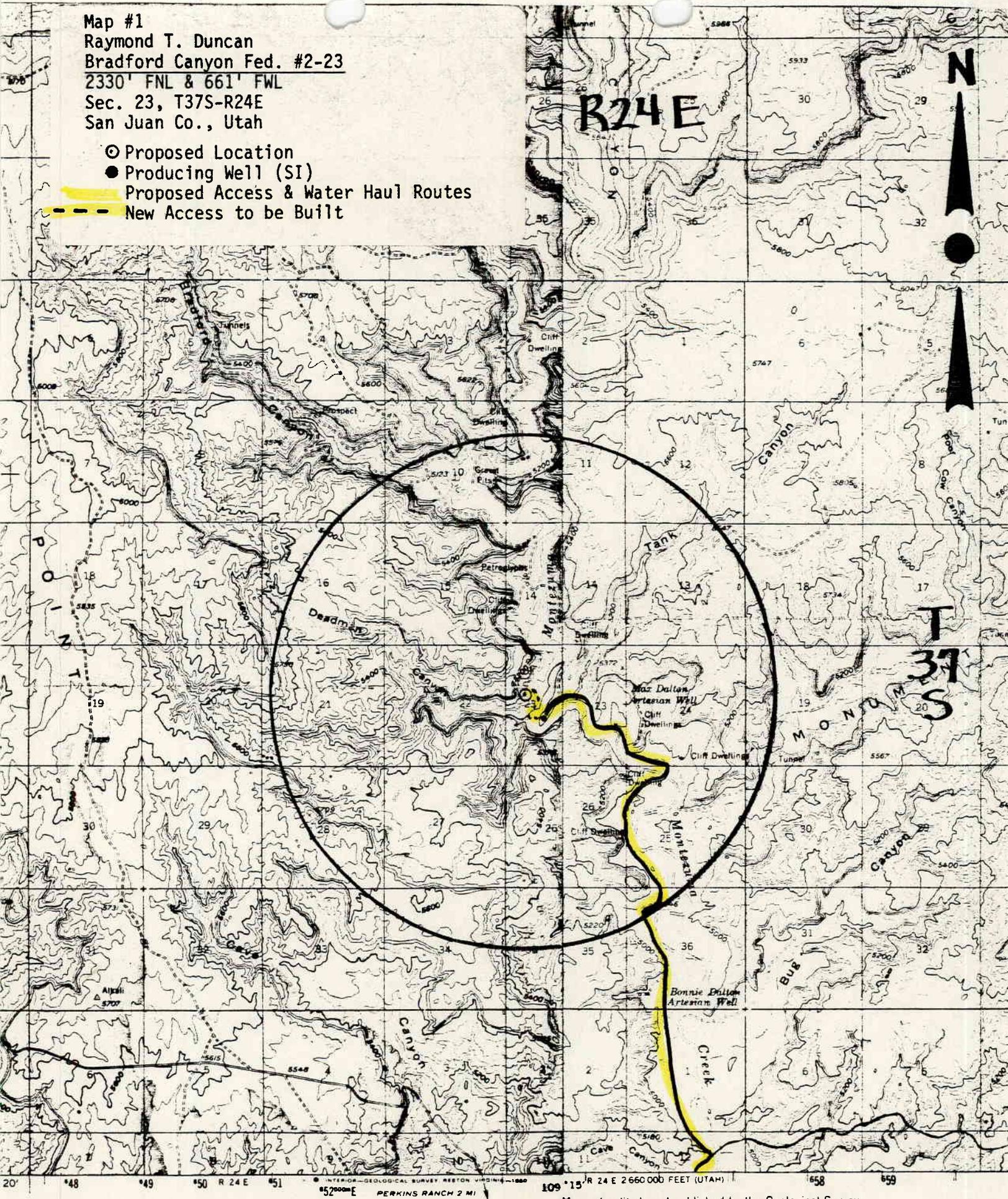
W. S. Fallin
W. S. Fallin - Production Manager
for Raymond T. Duncan

Permitco

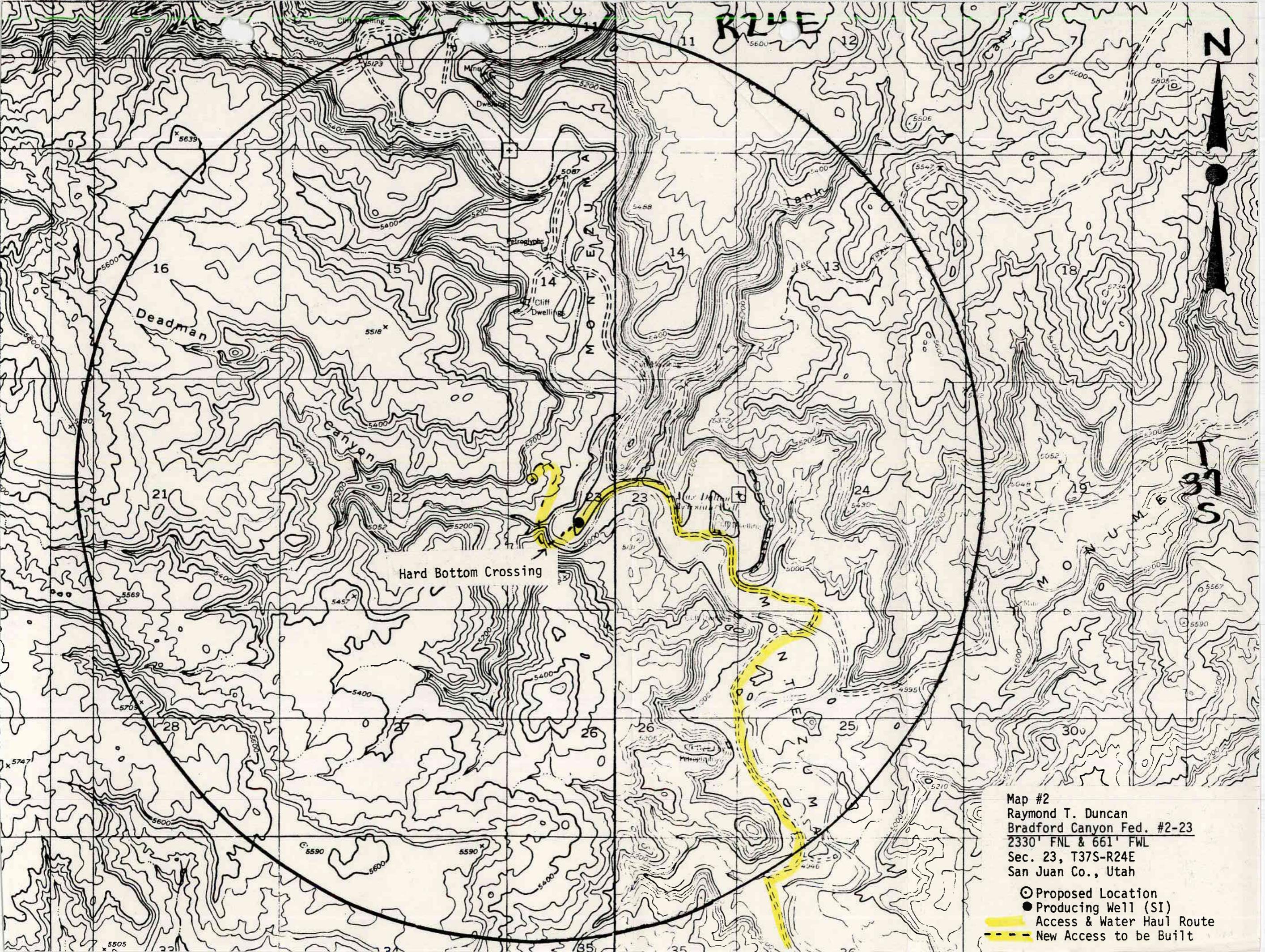
A Petroleum Permitting Company

Map #1
 Raymond T. Duncan
 Bradford Canyon Fed. #2-23
 2330' FNL & 661' FWL
 Sec. 23, T37S-R24E
 San Juan Co., Utah

- Proposed Location
- Producing Well (SI)
- Proposed Access & Water Haul Routes
- New Access to be Built



20 48 49 50 R 24 E 51 109 15' R 24 E 2660000 FEET (UTAH) 658 659
 520000E PERKINS RANCH 2 MI



Map #2
Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan Co., Utah

- Proposed Location
- Producing Well (SI)
- Access & Water Haul Route
- - - New Access to be Built

N

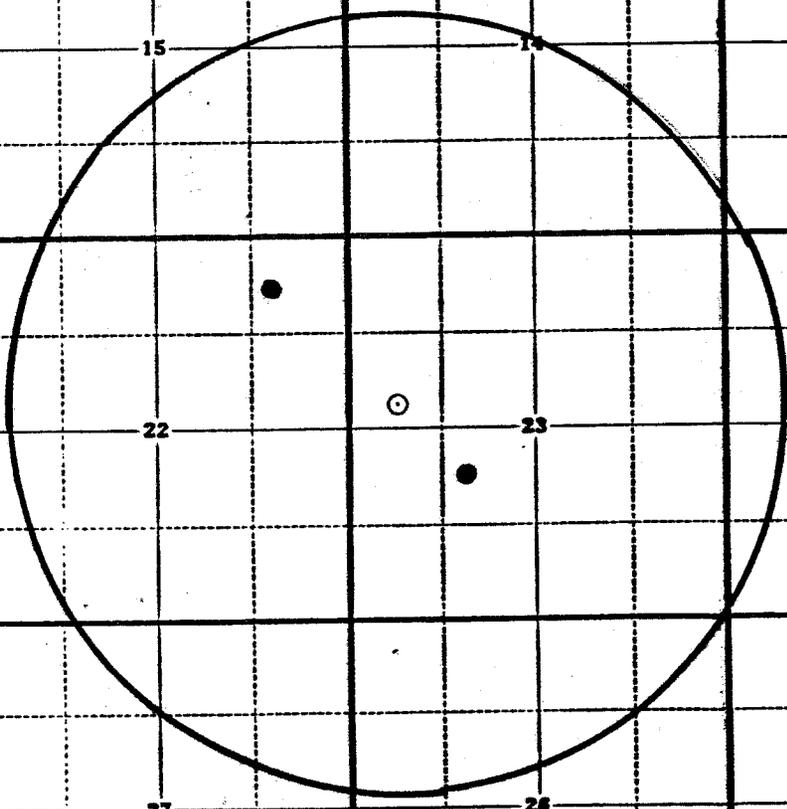


R24E

T

37

S



Map # 3
Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah

- ⊙ Proposed Location
- Producing Wells

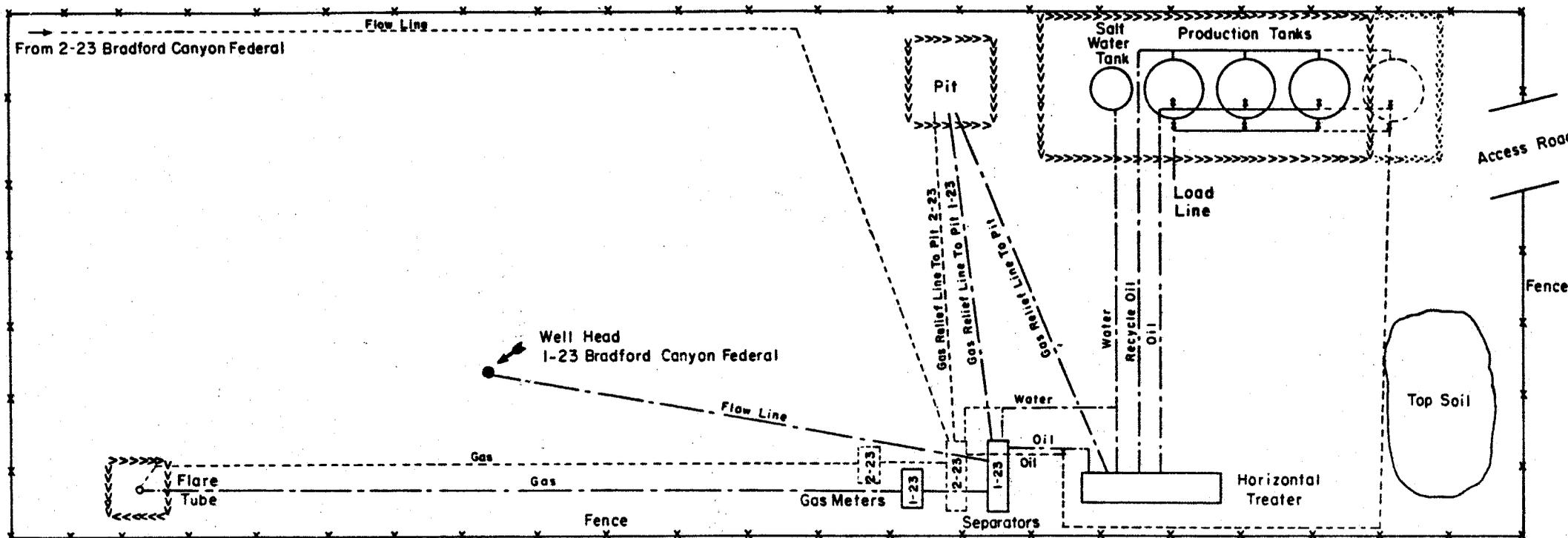


Diagram #1

RAYMOND T. DUNCAN
1-23 BRADFORD CANYON FEDERAL PRODUCTION FACILITIES
SECTION 23 - T37S - R24E
SAN JUAN CO., UTAH



SCALE 1" = 30'

----- PROPOSED ADDITIONAL FACILITIES

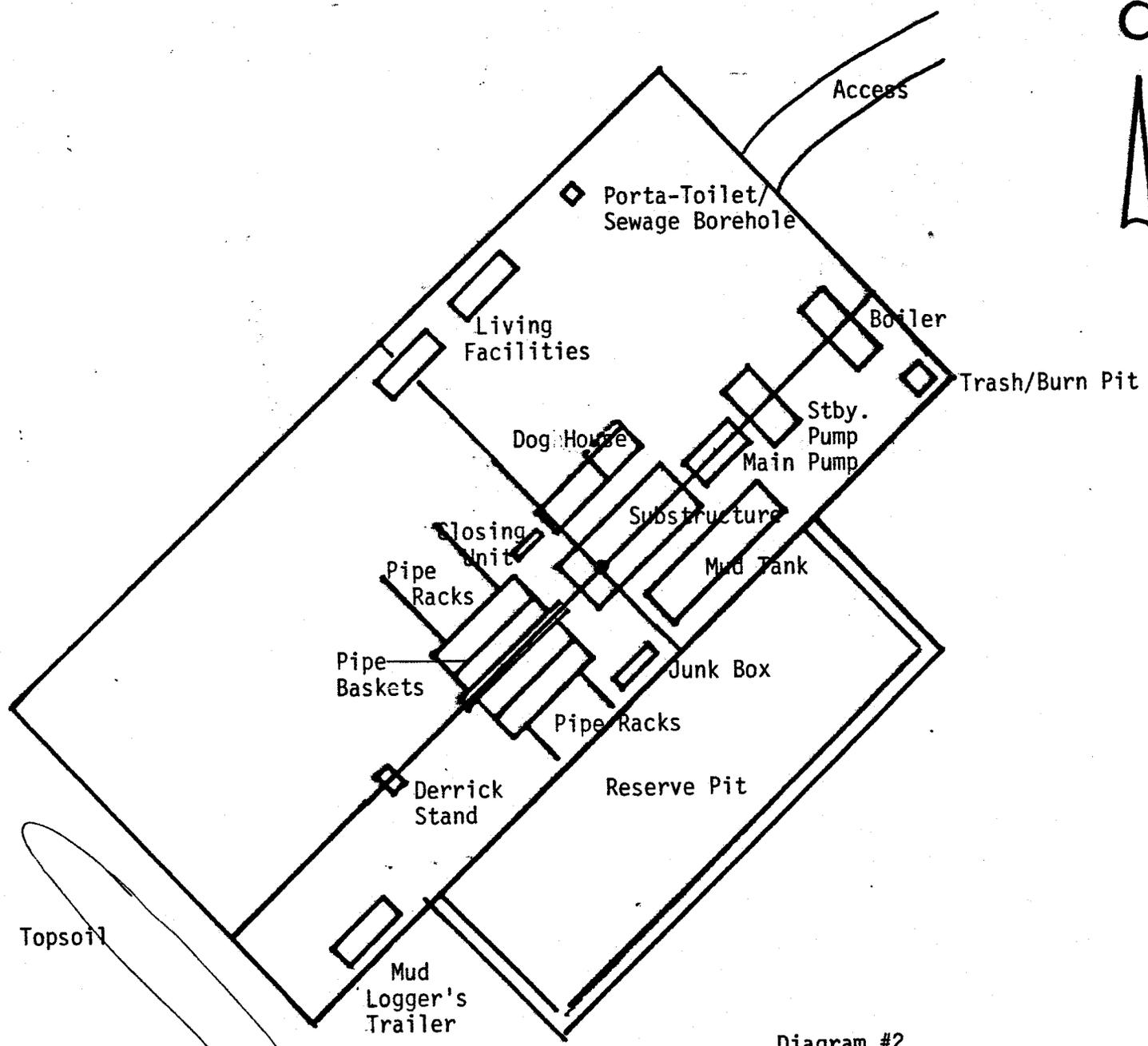


Diagram #2
Rig Layout
Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan County, Utah



POWERS ELEVATION

Well _____

**OIL WELL ELEVATIONS — LOCATIONS
ENVIRONMENTAL — ARCHAEOLOGICAL SERVICES
800 SOUTH CHERRY STREET, SUITE 1201
DENVER, COLORADO 80222
PHONE NO. 303/321-2217**

Cut ///////////////
Fill: ~~~~~

Scales: 1"=50'H.
1'=20'V.

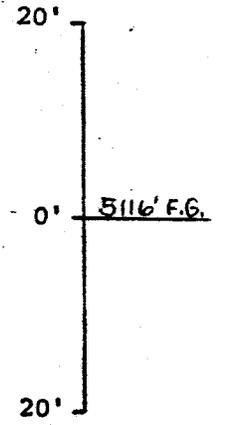
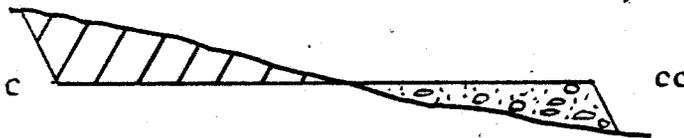
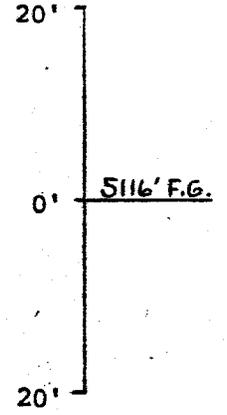
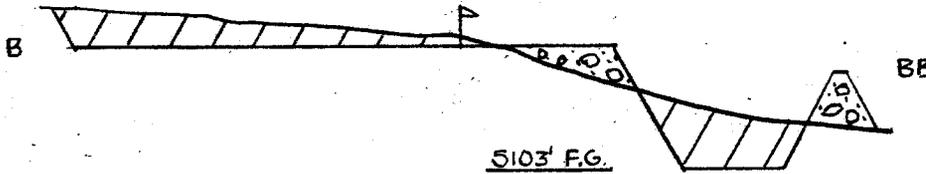
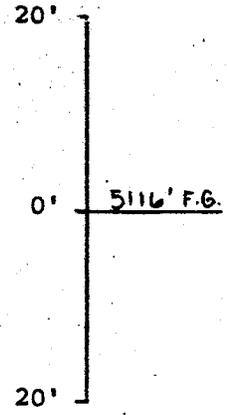
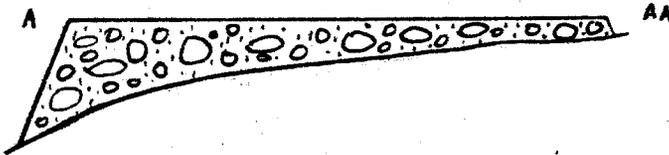


Diagram #3
Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan Co., Utah

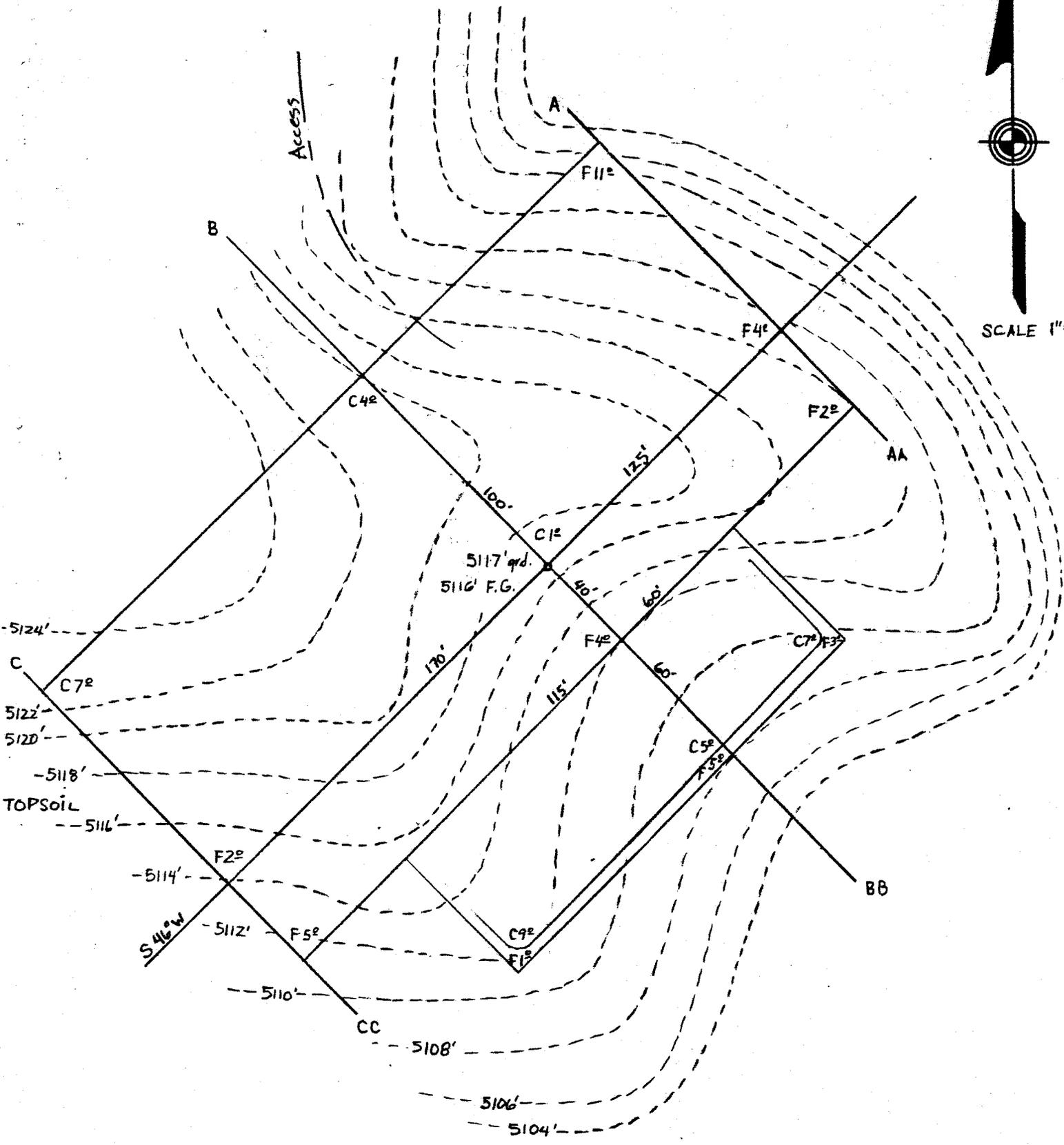


POWERS ELEVATION

D' am #4
Raymond T. Duncan
Bradford Canyon Fed. #2-23
2330' FNL & 661' FWL
Sec. 23, T37S-R24E
San Juan Co., Utah



SCALE 1"=50'



COLEMAN DRILLING CO.

Drawer 3337
Farmington, New Mexico 87401
(505) 325-6892—24 hour
(505) 327-4935

DRILLING RIG INVENTORY

RIG # 2

RATED DEPTH CAPACITY 8,000 FEET WITH 4 1/2" DRILL PIPE

DERRICK: 127' LEE C. MOORE W/528,000 HOOK LOAD CAPACITY

SUBSTRUCTURE: LEE C. MOORE - 13' K.B.

DRAWWORKS: H-40 IDECO

ENGINES: 2 EACH V-8 71T DETROIT DIESEL

MUD PUMPS: OPI HDL 700 W/CATERPILLER D-379 TA AUXILIARY MUD PUMP
555 MAX. HP AT 1100 RPM IDECO MM600F
500 INT. HP AT 1100 RPM W/379 TA CATERPILLER
420 CONT. HP AT 1100 RPM

DESILTER: PIONEER 8 CONE CAPACITY 400 GPM

MUD TANK: 1 EACH 600 BBL. (42 GAL. PER BBL.) WORKING CAPACITY

WATER STORAGE: 1 EACH 480 BBL. (42 GAL. PER BBL.)

GENERATORS: 1 EACH 90 KW AC AND 1 EACH 100 KW AC

ROTARY TABLE: 23" IDECO

TRAVELING BLOCK: BREWSTER 5-36 250 TONS W/COMB. HOOK

SWIVEL: L. B. 200 EMSCO

BLOW OUT PREVENTER: 10" SHAFFER LWS 3000 WP HYDRAULIC

SPECIAL: CROWN-O-MATIC
SATALITE AUTOMATIC DRILLER
TONG TORQUE GAUGE
RATE OF PENETRATION RECORDER
SHALE SHAKER
TRAILER HOUSE
TWO-WAY RADIO

MAY, 1983

COLEMAN DRILLING CO.

WELL NAME: _____

LOCATION : _____

9-5/8"
Drilling Nipple / "

7" Circulating Line

B.O.P. Bid Rams 10" x 3000 W.P.

B.O.P. D.P. Rams 10" x 3000 W.P.

Not Required

Hyd. Valve - - - - - W.P. (Omit)

Check Valve 2" x 3000 W.P.

Valve 2" 3000 W.P.

Valve 2" 3000 W.P.

Valve 2" 3000 W.P.

2" Line

MANIFOLD LINE
3000 W.P.

(See Exhibit "B")

KILL LINE MANIFOLD

Spool 10" x 3000 W.P.

Ground Level

WELL HEAD B.O.P.

3000 W.P.

Hydraulic

OPERATOR Raymond T Duncan DATE 6-5-84

WELL NAME Bradford Canyon Pool 2-23

SEC SWNW 23 T 37S R 24E COUNTY San Juan

43-037-31021
API NUMBER

Pool
TYPE OF LEASE

POSTING CHECK OFF:

<input type="checkbox"/>	INDEX	<input type="checkbox"/>	HL	<input type="checkbox"/>
<input type="checkbox"/>	NID	<input type="checkbox"/>	PI	<input type="checkbox"/>
<input type="checkbox"/>	MAP	<input type="checkbox"/>		<input type="checkbox"/>

PROCESSING COMMENTS:

1. Needs water

APPROVAL LETTER:

SPACING: A-3 Bradford Canyon c-3-a _____ CAUSE NO. & DATE

c-3-b c-3-c

SPECIAL LANGUAGE:

- Water



A Petroleum Permitting Company

Lisa Green
Consultant

1020 Fifteenth Street
Brooks Towers, Suite 22-E
Denver, Colorado 80202
(303) 595-4051

RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.

AUTHENTICATE LEASE AND OPERATOR INFORMATION

VERIFY ADEQUATE AND PROPER BONDING

AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.

APPLY SPACING CONSIDERATION

ORDER _____

UNIT Bradford Canyon Fed.

c-3-b

c-3-c

CHECK DISTANCE TO NEAREST WELL.

CHECK OUTSTANDING OR OVERDUE REPORTS FOR OPERATOR'S OTHER WELLS.

IF POTASH DESIGNATED AREA, SPECIAL LANGUAGE ON APPROVAL LETTER

IF IN OIL SHALE DESIGNATED AREA, SPECIAL APPROVAL LANGUAGE.

June 6, 1984

Raymond T. Duncan
1777 S. Harrison St., Penthouse 1
Denver, CO 80210

RE: Well No. Bradford Canyon Fed. 2-23
SWAN SEC. 23, T. 37S, R. 24E
2330' FNL, 661' FNL
San Juan County, Utah

Gentlemen:

Approval to drill the above referenced oil well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule A-3, General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify R. J. Firth, Associate Director, Telephone (801) 533-5771 (Office), 571-6068 (Home).
4. Compliance with the requirements and regulations of Rule C-27, Associated Gas Flaring, General Rules and Regulations, Oil and Gas Conservation.

Raymond T. Duncan
Well No. Bradford Canyon Fed. 2-23
June 6, 1984
Page 2

5. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31021.

Sincerely,



R. J. Firth
Associate Director, Oil & Gas

RJF/gl

cc: Branch of Fluid Minerals

Enclosures

TEMPORARY

APPLICATION TO APPROPRIATE WATER 09-1365

STATE OF UTAH

Application No T-59945

JUN 13 1984

NOTE:--The information given in the following blanks should be free from explanatory matter, but when necessary, a complete supplementary statement should be made on the following page under the heading "Explanatory."

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, for uses indicated by (X) in the proper box or boxes, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of the Laws of Utah.

MAY 1 1984

PRICE, UTAH

1. Irrigation Domestic Stockwatering Municipal Power Mining Other Uses

2. The name of the applicant is Raymond T. Duncan

3. The Post Office address of the applicant is 1777 S. Harrison St., Penthouse 1, Denver, CO 8021

4. The quantity of water to be appropriated ----- second-feet and/or 2.67 acre-feet

5. The water is to be used for Oil & Gas Drilling from June 1 to Nov. 15, 1984
(Major Purpose) (Month) (Day) (Month) (Day)

other use period N/A from ----- to -----
(Minor Purpose) (Month) (Day) (Month) (Day)

and stored each year (if stored) from N/A to -----
(Month) (Day) (Month) (Day)

6. The drainage area to which the direct source of supply belongs is -----
(Leave Blank)

7. The direct source of supply is* will be the Max Dalton & Bonnie Dalton artesian wells.
(Name of stream or other source)

which is tributary to -----, tributary to -----

*Note.--Where water is to be diverted from a well, a tunnel, or drain, the source should be designated as "Underground Water" in the first space and the remaining spaces should be left blank. If the source is a stream, a spring, a spring area, or a drain, so indicate in the first space, giving its name, if named, and in the remaining spaces, designate the stream channels to which it is tributary, even though the water may sink, evaporate, or be diverted before reaching said channels. If water from a spring flows in a natural surface channel before being diverted, the direct source should be designated as a stream and not a spring.

8. The point of diversion from the source is in San Juan County, situated at a point* T37S-R24E (11 miles North of Hatch Trading Post) Monument Canyon Quad

1) Max Dalton: SE NW Sec. 24 (S 3 ft. & E. 10 ft. from W 1/2 Cor. Sec. 24, T37S, R24E, SLB

2) Melvin Dalton: SE SW Sec. 36 (N. 196 ft. & W. 855 ft. from S 1/2 Cor. Sec. 36, T37S, R24E,

3) Bonnie Dalton: NE NE Sec. 1 (S. 100 ft. & W. 550 ft. from NE Cor. Sec. 1, T38S, R24E, S

*Note.--The point of diversion must be located definitely by course and distance or by giving the distances north or south, and east or west with reference to a United States land survey corner or United States mineral monument, if within a distance of six miles of either, or if at a greater distance, to some prominent and permanent natural object. No application will be received for filing in which the point of diversion is not defined definitely.

9. The diverting and carrying works will consist of a pump truck with a capacity of 80 to 100 bbls. (Enclosed tank).

10. If water is to be stored, give capacity of reservoir in acre-feet N/A height of dam -----
area inundated in acres ----- legal subdivision of area inundated -----

11. If application is for irrigation purposes, the legal subdivisions of the area irrigated are as follows:
N/A

Total ----- Acres

12. Is the land owned by the applicant? Yes ----- No X If "No," explain on page 2.

13. Is this water to be used supplementally with other water rights? Yes ----- No X
If "yes," identify other water rights on page 2.

14. If application is for power purposes, describe type of plant, size and rated capacity. N/A

15. If application is for mining, the water will be used in N/A Mining District at the ----- mine, where the following ores are mined -----

16. If application is for stockwatering purposes, number and kind of stock watered N/A

17. If application is for domestic purposes, number of persons N/A, or families -----

18. If application is for municipal purposes, name of municipality N/A

19. If application is for other uses, include general description of proposed uses to be used for oil & gas drilling operations.

20. Give place of use by legal subdivision of the United States Land Survey for all uses described in paragraphs 14 to 19, incl. A well pad located 2330' FNL & 661' FWL, Sec. 23, T37S-R24E

21. The use of water as set forth in this application will consume 2.67 second-feet and/or acre-foot of water and None second feet and/ or acre feet will be returned to the natural stream or source at a point described as follows: All water will be consumed by the drilling of this well.

FEEES FOR APPLICATIONS TO APPROPRIATE WATER IN UTAH

Flow rate — c.f.s.	Cost	
0.0 to 0.1	\$ 15.00	
over 0.1 to 0.5	30.00	
over 0.5 to 1.0	45.00	
over 1.0 to 15.0	45.00	plus \$7.50 for each cfs above the first cubic
over 15.0	150.00	foot per second.

Storage — acre-feet		
0 to 20	22.50	
over 20 to 500	45.00	
over 500 to 7500	45.00	plus \$7.50 for each 500 a.f. above the first
over 7500	150.00	500 acre feet.

(This section is not to be filled in by applicant)

STATE ENGINEER'S ENDORSEMENTS

1. *May 14, 1984* Application received by mail over counter in State Engineer's office by *[Signature]*
2. Priority of Application brought down to, on account of
3. *5-17-84* Application fee, \$*15.00*, received by *J.H.* Rec. No. *15731*
4. Application microfilmed by Roll No.
5. *5-17-84* Indexed by *AM* Platted by
6. *5-15-84* Application examined by *[Signature]*
7. Application returned, or corrected by office
8. Corrected Application resubmitted by mail over counter to State Engineer's office.
9. Application approved for advertisement by
10. Notice to water users prepared by
11. Publication began; was completed
Notice published in
12. Proof slips checked by
13. Application protested by
14. Publisher paid by M.E.V. No.
15. Hearing held by
16. Field examination by
17. *5-15-84* Application designated for approval *[Signature]* *SG.*
rejection
18. *6/8/84* Application copied or photostated by *slm* proofread by
19. *6/8/84* Application approved ~~rejected~~
20. **Conditions:**

This Application is approved, subject to prior rights, as follows:

- a. Actual construction work shall be diligently prosecuted to completion.
- b. Proof of Appropriation shall be submitted to the State Engineer's office by *NPR*
- c. **TEMPORARY APPROVAL -- EXPIRES November 30, 1984.**

[Signature]
Dee C. Hansen, P.E., State Engineer

21. Time for making Proof of Appropriation extended to
22. Proof of Appropriation submitted.
23. Certificate of Appropriation, No., issued

TEMPORARY

Application No. *59945*

09-1365

EXPLANATORY

The following additional facts are set forth in order to define more clearly the full purpose of the proposed application:

#5 - The estimated period of time to drill this oil/gas well should not exceed 30 days from commencement of drilling. Spud date is pending approval of the permit to drill by the BLM.

#12 - The surface is owned by the BLM, the minerals owned by the Federal Government and the extraction rights to Federal Lease #U-12942 by Raymond T. Duncan.

(Use page 4 if additional explanatory is needed.)

The quantity of water sought to be appropriated is limited to that which can be beneficially used for the purpose herein described

Lisa L. Green
Signature of Applicant*

Lisa L. Green - Agent for Raymond T. Duncan

*If applicant is a corporation or other organization, signature must be the name of such corporation or organization by its proper officer, or in the name of the partnership by one of the partners, and the names of the other partners shall be listed. If a corporation or partnership, the affidavit below need not be filled in. If there is more than one applicant, a power of attorney, authorizing one to act for all, should accompany the Application.

DECLARATION OF CITIZENSHIP

STATE OF UTAH, }
County of..... } ss

On the day of, 19....., personally appeared before me, a notary public for the State of Utah, the above applicant who, on oath, declared that he is a citizen of the United States, or has declared his intention to become such a citizen.

My commission expires:

(SEAL)

Notary Public



STATE OF UTAH
NATURAL RESOURCES
Water Rights

1636 West North Temple • Salt Lake City, UT 84116 • 801-533-6071

WF

JUN 13 1984

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dee C. Hansen, State Engineer

June 8, 1984

Raymond T. Duncan
1777 South Harrison Street - Penthouse 1
Denver, CO 80210

Dear Applicant:

RE: TEMPORARY APPLICATION
NUMBER 09-1365 (T59945)

Enclosed is a copy of the above numbered approved Temporary Application. This is your authority to construct your works and to divert the water for the uses described.

While this approved application does give you our permission to divert and use water, it does not grant easements through public or private lands in order to gain access to the source nor to convey the water to the place of use, nor does this approval eliminate the need for such other permits as may be required by this Division or any other agency in implementing your diversion.

This application will expire November 30, 1984, and it is expected that no diversion or use of the water will be done after that date unless another proposal has been made and approved.

Your contact with this office, should you need it is with the Area Engineer, Mark Page. The telephone number is (801)637-1303.

Yours truly,


Dee C. Hansen, P. E.
State Engineer

DCH:slm

Enclosure

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: RAYMOND T. DUNCAN

WELL NAME: BRADFORD CANYON FED. 2-23

SECTION SWNW 23 TOWNSHIP 37S RANGE 24E COUNTY San Juan

DRILLING CONTRACTOR Coleman Drilling

RIG # 2

SPUDDED: DATE 6-16-84

TIME 11:30 AM

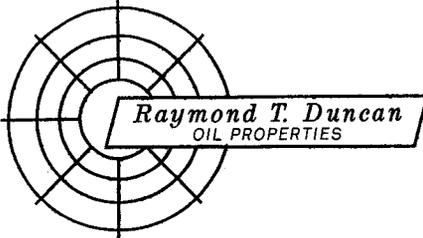
HOW Rotary

DRILLING WILL COMMENCE _____

REPORTED BY John Bettridge

TELEPHONE # (303) 759-3303

DATE 6-18-84 SIGNED CJ



RECEIVED

JUN 19 1984

DIVISION OF OIL
GAS & MINING

1777 SOUTH HARRISON STREET · PENTHOUSE ONE
TELEPHONE (303) 759-3303 · DENVER, COLORADO 80210

June 14, 1984

State of Utah
Natural Resources
Oil, Gas & Mining
4241 State Office Bldg.
Salt Lake City, Utah 84114

Attn: R. J. Firth
Associate Director, Oil & Gas

Re: Well No. Bradford Canyon Fed. 2-23
SW NW Sec. 23, T37S, R24E
2330' FNL, 661' FWL
San Juan County, Utah

Gentlemen:

In accordance with your letter of June 6, 1984, enclosed is a copy of our approved Temporary Application No. 09-1365 (T-59945) to divert and use water on the above subject site.

Very truly yours,

W. S. Fallin

W. S. Fallin
Production Manager

SW
encl

ORAL APPROVAL TO PLUG AND ABANDON WELL

Operator Raymond T. Duncan Representative Steve Fallon

Well No. 2-13 Location 1/4 1/4 Section 23 Township 37S Range 24E

County San Juan Field _____ State NM

Unit Name and Required Depth _____ Base of fresh water sands _____

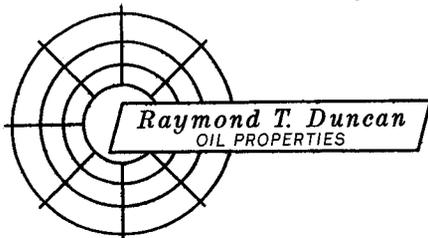
T.D. 5602' Size hole and Fill per sack _____ " _____ Mud Weight and Top _____ #/gal. _____

Casing Size	Set At	Top of Cement	To Be Pulled	Plugging Requirements		Sacks Cement
				From	To	
<u>4 5/8" @ 2500'</u>			<u>① 5602'</u>	<u>5175'</u>		
			<u>② 4200'</u>	<u>4000'</u>		
<u>Formation</u>	<u>Top</u>	<u>Base</u>	<u>Shows</u>	<u>③ 2610'</u>	<u>2410'</u>	
			<u>④ 100'</u>	<u>Surface</u>		

REMARKS

DST's, lost circulation zones, water zones, etc., _____
PA program from BLM, Monds, Bob Craft

Approved by R.J. Firth Date 6/29/84 Time _____ a.m. / p.m.



1777 SOUTH HARRISON STREET · PENTHOUSE ONE
TELEPHONE (303) 759-3303 · DENVER, COLORADO 80210

June 19, 1984

State of Utah
Natural Resources
Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Re: Bradford Canyon Fed. 2-23
Sec. 23-37S-24E
San Juan County, Utah

Gentlemen:

Enclosed is a Sundry Notice notifying you that we have spudded the above captioned well.

Very truly yours,

J. A. Bettridge
Operations Superintendent

JAB:sw
encl

RECEIVED

JUN 21 1984

DIVISION OF OIL
GAS & MINING

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

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR
Raymond T. Duncan

3. ADDRESS OF OPERATOR
1777 S. Harrison St., Denver, CO 80210

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 2330' FNL & 661' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

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

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

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.)*

Well spudded at 11:30 a.m. on June 16, 1984

5. LEASE
U-12942

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
Bradford Canyon Unit

8. FARM OR LEASE NAME
Bradford Canyon Federal

9. WELL NO.
#2-23

10. FIELD OR WILDCAT NAME
Bradford Canyon

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 23, T37S, R24E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

14. API NO.
43-037-31021

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5117' GR

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

RECEIVED

JUN 21 1984

**DIVISION OF OIL
GAS & MINING**

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

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

SIGNED John A. Bettendorf TITLE Operations Supt. DATE June 19, 1984

(This space for Federal or State office use)

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

RECEIVED

JUL 5 1984

DISTRIBUTION FOR TECHNICAL REPORTS

COMPANY RAYMOND T. DUNCAN		WELL BRADFORD CANYON UNIT	DIVISION OF OIL GAS & MINING	NO. 2-23
CUSTOMER SAME		FIELD (WILDCAT)		
COUNTY SANJUAN		STATE UTAH		

THIS TEST ONLY ALL TESTS ON THIS WELL FJS HAS BEEN REQUESTED TO FURNISH THE FOLLOWING COMPANIES WITH TECHNICAL REPORTS AS SHOWN AT LEFT.

RAYMOND T. DUNCAN
 1777 S. HARRIS STREET, PENTHOUSE 1
 DENVER, CO. 80210
 ATTN: DON LEHMAN (GEOLOGIST) 2

SANTA FE ENRGY
 2600 SECURITY LIFE BUILDING
 DENVER, CO. 80202
 ATTN: MIKE DILLI 2

OIL & GAS MINING DIVISION OF
 SALT LAKE CITY
 4241 STATE OFFICE BUILDING
 SALT LAKE CITY, UT 84114
 ATTN: CLEON B. FEIGHT, DIR. 2

DIAMOND SHAMROCK
 410 - 17TH STREET, SUITE 600
 DENVER, CO. 80202
 ATTN: STAN WHITE 2

TRICENTROL
 5675 S. TAMARAC PARKWAY
 GATEWAY PLACE #200
 ENGLEWOOD, CO. 80111
 ATTN: DICK CRIST 2

DAMSON RESOURCES
 P.O. BOX 4391
 HOUSTON, TX 77210
 ATTN: CHARLES GLEESON 2

JACK SEVERNS
 10880 WILSHIRE BLVD.
 LOS ANGELES, CALIFORNIA 90024 2

QUANTUM RESOURCES, INC.
 P.O. BOX 3500
 1900 - 800 - 5TH SOUTHWEST
 CALGARY, ALBERTA, CANADA T2P2P9
 ATTN: PETER STRACK 1

HARTWELL 83 CORP.
51 FAIRWAY LANE
LITTLETON, CO. 80123
ATTN: RON HARTWELL

1

DEPT OF INTERIOR MINERALS MANAGEMENT
2000 ADMINISTRATION BUILDING
1745 W. 1700 SOUTH, SALT LAKE CITY UT
84104-3884
ATTN: E. W. GUYNN

2

TERRA SERVICES, INC.

163 SOUTH VAN GORDON ST. • LAKEWOOD, COLORADO 80228
303/988-5111

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JUL 16 1984

DIVISION OF OIL
GAS & MINING

RAYMOND T. DUNCAN
#2-23 Bradford Canyon
SWSW Section 23, Township 37 South, Range 24 East
San Juan County, Utah

Prepared By:

TERRA SERVICES, INC.
163 South Van Gordon
Lakewood, Colorado 80228
(303) 988-5111

Supervisors: Joel R. Parise
Steve Szekula

Mudlogger: John H. Pudliner

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

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RAYMOND T. DUNCAN
#2-23 Bradford Canyon

WELL DATA

OPERATOR

Raymond T. Duncan, Oil Properties
1777 S. Harrison Street
Penthouse One
Denver, Colorado 80210
(303) 759-3303

WELL NAME & LOCATION

Raymond T. Duncan
#2-23 Bradford Canyon
661' FWL, 2330' FNL
SWSW Section 23, Township 37S, Range 24E
San Juan County, Utah

FIELD

Bradford Canyon

ELEVATION

Ground Elevation: 5117'
Kelly Bushing Elevation: 5130'

CONTRACTOR

Coleman Drilling, Rig #2
Farmington, New Mexico
Pusher: C. D. Keenom

COMPANY REPRESENTATIVE

Arky Browning
Box 1058
Cortez, Colorado 81321
(303) 562-3115

WELLSITE GEOLOGIST

Intermountain Wellsite Geologists
P.O. Box 4007
Casper, Wyoming 82604
(307) 266-2009
Geologist: Jim Holst

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

Well Data (Con't)

MUDLOGGING COMPANY

Terra Services, Inc.
163 South Van Gordon
Lakewood, Colorado 80228
(303) 988-5111

Logging Services: June 22, 1984 (4000') through June 28th, 1984 (5602').
A one-man unit with hotwire and chromatograph. Released
June 29th, 1984 at 05:00 hours (M.D.T.).

MUD COMPANY

Davis Mud & Chemical
Farmington, New Mexico
(505) 327-2304
Engineer: John Hunter

Fresh water system with mud additives (chem-gel) surface to 4950'. Salt
mud 4950' to T.D.

SPUD DATE

June 16th, 1984

COMPLETED DRILLING DATE

June 28th, 1984 at 14:45 hours (M.D.T.)

DRILL PIPE SIZE

Drill pipe: 4 1/2", 16.6 lbs/ft, Grade: E
Tool joint: 6"
Thread type: XH

Collars: 6 1/4" o.d. x 2 1/4" i.d.
Thread Type: XH

MUD PUMP TYPE & MUD TANK

Pump #1: OPI 700
Stroke Length: 5 1/2" x 8"

Pump #2: Ideco 600
Stroke Length: 5 1/2" x 16"

Tank Volume: 500 bbls

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

Well Data (Con't)

TOTAL DEPTH

Driller depth: 5602', 5610'(-480) after strap
Electric log depth: 5596' (-466)

ELECTRIC LOG COMPANY

Dresser Atlas
Farmington, New Mexico
Engineer: Joe Hewitt

CASING PROGRAM

Drill 17 1/2" pilot hole to 117'
Set 3 joints of 13 3/8" conductor pipe at 117'

Drilled 12 1/4" hole to 2510'
Landed 2515' (60 joint) of 8 5/8", 24 lbs, J-55 casing.
Set at 2510'.

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

SURVEY RECORD

<u>DATE</u>	<u>DEPTH</u>	<u>DEVIATION</u>	<u>TYPE</u>
6-17-84	193'	1/4 ^o	Wireline
6-17-84	680'	1/2 ^o	Wireline
6-18-84	1198'	1 ^o	Wireline
6-18-84	1707'	1 ^o	Wireline
6-19-84	2144'	1/2 ^o	Tool dropped
6-19-84	2510'	3/4 ^o	Tool dropped
6-21-84	3002'	3/4 ^o	Wireline
6-21-84	3495'	1/2 ^o	Wireline
6-22-84	3990'	1 3/4 ^o	Wireline
6-22-84	4507'	1 1/4 ^o	Wireline
6-23-84	5115'	1 ^o	Tool dropped
6-27-84	5526'	3/4 ^o	Tool dropped

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

BIT RECORD

<u>NO/SIZE</u>	<u>MAKE</u>	<u>TYPE</u>	<u>DEPTH IN</u>	<u>DEPTH OUT</u>	<u>FEET DRILLED</u>	<u>HOURS DRILLED</u>	<u>FEET PER HOUR</u>
1. 17 1/2"	Smith	F-3rr	Surface	117'	117'	5	23.4
2. 12 1/4"	Smith	F-3rr	117'	2144'	2027'	44 3/4	45.3
3. 12 1/4"	HTC	SJSrr	2144'	2510'	366'	8 1/2	43
4. 7 7/8"	Smith	F-27	2510'	5115'	2605'	67	38.9
5. 7 7/8"	Veral	V-537	5115'	5300'	185'	14 1/2	12.7
6. 7 7/8"	Veral	V-537rr	5300'	5526'	226'	20 1/4	11
7. 7 7/8"	Reed-Acc	Flash	5526'	5551'	25'	7 1/2	3.3
8. 7 7/8"	Veral	V-537rr	5551'	5602'	51'	4 1/4	11.3

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

MUD REPORT

<u>DATE</u>	<u>TIME</u>	<u>DEPTH</u>	<u>WEIGHT</u>	<u>VISCOSITY</u>	<u>pH</u>	<u>FILTRATE</u>	<u>FILTER CAKE</u>	<u>CHLORIDES</u>	<u>CALCIUM</u>	<u>SOLIDS CONTENT</u>
6-16/6-22: Drilling with fresh water, spud mud.										
6-22	07:00	4155'	8.7	27	--	---	---	7,500 ppm	---	---
6-23	07:00	4930'	8.7	27	--	---	---	11,200	---	---
6-24	07:00	5250'	10.8	44	12.5	11.6	2/32	15,000	1,000	12.0
6-25	14:00	5300'	10.8	38	13.0	8.8	2/32	14,000	180	12.0
6-26	18:50	5315'	11.2	39	13.0	9.2	2/32	15,000	180	14.0
6-26	21:00	5400'	11.9	47	11.5	12.8	---	14,000	----	----
6-27	06:00	5475'	12.8	44	12.0	14.6	2/32	14,000	800	21.0
								Note: chromates - 600 ppm		
6-27	12:00	5526'	12.8	40	12.5	15.8	---	14,000	400	---
								Note: chromates - 600 ppm		
6-28	06:30	5551'	12.8	40	12.5	14.4	2/32	14,000	400	21.0
								Note: chromates - 500 ppm		

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

DRILL STEM TESTS

COMPANY:

Johnston-Macco
P.O. Box G
1367 E. 1000 S.
Vernal, Utah 84078
(801) 789-3709
Engineer: Glenn R. Grimes

FORMATION TESTED:

Upper Ismay Zone
Interval: 5257' to 5300'
Total feet: 43'
Bottom packer: 5257'
Top packer: 5247'

TIME TEST TOOL OPENED:

04:53 (M.D.T.) on 6 -25-84

TYPE OF TEST AND CUSHION TYPE:

Conventional open hole test without a cushion.

DRILLING FLUID PROPERTIES:

Dispersed mud type

<u>WEIGHT</u>	<u>VISCOSITY</u>	<u>WATER LOSS</u>	<u>RESIST. OF MUD</u>	<u>RESIST. OF FILTRATE</u>	<u>CHLORIDES</u>
10.8	38	8.8	.26 at 82 ^o F	.22 at 82 ^o F	12,000

FLOW PERIODS AND CHOKE SIZE:

A. Surface Choke: 1/8" bubble hose, 1/8" and 1/4" manifold
Bottom Choke: 15/16

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

DRILL STEM TEST #1 (Con't)

B. IF: 15 min. - open with weak surface bubbles increasing to 2" in 5 minutes, decreasing to 1 3/4" in 10 minutes, to 1 1/4" in 15 minutes.

ISI: 31 min.- Surface blow died after 13 minutes.

FF: 61 min. - Tool open with weak surface bubbles, increasing to 1" in 1 minute, to 1/4" in 5 minutes, decreasing to 3/4" in 15 minutes and to 1/4" after 30 minutes and 1/4" in 60 minutes.

FSI: 121 min.- Blow slowly died.

C. Gas to surface: None

SAMPLER DATA:

A. Recovery - 1750 cc mud

B. Resistivity - Recovered Mud - .26 at 80°F
Recovered Mud Filtrate - .22 at 80°F with 11,000 ppm CL
Pit Mud - .26 at 82°F
Pit Mud Filtrate - .22 at 82°F with 12,000 ppm CL
Sampler Pressure - 25 psi

INSTRUMENT DATA:

Instrument Number:	<u>J-080</u>	<u>J-503</u>	<u>J-1238</u>
Capacity (psi):	2800	4800	4800
Depth:	5208'	5227'	5263'
Inside-Outside:	In	In	Out
Clock Cap. Hours:	48	48	48
Temperature °F:	124°	124°	125°
I.H. (psi):	---	2849'	2899'
I.F. (psi):	0-21	20-20	29-29
I.S.I. (psi):	21	167	171
F.F. (psi):	21-21	27-27	38-38
F.S.I. (psi):	21	817	834
F.H. (psi):	---	2849	2852

DRILL STEM TEST #1 (Con't)

RECOVERY DESCRIPTION:

-25'(0.13 bbls) of drilling mud, resistivity of .26 at 82°F with 12,000 ppm of chlorides.

COMMENTS:

No mechanical problems occurred during test. Interval appears to have low effective permeability.

LITHOLOGIC DESCRIPTION OF SHOW:

Limestone (95%) - Light to medium gray, tan, microcrystalline, microsucrosic to finely granular texture, hard, tight to poor (5-12%) intercrystalline to intergranular porosity with minor pin-point vug's. Dolomitic, argillaceous matrix, minor (5% of sample) patchy to spotty light brown live oil stain with minor spotty to patchy black light brown dead oil stain, minor to abundant (5-60% of sample) dull to faint yellow hydrocarbon fluorescence (5%), having a very faint pale blue green slight bleeding cut, leaving a faint yellow light green halo in part. Anhydrite blebs also were observed.

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

DRILL STEM TEST #2 (Con't)

ISI: 32 min. - Blow died in 26 minutes.

FF: 60 min. - Tool opened with strong 15" blow, open 1/8" manifold bubble sarged in two minutes 5" blow, increased to 2 1/2" in 5 minutes, to 4 12/" in 15 minutes, to 7 1/2" in 30 minutes to 9" at end of flow.

FSI: 180 min.- Blow slowly died.

C. Gas to surface: None

SAMPLER DATA:

A. Recovery: 0.11 cu ft of gas
1750 cc of mud

INSTRUMENT DATA:

Instrument No.:	<u>J-080</u>	<u>J-503</u>	<u>J-1248</u>
Capacity (psi):	2800	4800	4800
Depth:	5213'	5232'	5268'
Inside-Outside:	In	In	Out
Clock Cap. Hours:	48 ^o	48 ^o	48 ^o
Temperature F:	125 ^o	126 ^o	128 ^o
I.H. (psi):	---	2979	3013
I.F. (psi):	0-15	37-37	48-38
I.S.I. (psi):	15	260	275
F.F. (psi):	15-32	37-37	48-48
F.S.I. (psi):	32	1608	1630
F.H. (psi):	32	2983	3013

RECOVERY DESCRIPTION (drill pipe):

Very slight gas cut mud.

COMMENTS:

No mechanical problems were encountered throughout test.
Interval appears to have poor effective permeability and porosity.

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

DRILL STEM TEST #2 (Con't)

LITHOLOGIC DESCRIPTION OF SHOW:

Limestone (95%) - Tan, light gray, microcrystalline, finely granular to microsugrosic texture, firm, poor to fair (8-15%) intergranular to intercrystalline porosity, with minor vug's. Fairly clean matrix, very minor (less than 5% of sample) spotted black to dark brown dead oil stain, moderate (20% of sample) dull yellow mineral fluorescence with very minor (less than 50% of sample) faint light blue light yellow hydrocarbon fluorescence, no visible cut.

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

CORE ANALYSIS (Con't)

- 5533' Dolomite - Dark gray, microcrystalline, microsugrosic texture, dense, very argillaceous, limy, carbonaceous specks, slightly asphaltic.
- 5534' Dolomite - As above
- 5535' Dolomite - Dark gray brown, as above.
- 5537.5' Limestone - Light brown microcrystalline, microsugrosic texture, hard, tight intercrystalline porosity, argillaceous, dolomitic, carbonaceous specks, anhydritic, minor black dead oil stain lining anhydrite casts.
- 5539' Limestone - As above, dolomitic.
- 5539.5' Limestone - As above.
- 5540.5' Limestone - Tan medium gray, as above.
- 5542' Dolomite - Dark gray brown, microcrystalline, microsugrosic, dense, limy, argillaceous, anhydrite blebs.
- 5543' Dolomite - As above, Crinoid, probable Brachiopod shell fragments.
- 5544' Dolomite - As above, minor fossils.
- 5545.5' Limestone - Dark gray brown, microcrystalline, microsugrosic, dense, dolomitic, argillaceous, anhydritic, fossil debris (Brachiopod)
- 5547' Limestone - As above.
- 5548' Limestone - As above, Brachiopod, probable Bryozoa.
- 5549.75' Limestone - As above, very argillaceous, Crinoid only.

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

FORMATION TOPS

<u>UNIT</u>	<u>MEASURED DEPTH</u>	<u>ESTIMATED SAMPLE TOPS</u>	<u>E-LOG TOPS</u>	<u>THICKNESS</u>
Hermosa	4189' (+941)	4170' (+960)	Not Available	---
Upper Ismay	5210' (-80)	5212' (-82)	5216' (-86)	145'
Hovenweep Shale		5358' (-228)	5361' (-231)	81'
Lower Ismay	5390' (-260)	5403' (-273)	5397' (-267)	49'
Gothic Shale	5443' (-313)	5452' (-322)	5446' (-316)	30'
Desert Creek	5465' (-335)	5470' (-340)	5476' (-346)	97'
Lower Desert Creek	5527' (-397)	5533' (-403)	5528' (-398)	---
Chimney Rock	5559' (-429)	5558' (-428)	5543' (-413)	53'
T.D.	5630'	5602' (-472)	5596' (-466)	---

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

CONTROL DATUM

Raymond T. Duncan
#2-23 Bradford Canyon
661' FWL, 2330' FNL
SWSW Sec. 23-T37S-R24E
San Juan County, Utah

Raymond T. Duncan
#1-23 Bradford Canyon Fed.

NESW Sec. 23-T37S-R24E
San Juan County, Utah

G.L. 5117'
K.B. 5130'

G.L. 5011'
K.B. 5026'

<u>UNIT</u>	<u>ESTIMATED SAMPLE TOP</u>	<u>E-LOGS TOP</u>	<u>E-LOG TOP</u>
Hermosa	4170' (+960)	---	4120' (+906)
Upper Ismay	5112' (-82)	5216' (-86)	5112' (-87)
Hoverweep Shale	5358' (-228)	5361' (-231)	---
Lower Ismay	5403' (-273)	5397' (-267)	5296' (-270)
Gothic	5452' (-322)	5446' (-316)	5347' (-321)
Desert Creek	5470' (-340)	5476' (-346)	5368' (-342)
Lower Desert Creek	5532' (-402)	5528' (-398)	5431' (-405)
Chimney Rock	5558' (-428)	5543' (-413)	5472' (-446)
T.D.	5602' (-472)	5596' (-466)	5551' (-525)

FORMATION SUMMARY

The primary objective of the #2-23 Bradford Canyon well located in Section 23, Township 27 South, Range 24 East of San Juan County, Utah was to core, analyze and evaluate (by means of DST) any hydrocarbon show(s) associated with the Desert Creek zone of the Pennsylvanian aged Paradox Formation of the Hermosa Group.

The Upper Ismay zone, also of the Paradox Formation, was a secondary zone of high interest and was given special attention.

The formations encountered during mudlogging procedures of the #2-23 Bradford Canyon well ranged in age from Lower Permian through the Pennsylvanian age.

I. Permian Period

a. Cutler Group (undivided)

1. Cutler Formation (Wolfcamp)

II. Pennsylvanian Period

a. Hermosa Group

1. Honaker Trail Formation (Virgil, Missouri)

b. Paradox Formation (Des Moines)

Upper Ismay Cycle

Hovenweep Shale

Lower Ismay Cycle

Gothic Shale

Desert Creek Cycle

Chimney Rock Shale

Terra Services commenced logging procedures at a depth of 4000' (+1130') in the Cutler Formation at 3:00 a.m. (M.D.T.) on June 22, 1984 and completed logging procedures at a driller depth of 5602' (-472) at 14:45 p.m. (M.D.T.) on June 28th, 1984 in the Pennsylvanian aged Chimney Rock Shale of the Paradox Formation.

Comment:

It should be noted that the mudlogging unit experienced electrical problems upon starting. Due to problems associated the light plant provided by the contractor (Coleman Drilling) the AC cycles were too variable to make accurate gas detection possible and the instruments were not operable from 4000' to 4180'. Although power was regained at 4180' problems did persist for approximately an additional 36 hours. At that time the light plant was serviced and repaired. No problems occurred after repairs.

FORMATION SUMMARY (Con't)

I. CUTLER GROUP

A. Cutler Formation

Average Penetration Rate: 60 ft/hr or 1 min/ft

The Culter Formation consists of shale, siltstone and sandstone.

The shales are orange, medium brown, blocky, earthy, silty and soft. The siltstones are medium brown, calcareous, micaceous and firm. The sandstones are white, light gray, fine grained, subrounded, well sorted, calcareous, clean, firm and display tight intergranular porosity.

II. HERMOSA GROUP

A. Honaker Trail Formation

Formation Top: 4120'-5112'

Average Penetration Rate: 40 ft/hr or 1.5 min/ft

The Honaker Trail consists of shales, sandstones and limestones. The limestones are light brown to tan, light to medium gray, microcrystalline, micro-sucrosic texture, hard to firm, slightly fossiliferous, slightly dolomitic in part and generally display tight intercrystalline porosity.

The shales are light to dark gray, medium brown, orange, blocky, earthy, silty, carbonaceous in part, calcareous in part, and generally firm. The sandstones are light to medium gray, tan, fine grained, angular to rounded, well sorted, calcareous, slightly argillaceous, firm and display tight intergranular porosity.

Comment:

Due to light mud (8.7) and a low viscosity (27), poor sample conditions occurred throughout the majority of the section.

B. Paradox Formation

Upper Ismay

Unit Top: 5112'-5361'

Average Penetration Rate: 13.3 ft/hr or 4.5 ft/min

The Upper Ismay cycle consists primarily of limestone interbedded with lesser amounts of anhydrite and shale.

The limestones are light to medium gray, tan microcrystalline, microsucrosic to finely granular, hard to firm, display tight to fair intercrystalline to intergranular porosity with a minor amount of vugular porosity. The limes are also dolomitic in part, anhydritic, argillaceous in part and have minor amounts of live and dead oil stain, faint yellow hydrocarbon fluorescence in part and very faint

FORMATION SUMMARY (Con't)

light yellow light blue cut.

The shales are medium gray to black, blocky, sooty, limy, carbonaceous and firm to soft. The anhydrites are white and soft.

Comment:

For more detailed descriptions of show intervals see appendix A interval 5270'-5315' and DST's 1 and 2.

Hoverweep Shale

Unit Top: 5361'-5397'

Average Penetration Rate: 11 ft/hr or 5/5 min/ft

The Hoverweep shale is dark gray - brown to black blocky, sooty, limy, carbonaceous and firm to soft.

Lower Ismay

Unit Top: 5397'-5446'

Average Penetration Rate: 8 ft/hr or 7/5 min/ft

The Lower Ismay consists primarily of white to light gray anhydrite that is granular in part and generally soft. The upper and lower portion of the section consists of limestone.

The limestones are light to medium gray, buff to light brown, microcrystalline, microsucrosic to sandy texture, firm to friable, anhydritic, chalky in part, argillaceous and displays tight intercrystalline porosity.

Gothic Shale

Unit Top: 5446'-5476'

Average Penetration Rate: 11.5 ft/hr or 5.25 min/ft

The Gothic Shale is black to dark gray, blocky, sooty, limy, carbonaceous and firm to hard.

Desert Creek

Unit Top: 5476'-5543'

Average Penetration Rate: 10 ft/hr or 6 min/ft

The Desert Creek consists of limestone, dolomite, anhydrite and shale. The shales are dark gray blocky, sooty, calcareous, carbonaceous and firm. The anhydrites are white, tan medium gray, soft to dense.

The limestones are light to medium gray, tan to light brown, microcrystalline, microsucrosic to slightly sandy texture, hard, argillaceous, dolomitic in part,

FORMATION SUMMARY (Con't)

carbonaceous in part and display tight intercrystalline porosity.

The dolomites are light to dark gray, tan to brown gray, microcrystalline, microsugrosic, dense, limy, very argillaceous, carbonaceous, and slightly asphaltic in part.

Comment:

For more detailed descriptions of the Lower Desert Creek refer to Core #1 interval 5526'-5551'.

Chimney Rock

Unit Top: 5543'-T.D. 5602'

Average Penetration Rate: 10 ft/hr or 6 min/ft

The Chimney Rock is composed of alternating shales and limestones with the base consisting of anhydrite. The shales are dark gray to black, blocky, sooty, limy in part, and soft to firm.

The limestones are tan to light gray, microcrystalline, microsugrosic, soft, argillaceous, chalky in part and display tight intercrystalline porosity.

APPENDIX "A"

<u>Interval</u>	<u>Show #1</u>
5270'-80'	<u>Limestone</u> (95%) - Medium to light gray, light brown, microcrystalline, microsucrosic to finely granular texture, hard, argillaceous matrix, dolomitic, tight to poor (5-8%) intergranular porosity with minor pin-point porosity, minor patchy dark brown dead oil stain, no fluorescence and no cut.
5280'-85'	<u>Limestone</u> (95%) - Light gray, tan, as above, possible stylolitic.
5285'-90'	<u>Limestone</u> (95%) - Medium gray, speckled black, microcrystalline, microsucrosic to finely granular texture, hard, tight to poor (5-10%) intercrystalline to intergranular porosity with minor pin-point porosity and vug's. Dolomitic, argillaceous matrix, minor (5% of sample) patchy black dead oil stain with minor (5% of sample) patchy light brown live oil stain, minor (5% of sample) very faint yellow hydrocarbon and mineral fluorescence, very faint slight light blue green bleeding cut leaving a faint yellow light green halo.
5290'-95'	<u>Limestone</u> (95%) - Light gray, tan, microcrystalline, microsucrosic to finely granular texture, hard, poor (8-12%) intercrystalline to intergranular porosity with minor pin-point vug's, dolomitic, slightly argillaceous matrix, minor (5% of sample) patchy to spotty light brown dead oil stain, abundant (60% of sample) dull yellow gold mineral fluorescence with a very faint pale blue slight bleeding cut. <u>Anhydrite</u> blebs were also observed.
5295'-5300'	<u>Limestone</u> (95%) - Tan, cream, as above, minor fossil debris.
5300'-05'	<u>Show #2</u> Abundant cavings due to trip, 60% of sample. <u>Limestone</u> (40%) - Tan to light gray, minor light brown, microcrystalline, granular to microsucrosic texture, hard, poor (8-10%) intergranular to intercrystalline porosity, fairly clean matrix, minor (less than 5% of sample) patchy to pin-point dead oil stain, minor (10% of sample) dull or faint yellow mineral fluorescence with very minor spotted bright yellow hydrocarbon fluorescence, fast light milky yellow fairly fast streaming cut that disapates rapidly leaving a pale yellow halo.
5305'-10'	<u>Limestone</u> (95%) - Tan, light gray, microcrystalline, finely granular to microsucrosic, firm, poor to fair (8-15%) intergranular to intercrystalline porosity, with minor vug's, fairly clean matrix, very minor (less than 5% of sample) spotted black to dark brown dead oil stain, moderate (20% of sample) dull yellow mineral fluorescence

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

APPENDIX "A" (Con't)

5305'-10 (Con't) with very minor (less than 5% of sample) faint light blue light yellow hydrocarbon fluorescence, no visible cut.

5310'-15' Abundant cavings, 50% of sample.
Limestone (50%) - As above.

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

WELL CHRONOLOGY

<u>DATE</u>	<u>TIME</u>	<u>EVENT</u>
6-22-84	00:00-03:45	Drilling
	03:45-04:15	Survey at 3990' - 1 3/4°
	04:15-08:00	Drilling
		Bit hours: 37 1/4
	3877'-4124'	35-40,000: 70: 1700: 98
	08:00-08:15	Rig service
	08:15-18:00	Drilling
	18:00-18:30	Survey at 4507' - 1 1/4°
	18:30-20:00	Drilling
		Bit hours: 48 1/2
	4124'-4557'	40,000: 70: 1700: 98
	20:00-24:00	Drilling
		Bit hours: 52 1/2
	4557'-4687'	40,000: 70: 1700: 98
6-23-84	00:00-08:00	Drilling
		Bit hours 60 1/2
	4687'-4925'	40,000: 70: 1700: 98
	08:00-13:30	Drilling and mudding up at 4950'
	13:30-19:00	Circulate and trip, strap out, 5115.81' after strap
	19:00-20:00	Drilling, new bit #5 - Veral, V-537
		Bit hours: 67, out at 5115, survey=1°
	4925'-5115'	40,000: 70: - : 98
	20:00-24:00	Drilling
		Bit hours 5
	5115'-5186'	40-45,000: 65-70: 1750: 98
6-24-84	00:00-01:00	Drilling
	01:00-02:00	Rig repair - light plant
	02:00-08:00	Drilling
		Bit hours: 12
	5186'-5240'	45,000: 65: 1750: 98
	08:00-09:00	Drilling
	09:00-09:15	Rig Service
	09:15-10:15	Drilling
	10:15-11:30	Circulate samples at 5285'
	11:30-12:00	Drilling
	12:00-14:00	Circulate samples at 5300'
	14:00-15:00	Trip out into casing
	15:00-18:00	Circulate for DST #1
	18:00-18:45	Trip in to bottom of hole

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

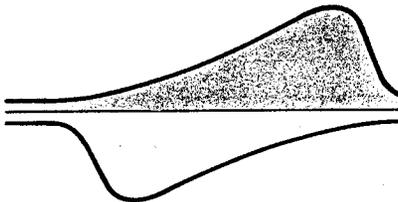
WELL CHRONOLOGY (Con't)

<u>DATE</u>	<u>TIME</u>	<u>EVENT</u>
6-24-84 Cont	18:45-20:00	Circulate for DST #1
		Bit hours: 14 1/2
	5240'-5300'	45,000: 65: 1750: 98
	20:00-21:00	Circulate for DST #1
	21:00-22:30	Trip out of hole
	22:30-24:00	Pick up test tool
6-25-84	00:00-05:00	Trip in hole to 2507', wait for daylight
	05:00-05:15	Open tool
	05:15-05:45	Close tool
	05:45-06:45	Open tool
	06:45-08:00	Close tool
	08:00-08:45	Close tool
	08:45-11:00	Trip out of hole with DST #1
	11:00-12:30	Breakdown and laydown DST tool
	12:30-15:00	Trip in hole with bit #6, rerune of bit #5
	15:00-15:30	Condition and circulate samples at 5315'
	18:30-20:00	Trip out of hole to 2500'
		Bit hours: 1/2
	5300'-5315'	45,000: 65: 1750: 98
	20:00-21:15	Circulate
	21:15-22:15	Trip in hole
22:15-23:15	Circulate	
23:15-24:00	Trip out of hole for DST #2	
6-26-84	00:00-01:00	Trip out of hole for DST #2
	01:00-03:00	Pick up address tool
	03:00-05:00	Trip in hole
	05:00-05:15	Open tool
	05:15-05:45	Close tool
	05:45-06:45	Open tool
	06:45-08:00	Close tool
	08:00-09:45	Close tool
	09:45-11:45	Trip out of hole with DST #2
	11:45-14:00	Breakdown and load out DST #2
	14:00-15:15	Trip in hole with bit #6
	15:15-20:00	Drill, mixing bar (180 sacks)
		Bit hours: 5 1/2
	5315'-5371'	45,000: 65: - : 98
	20:00-24:00	Drilling
	Bit hours: 9 1/4	
5371'-5421'	45,000: 65: 1500-1900: 98	
6-27-84	00:00-08:00	Drilling
		Bit hours 16 3/4
	5421'-5480'	45,000: 65: 1950: 98
	08:00-08:30	Service rig, check BOP (ok)
	08:30-12:00	Drilling
	12:00-13:30	Circulate

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

WELL CHRONOLOGY (Con't)

<u>DATE</u>	<u>TIME</u>	<u>EVENT</u>	
6-27-84 Cont	13:30-15:45	Trip out of hole for Core #1 Drop survey 3/4 ^o at 5526'	
	15:45-17:00	Pick up core barrel	
	17:00-19:00	Trip in hole with core #1	
	19:00-19:30	Circulate and drop ball	
	19:30-20:00	Coring	
	5480'-5526'	Bit hours 20 1/4, N.B. Reed (Acc) Flash 45,000: 65: 1950: 98	
	20:00-24:00	Coring	
	5526'-5538'	Bit hours: 4 1/2 16-18,000: 60: 1100: 100	
	6-28-84	00:00-03:00	Coring
		03:00-05:15	Trip out with Core #1
05:15-07:00		Laydown core and load out barrel	
07:00-08:00		Trip in hole with bit #8, Veral-V537 r.r. of bit 5	
5538'-5551'		Bit hours: 7 1/2, out at 5551' 16-18,000: 60: 1100: 100	
08:00-09:30		Trip in hole and ream 30' to bottom	
09:30-14:45		Drilling to T.D.	
14:45-16:45		Circulate	
16:45-18:30		Drop survey and short trip 36 stands waiting on E-loggers	
18:30-19:30		Circulate	
19:30-20:00		Trip in hole	
5551'-5602'		40-45,000: 65: 1650: 98	
20:00-20:15		Trip to bottom	
20:15-21:45	Circulate		
21:45-24:00	Trip for E-loggers		



RESERVOIRS

INC.

1827 GRANT STREET

DENVER, COLORADO 80203

(303) 830-1986

RECEIVED

July 16, 1984

JUL 18 1984

Mr. Don Lehman
Raymond T. Duncan Oil Properties
1777 S. Harrison St.
Penthouse One
Denver, CO 80201

DIVISION OF OIL
GAS & MINING

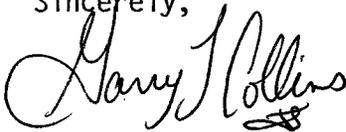
Re: RMD728/DRC044 - Reservoirs, Inc. Report, #2-23 Bradford Canyon Unit

Dear Mr. Lehman:

Enclosed please find data generated by our core facility in Denver, Colorado. These data include permeability, porosity, grain density, and water and oil saturations. These analyses were performed on a foot-by-foot basis covering the interval 5531-5544 feet. Also included is a brief lithologic description for each sample point.

We are pleased to be of service to you and look forward to the opportunity to provide other reports on future wells. If any questions should arise concerning these data, please call us.

Sincerely,



Garry L. Collins
Senior Technician
RESERVOIRS INC.

GLC/law

enc1

FLOPETROL JOHNSTON

Schlumberger

WELL PERFORMANCE TEST REPORT

A Production Systems Analysis (NODAL)
Based On
Drillstem Test Data

Test Date
6-25-84

Report No.:
42935 E

<p>COMPANY</p> <p style="text-align: center;">RAYMOND T. DUNCAN</p>	<p>WELL</p> <p style="text-align: center;">BRADFORD CANYON UNIT #2-23</p>																														
<p>TEST IDENTIFICATION</p> <p>Test Type OPEN HOLE DST Test Number 1 Formation UPPER ISMAY Test Interval 5257 - 5300 FT. Reference Depth KELLY BUSHING</p>	<p>WELL LOCATION</p> <p>Field (WILDCAT) County SANJUAN State UTAH Sec / Twn / Rng 23 T37S R24E Elevation 5117 FT.</p>																														
<p>HOLE CONDITIONS</p> <p>Total Depth (MVD/TVD) 5300 FT. Hole Size / Deviation Angle 7 7/8 IN./STRAIGHT Csg / Liner ID N/A Perf'd Interval N/A Shot Density / Phasing N/A Gun Type / Perf Cond N/A</p>	<p>MUD PROPERTIES</p> <p>Mud Type DISPERSED Mud Weight 10.8 LB/GAL Mud Resistivity26 OHMS @ 82°F. Filtrate Resistivity22 OHMS @ 82°F. Filtrate Chlorides 12000 CL PPM Filtrate Nitrates NOT GIVEN</p>																														
<p>INITIAL TEST CONDITIONS</p> <p>Gas Cushion Type NONE Surface Pressure N/A Liquid Cushion Type NONE Height Above DST Valve N/A</p>	<p>TEST STRING CONFIGURATION</p> <p>Pipe Length / ID 4567 FT./3.83 IN. Collar Length / ID 639 FT./2.25 IN. Packer Depth(s) 5250 - 5257 FT. BH Choke Size 15/16 IN.</p>																														
<p>NET PIPE RECOVERY</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Volume</th> <th>Fluid Type</th> <th>Physical Properties</th> </tr> </thead> <tbody> <tr> <td>.12 BBL</td> <td>MUD</td> <td>.26 OHM-M @ 82°F.</td> </tr> <tr> <td></td> <td></td> <td>12,000 CHL PPM</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Volume	Fluid Type	Physical Properties	.12 BBL	MUD	.26 OHM-M @ 82°F.			12,000 CHL PPM							<p>NET SAMPLE CHAMBER RECOVERY</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Volume</th> <th>Fluid Type</th> <th>Physical Properties</th> </tr> </thead> <tbody> <tr> <td>1750 CC</td> <td>MUD</td> <td>.26 OHM-M @ 80°F.</td> </tr> <tr> <td></td> <td></td> <td>11,000 CHL PPM</td> </tr> <tr> <td>.08 CSF</td> <td>GAS</td> <td></td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>Pressure: 25 PSIG GOR: _____ GLR: 7.3</p>	Volume	Fluid Type	Physical Properties	1750 CC	MUD	.26 OHM-M @ 80°F.			11,000 CHL PPM	.08 CSF	GAS				
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.08 CSF	GAS																														
<p>INTERPRETATION RESULTS</p> <p>Reservoir Pressure @Gauge Depth: N/A Gauge Depth 5263 FT. Hydrostatic Gradient N/A Potentiometric Surface N/A Effective Permeability to N/A Transmissibility N/A Skin Factor / Damage Ratio N/A Omega / Lambda (2Ø System) N/A Radius of Investigation N/A Measured Wellbore Storage N/A</p>	<p>ROCK / FLUID / WELLBORE PROPERTIES</p> <p>Reservoir Temperature 125°F. Analysis Fluid Type N/A Formation Volume Factor N/A Viscosity N/A Z-Factor (gas only) N/A Net Pay 15 FT. Porosity 8 - 10 % Total System Compressibility N/A Wellbore Radius36 FT. Expected Wellbore Storage N/A</p>																														

RECEIVED

FLOW RATE DURING DST

2.3 BBLD AVERAGE FLOW RATE

JUL 5 1984

MAXIMUM FLOW RATE POTENTIAL AFTER COMPLETION

DIVISION OF OIL
GAS & MINING

FJS-5 B14099

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 42935E

COMPANY : RAYMOND T. DUNCAN

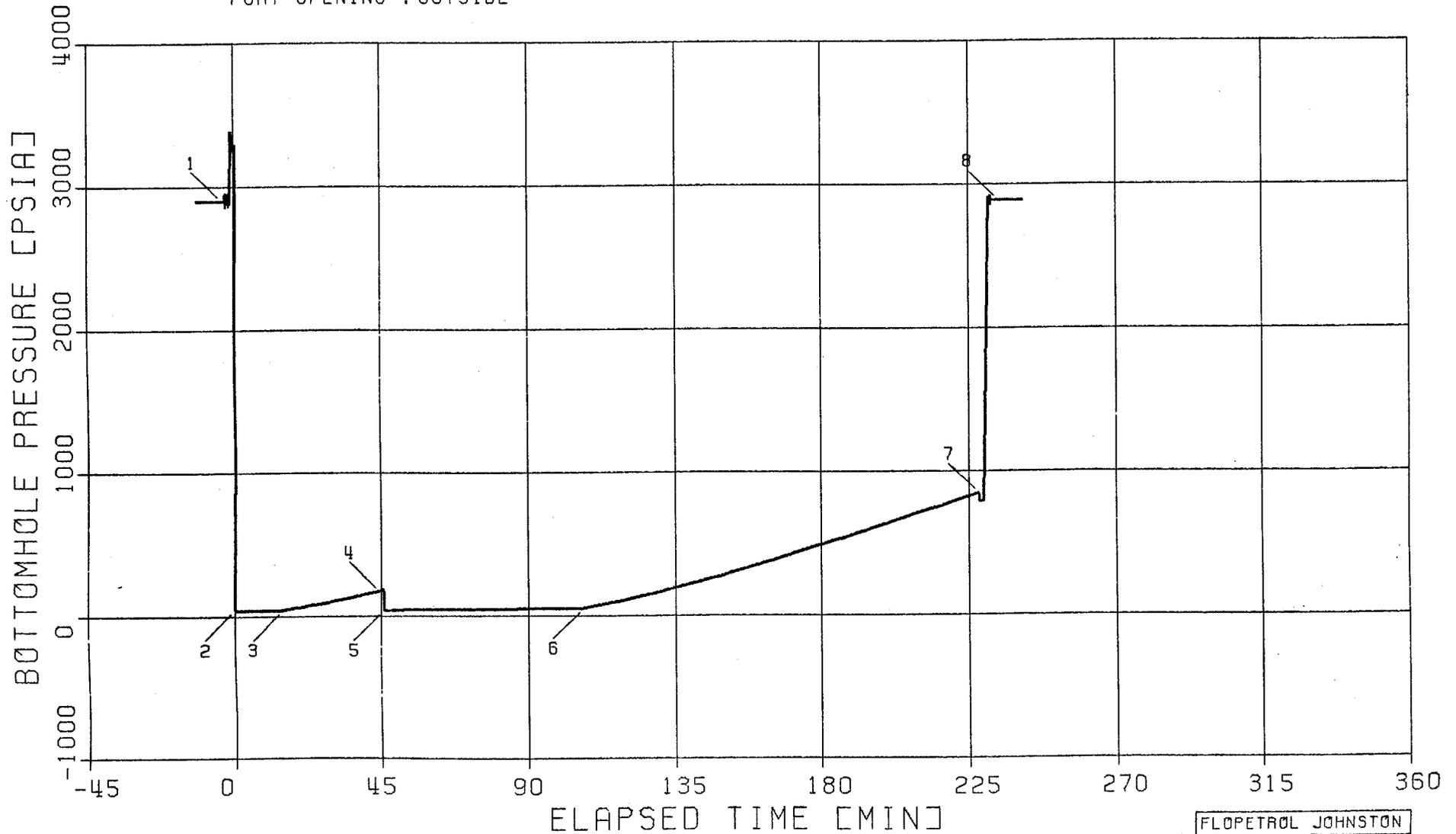
INSTRUMENT NO. J-1238

WELL : BRADFORD CANYON UNIT #2-23

DEPTH : 5263FT

CAPACITY : 4700 PSI

PORT OPENING : OUTSIDE



FLOPETROL JOHNSTON
SCHLUMBERGER

DST EVENT SUMMARY

Field Report # 42935 E

DATE (M/D/Y)	TIME (HR:MIN)	EVENT E.T. (MIN)	EVENT DESCRIPTION	SURFACE PRESSURE (PSIG)	FLOOR MANIFOLD CHOKE SIZE (64ths INCH)
6-25-84	0451	—	SET PACKER 1		B
	0453	—	OPENED TEST TOOL FOR INITIAL FLOW 2		U
			BLOW INCHES IN WATER		B
	0458			2 "	B
	0503			1 3/4"	L
					E
	0508	—	CLOSED TEST TOOL FOR INITIAL SHUT-IN 3	1 1/4"	
	0521		BLOW DIED.		H
	0523			0 "	O
					S
	0538		FINISHED SHUT-IN 4	0 "	E
	0539	—	OPENED TEST TOOL FOR FINAL FLOW 5		
			SURFACE BLOW		"
	0540			1 "	"
	0541			1 "	"
	0542			1 "	"
	0543			1 1/4"	"
	0544			1 1/4"	"
	0549			1 "	"
	0554			3/4"	"
	0559			1/2"	"
	0604			1/4"	"
	0609	—	CLOSED TEST TOOL FOR FINAL SHUT-IN	1/4"	"
	0624			1/4"	"
	0639			1/4"	"
	0640		CLOSED FOR FINAL SHUT-IN 6	1/4"	"
					"
	0841	—	FINISHED FINAL SHUT-IN 7	0 "	"
	0843	—	UNSEATED PACKER 8		—
		—	REVERSED OUT		
		—	BEGAN TRIP OUT OF HOLE		

 * WELL TEST DATA PRINTOUT *

FIELD REPORT # : 42935E

COMPANY : RAYMOND T. DUNCAN
 WELL : BRADFORD CANYON UNIT #2-23

INSTRUMENT # : J-1238
 CAPACITY (PSI) : 4700.
 DEPTH (FT) : 5263.0
 PORT OPENING : OUTSIDE
 TEMPERATURE (DEG F) : 125.0

LABEL POINT INFORMATION

#	TIME OF DAY HH:MM:SS	DATE DD-MM	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA
1	4:49:22	25-JN	HYDROSTATIC MUD	-3.63	2900
2	4:53: 0	25-JN	START FLOW	0.00	43
3	5: 7:45	25-JN	END FLOW & START SHUT-IN	14.75	42
4	5:37:29	25-JN	END SHUT-IN	44.49	169
5	5:38:55	25-JN	START FLOW	45.91	38
6	6:39:43	25-JN	END FLOW & START SHUT-IN	106.71	50
7	8:41: 0	25-JN	END SHUT-IN	228.00	847
8	8:47:13	25-JN	HYDROSTATIC MUD	234.21	2891

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
1	0.00	14.75	14.75	43	42
2	45.91	106.71	60.80	38	50

SUMMARY OF SHUTIN PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	14.75	44.49	29.74	42	169	42	14.75
2	106.71	228.00	121.29	50	847	50	75.55

TEST PHASE : FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BDT HDLE PRESSURE PSIA
4:53: 0	25-JN	0.00	0.00	43
4:58: 0	25-JN	5.00	5.00	42
5: 3: 0	25-JN	10.00	10.00	42
5: 7:45	25-JN	14.75	14.75	42

TEST PHASE : SHUTIN PERIOD # 1

FINAL FLOW PRESSURE [PSIA] = 42
 PRODUCING TIME [MIN] = 14.75

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BDT HDLE PRESSURE PSIA	DELTA P PSI	LOG HDRNER TIME
5: 7:45	25-JN	14.75	0.00	42	0	
5: 8:45	25-JN	15.75	1.00	47	5	1.197
5: 9:45	25-JN	16.75	2.00	51	9	0.923
5:10:45	25-JN	17.75	3.00	55	13	0.772
5:11:45	25-JN	18.75	4.00	58	16	0.671
5:12:45	25-JN	19.75	5.00	62	20	0.597
5:13:45	25-JN	20.75	6.00	66	24	0.539
5:14:45	25-JN	21.75	7.00	69	27	0.492
5:15:45	25-JN	22.75	8.00	73	31	0.454
5:16:45	25-JN	23.75	9.00	77	35	0.421
5:17:45	25-JN	24.75	10.00	81	39	0.394
5:19:45	25-JN	26.75	12.00	89	47	0.348
5:21:45	25-JN	28.75	14.00	97	55	0.313
5:23:45	25-JN	30.75	16.00	106	64	0.284
5:25:45	25-JN	32.75	18.00	114	72	0.260
5:27:45	25-JN	34.75	20.00	124	82	0.240
5:29:45	25-JN	36.75	22.00	134	92	0.223
5:31:45	25-JN	38.75	24.00	144	102	0.208
5:33:45	25-JN	40.75	26.00	154	112	0.195
5:35:45	25-JN	42.75	28.00	162	120	0.184
5:37:29	25-JN	44.49	29.74	169	127	0.175

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HDLE PRESSURE PSIA
5:38:55	25-JN	45.91	0.00	38
5:43:55	25-JN	50.91	5.00	42
5:48:55	25-JN	55.91	10.00	44
5:53:55	25-JN	60.91	15.00	45
5:58:55	25-JN	65.91	20.00	45
6: 3:55	25-JN	70.91	25.00	46
6: 8:55	25-JN	75.91	30.00	47
6:13:55	25-JN	80.91	35.00	47
6:18:55	25-JN	85.91	40.00	47
6:23:55	25-JN	90.91	45.00	48
6:28:55	25-JN	95.91	50.00	49
6:33:55	25-JN	100.91	55.00	50
6:38:55	25-JN	105.91	60.00	50
6:39:43	25-JN	106.71	60.80	50

TEST PHASE : SHUTIN PERIOD # 2

FINAL FLOW PRESSURE [PSIA] = 50
 PRODUCING TIME [MIN] = 75.55

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HDLE PRESSURE PSIA	DELTA P PSI	LOG HDRNER TIME
6:39:43	25-JN	106.71	0.00	50	0	
6:40:43	25-JN	107.71	1.00	56	6	1.884
6:41:43	25-JN	108.71	2.00	60	10	1.589
6:42:43	25-JN	109.71	3.00	65	15	1.418
6:43:43	25-JN	110.71	4.00	70	20	1.299
6:44:43	25-JN	111.71	5.00	74	24	1.207
6:45:43	25-JN	112.71	6.00	79	29	1.133
6:46:43	25-JN	113.71	7.00	83	33	1.072
6:47:43	25-JN	114.71	8.00	88	38	1.019
6:48:43	25-JN	115.71	9.00	92	43	0.973
6:49:43	25-JN	116.71	10.00	97	47	0.932
6:51:43	25-JN	118.71	12.00	106	56	0.863
6:53:43	25-JN	120.71	14.00	116	67	0.806
6:55:43	25-JN	122.71	16.00	126	77	0.758
6:57:43	25-JN	124.71	18.00	137	87	0.716
6:59:43	25-JN	126.71	20.00	148	98	0.679
7: 1:43	25-JN	128.71	22.00	158	108	0.647
7: 3:43	25-JN	130.71	24.00	168	118	0.618
7: 5:43	25-JN	132.71	26.00	178	128	0.592
7: 7:43	25-JN	134.71	28.00	189	139	0.568
7: 9:43	25-JN	136.71	30.00	200	150	0.546
7:14:43	25-JN	141.71	35.00	229	179	0.499
7:19:43	25-JN	146.71	40.00	259	209	0.461
7:24:43	25-JN	151.71	45.00	292	242	0.428

TEST PHASE : SHUTIN PERIOD # 2
 FINAL FLOW PRESSURE [PSIA] = 50
 PRODUCING TIME [MIN] = 75.55

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BDT HDLE PRESSURE PSIA	DELTA P PSI	LOG HDRNER TIME
HH:MM:SS	DD-MM	*****	*****	*****	*****	*****
7:29:43	25-JN	156.71	50.00	325	275	0.400
7:34:43	25-JN	161.71	55.00	359	309	0.375
7:39:43	25-JN	166.71	60.00	393	343	0.354
7:44:43	25-JN	171.71	65.00	428	378	0.335
7:49:43	25-JN	176.71	70.00	463	413	0.318
7:54:43	25-JN	181.71	75.00	499	449	0.303
7:59:43	25-JN	186.71	80.00	535	485	0.289
8: 4:43	25-JN	191.71	85.00	572	522	0.276
8: 9:43	25-JN	196.71	90.00	611	561	0.265
8:14:43	25-JN	201.71	95.00	648	598	0.254
8:19:43	25-JN	206.71	100.00	685	635	0.244
8:24:43	25-JN	211.71	105.00	724	674	0.235
8:29:43	25-JN	216.71	110.00	761	711	0.227
8:34:43	25-JN	221.71	115.00	800	750	0.219
8:39:43	25-JN	226.71	120.00	838	788	0.212
8:41: 0	25-JN	228.00	121.29	847	797	0.210

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 42936E

COMPANY : RAYMOND T. DUNCAN

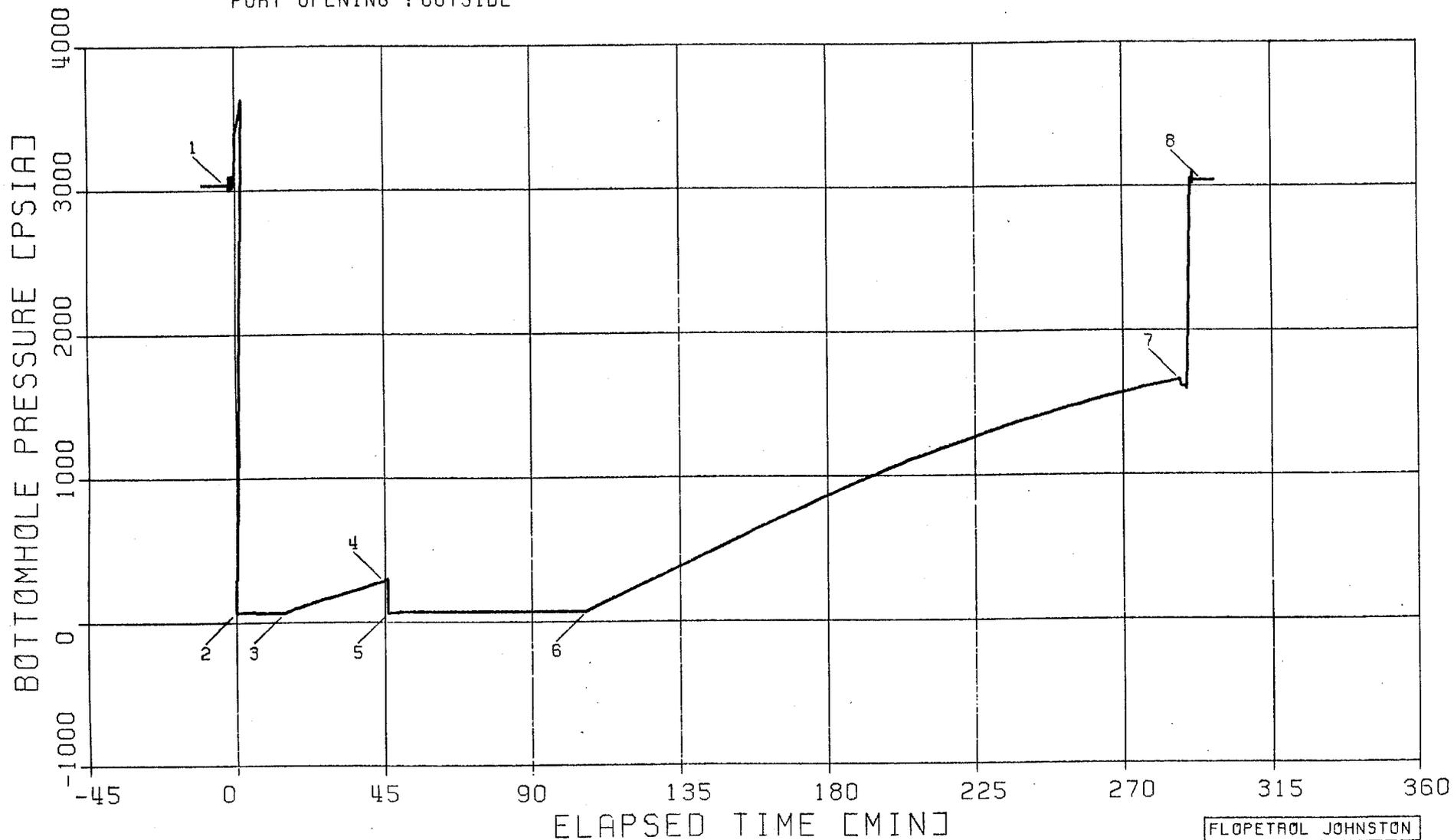
INSTRUMENT NO. J-1238

WELL : BRADFORD CANYON UNIT #2-23

DEPTH : 5268 FT

CAPACITY : 4700 PSI

PORT OPENING : OUTSIDE



FLOPETROL JOHNSTON
SCHLUMBERGER

FLOPETROL JOHNSTON

Schlumberger

WELL PERFORMANCE TEST REPORT

A Production Systems Analysis (NODAL)
Based On
Drillstem Test Data

Test Date
6-26-84

Report No.:
42936 E

COMPANY

RAYMOND T. DUNCAN

WELL

BRADFORD CANYON UNIT #2-23

TEST IDENTIFICATION

Test Type OPEN HOLE DST
Test Number 2
Formation ISMAY
Test Interval 5262 - 5315 FT.
Reference Depth KELLY BUSHING

WELL LOCATION

Field..... (WILDCAT)
County..... SANJUAN
State..... UTAH
Sec / Twn / Rng 23 T37S R24E
Elevation..... 5117 FT.

HOLE CONDITIONS

Total Depth (MVD/TVD) 5315 FT.
Hole Size / Deviation Angle 7 7/8 IN./STRAIGHT
Csg / Liner ID N/A
Perf'd Interval N/A
Shot Density / Phasing N/A
Gun Type / Perf Cond N/A

MUD PROPERTIES

Mud Type DISPERSED
Mud Weight 11.2 LB/GAL
Mud Resistivity28 OHMS @ 75°F.
Filtrate Resistivity30 OHMS @ 74°F.
Filtrate Chlorides 11500 CL PPM
Filtrate Nitrates..... NOT GIVEN

INITIAL TEST CONDITIONS

Gas Cushion Type NONE
Surface Pressure N/A
Liquid Cushion Type NONE
Height Above DST Valve N/A

TEST STRING CONFIGURATION

Pipe Length / ID..... 4572 FT./3.83 IN.
Collar Length / ID 639 FT./2.25 IN.
Packer Depth(s)..... 5255 - 5262 FT.
BH Choke Size..... 15/16 IN.

NET PIPE RECOVERY

Volume	Fluid Type	Physical Properties
0.22 BBL	MUD	.32 OHM-M @ 80°F. 10000 PPM CHL

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Physical Properties
1750 CC	MUD	.32 OHM-M @ 88°F. 9700 PPM CHI
0.10	GAS	
Pressure: 50 PSIG		GOR: -----
		GLR: 9.0

INTERPRETATION RESULTS

Reservoir Pressure @Gauge Depth: N/A
Gauge Depth 5268 FT.
Hydrostatic Gradient N/A
Potentiometric Surface N/A
Effective Permeability to N/A
Transmissibility N/A
Skin Factor / Damage Ratio..... N/A
Omega / Lambda (2φ System)..... N/A
Radius of Investigation N/A
Measured Wellbore Storage N/A

ROCK / FLUID / WELLBORE PROPERTIES

Reservoir Temperature 128°F.
Analysis Fluid Type N/A
Formation Volume Factor N/A
Viscosity N/A
Z-Factor (gas only)..... N/A
Net Pay 8 FT.
Porosity 18 %
Total System Compressibility..... N/A
Wellbore Radius32 FT.
Expected Wellbore Storage..... N/A

FLOW RATE DURING DST

4.2 BLPD AVERAGE RATE

MAXIMUM FLOW RATE POTENTIAL AFTER COMPLETION

RECEIVED

JUL 5 1984

DIVISION OF OIL
GAS & MINING

FJS-5 B14059

This rate is based on a specific completion design & producing time. Call FJS for details.

DST EVENT SUMMARY

Field Report # 42936 E

DATE (M/D/Y)	TIME (HR:MIN)	EVENT E.T. (MIN)	EVENT DESCRIPTION	SURFACE PRESSURE (PSIG)	FLOOR MANIFOLD CHOKE SIZE (64ths INCH)
6-26-84	0511	—	SET PACKER 1		B
	0513	—	OPENED TEST TOOL FOR INITIAL FLOW 2		U
			BLOW INCHES IN WATER, SURFACE BLOW		B
	0522			8 "	B
					L
					E
	0528	—	CLOSED TEST TOOL FOR INITIAL SHUT-IN 3	11 "	
	0543			3 "	H
	0554		BLOW DIED		O
					S
	0559		FINISHED SHUT-IN 4	0 "	E
	0600	—	OPENED TEST TOOL FOR FINAL FLOW 5	15 "	
	0602			5 "	"
	0604			2 "	"
	0605			2 1/2"	"
	0610			4 "	"
	0615			4 1/2"	"
	0620			5 1/4"	"
	0625			5 3/4"	"
	0630			7 "	"
	0645			7 1/2"	"
					"
	0700	—	CLOSED TEST TOOL FOR FINAL SHUT-IN 6	9 "	"
					"
					"
					"
					"
	1000	—	FINISHED FINAL SHUT-IN 7	0 "	"
	1003	—	UNSEATED PACKER 8		—
		—	REVERSED OUT		
		—	BEGAN TRIP OUT OF HOLE		

 * WELL TEST DATA PRINTOUT *

FIELD REPORT # : 42936E

COMPANY : RAYMOND T. DUNCAN
 WELL : BRADFORD CANYON UNIT #2-23

INSTRUMENT # : J-1238
 CAPACITY [PSI] : 4700.
 DEPTH [FT] : 5268.0
 PORT OPENING : OUTSIDE
 TEMPERATURE [DEG F] : 128.0

LABEL POINT INFORMATION

#	TIME OF DAY HH:MM:SS	DATE DD-MM	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA
1	5: 9:56	26-JN	HYDROSTATIC MUD	-3.06	3036
2	5:13: 0	26-JN	START FLOW	0.00	66
3	5:27:37	26-JN	END FLOW & START SHUT-IN	14.61	65
4	5:57:37	26-JN	END SHUT-IN	44.62	279
5	5:59: 1	26-JN	START FLOW	46.01	61
6	6:59:43	26-JN	END FLOW & START SHUT-IN	106.72	72
7	10: 0: 0	26-JN	END SHUT-IN	287.00	1654
8	10: 7: 7	26-JN	HYDROSTATIC MUD	294.11	3039

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
1	0.00	14.61	14.61	66	65
2	46.01	106.72	60.71	61	72

SUMMARY OF SHUTIN PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	14.61	44.62	30.01	65	279	65	14.61
2	106.72	287.00	180.28	72	1654	72	75.32

TEST PHASE : FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BDT HDLE PRESSURE PSIA
5:13:00	26-JN	0.00	0.00	66
5:18:00	26-JN	5.00	5.00	69
5:23:00	26-JN	10.00	10.00	65
5:27:37	26-JN	14.61	14.61	65

TEST PHASE : SHUTIN PERIOD # 1
 FINAL FLOW PRESSURE [PSIA] = 65
 PRODUCING TIME [MIN] = 14.61

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BDT HDLE PRESSURE PSIA	DELTA P PSI	LOG HDRWR TIME
5:27:37	26-JN	14.61	0.00	65	0	
5:28:37	26-JN	15.61	1.00	75	10	1.193
5:29:37	26-JN	16.61	2.00	84	18	0.919
5:30:37	26-JN	17.61	3.00	92	27	0.769
5:31:37	26-JN	18.61	4.00	100	35	0.668
5:32:37	26-JN	19.61	5.00	107	42	0.594
5:33:37	26-JN	20.61	6.00	114	49	0.536
5:34:37	26-JN	21.61	7.00	121	56	0.490
5:35:37	26-JN	22.61	8.00	129	63	0.451
5:36:37	26-JN	23.61	9.00	136	70	0.419
5:37:37	26-JN	24.61	10.00	143	77	0.391
5:39:37	26-JN	26.61	12.00	157	91	0.346
5:41:37	26-JN	28.61	14.00	171	105	0.310
5:43:37	26-JN	30.61	16.00	184	118	0.282
5:45:37	26-JN	32.61	18.00	197	132	0.258
5:47:37	26-JN	34.61	20.00	211	145	0.238
5:49:37	26-JN	36.61	22.00	225	160	0.221
5:51:37	26-JN	38.61	24.00	239	174	0.206
5:53:37	26-JN	40.61	26.00	254	188	0.194
5:55:37	26-JN	42.61	28.00	268	203	0.182
5:57:37	26-JN	44.61	30.00	279	213	0.172
5:57:37	26-JN	44.62	30.01	279	213	0.172

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BDT HDLE PRESSURE PSIA
6:59: 1	26-JN	46.01	0.00	61
6: 4: 1	26-JN	51.01	5.00	68
6: 9: 1	26-JN	56.01	10.00	68
6:14: 1	26-JN	61.01	15.00	68
6:19: 1	26-JN	66.01	20.00	69
6:24: 1	26-JN	71.01	25.00	70
6:29: 1	26-JN	76.01	30.00	71
6:34: 1	26-JN	81.01	35.00	71
6:39: 1	26-JN	86.01	40.00	71
6:44: 1	26-JN	91.01	45.00	71
6:49: 1	26-JN	96.01	50.00	71
6:54: 1	26-JN	101.01	55.00	71
6:59: 1	26-JN	106.01	60.00	71
6:59:43	26-JN	106.72	60.71	72

TEST PHASE : SHUTIN PERIOD # 2

FINAL FLOW PRESSURE [PSIA] = 72
 PRODUCING TIME [MIN] = 75.32

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BDT HDLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
6:59:43	26-JN	106.72	0.00	72	0	
7: 0:43	26-JN	107.72	1.00	84	12	1.883
7: 1:43	26-JN	108.72	2.00	95	23	1.587
7: 2:43	26-JN	109.72	3.00	105	34	1.417
7: 3:43	26-JN	110.72	4.00	116	44	1.297
7: 4:43	26-JN	111.72	5.00	127	55	1.206
7: 5:43	26-JN	112.72	6.00	138	66	1.132
7: 6:43	26-JN	113.72	7.00	149	77	1.070
7: 7:43	26-JN	114.72	8.00	159	88	1.018
7: 8:43	26-JN	115.72	9.00	170	99	0.972
7: 9:43	26-JN	116.72	10.00	181	109	0.931
7:11:43	26-JN	118.72	12.00	202	130	0.862
7:13:43	26-JN	120.72	14.00	224	152	0.805
7:15:43	26-JN	122.72	16.00	245	173	0.756
7:17:43	26-JN	124.72	18.00	266	195	0.715
7:19:43	26-JN	126.72	20.00	287	216	0.678
7:21:43	26-JN	128.72	22.00	309	238	0.646
7:23:43	26-JN	130.72	24.00	331	260	0.617
7:25:43	26-JN	132.72	26.00	353	281	0.591
7:27:43	26-JN	134.72	28.00	375	303	0.567
7:29:43	26-JN	136.72	30.00	397	325	0.545
7:34:43	26-JN	141.72	35.00	452	381	0.499
7:39:43	26-JN	146.72	40.00	507	436	0.460
7:44:43	26-JN	151.72	45.00	562	490	0.427

TEST PHASE : SHUTIN PERIOD # 2
 FINAL FLOW PRESSURE [PSIA] = 72
 PRODUCING TIME [MIN] = 75.32

.TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BDT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
HH:MM:SS	DD-MM	*****	*****	*****	*****	*****
7:49:43	26-JN	156.72	50.00	615	543	0.399
7:54:43	26-JN	161.72	55.00	670	598	0.375
7:59:43	26-JN	166.72	60.00	725	654	0.353
8: 4:43	26-JN	171.72	65.00	777	706	0.334
8: 9:43	26-JN	176.72	70.00	829	758	0.317
8:14:43	26-JN	181.72	75.00	879	808	0.302
8:19:43	26-JN	186.72	80.00	929	858	0.288
8:24:43	26-JN	191.72	85.00	977	905	0.276
8:29:43	26-JN	196.72	90.00	1024	952	0.264
8:34:43	26-JN	201.72	95.00	1071	1000	0.254
8:39:43	26-JN	206.72	100.00	1116	1044	0.244
8:44:43	26-JN	211.72	105.00	1158	1087	0.235
8:49:43	26-JN	216.72	110.00	1200	1128	0.227
8:54:43	26-JN	221.72	115.00	1240	1168	0.219
8:59:43	26-JN	226.72	120.00	1279	1208	0.212
9: 4:43	26-JN	231.72	125.00	1317	1246	0.205
9: 9:43	26-JN	236.72	130.00	1353	1282	0.198
9:14:43	26-JN	241.72	135.00	1389	1318	0.193
9:19:43	26-JN	246.72	140.00	1423	1351	0.187
9:24:43	26-JN	251.72	145.00	1455	1384	0.182
9:29:43	26-JN	256.72	150.00	1488	1416	0.177
9:34:43	26-JN	261.72	155.00	1518	1447	0.172
9:39:43	26-JN	266.72	160.00	1548	1477	0.168
9:44:43	26-JN	271.72	165.00	1578	1506	0.163
9:49:43	26-JN	276.72	170.00	1605	1534	0.159
9:54:43	26-JN	281.72	175.00	1630	1559	0.155
9:59:43	26-JN	286.72	180.00	1654	1583	0.152
10: 0: 0	26-JN	287.00	180.28	1654	1583	0.152

RESERVOIRS

Inc.

Laboratory Services

2369 S. Trenton Way, Suite "H"
Denver, CO 80231
303/695-0687 303/830-1986

Company: Ramond T. Duncan

Location: SW NW 23-378 24E

Well: #2-23 Bradford Canyon Unit

Date: June 29, 1984

Field: _____

Elevation: _____

County: San Juan

Interval: 5526 to 5549

State: Utah

Page: 1 of 1 Page:

Gamma Log
(Increasing)
→

Depth

Porosity %

Total Water Saturation -x

100 80 60 40 20 0

Oil Saturation -o

0 0 20 40 60 80 100 10.0

Permeability
(millidarcys)

1.0 0.1 0.01

30

20

10

0

20

40

60

80

100

10.0

1.0

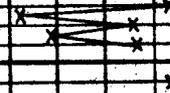
0.1

0.01

5520

40

5560



RESERVOIRS

INC.

Laboratory Services

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303/695-0687 303/830-1986

Company: Ramond T. Duncan

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Well: #2-23 Bradford Canyon Unit

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Page: 1 of 1 Pages

Gamma Log
(Increasing)

Depth

Porosity %

Total Water Saturation -x

100 80 60 40 20 0

Oil Saturation -o

0 0 20 40 60 80 100 10.0

Permeability
(millidarcys)

1.0 0.1 0.01

30

20

10

0 0

20 40 60 80 100

10.0

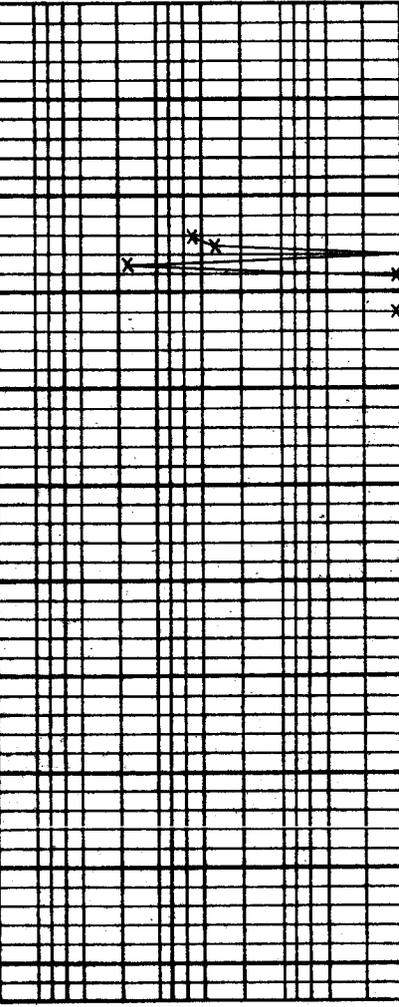
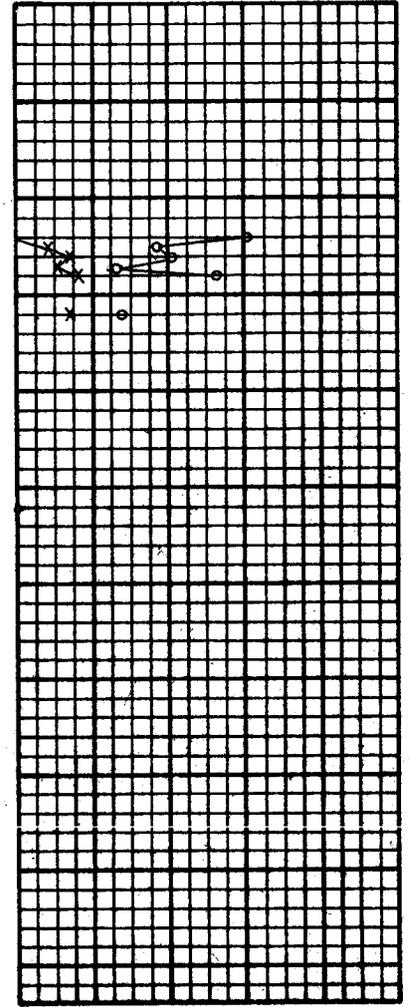
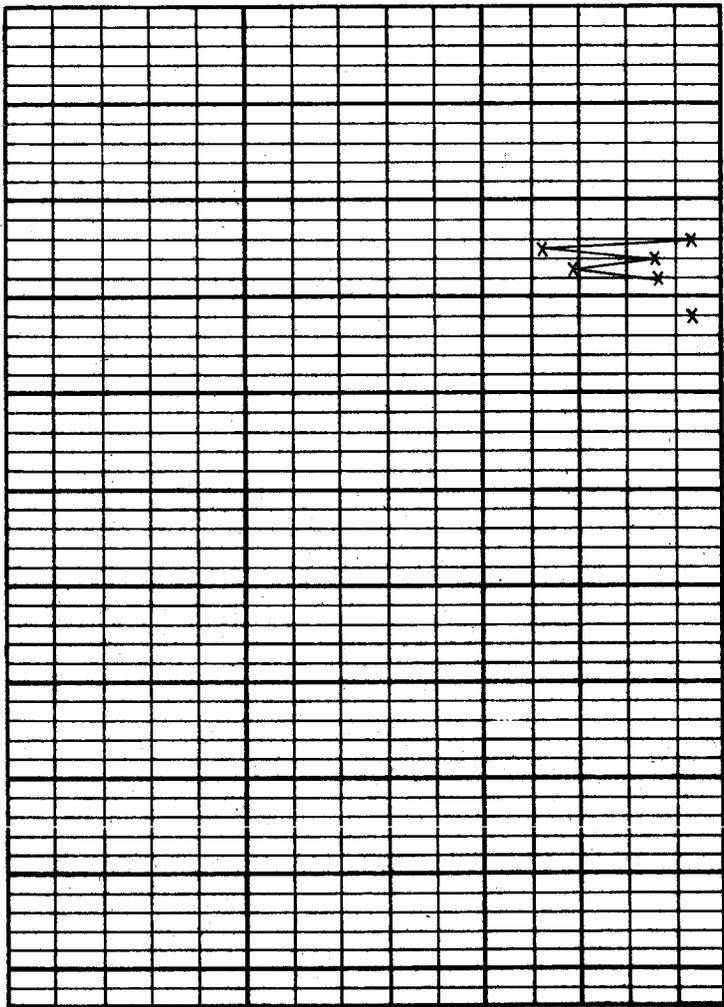
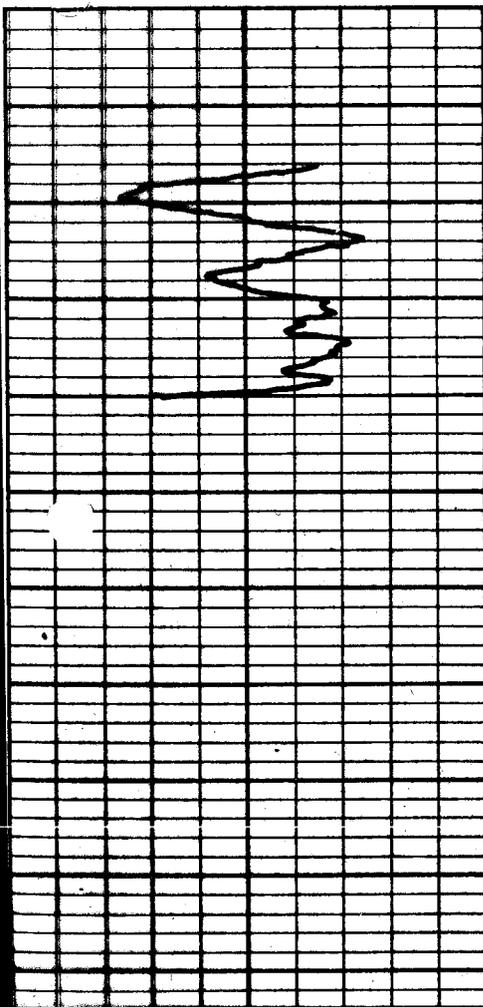
1.0

0.1 0.01

5520

40

5560



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

SUBMIT IN DUPLICATE

5

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other Dry hole

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

5. LEASE DESIGNATION AND SERIAL NO.
U-12942

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
Bradford Canyon Unit

8. FARM OR LEASE NAME
Bradford Canyon Fed.

9. WELL NO.
2-23

10. FIELD AND POOL, OR WILDCAT
Bradford Canyon

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
Sec. 23-37S-24E

12. COUNTY OR PARISH
San Juan

13. STATE
UT

2. NAME OF OPERATOR
Raymond T. Duncan

3. ADDRESS OF OPERATOR
1777 So. Harrison, P-1, Denver, CO 80210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface 661' FWL: 2330' FNL SW NW
At top prod. interval reported below same
At total depth

14. PERMIT NO. DATE ISSUED
API 43-037-31021 5/23/84

15. DATE SPUDDED 6/16/84 16. DATE T.D. REACHED 6/29/84 17. DATE COMPL. (Ready to prod.) N/A 18. ELEVATIONS (DF, REB, RT, GR, ETC.) 5130' KB 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 5610' 21. PLUG, BACK T.D., MD & TVD N/A 22. IF MULTIPLE COMPL., HOW MANY 23. INTERVALS DRILLED BY → 24. ROTARY TOOLS 0-5610' 25. CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)
N/A

25. WAS DIRECTIONAL SURVEY MADE
NO

26. TYPE ELECTRIC AND OTHER LOGS RUN
Comp. Neutron GR, DIFL/GR, BHC/AL/GR, Prolog, Sample

27. WAS WELL CORED
Yes

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"	40#	117'	17 1/2"	130 sx C1 B + ADD.	
8 5/8"	24#	2510' KB	12 1/4"	1167 sx C1 B # ADD	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)
N/A				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)
N/A

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
N/A	

33. PRODUCTION

DATE FIRST PRODUCTION N/A	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) N/A	WELL STATUS (Producing or shut-in) P&A					
DATE OF TEST N/A	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	

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

35. LIST OF ATTACHMENTS
Geological Report DST 1 & 2

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

SIGNED John A. Bettridge TITLE Operations Superintendent DATE 3/7/85

See Spaces for Additional Data on Reverse Side

CORE COMPANY & ANALYSIS (FIELD)

REED-ACC

3439 South 500 W
Salt Lake City, Utah 84115
(801) 266-6973
Engineer: Dell Babcock

Core barrel size: 6 3/4" x 4"
Length: 65.43'

Bit name: Reed-Acc
Type: Flash
Size: 7 7/8" x 4"

Formation: Lower Desert Creek

Interval: 5526'-5551'
Total feet: 25
Total feet recovered: 23.75

Mud weight: 12.0-12.5
Viscosity: 45-47
Pump pressure: 1075

ANALYSIS

Interval

- 5526' Dolomite - Medium gray, microcrystalline, microsucrosic dense, very argillaceous, limy, micaceous.
- 5526.5' Dolomite - As above.
- 5527.5' Dolomite - Light gray, light tan, microcrystalline, very finely microsucrosic texture, hard, tight intercrystalline porosity (4%) very argillaceous, micaceous, minor faint yellow mineral fluorescence.
- 5528.5' Dolomite - Medium gray tan, faint orange mineral fluorescence.
- 5529' Anhydrite - Tan, medium gray, dense.
- 5530' Anhydrite - As above.
- 5531' Anhydrite - As above.
- 5532' Anhydrite - As above, minor speckled black dead oil stain.

RAYMOND T. DUNCAN
#2-23 Bradford Canyon

DRILL STEM TEST #2

COMPANY:

Johnston-Macco
P.O. Box G
1367 E. 1000 S
Vernal, Utah 84078
(801) 789-3709
Engineer: Glenn R. Grimes

FORMATION TESTED:

Upper Ismay
Interval: 5262'-5315'
Total Feet: 53'
Bottom packer: 5262'
Top packer: 5252'

TIME TEST TOOL OPENED:

05:11 (M.D.T.) on 6-26-84

TYPE OF TEST AND CUSHION TYPE:

Conventional open hole test without a cushion.

DRILLING FLUID PROPERTIES:

Dispersed mud type.

<u>WEIGHT</u>	<u>VISCOSITY</u>	<u>WATER LOSS</u>	<u>RESIST. OF MUD</u>	<u>RESIST. OF FILTRATE</u>	<u>CHLORIDES</u>
11.2	39	9.2	.28 at 75°F	.30 at 74°F	11,500

FLOW PERIODS AND CHOKE SIZES:

A. Surface Choke: 1.8" bubble hose, 1/8" and 1/4" manifold
Bottom Choke: 15/16

B. IF: 15 min. - Opened with weak surface bubbles increasing to 8" in 10 minutes and 11" in 15 minutes.

RESERVOIRS, INC. CORE ANALYSIS DATA

Analyst

File No.RMD728DRC044

Company Raymond T. Duncan

Date June 29, 1984

Page 1 of 1

Well #2-23 Bradford Canyon Unit

Field

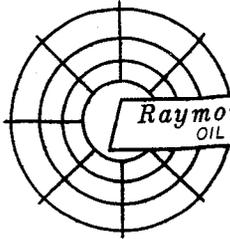
Interval 5531-5544

Location Sec. 23, T.37S, R.24E.

County San Juan

State Utah

Sample Number	Sample Depth (ft.)	Porosity* (%)	Fluid Saturations		Perm. (md)	Grain Density (gm/cc)	Description
			Water (%)	Oil (%)			
No sample 5531-33							
1	5533-34	1.6	39.2	0.0	0.48	2.85	Limestone, cream, medium gray to black, very fine to fine crystalline, hard, dense, very dolomitic, slightly argillaceous
2	5534-35	7.5	63.53	7.47	0.33	2.70	Limestone, white, light to dark gray, very fine to medium crystalline, firm, dense, very dolomitic, anhydritic inclusions, very argillaceous, slightly silty
3	5535-36	2.7	57.63	14.41	<.01	2.68	Limestone, white, light to dark gray, very fine to medium crystalline, firm, dense, very dolomitic, anhydritic inclusions, very argillaceous, slightly silty
4	5536-37	6.1	73.32	11.17	1.8	2.70	Limestone, white, light to dark gray, very fine to medium crystalline, firm, dense, very dolomitic, anhydritic inclusions, very argillaceous, slightly silty
5	5537-38	2.6	46.77	15.25	0.01	2.65	Limestone, white, light to dark gray, very fine to medium crystalline, firm, dense, very dolomitic, anhydritic inclusions, very argillaceous, slightly silty
No sample 5538-41							
6	5541-42	1.6	71.76	14.35	<.01	2.67	Limestone, white, cream, light to dark gray, medium brown, very fine to medium crystalline, slightly dolomitic, anhydritic, argillaceous.
No sample 5542-44							



Raymond T. Duncan
OIL PROPERTIES

1777 SOUTH HARRISON STREET · PENTHOUSE ONE
TELEPHONE (303) 759-3303 · DENVER, COLORADO

RECEIVED

March 7, 1985

MAR 11 1985

**DIVISION OF OIL
GAS & MINING**

Bureau of Land Management
Oil and Gas Office
Box 970
Moab, UT 84532

ATTN: Gene Nodine
District Manager

RE: Bradford Canyon Fed. 2-23
Sec. 23-37S-24E
San Juan Co., UT

Dear Mr. Nodine:

A recent review of our files revealed that we had not sent the attached reports to your office. We apologize for this oversight and are enclosing the following:

Intent to Abandon - 3 copies
Well Completion Report - 3 copies

The Subsequent Report of Abandonment will be sent to your office as soon as the location is completely restored.

Please contact our office if you have questions or need additional information.

Very truly yours,
RAYMOND T. DUNCAN

John A. Bettridge
Operations Superintendent

c1
Encl.

cc. State of Utah ✓
Salt Lake City

RECEIVED

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
DIVISION OF OIL
GAS & MINING

MAR 1 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well gas well other Dry Hole

2. NAME OF OPERATOR
Raymond T. Duncan

3. ADDRESS OF OPERATOR
1777 S. Harrison, P-1, Denver, CO 80210

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 661' FWL: 2330' FNL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: same

5. LEASE
U-12942

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
Bradford Canyon Unit

8. FARM OR LEASE NAME
Bradford Canyon Fed.

9. WELL NO.
2-23

10. FIELD OR WILDCAT NAME
Bradford Canyon

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 23-37S-24E

12. COUNTY OR PARISH | 13. STATE
San Juan | UT

14. API NO.
43-037-31021

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5130' KB

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

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

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

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

Verbal permission to P&A was obtained on 6/29/84. Well to be P&A'd as follows:

5602-5175'	148 sx
4200-4000'	69 sx
2610-2410'	59 sx
100-surf	31 sx

Rig Released @ 11:00 AM 6/30/84.

Log Tops:

Upper Ismay	5216'	Upper Desert Creek	5476'
Lower Ismay	5397'	Lower Desert Creek	5526'
Gothic Shale	5446'	Chimney Rock Shale	5543'

Location to be restored per BLM Fed. requirements. No dry hole marker required per Bryan Wood with BLM.
Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED John A. Bettridge TITLE Oper. Supt. DATE 3/7/85

(This space for Federal or State office use)

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

ACCEPTED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

DATE: 3/14/85
BY: John R. Day

*See Instructions on Reverse Side



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

February 21, 1985

Mr. Raymond T. Duncan
702 Bloomfield Road
Farmington, New Mexico 87401

Gentlemen:

Re: Well No. Bradford Canyon Fed 2-23 - Sec. 23, T. 37S., R. 24E
San Juan County, Utah - API #43-037-31021

This letter is to advise you that the "Well Completion or Recompletion Report and Log" for the above referred to well is due and has not been filed with this office as required by our rules and regulations. The subsequent report of plugging and abandonment is also due.

Please complete the enclosed forms and forward them to this office as soon as possible, but not later than March 21, 1985.

We will be happy to acknowledge receipt of response to this notice if you will include an extra copy of the transmittal letter with a place for our signature, and a self addressed envelope for the return. Such acknowledgement should avoid unnecessary mailing of a second notice from our agency.

Thank you for your prompt attention to this matter.

Sincerely,

A handwritten signature in cursive script that reads "Claudia L. Jones".

Claudia L. Jones
Well Records Specialist

Enclosures

cc: Dianne R. Nielson
Ronald J. Firth
John R. Baza
File
0087S/65

P44

RECEIVED

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OCT 20 1985
DIVISION OF INDIAN, ALLOTTEE OR TRIBE NAME
GAS & MINING

SUNDRY NOTICES AND REPORTS ON WELLS
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well gas well other Dry Hole

2. NAME OF OPERATOR
Raymond T. Duncan

3. ADDRESS OF OPERATOR
1777 So. Harrison, P-1 Denver, CO 80210

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 661' FWL: 2330' FNL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
U-12942

6. UNIT AGREEMENT NAME
Bradford Canyon Unit

7. UNIT AGREEMENT NAME
Bradford Canyon Unit

8. FARM OR LEASE NAME
Bradford Canyon Fed.

9. WELL NO.
2-23

10. FIELD OR WILDCAT NAME
Bradford Canyon

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 23-37S-24E

12. COUNTY OR PARISH | 13. STATE
San Juan | UT

14. API NO.
43-037-31021

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5130' KB

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

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

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

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

Subject well is ready for final inspection. Pits have been restored, and location seeded.

Well was P&A'd per Sundry dated 10/29/84, with no changes.

ACCEPTED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 10/30/85
BY: John R. Bays

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

18. I hereby certify that the foregoing is true and correct
SIGNED John A. Bettridge TITLE Oper. Supt. DATE 10/23/85

(This space for Federal or State office use)

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

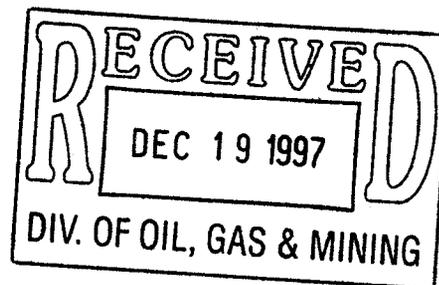
ENMARC, INC.

Corporate Office
P.O. Box 7638
Loveland, CO 80537
(970) 663-7576 fax (970) 663-7567

E. K. Bostick
President

December 18, 1997

Mr. John Baza
Utah Division of Oil, Gas, & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84180



RE: Application for Directional Drilling Permit
Petral Exploration LLC #2-23 (RD) Bradford Canyon Unit
Sec. 23 T37S R24E, San Juan County, UT

Dear Sir:

On behalf of our client, Petral Exploration LLC, we hereby request a permit for an intentionally deviated well per regulation R649-3-11.

General plan: The Petral Exploration #2-23 (RD) Bradford Canyon Unit will be drilled from an existing, reclaimed drill site (Duncan #2-23 Bradford Canyon Unit, API 43 037 31021) at a surface location 2318' FNL and 654' FWL Sec. 23 T37S R24E, San Juan County, Utah northeast approximately 1058' at an azimuth of 62.79 degrees, or 1834 ft FNL & 1595 ft FWL of Section 23. The Upper Ismay reservoir will be encountered northeast 893 ft at an azimuth of 62.79 degrees, or 1922 ft FNL and 1431 ft FWL of Section 23. The bore hole location at the top of the Upper Ismay reservoir is within the Bradford Canyon Unit (but outside the #1-23 BCU Participating Area) and it does not require an exception location. The proposed directional drilling plan is attached.

The following information is provided in support of the request per R649-3-11:

- | | | | | |
|-----|-------------|------------------------|-----------|-------------------|
| 2.1 | Operator: | Petral Exploration LLC | | |
| | Address: | c/o ENMARC, Inc. | | |
| | (Agent) | P.O. Box 7638 | Contact: | E. K. Bostick |
| | | Loveland, CO 80537 | | |
| | | (970) 663-7576 | | |
| 2.2 | Lease Name: | Bradford Canyon Unit | Well No.: | 2-23 (RD) |
| | Lease No.: | Federal UTU-012942 | API No.: | 43 037 31021 0101 |

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. Lease Designation and Serial Number:

Federal UTU - 012942

6. If Indian, Allottee or Tribe Name:

N/A

7. Unit Agreement Name:

Bradford Canyon Unit

8. Farm or Lease Name:

Bradford Canyon Unit

9. Well Number:

#2-23 (RD)

10. Field and Pool, or Wildcat:

Bradford Canyon

11. Qtr/Qtr, Section, Township, Range, Meridian:

SW NW SE NW
Sec. 23 T37S R24E

12. County:

San Juan

13. State:

UTAH

1A. Type of Work: DRILL DEEPEN

B. Type of Well: OIL GAS OTHER:

SINGLE ZONE MULTIPLE ZONE

2. Name of Operator:

Petral Exploration LLC

3. Address and Telephone Number:

c/o ENMARC, Inc., P.O. Box 7638, Loveland, CO 80537 (970) 663-7576

4. Location of Well (Footages)

At Surface:

2318' FNL and 654' FWL Sec. 23 T37S R24E

At Proposed Producing Zone:

(@ top Ismay) 1922' FNL & 1431' FWL Sec. 23 T37S R24E

(@ MD TD) 1834' FNL and 1595' FWL Sec. 23 T37S R24E

14. Distance in miles and direction from nearest town or post office: 6.4 4.6

Approx. 9 miles southeast of Blanding, Utah

15. Distance to nearest property or lease line (feet):

1381'

16. Number of acres in lease:

640

17. Number or acres assigned to this well:

40

18. Distance to nearest well, drilling, completed, or applied for, on this lease (feet):

see attached

19. Proposed Depth:

5610'

20. Rotary or cable tools:

Rotary

21. Elevations (show whether DR, RT, GR, etc.):

KB 5130

22. Approximate date work will start:

December, 1997

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
see attached				

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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.

This well is a tight hole. Request is made for all information to be held CONFIDENTIAL.

See accompanying BLM Forms for complete details.

CONFIDENTIAL

24. E. K. Bostick

Name & Signature:

E. K. Bostick

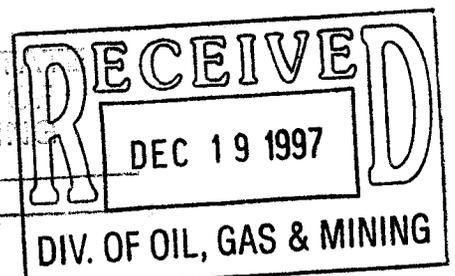
Title: Agent for Petral

Date: 12/18/97

(This space for State use only)

API Number Assigned: 43-037-31021

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 12/21/97
BY: *[Signature]*
(See instructions on Reverse Side)



Field Name: Bradford Canyon Reservoir Name: Upper Ismay
County: San Juan

2.3 A plat at a scale of 1 inch = 1000 feet is attached which shows the distance from the surface location to the section line (654') and lease line (654'). The target horizon (Upper Ismay) will be encountered 1922' FNL and 1431' FWL Sec. 23 T37S R24E. A Measured Total Depth at the well bore will be 1834' FNL and 1595' FWL Sec. 23 T37S R24E. Letters of non-opposition to the directional drilling plan from leasehold owners (Raymond T. Duncan, Walter Duncan Oil Company, Club Oil & Gas Ltd., and Synergy Exploration Company) within 460 feet of the planned trajectory of the well bore are attached. The well bore does not penetrate outside the leasehold of the companies from whom letters of non-opposition have been obtained.

Operating Rights Owners in the Surface and Bottom Hole Location are:

Petral Exploration LLC	Raymond T. Duncan Oil Properties
1700 Lincoln Street, #4750	1777 S. Harrison, Penthouse 1
Denver, CO 80203	Denver, CO 80210

Petral will have 100% of the working interest until payout of the well.

2.3 The well must be directionally drilled because topography and cultural resources (archaeology) prevent the drilling of a vertical hole. Utilization of an earlier access road and drill pad cause minimal additional surface disturbance.

If this request is administratively approved, please notify Mr. Gary Torres, Bureau of Land Management, 82 Dogwood- Suite M, Moab, UT 84532. If administrative approval of the request cannot be granted, it is requested that the application be set for the next available hearing before the Division of Oil, Gas & Mining.

Sincerely,
ENMARC, Inc.



E. K. Bostick, President

Attachments

cc: Petral Exploration LLC
Rose Exploration Associates LLC

**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**

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

2. NAME OF OPERATOR
Petral Exploration LLC

3. ADDRESS AND TELEPHONE NO.
c/o ENMARC, Inc., P.O. Box 7638, Loveland, CO 80537 (970) 663-7576

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *)
 At Surface
 2318' FNL and 654' FWL Sec. 23 T37S R24E
 At proposed prod. zon *BHL (@ top Ismay) 1987' FNL and 1374' FWL Sec. 23 T37S R24E*
 BHL (@ MD TD) 1247' FNL and 1511' FWL Sec. 23 T37S R24E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Approx. 9 miles southeast of Blanding, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 1381' lease
 44' PA
 701' unit

16. NO. OF ACRES IN LEASE
640

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.
793'

19. PROPOSED DEPTH
5770

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
KB 5130 from previous drilling

22. APPROX. DATE WORK WILL START*
December 19, 1997

23. PROPOSED CASING AND CEMENTING PROGRAM

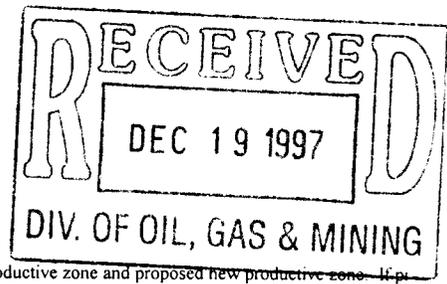
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT

This well is a tight hole. Request is made for all information to be held CONFIDENTIAL.

Petral Exploration LLC intends to re-enter a dry hole, Duncan 2-23 Bradford Canyon Unit (D&A 6/30/84) and directional re-drill to the BHL given above. The Upper Ismay target horizon will be encountered N65.12 degrees East and 793' from the surface location being 1987' FNL & 1364' FWL of Sec. 23 T37S R24E (SLM).

Details of the proposed work are attached.

cc: 1 - BLM Moab
 3 - BLM Monticello'
 1 - Utah Division of Oil, Gas & Mining



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

24. SIGNED *E.K. Best* TITLE *Agent for Petral* DATE *12/3/97*

(This space for Federal or State office use)
 PERMIT NO. *43-037-31021* 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 _____ TITLE _____ DATE _____

***See Instructions On Reverse Side**

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
UTU-012942

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA/Agreement, Name and/or No.
Bradford Canyon Unit
UTU-63082X

8. Well Name and No.
#2-23 (RD) Bradford Canyon Unit

9. API Well No.
43 037 31021 0101

10. Field and Pool, or Exploratory Area
Bradford Canyon

11. County or Parish, State
San Juan, Utah

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
Petral Exploration LLC c/o ENMARC, INC., attn: E. K. Bostick

3a. Address
P.O. Box 7638, Loveland, CO 80537

3b. Phone No. (include area code)
(970) 663-7576

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface 2318' FNL and 654' FWL Sec. 23 T37S R24E (SLM)
BHL (@ top Ismay) 1987' FNL & 1374' FWL Sec. 23 T37S R24E (SLM)
BHL (@ MD TD) 1247' FNL & 1511' FWL Sec. 23 T37S R24E (SLM)

12. CHECK APPROPRIATE BOX(ES) 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"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity <input type="checkbox"/> Subsequent Report <input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input checked="" type="checkbox"/> Other <u>re-drill</u> <input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon <input type="checkbox"/> Final Abandonment Notice <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal

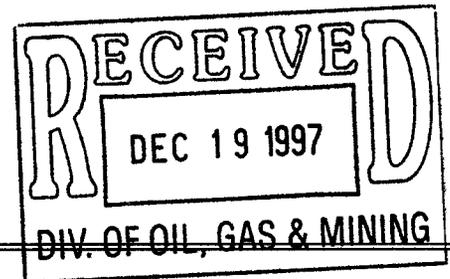
13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

This well is a tight hole - No information is to be released.

Petral Exploration LLC intends to re-enter a dry hole, DUNCAN 2-23 Bradford Canyon Unit (D&A 6/30/84) and directionally re-drill to the BHL given above. The Upper Ismay target horizon will be encountered N65.13E 793' from the surface location being 1987' FNL & 1374' FWL of Sec. 23 T37S R24E (SLM).

Details of the proposed work are attached.

- cc: 1 - BLM, Moab
 3 - BLM, Monticello
 1 - Utah Division of Oil, Gas, & Mining



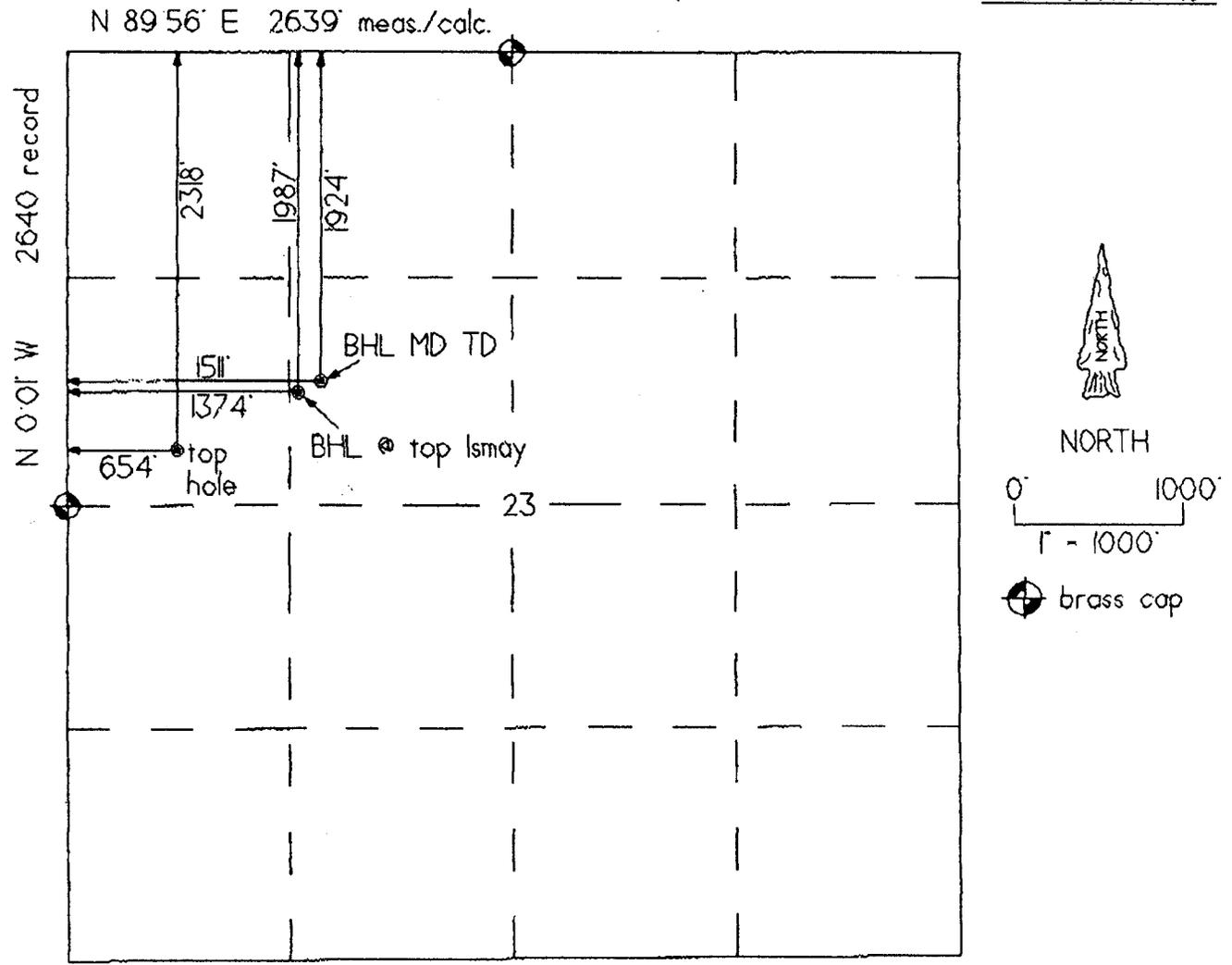
14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed) <i>E. K. Bostick</i>	Title <i>Agent for Petral Exploration LLC</i>
Signature <i>E.K. Bostick</i>	Date <i>November 29, 1997</i>

THIS SPACE FOR FEDERAL OR STATE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice 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.	Office	

Well Location Plot



Well Location Description

PETRAL EXPLORATION
 # 2 - 23 (RD) Bradford Canyon Unit
 2318' FNL & 654' FWL (top hole)
 331,897 N & 2,650,374 E (from GPS)
 5114' grd. el. (from GPS)
 1987' FNL & 1374' FWL (BHL @ top Ismay)
 1924' FNL & 1511' FWL (BHL @ MD TD)
 Section 23, T.37 S., R.24 E., SLM
 San Juan County, UT



28 November 1997

Gerald G. Huddleston
 Gerald G. Huddleston, LS

The above is true and correct to my knowledge and belief.

ENMARC, INC.

Corporate Office
P.O. Box 7638
Loveland, CO 80537
(970) 663-7576 fax (970) 663-7567

E. K. Bostick
President

November 29, 1997

Mr. Jeff Brown
Bureau of Land Management
435 North Main
Monticello, UT 84535

Dear Mr. Brown:

Enclosed please find BLM Form 3160-5 Sundry Notice for the #2-23 (RD) Bradford Canyon Unit.

Due to anticipated spud after December 15, 1997, this well will require a waiver of the "critical deer winter range" stipulation. My discussion with you during staking indicated that obtaining the waiver will be no problem provided deer are not in the area in significant numbers. I will notify you 5 days prior to initiation of dirt work in order for the BLM wildlife biologist to conduct a deer survey.

This well is a tight hole. I would respectfully request that all information you get concerning this well be held in the strictest confidentiality.

If you have any questions, please do not hesitate to call me.

Sincerely,



E. K. Bostick, President
ENMARC, Inc. (agent for Petral Exploration LLC, Operator)

cc: Anthony Mayer, Petral Exploration LLC
Mike Wynne, Rose Exploration Associates
BLM, Moab
~~State of Utah Division of Oil, Gas and Mining~~

FAX TRANSMISSION

DUNCAN OIL, INC.

Penthouse One
1777 South Harrison Street
Denver, Colorado 80210
Telephone: (303) 759-3303
Fax: (303) 757-0252

To: Mr. Dennis Yockim
Petral Exploration LLC

Date: December 16, 1997

Fax #: 571-4304

Pages: 2 (includes transmittal sheet)

From: John V. Cestia

Subject: Section 23-37S-24E
San Juan County, Utah

Please find attached your letter dated December 9, 1997 which has been signed by John V. Cestia on behalf of Raymond T. Duncan, Club Oil & Gas, Ltd., Walter Duncan Oil Company LP and Synergy Exploration Company. We will mail original to your office.

PETRAL EXPLORATION LLC
P.O. BOX 5083
DENVER, COLORADO 80217
(303) 832-3131
(FAX-303-894-9088)

December 9, 1997

Raymond T. Duncan
Club Oil & Gas Ltd
J. Walter Duncan, Jr.
Synergy Exploration Company
Penthouse #1
1777 South Harrison
Denver, Colorado 80210

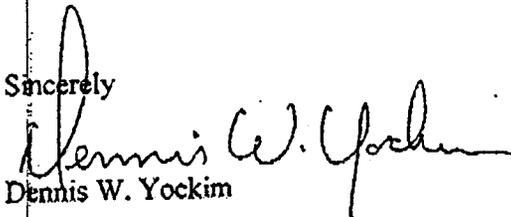
Attn: Mr. John Cestia
Re: Bradford 2-23(RD) BCU
Section 23-T.37S.,R. 24E
San Juan County, Utah

Gentlemen:

Petral Exploration LLC intends to commence a test well in the Bradford Canyon Unit at a location in the SE/4NW/4 of Section 23, Township 37S., Range 24E., San Juan County, Utah on or before January 15, 1997. Because of archaeological and other surface problems the well will be directionally drilled to the bottomhole objective. Petral plans to use the old drill pad of the 2-23 well in the SW/4NW/4 of Section 23 and not penetrate the Ismay/Desert Creek objective until the hole is in the NW/4SE/4NW/4 of Section 23.

Petral hereby seeks your approval to allow the well to be directionally drilled. Please indicate your approval in the space provided below and return one fully executed copy to the undersigned.

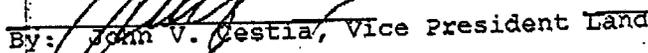
Sincerely

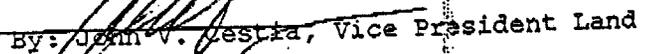

Dennis W. Yockim

We hereby approve and consent to the above plan to directionally drill the 2-23(RD) Bradford Canyon.

Raymond T. Duncan

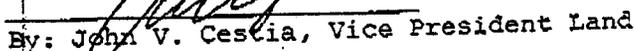
Club Oil & Gas Ltd

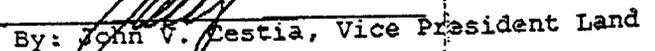
By:  John V. Cestia, Vice President Land

By:  John V. Cestia, Vice President Land

Walter Duncan Oil Company LP

Synergy Exploration Company

By:  John V. Cestia, Vice President Land

By:  John V. Cestia, Vice President Land

NOV 03 1997 10:36 FROM ROSE EXPLORATION TO 19706637567 P.01

SUPPORTING DATA FOR SUNDRY NOTICE

(Revised 11/28/1997)

**PETRAL EXPLORATION LLC
#2-23 (RD) Bradford Canyon Unit**

**Form 3160-3 Supporting Data
(Not requested in Sundry Notice)**

2. Petral Exploration LLC. Contact person is E.K. Bostick of Enmarc, Inc. (see below).
3. Agent is: Enmarc, Inc., P.O. Box 7638, Loveland, CO 80537. Phone is 970/663-7576.
4. Location of Well: The surface location is 2318 ft FNL and 654 ft FWL Section 23 T37S R24E (Duncan #2-23 Bradford Canyon Unit). The location of the well bore at the top of the prospective Upper Ismay horizon is 1987 ft FNL and 1374 ft FWL Section 23 T37S R24 E (a lateral distance of 793 feet on a bearing of North 65.13 degrees East from the surface location). The location of the well bore at Measured Total Depth will be 1924 ft FNL and 1511 ft FWL Section 23 T37S R24E (a lateral distance of 943 feet on a bearing North 65.13 degrees East from the surface location).
14. The well is approximately 9 miles southeast of Blanding, Utah.
15. The well bore at the top of the Upper Ismay reservoir is 1381 feet from the nearest lease line and is 44 feet from (inside) an existing Participating Area. It is within the Bradford Canyon Unit as contracted, being 701 feet from the nearest unit boundary. See the plat with lease information which is provided in the request for a directional drilling permit for details.
16. Lease UTU-012942 contains 640.00 acres.
17. Forty (40) acres are assigned to this well.
18. The well bore at the top of the Upper Ismay reservoir is 793 feet from the nearest well (Duncan #2-23 Bradford Canyon Unit - dry hole) drilling, completed or applied for on this lease.
19. The proposed True Vertical Depth Total Depth is 5610 feet. The Measured Total Depth will be 5770 feet.
20. Rotary tools will be utilized to drill this well.
21. The Kelly Bushing elevation at the surface location is 5130 feet from previous drilling.
22. Work will start in December 1997 (or sooner if the drilling contractor has a rig available).
23. Proposed Casing and Cementing Program: In the #2-23 Bradford Canyon Unit, a 12.25 inch hole was drilled to 2510 and 8 5/8 inch J-55 24# per foot casing was landed at 2510 and cemented with 1167 sacks.

DETAILS OF THE NEW WORK TO BE PERFORMED ARE ATTACHED.

SUPPORTING DATA FOR SUNDRY NOTICE

(Revised 11/28/1997)

PETRAL EXPLORATION LLC

#2-23 (RD) Bradford Canyon Unit

API 43 037 31021 0101

NOS Supporting Data

(Not requested in Sundry Notice)

4. A topographic map showing the access road, location and lease boundary is attached. Additional detailed lease information is shown on the plat accompanying the request for a permit for a directional well.
14. The objective formation is Upper Ismay.
15. The estimated TVD TD at the bottom hole location is 5610 ft, the MD TD is 5770.
16. Completed actions are:
- The location was previously staked and drilled as a dry hole as the Duncan #2-23 Bradford Canyon Unit. A plat showing the surface location and the bottom hole location at the Upper Ismay target horizon is attached. It has been reclaimed.
 - The access road was flagged previously for the Duncan #2-23 Bradford Canyon Unit. It has been reclaimed and will require some repair prior to use. It has been re-flagged for this re-entry.
 - Attached is a map of access road, location, pad dimensions, reserve pit and cut/fill. The road and location were built and utilized for the drilling of the Duncan #2-23 Bradford Canyon Unit.
17. The following issues have been addressed:
- H₂S potential:** Drilling, testing and production operations in the Upper Ismay in the immediate area by Duncan have shown that there is no hydrogen sulfide potential.
 - Private Surface Ownership:** There are no patented lands (either surface or minerals) involved in the bottom hole location, surface location, access road or drill site.
 - Cultural Resources (archaeology):** The access road and drill site were previously constructed for the drilling of the Duncan #2-23 Bradford Canyon Unit. It was approved by all requisite governmental agencies at that time. During construction of the access road an archaeological site (a small work area) was unearthed and disturbed. Discussions with and inspection by BLM archaeologists has indicated that mitigation will not be required because there are no cultural resources below the surface of the road. The site will be monitored by 4 Corners Archaeological Services during re-surfacing for this useage. See archaeological report submitted under separate cover by 4 Corners Archaeological Services under separate cover.
 - Federal Right of Way:** Not required.
18. **Additional Information:** A directional drilling permit will be required from the State of Utah. Information in support of this is presented with the next section of this notice.

THIS WELL IS A TITE HOLE - NO INFO TO BE RELEASED

WELL PROGRAM/PROGNOSIS

(Revised 11/28/1997)

WELL: PETRAL EXPLORATION #2-23 (RD) Bradford Canyon Unit

API Number: 43 037 31021 0101 **KB:** 5130 from log of re-entry well

LOCATION: A directional hole will be drilled from the Duncan #2-23 Bradford Canyon Unit dry hole in the SE SW NW Section 23 to the SW NW SE NW Section 23, all in T37S R24E, Juan County, Utah. The bottom hole location at the top of the Upper Ismay will be 793 feet N65.33E of the surface location, the bottom hole location at MD TD will be 943 feet N65.31E of the surface location.

SURF LOC: State Plane (Utah Southern): X=2,650,339 (East) Y=331,883 (North)
UTM (Zone 12) Coordinates: X = 2,145,780 (East) Y = 13,641,233 (North)
Lat = 37.55670 Long = -109.25612 (NAD 27)
Being 2330 feet FNL and 661 feet FWL Section 23 T37S R24E

NOTE: From original location survey plat

BHL @ Ismay: State Plane (Utah Southern): X=2,651,123 (East) Y=332,207 (North)
UTM Coordinates: X = 2,146,500 (East) Y = 13,641,565 (North)
Lat = 37.55757 Long = -109.25326 (NAD 27)
792 feet N65.31E (331 ft N and 720 ft E of surf loc)
Being 1999 ft FNL and 1381 ft FWL of Section 23 T37S R24E.

BHL MTD: State Plane (Utah Southern): X=2,651,196 (East) Y=332,277 (North)
UTM Coordinates: X = 2,146,637 (East) Y = 13,641,627 (North)
Lat = 37.55776 Long = -109.25466 (NAD 27)
943 feet N65.31E (394 ft N and 857 ft E of surf loc)
Being 1936 ft FNL and 1518 ft FWL of Section 23 T37S R24E.

NOTE: Use Gerald Huddleston's Bottom Hole Location footages on Sundry Notice if they are different than these.

TOTAL DEPTH: TVD TD 5610 (MD TD 5770) in Akah

AREA DRILLING PROBLEMS:

1. Possible lost circulation while drilling conductor hole when spud in the Dakota: This should not be a problem at this location because the well will spud in Morrison.
2. Probable water flows at depth: Any of the massive Jurassic sandstones (Entrada, Navajo, or Wingate) could be a source of fresh water flows. A considerable number of wells in

the Little Nancy Canyon and Patterson Canyon/Cazador fields encountered salt water flows in the thick (2500 to 5100 feet) Cutler Group and Honaker Trail intervals. The static pressure due to hydraulic head for the Honaker Trail equals or exceeds that of the Upper Ismay. Given the thickness and stratigraphic variability of these units it is impossible to predict where a water flow might develop. It appears that Duncan had shallow water flows in the #1-23, no shallow (below surface pipe) water flows in the #2-23, and also for the #1-22 it appears that no shallow water flows were encountered.

3. **Differential sticking at depth:** When both the Upper Ismay (shallower) and Lower Desert Creek (deeper) mounds are developed in a well bore, the Lower Desert Creek is overpressured and its static reservoir pressure exceeds that of the Upper Ismay by approximately 1000 lbs. Mud weight sufficient to control the Lower Desert Creek will cause formation damage and sometimes differential sticking in the Upper Ismay. 3-D seismic does indicate a Lower Desert Creek mound development at the location, therefore problems of this nature might be encountered. Duncan had 13.4 lb/gal mud at TD in the #1-23 which produced from the Lower Desert Creek.

4. **Bad cement jobs on production string:** Poor cement bonds are very common in the Patterson Canyon/Little Nancy Canyon area. The evidence for this is contained in well histories and by the fact that many times perforations are well above the O/W contact and should produce at least initially water free but produce known formation water on the Initial Potential test and throughout the life of the well. The cause of the problem is not precisely known at present, but is probably the result of system chemical and physical incompatibility and improper cementing procedures. REA has collected a considerable volume of data in the area and it is currently being studied in an effort to assist in the development of a cementing procedure which will ensure good bonding. Procedures used by area operators in the past have included: 1) Sand blast casing, 2) Scratchers, 3) Acid wash prior to cement displacement, 4) Pipe movement (reciprocation) during cementing, 5) Turbulent flow inducers below intended perforations, 6) Produced water flush prior to cement displacement, 7) Bond assisting additives (Gilsonite, etc.). A procedure incorporating some or all these actions may be the answer. False economy in not displacing enough cement to provide high static pressure to assist in bonding may also be a factor. It is also probable that improper stimulation procedures have induced poor bonding in what was initially good. The trade-off here is the cost of ensuring a good bond versus the cost of loss of the well or handling excess produced water over the life of the well. Petral and Dowell have developed a cementing program/procedure which should be utilized in planning for this well.

5. **Treatment/Stimulation:** A pilot study has shown that there is no relationship between size of acid job and Initial Potential for the Upper Ismay, and there is some reason to believe that the less acid used the better. Treatments/stimulation used by area operators have ranged from None/Natural to Very Large Acid Fracs (as much as 3500 gallons, sometimes repeated), both with and without nitrogen activation. Acid strength most commonly used is 28% HCl, but some operators use 15% HCl. Celsius has in the past attempted to break down the formation with produced formation water and for the most part even with pressures as high as 4500 lbs. have been unsuccessful. After spotting an acid spear at the perforations they have been successful in breaking down the formation at about 3500 lbs. They have also attempted "huff and puff" formation water breakdowns, again unsuccessful without acid in the lead. Some completions have been attempted using rubber balls. It is thought that very large high

pressure acid fracs may contribute to channeling and subsequent water production. The logic of the application of large volumes of HCl to a dolomite reservoir is questioned. Good use of cuttings and cores by the service company supplying completion services is required. It appears that a treatment/stimulation procedure that begins "natural" and progresses to "very large" might be the prudent approach. Again, REA has assembled a large volume of data (the "40 pounder") for the area and it is available for use in completion planning.

6. **Production Problems:** The most common production problems in the area are paraffin fouling of tubing, etc. and large volumes of produced water from some wells. Recent water analyses have shown that scaling may be a potential problem. Weather can be a problem (high water, deep mud, snow, etc.) but other than selective siting of facilities not much can be done about this.

7. **Comments:** Logs, bit and mud records, well histories, etc. for nearby wells are included in this package.

WELL PROGRAM

This well has a single objective - Upper Ismay, but it is possible that porous Lower Desert Creek will be encountered. A Desert Creek seismic anomaly exists at this location. Expected reservoir pressure for the Upper Ismay is approximately 2500 lbs., and the Lower Desert Creek can be as high as 3500 lbs. If the Upper Ismay is evaluated by core and drill stem test as productive on the way down, consideration should be given to mud additives (lost circulation material, Magmafiber, etc.) to protect the Ismay and to prevent possible differential sticking. Any additives should be biodegradable or acid soluble for easy removal prior to completion.

Directional Drilling Requirements: The well will be directionally drilled on a bearing of N65.31E (65.31 degrees) a distance of 943 feet to MD TD. The target horizon Upper Ismay will be encountered N65.31E at a distance of 792 feet, being N 331 ft and E 720 ft, or 1999 ft FNL and 1381 ft FWL of Section 23. The hole must NOT penetrate the top of the Upper Ismay more than 331 feet due north the surface location. A target circle 40 feet in diameter is allowed.

Mud: Weight: If there are no salt water flows from the Honaker Trail, drill at or under balance for Upper Ismay. If there are salt water flows from the Honaker Trail use minimum weight possible to control them. Add Magma Fiber to system prior to and during core to prevent formation damage. Do not automatically mud up for Lower Desert Creek pressure - there is a seismic anomaly at this location but we will know before reaching any porosity if it is present by stratigraphic thicknesses in overlying units. Water loss: should be kept in the 6 to 10 range. Add nitrates (at least 100 ppm) or some other tracer for DST filtrate recovery identification. Vendor to be determined by Enmarc. Petral and MI (Summit Drilling Fluids) have developed a mud program which should be utilized in planning for this well. Stan Jepeson (MI) should be contacted for further discussion of mud problems. The latest version of the mud program was developed for the #8 Knockdhu and #1-A (RD) Dalmore-Federal.

Cores: It is anticipated that two sixty foot cores will be taken in the Upper Ismay and possibly one core in the Lower Desert Creek. Vendor to be determined by Enmarc.

Core Analysis: Precision Core Analysis will analyze the cores. Steve Leeds is the contact.

Tests: It is intended to run two DST's in the Upper Ismay following each core, and possibly one in the Lower Desert Creek. Digital electronic gauges should be used. Vendor to be determined by Enmarc, but REA recommends Johnson (Schlumberger) Testers because we have been informed by a DST expert that they maintain their equipment better than the other companies.

Mud Logger: A two man mud logging unit with QFT capability should be on the well from 5000 TVD to Measured Total Depth. Rocky Mountain Geo-Engineering will be the mud logger. REA will keep them informed and make sure they are on location.

Mechanical Logs: Schlumberger. Platform Express. Neutron/Density (with PE curve) from Kick Off Point to TD; BHC/GR (long spaced, integrated) from Kick Off Point to TD; AIT from Kick Off Point to TD, FMI/High Resolution Stratigraphic Dipmeter minimum run 2000 feet. FMI may not be interpreted but it should be logged. MWD Gamma Ray from trip just above expected core point. Directional hand to provide frequent (30 foot intervals) MD and TVD curves. If cores are not taken or considerable core is lost, minimum run on FMI or 200 feet above the top of the Upper Ismay which ever is more. We want the digital data for all logs on disk in LAS format. Mud logger on location from 4500 TVD to Measured Total Depth.

Casing program: Conductor and surface pipe already set. Duncan Production string to be determined by Enmarc.

Miscellaneous: Analyze any fluids (gas, oil, water) recovered from any zone tested. Have KB elevation re-surveyed after rig up.

Completion: Program to be designed by Enmarc. Extreme caution should be exercised to ensure a good casing cement job. Large volumes of acid at high pressure should be avoided.

ROSE EXPLORATION ASSOCIATES

M.E. Wynne
Geologist

GEOLOGICAL PROGNOSIS/EVALUATION PROGRAM
(Revised 11/28/1997)

WELL: Petral Exploration LLC #2-23 (RD) Bradford Canyon Unit (API 43 037 31021 0101)

LOCATION:

SURF 2330 ft FNL and 661 ft FWL Section 23 T37S R24E, San Juan Co., Utah
@ Ismay: 1999 ft FNL and 1381 ft FWL Section 23 T37S R24E, San Juan Co., Utah
BHL 1936 ft FNL and 1518 ft FWL Section 23 T37S R24E, San Juan Co., Utah

ELEVATION: 5130 KB at surface location from log of re-entry well

FORMATION	TVD DEPTH (at BHL)	TVD DATUM (at BHL)	COMMENTS
Morrison	Spud	Spud	
Entrada	Cased	Cased	
Navajo	Cased	Cased	
Wingate	Cased	Cased	
Chinle	Cased	Cased	
Shinarump	Cased	Cased	
Cutler	Cased	Cased	
Kick Off Point	2700	+ 2430	
Honaker Trail	4159	+ 971	
La Sal	4905	+ 225	
Black Shale marker	5138	- 8	
Shale 1	5188	- 58	
Upper Ismay	5200	- 70	
U. Ismay u sabkha	5200	- 70	
U. Ismay l sabkha	abs	abs	
Upper Ismay anhy	abs	abs	
Upper Ismay mound	5215	- 85	TARGET, 2 60' cores, 2 DST's
Possible O/W contact	5315	- 185	
Hovenweep	5335	- 205	
Lower Ismay	5380	- 250	
Lower Ismay anhy	5356	- 226	24 ft thick
Gothic	5430	- 290	20 ft thick
Desert Creek	5450	- 320	
U. Desert Creek anhy	5464	- 334	22 ft thick
L. Desert Creek anhy	5490	- 360	14 ft thick, may be split
L. Desert Creek mound	5504	- 374	18 ft thick + submnd = 31 ft
Chimney Rock	5535	- 405	22 ft thick
Akah	5557	- 427	Thicknesses greater than those
Salt	5589	- 459	above may indicate the presence
TD	5610	- 480	of a Lower Desert Creek mound

(Total Depth = top of Chimney Rock plus 60 TVD feet)

DRILLING PROGRAM

**Petral Exploration LLC
#2-23 (RD) Bradford Canyon Unit
SW NW SE NW Sec 23 T37S R24E
San Juan Co., UT
Lease #UTU - 012942**

A. Surface Formation:
Morrison

B. Estimated Formation Tops (KB Measurements):

<u>Formation</u>	<u>TVD Depth (KB)</u>
Morrison.....	Spud
Entrada	Cased
Navajo	Cased
Wingate	Cased
Chinle.....	Cased
Shinarump.....	Cased
Cutler.....	Cased
Kick Off Point.....	2700
Honaker Trail	4159
La Sal	4905
Black Shale marker	5138
Shale 1.....	5188
Upper Ismay	5200
U. Ismay u sabkha	5200
Upper Ismay Mound	5215
Possible O/W contact.....	5315
Hovenweep	5335
Lower Ismay.....	5380
Lower Ismay anhy	5356
Gothic.....	5430
Desert Creek.....	5450
U. Desert Creek anhy	5464
L. Desert Creek anhy.....	5490
L. Desert Creek Mound.....	5504
Chimney Rock.....	5535
Akah.....	5557
Salt	5589
TOTAL DEPTH.....	5610

C. Estimated Depths at which Anticipated Water, Oil, Gas or other Mineral-Bearing Formations are Expected to be Encountered:

Hydrocarbon bearing zones may be found from 5215' (Upper Ismay mound) to 5557'. Commercial water zones are not anticipated. All formations below surface may contain water. Fresh water zones will be protected through casing and cementing programs (see parts E. and F.).

D. Minimum Pressure Control Equipment & Auxiliary Equipment: (See attached diagram)

1. One 11" - 3000 psig annular preventor. One 11" - 3000 psig double ram blowout preventor with blind rams and one set of 4 1/2" drill pipe rams (above blind ram) will be installed and utilized prior to drilling below 8 5/8" surface csg. Flow sensor and PVT will be installed prior to drilling below surface casing and utilized to T.D.
2. Blowout preventor or drilling spool will be equipped with one 3" and one 2" side outlet.
3. A 3000 psig choke manifold with two (2) adjustable chokes will be installed prior to drilling below surface casing. The choke line will be as straight as possible and turns, if required, will have a targeted T block.
4. An accumulator rated at 3000 psig W.P. with a minimum of three (3) hydraulic control stations will be utilized. One for annular, one for blind rams and one for pipe rams. Remote controls will be located at the accumulator house at G.L. and on the floor. Manual controls (E.G. hand wheels) will be located at G.L. near the substructure. A valve shall be installed in the hydraulic closing line to serve as a locking device when the accumulator system is inoperative.
5. Pressure testing procedures and requirements. Prior to drilling out below the 8 5/8" surface casing, surface casing will be tested to 2065 psig (70% of minimum internal yield of the 8 5/8", 24#/ft., K-55 surface casing) for a minimum of 5 min. BOP stack and associated equipment (E.G. choke manifold, lower and upper kelly cocks, valves, etc.) will be tested to 3000 psig for 15 min. utilizing a test plug. The annular preventor will be tested to 1500 psig for 15 min. Certified BOP testing service company will be utilized for pressure testing. All pressure testing operations must be witnessed by Petral's well site representative (ENMARCO, Inc.).
6. Drilling contractor will perform a daily operational check of all BOP equipment (e.g. includes associated equipment). Pipe and blind rams shall be activated each trip.
7. All BOP pressure testing & operational checks to be recorded in the daily "Tour" book.
8. A BOP and pit level drill will be conducted by the drilling contractor weekly and noted in the "tour" report book.

9. 24 hours prior to pressure testing, notify the BLM and Utah Division of Oil, Gas, & Mining.

Every 30 days BOP and accessory equipment must be pressure tested to 2500 psig. Notify the BLM and Utah Division of Oil, Gas, & Mining prior to test.

E. Casing Program:

Conductor Casing:

80' of 16" pipe cemented in place to surface.

Surface Casing:

60 Jts. - 2510', 8 5/8, 24#/ft, J-55, ST&C, "A" Grade (new), cemented with 867 sks B. J. lite cement with additives, and 200 sks "B" cement with additives, 100 sks 'B' with additives top job for cement to surface.

Production Casing (New):

Interval	Net-Ft.	Gross-Ft.	Specifications
0 - 5770'	5770'	5770'	5 1/2", 15.5#/ft., J or K-55, ST&C

Accessory Equipment

To be determined at time of need.

Testing Procedure:

At time of BOP testing and prior to drilling out, surface casing will be tested to 70% of burst pressure for new casing (2065 psig). Production casing will be pressure tested to a minimum of 3000 psig prior to commencement of completion.

F. Cementing Program:

Conductor: Cement to surface

Surface Casing: Cemented with 867 sks B. J. lite with additives and 200 sks "B" cement with additives, 100 sks 'B' with additives top job for cement to surface.

Production Casing: (Cemented minimum of 1000' fillup above pay zone(s))

Preflush: 10 Bbls. fresh water
40 Bbls CW7 chemical wash

Lead System: 75 sks class "G" + 10% D53 expansion agent + 1% CaCl₂ + 1/4 lb/sk D29 cellophane flakes.

Tail System: 150 sks 50/50 PO₂/cement + 2% D20 gel + 1/4 lb/sk D29 + 1.5 gps D600 WELL BOND + 0.15% D65 dispersant.

Note: Slurry volume to be recalculated based on hole caliper and number and depth of zones. 30% excess and 7 7/8" hole used for initial calculations.

G. Drilling Fluids:

Depth	0 - 2510'	2510' - 4600'	(2) 4600' - 5490'	5490' - T.D.
Wt. - #/gal	8.4 - 8.9	(1) 8.4 - 10	9.0 - 10+	(3) 9.0 - 11+
Vis. - sec./qt.	27 - 40	30 - 35	45 - 55	45 - 55
WL - cc	NC	NC	8 Max	8 Max
Ph	NC	NC	7.0 - 8	7.0 - 8
PV/YP	--	--	14-22/25-35	14-22/25-35
Gels (sec/min)	--	--	8/15-15/20	8/15-15/20
Type System	FWG	FR/Salt/Polymer Sweeps	Salt/Poly	(3) Salt/Poly/CaCO2

- Notes: (1) Drill with fresh water until water flows that cannot be controlled are experienced or until 4600'. If required, add salt to system for purpose of weighting up mud system. Maximum mud weight is 10 ppg with this type system. If a higher mud weight is required, calcium carbonate will be required.
- (2) At apprx. 4600' mud up with a salt/brine system. Keep chlorides at a maximum of 35,000 to 50,000 ppm, unless higher chlorides are necessary for mud weight to control water flows. At mud up point, begin running polymer-Magmafiber and or calcium carbonate sweeps (i.e. approx. 30 bbl.) to assure good hole cleaning properties. Upper Ismay Mound should be drilled with lowest possible mud weight (i.e. ideally > 9 #/gal). Have Magmafiber for loss circulation material.
- (3) Lower Desert Creek may be over pressured and require a weighted mud system. Utilize calcium carbonate as a weighting material. If it is necessary to increase mud weight, utilize Magmafiber in system.

Add 100 ppm nitrates to the mud prior to penetrating the Upper Ismay Mound and the Lower Desert Creek Mound for tracer.

Solids Control Equipment:

- Linear motion shale shaker (normal screen sizes; 84, 110, 144).
- Mud cleaner (normal screen size; 150, 200).
- Desander/Desilter as required (do not use with CaCO2 in system).
- Centrifuge
- Premix Tank (100 bbl).

Sufficient mud materials to maintain mud requirements and meet minor lost circulation and blowout problems will be on the wellsite. The pits will be monitored on trips to assure that the hole is kept full while tripping the drilling string. A pit volume totalizer (PVT), stroke counter & flow sensor will be utilized below the surface casing setting depth to T.D.

H. Coring, Testing, Logging and Tentative Completion Program:

1. Two 60' cores of Upper Ismay Mound as estimated depth of 5215' TVD. On site geologist to pick core point and samples for analyses. One possible 60' core of the Lower Desert Creek Mound at estimated depth of 5504' TVD.
2. Drill stem tests will be at the discretion of the operator and will be based on shows, log, hole conditions, etc.
3. If a completion attempt is to be made, 5 1/2" casing will be cemented into place. The following presents a summary of tentative completion procedures.
 - a. Perforate pay zones with approximately 4 shots/ft.
 - b. Perforations may be stimulated w/HCl acid.
 - c. A Sundry Notice will be filed with the final completion plan.Note: All perforations and the size of stimulation jobs are tentative and final design will be based on electric logs, cores, and drill stem test data.

4. Logging:

GR-DLL-MSFL (min) - Base surface casing to T.D.
GR-BHCS (long spaced integrated) w/Cal - Base surface to T.D.
GR-FDC-CNL-2/PE (min) - Base surface casing to T.D.
GR-SHDT- Minimum run

5. Samples:

KOP - 4500' 30' samples
10' samples 4,500' to TD

All cutting samples are to be washed and stored in properly marked cloth bags. Tie the sample bags in 100' depth groups to dry. Store in a clean, dry place. Sample depth intervals may be changed at the discretion of the geologist.

I. Abnormal Conditions or Potential Hazards:

Potential problems include possible water flows to 4905' (TVD); abnormal pressure in Lower Desert Creek Carbonate (3500 psig); lost circulation and seepage, surface to TD w/possible differential sticking. Estimated temperature at T.D. 140 F. Hydrogen sulfide gas is not anticipated.

J. Auxiliary Equipment Required: See Paragraph D.

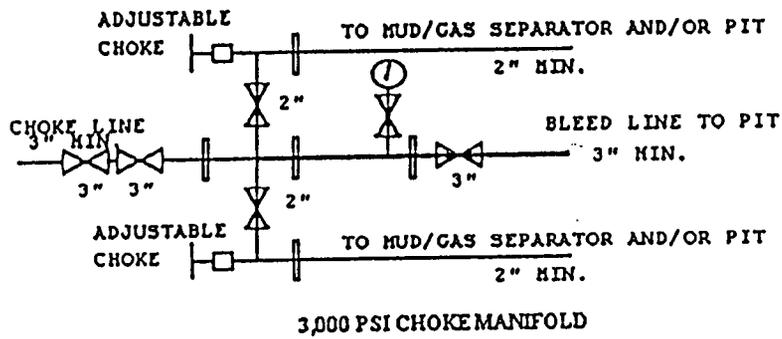
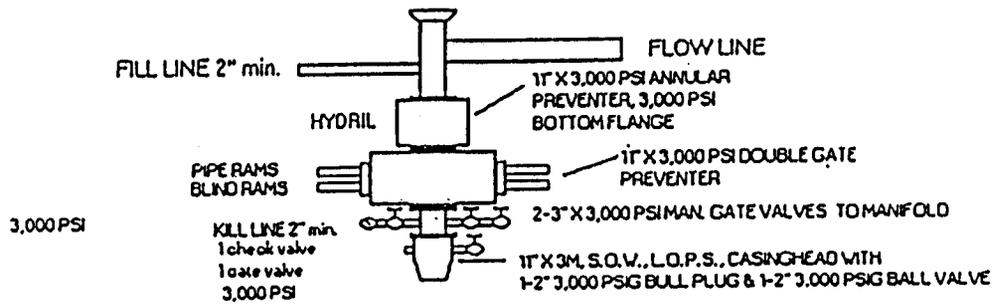
K. Anticipated Starting Date of Drilling Operations:

Plan to start drilling December 17, 1997. 18 days should be required to drill, test, log and set casing.

L. Additional Considerations:

None.

**BOP EQUIPMENT
3,000 PSIG W.P.**





Scientific Drilling International Planning Report

Company: Enmarc, Inc.	Date: 11/26/97	Time: 13:00:31	Page: 1
Field: San Juan County, UT	Co-ordinate(N/E) Reference: Site: #2-23 (RD) Bradford Canyon Unit		
Site: #2-23 (RD) Bradford Canyo	Vertical (TVD) Reference: Field: Mean Sea Level		
Well: #2-23 (RD)	Section (VS) Reference: Slot (0.0E,0.0N,65.3Azi)		
Wellpath: OH Original hole	Plan:	Plan #1	

Field: San Juan County, UT	Local Coordinate Reference: Site Centre
	Location of Field Centre: N/A
	Field Centre Map Easting: ft
	Field Centre Map Northing: ft
Map Projection & Zone:	Direction of Local North: True
Ellipsoid:	Local Vertical Reference: Wellpath Datum
Field Datum: Mean Sea Level	Geomagnetic Model: IGRF95

Site: #2-23 (RD) Bradford Canyon Unit
 SHL SEC.23,T37S,R24E 2330'FNL, 681'FWL
 PBHL SEC.23,T37S,R24E 1936.2'FNL, 1517.6'FWL

Site Centre:	R E	Latitude
	R N	Longitude

Site Water Depth: 0.0 ft
 Magnetic Declination: 12.47 deg
 Grid Convergence: 0.00 deg

Measured Depth Referenced To: Mean Sea Level 0.0 ft above Mean Sea Level

Well: #2-23 (RD)

Originating From:	0.0 ft +N/-S	Map Easting:	0.00 ft
	0.0 ft +E/-W	Map Northing:	0.00 ft

Wellpath: OH Original hole

Origin of Vertical Section: Slot	0.0 ft +N/ S
Direction of Vertical Section: 65.31 deg	0.0 ft +E/-W

Plan: Plan #1	Date Composed: 11/26/97
	Version: 1
Principal: Yes	Locked: No

Plan Section Information

MD ft	Incl deg	Azlm deg	TVD ft	+N/-S ft	+E/-W ft	DLS d/100ft	Buld d/100ft	Turn d/100ft	TFO deg	Target
0.0	0.00	65.31	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2700.0	0.00	65.31	2700.0	0.0	0.0	0.00	0.00	0.00	0.00	
3371.3	20.14	65.31	3357.6	48.8	106.1	3.00	3.00	0.00	0.00	
5333.7	20.14	65.31	5200.0	331.0	720.0	0.00	0.00	0.00	0.00	Target 1
5770.4	20.14	65.31	5610.0	383.8	856.6	0.00	0.00	0.00	0.00	

Section 1: Slant Part 1 Hold

MD ft	Incl deg	Azlm deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Buld d/100ft	Turn d/100ft	TFO deg
0.0	0.00	65.31	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2600.0	0.00	65.31	2600.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
2700.0	0.00	65.31	2700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

Section 2: Slant Part 2 Build 3.00

MD ft	Incl deg	Azlm deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Buld d/100ft	Turn d/100ft	TFO deg
2800.0	3.00	65.31	2800.0	1.1	2.4	2.6	3.00	3.00	0.00	0.00
2900.0	6.00	65.31	2899.6	4.4	9.5	10.5	3.00	3.00	0.00	0.00
3000.0	9.00	65.31	2998.8	9.8	21.4	23.5	3.00	3.00	0.00	0.00
3100.0	12.00	65.31	3097.1	17.4	37.9	41.7	3.00	3.00	0.00	0.00



Scientific Drilling International

Planning Report

Company: Enmarc, Inc.	Date: 11/28/97	Time: 13:00:31	Page: 2
Field: San Juan County, UT	Co-ordinate(N/E) Reference:	Site: #2-23 (RD) Bradford Canyon Unit	
Site: #2-23 (RD) Bradford Canyo	Vertical (TVD) Reference:	Field: Mean Sea Level	
Well: #2-23 (RD)	Section (VS) Reference:	Slot (D.OE,D.ON,65.3Azi)	
Wellpath: OH Original hole	Plan:	Plan #1	

Section 2 : Slant Part 2 Build 3.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
3200.0	15.00	65.31	3194.3	27.2	58.1	65.1	3.00	3.00	0.00	0.00
3300.0	18.00	65.31	3290.2	39.0	84.9	93.5	3.00	3.00	0.00	0.00
3371.3	20.14	65.31	3357.6	48.8	108.1	116.8	3.00	3.00	0.00	0.00

Section 3 : Slant Part 3 Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
3400.0	20.14	65.31	3384.5	52.9	115.1	126.7	0.00	0.00	0.00	180.00
3500.0	20.14	65.31	3478.4	67.3	146.4	161.1	0.00	0.00	0.00	180.00
3600.0	20.14	65.31	3572.3	81.7	177.6	195.5	0.00	0.00	0.00	180.00
3700.0	20.14	65.31	3666.2	96.0	208.9	229.9	0.00	0.00	0.00	180.00
3800.0	20.14	65.31	3760.1	110.4	240.2	264.4	0.00	0.00	0.00	180.00
3900.0	20.14	65.31	3853.9	124.8	271.5	298.8	0.00	0.00	0.00	180.00
4000.0	20.14	65.31	3947.8	139.2	302.8	333.2	0.00	0.00	0.00	180.00
4100.0	20.14	65.31	4041.7	153.6	334.1	367.7	0.00	0.00	0.00	180.00
4200.0	20.14	65.31	4135.6	167.9	365.3	402.1	0.00	0.00	0.00	180.00
4300.0	20.14	65.31	4229.5	182.3	396.6	436.5	0.00	0.00	0.00	180.00
4400.0	20.14	65.31	4323.4	196.7	427.9	471.0	0.00	0.00	0.00	180.00
4500.0	20.14	65.31	4417.3	211.1	459.2	505.4	0.00	0.00	0.00	180.00
4600.0	20.14	65.31	4511.1	225.5	490.5	539.8	0.00	0.00	0.00	180.00
4700.0	20.14	65.31	4605.0	239.9	521.8	574.2	0.00	0.00	0.00	180.00
4800.0	20.14	65.31	4698.9	254.2	553.0	608.7	0.00	0.00	0.00	180.00
4900.0	20.14	65.31	4792.8	268.6	584.3	643.1	0.00	0.00	0.00	180.00
5000.0	20.14	65.31	4886.7	283.0	615.6	677.5	0.00	0.00	0.00	180.00
5100.0	20.14	65.31	4980.6	297.4	646.9	712.0	0.00	0.00	0.00	180.00
5200.0	20.14	65.31	5074.5	311.8	678.2	746.4	0.00	0.00	0.00	180.00
5300.0	20.14	65.31	5168.3	326.1	709.5	780.8	0.00	0.00	0.00	180.00
5333.7	20.14	65.31	5200.0	331.0	720.0	792.4	0.00	0.00	0.00	180.00

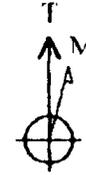
Section 4 : Straight TVD Part 1 Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
5400.0	20.14	65.31	5262.2	340.5	740.7	815.3	0.00	0.00	0.00	180.00
5500.0	20.14	65.31	5356.1	354.9	772.0	849.7	0.00	0.00	0.00	180.00
5600.0	20.14	65.31	5450.0	369.3	803.3	884.1	0.00	0.00	0.00	180.00
5700.0	20.14	65.31	5543.9	383.7	834.6	918.5	0.00	0.00	0.00	180.00
5770.4	20.14	65.31	5610.0	393.8	856.8	942.8	0.00	0.00	0.00	180.00

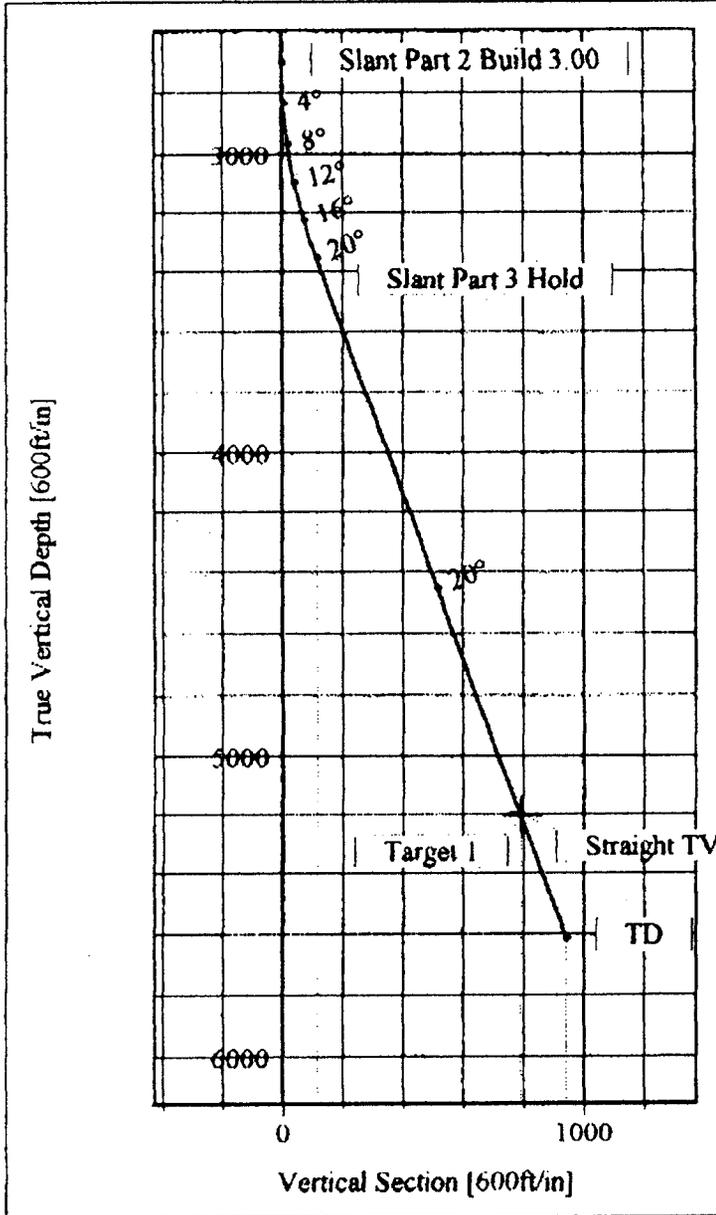


Scientific Drilling

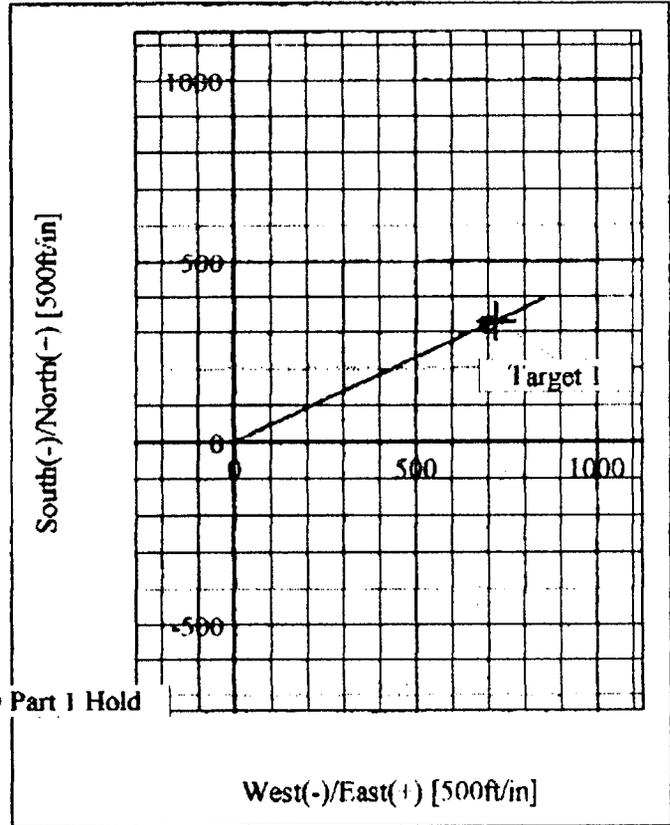
Enmarc, Inc.
 Field: San Juan County, UT
 Site: #2-23 (RD) Bradford Canyon Unit
 Well: #2-23 (RD)
 Wellpath: OH Original hole
 Plan: Plan #1



All Angles Relative To Local North
 True North: 0.00
 Magnetic North: 12.47



**PLANE OF VERT. SEC. 65.31° AZIMUTH
 TARGET RADIUS 20'**



Plan: Plan #1 (RD-31 (RD)-OH)
 Created By: Jack Moore Date: 11/26/97
 Checked: B.L. Date: 11/25/97
 Approved: _____ Date: _____

TARGET DETAILS

No.	TVD	N/S	E/W	Target
1	3200.00	334.99	720.00	Target 1

SECTION DETAILS

Sec	MD	Inc	As	TVD	N/S	E/W	DLog	TFace	VSec	Target
1	0.00	0.00	65.31	0.00	0.00	0.00	0.00	0.00	0.00	
2	2700.00	0.00	65.31	2700.00	0.00	0.00	0.00	0.00	0.00	
3	3371.31	20.14	65.31	3357.67	48.77	106.10	3.00	0.00	116.77	
4	6333.72	20.14	65.31	5300.00	330.99	720.00	0.00	0.00	792.44	Target 1
5	9770.42	20.14	65.31	5610.00	393.79	056.61	0.00	0.00	943.79	



United States Department of the Interior

RECEIVED
NOV 10 1995

BUREAU OF LAND MANAGEMENT
Utah State Office
324 South State, Suite 301
Salt Lake City, Utah 84111-2303

INITIALLY LISTED TO
3104
(UT-923)

NOV 7 1995

DECISION

Obligor	:	Bond Amount:	\$25,000
Patral Exploration LLC	:	Bond Type:	Statewide
P.O. Box 5083	:		Oil and Gas
Denver, CO 80217-5083	:		
Financial Institution:	:	BLM Bond Number:	UT 1040
Norwest Bank Colorado, N.A.	:		
1740 Broadway	:		
Denver, CO 80274	:		

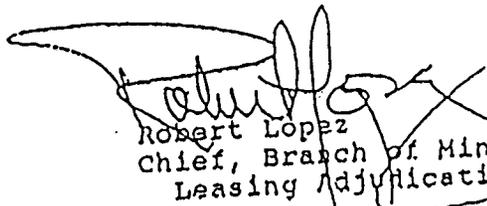
Statewide Oil and Gas Personal Bond and Certificate of Deposit Accepted

On November 6, 1995; this office received Bond Form 3000-4 together with Investment Deposit Agreement (Book Entry) No. 101741006 evidencing the purchase of a \$25,000 Certificate of Deposit (CD) in the amount of \$25,000 to secure a statewide oil and gas bond for the above obligor. Both documents have been examined and are accepted effective November 6, 1995.

The CD will be retained by the Bureau of Land Management (BLM) and will automatically renew annually until all terms and conditions of the leases have been fulfilled or until a satisfactory replacement bond has been accepted by the BLM.

The bond will be maintained by this office. The bond constitutes coverage of all operations conducted by or on behalf of the obligor on Federal leases in the State of Utah. The bond provides coverage of the obligor where that obligor has interest in, and/or responsibility for operations on, leases issued under the authority of any of the Acts cited on the bond form. Please note that Federal leases do not include Indian leases.

If you have any questions, please contact Irena Anderson of this office at (801) 539-4108.


Robert Lopez
Chief, Branch of Mineral
Leasing Adjudication

cc: All Districts

DESIGNATION OF AGENT

(Submit in Triplicate)

The undersigned is, on the records of the Bureau of Land Management, Unit Operator under the Bradford Canyon Unit Agreement, San Juan County, Utah, No. UTU-63082X, and hereby designates:

Name: Petral Exploration LLC
Address: P.O. Box 5083
Denver, Colorado 80217-5083

as its agent, with full authority to act on its behalf in complying with the terms of the unit Agreement and regulations applicable thereto and on the Authorized Officer or his representative may serve written or oral instructions in securing compliance with the Oil and Gas Operating Regulations with respect to drilling, testing, and completing Bradford Canyon Unit Well 3-23 in the SE/4NW/4 of Section 23, Township 37 S., Range 24 E., San Juan County, Utah. Bond coverage will be provided under State wide bond UT-1040

It is understood that this Designation of Agent does not relieve the Unit Operator of responsibility for compliance with the terms of the unit agreement and the Oil and Gas Operating Regulations. It is also understood that this Designation of Agent does not constitute an assignment of any interest under the unit agreement or any lease committed thereto.

In case of default on the part of the designated agent, the Unit Operator will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his duly authorized representative.

The Unit Operator agrees to promptly notify the Authorized Office of any change in the designated agent.

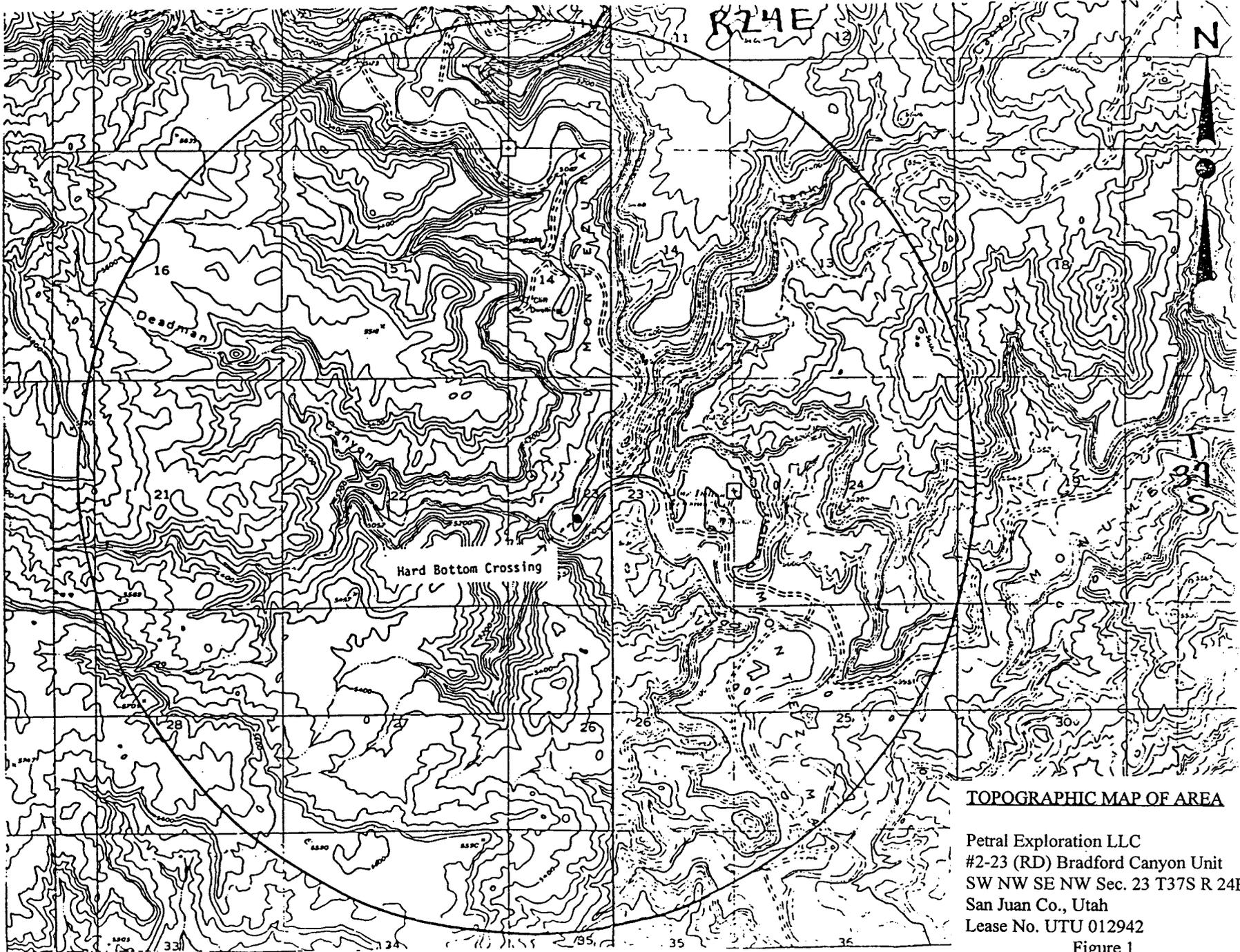
This Designation of Agent is deemed to be temporary and in no manner a permanent arrangement. A designated agent may not designate another party as agent.

This designation is given only to enable the agent herein designated to drill the specified well. It is understood that this Designation of Agent is limited to the field operations operations performed while drilling and completing the specified well and does not include administrative actions requiring specific authorization of the Unit Operator. This designation in no way will serve as authorization for the agent to conduct field operations for the specified well after it has been completed for production. Unless sooner terminated, this designation shall terminate when there is filed in the appropriate office of the Bureau of Land Management all reports and a Well Completion Report and Log (Form 3160-4) as required by the approved Application for Permit To Drill for the specified well.

In the event the above specified well is completed as a non-paying unit well, the authority for the designated agent to operate this well shall be established by completion of the Delegation of Authority to Operate Non-paying Unit Well form and submittal of the form to the appropriate office of the Authorized Officer.

Raymond T. Duncan

By 
itt



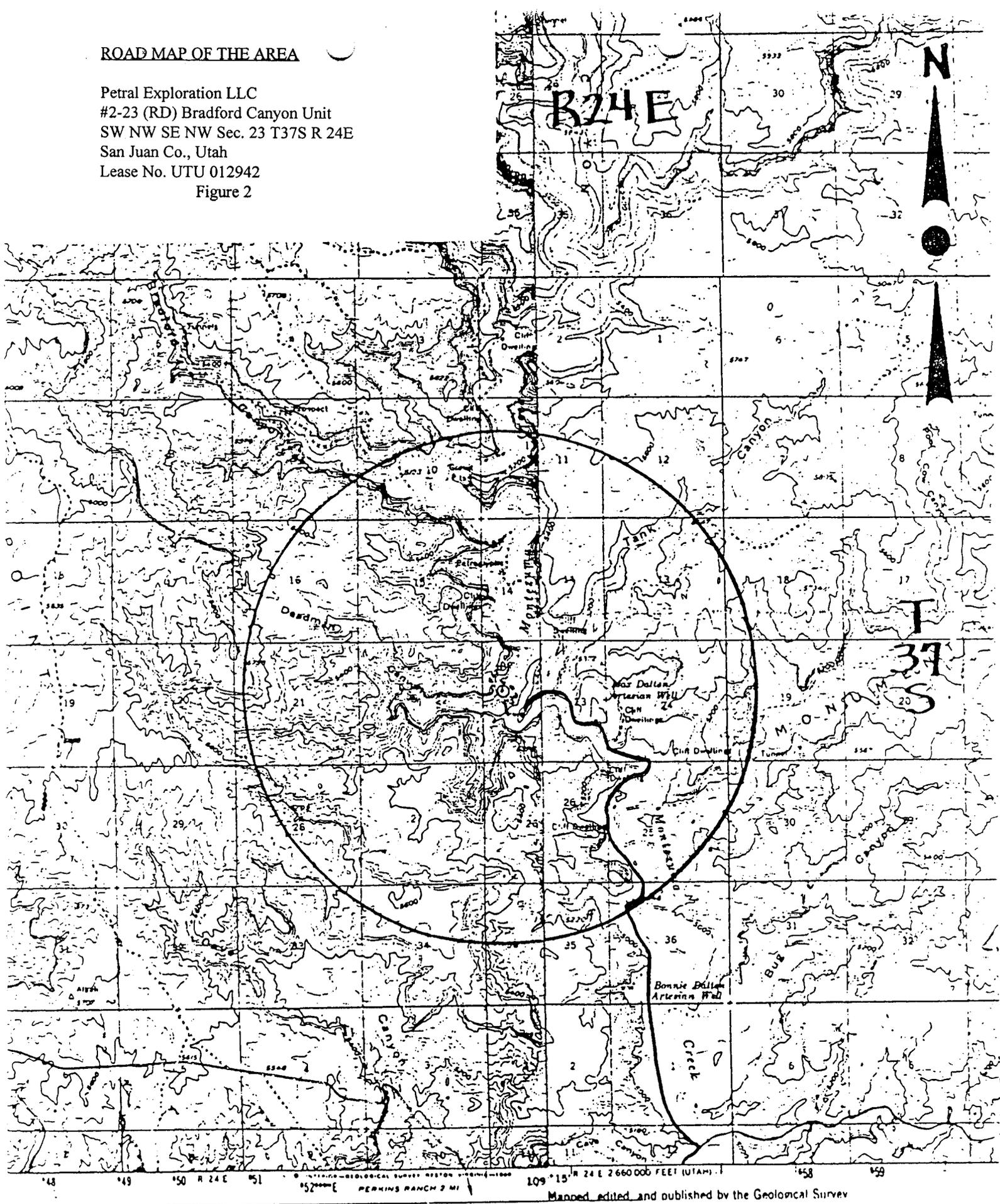
TOPOGRAPHIC MAP OF AREA

Petral Exploration LLC
#2-23 (RD) Bradford Canyon Unit
SW NW SE NW Sec. 23 T37S R 24E
San Juan Co., Utah
Lease No. UTU 012942

Figure 1

ROAD MAP OF THE AREA

Petral Exploration LLC
#2-23 (RD) Bradford Canyon Unit
SW NW SE NW Sec. 23 T37S R 24E
San Juan Co., Utah
Lease No. UTU 012942
Figure 2

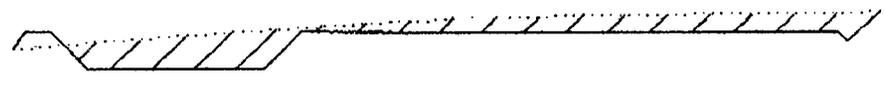
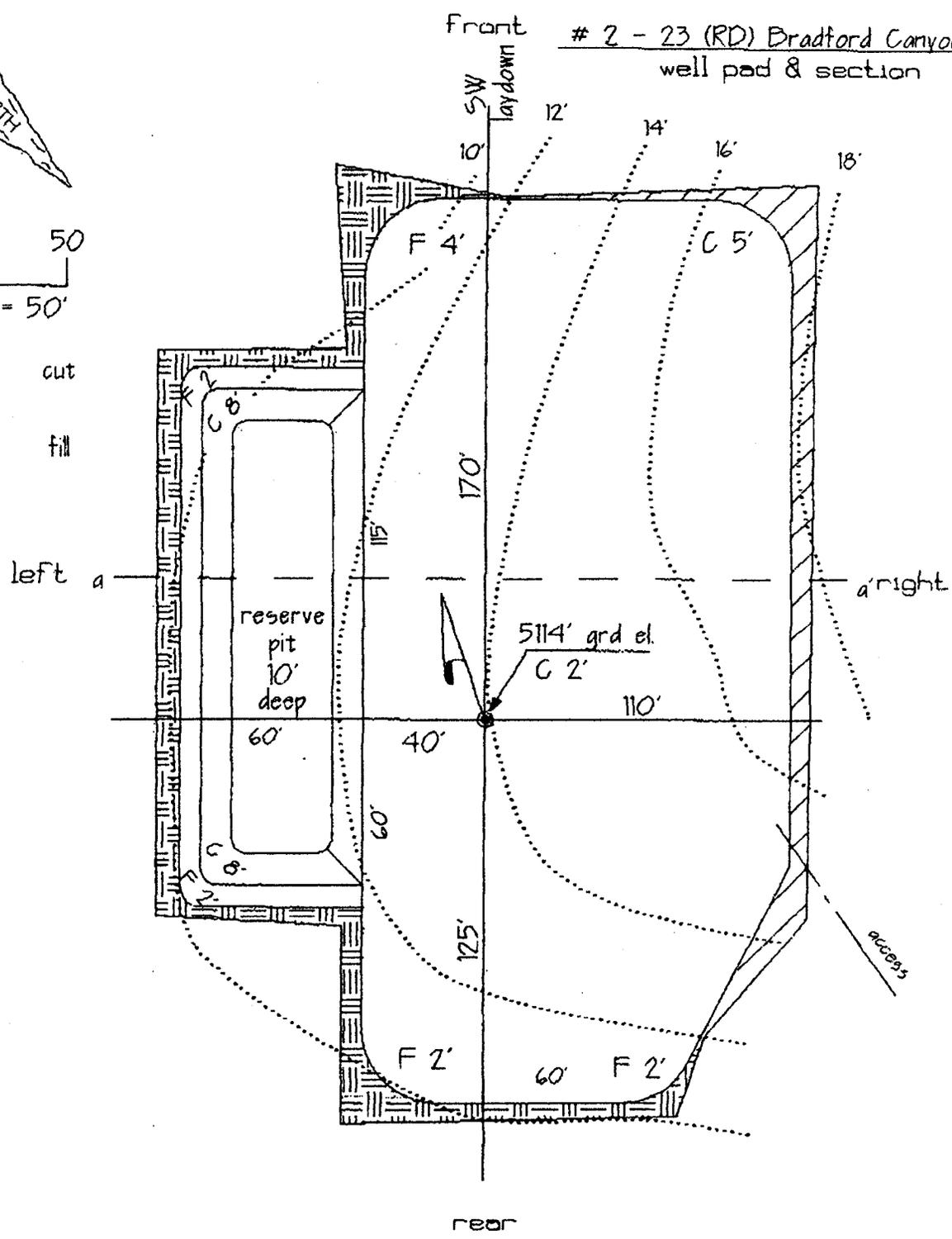




0' 50'
Scale 1" = 50'

cut
fill

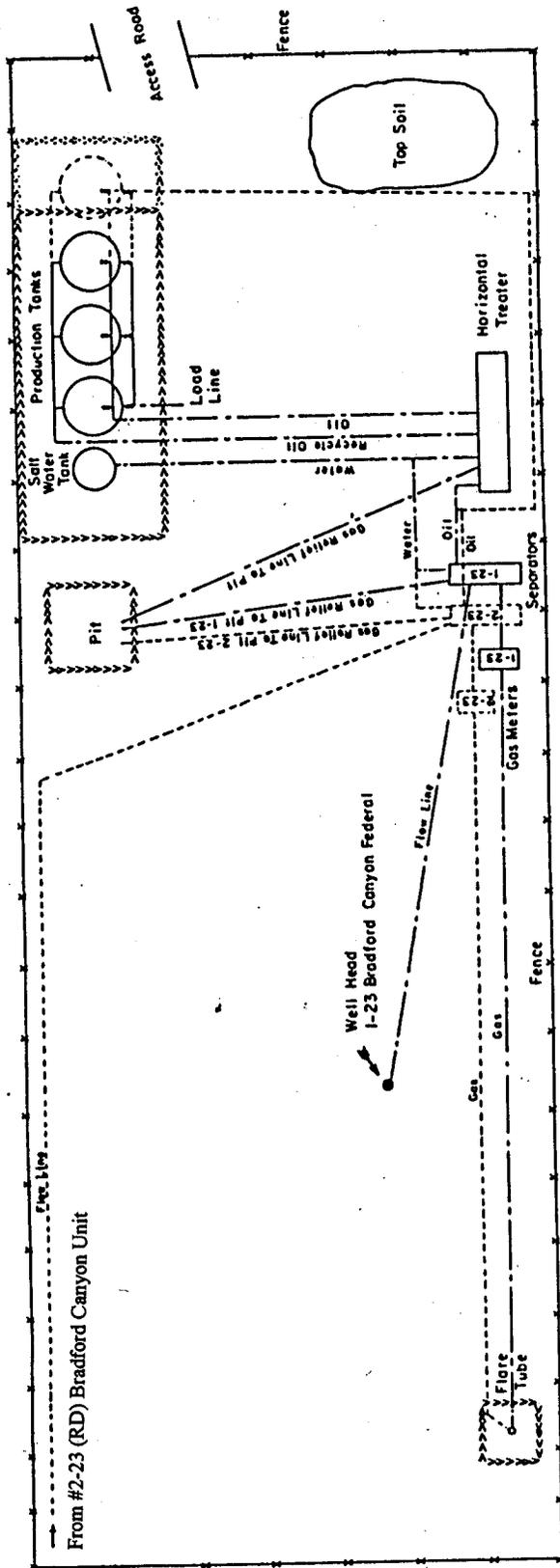
2 - 23 (RD) Bradford Canyon Unit
well pad & section



a
Cross section

DRILLING PAD & PIT LAYOUT

Petral Exploration LLC
#2-23 (RD) Bradford Canyon Unit
SW NW SE NW Sec. 23 T37S R 24E
San Juan Co., Utah
Lease No. UTU 012942
Figure 3



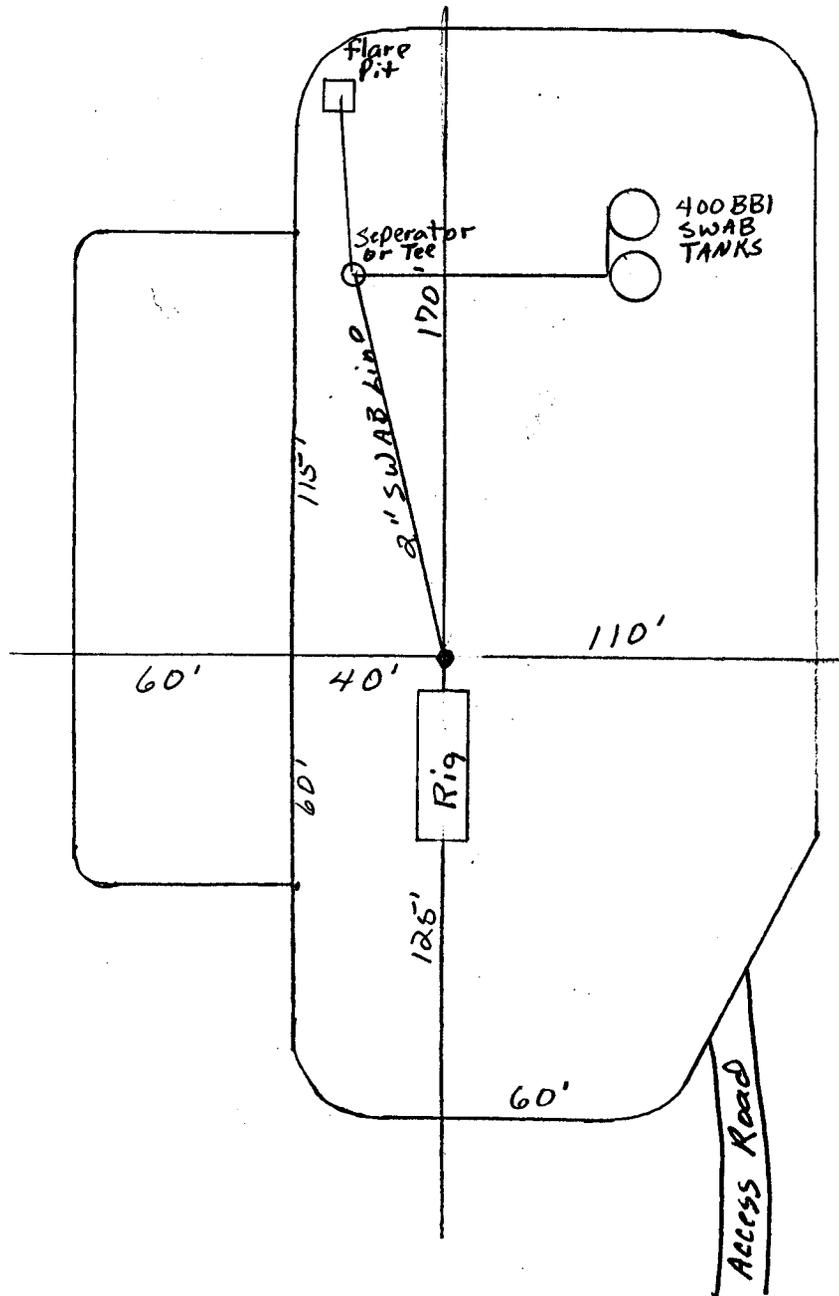
SCALE 1" = 30'

**RAYMOND T. DUNCAN
1-23 BRADFORD CANYON FEDERAL PRODUCTION FACILITIES
SECTION 23 - T37S - R24E
SAN JUAN CO., UTAH**

----- PROPOSED ADDITIONAL FACILITIES

PRODUCTION FACILITIES

Petral Exploration LLC
#2-23 (RD) Bradford Canyon Unit
SW NW SE NW Sec. 23 T37S R 24E
San Juan Co., Utah
Lease No. UTU 012942
Figure 5

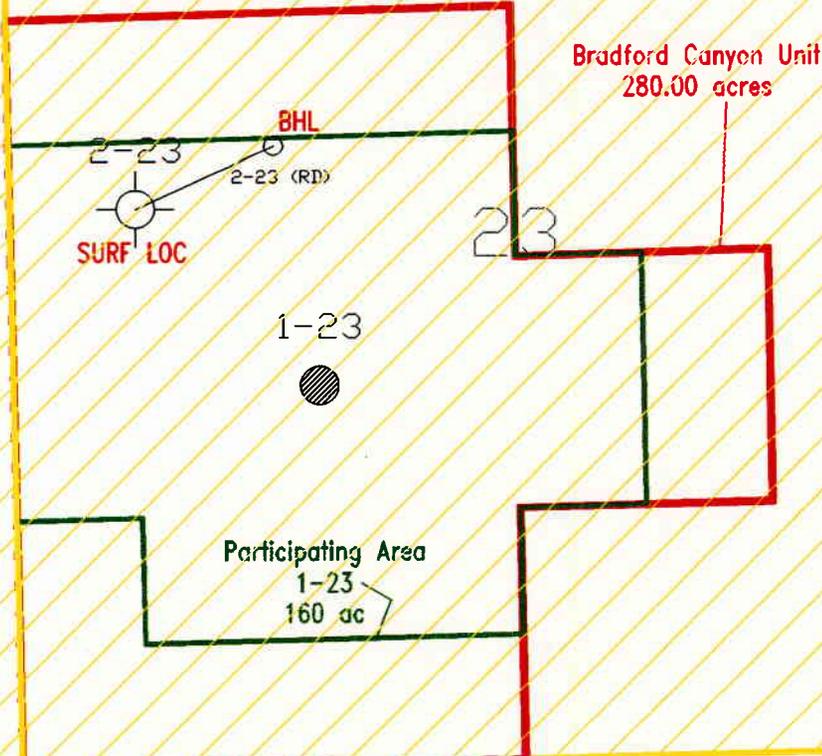


COMPLETION LAYOUT

Petral Exploration LLC
 #2-23 (RD) Bradford Canyon Unit
 SW NW SE NW Sec. 23 T37S R 24E
 San Juan Co., Utah
 Lease No. UTU 012942
 Figure 6

1-22

UTU-012942
640.00 acres



rose
exploration
associates

1200 Denver Club Building - 518 17th St. - Denver, Colorado 80202 - (303) 595-0664

PETRAL EXPLORATION

2-23 (RD) Bradford Canyon Unit

Application For Directional Drilling Permit

26

Geologist:	M.E. Wynne	Date Created:	11/28/1997 Modified:
Geophysicist:	John N. Edwards	State:	UTAH
Engineer:	Brent A. Miller	County:	San Juan
Drawn By:	MEW	Geological Play:	Upper Ismay
Contour Interval:	N/A	File:	

SCALE 1"=1000'

DIV. OF OIL, GAS & MINING

RECEIVED
DEC 19 1997

FORM 3160-3
(December 1990)

SUBMIT IN TRIPLICATE

(Other instructions on reverse side)

Form approved
Budget Bureau No. 1004-0136
Expires December 31, 1991

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. LEASE DESIGNATION AND SERIAL NO.
Federal UTU - 012942

2. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

3. UNIT AGREEMENT NAME
Bradford Canyon UTU - 63082

4. FARM OR LEASE NAME, WELL NO.
#2-23 (RD) Bradford Canyon L

5. APT WELL NO.
43 037 31021 0101

6. FIELD AND POOL, OR WILDCAT
Bradford Canyon

7. SEC., T., R. M. OR BLM AND SURVEY OR AREA
Sec 23 T37S R24E (SLM)

8. COUNTY OR PARISH
San Juan

9. STATE
Utah

10. NO. OF ACRES IN LEASE
640

11. NO. OF ACRES ASSIGNED TO THIS WELL
40

12. DISTANCE FROM PROPOSED LOCATION TO NEAREST TOWN OR POST OFFICE*
Approx. 9 miles southeast of Blanding, Utah

13. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
793'

14. PROPOSED DEPTH
5770

15. ROTARY OR CABLE TOOLS
Rotary

16. APPROX DATE WORK WILL START*
December 19, 1997

17. ELEVATIONS (Show whether DP, RT, GK, etc.)
KB 5130 from previous drilling

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT

This well is a tight hole. Request is made for all information to be held CONFIDENTIAL.

Petral Exploration LLC intends to re-enter a dry hole, Duncan 2-23 Bradford Canyon Unit (B&A 6/30/84) and directional re-drill to the BHL given above. The Upper Ismay target horizon will be encountered N65.12 degrees East and 793' from the surface location being 1987' FNL & 1364' FWL of Sec. 23 T37S R24E (SLM).

Details of the proposed work are attached.

- cc: 1 - BLM Moab
- 3 - BLM Monticello'
- 1 - Utah Division of Oil, Gas & Mining

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

RECEIVED
MOAB FIELD OFFICE
1997 DEC - 8 PM 3:05
DEPT. OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

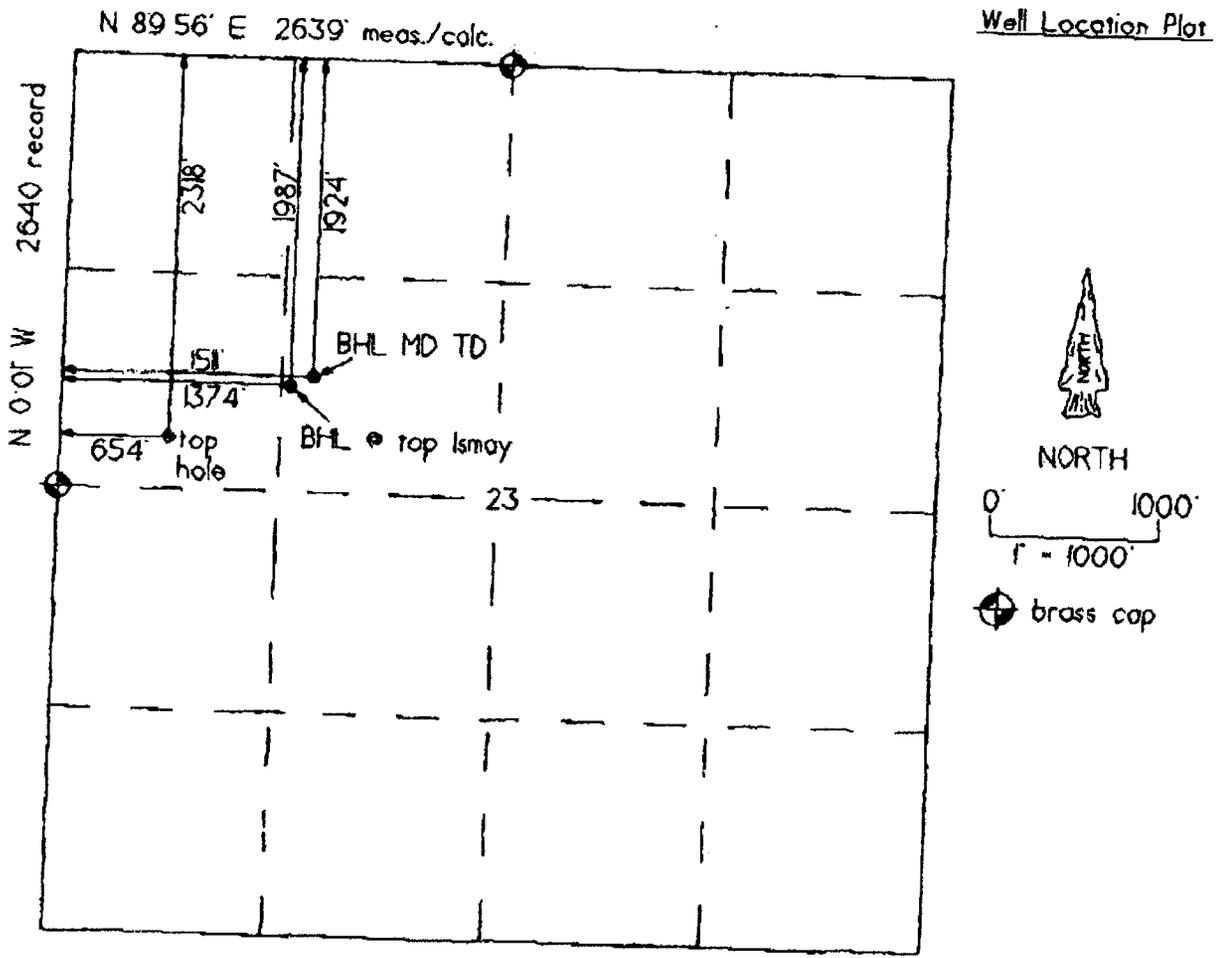
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone, if applicable. If directional, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if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

SIGNED E. K. Bastard TITLE Agent for Petral DATE 12/3/97

PERMIT NO. _____ APPROVAL DATE _____
Application approval does not warrant or verify that the applicant holds legal or equitable title to those rights in the subject lease which would enable the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL: ANY:
APPROVED BY [Signature] TITLE Assistant Field Manager, Resource Management DATE 12/22/97

*See Instructions On Reverse Side
CONDITIONS OF APPROVAL ATTACHED

cc: San Juan 12/9/97 mr



Well Location Description

PETRAL EXPLORATION
 # 2 - 23 (RD) Bradford Canyon Unit
 2318' FNL & 654' FWL (top hole)
 331,897 N & 2,650,374 E (from GPS)
 5114' grd. el. (from GPS)
 1987' FNL & 1374' FWL (BHL * top lsmay)
 1924' FNL & 151' FWL (BHL * MD TD)
 Section 23, T.37 S., R.24 E., SLM
 San Juan County, UT



28 November 1997

Gerald G. Huddleston
 Gerald G. Huddleston, LS

The above is true and correct to my knowledge and belief.

HUDDLESTON LAND SURVEYING - BOX KK - CORTEZ CO - (970) 565 -3330

DESIGNATION OF AGENT
(Submit in Triplicate)

The undersigned is, on the records of the Bureau of Land Management, Unit Operator under the Bradford Canyon Unit Agreement, San Juan County, Utah, No. UTU-63082X, and hereby designates:

Name: Petral Exploration LLC
Address: P.O. Box 5083
Denver, Colorado 80217-5083

as its agent, with full authority to act on its behalf in complying with the terms of the unit Agreement and regulations applicable thereto and on the Authorized Officer or his representative may serve written or oral instructions in securing compliance with the Oil and Gas Operating Regulations with respect to drilling, testing, and completing Bradford Canyon Unit Well 2-23 in the SE/4NW/4 of Section 23, Township 37 S., Range 24 E., San Juan County, Utah. Bond coverage will be provided under State wide bond UT-1040

It is understood that this Designation of Agent does not relieve the Unit Operator of responsibility for compliance with the terms of the unit agreement and the Oil and Gas Operating Regulations. It is also understood that this Designation of Agent does not constitute an assignment of any interest under the unit agreement or any lease committed thereto.

In case of default on the part of the designated agent, the Unit Operator will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his duly authorized representative.

The Unit Operator agrees to promptly notify the Authorized Office of any change in the designated agent.

This Designation of Agent is deemed to be temporary and in no manner a permanent arrangement. A designated agent may not designate another party as agent.

This designation is given only to enable the agent herein designated to drill the specified well. It is understood that this Designation of Agent is limited to the field operations operations performed while drilling and completing the specified well and does not include administrative actions requiring specific authorization of the Unit Operator. This designation in no way will serve as authorization for the agent to conduct field operations for the specified well after it has been completed for production. Unless sooner terminated, this designation shall terminate when there is filed in the appropriate office of the Bureau of Land Management all reports and a Well Completion Report and Log (Form 3160-4) as required by the approved Application for Permit To Drill for the specified well.

In the event the above specified well is completed as a non-paying unit well, the authority for the designated agent to operate this well shall be established by completion of the Delegation of Authority to Operate Non-paying Unit Well form and submittal of the form to the appropriate office of the Authorized Officer.

Raymond T. Duncan

By 

APPROVED - EFFECTIVE DEC 10 1997


CHIEF, BRANCH OF FLUID MINERALS
BUREAU OF LAND MANAGEMENT

MGAB OR	
X	DM
	RES
	L/M
	R/C
	RR
	SUP SER
	Ops
	Admin
	Fire
	PRICE
	SJ
	Act
	Info
	Discuss

ma-meab

Petral Exploration, LLC
Bradford Canyon 2-23 (RD)
Lease U-12942
SWNW Section 23, T. 37 S., R. 24 E.
San Juan County, Utah

CONDITIONS OF APPROVAL

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.

Be advised that Petral Exploration, LLC is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by UT-1040 (Principal - Petral Exploration, LLC) via surety consent as provided for in 43 CFR § 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR § 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR § 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

A. DRILLING PROGRAM

1. The proposed 3M BOP system is adequate. Installation, testing and operation of the system shall be in conformance with Onshore Oil and Gas Order No. 2.
2. Any fluid bearing zones or lost circulation zones encountered while drilling will be isolated behind casing and cement.
3. The TOC for the production casing (5-1/2") must be from TD to a minimum of 1000' above potential pay zones.
4. Surface casing will be pressure tested prior to drilling out below the 8-5/8" casing.
5. If a gas meter run is constructed, it will be located on lease within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and will be buried downstream of the meter until it leaves the pad. Meter runs will be housed and/or fenced. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of 43 CFR § 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
6. Any air drilling must be conducted in accordance with Onshore Order No. 2, Section E, Special Drilling Operations. Rig must have spark arresters, blooie line, float valve, automatic igniters, etc.
7. All drill stem tests must be conducted in accordance with Onshore Order No. 2, Section III.D., Drill Stem Testing Requirements. Initial opening of drill stem test tools shall be restricted to daylight hours.

B. SURFACE

1. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the operator, or any person working on his behalf, on public or Federal land shall be immediately reported to the San Juan Resource Area Manager. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the San Juan Resource Area Manager. An evaluation of the discovery will be made by the San Juan Resource Area Manager to determine appropriate action to prevent the loss of significant cultural or scientific values. The operator will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the operator.
2. BLM will complete a raptor survey and clearance of the affected area surrounding the proposed drilling site prior to work initiation if the proposed well is drilled between February 1, and August 31. If the raptor survey locates an active raptor nesting territory which will be affected by this proposal, no work will be allowed until nestlings have fledged. This will apply to peregrine falcons found to be nesting within one mile, golden eagles found to be nesting within 0.5 mile and all other raptors found to be nesting within 0.5 mile of the proposed action site. Discussion will be entered into by the San Juan Resource Area with the U.S. Fish & Wildlife Service to determine the feasibility of allowing drilling of said well closer (0.25 mile) of the proposed action site *IF it can be PROVEN* that said activity (noise and visual impacts) can take place without impacting the nesting birds and their offspring. The U.S. Fish & Wildlife Service will be fully consulted if peregrine falcon or golden eagle nesting becomes an issue and given updates on the nesting status of said birds.
3. Deer winter range restrictions from December 15, through April 30 will be imposed for well location preparation and drilling operations unless an exception is granted by the Area Manager.

C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, enclosed.

Building Location- Contact the BLM Petroleum Engineering Technician at the Monticello BLM Field Office at least 48 hours prior to commencing construction of location.

Spud- The spud date will be reported to BLM 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the Moab BLM Field Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the Moab BLM Field Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval. "Sundry Notices and Reports 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. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Moab BLM Field Office. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the BLM in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the BLM is to be notified.

First Production- Should the well be successfully completed for production, the Moab BLM Field Office will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Monticello BLM Field Office. The Monticello BLM Field Office shall be notified prior to the first sale.

Well Completion Report- 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 to the Moab BLM Field Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR § 3162.4-1. Two copies 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. When requested, samples (cuttings and/or samples) will be submitted to the Moab BLM Field Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever occurs first, without the prior, written approval of the BLM. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

Produced Water- Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted to the Moab BLM Field Office for approval pursuant to Onshore Oil and Gas Order No. 7.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the Moab BLM Field Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the Moab BLM Field Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) shall be filed with the Moab BLM Field Office 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. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR § 3162.6. 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 BLM, or the appropriate surface managing agency.

TABLE 1. NOTIFICATIONS

Notify Jeff Brown of the Monticello BLM Field Office in Monticello, Utah, at (801) 587-2141, or at home (801) 587-2046 for the following:

- 2 days prior to commencement of dirt work; construction and reclamation;
- 1 day prior to spudding;
- 50 feet prior to reaching each casing setting depth;
- 3 hours prior to testing BOPE

If the person at the above number cannot be reached, notify the Moab BLM Field Office at (801) 259-6111. If unsuccessful, contact one of the people listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab Field Office at (801) 259-6111. If approval is needed after work hours, you may contact the following:

- | | | |
|---------------------------------|---------|----------------|
| Gary Torres, Petroleum Engineer | Office: | (801) 587-2141 |
| | Home: | (801) 587-2705 |
| Eric Jones, Petroleum Engineer | Office: | (801) 259-2117 |
| | Home: | (801) 259-2214 |

ENMARC, INC.

Corporate Office
P.O. Box 7638
Loveland, CO 80537
(970) 663-7576 fax (970) 663-7567

December 22, 1997

Mr. John Baza
Utah Division of Oil, Gas, & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84180

Via Facsimile

Dear Mr. Baza:

With this letter is the BLM approval for the #2-23 (RD) Bradford Canyon Unit. I would appreciate your approval today by fax for this well also. Your approval would allow us to start work on the location this afternoon. If you have any questions, or if your approval cannot be granted, please call me at (970) 667-9734.

Thank you for your assistance.

Sincerely,



E. K. Bostick
Agent for Petral Exploration

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/19/97

API NO. ASSIGNED: 43-037-31021

WELL NAME: BRADFORD CANYON 2-23 (RE)
 OPERATOR: PETRAL EXPLORATION (N7700)

PROPOSED LOCATION:

SWNW 23 - T37S - R24E
 SURFACE: 2318-FNL-0654-FWL
 BOTTOM: 1834-FNL-1595-FWL
 SAN JUAN COUNTY
 BRADFORD CANYON FIELD (310)

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

LEASE TYPE: FED
 LEASE NUMBER: UTU - 012942

PROPOSED PRODUCING FORMATION: PRDX

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Federal State Fee
 (Number UT 1040)
- Potash (Y/N)
- Oil shale (Y/N)
- Water permit
 (Number _____)
- RDCC Review (Y/N)
 (Date: _____)

LOCATION AND SITING:

- R649-2-3. Unit: BRADFORD CANYON
- R649-3-2. General.
- R649-3-3. Exception.
- Drilling Unit.
 Board Cause no: _____
 Date: _____

COMMENTS:

Deviated hole only - not a horizontal well.

STIPULATIONS:

1. Directional drilling



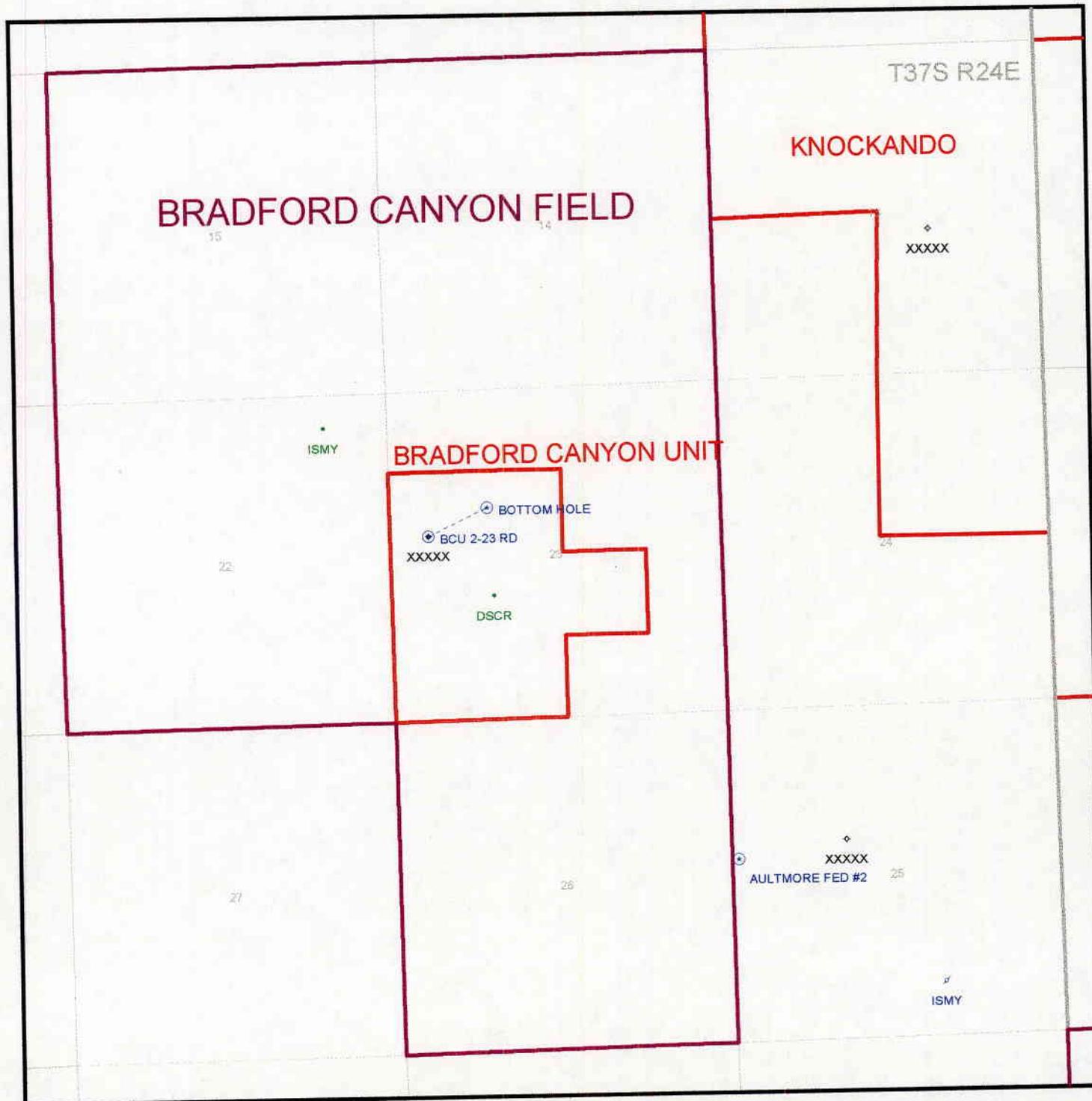
DIVISION OF OIL, GAS & MINING

OPERATOR: PETRAL EXPLORATION (NN7700)

FIELD: BRADFORD CANYON (310)

SEC. TWP. RNG.: SEC. 23, T37S, R24E

COUNTY: SAN JUAN UAC: R649-2-3 BRADFORD CANYON



DATE PREPARED:
23-DEC-1997



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

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

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

December 24, 1997

Petral Exploration, LLC
c/o ENMARC, Inc.
P.O. Box 7638
Loveland, Colorado 80537

Re: Bradford Canyon Unit 2-23 (RD) Well (Re-entry), 2318' FNL,
654' FWL, SW NW, Sec. 23, T. 37 S., R. 24 E., San Juan
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 re-enter and 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 43-037-31021.

Sincerely,

A handwritten signature in cursive script that reads "John R. Baza".

John R. Baza
Associate Director

lwp

Enclosures

cc: San Juan County Assessor
Bureau of Land Management, Moab District Office

Operator: Petral Exploration, LLC
Well Name & Number: Bradford Canyon Unit 2-23 (RD) (Re-entry)
API Number: 43-037-31021
Lease: UTU-012942
Location: SW NW Sec. 23 T. 37 S. R. 24 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 following 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 John R. Baza (801)538-5334.

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. In accordance with Utah Admin. R. 649-3-11, Directional Drilling, submittal of a complete angular deviation and directional survey report is required.

DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

SPUDDING INFORMATION

Name of Company: PETRAL EXPLORATION

Well Name: BRADFORD CANYON UNIT 2-23 (RE-ENTRY)

Api No. 43-037-31021

Section: 23 Township: 37S Range: 24E County: SAN JUAN

Drilling Contractor: _____

Rig # _____

SPUDDED:

Date: 12/31/97

Time: _____

How: ROTARY

Drilling will commence: _____

Reported by: KEN WEST

Telephone NO.: _____

Date: 12/31/97 Signed: JLT

✓

ROUTING AND TRANSMITTAL SLIP

Date

12/23

TO: (Name, office symbol, room number, building, Agency/Post)		Initials	Date
1.	Mike Hebertson		
2.			
3.			
4.			
5.			

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	<input checked="" type="checkbox"/> For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

Hi Mike -
 If you have any questions,
 please give me a call at
 259-2135.

Thanks!

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)	Room No.—Bldg.
	Phone No.

Marie Ramstetter

**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**

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

2. NAME OF OPERATOR
Petral Exploration LLC

3. ADDRESS AND TELEPHONE NO.
c/o ENMARC, Inc., P.O. Box 7638, Loveland, CO 80537 (970) 663-7576

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At Surface *2318' FNL and 654' FWL Sec. 23 T37S R24E*
 At proposed prod. zone *BHL (@ top Ismay) 1987' FNL and 1374' FWL Sec. 23 T37S R24E*
 BHL (@ MD TD) 1247' FNL and 1511' FWL Sec. 23 T37S R24E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Approx. 9 miles southeast of Blanding, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 1381' lease
 44' PA
 701' unit

16. NO. OF ACRES IN LEASE
640

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.
793'

19. PROPOSED DEPTH
5770

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
KB 5130 from previous drilling

5. LEASE DESIGNATION AND SERIAL NO.
Federal UTU - 012942

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
Bradford Canyon UTU - 63082

8. FARM OR LEASE NAME, WELL NO.
#2-23 (RD) Bradford Canyon L

9. API WELL NO.
43 037 31021 0101

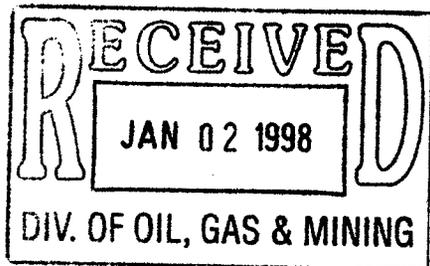
10. FIELD AND POOL, OR WILDCAT
Bradford Canyon

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 23 T37S R24E (SLM)

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

22. APPROX. DATE WORK WILL START*
December 19, 1997



**This is a re-entry of the Bradford Canyon #2-23 that was plugged in 1984.*

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 pl deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED *E.K. Best* TITLE *Agent for Petral* DATE *12/3/97*

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

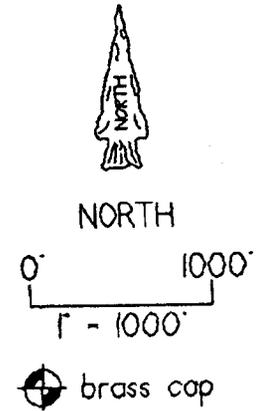
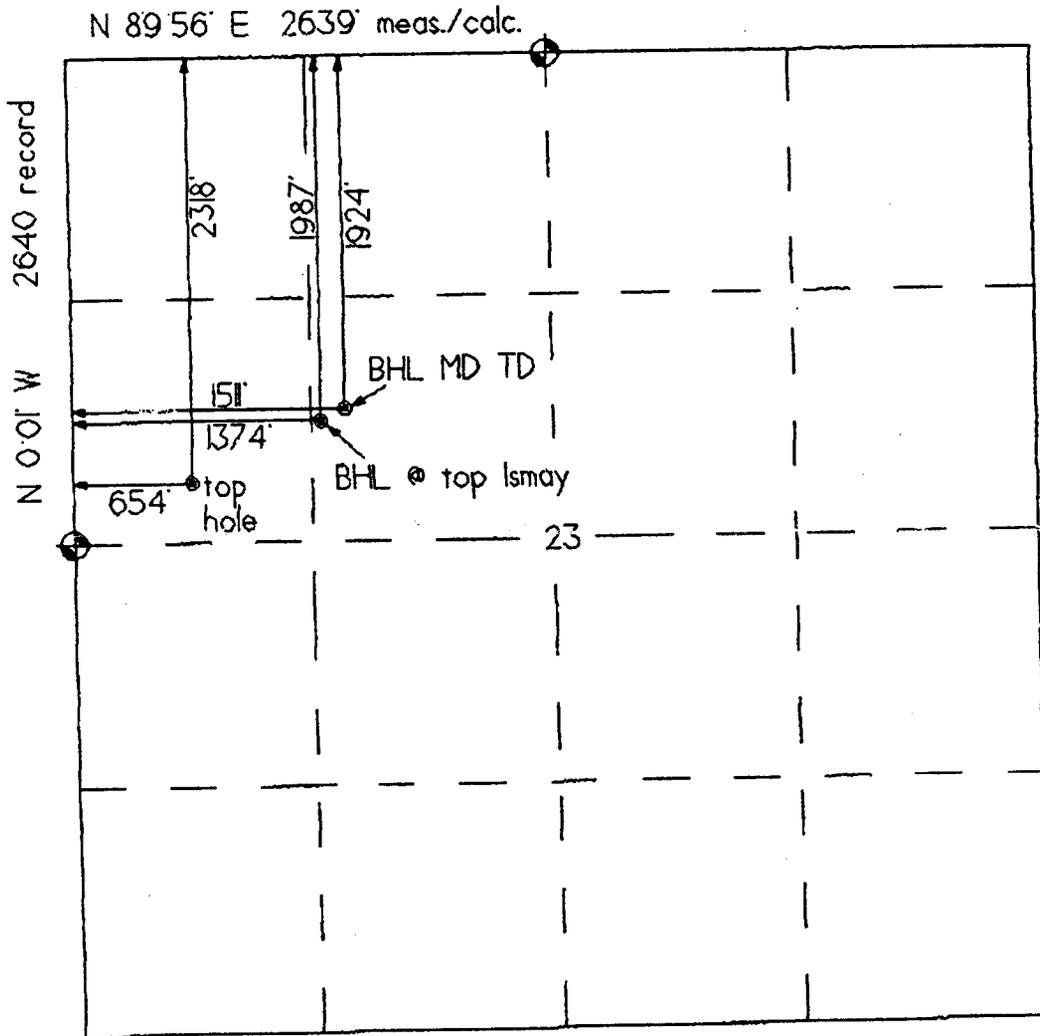
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY *1st Brad D. Palmer* TITLE *ADM-Resources* DATE *DEC 23 1997*

***See Instructions On Reverse Side**

Well Location Plot



Well Location Description

PETRAL EXPLORATION
 # 2 - 23 (RD) Bradford Canyon Unit
 2318' FNL & 654' FWL (top hole)
 331,897 N & 2,650,374 E (from GPS)
 5114' grd. el (from GPS)
 1987' FNL & 1374' FWL (BHL @ top Ismay)
 1924' FNL & 151' FWL (BHL @ MD TD)
 Section 23, T.37 S., R.24 E., SLM
 San Juan County, UT



28 November 1997

Gerald G. Huddleston
 Gerald G. Huddleston, LS

The above is true and correct to my knowledge and belief.

HUDDLESTON LAND SURVEYING - BOX KK - CORTEZ CO - (970) 565 -3330

Petral Exploration, LLC
Bradford Canyon 2-23 (RD)
Lease U-12942
SWNW Section 23, T. 37 S., R. 24 E.
San Juan County, Utah

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4. Surface casing will be pressure tested prior to drilling out below the 8-5/8" casing.
5. If a gas meter run is constructed, it will be located on lease within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and will be buried downstream of the meter until it leaves the pad. Meter runs will be housed and/or fenced. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of 43 CFR § 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
6. Any air drilling must be conducted in accordance with Onshore Order No. 2, Section E, Special Drilling Operations. Rig must have spark arresters, blooie line, float valve, automatic igniters, etc.
7. All drill stem tests must be conducted in accordance with Onshore Order No. 2, Section III.D., Drill Stem Testing Requirements. Initial opening of drill stem test tools shall be restricted to daylight hours.

B. SURFACE

1. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the operator, or any person working on his behalf, on public or Federal land shall be immediately reported to the San Juan Resource Area Manager. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the San Juan Resource Area Manager. An evaluation of the discovery will be made by the San Juan Resource Area Manager to determine appropriate action to prevent the loss of significant cultural or scientific values. The operator will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the operator.

2. BLM will complete a raptor survey and clearance of the affected area surrounding the proposed drilling site prior to work initiation if the proposed well is drilled between February 1, and August 31. If the raptor survey locates an active raptor nesting territory which will be affected by this proposal, no work will be allowed until nestlings have fledged. This will apply to peregrine falcons found to be nesting within one mile, golden eagles found to be nesting within 0.5 mile and all other raptors found to be nesting within 0.5 mile of the proposed action site. Discussion will be entered into by the San Juan Resource Area with the U.S. Fish & Wildlife Service to determine the feasibility of allowing drilling of said well closer (0.25 mile) of the proposed action site *IF it can be PROVEN* that said activity (noise and visual impacts) can take place without impacting the nesting birds and their offspring. The U.S. Fish & Wildlife Service will be fully consulted if peregrine falcon or golden eagle nesting becomes an issue and given updates on the nesting status of said birds.

3. Deer winter range restrictions from December 15, through April 30 will be imposed for well location preparation and drilling operations unless an exception is granted by the Area Manager.

C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, enclosed.

Building Location- Contact the BLM Petroleum Engineering Technician at the Monticello BLM Field Office at least 48 hours prior to commencing construction of location.

Spud- The spud date will be reported to BLM 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the Moab BLM Field Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the Moab BLM Field Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval. "Sundry Notices and Reports 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. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Moab BLM Field Office. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the BLM in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the BLM is to be notified.

First Production- Should the well be successfully completed for production, the Moab BLM Field Office will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Monticello BLM Field Office. The Monticello BLM Field Office shall be notified prior to the first sale.

Well Completion Report- 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 to the Moab BLM Field Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR § 3162.4-1. Two copies 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. When requested, samples (cuttings and/or samples) will be submitted to the Moab BLM Field Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever occurs first, without the prior, written approval of the BLM. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

Produced Water- Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted to the Moab BLM Field Office for approval pursuant to Onshore Oil and Gas Order No. 7.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the Moab BLM Field Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the Moab BLM Field Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) shall be filed with the Moab BLM Field Office 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. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR § 3162.6. 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 BLM, or the appropriate surface managing agency.

TABLE 1. NOTIFICATIONS

Notify Jeff Brown of the Monticello BLM Field Office in Monticello, Utah, at (801) 587-2141, or at home (801) 587-2046 for the following:

2 days prior to commencement of dirt work, construction and reclamation;

1 day prior to spudding;

50 feet prior to reaching each casing setting depth;

3 hours prior to testing BOPE

If the person at the above number cannot be reached, notify the Moab BLM Field Office at (801) 259-6111. If unsuccessful, contact one of the people listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab Field Office at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Gary Torres, Petroleum Engineer	Office:	(801) 587-2141
	Home:	(801) 587-2705

Eric Jones, Petroleum Engineer	Office:	(801) 259-2117
	Home:	(801) 259-2214

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
UTU-012942

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA/Agreement, Name and/or No.
Bradford Canyon Unit
UTU-63082X

8. Well Name and No.
#2-23 (RD) Bradford Canyon Unit

9. API Well No.
43 037 31021 0101

10. Field and Pool, or Exploratory Area
Bradford Canyon

11. County or Parish, State
San Juan, Utah

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
Petral Exploration LLC c/o ENMARC, INC., attn: E.K. Bostick

3a. Address
P.O. Box 7638, Loveland, CO 80537

3b. Phone No. (include area code)
(970) 663-7576

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface 2318'FNL and 654'FWL Sec. 23 T37S R24E (SLM)
BHL (@ top Ismay) 1922'FNL & 1431'FWL Sec 23 T37S R24E (SLM)
BHL (@ MD TD) 1834' FNL & 1595' FWL Sec. 23 T37S R24E (SLM)

CONFIDENTIAL

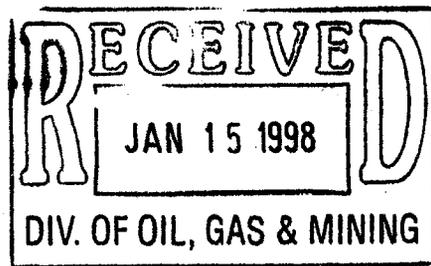
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input type="checkbox"/> Other Daily Drilling Reports
	<input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

See attached reports.

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

Name (Printed/Typed): *E.K. Bostick* Title: *Agent for Petral Exploration LLC*

Signature: *E.K. Bostick* Date: *January 8, 1998*

Approved by: _____ Title: _____ Date: _____

Conditions of approval, if any, are attached. Approval of this notice 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.

Office: _____

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.

#2-23 (RD) Bradford Canyon Unit
Sec. 23 - T37S - R24E
San Juan, Co. Utah

Week One

Attached to BLM Sundry Notice 1-8-98.

Daily Operations for previous day:

1-1-98 Day 1 Depth 0'

Moving rig & Rig UP. Drilled cement out of top of 8 5/8" casing w/ Jack Hammer. Cont. Rig UP. Cut off 8 5/8" casing. Weld on Head. Test to 1150psi. OK. NU BOPE.

1-2-98 Day 2 Depth PB 2475'

NU BOPE. Drlg Rat & Mouse holes. Test BOP w/ rig pump 1000psi. OK. Drilled cement 10' - 96' stringers 96' - 305'. PU HWDP & RIH. Circ out mud @ 1557'. RIH w/ DP to 2150'. Circ out mud. RIH to 2275'. Drlg cmt. 2275' - 2475'. Circ. POOH. RU Quadco. Test Csg. 2100psi. Blind Rams & Manifold 3000psi. 15min. OK.

Notified Gary Torres w/ BLM and Jim Thompson w/ State of Utah via telephone in advance as to Spud date and BOP Test.

1-3-98 Day 3 Depth PB 3100'

Finish BOP test. Pipe Rams, Kelly Cock, Safety Valve and Choke Lines 3000psi. Hydril 1500psi. All tested OK. Function test Accumulator. Install Wear Bushing. RIH w/ Bit. Drlg cmt. 2475' - 2610'. Wash out to 3116'. Circ. POOH. LD bit and bit sub. RIH open ended. Displace hole w/ clean water. RU Halliburton. Pump 10 sacks 16.5# cmt. Top Job 5' between surface pipe and conductor. Mix and Pump 345sacks premium cmt. W/ 3% Potassium Chloride. Set Plug @ 3100'. POOH 15stds. Circ. POOH. WOC. Before cmt. Plug was pumped, had 1" water flow.

1-4-98 Day 4 Depth PB 3100'

WOC. Had water flow @ 2:00 PM (1bbl/hr.) RIH w/ bit. Tag cmt @ 2140'. Drlg. Cmt 2140' - 2470' w/ 10 - 15,000 WOB. 1 - 2min /ft. 2470' - 2534' w/ 0 - 5000 WOB 1/2min./ft. soft cmt. Water flow 8 - 10gals./min. WOC.

1-5-98 Day 5 Depth 2355'

Pull up in csg. WOC. Circ. Well flowing 9 - 10gals./min. SWI 45min. 275psi. 7hrs. 340psi. Open well POOH. PU & RIH w/ RTTS PKR. Set @ 2355'. Mix and Pump 200sacks Standard cmt. W/ 2% Calcium Chloride Anhydrous & .5% Versaset. Squeeze into formation w/ 2160psi. ISIP. SWI. WOC w/ 640psi on csg.

1-6-98 Day 6 Depth 2480'

WOC. Well shut in w/ 640psi on csg. Released RTTS. Chain out of hole. LD & Load out RTTS. Rig Svc. Work BOP's. RIH. Tag cmt @ 2399'. Drlg. Cmt. 2399' - 2450'. WOC. LD 20jts DP. Drlg cmt 2450' - 2455'. Cmt. Soft. 5' - 3 1/2min. w/2000# WOB. WOC. Check f/ flow. No Flow. Drlg cmt. 2455' - 2480' w/ 2 - 4000# WOB. 1 1/2min./ft.

1-7-98 Day 7 Depth 2774'

Drlg cmt. 2480' - 2534'. Circ. Bottoms up. Check f/ flow. Drlg cmt. 2534' - 2700'. Check and had no water flow. Circ. Run Gyro Survey. POOH (SLM) no corr. PU & orient directional tools. RIH. Drlg (rotate) 2700' - 2704'. Drlg (slide - survey) 2704' - 2774'.

See directional survey report Inrun Survey.

Inrun Survey
Petral Expl.

Well number : 2-23 RD

Date : 04-DEC-97

Measured Depth	Vertical Depth	Vert. Section	Inc Deg	Azimuth Deg	Coordinates		D-leg /100ft
					Latitude	Departure	
0.0	0.00	0.0	0.00	0.00	0.00	0.00	0.00
100.0	100.00	0.1	0.59	145.97	-0.43	0.29	0.59
200.0	199.99	0.3	0.38	129.04	-1.06	0.83	0.25
300.0	299.99	0.6	0.45	113.66	-1.43	1.45	0.13
400.0	399.99	1.2	0.67	117.82	-1.86	2.33	0.22
500.0	499.98	1.9	0.70	113.32	-2.37	3.41	0.06
600.0	599.97	2.7	0.70	116.21	-2.88	4.51	0.04
700.0	699.96	3.5	0.74	115.24	-3.43	5.65	0.04
800.0	799.95	4.2	0.87	124.66	-4.14	6.86	0.19
900.0	899.94	5.0	0.96	121.56	-5.01	8.19	0.10
1000.0	999.93	5.9	1.04	124.65	-5.96	9.65	0.10
1100.0	1099.91	6.8	1.15	120.47	-6.99	11.27	0.14
1200.0	1199.89	7.9	1.14	117.08	-7.95	13.02	0.07
1300.0	1299.87	9.2	1.16	113.79	-8.81	14.83	0.07
1400.0	1399.85	10.6	1.31	116.17	-9.72	16.78	0.16
1500.0	1499.82	11.7	1.13	119.01	-10.71	18.67	0.19
1600.0	1599.81	12.7	0.84	111.74	-11.46	20.21	0.32
1700.0	1699.80	13.5	0.54	109.92	-11.89	21.34	0.30
1800.0	1799.80	14.2	0.56	103.27	-12.16	22.25	0.07
1900.0	1899.79	14.8	0.25	68.05	-12.19	22.93	0.38
2000.0	1999.79	15.2	0.21	62.44	-12.02	23.30	0.05
2100.0	2099.79	15.4	0.16	318.98	-11.83	23.37	0.29
2200.0	2199.79	15.3	0.16	311.84	-11.63	23.17	0.02
2300.0	2299.79	15.2	0.32	321.61	-11.32	22.89	0.16
2400.0	2399.79	15.2	0.29	345.99	-10.86	22.66	0.13
2500.0	2499.79	15.5	0.33	19.59	-10.34	22.70	0.18
2600.0	2599.78	15.9	0.39	9.88	-9.73	22.85	0.09
2677.0	2676.78	16.1	0.20	18.26	-9.35	22.94	0.25

At Bottom Hole Location: Measured Depth
= 2677.0

Horiz. Displ.
= 24.770

Closure Dir.
= 112.176

REPORT NO.
157154

PAGE NO. 1

TEST DATE:
21-JAN-1998

S T A R

Schlumberger Testing Data Report

Pressure Data Report

Schlumberger

COMPANY: PETRAL EXPLORATION CO.	WELL: #2-23 (RD) BRADFORD CANYON																														
TEST IDENTIFICATION Test Type OH-DST Test No. ONE Formation UPPER ISMAY Test Interval (ft) 5425 to 5470 Depth Reference KB	WELL LOCATION Field BRADFORD County SAN JUAN State UTAH Sec/Twn/Rng SEC23T37S Elevation (ft) 5130																														
HOLE CONDITIONS Total Depth (MD/TVD) (ft) 5496 Hole Size (in) 7.875 Casing/Liner I.D. (in) Perf'd Interval/Net Pay (ft) .. / 45 Shot Density/Diameter (in) ...	MUD PROPERTIES Mud Type FLOW PRO Mud Weight (lb/gal) 10.2 Mud Resistivity (ohm.m) Filtrate Resistivity (ohm.m) .. 0.052 @ 60F Filtrate Chlorides (ppm) 292000																														
INITIAL TEST CONDITIONS Initial Hydrostatic (psi) 2834.23 Gas Cushion Type Surface Pressure (psi) Liquid Cushion Type Cushion Length (ft)	TEST STRING CONFIGURATION Pipe Length (ft)/I.D. (in) ... 5252 / 3.83 Collar Length (ft)/I.D. (in) .. 124 / 2.25 Packer Depths (ft) 5419,5426,5472, Bottomhole Choke Size (in)94 Gauge Depth (ft)/Type 5400/NG-00013																														
NET PIPE RECOVERY <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Volume</th> <th>Fluid Type</th> <th>Properties</th> </tr> </thead> <tbody> <tr> <td>5.0 ft</td> <td>MUD</td> <td>Rw0.086@60F 105000pp</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Volume	Fluid Type	Properties	5.0 ft	MUD	Rw0.086@60F 105000pp										NET SAMPLE CHAMBER RECOVERY <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Volume</th> <th>Fluid Type</th> <th>Properties</th> </tr> </thead> <tbody> <tr> <td>1300 cc</td> <td>Mud</td> <td>105000ppm</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>Pressure: 7.0 GOR: 0 GLR: 0</p>	Volume	Fluid Type	Properties	1300 cc	Mud	105000ppm									
Volume	Fluid Type	Properties																													
5.0 ft	MUD	Rw0.086@60F 105000pp																													
Volume	Fluid Type	Properties																													
1300 cc	Mud	105000ppm																													
INTERPRETATION RESULTS Model of Behavior Fluid Type Used for Analysis .. Reservoir Pressure (psi) Transmissibility (md.ft/cp) .. Effective Permeability (md) .. Skin Factor/Damage Ratio Storativity Ratio, Omega Interporos.Flow Coef., Lambda .. Distance to an Anomaly (ft) .. Radius of Investigation (ft) .. Potentiometric Surface (ft) ..	ROCK/FLUID/WELLBORE PROPERTIES Oil Density (deg. API) Basic Solids (%) Gas Gravity GOR (scf/STB) Water Cut (%) Viscosity (cp) Total Compressibility (1/psi) .. Porosity (%) 10 Reservoir Temperature (F) 127 Form.Vol.Factor (bbl/STB)																														

PRODUCTION RATE DURING TEST: Data Report

COMMENTS:

THIS STRADDLE TEST OF THE UPPER ISMAY WAS MECHANICALLY SUCCESSFUL. RECOVERY ON THIS TEST WAS 5.0 FT OF MUD @ 105K PPM.

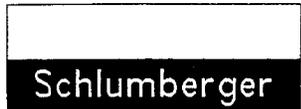
WELL TEST INTERPRETATION REPORT #:157154		PAGE: 2,
CLIENT : PETRAL EXPLORATION CO.		9-FEB-98
REGION :CSD	SEQUENCE OF EVENTS	FIELD:BRADFORD
DISTRICT:MIDLAND		ZONE :UPPER ISMAY
BASE :MIDLAND		WELL :#2-23 (RD)
ENGINEER:DARREN STONE		LOCATION:SEC23T37S

DATE	TIME (HR:MIN)	DESCRIPTION	ET (MINS)	BHP (PSIA)	WHP (PSIG)
21-JAN	08:32	START FLOW (on 1/8" choke)	0	25	
	08:41	1/4 " in on hose\ TSM	9		
	08:41	TO SMALL TO MEASURE	9		
	08:46	VERY WEAK BLOW	14		
	08:48	NO BLOW	16		
	09:21	NO BLOW	49		
	09:31	NO BLOW	59		
	09:38	END FLOW & START SHUT-IN	66	29	
	10:30	END SHUT-IN	118	34	
	10:34	START FLOW (on 1/8" choke)	122	30	
	10:35	NO BLOW	123		
	11:35	NO BLOW	183		
	12:35	NO BLOW	243		
	13:35	NO BLOW	303		

PETRAL EXPLORATION CO.
 #2-23 (RD) BRADFORD CANYON
 TOOL STRING SCHEMATIC

	TOOL DESCRIPTION	OD	ID	LENGTH	DEPTH
	Drill Pipe to Surface	4.5	3.83	5252	5252
	Pumpout Disk Reversing Valve	6.05	3.0	1.47	5253.47
	Drill pipe	6.0	2.25	62.0	5315.47
	Breakoff Pin Reversing Valve	6.05	2.25	1.49	5316.96
	Drill Collars	6.0	2.25	62.0	5378.96
	Cross Over Sub	6.0	2.25	.90	5379.86
	Multi-Flow Evaluator Valve	5.0	0.94	9.88	5389.74
	MFE Open Hole Bypass	5.0	1.18	2.99	5392.73
	Inside Recorder Electronic	4.875	1.18	7.72	5400.45
	Hydraulic Jar	4.75	1.88	8.03	5408.48
	Safety Joint	4.75	2.25	2.53	5411.01
	Safety Seal	5.0	1.0	4.92	5415.93
	Bob Tail Packer	6.63	1.5	4.27	5420.2
	Bob Tail Packer	6.63	1.5	6.88	5427.08
	Cross Over Sub	6.0	2.25	1.0	5428.08
	PERFORATED ANCHOR	5.75	3.25	30.00	5458.08
	Outside Recorder	4.875	1.18	6.29	5464.37
	CROSS OVER SUB	6.00	2.25	1.12	5465.49
	CROSS OVER SUB	6.00	2.25	.70	5466.19
	BLANK OFF PLUG/SUB	4.875	0.00	.69	5466.88
	Bob Tail Packer	6.63	1.5	6.19	5473.07
	Bob Tail Packer	6.63	1.5	6.23	5479.3
	Perforated Anchor	4.75	2.0	10.0	5489.3
	Outside Recorder	4.875	1.18	6.68	5495.98

Report Number: 157154
 Test Number: ONE
 Test Date: 21-JAN-1998



BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 157154

COMPANY : PETRAL EXPLORATION CO.

INSTRUMENT NO. 00016

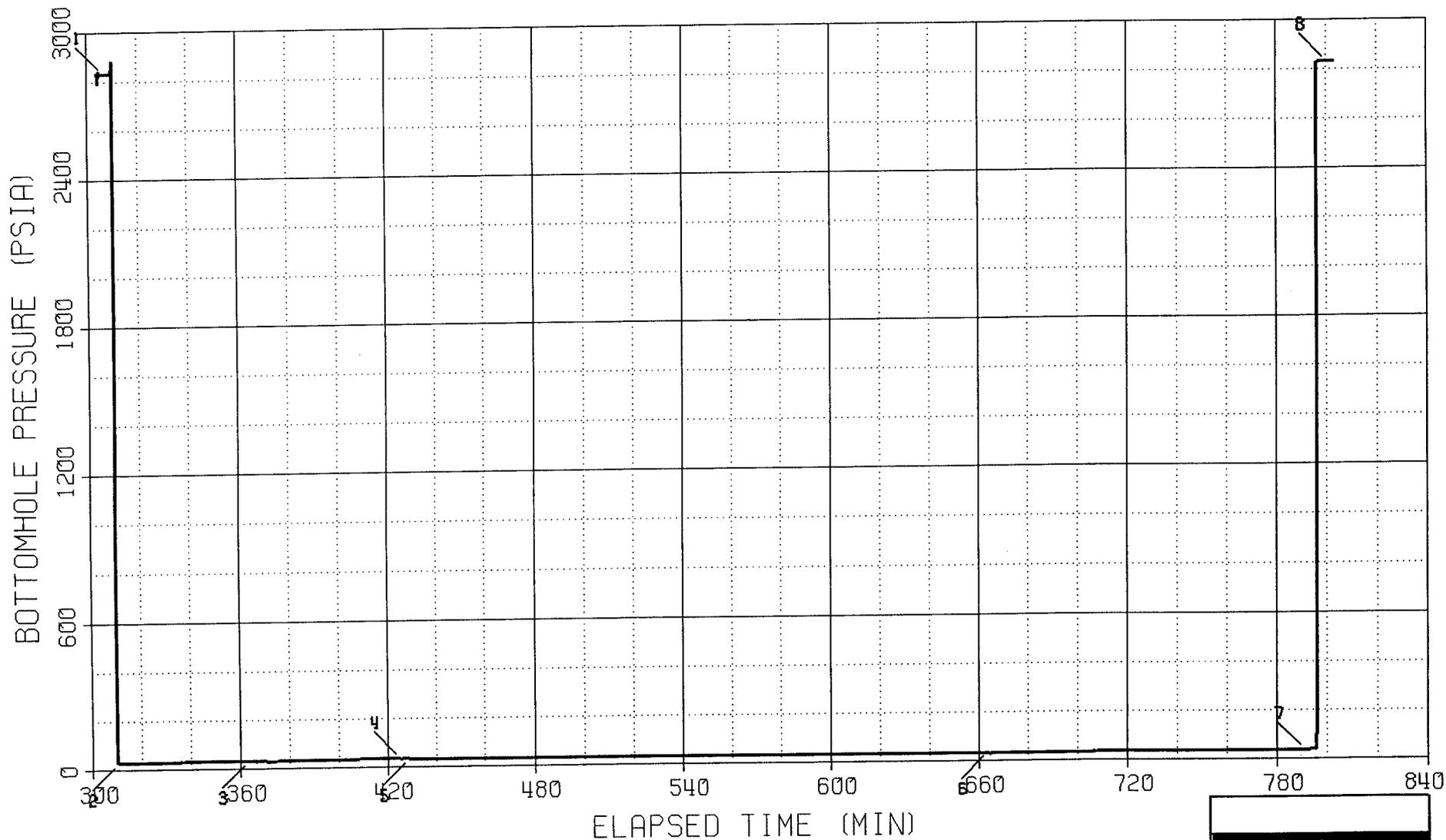
WELL :

DEPTH : 5400 FT

CAPACITY : 10000 PSI

Electronic Pressure Data

PORT OPENING : INSIDE



Schlumberger

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 157154

COMPANY : PETRAL EXPLORATION CO.

INSTRUMENT NO. 00016

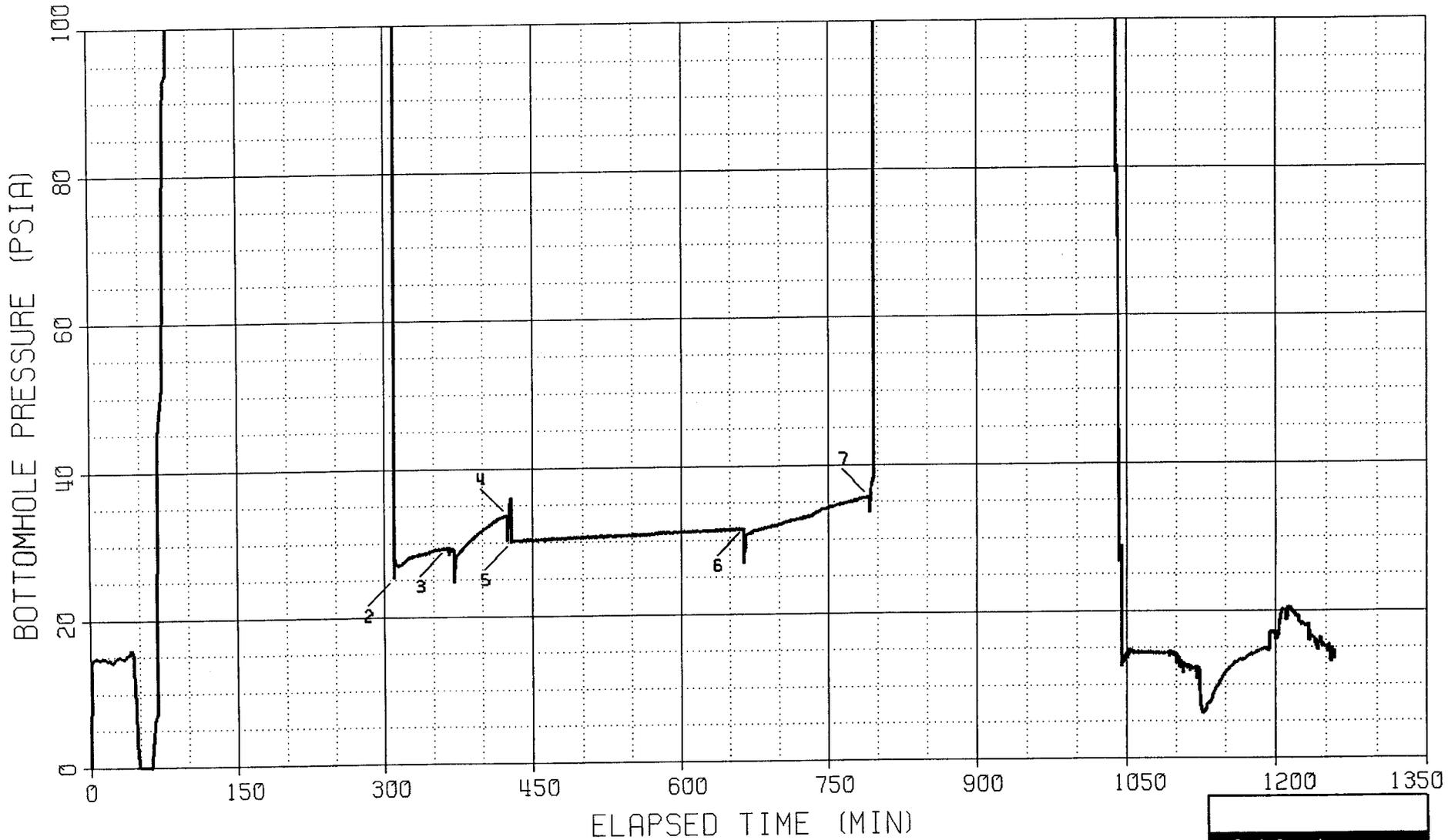
WELL :

DEPTH : 5400 FT

CAPACITY : 10000 PSI

Electronic Instrument Data, Expanded Pressure Scale

PORT OPENING : INSIDE



Schlumberger

BOTTOMHOLE TEMPERATURE LOG

FIELD REPORT NO. 157154

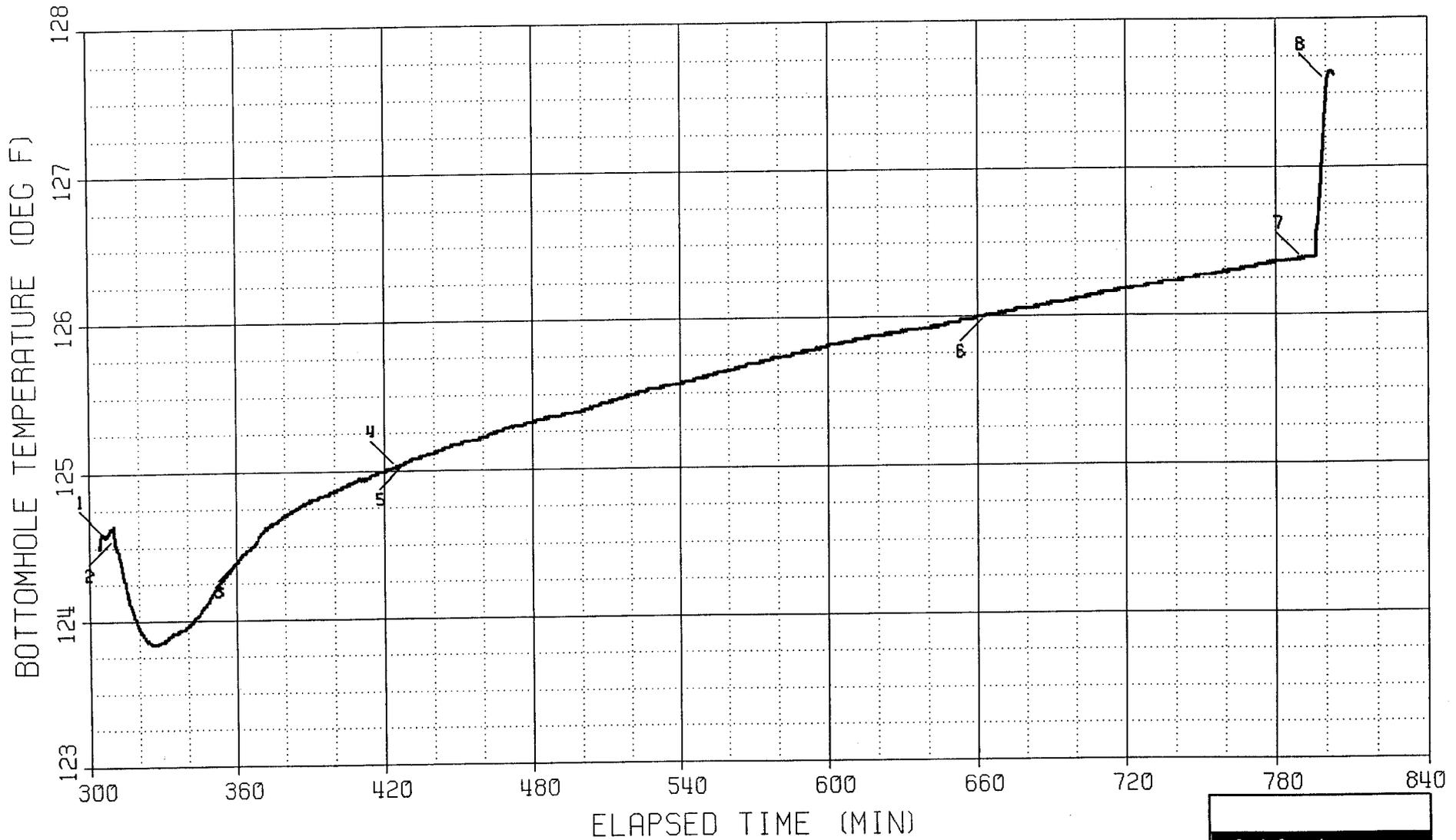
COMPANY : PETRAL EXPLORATION CO.

INSTRUMENT NO. 00016

WELL :

DEPTH : 5400 FT

Electronic Temperature Data



LOG LOG PLOT

COMPANY : PETRAL EXPLORATION CO.

WELL :

FIELD REPORT NO. 157154

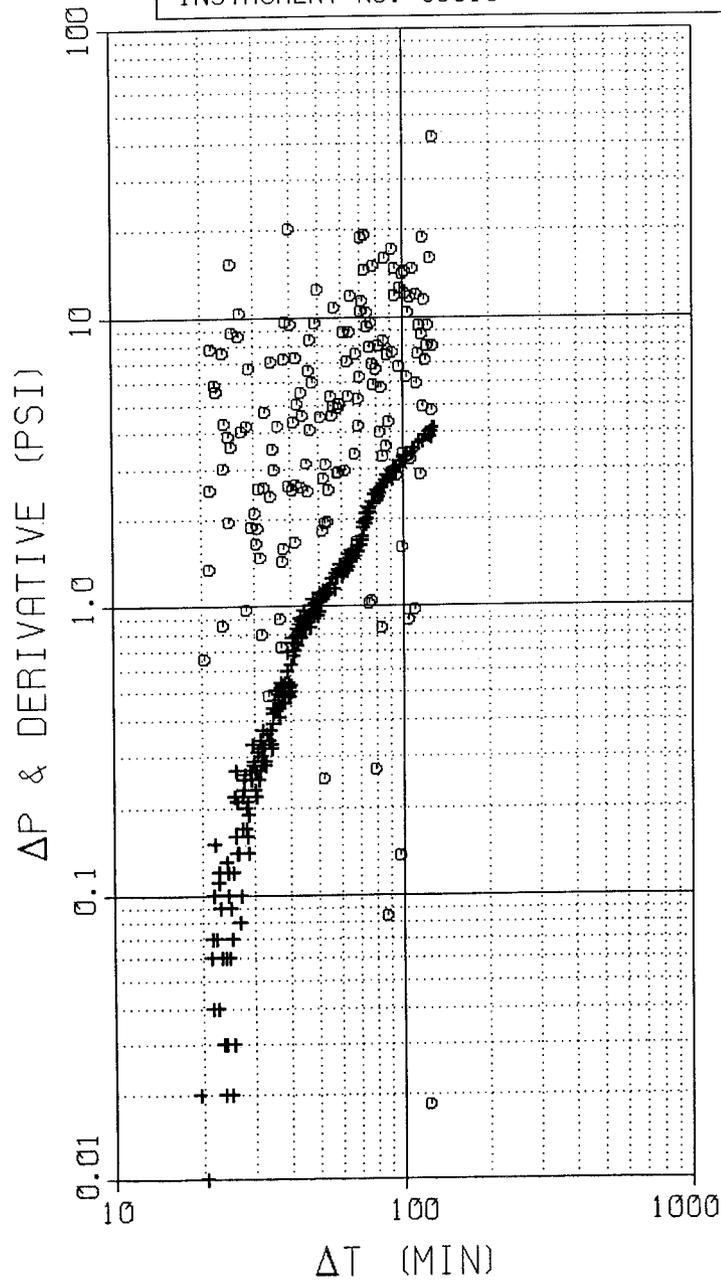
INSTRUMENT NO. 00016

SHUTIN #2 : PRODUCING TIME (T_p): 287.8 MIN

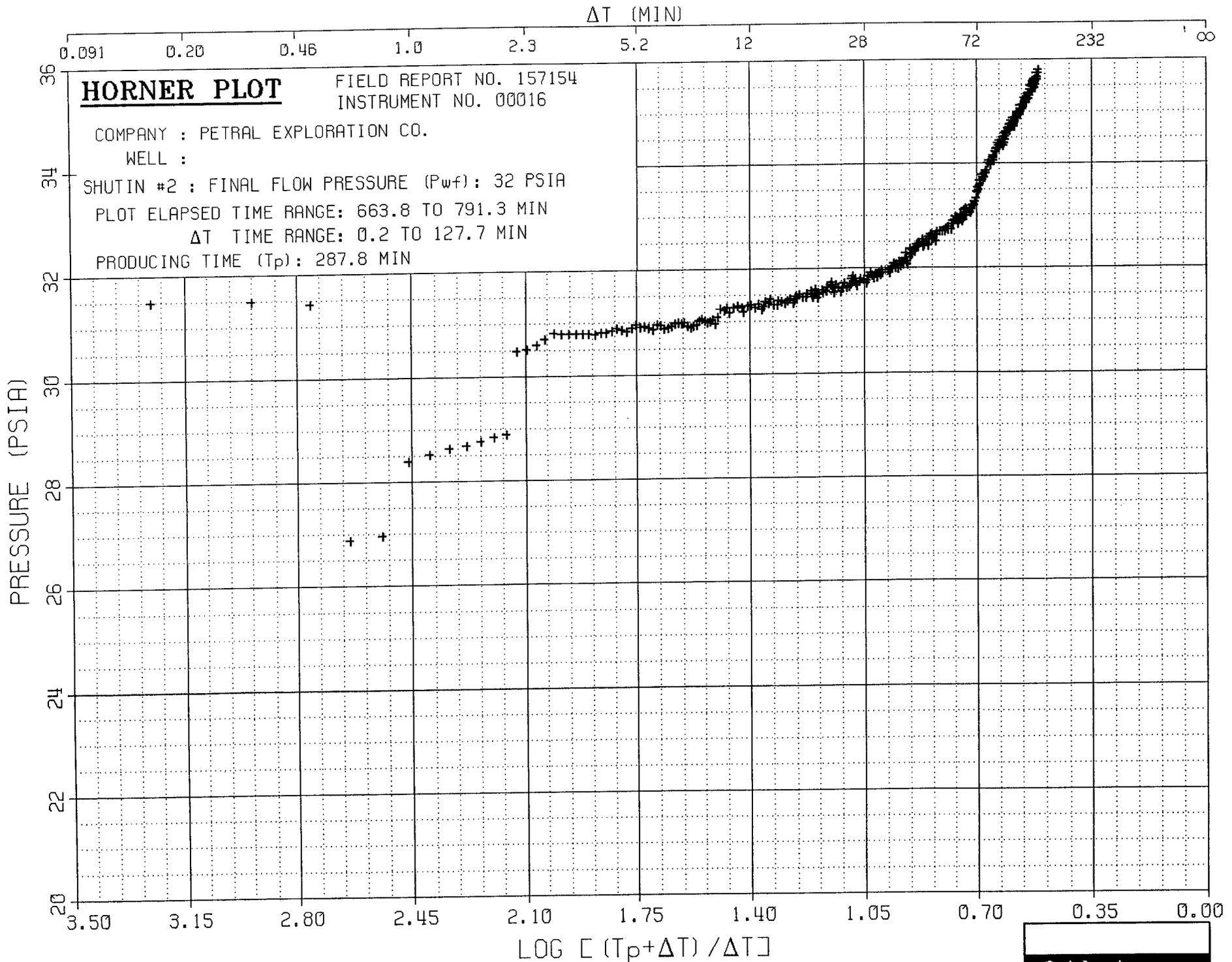
FINAL FLOW PRESSURE (P_{wf}): 32 PSIA

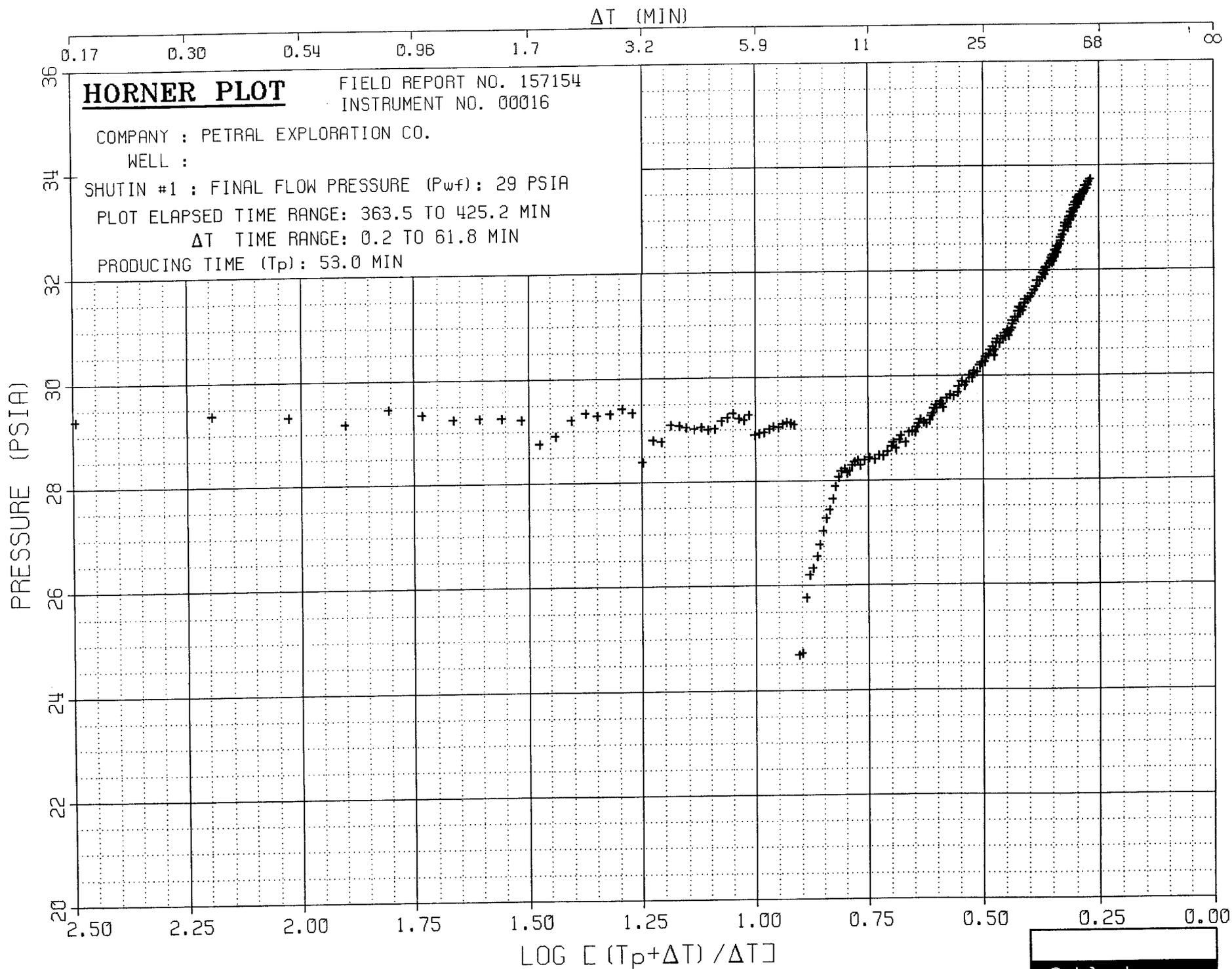
PLOT ELAPSED TIME RANGE: 683.0 TO 791.3 MIN

ΔT TIME RANGE: 19.3 TO 127.7 MIN



Schlumberger





 ** WELL TEST DATA PRINTOUT **

COMPANY: PETRAL EXPLORATION CO.
 WELL:

FIELD REPORT NO. 157154
 INSTRUMENT NO. 00016

RECORDER CAPACITY: 10000 PSI PORT OPENING: INSIDE DEPTH: 5400 FT

LABEL POINT INFORMATION

#	TIME OF DAY		DATE	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE	BOT HOLE
	HH:MM:SS	DD-MMM				PRESSURE PSIA	TEMP. DEG F
1	8:32:40	21-JAN	HYDROSTATIC MUD	306.67	2834.23	124.57	
2	8:36:20	21-JAN	START FLOW	310.33	25.25	124.57	
3	9:29:20	21-JAN	END FLOW & START SHUT-IN	363.33	29.18	124.45	
4	10:31:10	21-JAN	END SHUT-IN	425.17	33.72	125.02	
5	10:34:50	21-JAN	START FLOW	428.83	29.98	125.06	
6	14:29:40	21-JAN	END FLOW & START SHUT-IN	663.67	31.58	126.01	
7	16:37:20	21-JAN	END SHUT-IN	791.33	35.80	126.37	
8	16:46:30	21-JAN	HYDROSTATIC MUD	800.50	2832.59	127.58	

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	310.33	363.33	53.00	25.25	29.18	25.25
2	428.83	663.67	234.84	29.98	31.58	29.98

SUMMARY OF SHUTIN PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	363.33	425.17	61.84	29.18	33.72	29.18	53.00
2	663.67	791.33	127.66	31.58	35.80	31.58	287.84

TEST PHASE: FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
8:36:20	21-JAN	310.33	0.00	124.57	25.25
8:51:20	21-JAN	325.33	15.00	123.84	27.93
9:06:20	21-JAN	340.33	30.00	123.96	28.54
9:21:20	21-JAN	355.33	45.00	124.29	29.12
9:29:20	21-JAN	363.33	53.00	124.45	29.18

TEST PHASE: SHUTIN PERIOD # 1

FINAL FLOW PRESSURE = 29.18 PSIA
PRODUCING TIME = 53.00 MIN

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
9:29:20	21-JAN	363.33	0.00	124.45	29.18	0.00	
9:30:20	21-JAN	364.33	1.00	124.47	29.33	0.15	1.7324
9:31:20	21-JAN	365.33	2.00	124.48	28.90	-0.28	1.4393
9:32:20	21-JAN	366.33	3.00	124.50	29.33	0.15	1.2711
9:33:20	21-JAN	367.33	4.00	124.50	29.04	-0.14	1.1538
9:34:20	21-JAN	368.33	5.00	124.52	29.23	0.05	1.0645
9:35:20	21-JAN	369.33	6.00	124.56	28.92	-0.26	0.9927
9:36:20	21-JAN	370.33	7.00	124.59	29.13	-0.05	0.9331
9:37:20	21-JAN	371.33	8.00	124.59	26.20	-2.98	0.8822
9:38:20	21-JAN	372.33	9.00	124.63	27.44	-1.74	0.8381
9:39:20	21-JAN	373.33	10.00	124.63	28.15	-1.03	0.7993
9:41:20	21-JAN	375.33	12.00	124.65	28.44	-0.74	0.7337
9:43:20	21-JAN	377.33	14.00	124.66	28.86	-0.32	0.6799
9:45:20	21-JAN	379.33	16.00	124.70	29.13	-0.05	0.6347
9:47:20	21-JAN	381.33	18.00	124.72	29.44	0.26	0.5960
9:49:20	21-JAN	383.33	20.00	124.74	29.62	0.44	0.5623
9:51:20	21-JAN	385.33	22.00	124.75	29.99	0.81	0.5326
9:53:20	21-JAN	387.33	24.00	124.77	30.22	1.04	0.5063
9:55:20	21-JAN	389.33	26.00	124.79	30.48	1.30	0.4827
9:57:20	21-JAN	391.33	28.00	124.81	30.75	1.57	0.4613
9:59:20	21-JAN	393.33	30.00	124.81	30.84	1.66	0.4420
10:04:20	21-JAN	398.33	35.00	124.86	31.43	2.25	0.4004
10:09:20	21-JAN	403.33	40.00	124.90	31.93	2.75	0.3664
10:14:20	21-JAN	408.33	45.00	124.93	32.43	3.25	0.3380
10:19:20	21-JAN	413.33	50.00	124.95	32.91	3.73	0.3139
10:24:20	21-JAN	418.33	55.00	124.99	33.35	4.17	0.2931
10:29:20	21-JAN	423.33	60.00	125.02	33.59	4.41	0.2749
10:31:10	21-JAN	425.17	61.84	125.02	33.72	4.54	0.2688

TEST PHASE: FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
10:34:50	21-JAN	428.83	0.00	125.06	29.98
10:49:50	21-JAN	443.83	15.00	125.15	30.34
11:04:50	21-JAN	458.83	30.00	125.20	30.37

TEST PHASE: FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
11:19:50	21-JAN	473.83	45.00	125.29	30.40
11:34:50	21-JAN	488.83	60.00	125.35	30.52
11:49:50	21-JAN	503.83	75.00	125.40	30.63
12:04:50	21-JAN	518.83	90.00	125.47	30.69
12:19:50	21-JAN	533.83	105.00	125.55	30.73
12:34:50	21-JAN	548.83	120.00	125.60	30.82
12:49:50	21-JAN	563.83	135.00	125.65	30.87
13:04:50	21-JAN	578.83	150.00	125.73	31.11
13:19:50	21-JAN	593.83	165.00	125.78	31.11
13:34:50	21-JAN	608.83	180.00	125.83	31.31
13:49:50	21-JAN	623.83	195.00	125.89	31.32
14:04:50	21-JAN	638.83	210.00	125.92	31.39
14:19:50	21-JAN	653.83	225.00	125.98	31.41
14:29:40	21-JAN	663.67	234.84	126.01	31.58

TEST PHASE: SHUTIN PERIOD # 2

FINAL FLOW PRESSURE = 31.58 PSIA
PRODUCING TIME = 287.84 MIN

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
14:29:40	21-JAN	663.67	0.00	126.01	31.58	0.00	
14:30:40	21-JAN	664.67	1.00	126.01	28.38	-3.20	2.4607
14:31:40	21-JAN	665.67	2.00	126.01	28.89	-2.69	2.1611
14:32:40	21-JAN	666.67	3.00	126.01	30.80	-0.78	1.9865
14:33:40	21-JAN	667.67	4.00	126.01	30.81	-0.77	1.8631
14:34:40	21-JAN	668.67	5.00	126.01	30.90	-0.68	1.7677
14:35:40	21-JAN	669.67	6.00	126.01	30.96	-0.62	1.6900
14:36:40	21-JAN	670.67	7.00	126.03	30.99	-0.59	1.6245
14:37:40	21-JAN	671.67	8.00	126.03	30.95	-0.63	1.5680
14:38:40	21-JAN	672.67	9.00	126.03	31.04	-0.54	1.5183
14:39:40	21-JAN	673.67	10.00	126.03	31.27	-0.31	1.4740
14:41:40	21-JAN	675.67	12.00	126.05	31.31	-0.27	1.3977
14:43:40	21-JAN	677.67	14.00	126.05	31.39	-0.19	1.3336
14:45:40	21-JAN	679.67	16.00	126.05	31.43	-0.15	1.2785
14:47:40	21-JAN	681.67	18.00	126.05	31.45	-0.13	1.2302
14:49:40	21-JAN	683.67	20.00	126.07	31.49	-0.09	1.1873
14:51:40	21-JAN	685.67	22.00	126.07	31.65	0.07	1.1487
14:53:40	21-JAN	687.67	24.00	126.07	31.71	0.13	1.1137
14:55:40	21-JAN	689.67	26.00	126.09	31.72	0.14	1.0817
14:57:40	21-JAN	691.67	28.00	126.09	31.75	0.17	1.0523
14:59:40	21-JAN	693.67	30.00	126.09	31.85	0.27	1.0251
15:04:40	21-JAN	698.67	35.00	126.10	32.03	0.45	0.9649
15:09:40	21-JAN	703.67	40.00	126.12	32.11	0.53	0.9136
15:14:40	21-JAN	708.67	45.00	126.14	32.49	0.91	0.8690
15:19:40	21-JAN	713.67	50.00	126.16	32.53	0.95	0.8297
15:24:40	21-JAN	718.67	55.00	126.18	32.75	1.17	0.7947
15:29:40	21-JAN	723.67	60.00	126.19	32.95	1.37	0.7632
15:34:40	21-JAN	728.67	65.00	126.21	33.00	1.42	0.7347
15:39:40	21-JAN	733.67	70.00	126.21	33.23	1.65	0.7086

TEST PHASE: SHUTIN PERIOD # 2

FINAL FLOW PRESSURE = 31.58 PSIA

PRODUCING TIME = 287.84 MIN

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
15:44:40	21-JAN	738.67	75.00	126.23	33.75	2.17	0.6847
15:49:40	21-JAN	743.67	80.00	126.25	34.07	2.49	0.6626
15:54:40	21-JAN	748.67	85.00	126.27	34.27	2.69	0.6421
15:59:40	21-JAN	753.67	90.00	126.27	34.44	2.86	0.6231
16:04:40	21-JAN	758.67	95.00	126.28	34.59	3.01	0.6053
16:09:40	21-JAN	763.67	100.00	126.30	34.86	3.28	0.5887
16:14:40	21-JAN	768.67	105.00	126.32	34.86	3.28	0.5730
16:19:40	21-JAN	773.67	110.00	126.34	35.09	3.51	0.5583
16:24:40	21-JAN	778.67	115.00	126.36	35.25	3.67	0.5444
16:29:40	21-JAN	783.67	120.00	126.36	35.43	3.85	0.5313
16:34:40	21-JAN	788.67	125.00	126.37	35.59	4.01	0.5189
16:37:20	21-JAN	791.33	127.66	126.37	35.80	4.22	0.5125

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
UTU-012942

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA/Agreement, Name and/or No.
Bradford Canyon Unit
UTU-63082X

8. Well Name and No.
#2-23 (RD) Bradford Canyon Unit

9. API Well No.
43 037 31021 0101

10. Field and Pool, or Exploratory Area
Bradford Canyon

11. County or Parish, State
San Juan, Utah

SUBMIT IN TRIPlicate - Other Instructions on Reverse Side

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
Petral Exploration LLC c/o ENMARC, INC., attn: E.K. Bostick

3a. Address
P.O. Box 7638, Loveland, CO 80537

3b. Phone No. (include area code)
(970) 663-7576

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface 2318'FNL and 654'FWL Sec. 23 T37S R24E (SLM)
BHL (@ top Ismay) 1922'FNL & 1431'FWL Sec 23 T37S R24E (SLM)
BHL (@ MD TD) 1834' FNL & 1595' FWL Sec. 23 T37S R24E (SLM)

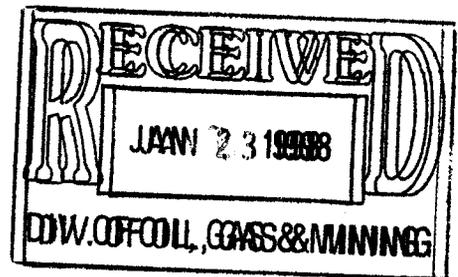
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Deepen
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Fracture Treat
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Change Plans
	<input type="checkbox"/> Plug and Abandon
	<input type="checkbox"/> Convert to Injection
	<input type="checkbox"/> Plug Back
	<input type="checkbox"/> Production (Start/Resume)
	<input type="checkbox"/> Reclamation
	<input type="checkbox"/> Recomplete
	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Well Integrity
	<input checked="" type="checkbox"/> Other <u>Daily</u>
	<u>Drilling Reports</u>

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

See attached reports.

CONFIDENTIAL



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

Name (Printed/Typed) *E.K. Bostick* Title *Agent for Petral Exploration LLC*

Signature *E.K. Bostick* Date *January 15, 1998*

Approved by _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice 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. Office _____

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.

CUSTOMER: PETRAL

WELLSITE: SAN_JUAN

Well Name: 223RDSUR 1/3/98
Plane Of Vert Section 62.79
Distance Units used ft
Grid Convergence 0.000

Computation Method: 1 (Minimum Curvature)
Height Of TVD Origin Above Field Datum 0.00
Dogleg Base Length Used 100
Magnetic Declination 12.310

Target 1 has TVD: 5215.00 LAT: 408.30 DEP: 794.20

MD	Inc	Dir	Tvd	Vsec	Lat	Dep	Build	Turn	Dleg	Tool
2677.0	0.20	18.26	2676.8	16.1	-9.4	22.9	0.0	0.0	0.0	
2695.0	0.30	20.70	2694.8	16.2	-9.3	23.0	0.6	13.6	0.6	
2757.0	2.10	136.80	2756.8	16.6	-10.0	23.8	2.9	99.0	3.6	
2788.0	2.20	141.00	2787.7	16.9	-10.8	24.6	0.3	13.5	0.6	
2819.0	2.30	122.00	2818.7	17.3	-11.6	25.5	0.3	-61.3	2.4	
2850.0	2.60	93.20	2849.7	18.3	-12.0	26.7	1.0	-92.9	4.0	
2881.0	3.80	85.40	2880.6	19.8	-11.9	28.4	3.9	-25.2	4.1	
2911.0	4.80	78.40	2910.6	21.9	-11.6	30.6	3.3	-23.3	3.8	
2943.0	5.00	70.70	2942.4	24.6	-10.9	33.3	0.6	-24.1	2.1	
2975.0	7.00	65.50	2974.3	27.9	-9.6	36.4	6.3	-16.3	6.5	
3005.0	8.10	61.50	3004.0	31.9	-7.8	39.9	3.7	-13.3	4.1	
3036.0	9.40	59.40	3034.6	36.6	-5.5	44.0	4.2	-6.8	4.3	
3068.0	10.50	59.40	3066.2	42.1	-2.7	48.7	3.4	0.0	3.4	
3100.0	11.50	59.40	3097.6	48.2	0.4	54.0	3.1	0.0	3.1	
3131.0	12.50	60.80	3127.9	54.6	3.6	59.6	3.2	4.5	3.4	
3163.0	13.30	62.80	3159.1	61.8	7.0	65.9	2.5	0.2	2.9	
3194.0	14.20	62.20	3189.2	69.2	10.4	72.4	2.9	-1.9	2.9	
3225.0	15.00	60.80	3219.2	77.0	14.1	79.3	2.6	-4.5	2.8	
3255.0	15.80	60.20	3248.1	84.9	18.0	86.2	2.7	-2.0	2.7	
3286.0	16.30	59.40	3277.9	93.5	22.4	93.6	1.6	-2.6	1.8	
3318.0	17.70	59.40	3308.5	102.8	27.1	101.7	4.4	0.0	4.4	
3349.0	18.50	60.10	3338.0	112.4	32.0	110.0	2.6	2.3	2.7	
3379.0	19.00	61.50	3366.4	122.1	36.7	118.4	1.7	4.7	2.2	
3410.0	20.10	62.20	3395.6	132.4	41.6	127.6	3.5	2.3	3.6	
3440.0	20.70	61.50	3423.7	142.9	46.5	136.8	2.0	-2.3	2.2	
3472.0	21.60	60.80	3453.6	154.4	52.1	146.9	2.8	-2.2	2.9	
3503.0	22.20	60.10	3482.3	166.0	57.8	156.9	1.9	-2.3	2.1	
3534.0	22.60	61.50	3511.0	177.8	63.5	167.3	1.3	4.5	2.2	
3565.0	23.40	60.80	3539.5	189.9	69.4	177.9	2.6	-2.3	2.7	
3596.0	24.40	60.80	3567.9	202.5	75.5	188.8	3.2	0.0	3.2	
3627.0	24.30	60.80	3596.1	215.2	81.7	200.0	-0.3	0.0	0.3	
3658.0	23.40	60.80	3624.5	227.8	87.9	210.9	-2.9	0.0	2.9	
3689.0	22.80	60.80	3653.0	239.9	93.8	221.6	-1.9	0.0	1.9	
3720.0	22.60	60.80	3681.6	251.9	99.6	232.0	-0.6	0.0	0.6	
3751.0	23.10	60.10	3710.1	263.9	105.6	242.5	1.6	-2.3	1.8	
3782.0	23.90	60.80	3738.6	276.3	111.7	253.2	2.6	2.3	2.7	
3812.0	24.60	62.20	3765.9	288.6	117.5	264.0	2.3	4.7	3.0	
3844.0	23.90	62.20	3795.1	301.7	123.7	275.7	-2.2	0.0	2.2	
3876.0	22.60	62.20	3824.5	314.3	129.6	286.8	-4.1	0.0	4.1	

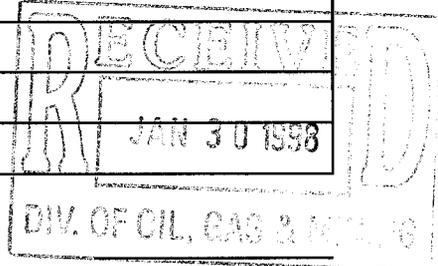
3908.0	23.20	61.50	3854.0	326.8	133.4	297.0	1.3	2.2	2.1
3940.0	23.30	60.10	3883.4	339.4	141.6	308.8	0.3	-4.4	1.8
3971.0	22.80	60.10	3911.9	351.5	147.6	319.4	-1.6	0.0	1.6
4003.0	22.40	59.40	3941.4	363.8	153.8	330.0	-1.2	-2.2	1.5
4034.0	22.30	58.90	3970.1	375.6	159.9	340.1	-0.3	-1.6	0.7
4065.0	22.30	58.70	3998.8	387.3	166.0	350.2	0.0	-0.6	0.2
4096.0	22.40	60.10	4027.5	399.1	172.0	360.3	0.3	4.5	1.7
4129.0	22.20	60.10	4058.0	411.6	178.2	371.2	-0.6	0.0	0.6
4160.0	22.50	60.10	4086.7	423.4	184.1	381.4	1.0	0.0	1.0

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

REPORT OF WATER ENCOUNTERED DURING DRILLING

1. Well name and number: #2-23 (RD) Bradford Canyon Unit
API number: 43 037 31021 0101
2. Well location: QQ SE/NW Section 23 Township 37S Range 24E County San Juan
3. Well operator: Petral Exploration LLC
Address: C/O ENMARC, INC., P.O. Box 7638
Loveland, CO 80537
4. Drilling contractor: Four Corners Drilling Company Phone: (970) 663-7576
Address: P.O. Box 1067
Farmington, NM 87499 Phone: (505) 326-3371
5. Water encountered (attach additional pages as needed)

DEPTH		VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)
FROM	TO		
2510'	3237'	3 - 30bbls/hr. 175 - 340psi	Salty (Brackish)



6. Formation tops: Cutler 2500'KB est.
Stray Sands
No analysis of the water was made.

If an analysis has been made of the water encountered, please attach a copy of the report to this form.

I hereby certify that this report is true and complete to the best of my knowledge: Date: January 26, 1998

Name & Signature: E.K. Bostick Title: Consultant for Petral Exploration LLC

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

SUBMIT IN TRIPlicate (Other instructions on reverse side)

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
Petral Exploration LLC c/o ENMARC, INC., attn: E.K. Bostick

3a. Address
P.O. Box 7638, Loveland, CO 80537

3b. Phone No. (include area code)
(970) 663-7576

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
*Surface 2318'FNL and 654'FWL Sec. 23 T37S R24E (SLM)
 BHL (@ top Ismay) 1922'FNL & 1431'FWL Sec 23 T37S R24E (SLM)
 BHL (@ MD TD) 1834' FNL & 1595' FWL Sec. 23 T37S R24E (SLM)*

5. Lease Serial No.
UTU-012942

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA/Agreement, Name and/or No.
*Bradford Canyon Unit
 UTU-63082X*

8. Well Name and No.
#2-23 (RD) Bradford Canyon Unit

9. API Well No.
43 037 31021 0101

10. Field and Pool, or Exploratory Area
Bradford Canyon

11. County or Parish, State
San Juan, Utah

CONFIDENTIAL

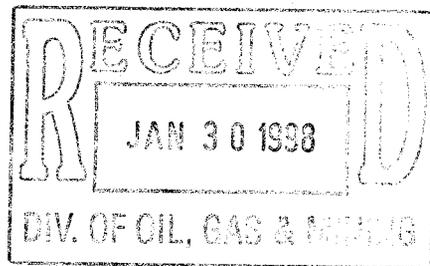
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input checked="" type="checkbox"/> Other <u>Daily</u>
	<input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon <u>Drilling Reports</u>
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

See attached reports.

CONFIDENTIAL



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

Name (Printed/Typed) <i>E.K. Bostick</i>	Title <i>Agent for Petral Exploration LLC</i>
Signature <i>E.K. Bostick</i>	Date <i>January 22, 1998</i>

Approved by _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice 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.

Office _____

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.

#2-23 (RD) Bradford Canyon Unit
Sec. 23 - T37S - R24E
San Juan, Co. Utah

Week Three

Attached to BLM Sundry Notice 1-22-98

1-15-98 Day 15 Depth 4662' Ftg. 437'
Drlg. (slide - rotate - survey) 4225' - 4662'.
Drag on conn. 20 - 40,000#.
Water flow gained 100 bbls. 24hrs.

1-16-98 Day 16 Depth 4972' Ftg. 310'
Mud Wt. 9.9, Vis. 33, WL 7.0
Drlg (slide - rotate - survey) 4662' - 4972'. Disp. Hole w/ brine water and mud up throughout day.
Unable to turn mud motor on bottom. POOH f/ motor.
15 - 20,000# drag.
Day tour BOP drill.
No water flow observed or recorded after mud up.

1-17-98 Day 17 Depth 5114' Ftg. 142'
Mud Wt. 10.2, Vis. 37, WL 6.0, CL 280,000
POOH. Change mud motor and bit. RIH. Wash & ream 120' to btm. Drlg. (rotate - slide - survey) 4972' - 5114'. Circ & pump 10.2# pill. Slug DP w/ salt. (Inclination dropped. 3/4deg. motor would not build angle.) POOH to change mud motor.
0 - 25,000# drag on trip out.
No water flow observed or recorded past 24hrs.

1-18-98 Day 18 Depth 5290' Ftg. 176'
Mud Wt. 10.1+, Vis. 38, WL 5.2, CL 297,000
Change out mud motor. Orient and test motor. RIH. Repaired drum clutch quick release valve. No pressure build up observed. Cont. RIH. Wash & ream 120' to btm. No fill. Drlg. (slide - rotate - survey) 5114' - 5290'.
No water flow observed or recorded.

1-19-98 Day 19 Depth 5422' Ftg. 129'
Mud Wt. 10.2, Vis. 39, WL 5.0, CL 298,000
Drlg. (slide - rotate - survey) 5290' - 5390'. Circ. Samples. Drlg. (slide - rotate - survey) 5390' - 5419'.
Circ. Pump slug. POOH SLM 5419.76' (no corr.) LD Scientific Directional and MWD tools. PU Core BBL and Jars. RIH. Wash 10' to btm. No fill. Cutting Core # 1 5419' - 5422'.
No Water Flow observed or recorded.

1-20-98 Day 20 Depth 5484' Ftg. 62'.
Mud Wt. 10.2+, Vis. 41, WL 6.0, CL 292,000
Cutting Core #1 5442' - 5448'. Core BBL jammed. POOH (chain out wet). LD Core #1. Recovered 28' of core. Serviced rig. RIH w/ Core BBL. Cutting Core #2 5448' - 5484'.
Fmn. Top: Ismay 5389' MD.
No water flow observed or recorded.

1-21-98 Day 21 Depth 5496' Ftg. 12'
Mud Wt. 10.2+, Vis. 39, WL 8.0, CL 296,000
Coring Core #2 5484' - 5496'. Core jammed. Pump slug. POOH (chain out) w/ Core #2. LD Core #2. LD Core BBL. Recovered 48' of core. Cut Drlg line, rig svc, work BOP's. PU DST tools. WO blank off sub from Vernal. Finish PU DST tools. RIH w/ test tols f/ DST#1.
No water flow observed or recorded.

MD	Inc	Dir	Tvd	Vsec	Lat	Dep	Build	Turn	Dleg	Tool
5032.0	19.70	57.30	4892.5	755.6	337.9	675.9	-2.8	-2.2	2.9	
5063.0	19.10	57.70	4921.7	765.9	343.4	684.6	-1.9	1.3	2.0	
5094.0	18.90	58.00	4951.0	775.9	348.8	693.1	-0.6	1.0	0.7	
5124.0	19.50	55.90	4979.3	785.7	354.2	701.4	2.0	-7.0	3.0	
5156.0	20.00	56.90	5009.5	796.5	360.2	710.4	1.6	3.1	1.9	
5187.0	20.00	58.70	5038.6	807.1	365.8	719.4	0.0	5.8	2.0	
5216.0	19.70	59.40	5065.9	816.9	370.9	727.8	-1.0	2.4	1.3	
5246.0	20.50	59.40	5094.0	827.2	376.1	736.7	2.7	0.0	2.7	
5278.0	20.80	60.40	5124.0	838.4	381.8	746.5	0.9	3.1	1.4	
5307.0	21.00	59.40	5151.1	848.8	387.0	755.4	0.7	-3.4	1.4	
5337.0	21.30	60.20	5179.1	859.6	392.4	764.8	1.0	2.7	1.4	
5368.0	20.40	60.50	5208.0	870.6	397.9	774.4	-2.9	1.0	2.9	
5419.0	20.40	60.50	5255.8	888.4	406.6	789.8	0.0	0.0	0.0	

HOME = First Page, END = Last Page, PAGE UP = Previous Page, CTRL A = Abandon
Press Any Other Key For Next Page

MD	Inc	Dir	Tvd	Vsec	Lat	Dep	Build	Turn	Dleg	Tool
4566.0	21.50	62.90	4458.2	586.7	258.8	526.7	0.3	1.3	0.6	
4597.0	21.80	65.70	4487.0	598.2	263.7	537.0	1.0	9.0	3.5	
4629.0	21.40	65.00	4516.8	609.9	268.6	547.7	-1.2	-2.2	1.5	
4661.0	21.90	64.30	4546.5	621.7	273.7	558.4	1.6	-2.2	1.8	
4692.0	22.10	64.30	4575.3	633.3	278.7	568.9	0.6	0.0	0.6	
4724.0	21.50	64.30	4605.0	645.2	283.9	579.6	-1.9	0.0	1.9	
4756.0	21.70	62.20	4634.7	657.0	289.2	590.1	0.6	-6.6	2.5	
4787.0	21.00	62.20	4663.6	668.3	294.4	600.1	-2.3	0.0	2.3	
4817.0	20.10	62.20	4691.7	678.8	299.3	609.4	-3.0	0.0	3.0	
4849.0	20.70	62.50	4721.7	690.0	304.5	619.3	1.9	0.9	1.9	
4880.0	21.10	61.50	4750.7	701.0	309.7	629.0	1.3	-3.2	1.7	
4910.0	21.30	59.40	4778.6	711.9	315.1	638.5	0.7	-7.0	2.6	
4940.0	22.10	59.40	4806.5	722.9	320.7	648.0	2.7	0.0	2.7	
4969.0	21.20	58.70	4833.5	733.6	326.2	657.2	-3.1	-2.4	3.2	
5000.0	20.60	58.00	4862.4	744.6	332.0	666.6	-1.9	-2.3	2.1	

HOME = First Page, END = Last Page, PAGE UP = Previous Page, CTRL A = Abandon
 Press Any Other Key For Next Page

1-15-98

MD	Inc	Dir	Tvd	Vsec	Lat	Dep	Build	Turn	Dleg	Tool
4096.0	22.40	60.10	4027.5	399.1	172.0	360.3	0.3	4.5	1.7	
4129.0	22.20	60.10	4058.0	411.6	178.2	371.2	-0.6	0.0	0.6	
4160.0	22.50	60.10	4086.7	423.4	184.1	381.4	1.0	0.0	1.0	
4192.0	23.10	63.10	4116.2	435.8	190.0	392.3	1.9	9.4	4.1	
4223.0	24.20	62.90	4144.6	448.2	195.6	403.4	3.5	-0.6	3.6	
4254.0	24.90	62.90	4172.8	461.1	201.5	414.8	2.3	0.0	2.3	
4284.0	25.10	63.60	4200.0	473.8	207.2	426.2	0.7	2.3	1.2	
4315.0	25.50	65.00	4228.0	487.0	213.0	438.1	1.3	4.5	2.3	
4347.0	25.00	63.60	4256.9	500.6	218.9	450.4	-1.6	-4.4	2.4	
4378.0	25.00	63.50	4285.0	513.7	224.7	462.1	0.0	-0.3	0.1	
4410.0	24.10	62.90	4314.1	527.0	230.7	474.0	-2.8	-1.9	2.9	
4440.0	23.70	62.20	4341.6	539.2	236.3	484.8	-1.3	-2.3	1.6	
4472.0	23.00	61.50	4370.9	551.9	242.3	496.0	-2.2	-2.2	2.4	
4503.0	21.70	60.80	4399.6	563.7	248.0	506.3	-4.2	-2.3	4.3	
4535.0	21.40	62.50	4429.4	575.4	253.6	516.6	-0.9	5.3	2.2	

HOME = First Page, END = Last Page, PAGE UP = Previous Page, CTRL A = Abandon
 Press Any Other Key For Next Page

Precision Core Analysis, In

Petral Exploration LLC
2-23 (RD) Bradford Canyon Unit
Sec. 23 T37S R24E
San Juan County, Utah

Job:
Date:

Reference Number	Depth (ft)	Permeability		Helium Porosity (%)	Saturation		Grain Density (g/cc)
		air (md)	k/ink (md)		Water (%)	Oil (%)	
1	5420.6	0.001	<.001	1.3			2.75
2	5421.7	<.001	<.001	0.2			2.73
3	5441.3	0.004	0.001	4.2			2.88
4	5444.9	5.23	4.11	0.2			2.74
5	5451.5	0.218	0.138	15.7			2.79
6	5452.4	0.864	0.655	17.4			2.78
7	5452.8	0.504	0.359	9.8			2.86
8	5453.5	1.63	1.28	11.4			2.85
9	5454.5	3.47	2.59	14.2			2.83
10	5456.4	5.19	4.10	13.6			2.85
11	5457.6	7.88	6.28	16.1			2.84
12	5458.9	11.0	8.85	11.3			2.85
13	5459.4	1.48	1.16	8.4			2.83
14	5460.6	0.681	0.501	4.7			2.76
15	5461.5	1.17	0.861	6.2			2.73
16	5462.2	0.231	0.147	5.2			2.75
17	5463.2	0.983	0.724	6.3			2.74
18	5464.1	0.299	0.198	8.2			2.75
19	5465.3	0.402	0.276	5.3			2.77
20	5466.5	0.087	0.048	1.4			2.83
21	5468.5	0.023	0.009	2.0			2.86
22	5470.5	0.008	0.002	3.4			2.81
23	5471.5	0.019	0.008	3.4			2.74
24	5472.8	0.873	0.663	17.5			2.80
25	5473.8	0.602	0.438	18.4			2.81
26	5474.4	0.588	0.410	17.7			2.84
27	5475.2	3.51	2.77	18.4			2.84
28	5476.2	7.93	6.32	19.5			2.83
29	5477.7	2.94	2.31	13.6			2.83

Post-It™ brand fax transmittal memo 7571			
To	From	# of pages	2
Co.	Co.	Stark Leads	
Dept.	Phone #		
Fax #	Fax #		

Precision Core Analysis, In

Petral Exploration LLC
2-23 (RD) Bradford Canyon Unit
Sec. 23 T37S R24E
San Juan County, Utah

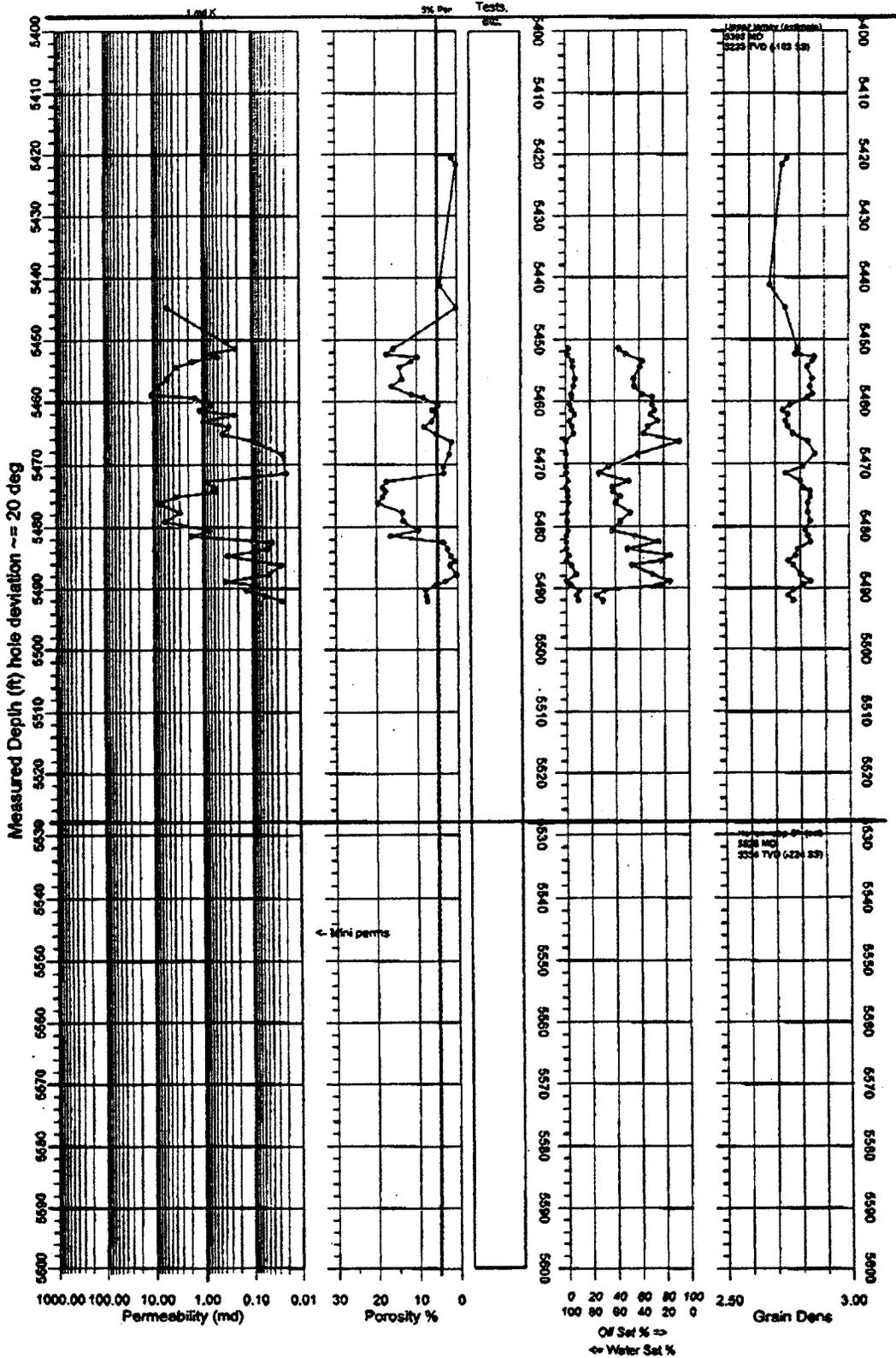
Job:
Date:

Reference Number	Depth (ft)	Permeability		Helium Porosity (%)	Saturation		Grain Density (g/cc)
		air (md)	kklnk (md)		Water (%)	Oil (%)	
30	5479.1	5.87	4.36	13.4			2.84
31	5480.6	0.763	0.571	9.7			2.82
32	5481.5	1.75	1.37	16.6			2.83
33	5482.5	0.038	0.018	3.5			2.84
34	5483.6	0.050	0.025	2.5			2.79
35	5484.7	0.328	0.219	1.7			2.78
36	5485.6	0.005	0.001	0.8			2.75
37	5486.3	0.025	0.011	1.9			2.77
38	5487.8	0.045	0.022	0.3			2.80
39	5488.9	0.361	0.245	3.1			2.84
40	5489.5	0.085	0.046	5.6			2.81
41	5490.4	0.138	0.082	8.0			2.77
42	5491.3	0.054	0.027	7.8			2.75
43	5492.1	0.024	0.010	7.5			2.77

API No: 43-037-31786-0101
 Status: Drg
 Operator: Petral Expl
 Well No: 2-23 RD
 Well Name: Bradford Canyon Unit
 Location: 23-T37S-R24E (surf)
 Co./State: San Juan Co. UT
 Elevation: KB 5130

Core Analysis Top: 5420.6
 Core Analysis Bot: 5492.1
 Cored Formation(s): Upper Ismay

Mud Type: Polymer/Brine
 Mud Weight: 10.2 PPG at core pt.



REPORT NO.
157154

PAGE NO. 1

TEST DATE:
21-JAN-1998

STAR

Schlumberger Testing Data Report Pressure Data Report

Schlumberger

COMPANY: PETRAL EXPLORATION CO. WELL: #2-23 (AD) BRADFORD CANYON

TEST IDENTIFICATION
 Test Type OH-DST
 Test No. ONE
 Formation UPPER ISMAY
 Test Interval (ft) 5425 to 5470
 Depth Reference KB

WELL LOCATION
 Field BRADFORD
 County SAN JUAN
 State UTAH
 Sec/Twn/Rng SEC23T37S
 Elevation (ft) 5122

HOLE CONDITIONS
 Total Depth (MD/TVD) (ft) 5495
 Hole Size (in) 7.675
 Casing/Liner I.D. (in)
 Perfor'd Interval/Net Pay (ft) .. / 45
 Shot Density/Diameter (in) ...

MUD PROPERTIES
 Mud Type FLOW PRO
 Mud Weight (lb/gal) 10.2
 Mud Resistivity (ohm.m)
 Filtrate Resistivity (ohm.m) .. 0.052 @ 60F
 Filtrate Chlorides (ppm) 292000

INITIAL TEST CONDITIONS
 Initial Hydrostatic (psi) 2834.23
 Gas Cushion Type
 Surface Pressure (psi)
 Liquid Cushion Type
 Cushion Length (ft)

TEST STRING CONFIGURATION
 Pipe Length (ft)/I.D. (in) ... 5252 / 3.83
 Collar Length (ft)/I.D. (in) .. 124 / 2.25
 Packer Depths (ft) 5419, 5425, 5472.
 Bottomhole Choke Size (in)94
 Gauge Depth (ft)/Type 5400/NS-00013

NET PIPE RECOVERY

Volume	Fluid Type	Properties
5.0 ft	MUD	Rw0.085@60F 105000pp

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
1300 cc	Mud	105000ppm

Pressure: 7.0 GOR: 0 GLR: 0

INTERPRETATION RESULTS
 Model of Behavior
 Fluid Type Used for Analysis ..
 Reservoir Pressure (psi)
 Transmissibility (md.ft/cp) ..
 Effective Permeability (md) ...
 Skin Factor/Damage Ratio
 Storativity Ratio, Omega
 Interporosity Flow Coef., Lambda ..
 Distance to an Anomaly (ft) ...
 Radius of Investigation (ft) ...
 Potentiometric Surface (ft) ...

ROCK/FLUID/WELLBORE PROPERTIES
 Oil Density (deg. API)
 Basic Solids (%)
 Gas Gravity
 GOR (scf/STB)
 Water Cut (%)
 Viscosity (cp)
 Total Compressibility (1/psi) ..
 Porosity (%) 10
 Reservoir Temperature (F) 127
 Form. Vol. Factor (bbl/STB)

PRODUCTION RATE DURING TEST: Data Report

COMMENTS:
 This drill stem test was mechanically successful.
 Thank you for using Schlumberger. For questions about this report please call the Turbo Call Center.
 - Copyright 1990 Borland Intl. Testing

 ** WELL TEST DATA PRINTOUT **

COMPANY: PETRAL EXPLORATION CO.
 WELL:

FIELD REPORT NO. 157154
 INSTRUMENT NO. 00016

RECORDER CAPACITY: 10000 PSI PORT OPENING: INSIDE DEPTH: 5400 FT

LABEL POINT INFORMATION

#	TIME OF DAY HH:MM:SS	DATE DD-MMM	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA	BOT HOLE TEMP. DEG F
1	8:32:40	21-JAN	HYDROSTATIC MUD	306.67	2834.23	124.57
2	8:36:20	21-JAN	START FLOW	310.33	25.25	124.57
3	9:29:20	21-JAN	END FLOW & START SHUT-IN	363.33	29.18	124.45
4	10:31:10	21-JAN	END SHUT-IN	425.17	33.72	125.02
5	10:34:50	21-JAN	START FLOW	428.83	29.98	125.06
6	14:29:40	21-JAN	END FLOW & START SHUT-IN	663.67	31.58	126.01
7	16:37:20	21-JAN	END SHUT-IN	791.33	35.80	126.37
8	16:46:30	21-JAN	HYDROSTATIC MUD	800.50	2832.59	127.58

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	310.33	363.33	53.00	25.25	29.18	25.25
2	428.83	663.67	234.84	29.98	31.58	29.98

SUMMARY OF SHUTIN PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	363.33	425.17	61.84	29.18	33.72	29.18	53.00
2	663.67	791.33	127.66	31.58	35.80	31.58	287.84

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 157154

COMPANY : PETRAL EXPLORATION CO.

INSTRUMENT NO. 00016

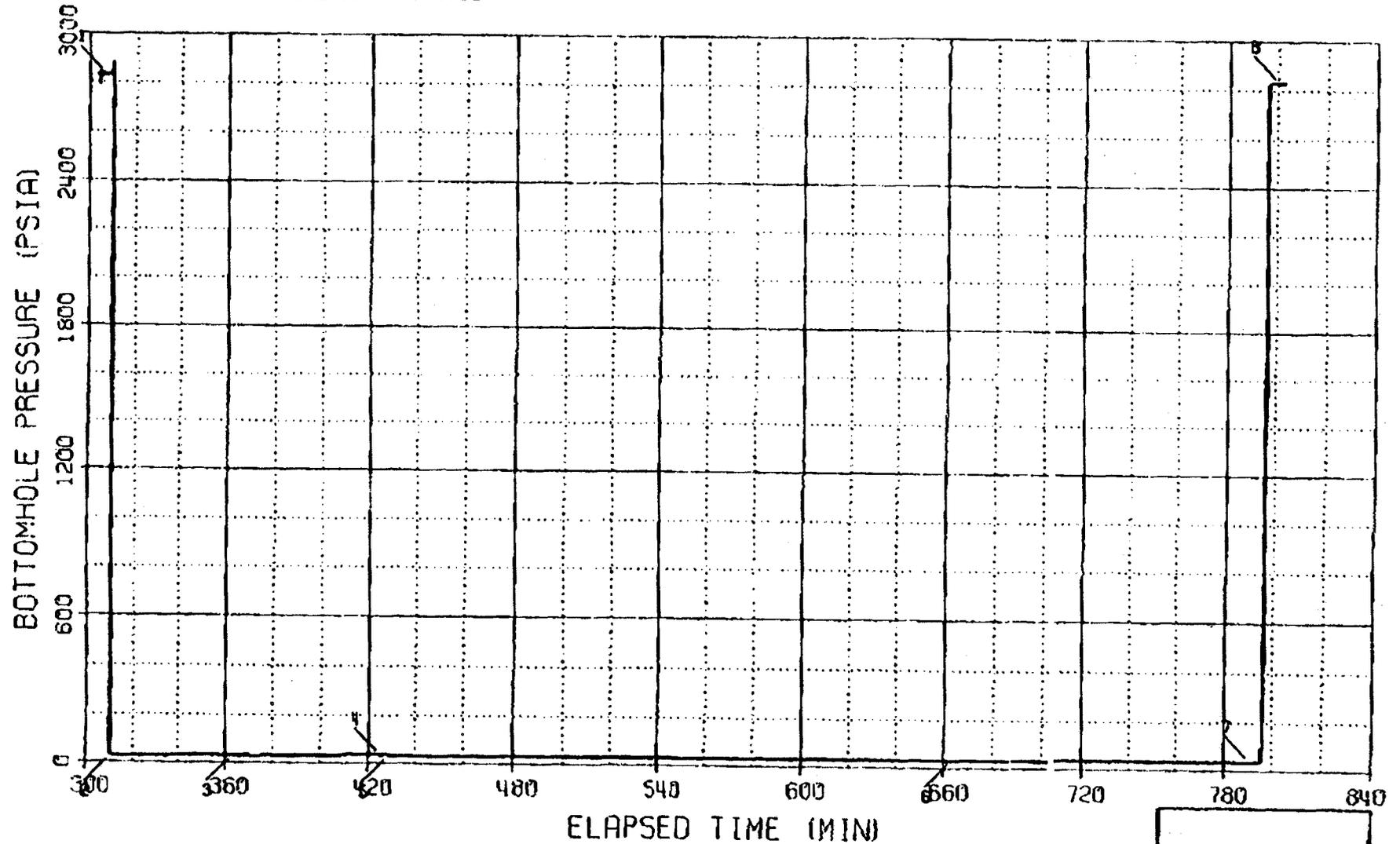
WELL :

DEPTH : 5400 FT

CAPACITY : 10000 PSI

Electronic Pressure Data

PORT OPENING : INSIDE



DATE: 10/10/68
TIME: 10:00 AM

 ** WELL TEST DATA PRINTOUT **

COMPANY: PETRAL EXPLORATION CO.
 WELL: #2-23(RD) BRADFORD CANYON

FIELD REPORT NO. 157155
 INSTRUMENT NO. 00016

RECORDER CAPACITY: 10000 PSI PORT OPENING: INSIDE DEPTH: 5405 FT

LABEL POINT INFORMATION

#	TIME		EXPLANATION	ELAPSED TIME, MIN	BOT HOLE	BOT HOLE
	OF DAY HH:MM:SS	DATE DD-MMM			PRESSURE PSIA	TEMP. DEG F
1	6:07:20	23-JAN	HYDROSTATIC MUD	449.33	2794.84	121.33
2	6:10:20	23-JAN	START FLOW	452.33	39.43	121.53
3	7:11:40	23-JAN	END FLOW & START SHUT-IN	513.67	73.60	123.39
4	8:14:40	23-JAN	END SHUT-IN	576.67	383.48	124.61
5	8:15:30	23-JAN	START FLOW	577.50	79.43	124.61
6	12:14:50	23-JAN	END FLOW & START SHUT-IN	816.83	142.04	125.76
7	16:17:50	23-JAN	END SHUT-IN	1059.83	922.40	131.50
8	16:20:00	23-JAN	HYDROSTATIC MUD	1062.00	2789.05	131.25

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	452.33	513.67	61.34	39.43	73.60	39.43
2	577.50	816.83	239.33	79.43	142.04	79.43

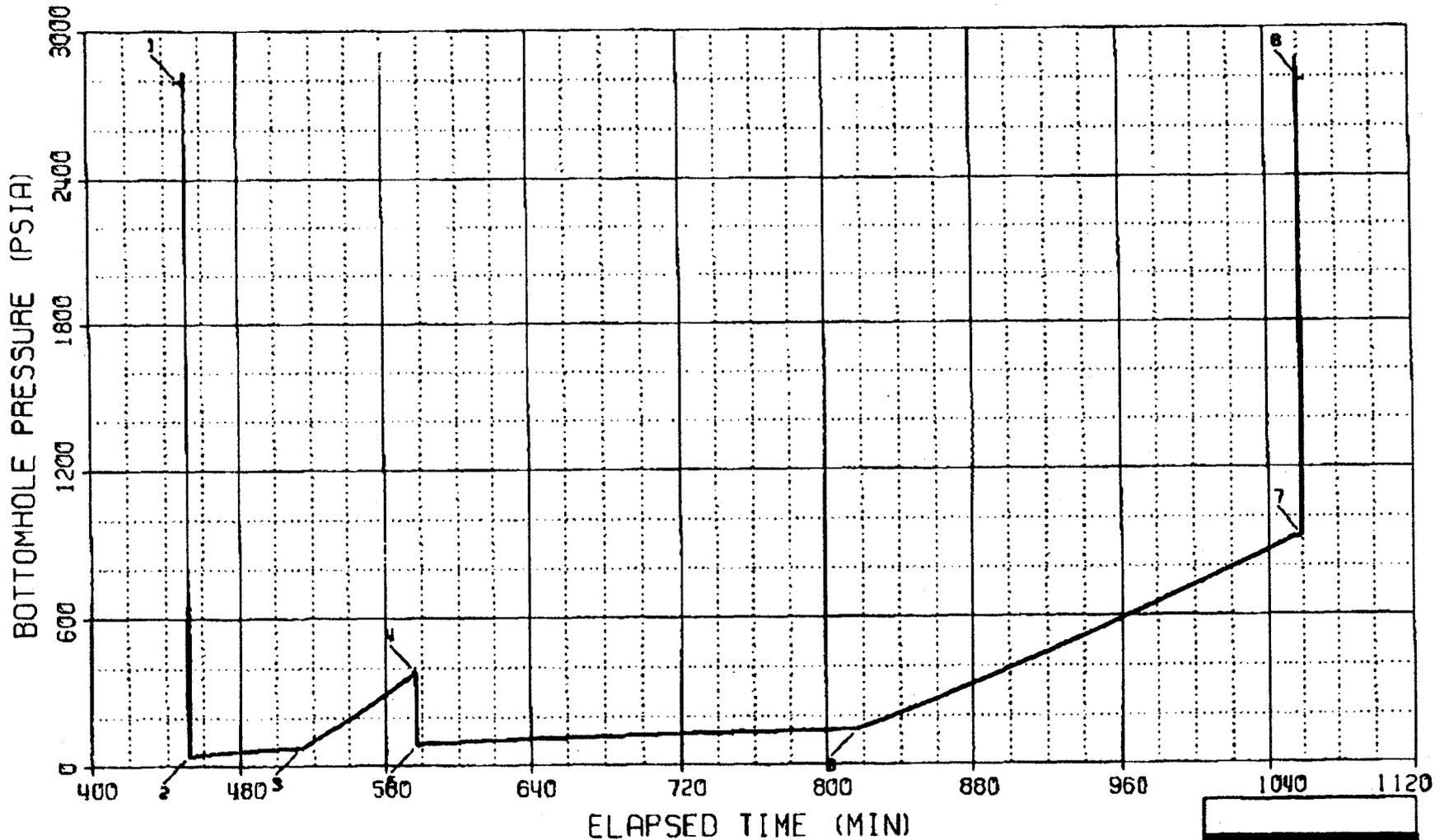
SUMMARY OF SHUTIN PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	513.67	576.67	63.00	73.60	383.48	73.60	61.34
2	816.83	1059.83	243.00	142.04	922.40	142.04	300.67

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 157155
INSTRUMENT NO. 00016
DEPTH : 5405 FT
CAPACITY : 10000 PSI
PORT OPENING : INSIDE

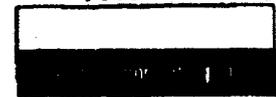
COMPANY : PETRAL EXPLORATION CO.
WELL : #2-23 (RD) BRADFORD CANYON
Electronic Pressure Data



COSKEY
KEN WEST

3032328057
0

01/24/1998 08:11
01/24/1998 07:49



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
UTU-012942

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA/Agreement, Name and/or No.
Bradford Canyon Unit
UTU-63082X

8. Well Name and No.
#2-23 (RD) Bradford Canyon Unit

9. API Well No.
43 037 31021 0101

10. Field and Pool, or Exploratory Area
Bradford Canyon
County or Parish, State
San Juan, Utah

SUBMIT IN TRIPlicate - Other Insurances on Reverse Side

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
Petral Exploration LLC c/o ENMARC, INC., attn: E.K. Bostick

3a. Address
P.O. Box 7638, Loveland, CO 80537

3b. Phone No. (include area code)
(970) 663-7576

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface 2318'FNL and 654'FWL Sec. 23 T37S R24E (SLM)
BHL (@ top Ismay) 1922'FNL & 1431'FWL Sec 23 T37S R24E (SLM)
BHL (@ MD TD) 1834' FNL & 1595' FWL Sec. 23 T37S R24E (SLM)

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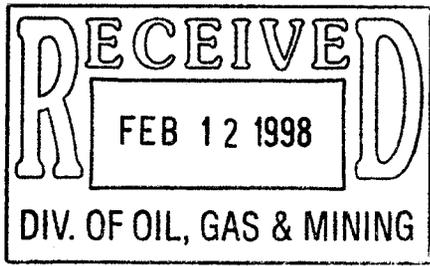
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Deepen
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Fracture Treat
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Plug and Abandon
	<input type="checkbox"/> Plug Back
	<input type="checkbox"/> Production (Start/Resume)
	<input type="checkbox"/> Reclamation
	<input type="checkbox"/> Recomplete
	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Well Integrity
	<input checked="" type="checkbox"/> Other <u>Daily</u>
	<u>Drilling Reports</u>

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

See attached reports.

CONFIDENTIAL



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

Name (Printed/Typed) E.K. Bostick Title Agent for Petral Exploration LLC

Signature E.K. Bostick Date 1-30-98

APPROVED BY _____ TITLE _____ DATE _____

Conditions of approval, if any, are attached. Approval of this notice 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.

Office _____

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.

#2-23 (RD) Bradford Canyon Unit
Sec. 23 - T37S - R24E
San Juan, Co. Utah

Attached to BLM Sundry Notice 1-30-98

1-23-98 Day 23 Depth 5550' Footage 54'

Present operation: WO daylight to open test tool.

Mud Wt. 10.2, Vis 39, WL 6.0, CL297,000, Solids 3.5, PH 7.5, PV17, YP23, Sd. Tr., Calcium 900,
Gels 9/20

Days activity: Change out Upper Kelly Cock. Test to 3000psi. RIH w/ drlg. ass. Break circ @ 2742'.
Cont. RIH. Wash & Ream to btm. 2' fill. Drlg 5496' - 5550'. Circ. Mix & pump sweep and circ. Out
sweep. Mix & pump slug. POOH SLM. 5548.21' NO Correction. Made board 5550.00'. PU
Schlumberger test tool and RIH. RU test head. WO daylight to open test tool f/ DST# 2.
Water flow 1/8" stream when not circ. No pit gain recorded.

1-24-98 Day 24 Depth 5550' Footage 0'

Present operation: Circ. Build mud wt. To 12.8#.

3:00am Mud Wt. 10.2, Vis. 38, WL 6.0, CL 270,000, Solids 4.0, PH 7.5, PV 15, YP 20, Sand Tr.,
Calcium 800, Gels 8/18.

Days activity: Set PKR's Test 5425' - 5470'. Test times 60 - 60 - 240 - 240. Pull PKR's free. POOH
(chain out) 10 - 20,000# drag. Ld & Load Out test tools. RIH w/ drlg. ass. Wash & Ream 120' to btm.
No fill. Circ. Building mud wt. to 12.8#.
See DST #2 report.

1-25-98 Day 25 Depth 5718 Footage 168'

Present Operations: Drilling

Mud Wt. 12.8, Vis. 44, WL 18.0, CL 295,000, Solids 12.0, PH 7, PV 28, YP 21, Sd. Tr.,
Calcium 1000, Gels 8/20

Days Activity: Mix Bar. Build mud wt. 12.8#. Drlg. 5550' - 5706'. Rig Svc. BOP Drill. Drlg. 5706' -
5718'.

1-26-98 Day 26 Depth (TD) 5784' Driller - 5778' Logger. Footage 66'

Present Operations: Logging w/ Halliburton

Mud Wt. 12.8, Vis. 45, WL 12.0, CL 292,000, Solids 12.0, PH 7.0, PV 26, YP 22, SD. Tr.,
Calcium 1000, Gels 8/18.

Days activity: Drlg. 5718' - 5769'. Rig Service. Drlg. 5769' - 5784'. Circ. Samples. Survey (Mis-Run).
Circ & cond. Hole f/ logs. POOH f/ logs. LD Jars and 2 Moned DC's. Pull wear bushing. RU
Halliburton Loggers. Run #1 SDL / DSN - GR. TD @ 5778'. Run #2 LSS - GR.

** No water flow observed or recorded.

Received plugging orders from Gary Torres & Jeff Brown w/ BLM Monticello via fax and phone.

1-27-98 Day 27 Depth PBTB 4940'

Present Operations: POOH & LD DP

Mud Wt. 12.8, Vis. 40, WL 12.0, CL 292,000, Solids 12.0, PH 7.5, PV29, YP 20, SD Tr,
Calcium 1100, Gels 8/16.

Days Activity: Logging w/ Halliburton. Run #3 DLL / MSFL, #4 SED. RIH open ended. Circ. RU
Halliburton cements. Set CMT Plug 5778' - 5100' w/ 240sx "B" cmt. w/ 3% Calcium Chloride. POOH
20stds DP. Circ. WOC. RIH & tag cmt @ 4940'. POOH & LD 50jts HWDP & 31jts 16.6# DP.
Jeff Brown w/ BLM on loc. to witness plugging operations.

1-28-98 Day 28 Depth PBTB Surface

Present Operations: Rig Released. Rigging Down.

Days activity: Set cmt. plug #2 3150' - 2850'. 300' plug 128 sx "B" w/ 3% Calcium Chloride. POOH
10stds DP. Circ. & WOC. RIH & tag cmt. @ 2746'. POOH & LD 17jts. DP. Set cmt. plug #3 2610' -
2410'. POOH & LD DP. Set cmt. plug #4 50' - 0' (surface). ND BOPE. Cut off Wellhead. Weld on
cap. Clean mud tanks. Released Rig @ 9:00pm 12-27-98. Rig Down.

Jeff Brown w/ BLM on loc. To witness plugging operations.

Cement Plugs: #1 5778' (TD) - 5100' (Tagged). 240sx "B" Standard cmt. w 3% Calcium Chloride.

#2-23 (RD) Bradford Canyon Unit
Sec. 23 - T37S - R24E
San Juan, Co. Utah

Attached to BLM Sundry Notice 1-30-98

Page 2

1-28-98 Day 28 continued

#2 3150' - 2850' (tagged). 128sx "B" Standard cmt w/ 3% Calcium Chloride.

#3 2610' - 2410'. 82sx "B" Standard cmt.

#4 50' - 0' (Surface). 20sx "B" Standard cmt.

P&A. Rig Released @ 9:00pm 1-27-98.

Final report.

1-29-98

Installed bird netting over reserve pit.

Made final check on location. Pick up Loose ends.

RW Trucking began hauling reserve pit fluid to disposal.

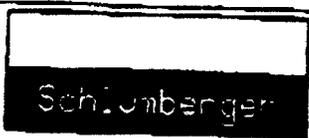
REPORT NO.
157154

PAGE NO. 1

TEST DATE:
21-JAN-1998

S T A R

Schlumberger Testing Data Report Pressure Data Report



COMPANY: PETRAL EXPLORATION CO. WELL: #2-23 (RD) BRADFORD CANYON

TEST IDENTIFICATION
 Test Type OH-DST
 Test No. ONE
 Formation UPPER ISMAY
 Test Interval (ft) 5425 to 5470
 Depth Reference KB

WELL LOCATION
 Field BRADFORD
 County SAN JUAN
 State UTAH
 Sec/Twp/Rng SEC23T37S
 Elevation (ft) 5120

HOLE CONDITIONS
 Total Depth (MD/TVD) (ft) 5435
 Hole Size (in) 7.875
 Casing/Liner I.D. (in)
 Perfor Interval/Net Pay (ft) .. / 45
 Shot Density/Diameter (in) ...

MUD PROPERTIES
 Mud Type FLOW PRO
 Mud Weight (lb/gal) 10.2
 Mud Resistivity (ohm.m)
 Filtrate Resistivity (ohm.m) .. 0.052 @ 60F
 Filtrate Chlorides (ppm) 292000

INITIAL TEST CONDITIONS
 Initial Hydrostatic (psi) 2834.23
 Gas Cushion Type
 Surface Pressure (psi)
 Liquid Cushion Type
 Cushion Length (ft)

TEST STRING CONFIGURATION
 Pipe Length (ft)/I.D. (in) ... 5252 / 3.83
 Collar Length (ft)/I.D. (in) .. 124 / 2.25
 Packer Depth (ft) 5419, 5425, 5472.
 Bottomhole Choke Size (in)94
 Gauge Depth (ft)/Type S400/NG-00013

NET PIPE RECOVERY

Volume	Fluid Type	Properties
5.0 ft	MUD	Rw0.085960F 105000pp

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
1300 cc	Mud	105000ppm

Pressure: 7.0 GOR: 0 GLR: 0

INTERPRETATION RESULTS
 Model of Behavior
 Fluid Type Used for Analysis ..
 Reservoir Pressure (psi)
 Transmissibility (md.ft/cp) ..
 Effective Permeability (md) ...
 Skin Factor/Damage Ratio
 Storativity Ratio, Omega
 Interporous Flow Coef. Lambda ..
 Distance to an Anomaly (ft) ..
 Radius of Investigation (ft) ..
 Potentiometric Surface (ft) ..

ROCK/FLUID/WELLBORE PROPERTIES
 Oil Density (deg. API)
 Basic Solids (%)
 Gas Gravity
 GOR (scf/STB)
 Water Cut (%)
 Viscosity (cp)
 Total Compressibility (1/psi) ..
 Porosity (%) 10
 Reservoir Temperature (F) 127
 Form. Vol. Factor (bbl/STB)

PRODUCTION RATE DURING TEST: Data Report

COMMENTS:

This drill stem test was mechanically successful.

Thank you for using Schlumberger. For questions about this report please call the Turbo Call Center.

Copyright 1990 Bardland Intl. Testin

 ** WELL TEST DATA PRINTOUT **

COMPANY: PETRAL EXPLORATION CO.
 WELL:

FIELD REPORT NO. 157154
 INSTRUMENT NO. 00016

RECORDER CAPACITY: 10000 PSI PORT OPENING: INSIDE DEPTH: 5400 FT

LABEL POINT INFORMATION

#	TIME OF DAY HH:MM:SS	DATE DD-MMM	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA	BOT HOLE TEMP. DEG F
1	8:32:40	21-JAN	HYDROSTATIC MUD	306.67	2834.23	124.57
2	8:36:20	21-JAN	START FLOW	310.33	25.25	124.57
3	9:29:20	21-JAN	END FLOW & START SHUT-IN	363.33	29.18	124.45
4	10:31:10	21-JAN	END SHUT-IN	425.17	33.72	125.02
5	10:34:50	21-JAN	START FLOW	428.83	29.98	125.06
6	14:29:40	21-JAN	END FLOW & START SHUT-IN	663.67	31.58	126.01
7	16:37:20	21-JAN	END SHUT-IN	791.33	35.80	126.37
8	16:46:30	21-JAN	HYDROSTATIC MUD	800.50	2832.59	127.58

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	310.33	363.33	53.00	25.25	29.18	25.25
2	428.83	663.67	234.84	29.98	31.58	29.98

SUMMARY OF SHUTIN PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	363.33	425.17	61.84	29.18	33.72	29.18	53.00
2	663.67	791.33	127.66	31.58	35.80	31.58	287.84

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 157154

COMPANY : PETRAL EXPLORATION CO.

INSTRUMENT NO. 00016

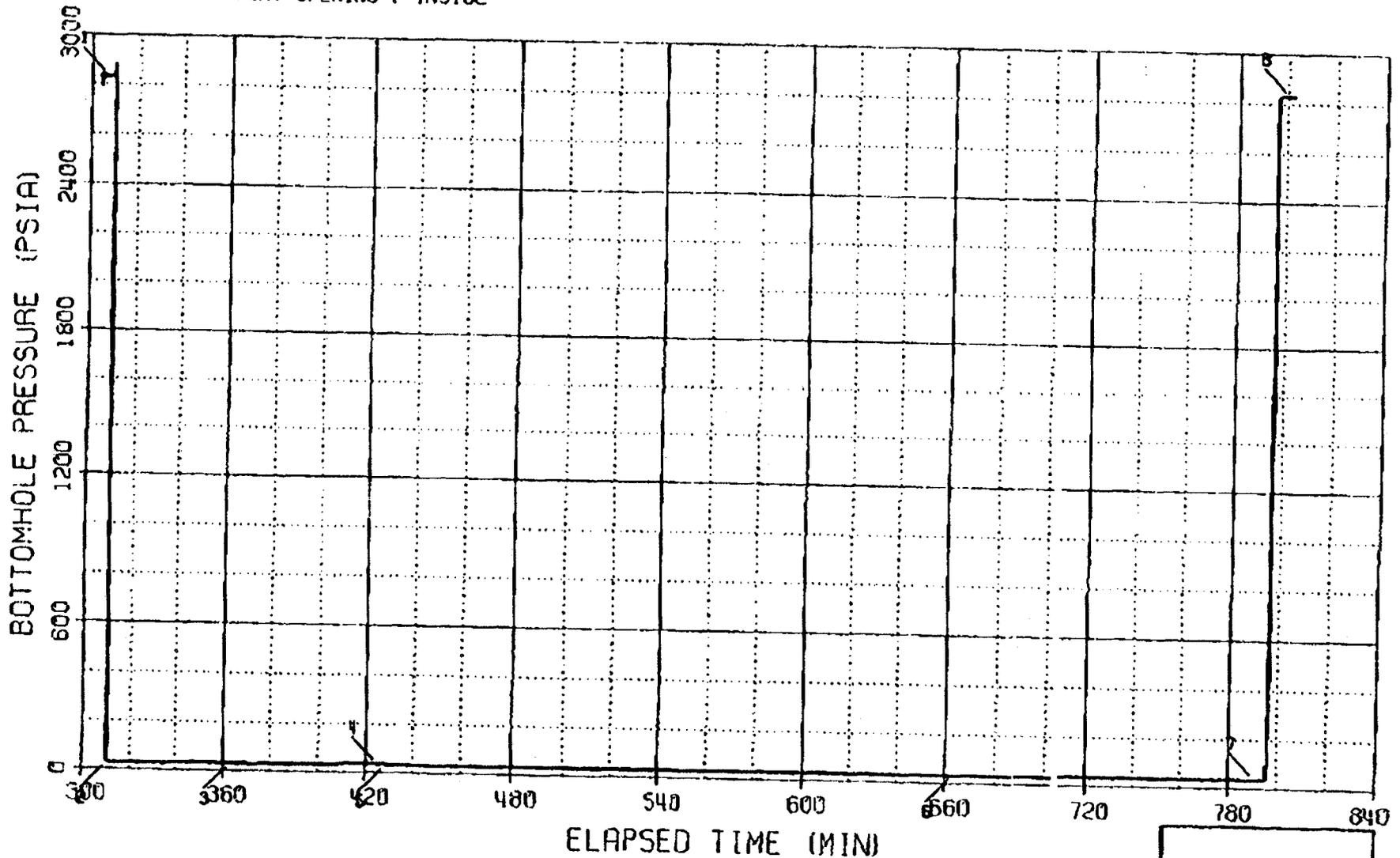
WELL :

DEPTH : 5400 FT

CAPACITY : 10000 PSI

Electronic Pressure Data

PORT OPENING : INSIDE



DATE: 1/22/98

JAN-22-1998 07:43 FROM ROSE EXPLORATION

STAR

Schlumberger Testing Data Report Pressure Data Report

REPORT NO.
157155

PAGE NO. 1

TEST DATE:
23-JAN-1998

COMPANY: PETRAL EXPLORATION CO.		WELL: #2-23 (RD) BRADFORD CANYON	
TEST IDENTIFICATION		WELL LOCATION	
Test Type	OH-DST	Field	BRADFORD
Test No.	TWO	County	SAN JUAN
Formation	UPPER ISMAY	State	UTAH
Test Interval (ft)	5425 to 5470	Sec/Twn/Ang	SEC23T37S
Depth Reference		Elevation (ft)	5130
MOLE CONDITIONS		MUD PROPERTIES	
Total Depth (MD/TVD) (ft)	5550	Mud Type	PRO FLOW
Hole Size (in)	7.875	Mud Weight (lb/gal)	10.2
Casing/Liner I.D. (in)		Mud Resistivity (ohm.m)	
Pack's Interval/Net Pay (ft) ..	/ 45	Filtrate Resistivity (ohm.m) ..	0.052 @ 60F
Shot Density/Diameter (in) ...		Filtrate Chlorides (ppm)	292000
INITIAL TEST CONDITIONS		TEST STRING CONFIGURATION	
Initial Hydrostatic (psi)	2794.84	Pipe Length (ft)/I.D. (in) ...	5222 / 3.83
Gas Cushion Type		Collar Length (ft)/I.D. (in) ..	155 / 2.25
Surface Pressure (psi)		Packer Depth (ft)	5420, 5427, 5473.
Liquid Cushion Type		Bottomhole Choke Size (in)94
Cushion Length (ft)		Gauge Depth (ft)/Type	5401/NG-00016
NET PIPE RECOVERY		NET SAMPLE CHAMBER RECOVERY	
Volume	Fluid Type	Properties	
248 ft	GAS/MUD		Volume
186 ft	MUD	Rw0.059@60F 180000pp	.38 cuft
62 ft	WATER	Rw0.059@60F 180000pp	50 cc
			350 cc
			Pressure: 100
			GOR: 1207
			GLR: 151
INTERPRETATION RESULTS		ROCK/FLUID/WELLBORE PROPERTIES	
Model of Behavior		Oil Density (deg. API)	
Fluid Type Used for Analysis ..		Basic Solids (%)	
Reservoir Pressure (psi)		Gas Gravity	
Transmissibility (md.ft/cp) ..		GOR (scf/STB)	
Effective Permeability (md) ..		Water Cut (%)	
Skin Factor/Damage Ratio		Viscosity (cp)	
Storage Ratio, Omega		Total Compressibility (1/psi) ..	
Interporos. Flow Coef. Lambda ..		Porosity (%)	10
Distance to an Anomaly (ft) ..		Reservoir Temperature (F)	130
Radius of Investigation (ft) ..		Form. Vol. Factor (bbl/STB)	
Potentiometric Surface (ft) ..			

PRODUCTION RATE DURING TEST: Data Report

COMMENTS:

THIS DST OF THE UPPER ISMAY (5425-5470) WAS NOT MECHANICALLY SUCCESSFUL. DUE TO COMMUNICATION ACROSS THE LOWER PACKER SEAT. PACKER SEAT WAS LOST SHORTLY AFTER START OF DST. RECOVERY CONSISTED OF 248 FT GAS CUT MUD, 186 FT MUD & 62 FT WATER.

WELL TEST INTERPRETATION REPORT #157155 CLIENT : PETRAL EXPLORATION CO.		PAGE: 2. 24-JAN-98
REGION : CSD DISTRICT: MIDLAND BASE : MIDLAND ENGINEER: DARREN STONE	SEQUENCE OF EVENTS	FIELD: BRADFORD ZONE : UPPER ISMAT WELL : #2-23 (RD) LOCATION: SEC23T37S

DATE	TIME (HR:MIN)	DESCRIPTION	ET (MINS)	BHP (PSIA)	WHP (PSIG)
23-JAN	06:10	START FLOW (on 1/8" choke)	0	39	
	06:13	.5 oz	3		
	06:15	2.0 oz	5		
	06:20	3.5 oz	10		
	06:25	4.5 oz	15		
	06:30	5.0 oz	20		
	06:40	5.5 oz	30		
	06:50	6.0 oz	40		
	07:00	6.5 oz	50		
	07:10	6.5 oz	60		
	07:11	END FLOW & START SHUT-IN	61	74	
	08:14	END SHUT-IN	124	383	
	08:15	START FLOW	125	79	
	08:16	11.0 oz	126		
	08:17	11.0 oz	127		
	08:20	11.0 oz	130		
	08:25	10.5 oz	135		
	08:30	10.0 oz	140		
	08:40	9.25 oz	150		
	08:45	9.0 oz	155		
	08:55	8.5 oz	165		
	09:05	8.0 oz	175		
	09:15	7.5 oz	185		
	09:30	7.5 oz	200		
	09:45	7.5 oz	215		
	10:00	7.5 oz	230		
	10:15	7.5 oz	245		
	10:30	8.0 oz	260		
	10:45	8.5 oz	275		
	11:00	9.0 oz	290		
	11:15	9.5 oz	305		
	11:30	10.0 oz	320		
	11:45	10.5 oz	335		
	12:00	11.25 oz	350		
	12:15	12.0 oz	365		

Continued next page

WELL TEST INTERPRETATION REPORT #: 157155		PAGE: 3.
CLIENT : PETRAL EXPLORATION CO.		24-JAN-98
REGION : CSD	SEQUENCE OF EVENTS Continued	FIELD: BRADFORD
DISTRICT: MIDLAND		ZONE : UPPER ISMAT
BASE : MIDLAND		WELL : #2-23 (RD)
ENGINEER: DARREN STONE		LOCATION: SEC23T375

DATE	TIME (HR:MIN)	DESCRIPTION	ET (MINS)	BHP (PSIA)	WHP (PSIG)
	12:14	END FLOW & START SHUT-IN	364	142	
	16:17	END SHUT-IN	607	922	

SCHLUMBERGER

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 157155

COMPANY : PETRAL EXPLORATION CO.

INSTRUMENT NO. 00016

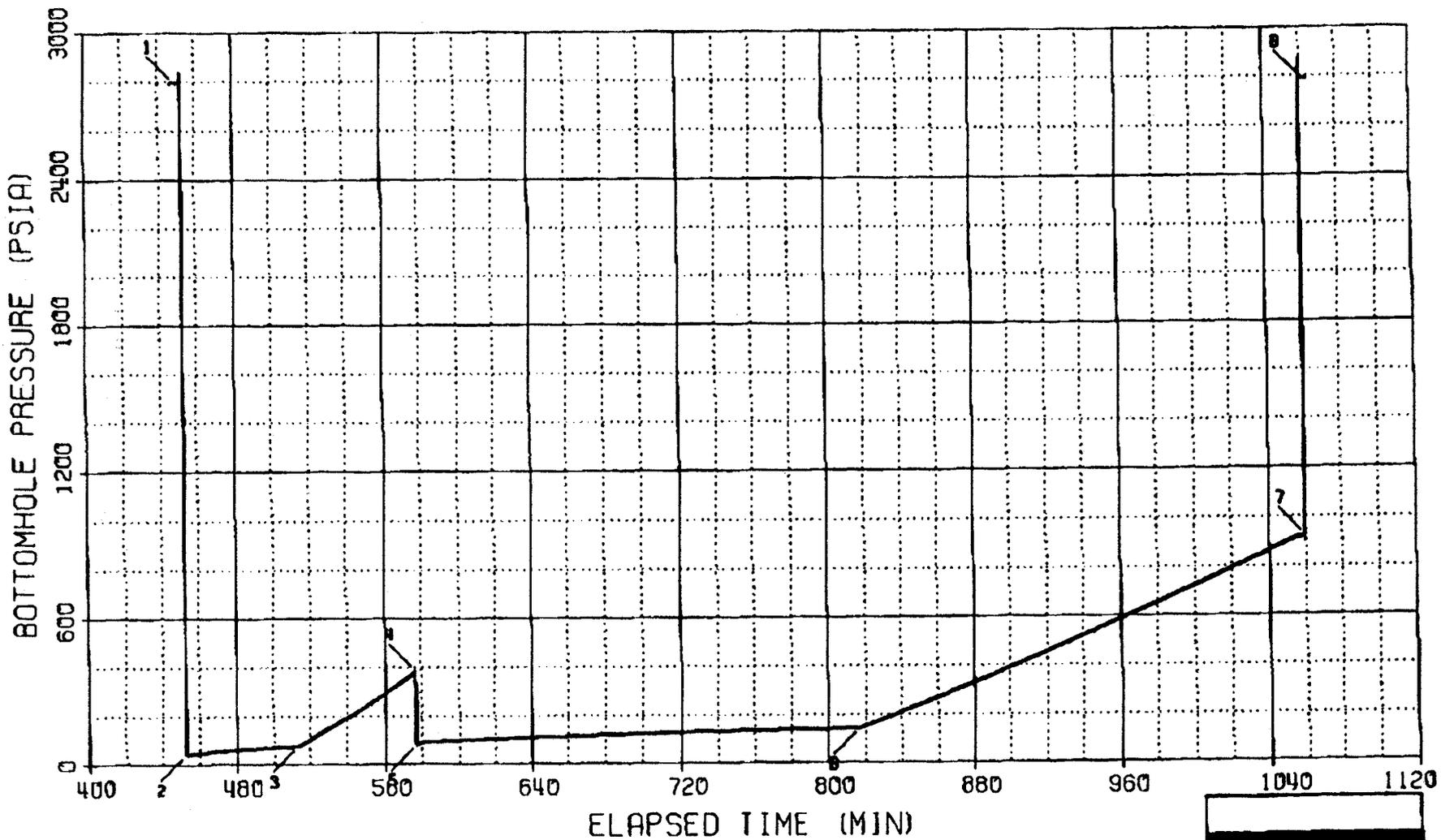
WELL : #2-23 (RD) BRADFORD CANYON

DEPTH : 5405 FT

Electronic Pressure Data

CAPACITY : 10000 PSI

PORT OPENING : INSIDE



ROCKY MOUNTAIN GEO-ENGINEERING

Electronic Rig Monitoring Systems • Well Logging • Consulting Geology • Coal Bed Methane Services

PASON ROCKY MOUNTAIN GEO-ENGINEERING CORP.

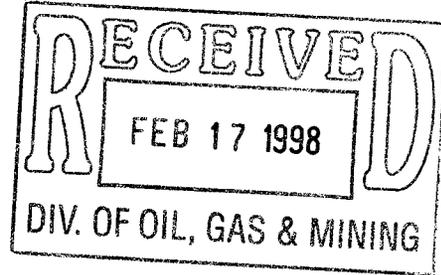
2450 INDUSTRIAL BLVD. • GRAND JUNCTION, CO 81505

(970) 243-3044 • (FAX) 241-1085

Wednesday, February 11, 1998

Division of Oil & Gas Mining
State of Utah
1594 West North Temple
3 Triad Center
Suite 1210
Salt Lake City, UT 84180

Re: Bradford Canyon #2-23 (RD)
Sec. 23, T37S, R23E 24E
San Juan County, Utah
43 037 37021



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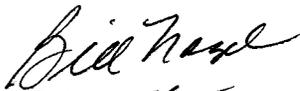
Dear Sirs:

Enclosed is the ~~final computer colored log~~ and geology report for the above referenced well.
IN LOG FILE

We appreciate the opportunity to be of service to you and look forward to working with you again in the near future.

If you have any questions regarding the enclosed data, please contact us.

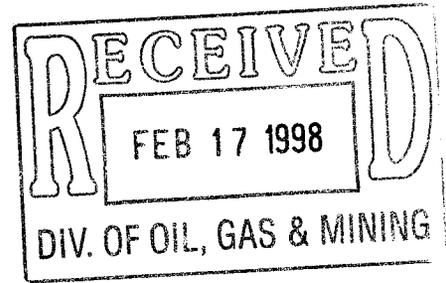
Sincerely,


Bill Nagel
Senior Geologist

BN/dn

Enc. 1 Final Computer Colored Log w/Geology Report

cc Letter Only; Mike Wynne; Rose Exploration Associates, LLC



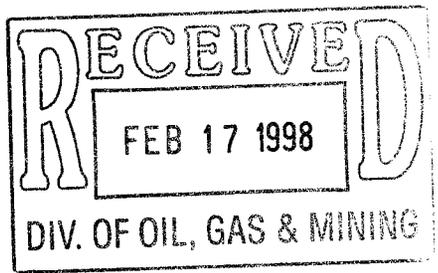
**PETRAL EXPLORATION LLC
BRADFORD CANYON #2-23 (RD)
SW NW SECTION 23 T37S, R24E
BHL @ SE NW SECTION 23 T37S, R24E
SAN JUAN Co., UTAH**

**GEOLOGY REPORT
by
CHIP WALLACE
ROCKY MOUNTAIN GEO-ENGINEERING CORP.
GRAND JUNCTION, COLORADO
(970) 243-3044**

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MUD RECORD.....	5
DST REPORT.....	6
QFT DATA.....	8
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GEOLOGIC SUMMARY AND ZONES OF INTEREST.....	10
CORE DESCRIPTION.....	14

WELL SUMMARY



OPERATOR: PETRAL EXPLORATION LLC

NAME: BRADFORD CANYON #2-23 (RD)

LOCATION: SW NW Section 23, T37S-R24E
2318' FNL X 654' FWL

BOTTOM HOLE LOC: SE NW Section 23, T37S-R24E
(est.) 1924' FNL X 1511' FWL Sec. 23

COUNTY/STATE: SAN JUAN, UTAH

ELEVATION: GL: 5117', KB: 5130'

SPUD DATE: 1/2/98

COMPLETION DATE: 1/25/98

DRILLING ENGINEER: KEN WEST

WELLSITE GEOLOGY: MIKE WYNNE / CHIP WALLACE

MUDLOGGING: ROCKY MOUNTAIN GEO. ENG.
ENGINEERS: CHARLES "CHIP" WALLACE & JOE SHIMKO

CONTRACTOR: FOUR CORNERS DRILLING RIG #7
TOOLPUSHER: JOE McELREATH

HOLE SIZE: 7 7/8" from KICK OFF TO 5784' (TD)

DRILLING MUD: M-I DRILLING FLUIDS
ENGINEER: DON SPARKS
MUD TYPE: KICK-OFF to 4700' FRESH WATER
4700' to 5784' (TD) POLYMER/BRINE MUD

CORES: #1= 5420'-5448' (CUT 28', RC'D 28')
TWO CONVENTIONAL #2= 5448'-5496' (CUT 48', RC'D 47')

DRILL STEM TESTS DST #1 @ 5425'-5470' (Upper Ismay)
DST #2 @ 5425'-5477' (Retest of same zone)

ELECTRIC LOGS: HALLIBURTON
ENGINEER: NA
TYPE LOGS: NA
TOTAL DEPTH: DRILLER: 5784' MEASURED DEPTH

STATUS: P & A

MUD RECORD

COMPANY NAME: PETRAL EXPL. LLC

WELL NAME: BRADFORD CANYON #2-23 (RD)

DATE	DEPTH	WEIGHT	MUD GRADIENT	FUNNEL VIS	PLASTIC VIS	YIELD POINT	GEL STRENGTH	PH	FILTRATE API	CAKE	ALKALINITY FILTRATE	CHLORIDE PPM	CALCIUM PPM	SAND % CONTENT	SOLIDS % CONTENT	OIL % CONTENT	WATER % CONTENT	% KCL	CHROMATE % PPM
1/6/98	CMT	8.5						11.5				19000	600						
1/7	2770	8.5						11.8				20300	800						
1/8	3210	8.5						NA				22100	800						
1/9	3237	8.5										22000	800						
1/10	3237	8.5						11.5				20000	800						
1/11	2795	8.5						12				20000	850						
1/12	3215	8.5+						11.5				20200	850						
1/13	3890	8.5+										20200	850						
1/14	4211	8.5+						10.8				21000	850						
1/15	4650	8.6						10.0				21000	850						
1/15	4796	9.8		34	6	8	3/5	7.2	8.2	1/32		SAT	800		5		95		
1/16	4922	9.9		33	8	10	3/6	7.5	7	2/32		250000	1100		2		98		
1/17	5114	10.2		37	12	11	6/12	7.5	6.0	2/32		28000	1100	TR	3.5		96.5		
1/18	5280	10.1		38	13	17	8/18	7.5	5.2	1/32		297000	1000	TR	3		97		
1/19	5420	10.2		39	14	20	9/16	7.5	5	2/32		298000	1000	TR	3.5		96.5		
1/20	5482	10.2		41	15	23	10/17	7.5	6	2/32		292000	980	TR	3.5		96.5		
1/21	5496	10.2+		39	17	21	9/19	7.5	8.0	2/32		296000	900	TR	4		96		
1/22																			
1/23	5540	10.2		39	17	23	9/20	7.5	6	2/32		297000	900	TR	3.5		96.5		
1/24	5580	10.2		38	15	20	8/18	7.5	6.0	2/32		270000	800	TR	4		96		
1/25																			
1/26																			

Bradford Canyon #2-23(RD) DST #1 REPORT

DST # 1 DATE 1/21/1998

COMPANY & WELL PETRAL EXPLORATION LLC BRADFORD CANYON #2-23 (RD)

FORMATION UPPER ISMAY INTERVAL: 5425'-5470'

HOLE SIZE: 7 7/8" DRILL PIPE SIZE: 4 1/2" WATER CUSHION: NONE

DRILLING MUD: ppm NITRATE: NA ppm CHLORIDES 292000
MUD 10.2
WEIGHT: _____

	DURATION IN MIN.	PSI - TOP CHART	PSI - BOTTOM CHART
INITIAL FLOW	60	25	
INITIAL SHUT IN	60	29	
FINAL FLOW	180	34	
FINAL SHUT IN	60	30	

INITIAL HYDROSTATIC - 2834 FINAL HYDROSTATIC PSI: 2833
PSI: _____

BOTTOM HOLE TEMPATURE: 127 F

TEST DESCRIPTION: OPENED TOOL (1/8" CHOKE) WITH NO BLOW, CHECK TO MAKE SURE MANIFOLD WAS CLEAR, 1/4" BLOW @ 9 min., DECR BLOW @ 14 min, NO BLOW @ 16 min, REMAINED DEAD TO 60 min

SHUT IN TOOL for 60 min

OPEN TOOL WITH NO BLOW, REMAINED DEAD FOR 3 HRS

SHUT IN TOOL for 2 HRS, PULL FREE

PIPE RECOVERY: 5.0 FT MUD

SAMPLE CHAMBER RECOVERY: 1300 cc MUD @ 7 psi

COMMENTS: QUESTIONABLE RESULTS PROMPTED A RETEST OF THE SAME INTERVAL

Bradford Canyon #2-23(RD) DST #2 REPORT

DST # 2

DATE 1/23/1998

COMPANY & WELL PETRAL EXPLORATION LLC BRADFORD CANYON #2-23 (RD)

FORMATION UPPER ISMAY INTERVAL: 5425'-5470'

HOLE SIZE: 7 7/8" DRILL PIPE SIZE: 4 1/2" WATER CUSHION: NONE

DRILLING MUD: ppm NITRATE: 60 ppm ppm CHLORIDES 292000
MUD 10.2

WEIGHT: _____

	DURATION IN MIN.	PSI - TOP CHART	PSI - BOTTOM CHART
INITIAL FLOW	60	39	
INITIAL SHUT IN	240	74 TO 383	
FINAL FLOW	60	79 TO 142	
FINAL SHUT IN	240	142 TO 922	

INITIAL HYDROSTATIC - 2795 FINAL HYDROSTATIC PSI: 2789
PSI: _____

BOTTOM HOLE TEMPATURE: 130 F

TEST DESCRIPTION: OPENED TOOL (1/8" CHOKE) WITH 1/2" BLOW, INCREASE STEADILY TO 0.5 oz @ 2 min, 2.0 oz @ 4 min, 3.5 oz @ 13 min, 4.5 oz @ 18 min, 5 oz @ 23 min, 5.5 oz @ 33 min, 6.0 oz @ 43 min 6.5 oz @ 53 min, BOTTOM OF BUCKET @ 63 min

SHUT IN for 60 min
OPEN TOOL WITH BLOW TO BOTTOM OF BUCKET @ 11.0 oz, 11.0 oz @ 5 min, 10.5 @ 10 min, 10.0 @ 15 min, 9.0 @ 30 min, 8.5 @ 40 min, 8.0 @ 50 min, 7.5 @ 60 min, 7.5 @ 120 min, 8.0 @ 135 min, 8.5 @ 150 min, 9.0 @ 165 min, 9.5 @ 180 min, 10.0 @ 195 min, 10.5 @ 210 min, 11.25 @ 225 min, 12.0 @ 240 min
SHUT IN TOOL for 4 hrs

PIPE RECOVERY: 248' GAS CUT MUD, 124' MUD, 62' WATER (TTL-434')

SAMPLE CHAMBER RECOVERY: 0.38 cu ft GAS @ 100 psi, 350 cc WATER, 50 cc OIL

COMMENTS: BOTTOM PACKER APPEARS TO HAVE LEAKED INTERMITTENTLY. WATER APPEARS TO BE FILTRATE. EVALUATION CONFIRMS RESULTS OF DST #1.

QFT DATA

PETRAL EXPLORATION LLC
BRADFORD CANYON #2-23 (RD)

DEPTH	QFT
5422.0	70
5423.2	69
5426.3	102
5433.0	61
5438.4	1040
5439.2	216
5440.9	242
5442.6	1500
5444.5	366
5446.5	NR
5447.2	440
5448.0	356
5449.3	849
5450.8	352
5452.9	380
5456.0	3830
5457.0	2010
5458.1	2240
5459.4	2300
5460.0	326
5461.1	1560
5463.0	1200
5463.8	1590
5465.5	760
5466.5	56
5467.3	429
5468.9	51
5469.9	44
5471.6	390
5473.6	185
5475.1	58
5476.1	46
5478.3	40
5479.3	40
5480.8	42
5481.7	40

FORMATION TOPS

OPERATOR:	PETRAL EXPLORATION LLC
WELL NAME:	BRADFORD CANYON #2-23 (RD)

(NO WIRELINE DATA AVAILABLE)

FORMATION NAME	PROGNOSIS	SAMPLE TOPS	
GL:5117', KB:5130'	TVD	SUBSEA	MD
KELLY BUSHING	KB:5130'	KB:5130'	KB:5130'
MORRISON	SURFACE	—	—
HONAKER TRAIL	4159'	+972	4158'-TVD 4238'-MD
ISMAY	5200'	NA	5389'
HOVENWEEP SHALE	5335'	NA	5528'
LOWER ISMAY	5380'	NA	5570'
GOTHIC SHALE	5430'	NA	5622'
DESERT CREEK	5450'	NA	5647'
LOWER DESERT CK	5490'	NA	5688'
CHIMNEY ROCK SH	5535'	NA	5719'
AKAH	5557'	NA	5738'
PARADOX SALT	5589'	NA	5772'
TD	5610'	NA	5784'

GEOLOGICAL SUMMARY

AND

ZONES OF INTEREST

The Petral Exploration LLC Bradford Canyon #2-23 Redrill ("RD") well was drilled as an Upper Ismay test with the Lower Ismay and Desert Creek zones of the Pennsylvanian age Paradox formation as secondary objectives. This was a directional redrill of the original Raymond T. Duncan #2-23(straight) wellbore in an effort to penetrate the algal mound porosity. The Bradford Canyon #2-23(RD) was drilled in SW NW Section 23, T37S, R24E, with the bottom hole location (BHL) located in the SE NW of Section 23, T37S, R24E.

The well was drilled from a kick-off date of 1/2/98 to TD on 1/25/98. Geological coverage commenced on 1/16/98 in the Pennsylvanian Hermosa Formation.

The Bradford Canyon #2-23(RD) was kicked off at a depth of 2700'. A persistent water flow problem caused a delay while much of the initial kick-off borehole was redrilled. Drilling continued with halts for directional surveys and bit trips until 5422' on 1/18, when drilling was halted to core the Upper Ismay. Two cores were cut on 1/19 and 1/20. The first cut 28' before the core barrel jammed, with a full 28' recovery. The second core cut 48' before the barrel jammed, with 47' recovered, with a drillers TD of 5496'. DST #1 was run as a straddle test over a 45' interval, with packers set at 5425' and 5470'. QFT data was obtained for the cored and tested interval. Drilling resumed on 1/22/98, and continued to 5550' on 12/22, when a decision was made to conduct a re-test of the Upper Ismay porosity and the hole was strapped in preparation for DST #2. This was due to the questionable results of DST #1. DST #2 was also a straddle test of the Upper Ismay zone, with packers again set at 5425' and 5470'. Results confirmed the dismal results obtained from DST #1. Drilling resumed on 1/24, and the Bradford Canyon #2-23(RD) reached a total depth of 5784' in the Paradox Salt on 1/25/98.

Geological services were released prior to the running of the wireline logs, and the log copies were unavailable at the time of this report. All tops used in this report are measured depth sample tops.

HERMOSA 4238'-MD, 4158'(+972')-TVD

The Hermosa or Honaker Trail is the upper member of the Hermosa group and is of upper Pennsylvanian age. Geological coverage of the Bradford Canyon #2-23(RD) started in the Honaker Trail. The Honaker Trail was primarily a marine sequence, with several shaley clastic zones. Predominant in the Hermosa were cream to white to tan to light gray brown, occasionally dark gray brown, cryptocrystalline to microcrystalline, slightly fossiliferous limestone interbedded with shales, sandstones, and some gray-brown siltstones. The shales and siltstones were medium to dark gray and graybrown and increasingly calcareous and carbonaceous in the lower one third of the Honaker Trail. Some noteworthy gas increases were seen in the Honaker Trail at 5040', 5060', and 5140'. Thin scattered cherts, and medium to dark gray brown to light brown, microcrystalline dolomites were also noted while drilling the Honaker Trail. Minor white, chalky anhydrites were also noted.

The Honaker Trail overlies the Paradox with a fairly sharp contact between a dirty limestone and dark, organic dolomitic shale at its base and a dense, shaley limestone at the top of the Ismay. The carbonaceous shale marker at the base was well developed, making the Ismay top a reasonably definite sample top pick.

The Honaker Trail contained minor hydrocarbon shows and is of no economic interest in this well at this time.

UPPER ISMAY 5389'-SPL MD

The upper Ismay member of the Paradox Formation was primarily a limestone, with anhydrite, dolomite, and dolomitic limestone interbeds. The majority of the Upper Ismay was cored. The limestones were tan to gray to dark gray brown. Microcrystalline to coarsely crystalline, these limestones were tight, dense, argillaceous, with rare vuggy porosity, and interesting Foram streaks. Detrital streaks were seen in the core. Forams were the primary fossil type, with occasional crinoids and brachiopods. The limestones had occasional gray argillaceous mottling, especially in the lower portion. Scattered clear to translucent anhydrite blebs and very thin black carbonaceous shales were noted in the limestones. The dolomites were microcrystalline, tightly microsugrosic, medium to dark gray, with occasional anhydrite blebs. The anhydrites, particularly in the upper portion of the Upper Ismay, were both clear crystalline and white chalky forms. One noteworthy gas show was seen in the middle of the Upper Ismay. A 275 unit gas spike was seen at 5455', in a light to medium graybrown colored microsugrosic dolomite, with fair fluorescence and stain. Some minor pinpoint vuggy porosity was noted from this break. The nature of the polymer-based drilling fluid probably hindered gas break-out at the surface, thus minimizing gas readings. The limestone at the base of the Ismay became increasingly shaley with depth, and graded into the Hovenweep Shale.

The Upper Ismay zone was 139' thick, and of little economic interest in the Bradford Canyon #2-23(RD), despite being the primary zone of interest. The discouraging results of the core, DST, and QFT data prompted the drilling on to the secondary Desert Creek zone. Additional wireline data is unavailable at the time of this report.

HOVENWEEP SHALE 5528'-SPL

The Hovenweep shale underlies the Upper Ismay with a sharp contact between the shaley limestone at the base of the Upper Ismay and the sapropelic dolomite shales of the Hovenweep. The shales were black, to occasionally medium to dark gray, organic dolomites, slightly limy to calcareous, silty, carbonaceous, sooty, and slightly micaceous. The Hovenweep Shale was 42' thick in this well and is of no economic interest in the Bradford Canyon #2-23(RD), other than as a source for hydrocarbons.

LOWER ISMAY 5570'-SPL

The lower Ismay consisted of thin carbonate benches with a massive anhydrite bed, gray dolomitic shales, and a silty-sandy zone at the top. The carbonate was predominately a gray to brown, cryptocrystalline to microcrystalline, clean to shaley, anhydritic, very slightly fossiliferous limestone with dolostone streaks. Textures in the dolostones were dense to silty to tightly microsugrosic, with streaks of microsugrosic porosity. Interbedded in the upper dolomites and limestones were abundant very fine to silty quartzitic grains, grading to limestone-filled sandstones and siltstones. This probably represented a wind-deposited sabkha environment. Also noted were thin carbonaceous, slightly calcareous to dolomitic shales. The base of the lower Ismay seen in the Bradford Canyon #2-23(RD) became increasingly anhydritic.

The lower Ismay was of no economic interest in this well.

GOTHIC SHALE 5622'-SPL

The Gothic Shale, like the Hovenweep Shale is a dark gray to black, very dolomitic, carbonaceous, sooty shale or more properly, a sapropelic dolomite. The Gothic lies gradationally under the lower Ismay, becoming slightly more richly organic with depth. The shales had an associated background gas increase of up to 255 units when drilled. The Gothic was 25' thick in Bradford Canyon #2-23(RD) and is of no economic interest, other than as a hydrocarbon source and marker bed.

DESERT CREEK 5647'-SPL

The Desert Creek was 72' thick and underlay the Gothic with a fairly sharp contact between the carbonaceous Gothic shales and the tight, very argillaceous to silty dolostone at the top of the Desert Creek. The Desert Creek is divided into upper and lower zones. Under the first 16' carbonate shoulder of the Desert Creek, an approximately 25 feet of anhydrite was drilled. Another 24' dirty carbonate bench was followed by the 7' anhydrite of the lower Desert Creek. The potential Desert Creek pay was not developed in the 20'+ lower carbonate bench.

The upper carbonate bench of the Desert Creek was primarily dolostone. This dolostone was gray to graybrown, microcrystalline, dense to silty in appearance, tight with calcite fill of the slight pinpoint microsucrosic porosity. It was moderately to very argillaceous grading to dolomitic shale, slightly siliceous, with some light crystalline anhydrite mottling. No shows of any significance were seen from this dense, tight to slightly microsucrosic zone.

The "barren zone" carbonate was a limestone and mottled, earthy dolomite, and lay under the missing mound development at the base of the Desert Creek. The Desert Creek became more argillaceous with depth.

The Desert Creek appeared to have a sharp contact with the Chimney Rock shale above the Akah. With no significant porosity or hydrocarbon show, the Desert Creek is of no economic interest in this well.

CHIMNEY ROCK SHALE 5738'-SPL

The Chimney Rock Shale like the Hovenweep and Gothic Shales is a sapropelic dolomite. Richly carbonaceous, it was seen in its usual guise of dark gray to black, organic sooty shale. The Chimney Rock sharply underlies basal shaley dolomites of the Desert Creek, and had an associated shale gas show of 150 units in the increasingly organic bottom few feet. The Chimney Rock was 19' thick in the Bradford Canyon #2-23(RD) and is of no economic interest other than a rich organic source for hydrocarbons.

AKAH 5738'-SPL

The Akah underlies the Chimney Rock shale with sharp contacts between the overlying shale and the underlying anhydrite cap of the Paradox salt. Tight dolomites, dolomitic siltstones and shales, and dense limestones at the top of the Akah contrast with the overlying richly organic shales. The Akah was primarily a mixed sequence of dolostone, limestone, anhydrite, and dolomitic shales. The limestones noted were tan to graybrown, microcrystalline, tight, clean to argillaceous, with rare streaks of dolostone. The dolostones were tan to light to medium graybrown to gray, cryptocrystalline to microcrystalline, tight to very rare intercrystalline with some microsucrosic porosity, and anhydritic in part. The dolostone was argillaceous to silty, and banded with streaks of dark gray to black carbonaceous shale. The dolomite had traces of intercrystalline porosity and dull

mineral fluorescence, but no visible stains and no cuts. Minor gas increases were noted in the Akah, with a peak reading of 265 units at 5750'. There were interbedded dense, occasionally banded anhydrites with a thin bed of anhydrite at the base of the Akah. This basal anhydrite overlaid the upper beds of the Paradox salt.

At 34' thick, the Akah in the Bradford Canyon #2-23(RD) contained no significant hydrocarbons or porosity zones, and is of no economic interest in this well.

PARADOX SALT 5772'-SPL

The Paradox Salt lay below the Akah, and was picked from drill rate. With the saturated brine mud system, clear crystalline halite was seen in the samples.

CONCLUSION

The Petral Bradford Canyon #2-23(RD) was drilled to a total depth of 5784'-MD on 1/25/98. The well bottomed in the Paradox Salt of Pennsylvanian age. Wireline logs were run on 1/26. The decision plug and abandon the well was pending at the time that geological services were released.

CORE #1 DESCRIPTIONS

(micro)

OPERATOR: PETRAL EXPLORATION LLC
WELL NAME: BRADFORD CANYON #2-23 (RD)

**UPPER ISMAY (5420'-5448') 28' CUT; 28' RECOVERED
 CORE BARREL JAMMED @ 28'**

DEPTH	LITHOLOGY	
5422.0' Upper Ismay	DOL	lt-m gy,micxl,micsuc-pkstn,dns,mas,tt, poss slty incl,brit-fri NFSOC
5423.2'	DOL	lt-m gy AA, sl incr gy arg fl, occasionally trnsl crystalline ANHYDRITE blebs & strk <2cm, NFSOC
5426.3'	DOL ANHY	ltgy DOL with abnt thn wh-trnsl ANHY lam, sil-chty ip, brit-hd NFSOC
5433.0'	DOL	lt-m brn, abnt clr-trnsl ANHY mot, micxl-vfxl, dns-tt micsuc, sil-chty ip, brit-hd NFSOC
5438.4'	DOL	gybrn, micxl, micsuc-micgran-pkstn, tt, sil/cht ip, hd-fri, occ asph-bit lam, mod ANHY blebs <2mm, NFSOC
5439.2'	ANHY DOL	clr-trnsl xln ANHY with abnt brn-m-dk gybrn DOL incl, crpxl-micxl, tt, fri-hd NSOC, mnr wh min flor in ANHY
5440.9'	DOL	lt gybrn, micxl, tt pkstn, sl arg, mas, sil-chty, fri-hd NFSOC
5442.6' 5442.6'	SLIX LS	slickensides in thin (<1cm) blk SH (?) dkgy, org ip, poss carb, v arg-shy, abnt wh fos calc elong pel (FORAM ip) swarms, occ lt ANHY mot, rr blk carb incl, sil ip,. poss lmy DOL ip NFSOC
5444.5'	LS	blk SH ip, lmy DOL ip AA, decr ANHY & FORAM incl
5446.5'	LS	dkgy, org ip, poss carb, v arg-shy, blk SH ip, lmy DOL ip AA, rr ANHY blebs NFSOC
5447.2' BASE CORE	SH	LS ip, dkgy, org ip, poss carb, lg blk CHT nod, ANHY repl of poss lg CRIN, abnt shell frags, fri-hd, rr pp PYR

CORE #2 DESCRIPTIONS

(micro)

OPERATOR: PETRAL EXPLORATION LLC
WELL NAME: BRADFORD CANYON #2-23 (RD)

UPPER ISMAY (5448'-5496) 48' CUT; 47' RECOVERED
BARREL JAMMED @ 48'

DEPTH	LITHOLOGY	
5448.0' Upper Ismay	DOL	dkgy, crp-occ micxl, dns-occ pkstn, tt, sil-chty/lg dk CHT nod, brit-hd NFSOC
5449.3'	DOL	lt-m gy AA, sl incr gy arg fl, occasionally trnsl crystalline ANHYDRITE blebs & strk <2cm, NFSOC
5450.8'	DOL	m-dk gy DOL, crpxl, mas, dns NFSOC
5452.9'	DOL	lt-m gybrn, abnt clr-trnsl-wh ANHY mot, micxl pkstn, dns-tt micsuc, fos frags (unid), sil-brn chty incl, brit-hd patchy dul-occ bri yel-wh FLOR, VTR slo yel ring CUT, strong ODOR
5456.0'	DOL	lt gy-lt-m gybrn, mot, micxl, mas, micsuc-pkstn, tt, tr pp VUG, cln, hd-fri, mod clr xln ANHY blebs <5mm, abnt dul yel FLOR, FR slo-mod mky-occ strm yel-bl CUT, str OD
5457.0'	DOL	lt-m gybrn, mot, micxl, mas, micsuc-pkstn, tt, tr pp VUG, cln, hd-fri, mod clr xln ANHY blebs <5mm, patchy dul-bri yel-wh FLOR, WK-FR slo yel-bl CUT, mod OD
5458.1'	DOL	gy/gybrn mot, poss O STN, incr crpxl,dns/micsuc strk, micxl ip, tt pkstn/sl incr pp vug, sl arg, mas, sil-chty, fri-hd abnt bri yelwh FLOR, FR slo yel-bl CUT, str OD
5459.4'	DOL	gy/gybrn mot, poss O STN, incr crpxl,dns/micsuc strk, micxl ip, tt pkstn/sl incr pp vug, sl arg, mas, sil-chty, fri-hd, lt xln ANHY mot abnt dul-bri yelgn FLOR, WK slo yel-bl CUT, str OD
5460.0'	LS	gybrn-m-dk gy, mot ip, tr brn O STN, dkgy arg strks, DOL strks patchy bri-dul yel-yelgn FLOR, TR slo yel-bl CUT, mod OD
5461.1'	LS	AA, blk-brn bit stn, micsuc-pp vug <2mm/euh xln walls, DOL mot patchy-streaked bri yel-yelwh FLOR, FR-G fst yel-bl CUT, str OD
5463.0'	LS	AA/occ styl & alg dbrs patchy-streaked bri yel-yelwh FLOR, FR fst yel-bl CUT, str OD
5463.8'	LS	gybrn-m-dk gy AA, pp vug, mot ip, tr brn O STN, dkgy arg strks, DOL strks patchy bri yelwh FLOR, FR-G fst yel-bl CUT, mod OD

- 5465.5' LS AA, incr ltgy-gybrn/abnt DOL mot, occ shell frags, pp vug/dk O-bit-asph STN, wh-clr xln ANHY blebs
patchy bri yel FLOR, FR mod fst yel-bl CUT, mod OD
- 5466.5' LS incr DOL ip, incr dns, tt, incr clr-wh xln ANHY blebs
rthy OD, NFSOC
- 5467.3' LS DOL ip AA, tr styl/dk gy arg fl, incr arg ip
NFSOC
- 5468.9' LS lt-dk gybrn/m-dk gy DOL mot, micxl, tt micsuc, rr styl/dk bit lining, cln-arg mot & strk, sl sil ip, abnt lg xln ANHY blebs
NFSOC
- 5469.9' LS AA, DOL ip
tr dul sal-pk FLOR, NSOC
- 5471.6' DOL lt-m gybrn, micxl mas, tt micsuc, rr carb-occ dk bit ptgs, cln-arg mot & strk
NFSOC
- 5473.6' DOL lt-m gybrn, occ blk bit mot, rr carb-bit ptgs, micxl mas AA
NFSOC
- 5475.1' DOL tan-lt gybrn AA, lmy mot & strk, incr pp vug, incr wh amor ANHY blebs
- 5476.1' DOL tan-lt gybrn AA, incr mot, cln/arg strks, no ANHY
abnt dul sal-pk FLOR, NSOC
- 5478.3' DOL AA, incr lt-m gy ip, mot, micxl, micsuc tt pkstn, rr pp vug
sal-pk dul FLOR AA, NSOC
- 5479.3' DOL lt-m gy-lt gybrn, mot, micxl, micsuc tt pkstn, rr pp vug AA
pk-sal dul FLOR AA, NSOC
- 5480.8' DOL AA, occ clr ANHY repl of fos frags, clr xln ANHY blebs
decr sal-pk FLOR AA, NSOC
- 5481.7' DOL incr lt-m gybrn, mot ip, dk bit-carb SH ptgs, incr lg trnsl wh amor ANHY strks
NFSOC
- 5483.5' LS crm-tan-lt-m gybrn, micxl, micsuc pkstn, tt, cln-occ arg strks, occ dk brn bit-asph
strks
NFSOC
- 5486.5' LS AA, tr alg dbrs, occ vug/euh xln calc lining, abnt clr xln ANHY incl
NFSOC
- 5488.7' LS AA, incr gybrn ip, mnr trnsl-wh ANHY blebs
NFSOC
- 5490.7' LS m-dk gy-m-dk gybrn, micxl, rthy pkstn, incr arg grd to org SH ip, mas, abnt scat
wh-clr euh calc rhmbs <1cm, occ scat carb-bit incl

5492.8'	SH	dkgy, org ip, rthy-slty, sl-m calc, poss DOL ip, fis-plty, poss sl slty, frm
5494.1'	LS	m-dk gybrn, incr crpxl ip, dns, arg, for strks/ CRIN, FORAM, shell frags & plant dbrs, tr pp PYR incl NFSOC
5495.0'	SH	dkgy, slty-rthy, decr fis-incr ireg, occ lt calc fos dbrs, org ip, carb-sooty ip

TD CORE

Jul FEB 25 1998

SUBMIT IN DUPL' E*

FORM APPROVED

OMB NO. 1004-0137

(See in-

structions on

Expires: February 28, 1995

reverse side)

5. LEASE DESIGNATION AND SERIAL NO.

UTU-012924

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

NA

7. UNIT AGREEMENT NAME

Bradford Canyon Unit
UTU-63082X

8. FARM OR LEASE NAME, WELL NO.

#2-23 (RD) Bradford Canyon Unit

9. API WELL NO.

43 037 31021 0101

10. FIELD AND POOL OR WILDCAT

Bradford Canyon

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

Surface: Sec 23 T37S R24E
BHL: Sec 23 T37S R24E

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIV. OF OIL, GAS & MINING

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WORK

OIL WELL GAS WELL DRY

1b. TYPE OF WELL

NEW WELL WORK OVER DEEPEN PLUG BACK DIFF RESVR.

CONFIDENTIAL
PERIOD
EXPIRED
ON 2-27-99

2. NAME OF OPERATOR

Petral Exoloiration LLC c/o ENMARC, INC., attn: E.K. Bostick

3. ADDRESS AND TELEPHONE NO.

P.O. Box 7638, Loveland, CO 80537

4. LOCATION OF WELL (Report locations clearly and in accordance with any State requirements.)*

At Surface
2318' FNL & 654' FWL Sec. 23 T37S R24E (SLM)

At top prod. Interval reported below

CONFIDENTIAL

At total depth

1880'FNL & 1500' FWL Sec. 23 T37S R24E

14. PERMIT NO.

DATE ISSUED

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

15. DATE SPUDDED

1-1-98

16. DATE T.D. REACHED

1-25-98

17. DATE COMPL. (Ready to prod.)

P&A'd 1-27-98

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*

GR 5114'

RKB 5126'

19. ELEV. CASINGHEAD

P&A'd

20. TOTAL DEPTH, MD & TVD

Loggers

5775' MD

5594' TVD

21. PLUG, BACK T.D., MD & TVD

Surface MD

TVD

22. IF MULTIPLE COMPL., HOW MANY*

----->

23. INTERVALS DRILLED BY

Yes

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)*

Well is P&A'd

25. WAS DIRECTIONAL SURVEY MADE

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

MUD LOG PRESSURE DATA 1-30-98
Halliburton Long Spaced Sonic, Spectral Density DSN, DLL/MSFL, Dipmeter Shiva Plot, GR

27. WAS WELL CORED

Yes

23. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8 5/8' J-55	24#	2510'	12 1/4"	Surface 867sx BJ Lite, 200sx "B"	
				w/ 2% CaCl. 100sx "B" w/ 3% CaCl	
				Top Job.	

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

INTERVAL	SIZE	NUMBER

CONFIDENTIAL

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)	WELL STATUS (Producing or shut-in)

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PRODN. FOR TEST PERIOD	OIL--BBL.	GAS--MCF.	WATER--BBL.	GAS-OIL RATIO

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

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

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

Directional Summary, DST Reports, Formation Tops, Geologic Summary & Zones of Interest, Core Discription

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

SIGNED

E.K. Bostick

TITLE Consultant for Petral Exploration LLC

DATE

2/17/98

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



Scientific Drilling International

CASPER, WY

Company: Petral Exploration LLC
Field: San Juan County, UT
Site: #2-23 (RD) Bradford Canyon
Well: #2-23 (RD)
Wellpath: OH Original hole

Date: 2/5/98 **Time:** 12:01:07 **Page:** 2
Co-ordinate(NE) Reference: Site: #2-23 (RD) Bradford Canyon Unit
Vertical (TVD) Reference: Field: Mean Sea Level
Section (VS) Reference: Slot (0.0E,0.ON,62.8Azi)
Survey Calculation Method: Minimum Curvature

Survey

Meas Depth ft	Inclination deg	Azimuth deg	TVD ft	Vert Sect ft	N/S ft	E/W ft	DLS d/100ft	CLen ft	ClsD ft	ClsA deg
1800.0	0.56	103.27	1799.8	14.2	-12.2	22.3	0.07	100.0	25.4	118.65
1900.0	0.25	68.05	1899.8	14.8	-12.2	22.9	0.38	100.0	26.0	117.99
2000.0	0.21	62.44	1999.8	15.2	-12.0	23.3	0.05	100.0	26.2	117.30
2100.0	0.16	318.98	2099.8	15.4	-11.8	23.4	0.29	100.0	26.2	116.86
2200.0	0.16	311.84	2199.8	15.3	-11.6	23.2	0.02	100.0	25.9	116.66
2300.0	0.32	321.61	2299.8	15.2	-11.3	22.9	0.16	100.0	25.5	116.32
2400.0	0.29	345.99	2399.8	15.2	-10.9	22.7	0.13	100.0	25.1	115.60
2500.0	0.33	19.59	2499.8	15.5	-10.3	22.7	0.18	100.0	24.9	114.50
2600.0	0.39	9.88	2599.8	15.9	-9.7	22.9	0.09	100.0	24.8	113.08
2677.0	0.20	18.26	2676.8	16.1	-9.3	22.9	0.25	77.0	24.8	112.18
2695.0	0.30	20.70	2694.8	16.2	-9.3	23.0	0.56	18.0	24.8	111.99
2757.0	2.10	136.80	2756.8	16.6	-10.0	23.8	3.63	62.0	25.8	112.69
2788.0	2.20	141.00	2787.7	16.9	-10.8	24.6	0.60	31.0	26.8	113.79
2819.0	2.30	122.00	2818.7	17.3	-11.6	25.5	2.42	31.0	28.0	114.53
2850.0	2.60	93.20	2849.7	18.3	-12.0	26.7	4.04	31.0	29.3	114.19
2881.0	3.80	85.40	2880.6	19.8	-11.9	28.4	4.11	31.0	30.8	112.80
2911.0	4.80	78.40	2910.6	21.9	-11.6	30.6	3.76	30.0	32.8	110.76
2943.0	6.00	70.70	2942.4	24.9	-10.8	33.5	4.37	32.0	35.2	107.84
2975.0	7.00	65.50	2974.2	28.5	-9.4	36.9	3.62	32.0	38.1	104.34
3005.0	8.10	61.50	3004.0	32.4	-7.7	40.4	4.06	30.0	41.1	100.74
3036.0	9.40	59.40	3034.6	37.1	-5.3	44.5	4.32	31.0	44.8	96.83
3068.0	10.50	59.40	3066.1	42.7	-2.5	49.3	3.44	32.0	49.3	92.93
3100.0	11.50	59.40	3097.5	48.8	0.6	54.5	3.12	32.0	54.5	89.38
3131.0	12.50	60.80	3127.8	55.2	3.8	60.1	3.36	31.0	60.2	86.38
3163.0	13.30	62.80	3159.0	62.3	7.2	66.4	2.86	32.0	66.8	83.84
3194.0	14.20	62.20	3189.2	69.7	10.6	72.9	2.94	31.0	73.7	81.75
3225.0	15.00	60.80	3219.1	77.5	14.3	79.8	2.82	31.0	81.1	79.84
3255.0	15.80	60.20	3248.1	85.5	18.2	86.7	2.72	30.0	88.6	78.13
3286.0	16.30	59.40	3277.9	94.0	22.5	94.1	1.76	31.0	96.8	76.53
3318.0	17.70	59.40	3308.5	103.4	27.3	102.2	4.37	32.0	105.8	75.04
3349.0	18.50	60.10	3337.9	113.0	32.2	110.5	2.67	31.0	115.1	73.78
3379.0	19.00	61.50	3366.3	122.6	36.9	118.9	2.24	30.0	124.5	72.78
3410.0	20.10	62.50	3395.6	133.0	41.7	128.1	3.71	31.0	134.7	71.96
3440.0	20.70	61.50	3423.7	143.5	46.6	137.3	2.31	30.0	145.0	71.24
3472.0	21.60	60.80	3453.5	155.0	52.2	147.4	2.92	32.0	156.4	70.50
3503.0	22.20	60.10	3482.3	166.5	57.9	157.5	2.11	31.0	167.8	69.81
3534.0	22.60	61.50	3510.9	178.4	63.7	167.8	2.15	31.0	179.5	69.22
3565.0	23.40	60.80	3539.5	190.5	69.5	178.4	2.73	31.0	191.5	68.71
3596.0	24.40	60.80	3567.8	203.0	75.6	189.4	3.23	31.0	203.9	68.23
3627.0	24.30	60.80	3596.1	215.8	81.9	200.5	0.32	31.0	216.6	67.79
3658.0	23.40	60.80	3624.4	228.3	88.0	211.5	2.90	31.0	229.1	67.41
3689.0	22.80	60.80	3652.9	240.5	93.9	222.1	1.94	31.0	241.1	67.08
3720.0	22.60	60.80	3681.5	252.4	99.8	232.5	0.65	31.0	253.0	66.78
3751.0	23.10	60.10	3710.1	264.5	105.7	243.0	1.84	31.0	265.0	66.49
3782.0	23.90	60.80	3738.5	276.8	111.8	253.8	2.73	31.0	277.3	66.22
3812.0	24.60	62.20	3765.9	289.1	117.7	264.6	3.02	30.0	289.6	66.02
3844.0	23.90	62.20	3795.0	302.3	123.8	276.2	2.19	32.0	302.7	65.86
3876.0	22.60	62.20	3824.4	314.9	129.7	287.4	4.06	32.0	315.3	65.71
3908.0	23.20	61.50	3853.9	327.3	135.6	298.4	2.06	32.0	327.7	65.56
3940.0	23.30	60.10	3883.3	340.0	141.7	309.4	1.76	32.0	340.3	65.39
3971.0	22.80	60.10	3911.9	352.1	147.8	319.9	1.61	31.0	352.4	65.21
4003.0	22.40	59.40	3941.4	364.4	154.0	330.5	1.51	32.0	364.6	65.02



Scientific Drilling International

CASPER, WY

Company: Petral Exploration LLC	Date: 2/5/98	Time: 12:01:07	Page: 3
Field: San Juan County, UT	Co-ordinate(N/E) Reference:	Site: #2-23 (RD) Bradford Canyon Unit	
Site: #2-23 (RD) Bradford Canyon	Vertical (TVD) Reference:	Field: Mean Sea Level	
Well: #2-23 (RD)	Section (N/S) Reference:	Slot: (0.0E,0.0N,62.8Azi)	
Wellpath: OH Original hole	Survey Calculation Method:	Minimum Curvature	

Survey

Meas Depth ft	Inclination deg	Azimuth deg	TVD ft	Vert Sect ft	N/S ft	E/W ft	DLS d/100ft	CLen ft	ChD ft	ChA deg
4034.0	22.30	58.90	3970.1	376.1	160.0	340.7	0.69	31.0	376.4	64.84
4065.0	22.30	58.70	3998.7	387.9	166.1	350.7	0.24	31.0	388.1	64.66
4096.0	22.40	60.10	4027.4	399.6	172.1	360.9	1.75	31.0	399.8	64.50
4129.0	22.20	60.10	4058.0	412.1	178.4	371.7	0.61	33.0	412.3	64.37
4160.0	22.50	60.10	4086.6	423.9	184.2	381.9	0.97	31.0	424.1	64.25
4192.0	23.10	63.10	4116.1	436.3	190.1	392.9	4.09	32.0	436.4	64.17
4223.0	24.20	62.90	4144.5	448.7	195.8	403.9	3.56	31.0	448.9	64.14
4254.0	24.90	62.90	4172.7	461.6	201.6	415.4	2.26	31.0	461.7	64.11
4284.0	25.10	63.60	4199.9	474.3	207.3	426.7	1.19	30.0	474.4	64.08
4315.0	25.50	65.00	4227.9	487.5	213.1	438.7	2.32	31.0	487.7	64.09
4347.0	25.00	63.60	4256.9	501.2	219.0	451.0	2.43	32.0	501.3	64.10
4378.0	25.00	63.50	4285.0	514.3	224.8	462.7	0.14	31.0	514.4	64.08
4410.0	24.10	62.90	4314.1	527.6	230.8	474.6	2.92	32.0	527.7	64.06
4440.0	23.70	62.20	4341.5	539.7	236.4	485.3	1.63	30.0	539.9	64.03
4472.0	23.00	61.50	4370.9	552.4	242.4	496.5	2.35	32.0	552.5	63.98
4503.0	21.70	60.80	4399.6	564.2	248.1	506.8	4.28	31.0	564.3	63.92
4535.0	21.40	62.50	4429.3	576.0	253.7	517.2	2.16	32.0	576.1	63.87
4566.0	21.50	62.90	4458.2	587.3	258.9	527.3	0.57	31.0	587.4	63.85
4597.0	21.80	65.70	4487.0	598.7	263.8	537.6	3.47	31.0	598.8	63.86
4629.0	21.40	65.00	4516.7	610.5	268.8	548.3	1.49	32.0	610.6	63.89
4661.0	21.90	64.30	4546.5	622.3	273.8	558.9	1.76	32.0	622.4	63.90
4692.0	22.10	64.30	4575.2	633.9	278.9	569.4	0.65	31.0	634.0	63.91
4724.0	21.50	64.30	4604.9	645.8	284.0	580.1	1.87	32.0	645.9	63.92
4756.0	21.70	62.20	4634.7	657.6	289.3	590.6	2.50	32.0	657.7	63.90
4787.0	21.00	62.20	4663.6	668.8	294.6	600.6	2.26	31.0	669.0	63.87
4817.0	20.10	62.20	4691.7	679.4	299.5	609.9	3.00	30.0	679.5	63.85
4849.0	20.70	62.50	4721.6	690.5	304.7	619.8	1.90	32.0	690.6	63.82
4880.0	21.10	61.50	4750.6	701.6	309.8	629.6	1.73	31.0	701.7	63.80
4910.0	21.30	59.40	4778.6	712.4	315.2	639.0	2.62	30.0	712.5	63.74
4940.0	22.10	59.40	4806.4	723.5	320.8	648.6	2.67	30.0	723.6	63.68
4969.0	21.20	58.70	4833.4	734.2	326.3	657.7	3.23	29.0	734.2	63.61
5000.0	20.60	58.00	4862.4	745.2	332.1	667.1	2.10	31.0	745.3	63.53
5032.0	19.70	57.30	4892.4	756.2	338.0	676.5	2.91	32.0	756.2	63.45
5063.0	19.10	57.70	4921.6	766.4	343.6	685.1	1.98	31.0	766.5	63.37
5094.0	18.90	58.00	4951.0	776.5	349.0	693.7	0.72	31.0	776.5	63.30
5124.0	19.50	55.90	4979.3	786.3	354.3	702.0	3.05	30.0	786.3	63.22
5156.0	20.00	56.90	5009.4	797.0	360.3	711.0	1.89	32.0	797.1	63.12
5187.0	20.00	58.70	5038.5	807.6	366.0	719.9	1.99	31.0	807.6	63.05
5216.0	19.70	59.40	5065.8	817.4	371.0	728.4	1.32	29.0	817.4	63.01
5246.0	20.50	59.40	5094.0	827.7	376.3	737.3	2.67	30.0	827.7	62.96
5278.0	20.80	60.40	5123.9	839.0	381.9	747.0	1.45	32.0	839.0	62.92
5307.0	21.00	59.40	5151.0	849.3	387.1	756.0	1.41	29.0	849.3	62.88
5337.0	21.30	60.20	5179.0	860.1	392.6	765.3	1.39	30.0	860.1	62.84
5368.0	20.40	60.50	5208.0	871.2	398.0	774.9	2.92	31.0	871.2	62.81
5419.0	20.40	60.50	5255.8	888.9	406.8	790.4	0.00	51.0	888.9	62.77
5603.0	20.40	60.50	5428.2	953.0	438.4	846.2	0.00	184.0	953.0	62.61



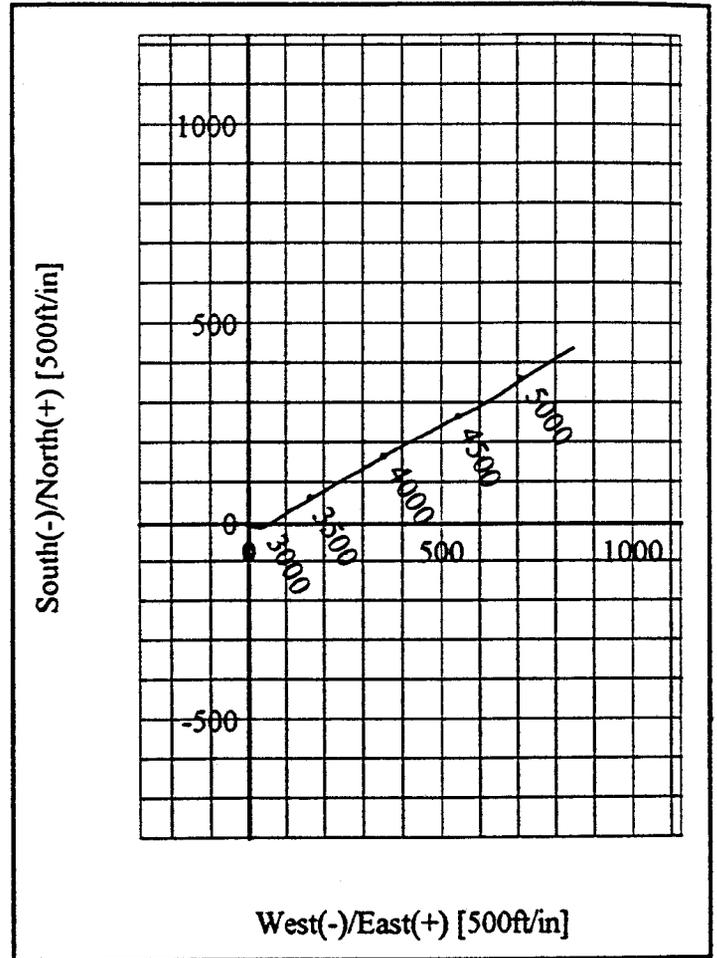
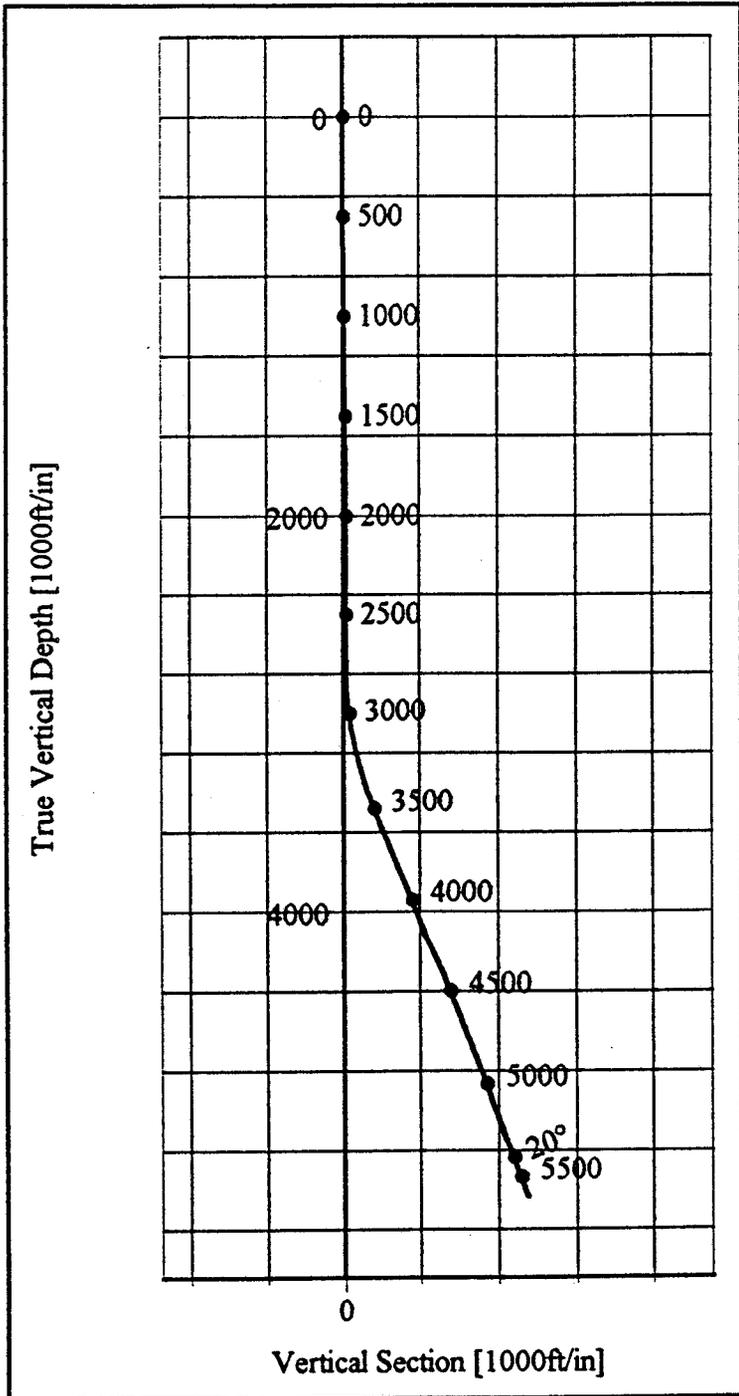
**Scientific
Drilling**

Petral Exploration LLC
Field: San Juan County, UT
Site: #2-23 (RD) Bradford Canyon Unit
Well: #2-23 (RD)
Wellpath: OH Original hole
Survey: Survey #2 - Sidetrack



All Angles Relative
To Local North

True North: 0.00
Magnetic North: 12.31



BOTTOM HOLE CLOSURE
953.0 ft. 62.61° Azimuth

FINAL STATION
5603.0' MD 5428.2' TVD
20.4° Angle 60.5° Azimuth
North 438.4 ft. East 846.2 ft.
953.0' Vert. Sect.

Survey: Survey #2 - Sidetrack (#2-23 (RD)/OH)
 Created By: Judi Moore Date: 2/5/98

Bradford Canyon #2-23(RD) DST #1 REPORT

DST # 1

DATE 1/21/1998

COMPANY & WELL PETRAL EXPLORATION LLC BRADFORD CANYON #2-23 (RD)

FORMATION UPPER ISMAY INTERVAL: 5425'-5470'

HOLE SIZE: 7 7/8" DRILL PIPE SIZE: 4 1/2" WATER CUSHION: NONE

DRILLING MUD: ppm NITRATE: NA ppm CHLORIDES 292000
MUD 10.2

WEIGHT: _____

	DURATION IN MIN.	PSI - TOP CHART	PSI - BOTTOM CHART
INITIAL FLOW	60	25	
INITIAL SHUT IN	60	29	
FINAL FLOW	180	34	
FINAL SHUT IN	60	30	

INITIAL HYDROSTATIC - 2834 FINAL HYDROSTATIC PSI: 2833
PSI: _____

BOTTOM HOLE TEMPERATURE: 127 F

TEST OPENED TOOL (1/8" CHOKE) WITH NO BLOW, CHECK TO MAKE SURE
DESCRIPTION: MANIFOLD WAS CLEAR, 1/4" BLOW @ 9 min., DECR BLOW @ 14 min, NO BLOW
@ 16 min, REMAINED DEAD TO 60 min

SHUT IN TOOL for 60 min

OPEN TOOL WITH NO BLOW, REMAINED DEAD FOR 3 HRS

SHUT IN TOOL for 2 HRS, PULL FREE

PIPE RECOVERY: 5.0 FT MUD

SAMPLE CHAMBER RECOVERY: 1300 cc MUD @ 7 psi

COMMENTS: QUESTIONABLE RESULTS PROMPTED A RETEST OF THE SAME INTERVAL

Bradford Canyon #2-23(RD) DST #2 REPORT

DST # 2

DATE 1/23/1998

COMPANY & WELL PETRAL EXPLORATION LLC BRADFORD CANYON #2-23 (RD)

FORMATION UPPER ISMAY INTERVAL: 5425'-5470'

HOLE SIZE: 7 7/8" DRILL PIPE SIZE: 4 1/2" WATER CUSHION: NONE

DRILLING MUD: ppm NITRATE: 60 ppm ppm CHLORIDES 292000
MUD 10.2
WEIGHT: _____

	DURATION IN MIN.	PSI - TOP CHART	PSI - BOTTOM CHART
INITIAL FLOW	60	39	
INITIAL SHUT IN	240	74 TO 383	
FINAL FLOW	60	79 TO 142	
FINAL SHUT IN	240	142 TO 922	

INITIAL HYDROSTATIC - 2795 FINAL HYDROSTATIC PSI: 2789
PSI: _____
BOTTOM HOLE TEMPERATURE: 130 F

TEST DESCRIPTION: OPENED TOOL (1/8" CHOKE) WITH 1/2" BLOW, INCREASE STEADILY TO 0.5 oz @ 2 min, 2.0 oz @ 4 min, 3.5 oz @ 13 min, 4.5 oz @ 18 min, 5 oz @ 23 min, 5.5 oz @ 33 min, 6.0 oz @ 43 min 6.5 oz @ 53 min, BOTTOM OF BUCKET @ 63 min

SHUT IN for 60 min
OPEN TOOL WITH BLOW TO BOTTOM OF BUCKET @ 11.0 oz, 11.0 oz @ 5 min, 10.5 @ 10 min, 10.0 @ 15 min, 9.0 @ 30 min, 8.5 @ 40 min, 8.0 @ 50 min, 7.5 @ 60 min, 7.5 @ 120 min, 8.0 @ 135 min, 8.5 @ 150 min, 9.0 @ 165 min, 9.5 @ 180 min, 10.0 @ 195 min, 10.5 @ 210 min, 11.25 @ 225 min, 12.0 @ 240 min
SHUT IN TOOL for 4 hrs

PIPE RECOVERY: 248' GAS CUT MUD, 124' MUD, 62' WATER (TTL-434')

SAMPLE CHAMBER RECOVERY: 0.38 cu ft GAS @ 100 psi, 350 cc WATER, 50 cc OIL

COMMENTS: BOTTOM PACKER APPEARS TO HAVE LEAKED INTERMITTENTLY. WATER APPEARS TO BE FILTRATE. EVALUATION CONFIRMS RESULTS OF DST #1.

FORMATION TOPS

OPERATOR:	PETRAL EXPLORATION LLC
WELL NAME:	BRADFORD CANYON #2-23 (RD)

(NO WIRELINE DATA AVAILABLE)

FORMATION NAME	PROGNOSIS	SAMPLE TOPS	
GL:5117', KB:5130'	TVD	SUBSEA	MD
KELLY BUSHING	KB:5130'	KB:5130'	KB:5130'
MORRISON	SURFACE	—	—
HONAKER TRAIL	4159'	+972	4158'-TVD
ISMAY	5200'	NA	4238'-MD
HOVENWEEP SHALE	5335'	NA	5389'
LOWER ISMAY	5380'	NA	5528'
GOTHIC SHALE	5430'	NA	5570'
DESERT CREEK	5430'	NA	5622'
LOWER DESERT CK	5450'	NA	5647'
CHIMNEY ROCK SH	5490'	NA	5688'
AKAH	5535'	NA	5719'
PARADOX SALT	5557'	NA	5738'
TD	5589'	NA	5772'
	5610'	NA	5784'

GEOLOGICAL SUMMARY

AND

ZONES OF INTEREST

The Petral Exploration LLC Bradford Canyon #2-23 Redrill ("RD") well was drilled as an Upper Ismay test with the Lower Ismay and Desert Creek zones of the Pennsylvanian age Paradox formation as secondary objectives. This was a directional redrill of the original Raymond T. Duncan #2-23(straight) wellbore in an effort to penetrate the algal mound porosity. The Bradford Canyon #2-23(RD) was drilled in SW NW Section 23, T37S, R24E, with the bottom hole location (BHL) located in the SE NW of Section 23, T37S, R24E.

The well was drilled from a kick-off date of 1/2/98 to TD on 1/25/98. Geological coverage commenced on 1/16/98 in the Pennsylvanian Hermosa Formation.

The Bradford Canyon #2-23(RD) was kicked off at a depth of 2700'. A persistent water flow problem caused a delay while much of the initial kick-off borehole was redrilled. Drilling continued with halts for directional surveys and bit trips until 5422' on 1/18, when drilling was halted to core the Upper Ismay. Two cores were cut on 1/19 and 1/20. The first cut 28' before the core barrel jammed, with a full 28' recovery. The second core cut 48' before the barrel jammed, with 47' recovered, with a drillers TD of 5496'. DST #1 was run as a straddle test over a 45' interval, with packers set at 5425' and 5470'. QFT data was obtained for the cored and tested interval. Drilling resumed on 1/22/98, and continued to 5550' on 12/22, when a decision was made to conduct a re-test of the Upper Ismay porosity and the hole was strapped in preparation for DST #2. This was due to the questionable results of DST #1. DST #2 was also a straddle test of the Upper Ismay zone, with packers again set at 5425' and 5470'. Results confirmed the dismal results obtained from DST #1. Drilling resumed on 1/24, and the Bradford Canyon #2-23(RD) reached a total depth of 5784' in the Paradox Salt on 1/25/98.

Geological services were released prior to the running of the wireline logs, and the log copies were unavailable at the time of this report. All tops used in this report are measured depth sample tops.

HERMOSA 4238'-MD, 4158'(+972')-TVD

The Hermosa or Honaker Trail is the upper member of the Hermosa group and is of upper Pennsylvanian age. Geological coverage of the Bradford Canyon #2-23(RD) started in the Honaker Trail. The Honaker Trail was primarily a marine sequence, with several shaley clastic zones. Predominant in the Hermosa were cream to white to tan to light gray brown, occasionally dark gray brown, cryptocrystalline to microcrystalline, slightly fossiliferous limestone interbedded with shales, sandstones, and some gray-brown siltstones. The shales and siltstones were medium to dark gray and graybrown and increasingly calcareous and carbonaceous in the lower one third of the Honaker Trail. Some noteworthy gas increases were seen in the Honaker Trail at 5040', 5060', and 5140'. Thin scattered cherts, and medium to dark gray brown to light brown, microcrystalline dolomites were also noted while drilling the Honaker Trail. Minor white, chalky anhydrites were also noted.

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The Honaker Trail overlies the Paradox with a fairly sharp contact between a dirty limestone and dark, organic dolomitic shale at its base and a dense, shaley limestone at the top of the Ismay. The carbonaceous shale marker at the base was well developed, making the Ismay top a reasonably definite sample top pick.

The Honaker Trail contained minor hydrocarbon shows and is of no economic interest in this well at this time.

UPPER ISMAY 5389'-SPL MD

The upper Ismay member of the Paradox Formation was primarily a limestone, with anhydrite, dolomite, and dolomitic limestone interbeds. The majority of the Upper Ismay was cored. The limestones were tan to gray to dark gray brown. Microcrystalline to coarsely crystalline, these limestones were tight, dense, argillaceous, with rare vuggy porosity, and interesting Foram streaks. Detrital streaks were seen in the core. Forams were the primary fossil type, with occasional crinoids and brachiopods. The limestones had occasional gray argillaceous mottling, especially in the lower portion. Scattered clear to translucent anhydrite blebs and very thin black carbonaceous shales were noted in the limestones. The dolomites were microcrystalline, tightly microsugrosic, medium to dark gray, with occasional anhydrite blebs. The anhydrites, particularly in the upper portion of the Upper Ismay, were both clear crystalline and white chalky forms. One noteworthy gas show was seen in the middle of the Upper Ismay. A 275 unit gas spike was seen at 5455', in a light to medium graybrown colored microsugrosic dolomite, with fair fluorescence and stain. Some minor pinpoint vuggy porosity was noted from this break. The nature of the polymer-based drilling fluid probably hindered gas break-out at the surface, thus minimizing gas readings. The limestone at the base of the Ismay became increasingly shaley with depth, and graded into the Hovenweep Shale.

The Upper Ismay zone was 139' thick, and of little economic interest in the Bradford Canyon #2-23(RD), despite being the primary zone of interest. The discouraging results of the core, DST, and QFT data prompted the drilling on to the secondary Desert Creek zone. Additional wireline data is unavailable at the time of this report.

HOVENWEEP SHALE 5528'-SPL

The Hovenweep shale underlies the Upper Ismay with a sharp contact between the shaley limestone at the base of the Upper Ismay and the sapropelic dolomite shales of the Hovenweep. The shales were black, to occasionally medium to dark gray, organic dolomites, slightly limy to calcareous, silty, carbonaceous, sooty, and slightly micaceous. The Hovenweep Shale was 42' thick in this well and is of no economic interest in the Bradford Canyon #2-23(RD), other than as a source for hydrocarbons.

LOWER ISMAY 5570'-SPL

The lower Ismay consisted of thin carbonate benches with a massive anhydrite bed, gray dolomitic shales, and a silty-sandy zone at the top. The carbonate was predominately a gray to brown, cryptocrystalline to microcrystalline, clean to shaley, anhydritic, very slightly fossiliferous limestone with dolostone streaks. Textures in the dolostones were dense to silty to tightly microsugrosic, with streaks of microsugrosic porosity. Interbedded in the upper dolomites and limestones were abundant very fine to silty quartzitic grains, grading to limestone-filled sandstones and siltstones. This probably represented a wind-deposited sabkha environment. Also noted were thin carbonaceous, slightly calcareous to dolomitic shales. The base of the lower Ismay seen in the Bradford Canyon #2-23(RD) became increasingly anhydritic.

The lower Ismay was of no economic interest in this well.

GOTHIC SHALE 5622'-SPL

The Gothic Shale, like the Hovenweep Shale is a dark gray to black, very dolomitic, carbonaceous, sooty shale or more properly, a sapropelic dolomite. The Gothic lies gradationally under the lower Ismay, becoming slightly more richly organic with depth. The shales had an associated background gas increase of up to 255 units when drilled. The Gothic was 25' thick in Bradford Canyon #2-23(RD) and is of no economic interest, other than as a hydrocarbon source and marker bed.

DESERT CREEK 5647'-SPL

The Desert Creek was 72' thick and underlay the Gothic with a fairly sharp contact between the carbonaceous Gothic shales and the tight, very argillaceous to silty dolostone at the top of the Desert Creek. The Desert Creek is divided into upper and lower zones. Under the first 16' carbonate shoulder of the Desert Creek, an approximately 25 feet of anhydrite was drilled. Another 24' dirty carbonate bench was followed by the 7' anhydrite of the lower Desert Creek. The potential Desert Creek pay was not developed in the 20'+ lower carbonate bench.

The upper carbonate bench of the Desert Creek was primarily dolostone. This dolostone was gray to graybrown, microcrystalline, dense to silty in appearance, tight with calcite fill of the slight pinpoint microsucrosic porosity. It was moderately to very argillaceous grading to dolomitic shale, slightly siliceous, with some light crystalline anhydrite mottling. No shows of any significance were seen from this dense, tight to slightly microsucrosic zone.

The "barren zone" carbonate was a limestone and mottled, earthy dolomite, and lay under the missing mound development at the base of the Desert Creek. The Desert Creek became more argillaceous with depth.

The Desert Creek appeared to have a sharp contact with the Chimney Rock shale above the Akah. With no significant porosity or hydrocarbon show, the Desert Creek is of no economic interest in this well.

CHIMNEY ROCK SHALE 5738'-SPL

The Chimney Rock Shale like the Hovenweep and Gothic Shales is a sapropelic dolomite. Richly carbonaceous, it was seen in its usual guise of dark gray to black, organic sooty shale. The Chimney Rock sharply underlies basal shaley dolomites of the Desert Creek, and had an associated shale gas show of 150 units in the increasingly organic bottom few feet. The Chimney Rock was 19' thick in the Bradford Canyon #2-23(RD) and is of no economic interest other than a rich organic source for hydrocarbons.

AKAH 5738'-SPL

The Akah underlies the Chimney Rock shale with sharp contacts between the overlying shale and the underlying anhydrite cap of the Paradox salt. Tight dolomites, dolomitic siltstones and shales, and dense limestones at the top of the Akah contrast with the overlying richly organic shales. The Akah was primarily a mixed sequence of dolostone, limestone, anhydrite, and dolomitic shales. The limestones noted were tan to graybrown, microcrystalline, tight, clean to argillaceous, with rare streaks of dolostone. The dolostones were tan to light to medium graybrown to gray, cryptocrystalline to microcrystalline, tight to very rare intercrystalline with some microsucrosic porosity, and anhydritic in part. The dolostone was argillaceous to silty, and banded with streaks of dark gray to black carbonaceous shale. The dolomite had traces of intercrystalline porosity and dull

mineral fluorescence, but no visible stains and no cuts. Minor gas increases were noted in the Akah, with a peak reading of 265 units at 5750'. There were interbedded dense, occasionally banded anhydrites with a thin bed of anhydrite at the base of the Akah. This basal anhydrite overlaid the upper beds of the Paradox salt.

At 34' thick, the Akah in the Bradford Canyon #2-23(RD) contained no significant hydrocarbons or porosity zones, and is of no economic interest in this well.

PARADOX SALT 5772'-SPL

The Paradox Salt lay below the Akah, and was picked from drill rate. With the saturated brine mud system, clear crystalline halite was seen in the samples.

CONCLUSION

The Petral Bradford Canyon #2-23(RD) was drilled to a total depth of 5784'-MD on 1/25/98. The well bottomed in the Paradox Salt of Pennsylvanian age. Wireline logs were run on 1/26. The decision plug and abandon the well was pending at the time that geological services were released.

CORE #1 DESCRIPTIONS (micro)

OPERATOR: PETRAL EXPLORATION LLC
WELL NAME: BRADFORD CANYON #2-23 (RD)

**UPPER ISMAY (5420'-5448') 28' CUT; 28' RECOVERED
CORE BARREL JAMMED @ 28'**

DEPTH	LITHOLOGY	
5422.0' Upper Ismay	DOL	lt-m gy, micxl, micsuc-pkstr, dns, mas, tt, poss slty incl, brit-fri NFSOC
5423.2'	DOL	lt-m gy AA, sl incr gy arg fl, occasionally trnsl crystalline ANHYDRITE blebs & strk <2cm, NFSOC
5426.3'	DOL ANHY	ltgy DOL with abnt thn wh-trnsl ANHY lam, sil-chty ip, brit-hd NFSOC
5433.0'	DOL	lt-m brn, abnt clr-trnsl ANHY mot, micxl-vfxl, dns-tt micsuc, sil-chty ip, brit-hd NFSOC
5438.4'	DOL	gybrn, micxl, micsuc-micgran-pkstr, tt, sil/cht ip, hd-fri, occ asph-bit lam, mod ANHY blebs <2mm, NFSOC
5439.2'	ANHY DOL	clr-trnsl xln ANHY with abnt brn-m-dk gybrn DOL incl, crpxl-micxl, tt, fri-hd NSOC, mnr wh min flor in ANHY
5440.9'	DOL	lt gybrn, micxl, tt pkstr, sl arg, mas, sil-chty, fri-hd NFSOC
5442.6'	SLIX	slickensides in thin (<1cm) blk SH (?)
5442.6'	LS	dkgy, org ip, poss carb, v arg-shy, abnt wh fos calc elong pel (FORAM ip) swarms, occ lt ANHY mot, rr blk carb incl, sil ip, poss lmy DOL ip NFSOC
5444.5'	LS	blk SH ip, lmy DOL ip AA, decr ANHY & FORAM incl
5446.5'	LS	dkgy, org ip, poss carb, v arg-shy, blk SH ip, lmy DOL ip AA, rr ANHY blebs NFSOC
5447.2' BASE CORE	SH	LS ip, dkgy, org ip, poss carb, lg blk CHT nod, ANHY repl of poss lg CRIN, abnt shell frags, fri-hd, rr pp PYR

CORE #2 DESCRIPTIONS

(micro)

OPERATOR: PETRAL EXPLORATION LLC
WELL NAME: BRADFORD CANYON #2-23 (RD)

UPPER ISMAY (5448'-5496) 48' CUT; 47' RECOVERED
BARREL JAMMED @ 48'

DEPTH	LITHOLOGY
5448.0' Upper Ismay	DOL dkgy, crp-occ micxl, dns-occ pkstn, tt, sil-chty/lg dk CHT nod, brit-hd NFSOC
5449.3'	DOL lt-m gy AA, sl incr gy arg fl, occasionally trnsl crystalline ANHYDRITE blebs & strk <2cm, NFSOC
5450.8'	DOL m-dk gy DOL, crpxl, mas, dns NFSOC
5452.9'	DOL lt-m gybrn, abnt clr-trnsl-wh ANHY mot, micxl pkstn, dns-tt micsuc, fos frags (unid), sil-brn chty incl, brit-hd patchy dul-occ bri yel-wh FLOR, VTR slo yel ring CUT, strong ODOR
5456.0'	DOL lt gy-lt-m gybrn, mot, micxl, mas, micsuc-pkstn, tt, tr pp VUG, cln, hd-fri, mod clr xln ANHY blebs <5mm, abnt dul yel FLOR, FR slo-mod mky-occ strm yel-bl CUT, str OD
5457.0'	DOL lt-m gybrn, mot, micxl, mas, micsuc-pkstn, tt, tr pp VUG, cln, hd-fri, mod clr xln ANHY blebs <5mm, patchy dul-bri yel-wh FLOR, WK-FR slo yel-bl CUT, mod OD
5458.1'	DOL gy/gybrn mot, poss O STN, incr crpxl,dns/micsuc strk, micxl ip, tt pkstn/sl incr pp vug, sl arg, mas, sil-chty, fri-hd abnt bri yelwh FLOR, FR slo yel-bl CUT, str OD
5459.4'	DOL gy/gybrn mot, poss O STN, incr crpxl,dns/micsuc strk, micxl ip, tt pkstn/sl incr pp vug, sl arg, mas, sil-chty, fri-hd, lt xln ANHY mot abnt dul-bri yelgn FLOR, WK slo yel-bl CUT, str OD
5460.0'	LS gybrn-m-dk gy, mot ip, tr brn O STN, dkgy arg strks, DOL strks patchy bri-dul yel-yelgn FLOR, TR slo yel-bl CUT, mod OD
5461.1'	LS AA, blk-brn bit stn, micsuc-pp vug <2mm/euh xln walls, DOL mot patchy-streaked bri yel-yelwh FLOR, FR-G fst yel-bl CUT, str OD
5463.0'	LS AA/occ styl & alg dbrs patchy-streaked bri yel-yelwh FLOR, FR fst yel-bl CUT, str OD
5463.8'	LS gybrn-m-dk gy AA, pp vug, mot ip, tr brn O STN, dkgy arg strks, DOL strks patchy bri yelwh FLOR, FR-G fst yel-bl CUT, mod OD

- 5465.5' LS AA, incr ltgy-gybrn/abnt DOL mot, occ shell frags, pp vug/dk O-bit-asph STN, wh-clr xln ANHY blebs
patchy bri yel FLOR, FR mod fst yel-bl CUT, mod OD
- 5466.5' LS incr DOL ip, incr dns, tt, incr clr-wh xln ANHY blebs
rthy OD, NFSOC
- 5467.3' LS DOL ip AA, tr styl/dk gy arg fl, incr arg ip
NFSOC
- 5468.9' LS lt-dk gybrn/m-dk gy DOL mot, micxl, tt micsuc, rr styl/dk bit lining, cln-arg mot & strk, sl sil ip, abnt lg xln ANHY blebs
NFSOC
- 5469.9' LS AA, DOL ip
tr dul sal-pk FLOR, NSOC
- 5471.6' DOL lt-m gybrn, micxl mas, tt micsuc, rr carb-occ dk bit ptgs, cln-arg mot & strk
NFSOC
- 5473.6' DOL lt-m gybrn, occ blk bit mot, rr carb-bit ptgs, micxl mas AA
NFSOC
- 5475.1' DOL tan-lt gybrn AA, lmy mot & strk, incr pp vug, incr wh amor ANHY blebs
- 5476.1' DOL tan-lt gybrn AA, incr mot, cln/arg strks, no ANHY
abnt dul sal-pk FLOR, NSOC
- 5478.3' DOL AA, incr lt-m gy ip, mot, micxl, micsuc tt pkstn, rr pp vug
sal-pk dul FLOR AA, NSOC
- 5479.3' DOL lt-m gy-lt gybrn, mot, micxl, micsuc tt pkstn, rr pp vug AA
pk-sal dul FLOR AA, NSOC
- 5480.8' DOL AA, occ clr ANHY repl of fos frags, clr xln ANHY blebs
decr sal-pk FLOR AA, NSOC
- 5481.7' DOL incr lt-m gybrn, mot ip, dk bit-carb SH ptgs, incr lg trnsl wh amor ANHY strks
NFSOC
- 5483.5' LS crm-tan-lt-m gybrn, micxl, micsuc pkstn, tt, cln-occ arg strks, occ dk brn bit-asph
strks
NFSOC
- 5486.5' LS AA, tr alg dbrs, occ vug/euh xln calc lining, abnt clr xln ANHY incl
NFSOC
- 5488.7' LS AA, incr gybrn ip, mnr trnsl-wh ANHY blebs
NFSOC
- 5490.7' LS m-dk gy-m-dk gybrn, micxl, rthy pkstn, incr arg grdg to org SH ip, mas, abnt scat
wh-clr euh calc rhmbs <1cm, occ scat carb-bit incl

5492.8' SH dkgy, org ip, rthy-slty, sl-m calc, poss DOL ip, fis-plty, poss sl slty, frm

5494.1' LS m-dk gybrn, incr crpxl ip, dns, arg, for strks/ CRIN, FORAM, shell frags & plant
dbrs, tr pp PYR incl
NFSOC

5495.0' SH dkgy, slty-rthy, decr fis-incr irreg, occ lt calc fos dbrs, org ip, carb-sooty ip
TD CORE

RECEIVED
 Form 3160-3
 (November 1994)
FEB 25 1998
DIV. OF OIL, GAS & MINING

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

FORM APPROVED
 OMB No. 1004-0135
 Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
 UTU-012942

6. If Indian, Allottee or Tribe Name
 N/A

7. If Unit or CA/Agreement, Name and/or No.
 Bradford Canyon Unit
 UTU-63082X

8. Well Name and No.
 #2-23 (RD) Bradford Canyon Unit

9. API Well No.
 43 037 31021 0101

10. Field and Pool, or Exploratory Area
 Bradford Canyon

11. County or Parish, State
 San Juan, Utah

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
 Petral Exploration LLC c/o ENMARC, INC., attn: E.K. Bostick

3a. Address
 P.O. Box 7638, Loveland, CO 80537

3b. Phone No. (include area code)
 (970) 663-7576

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
 Surface 2318'FNL and 654'FWL Sec. 23 T37S R24E (SLM)
 BHL (@ MD TD, 1880' FNL & 1500' FWL Sec. 23 T37S R24E

CONFIDENTIAL

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity
<input checked="" type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans <input checked="" type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon _____
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal _____

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Verbal permission to P&A was obtained on 1-26-98. Well P&A'd as follows:
 5778 - 4940' (Tagged) 240sx "B" cmt. w/ 3% CaCl Plugging operations witnessed by Jeff Brown w/ BLM Monticello, Utah.
 3150 - 2746' (Tagged) 128sx "B" cmt. w/ 3% CaCl
 2610 - 2410' 82sx "B" cmt.
 50 - Surface 20sx "B" cmt. Rig released at 9:00pm 1-27-98.

CONFIDENTIAL

Casing head has been cut off. Casing cap has been welded on. Celler, rat and mouse holes have been filled and covered. Water in reserve pit has been removed and disposed of. Bird netting has been installed over reserve pit. Location has been policed.

Lease road and location to be restored per BLM Federal requirements. No dry hole marker required per Jeff Brown with BLM.

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

Name (Printed/Typed) E.K. Bostick	Title Agent for Petral Exploration LLC
Signature <i>E.K. Bostick</i>	Date February 17, 1998

APPROVED BY: _____ TITLE: _____ DATE: _____

Office: _____

Conditions of approval, if any, are attached. Approval of this notice 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.

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.