

CP

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG _____ ELECTRIC LOGS FIL _____ X WATER SANDS _____ LOCATION INSPECTED _____ SUB. REPORT/abd. _____

DATE FILED 5-29-84

LAND: FEE & PATENTED _____ STATE LEASE NO. _____ PUBLIC LEASE NO. U-11668 _____ INDIAN _____

DRILLING APPROVED: 6-4-84 OIL.

SPUDED IN: 7-8-84

COMPLETED: 8-2-84 POW PUT TO PRODUCING: 8-31-84

INITIAL PRODUCTION: 45 BOPD, 76 MCF, 179 BWPD

GRAVITY A.P.I. _____

GOR: 1670:1

PRODUCING ZONES: 5440-5468' Ismay

TOTAL DEPTH: 5650'

WELL ELEVATION: 5235'

061701

DATE ABANDONED: _____

FIELD: PATTERSON

UNIT: PATTERSON

COUNTY: SAN JUAN

WELL NO. PATTERSON UNIT #5 API NO 43-037-31019

LOCATION 678' FSL FROM (N) (S) LINE. 664' FWL FT. FROM (E) (W) LINE. SWSW 1/4 - 1/4 SEC. 4

| TWP. | RGE. | SEC. | OPERATOR | TWP. | RGE. | SEC. | OPERATOR |
|------|------|------|----------------|------|------|------|----------|
| 38S | 25E | 4 | WEXPRO COMPANY | | | | |

GEOLOGIC TOPS:

| | | | |
|----------------|------------------|------------------|-------------------|
| QUATERNARY | Star Point | Chinle 1569' | Molas |
| Alluvium | Wahweap | Shinarump 2360' | Manning Canyon |
| Lake beds | Masuk | Moenkopi | Mississippian |
| Pleistocene | Colorado | Sinbad | Humbug |
| Lake beds | Sego | PERMIAN | Brazer |
| TERTIARY | Buck Tongue | Kaibab | Pilot Shale |
| Pliocene | Castlegate | Coconino | Madison |
| Salt Lake | Mancos | Cutler 2516' | Leadville |
| Oligocene | Upper | Hoskinnini | Redwall |
| Norwood | Middle | DeChelly | DEVONIAN |
| Eocene | Lower | White Rim | Upper |
| Duchesne River | Emery | Organ Rock | Middle |
| Uinta | Blue Gate | Cedar Mesa | Lower |
| Bridger | Ferron | Halgaite Tongue | Ouray |
| Green River | Frontier | Phosphoria | Elbert |
| | Dakota | Park City | McCracken |
| | Burro Canyon | Rico (Goodridge) | Aneth |
| | Cedar Mountain | Supai | Simonson Dolomite |
| | Buckhorn | Wolfcamp | Sevy Dolomite |
| | JURASSIC | CARBON I FEROUS | North Point |
| Wasatch | Morrison Surface | Pennsylvanian | SILURIAN |
| Stone Cabin | Salt Wash | Oquirrh | Laketown Dolomite |
| Colton | San Rafael Gr. | Weber | ORDOVICIAN |
| Flagstaff | Summerville | Morgan | Eureka Quartzite |
| North Horn | Bluff Sandstone | Hermosa | Pogonip Limestone |
| Almy | Curtis | | CAMBRIAN |
| Paleocene | Entrada 600' | Pardox 4893' | Lynch |
| Current Creek | Moab Tongue | Ismay 5430' | Bowman |
| North Horn | Carmel 760' | Desert Creek | Tapeats |
| CRETACEOUS | Glen Canyon Gr. | Akah | Ophir |
| Montana | Navajo 790' | Barker Creek | Tintic |
| Mesaverde | Kayenta | | PRE - CAMBRIAN |
| Price River | Wingate | Cane Creek | |
| Blackhawk | TRIASSIC | | |

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

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

2. NAME OF OPERATOR
 Wexpro Company

3. ADDRESS OF OPERATOR
 P. O. Box 458, Rock Springs, WY 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface SW $\frac{1}{4}$ SW $\frac{1}{4}$, 678' FSL, 664' FWL
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 Approx. 14 miles N-NE of Hatch Trading Post, San Juan County, UT

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 656'

16. NO. OF ACRES IN LEASE 1926.16

17. NO. OF ACRES ASSIGNED TO THIS WELL --

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1/4 mile

19. PROPOSED DEPTH 5645 *ASMD*

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) GR 5222'

22. APPROX. DATE WORK WILL START* Upon approval

5. LEASE DESIGNATION AND SERIAL NO.
 UT-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 --

7. UNIT AGREEMENT NAME
 Patterson

8. FARM OR LEASE NAME
 Unit

9. WELL NO.
 5

10. FIELD AND POOL, OR WILDCAT
 Patterson ~~Unit~~ Field

11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA
 4-38S-25E

12. COUNTY OR PARISH San Juan

13. STATE Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------|-----------------|---------------|---|
| 12-1/4 | 9-5/8 | 36 | 1635 | 325 sx Halliburton Lite w/10# gilsonite/sx, 2% CaCl, 1/4# flocele/sx & 180 sx Reg w/3% CaCl & 1/4# flocele/sx |
| 8-3/4 | 5-1/2 | 17 | 5600 | To be determined |

RECEIVED

MAY 29 1984

DIVISION OF OIL GAS & MINING

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
 DATE: 5/24/84
 BY: John R. Baga

See attached drilling plan.

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 A. J. Maser TITLE Drilling Superintendent DATE May 25, 1984
 (This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
 APPROVED BY _____ TITLE _____ DATE _____
 CONDITIONS OF APPROVAL, IF ANY :

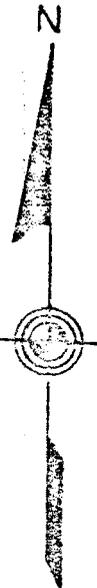
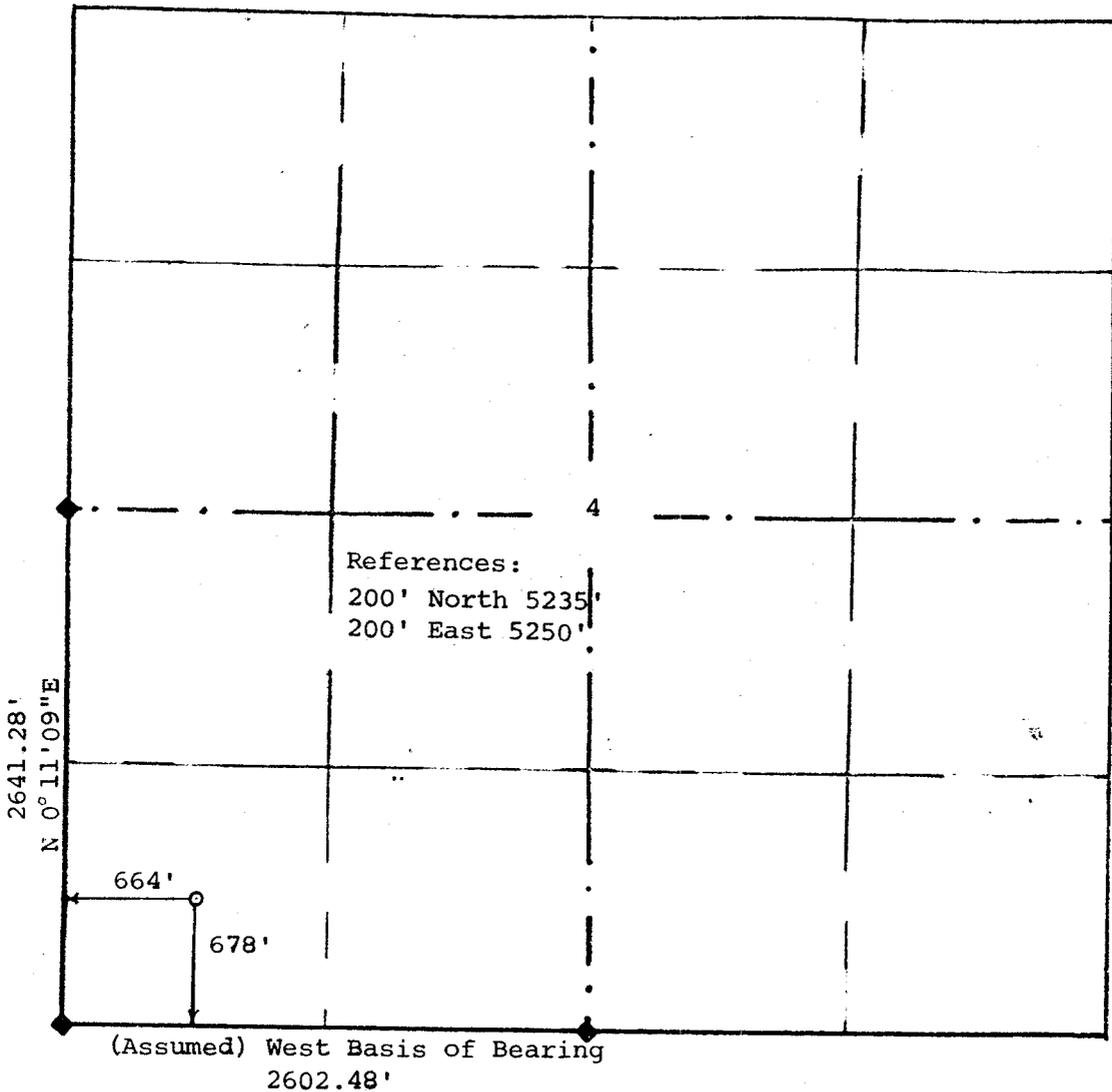
*See Instructions On Reverse Side



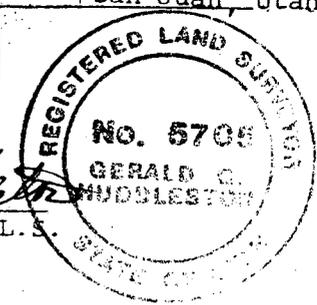
POWERS ELEVATION

D MDO MAY 29 1984

Well Location Plat



| | | | |
|--|-------------------------------|--------------------------------|--------------------|
| Operator Wexpro Company | | Well name Patterson Unit #5 | |
| Section 4 | Township 38 South | Range 25 East | Meridian S.L.M. |
| Footages 678' FSL & 664' FWL | | County/State San Juan, Utah | |
| Elevation 5222' | Requested by Jennifer Head | | |
| <p>The above plat is true and correct to the best of my knowledge and belief.</p> <p>25 April 84</p> <p><i>Gerald G. Huddleston</i> Gerald G. Huddleston, L.S.</p> | | | |



Drilling Plan
Celsius Energy Company
Patterson Unit Well No. 5
San Juan County, Utah

1. & 2. SURFACE FORMATION, ESTIMATED TOPS AND WATER, OIL, GAS OR MINERAL BEARING FORMATIONS:

| | |
|------------------------|---------------------------------|
| Morrison | - Surface, minor coal beds |
| Entrada | - 585 |
| Carmel | - 745 |
| Navajo | - 775 |
| Chinle | - 1,560 |
| Shinarump | - 2,345, minor coal beds |
| Cutler | - 2,485 |
| Honaker Trail | - 4,385, gas |
| Paradox | - 4,885 |
| Ismay (Base 2nd Shale) | - 5,420 |
| Ismay Porosity | - 5,450, objective, oil and gas |
| Ismay Shale | - 5,525 |
| Lower Ismay | - 5,580 |
| B Zone Shale | - 5,635 |
| Total Depth | - 5,645 |

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: (See attached diagram)
Operator's minimum specifications for pressure control equipment requires an 11-inch 3000 psi double gate hydraulically operated blowout preventer and an 11-inch 3000 psi annular preventer. Surface casing and all preventer rams will be pressure tested to 1600 psi for 15 minutes using rig pump and mud. NOTE: Surface casing will be pressure tested to a minimum of 1000 psi; or one psi per foot of casing; or 70 percent of the internal yield of the casing, whichever is applicable. BOP's will be checked daily as to mechanical operating condition and will be tested by rig equipment after each string of casing is run. All ram type preventers will have hand wheels which will be operative at the time the preventers are installed.

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.

4. CASING PROGRAM:

| <u>Footage</u> | <u>Size</u> | <u>Grade</u> | <u>Wt.</u> | <u>Condition</u> | <u>Thread</u> | <u>Cement</u> |
|----------------|-------------|--------------|------------|------------------|---------------|--|
| 1610 | 9-5/8 | K-55 | 36 | New | 8 rd ST&C | 325 sacks Halliburton Light with 10# gilsonite/sack, 2% CaCl, & 1/4# flocele/sack and 180 sacks Regular with 3% CaCl and 1/4# flocele/sack |
| 5600 | 5-1/2 | K-55 | 17 | New | 8 rd LT&C | To be determined |

5. AUXILIARY EQUIPMENT:

- a) Manually operated kelly cock
- b) No floats at bit
- c) Monitoring of mud system will be visual
- d) Full opening floor valve manually operated

6. MUD PROGRAM: A gel water base mud will be used from surface casing to total depth.

Sufficient mud materials to maintain mud properties, control lost circulation and to contain blowout will be available at the wellsite.

7. LOGGING: Dual Induction Laterolog with Spontaneous Potential and Gamma Ray (2-inch linear, 5-inch logarithmic) from total depth to surface casing.

CNL-FDC with Gamma Ray and Caliper from total depth to surface casing

GR and Neutron from total depth to surface

TESTING: Four Drill Stem Tests are anticipated as follows:

| <u>Test</u> | <u>Depth or Formation</u> |
|-------------|---------------------------|
| 1 | 4385' - Honaker Trail |
| 2 | 5450' - Ismay |
| 3 | 5510' - Ismay |
| 4 | 5570' - Ismay |

CORING: No coring is anticipated.

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, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the District Manager.

9. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURES AND POTENTIAL HAZARDS:

No abnormal conditions, bottom hole pressures or potential hazards are anticipated, BHT of 129°F is expected.

10. ANTICIPATED STARTING DATE: Upon approval.

DURATION OF OPERATION: Approximately 18 days.

The operator will contact the San Juan Resource Area at 801-587-2201, 48 hours prior to beginning any dirt work on this location.

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.

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.

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.

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.

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, not later than the first business day following the date on which the well is placed on production.

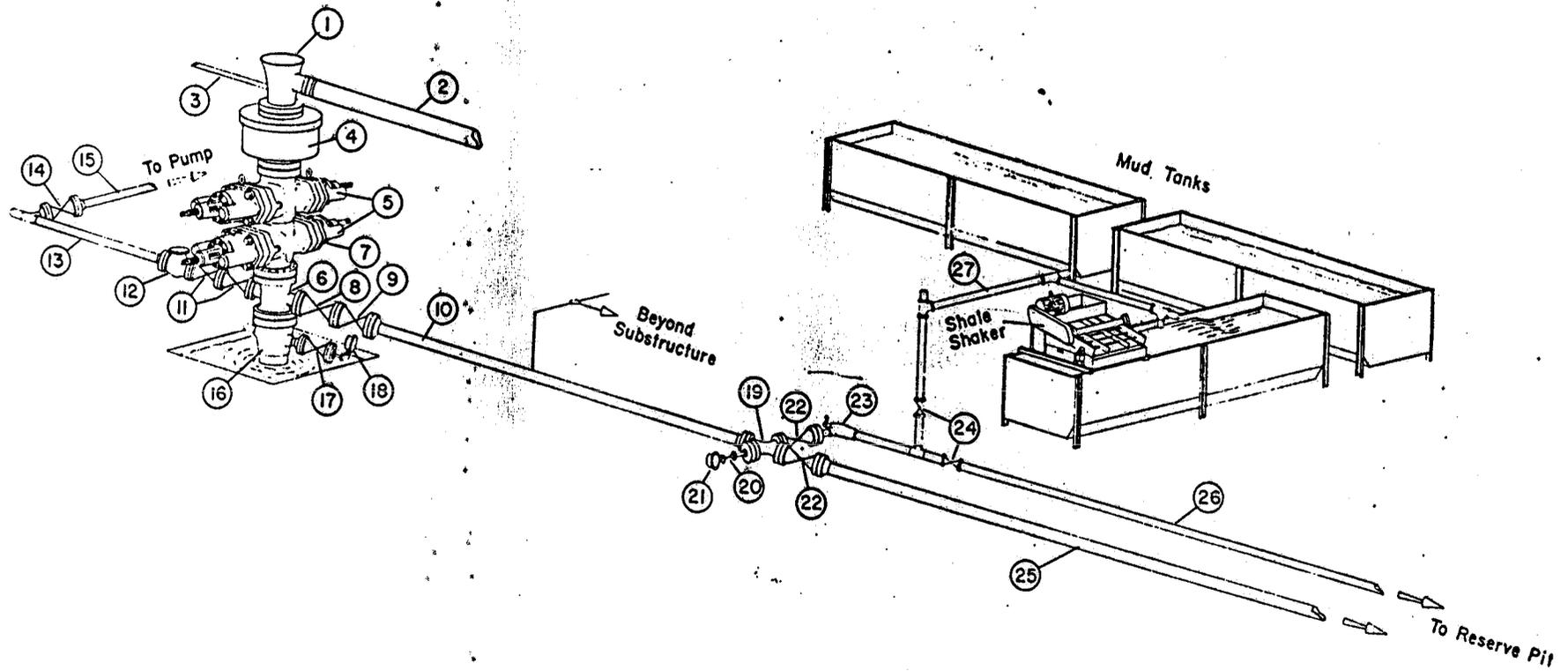
No well abandonment operations will begin without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Manager. A "Subsequent Report of Abandonment" (Form 3160-5), will be

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.

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 San Juan Area Manager or his representative, or the appropriate Surface Managing Agency.

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.

CELSIUS/WEXPRO 3000 psi BLOWOUT PREVENTION EQUIPMENT



STANDARD STACK REQUIREMENTS

| N ^o | ITEM | NOMINAL | ID | TYPE | FURNISHED BY | |
|----------------|---|---------|---------|------------------------------|--------------|--------|
| | | | | | OPER. | CONTR. |
| 1 | Drilling Nipple (Rotating Head when air drilling) | | | | | |
| 2 | Flowline | | | | | |
| 3 | Fill up Line (eliminated for air drilling) | 2" | | | | |
| 4 | Annular Preventer | | | Hydril Cameron Shaffer | | |
| 5 | Two Single or One dual Hydril oper rams. | | | H. ORC; F. LWS; B. F. | | |
| 6 | Drilling spool with 3" and 2" outlets | | | Forged | | |
| 7 | As Alternate to (6) Run & Kill and Choke lines from outlets in this ram | | | | | |
| 8 | Gate Valve | | 3-1/8 | | | |
| 9 | Valve-hydraulically operated (Gate) | | 3-1/8 | | | |
| 10 | Choke Line | 3" | | | | |
| 11 | Gate Valves | | 2-1/16 | | | |
| 12 | Check Valve | | 2-1/16 | | | |
| 13 | Kill Line | 2" | | | | |
| 14 | Gate Valve | | 2-1/16 | | | |
| 15 | Kill Line to Pumps | 2" | | | | |
| 16 | Casing Head | | | | | |
| 17 | Valve Gate _____ Plug _____ | | 1-13/16 | | | |
| 18 | Compound Pressure Cage | | | | | |
| | Wear Bushing | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

OPERATOR Waxpro Company DATE 6/4/84

WELL NAME Patterson Unit (5)

SEC SWSW 4 T 38S R 25E COUNTY San Juan

43-037-31019
API NUMBER

Red
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:

Needs Water

No oil wells within 1000ft

Unit development well

APPROVAL LETTER:

SPACING: A-3 Patterson c-3-a _____
UNIT CAUSE NO. & DATE

c-3-b c-3-c

SPECIAL LANGUAGE:

1. Water



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 *Patterson - Wexpro is the Unit Operator*

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 4, 1984

Wexpro Company
P.O. Box 458
Rock Springs, WY 80902

RE: Well No. Patterson Unit #5
SWSW Sec. 4, T. 38S, R. 25E
678' PSL, 664' FWL
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:

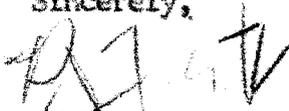
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OCC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. 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.

Westpro Company
Well No Patterson Unit #5
June 5, 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 43-037-31019.

Sincerely,



R. J. Firth
Associate Director, Oil & Gas

RJF/gl

cc: Branch of Fluid Minerals

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

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

2. NAME OF OPERATOR
 Wexpro Company

3. ADDRESS OF OPERATOR
 P. O. Box 458, Rock Springs, WY 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface SW $\frac{1}{4}$ SW $\frac{1}{4}$, 678' FSL, 664' FWL
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 Approx. 14 miles N-NE of Hatch Trading Post, San Juan County, UT

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 656'
 16. NO. OF ACRES IN LEASE 1926.16

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1/4 mile
 19. PROPOSED DEPTH 5645

21. ELEVATIONS (Show whether DF, RT, GR, etc.) GR 5222'

5. LEASE DESIGNATION AND SERIAL NO.
 UT-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
 Patterson

8. FARM OR LEASE NAME
 Unit

9. WELL NO.
 5

10. FIELD AND POOL, OR WILDCAT
 Patterson Unit

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 47-38S-25E

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

17. NO. OF ACRES ASSIGNED TO THIS WELL

20. ROTARY OR CABLE TOOLS
 Rotary

22. APPROX. DATE WORK WILL START*
 Upon approval

RECEIVED
 JUN 29 1984
 DIVISION OF OIL GAS & MINING

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------|-----------------|---------------|---|
| 12-1/4 | 9-5/8 | 36 | 1635 | 325 sx Halliburton Lite w/10#-gilsonite/sx, 2% CaCl, 1/4# flocele/sx & 180 sx Reg w/3% CaCl & 1/4# flocele/sx |
| 8-3/4 | 5-1/2 | 17 | 5600 | To be determined |

See attached drilling plan.

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 *O. J. Maser* TITLE Drilling Superintendent DATE May 25, 1984

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY *J. G. & Hansen* TITLE Acting DISTRICT MANAGER DATE 20 JUN 1984

CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

*See Instructions On Reverse Side

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

Water &

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: WEXPRO

WELL NAME: PATTERSON UNIT #5

SECTION SWSW 4 TOWNSHIP 38S RANGE 25E COUNTY San Juan

DRILLING CONTRACTOR Arapahoe Drilling Co.

RIG # 2

SPUDED: DATE 7-8-84

TIME 1:00 AM

HOW Rotary

DRILLING WILL COMMENCE _____

REPORTED BY Kathy

TELEPHONE # 307-382-9791

DATE 7-9-84 SIGNED Bill Moore

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

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

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 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 "APPLICATION FOR PERMIT—" for such proposals.)

| | | |
|--|--|--|
| <p>1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER</p> <p>2. NAME OF OPERATOR Wexpro Company</p> <p>3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, WY 82902</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface SW$\frac{1}{4}$ SW$\frac{1}{4}$, 678' FSL, 664' FWL</p> | | <p>5. LEASE DESIGNATION AND SERIAL NO. UT-11668</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME --</p> <p>7. UNIT AGREEMENT NAME Patterson</p> <p>8. FARM OR LEASE NAME Unit</p> <p>9. WELL NO. 5</p> <p>10. FIELD AND POOL, OR WILDCAT Patterson Unit</p> <p>11. SEC., T., E., M., OR BLK. AND SURVEY OR AREA 4-38S-25E</p> <p>12. COUNTY OR PARISH 13. STATE San Juan Utah</p> |
| <p>14. PERMIT NO. 43-037-31019</p> | <p>15. ELEVATIONS (Show whether DF, RT, GR, etc.) GR 5222</p> | |

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

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

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

SPUDDED 7-8-84 at 1:00 A.M.

Depth 1580', drilling.

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

SIGNED *Lee Martin* TITLE Asst. Drilling Superintendent DATE July 10, 1984

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY: _____

*See Instructions on Reverse Side

43-037-31019

Patterson Unit Well No. 5

7-12-84:

Depth 2730', 820', days 5, pump 1000, table 60, wt on bit 20 tons, bit #2, 8-3/4" hp51 cut 1150' from 1580' to 2730' in 30½ hours, surveys ¼° @ 2030' & 3/4° @ 2500', drilling time 22½ hours, lost time 1½ hours--¼ rig service & check BOP's; ½ surveys; 3/4 repair draw works. Drilling with water. Lloyd Sieverson

7-13-84:

Depth 3460', 730', days 6, pump 1000, table 60, wt on bit 20 tons, bit #2, 8-3/4" hp51 cut 1880' from 1580' to 3460' in 53¼ hours, survey 3/4° @ 3050', drilling time 22-3/4 hours, lost time 1½ hours--¼ rig service & check BOP's; ½ survey; ½ repair mud line. Drilling with water. Lloyd Sieverson

7-14-84:

Depth 3963', 503', days 7, pump 1000, table 60, wt on bit 20 tons, drilling with water, bit #2, 8-3/4" hp51 cut 2383' from 1580' to 3963' in 76-3/4 hours, survey ½° @ 3500', drilling time 23½ hours, lost time ½ hours--¼ rig service & survey. Drilling with water. RPM

7-15-84:

Depth 4313', 350', days 8, pump 1000, table 60, wt on bit 20 tons, drilling with water, bit #2 8-3/4 hp51 cut 2440' from 1580' to 4020' in 80 hours, bit #3 8-3/4 f2 cut 293' from 4020' to 4313' in 16-3/4 hours, survey 3/4° at 4020', drilling time 20 hours, lost time 4 hours--¼ rig service and check BOP's; 3-3/4 survey and trip. Drilling. RPM

7-16-84:

Depth 4655', 342', days 9, pump 1100, table 60, wt on bit 20 tons, mud wt 9.5, vis 35, sand ¼%, fc 2/32, bit #3 8-3/4 f2 cut 635' from 4020' to 4655' in 40 hours, survey 3/4° at 4520', drilling time 23¼ hours, lost time 3/4 hour--¼ rig service and check BOP's; ½ survey. Drilling. RPM

7-17-84:

Depth 4975', 320', days 10, pump 1100, table 60, wt on bit 20 tons, mud wt 9.6, vis 38, sand ¼%, wl 12.4, fc 2/32, bit #3 8-3/4 f2 cut 955' from 4020' to 4975' in 63-3/4 hours, drilling time 23-3/4 hours, lost time ¼ hour--¼ rig service and check BOP's. Drilling. RPM

Casing Report

KB 5234.00'

Landed 9-5/8-inch O.D., 36-pound, K-55, 8 round thread, ST&C casing at 1569.00 feet KBM or 13.00 feet below KB, circulated casing 45 minutes with rig pump prior to cementing, cemented with 325 sacks Howco Light treated with 10-pounds Gilsonite per sack, 2% CaCl and 1/4-pound flocele per sack, followed with 180 sacks Regular cement treated with 3% CaCl and 1/4-pound flocele per sack, good and full returns while cementing, bumped plug with 1000 psi, 500 psi over pumping pressure, float held okay, cement in place at 9:15 P.M. 7-9-84, ran one-inch pipe down backside of 9-5/8-inch O.D. casing and cemented with 60 sacks Regular cement treated with 3% CaCl, cement in place at 4:30 A.M. 7-10-84.

Patterson Unit Well No. 5
Wexpro Company, Operator
678' FSL, 664' FWL
SW SW 4-38S-25E
San Juan County, Utah

API No.: 43-037-31019
Lease No.: UT-11668
Projected Depth: 5645'
Ground Elevation: 5221'

Drilling Contractor: Arapahoe Drilling, Rig No. 2

SPUDDED 1:00 A.M. 7-8-84.

7-8-84:

Depth 274ⁱ, 274ⁱ, days 1, pump 800, table 80, wt on bit 35 tons, drilling with water, bit #1 12 $\frac{1}{2}$ f2 cut 274ⁱ from 0ⁱ to 274ⁱ in 5 hours, drilling time 5 hours, lost time 19 hours--1 wait on Halliburton; 1 ran and cemented conductor; 17 wait on cement and nipple up conductor. Drilling. JRG

7-9-84:

Depth 1344ⁱ, 1070ⁱ, days 2, pump 800, table 70, wt on bit 17 $\frac{1}{2}$ tons, drilling with water, bit #1 12 $\frac{1}{2}$ SD RR cut 1344ⁱ from 0ⁱ to 1344ⁱ in 24 $\frac{1}{2}$ hours, surveys $\frac{1}{2}$ ^o at 514ⁱ and 1^o at 1098ⁱ, drilling time 19 $\frac{1}{2}$ hours, lost time 4-3/4 hours-- $\frac{1}{2}$ rig service; 2 repair weight indicator; 2 trip; $\frac{1}{2}$ surveys. Drilling. JRG

7-10-84:

Depth 1580ⁱ, 236ⁱ, days 3, pump 800, table 60, wt on bit 15 tons, mud wt 9.0, vis 36, bit #1 12 $\frac{1}{2}$ SD RT cut 1580ⁱ from 0ⁱ to 1580ⁱ in 32 $\frac{1}{2}$ hours, survey 1^o at 1580ⁱ, drilling time 8 hours, lost time 16 hours-- $\frac{1}{2}$ rig service; $\frac{1}{2}$ circulate; 1 $\frac{1}{2}$ survey and trip out; 3/4 rig up casing crews; 2-3/4 ran 40 joints 9-5/8-inch, 36-pound, K-55, ST&C casing, landed at 1569 feet KBM; 1-3/4 circulate with rig pump; 2 $\frac{1}{2}$ cement with 325 sacks Howco lite with 10# per sack gilsonite, 2% CaCl and $\frac{1}{4}$ # flocele per sack, followed with 180 sacks of Regular B treated with 3% CaCl and $\frac{1}{4}$ # flocele per sack, full returns, bumped plug to 1000 psi, float held okay, returned 33 barrels slurry to surface, in place at 9:15 P.M. 7-9-84, cement dropped 60ⁱ; 1 rig up one-inch to pump cement, Halliburton bulk truck broke down; 4 wait on truck from Cortez; $\frac{1}{2}$ cement through one-inch pipe with 60 sacks Class B treated with 3% CaCl, returned 3 barrels slurry to surface, cement in place at 4:30 A.M. 7-10-84; 3/4 wait on cement. Waiting on cement. JRG

7-11-84:

Depth 1910ⁱ, 330ⁱ, days 4, pump 900, table 60, wt on bit 20 tons, drilling with water, bit #2 8-3/4 hp51 cut 330ⁱ from 1580ⁱ to 1910ⁱ in 8 hours, drilling time 8 hours, lost time 16 hours--12-3/4 WOC, pressure test casing and BOP's to 1500 psi, held okay; 1 trip in hole; 1-3/4 drill cement and shoe joint; $\frac{1}{2}$ change kelly drive. Drilling. JRG

Patterson Unit Well No. 5

7-31-84: TP 600, CP 1600, flowed to pit for five minutes, well dead, made one swab run, well started to flow, flowed to pit for one hour, turned to separator, separator plugged, shut in to work on separator, could not repair, turned well to tank, by passed separator.

| <u>Date</u> <u>/Time</u> | <u>Tubing</u> <u>Pressure</u> | <u>Casing</u> <u>Pressure</u> | <u>Choke</u> | <u>Oil</u> <u>/Hr</u> | <u>Oil</u> <u>Cum</u> | <u>Water</u> <u>/Hour</u> | <u>Water</u> <u>Cum</u> |
|-----------------------------|----------------------------------|----------------------------------|--------------|--------------------------|--------------------------|------------------------------|----------------------------|
| 3:00 PM | 70 | 1300 | | | | | |
| 4:00 | 140 | 1100 | 3/4 | 18 | 18 | 27 | 27 |
| 5:00 | 150 | 1100 | 3/4 | 21 | 39 | 29 | 56 |
| 6:00 | 100 | 900 | 3/4 | 19 | 58 | 32 | 88 |
| 7:00 | 100 | 850 | 3/4 | 12 | 70 | 20 | 108 |
| 8:00 | 80 | 825 | 3/4 | 13 | 83 | 20 | 118 |

Shut well in.

8-1-84: TP 450, CP 900, blew well to pit, dead in 10 minutes, made 17 swab runs, fluid level at 3500 feet, recovered 94 barrels oil and 164 barrels water. SDFN

8-2-84: TP 450, CP 650, blew well to pit, dead in 15 minutes, removed upper wellhead, installed pumping wellhead, ran 2½" by 2" by 20' bottom hold down pump on 5/8", 1-3/4" and 7/8" rods, spaced out pump, pumped well up, RELEASED WORKOVER RIG.

Casing Report

KB 5235.00'

Ran and landed 5-1/2" O.D., 17#, K-55, 8 rd thrd, LT&C casing at 5642.37 feet KBM or 13.00 feet below KB, circulated casing for 45 minutes prior to cementing operations, pumped 20 barrels water ahead of cement, cemented with 735 sacks 50-50 Pozmix with 2% gel, bumped plug with 1500 psi, 600 psi over displacement pressure, released pressure, flowed back 3/4 barrel water, float held okay, landed casing with full indicator weight of 81,000 pounds on slips, installed an ERC 10" by 7-1/16" 3000 psi tubing spool, tested seals to 2000 psi, held okay, cement in place @ 4:30 P.M., 7-25-84.

Patterson Unit Well No. 5

7-31-84: TP 600, CP 1600, flowed to pit for five minutes, well dead, made one swab run, well started to flow, flowed to pit for one hour, turned to separator, separator plugged, shut in to work on separator, could not repair, turned well to tank, by passed separator.

| <u>Date</u> <u>/Time</u> | <u>Tubing</u> <u>Pressure</u> | <u>Casing</u> <u>Pressure</u> | <u>Choke</u> | <u>Oil</u> <u>/Hr</u> | <u>Oil</u> <u>Cum</u> | <u>Water</u> <u>/Hour</u> | <u>Water</u> <u>Cum</u> |
|-----------------------------|----------------------------------|----------------------------------|--------------|--------------------------|--------------------------|------------------------------|----------------------------|
| 3:00 PM | 70 | 1300 | | | | | |
| 4:00 | 140 | 1100 | 3/4 | 18 | 18 | 27 | 27 |
| 5:00 | 150 | 1100 | 3/4 | 21 | 39 | 29 | 56 |
| 6:00 | 100 | 900 | 3/4 | 19 | 58 | 32 | 88 |
| 7:00 | 100 | 850 | 3/4 | 12 | 70 | 20 | 108 |
| 8:00 | 80 | 825 | 3/4 | 13 | 83 | 20 | 118 |

Shut well in.

8-1-84: TP 450, CP 900, blew well to pit, dead in 10 minutes, made 17 swab runs, fluid level at 3500 feet, recovered 94 barrels oil and 164 barrels water. SDFN

8-2-84: TP 450, CP 650, blew well to pit, dead in 15 minutes, removed upper wellhead, installed pumping wellhead, ran 2½" by 2" by 20' bottom hold down pump on 5/8", 1-3/4" and 7/8" rods, spaced out pump, pumped well up, RELEASED WORKOVER RIG.

Patterson Unit Well No. 5

7-31-84: TP 600, CP 1600, flowed to pit for five minutes, well dead, made one swab run, well started to flow, flowed to pit for one hour, turned to separator, separator plugged, shut in to work on separator, could not repair, turned well to tank, by passed separator.

| <u>Date</u> <u>/Time</u> | <u>Tubing</u> <u>Pressure</u> | <u>Casing</u> <u>Pressure</u> | <u>Choke</u> | <u>Oil</u> <u>/Hr</u> | <u>Oil</u> <u>Cum</u> | <u>Water</u> <u>/Hour</u> | <u>Water</u> <u>Cum</u> |
|-----------------------------|----------------------------------|----------------------------------|--------------|--------------------------|--------------------------|------------------------------|----------------------------|
| 3:00 PM | 70 | 1300 | | | | | |
| 4:00 | 140 | 1100 | 3/4 | 18 | 18 | 27 | 27 |
| 5:00 | 150 | 1100 | 3/4 | 21 | 39 | 29 | 56 |
| 6:00 | 100 | 900 | 3/4 | 19 | 58 | 32 | 88 |
| 7:00 | 100 | 850 | 3/4 | 12 | 70 | 20 | 108 |
| 8:00 | 80 | 825 | 3/4 | 13 | 83 | 20 | 118 |

Shut well in.

Patterson Unit Well No. 5

7-23-84:

Depth 5528', 60', days 16, pump 1100, mud wt 10.4, vis 39, sand ¼%, wl 13.6, fc 2/32, ph 10.7, Core Head #1, Core #2 8-3/4 mc23 27W8274 cut 120' from 5408' to 5528' in 26½ hours, drilling time 12 hours, lost time 12 hours--½ DST #1; 5½ trip out and lay down test tools; 3¼ pick up core barrel and jars and trip in hole; 1 wash 35' to bottom; 1-3/4 trip out Core #2; 12 cut core #2 5468'-5528'. Tripping out with Core #2. RPM

7-24-84:

Depth 5644', 116', days 17, pump 1200, table 60, wt on bit 20 tons, mud wt 10.4, vis 43, sand ¼%, wl 7.2, fc 2/32, ph 10.5, woids 14.5, bit #3 RR 8-3/4 fs Smith cut 116' from 5528' to 5644' in 19 hours, drilling time 19 hours, lost time 5 hours--1½ trip out with core barrel; 1½ lay down Core #2, cut 60', recovered 60'; 2 trip in to drill. Drilling. RPM

7-25-84:

Depth 5650', 6', days 18, pump 1200, table 50, wt on bit 20 tons, mud wt 10.4, vis 44, sand ¼%, wl 7.2, fc 2/32, ph 10.5, solids 14, bit #3 RR 8-3/4 cut 122' from 5528' to 5650' in 21 hours, surveys 3/4° at 5650', drilling time 2 hours, lost time 22 hour--2 circulate for logs; 2½ trip out of hole; 13½ rig up and run logs; 2 trip in hole; 1½ circulate, condition hole; ½ lay down drill pipe. Laying down drill pipe. RPM

7-26-84:

Depth 5650', 0', days 19, drilling time 0 hours, lost time 18 hour--4½ lay down drill pipe; 4 rig up and run 135 joints 5-1/2-inch O.D., 17-pound, K-55, LT&C casing; 2 rig up and cement casing; 3½ remove Hydril and BOP; 1½ install ERC tubing spool; 2½ clean pits, rig released 12:00 midnight 7-25-84, ran 135 joints 5-1/2-inch O.D., 17-pound, K-55, LT&C casing, landed at 5642.37 feet KBM, cemented casing with 735 sacks 50-50 Pozmix with 2% gel, circulate with rig pump 45 minutes prior to cementing, good returns throughout, bumped plug with 1500 psi (600 psi over displacing pressure), displaced cement with water, floats held okay, cement in place at 4:30 P.M. 7-25-84, installed an ERC 11-inch 3000 psi by 7-1/16-inch 3000 psi tubing spool, pressure tested seals to 2000 psi, held okay, released rig 12:00 midnight, 7-25-84.

RIG RELEASED 12:00 MIDNIGHT, 7-25-84.

7-29-84: Rigged up NL workover rig, picked up casing scraper and 4½-inch bit, tripped into plugged back depth at 5605.51 feet, circulated hole with 180 barrels produced water, pulled tubing. SDFN

7-30-84: Rigged up OWP, ran bond log, good bond, perforated 5440'-5468' with two holes per foot, no pressure after perforating, tripped in with Baker tubing anchor, set tubing at 5435' in 8500 pounds tension, installed upper wellhead, rigged up Western, spotted 28% HCL, pumped 1000 gallons 28% HCL at one barrel per minute at 2800 psi, pumped 2000 gallons at two barrels per minute at 3300 psi, pumped 1000 gallons with 700 SCF N₂ per barrel acid at three to two barrels per minute at 3100 psi, displaced with nitrogen, flowed well to pit for two hours, recovered 150 barrels water and spent acid water, well flowed to pit with a two-inch stream of oil, water and gas, tubing 235 psi, casing 1500 psi, shut well in. SDFN

Patterson Unit Well No. 5

7-23-84:

Depth 5528', 60', days 16, pump 1100, mud wt 10.4, vis 39, sand $\frac{1}{4}\%$, wl 13.6, fc 2/32, ph 10.7, Core Head #1, Core #2 8-3/4 mc23 27W8274 cut 120' from 5408' to 5528' in 26 $\frac{1}{2}$ hours, drilling time 12 hours, lost time 12 hours-- $\frac{1}{2}$ DST #1; 5 $\frac{1}{2}$ trip out and lay down test tools; 3 $\frac{1}{2}$ pick up core barrel and jars and trip in hole; 1 wash 35' to bottom; 1-3/4 trip out Core #2; 12 cut core #2 5468'-5528'. Tripping out with Core #2. RPM

7-24-84:

Depth 5644', 116', days 17, pump 1200, table 60, wt on bit 20 tons, mud wt 10.4, vis 43, sand $\frac{1}{4}\%$, wl 7.2, fc 2/32, ph 10.5, solids 14.5, bit #3 RR 8-3/4 fs Smith cut 116' from 5528' to 5644' in 19 hours, drilling time 19 hours, lost time 5 hours--1 $\frac{1}{2}$ trip out with core barrel; 1 $\frac{1}{2}$ lay down Core #2, cut 60', recovered 60'; 2 trip in to drill. Drilling. RPM

7-25-84:

Depth 5650', 6', days 18, pump 1200, table 50, wt on bit 20 tons, mud wt 10.4, vis 44, sand $\frac{1}{4}\%$, wl 7.2, fc 2/32, ph 10.5, solids 14, bit #3 RR 8-3/4 cut 122' from 5528' to 5650' in 21 hours, surveys 3/4° at 5650', drilling time 2 hours, lost time 22 hour--2 circulate for logs; 2 $\frac{1}{2}$ trip out of hole; 13 $\frac{1}{2}$ rig up and run logs; 2 trip in hole; 1 $\frac{1}{2}$ circulate, condition hole; $\frac{1}{2}$ lay down drill pipe. Laying down drill pipe. RPM

7-26-84:

Depth 5650', 0', days 19, drilling time 0 hours, lost time 18 hour--4 $\frac{1}{2}$ lay down drill pipe; 4 rig up and run 135 joints 5-1/2-inch O.D., 17-pound, K-55, LT&C casing; 2 rig up and cement casing; 3 $\frac{1}{2}$ remove Hydril and BOP; 1 $\frac{1}{2}$ install ERC tubing spool; 2 $\frac{1}{2}$ clean pits, rig released 12:00 midnight 7-25-84, ran 135 joints 5-1/2-inch O.D., 17-pound, K-55, LT&C casing, landed at 5642.37 feet KBM, cemented casing with 735 sacks 50-50 Pozmix with 2% gel, circulate with rig pump 45 minutes prior to cementing, good returns throughout, bumped plug with 1500 psi (600 psi over displacing pressure), displaced cement with water, floats held okay, cement in place at 4:30 P.M. 7-25-84, installed an ERC 11-inch 3000 psi by 7-1/16-inch 3000 psi tubing spool, pressure tested seals to 2000 psi, held okay, released rig 12:00 midnight, 7-25-84.

RIG RELEASED 12:00 MIDNIGHT, 7-25-84.

7-29-84: Rigged up NL workover rig, picked up casing scraper and 4 $\frac{1}{2}$ -inch bit, tripped into plugged back depth at 5942 feet, circulated hole with 180 barrels produced water, pulled tubing. SDFN

7-30-84: Rigged up OWP, ran bond log, good bond, perforated 5440'-5468' with two holes per foot, no pressure after perforating, tripped in with Baker tubing anchor, set tubing at 5435' in 8500 pounds tension, installed upper wellhead, rigged up Western, stopped 28% HCL, pumped 1000 gallons 28% HCL at one barrel per minute at 2800 psi, pumped 2000 gallons at two barrels per minute at 3300 psi, pulled 1000 gallons with 700 SCF N₂ per barrel acid at three to two barrels per minute at 3100 psi, displaced with nitrogen, flowed well to pit for two hours, recovered 150 barrels water and spent acid water, well flowed to pit with a two-inch stream of oil, water and gas, tubing 235 psi, casing 1500 psi, shut well in. SDFN

Patterson Unit Well No. 5

7-31-84: TP 600, CP 1600, flowed to pit for five minutes, well dead, made one swab run, well started to flow, flowed to pit for one hour, turned to separator, separator plugged, shut in to work on separator, could not repair, turned well to tank, by passed separator.

| <u>Date</u> <u>/Time</u> | <u>Tubing</u> <u>Pressure</u> | <u>Casing</u> <u>Pressure</u> | <u>Choke</u> | <u>Oil</u> <u>/Hr</u> | <u>Oil</u> <u>Cum</u> | <u>Water</u> <u>/Hour</u> | <u>Water</u> <u>Cum</u> |
|-----------------------------|----------------------------------|----------------------------------|--------------|--------------------------|--------------------------|------------------------------|----------------------------|
| 3:00 PM | 70 | 1300 | | | | | |
| 4:00 | 140 | 1100 | 3/4 | 18 | 18 | 27 | 27 |
| 5:00 | 150 | 1100 | 3/4 | 21 | 39 | 29 | 56 |
| 6:00 | 100 | 900 | 3/4 | 19 | 58 | 32 | 88 |
| 7:00 | 100 | 850 | 3/4 | 12 | 70 | 20 | 108 |
| 8:00 | 80 | 825 | 3/4 | 13 | 83 | 20 | 118 |

Shut well in.

8-1-84: TP 450, CP 900, blew well to pit, dead in 10 minutes, made 17 swab runs, fluid level at 3500 feet, recovered 94 barrels oil and 164 barrels water. SDFN

Patterson Unit Well No. 5

7-23-84:

Depth 5528', 60', days 16, pump 1100, mud wt 10.4, vis 39, sand $\frac{1}{4}\%$, wl 13.6, fc 2/32, ph 10.7, Core Head #1, Core #2 8-3/4 mc23 27W8274 cut 120' from 5408' to 5528' in 26 $\frac{1}{2}$ hours, drilling time 12 hours, lost time 12 hours-- $\frac{1}{2}$ DST #1; 5 $\frac{1}{2}$ trip out and lay down test tools; 3 $\frac{1}{4}$ pick up core barrel and jars and trip in hole; 1 wash 35' to bottom; 1-3/4 trip out Core #2; 12 cut core #2 5468'-5528'. Tripping out with Core #2. RPM

7-24-84:

Depth 5644', 116', days 17, pump 1200, table 60, wt on bit 20 tons, mud wt 10.4, vis 43, sand $\frac{1}{4}\%$, wl 7.2, fc 2/32, ph 10.5, solids 14.5, bit #3 RR 8-3/4 fs Smith cut 116' from 5528' to 5644' in 19 hours, drilling time 19 hours, lost time 5 hours--1 $\frac{1}{2}$ trip out with core barrel; 1 $\frac{1}{2}$ lay down Core #2, cut 60', recovered 60'; 2 trip in to drill. Drilling. RPM

7-25-84:

Depth 5650', 6', days 18, pump 1200, table 50, wt on bit 20 tons, mud wt 10.4, vis 44, sand $\frac{1}{4}\%$, wl 7.2, fc 2/32, ph 10.5, solids 14, bit #3 RR 8-3/4 cut 122' from 5528' to 5650' in 21 hours, surveys 3/4° at 5650', drilling time 2 hours, lost time 22 hour--2 circulate for logs; 2 $\frac{1}{2}$ trip out of hole; 13 $\frac{1}{2}$ rig up and run logs; 2 trip in hole; 1 $\frac{1}{2}$ circulate, condition hole; $\frac{1}{2}$ lay down drill pipe. Laying down drill pipe. RPM

7-26-84:

Depth 5650', 0', days 19, drilling time 0 hours, lost time 18 hour--4 $\frac{1}{2}$ lay down drill pipe; 4 rig up and run 135 joints 5-1/2-inch O.D., 17-pound, K-55, LT&C casing; 2 rig up and cement casing; 3 $\frac{1}{2}$ remove Hydril and BOP; 1 $\frac{1}{2}$ install ERC tubing spool; 2 $\frac{1}{2}$ clean pits, rig released 12:00 midnight 7-25-84, ran 135 joints 5-1/2-inch O.D., 17-pound, K-55, LT&C casing, landed at 5642.37 feet KBM, cemented casing with 735 sacks 50-50 Pozmix with 2% gel, circulate with rig pump 45 minutes prior to cementing, good returns throughout, bumped plug with 1500 psi (600 psi over displacing pressure), displaced cement with water, floats held okay, cement in place at 4:30 P.M. 7-25-84, installed an ERC 11-inch 3000 psi by 7-1/16-inch 3000 psi tubing spool, pressure tested seals to 2000 psi, held okay, released rig 12:00 midnight, 7-25-84.

RIG RELEASED 12:00 MIDNIGHT, 7-25-84.

7-29-84: Rigged up NL workover rig, picked up casing scraper and 4 $\frac{1}{2}$ -inch bit, tripped into plugged back depth at 5942 feet, circulated hole with 180 barrels produced water, pulled tubing. SDFN

Patterson Unit Well No. 5

7-23-84:

Depth 5528', 60', days 16, pump 1100, mud wt 10.4, vis 39, sand $\frac{1}{4}\%$, wl 13.6, fc 2/32, ph 10.7, Core Head #1, Core #2 8-3/4 mc23 27W8274 cut 120' from 5408' to 5528' in 26 $\frac{1}{2}$ hours, drilling time 12 hours, lost time 12 hours-- $\frac{1}{2}$ DST #1; 5 $\frac{1}{2}$ trip out and lay down test tools; 3 $\frac{1}{4}$ pick up core barrel and jars and trip in hole; 1 wash 35' to bottom; 1-3/4 trip out Core #2; 12 cut core #2 5468'-5528'. Tripping out with Core #2. RPM

7-24-84:

Depth 5644', 116', days 17, pump 1200, table 60, wt on bit 20 tons, mud wt 10.4, vis 43, sand $\frac{1}{4}\%$, wl 7.2, fc 2/32, ph 10.5, woids 14.5, bit #3 RR 8-3/4 fs Smith cut 116' from 5528' to 5644' in 19 hours, drilling time 19 hours, lost time 5 hours-- $1\frac{1}{2}$ trip out with core barrel; $1\frac{1}{2}$ lay down Core #2, cut 60', recovered 60'; 2 trip in to drill. Drilling. RPM

7-25-84:

Depth 5650', 6', days 18, pump 1200, table 50, wt on bit 20 tons, mud wt 10.4, vis 44, sand $\frac{1}{4}\%$, wl 7.2, fc 2/32, ph 10.5, solids 14, bit #3 RR 8-3/4 cut 122' from 5528' to 5650' in 21 hours, surveys 3/4° at 5650', drilling time 2 hours, lost time 22 hour--2 circulate for logs; 2 $\frac{1}{2}$ trip out of hole; 13 $\frac{1}{2}$ rig up and run logs; 2 trip in hole; $1\frac{1}{2}$ circulate, condition hole; $\frac{1}{2}$ lay down drill pipe. Laying down drill pipe. RPM

7-26-84:

Depth 5650', 0', days 19, drilling time 0 hours, lost time 18 hour--4 $\frac{1}{2}$ lay down drill pipe; 4 rig up and run 135 joints 5-1/2-inch O.D., 17-pound, K-55, LT&C casing; 2 rig up and cement casing; 3 $\frac{1}{2}$ remove Hydril and BOP; $1\frac{1}{2}$ install ERC tubing spool; 2 $\frac{1}{2}$ clean pits, rig released 12:00 midnight 7-25-84, ran 135 joints 5-1/2-inch O.D., 17-pound, K-55, LT&C casing, landed at 5642.37 feet KBM, cemented casing with 735 sacks 50-50 Pozmix with 2% gel, circulate with rig pump 45 minutes prior to cementing, good returns throughout, bumped plug with 1500 psi (600 psi over displacing pressure), displaced cement with water, floats held okay, cement in place at 4:30 P.M. 7-25-84, installed an ERC 11-inch 3000 psi by 7-1/16-inch 3000 psi tubing spool, pressure tested seals to 2000 psi, held okay, released rig 12:00 midnight, 7-25-84.

RIG RELEASED 12:00 MIDNIGHT, 7-25-84.

Patterson Unit Well No. 5

7-23-84:

Depth 5528', 60', days 16, pump 1100, mud wt 10.4, vis 39, sand $\frac{1}{4}\%$, wl 13.6, fc 2/32, ph 10.7, Core Head #1, Core #2 8-3/4 mc23 27W8274 cut 120' from 5408' to 5528' in 26 $\frac{1}{4}$ hours, drilling time 12 hours, lost time 12 hours-- $\frac{1}{2}$ DST #1; 5 $\frac{1}{2}$ trip out and lay down test tools; 3 $\frac{1}{4}$ pick up core barrel and jars and trip in hole; 1 wash 35' to bottom; 1-3/4 trip out Core #2; 12 cut core #2 5468'-5528'. Tripping out with Core #2. RPM

7-24-84:

Depth 5644', 116', days 17, pump 1200, table 60, wt on bit 20 tons, mud wt 10.4, vis 43, sand $\frac{1}{4}\%$, wl 7.2, fc 2/32, ph 10.5, solids 14.5, bit #3 RR 8-3/4 fs Smith cut 116' from 5528' to 5644' in 19 hours, drilling time 19 hours, lost time 5 hours-- $1\frac{1}{2}$ trip out with core barrel; $1\frac{1}{2}$ lay down Core #2, cut 60', recovered 60'; 2 trip in to drill. Drilling. RPM

7-25-84:

Depth 5650', 6', days 18, pump 1200, table 50, wt on bit 20 tons, mud wt 10.4, vis 44, sand $\frac{1}{4}\%$, wl 7.2, fc 2/32, ph 10.5, solids 14, bit #3 RR 8-3/4 cut 122' from 5528' to 5650' in 21 hours, surveys $3/4^\circ$ at 5650', drilling time 2 hours, lost time 22 hour--2 circulate for logs; 2 $\frac{1}{2}$ trip out of hole; 13 $\frac{1}{2}$ rig up and run logs; 2 trip in hole; $1\frac{1}{2}$ circulate, condition hole; $\frac{1}{2}$ lay down drill pipe. Laying down drill pipe. RPM

Patterson Unit Well No. 5

7-23-84:

Depth 5528', 60', days 16, pump 1100, mud wt 10.4, vis 39, sand $\frac{1}{4}\%$, wl 13.6, fc $\frac{2}{32}$, ph 10.7, Core Head #1, Core #2 8-3/4 mc23 27W8274 cut 120' from 5408' to 5528' in $26\frac{1}{4}$ hours, drilling time 12 hours, lost time 12 hours-- $\frac{1}{2}$ DST #1; $5\frac{1}{2}$ trip out and lay down test tools; $3\frac{1}{4}$ pick up core barrel and jars and trip in hole; 1 wash 35' to bottom; 1-3/4 trip out Core #2; 12 cut core #2 5468'-5528'. Tripping out with Core #2. RPM

Patterson Unit Well No. 5

7-18-84:

Depth 5096', 121', days 11, pump 1100, table 60, wt on bit 20 tons, mud wt 10.1, vis 36, sand $\frac{1}{2}\%$, wl 11, fc 2/32, bit #3 8-3/4 f2 cut 996' from 4020' to 5016' in 68 $\frac{1}{2}$ hours, bit #4 8-3/4 f3 RR cut 42' from 5016' to 5058' in 4 hours, bit #5 8-3/4 f3 RR cut 38' from 5058' to 5096' in 4-3/4 hours, survey 3/4° at 5016', drilling time 13 $\frac{1}{2}$ hours, lost time 10-3/4 hours--5 trip for bit #4 and survey; $\frac{1}{2}$ circulate and wash to bottom; 3/4 rig repair, rig service and check BOP's; 4 $\frac{1}{2}$ trip for bit #5. Drilling. RPM

7-19-84:

Depth 5268', 172', days 12, pump 1100, table 60, wt on bit 20 tons, mud wt 9.9, vis 37, sand $\frac{1}{4}\%$, wl 8.8, fc 2/32, ph 11, solids 10.5, bit #5 8-3/4 f3 RR cut 210' from 5058' to 5268' in 28 $\frac{1}{2}$ hours, drilling time 23-3/4 hours, lost time $\frac{1}{4}$ hours-- $\frac{1}{4}$ rig service and check BOP's. Drilling. RPM

7-20-84:

Depth 5403', 135', days 13, pump 1100, table 60, wt on bit 20 tons, mud wt 10.1, vis 36, sand $\frac{1}{4}\%$, wl 8.8, fc 2/32, ph 11, solids 10.5, bit #5 8-3/4 f3 RR cut 345' from 5058' to 5403' in 49 hours, drilling time 19 $\frac{1}{4}$ hours, lost time 4-3/4 hours--1 circulate for sample SLM; $\frac{1}{4}$ survey; 2 $\frac{1}{4}$ trip out; 1 rig repair; $\frac{1}{4}$ rig service. Pick up core barrel. RPM

7-21-84:

Depth 5468', 60', days 14, pump 1150, table 50, wt on bit 12 tons, mud wt 10.1, vis 38, sand $\frac{1}{4}\%$, wl 10.2, fc 2/32, ph 10.7, solids 12.4, Core Head #1, Core #1 8-3/4 mc23 27W8274 cut 60' from 5408' to 5468' in 14 $\frac{1}{4}$ hours, drilling time 14 $\frac{1}{4}$ hours, lost time 9-3/4 hours-- $\frac{1}{4}$ rig service and check BOP's, SLM corrected from 5403' to 5408', correction made before starting Core #1; 3-3/4 lay down junk sub and bit, pick up core barrel; 2 $\frac{1}{4}$ trip in with core barrel; 3 $\frac{1}{2}$ trip out with Core #1, had full recovery, will run DST #1. Laying down Core. RPM

Drill Stem Test No. 1

Total Depth 5468', Packers 5414' and 5420'

Testing Lower Sand of Upper Ismay 5445'-5468' 70 unit gas increase above 60 unit background, IO 30 mins, ISI 60 mins, FO 90 mins, FSI 843 mins, first open, 2-inch of water in bucket, increased to strong in 5 minutes, no gas to surface; second open, opened strong, bottom of bucket, gas to surface in 11 minutes NETG, recoverd 463 feet of gas cut mud, Res 1.95%, 270 feet gas cut water, Res 1.14%, sample chamber recovered 1200 cc oil, 4.06 cc gas, 2450 psig, IHP 2801, IOFP's 54-188, ISIP 1856, FOFP's 161-296, FSIP 2072, FHP 2801, BHT 130° F.

7-22-84:

Depth 5468', 0', days 15, mud wt 9.5, vis 52, sand $\frac{1}{4}\%$, wl 10.2, fc 2/32, ph 10.7, solids 12.8, drilling time 0 hours, lost time 24 hours--2 lay down Core #1; 1 $\frac{1}{2}$ wait on tester; 20 $\frac{1}{2}$ DST #1. Tripping out with DST #1. RPM

Patterson Unit Well No. 5

7-18-84:

Depth 5096', 121', days 11, pump 1100, table 60, wt on bit 20 tons, mud wt 10.1, vis 36, sand $\frac{1}{2}\%$, wl 11, fc 2/32, bit #3 8-3/4 f2 cut 996' from 4020' to 5016' in $68\frac{1}{4}$ hours, bit #4 8-3/4 f3 RR cut 42' from 5016' to 5058' in 4 hours, bit #5 8-3/4 f3 RR cut 38' from 5058' to 5096' in 4-3/4 hours, survey $3/4^\circ$ at 5016', drilling time $13\frac{1}{4}$ hours, lost time 10-3/4 hours--5 trip for bit #4 and survey; $\frac{1}{2}$ circulate and wash to bottom; 3/4 rig repair, rig service and check BOP's; $4\frac{1}{2}$ trip for bit #5. Drilling. RPM

7-19-84:

Depth 5268', 172', days 12, pump 1100, table 60, wt on bit 20 tons, mud wt 9.9, vis 37, sand $\frac{1}{4}\%$, wl 8.8, fc 2/32, ph 11, solids 10.5, bit #5 8-3/4 f3 RR cut 210' from 5058' to 5268' in $28\frac{1}{2}$ hours, drilling time 23-3/4 hours, lost time $\frac{1}{4}$ hours-- $\frac{1}{4}$ rig service and check BOP's. Drilling. RPM

7-20-84:

Depth 5403', 135', days 13, pump 1100, table 60, wt on bit 20 tons, mud wt 10.1, vis 36, sand $\frac{1}{4}\%$, wl 8.8, fc 2/32, ph 11, solids 10.5, bit #5 8-3/4 f3 RR cut 345' from 5058' to 5403' in 49 hours, drilling time $19\frac{1}{4}$ hours, lost time 4-3/4 hours--1 circulate for sample SLM; $\frac{1}{4}$ survey; $2\frac{1}{4}$ trip out; 1 rig repair; $\frac{1}{4}$ rig service. Pick up core barrel. RPM

Patterson Unit Well No. 5

7-18-84:

Depth 5096', 121', days 11, pump 1100, table 60, wt on bit 20 tons, mud wt 10.1, vis 36, sand $\frac{1}{2}\%$, wl 11, fc 2/32, bit #3 8-3/4 f2 cut 996' from 4020' to 5016' in $68\frac{1}{4}$ hours, bit #4 8-3/4 f3 RR cut 42' from 5016' to 5058' in 4 hours, bit #5 8-3/4 f3 RR cut 38' from 5058' to 5096' in 4-3/4 hours, survey $3/4^\circ$ at 5016', drilling time $13\frac{1}{4}$ hours, lost time 10-3/4 hours--5 trip for bit #4 and survey; $\frac{1}{2}$ circulate and wash to bottom; 3/4 rig repair, rig service and check BOP's; $4\frac{1}{2}$ trip for bit #5. Drilling. RPM

7-19-84:

Depth 5268', 172', days 12, pump 1100, table 60, wt on bit 20 tons, mud wt 9.9, vis 37, sand $\frac{1}{4}\%$, wl 8.8, fc 2/32, ph 11, solids 10.5, bit #5 8-3/4 f3 RR cut 210' from 5058' to 5268' in $28\frac{1}{2}$ hours, drilling time 23-3/4 hours, lost time $\frac{1}{4}$ hours-- $\frac{1}{4}$ rig service and check BOP's. Drilling. RPM

Patterson Unit Well No. 5

7-18-84:

Depth 5096', 121', days 11, pump 1100, table 60, wt on bit 20 tons, mud wt 10.1, vis 36, sand $\frac{1}{2}\%$, wl 11, fc 2/32, bit #3 8-3/4 f2 cut 996' from 4020' to 5016' in 68 $\frac{1}{4}$ hours, bit #4 8-3/4 f3 RR cut 42' from 5016' to 5058' in 4 hours, bit #5 8-3/4 f3 RR cut 38' from 5058' to 5096' in 4-3/4 hours, survey 3/4° at 5016', drilling time 13 $\frac{1}{4}$ hours, lost time 10-3/4 hours--5 trip for bit #4 and survey; $\frac{1}{2}$ circulate and wash to bottom; 3/4 rig repair, rig service and check BOP's; 4 $\frac{1}{2}$ trip for bit #5. Drilling. RPM

Patterson Unit Well No. 5

7-12-84:

Depth 2730', 820', days 5, pump 1000, table 60, wt on bit 20 tons, bit #2, 8-3/4" hp51 cut 1150' from 1580' to 2730' in 30½ hours, surveys ¼° @ 2030' & ¾° @ 2500', drilling time 22½ hours, lost time 1½ hours--¼ rig service & check BOP's; ½ surveys; ¾ repair draw works. Drilling with water. Lloyd Sieverson

7-13-84:

Depth 3460', 730', days 6, pump 1000, table 60, wt on bit 20 tons, bit #2, 8-3/4" hp51 cut 1880' from 1580' to 3460' in 53¼ hours, survey ¾° @ 3050', drilling time 22-¾ hours, lost time 1¼ hours--¼ rig service & check BOP's; ½ survey; ½ repair mud line. Drilling with water. Lloyd Sieverson

7-14-84:

Depth 3963', 503', days 7, pump 1000, table 60, wt on bit 20 tons, drilling with water, bit #2, 8-3/4" hp51 cut 2383' from 1580' to 3963' in 76-¾ hours, survey ½° @ 3500', drilling time 23½ hours, lost time ½ hours--½ rig service & survey. Drilling with water. RPM

7-15-84:

Depth 4313', 350', days 8, pump 1000, table 60, wt on bit 20 tons, drilling with water, bit #2 8-3/4 hp51 cut 2440' from 1580' to 4020' in 80 hours, bit #3 8-3/4 f2 cut 293' from 4020' to 4313' in 16-¾ hours, survey ¾° at 4020', drilling time 20 hours, lost time 4 hours--¼ rig service and check BOP's; 3-¾ survey and trip. Drilling. RPM

7-16-84:

Depth 4655', 342', days 9, pump 1100, table 60, wt on bit 20 tons, mud wt 9.5, vis 35, sand ¼%, fc 2/32, bit #3 8-3/4 f2 cut 635' from 4020' to 4655' in 40 hours, survey ¾° at 4520', drilling time 23¼ hours, lost time ¾ hour--¼ rig service and check BOP's; ½ survey. Drilling. RPM

7-17-84:

Depth 4975', 320', days 10, pump 1100, table 60, wt on bit 20 tons, mud wt 9.6, vis 38, sand ¼%, wl 12.4, fc 2/32, bit #3 8-3/4 f2 cut 955' from 4020' to 4975' in 63-¾ hours, drilling time 23-¾ hours, lost time ¼ hour--¼ rig service and check BOP's. Drilling. RPM

Casing Report

KB 5235.00'

Landed 9-5/8-inch O.D., 36-pound, K-55, 8 round thread, ST&C casing at 1569.00 feet KBM or 13.00 feet below KB, circulated casing 45 minutes with rig pump prior to cementing, cemented with 325 sacks Howco Light treated with 10-pounds Gilsonite per sack, 2% CaCl and 1/4-pound flocele per sack, followed with 180 sacks Regular cement treated with 3% CaCl and 1/4-pound flocele per sack, good and full returns while cementing, bumped plug with 1000 psi, 500 psi over pumping pressure, float held okay, cement in place at 9:15 P.M. 7-9-84, ran one-inch pipe down backside of 9-5/8-inch O.D. casing and cemented with 60 sacks Regular cement treated with 3% CaCl, cement in place at 4:30 A.M. 7-10-84.

Patterson Unit Well No. 5

7-12-84:

Depth 2730', 820', days 5, pump 1000, table 60, wt on bit 20 tons, bit #2, 8-3/4" hp51 cut 1150' from 1580' to 2730' in 30½ hours, surveys ¼° @ 2030' & 3/4° @ 2500', drilling time 22½ hours, lost time 1½ hours--¼ rig service & check BOP's; ½ surveys; 3/4 repair draw works. Drilling with water. Lloyd Sieverson

7-13-84:

Depth 3460', 730', days 6, pump 1000, table 60, wt on bit 20 tons, bit #2, 8-3/4" hp51 cut 1880' from 1580' to 3460' in 53¼ hours, survey 3/4° @ 3050', drilling time 22-3/4 hours, lost time 1¼ hours--¼ rig service & check BOP's; ½ survey; ½ repair mud line. Drilling with water. Lloyd Sieverson

7-14-84:

Depth 3963', 503', days 7, pump 1000, table 60, wt on bit 20 tons, drilling with water, bit #2, 8-3/4" hp51 cut 2383' from 1580' to 3963' in 76-3/4 hours, survey ½° @ 3500', drilling time 23½ hours, lost time ½ hours--½ rig service & survey. Drilling with water. RPM

7-15-84:

Depth 4313', 350', days 8, pump 1000, table 60, wt on bit 20 tons, drilling with water, bit #2 8-3/4 hp51 cut 2440' from 1580' to 4020' in 80 hours, bit #3 8-3/4 f2 cut 293' from 4020' to 4313' in 16-3/4 hours, survey 3/4° at 4020', drilling time 20 hours, lost time 4 hours--¼ rig service and check BOP's; 3-3/4 survey and trip. Drilling. RPM

7-16-84:

Depth 4655', 342', days 9, pump 1100, table 60, wt on bit 20 tons, mud wt 9.5, vis 35, sand ¼%, fc 2/32, bit #3 8-3/4 f2 cut 635' from 4020' to 4655' in 40 hours, survey 3/4° at 4520', drilling time 23¼ hours, lost time 3/4 hour--¼ rig service and check BOP's; ½ survey. Drilling. RPM

Karen

Patterson Unit Well No. 5

7-12-84:

Depth 2730', 820', days 5, pump 1000, table 60, wt on bit 20 tons, bit #2, 8-3/4" hp51 cut 1150' from 1580' to 2730' in 30½ hours, surveys ¼° @ 2030' & 3/4° @ 2500', drilling time 22½ hours, lost time 1½ hours--¼ rig service & check BOP's; ½ surveys; 3/4 repair draw works. Drilling with water. Lloyd Sieverson

7-13-84:

Depth 3460', 730', days 6, pump 1000, table 60, wt on bit 20 tons, bit #2, 8-3/4" hp51 cut 1880' from 1580' to 3460' in 53¼ hours, survey 3/4° @ 3050', drilling time 22-3/4 hours, lost time 1½ hours--¼ rig service & check BOP's; ½ survey; ½ repair mud line. Drilling with water. Lloyd Sieverson

Patterson Unit Well No. 5
Wexpro Company, Operator
678' FSL, 664' FWL
SW SW 4-38S-25E
San Juan County, Utah

API No.: 43-037-31019
Lease No.: UT-11668
Projected Depth: 5645'
Ground Elevation: 5222'

Drilling Contractor: Arapahoe Drilling, Rig No. 2

SPUDDED 1:00 A.M. 7-8-84.

7-8-84:

Depth 274', 274', days 1, pump 800, table 80, wt on bit 35 tons, drilling with water, bit #1 12 $\frac{1}{4}$ f2 cut 274' from 0' to 274' in 5 hours, drilling time 5 hours, lost time 19 hours--1 wait on Halliburton; 1 ran and cemented conductor; 17 wait on cement and nipple up conductor. Drilling. JRG

7-9-84:

Depth 1344', 1070', days 2, pump 800, table 70, wt on bit 17 $\frac{1}{2}$ tons, drilling with water, bit #1 12 $\frac{1}{4}$ SD RR cut 1344' from 0' to 1344' in 24 $\frac{1}{4}$ hours, surveys $\frac{1}{2}^{\circ}$ at 514' and 1° at 1098', drilling time 19 $\frac{1}{4}$ hours, lost time 4-3/4 hours-- $\frac{1}{4}$ rig service; 2 repair weight indicator; 2 trip; $\frac{1}{2}$ surveys. Drilling. JRG

7-10-84:

Depth 1580', 236', days 3, pump 800, table 60, wt on bit 15 tons, mud wt 9.0, vis 36, bit #1 12 $\frac{1}{4}$ SD RT cut 1580' from 0' to 1580' in 32 $\frac{1}{4}$ hours, survey 1° at 1580', drilling time 8 hours, lost time 16 hours-- $\frac{1}{4}$ rig service; $\frac{1}{2}$ circulate; 1 $\frac{1}{4}$ survey and trip out; 3/4 rig up casing crews; 2-3/4 ran 40 joints 9-5/8-inch, 36-pound, K-55, ST&C casing, landed at 1569 feet KBM; 1-3/4 circulate with rig pump; 2 $\frac{1}{2}$ cement with 325 sacks Howco lite with 10# per sack gilsonite, 2% CaCl and $\frac{1}{4}$ # flocele per sack, followed with 180 sacks of Regular B treated with 3% CaCl and $\frac{1}{4}$ # flocele per sack, full returns, bumped plug to 1000 psi, float held okay, returned 33 barrels slurry to surface, in place at 9:15 P.M.

7-9-84, cement dropped 60'; 1 rig up one-inch to pump cement, Halliburton bulk truck broke down; 4 wait on truck from Cortez; $\frac{1}{2}$ cement through one-inch pipe with 60 sacks Class B treated with 3% CaCl, returned 3 barrels slurry to surface, cement in place at 4:30 A.M.

7-10-84; 3/4 wait on cement. Waiting on cement. JRG

7-11-84:

Depth 1910', 330', days 4, pump 900, table 60, wt on bit 20 tons, drilling with water, bit #2 8-3/4 hp51 cut 330' from 1580' to 1910' in 8 hours, drilling time 8 hours, lost time 16 hours--12-3/4 WOC, pressure test casing and BOP's to 1500 psi, held okay; 1 trip in hole; 1-3/4 drill cement and shoe joint; $\frac{1}{2}$ change kelly drive. Drilling. JRG

Patterson Unit Well No. 5
Wexpro Company, Operator
678' FSL, 664' FWL
SW SW 4-38S-25E
San Juan County, Utah

API No.: 43-037-31019
Lease No.: UT-11668
Projected Depth: 5645'
Ground Elevation: 5222'

Drilling Contractor: Arapahoe Drilling, Rig No. 2

SPUDED 1:00 A.M. 7-8-84.

7-8-84:

Depth 274', 274', days 1, pump 800, table 80, wt on bit 35 tons, drilling with water, bit #1 12½ f2 cut 274' from 0' to 274' in 5 hours, drilling time 5 hours, lost time 19 hours--1 wait on Halliburton; 1 ran and cemented conductor; 17 wait on cement and nipple up conductor. Drilling. JRG

7-9-84:

Depth 1344', 1070', days 2, pump 800, table 70, wt on bit 17½ tons, drilling with water, bit #1 12½ SD RR cut 1344' from 0' to 1344' in 24½ hours, surveys ½° at 514' and 1° at 1098', drilling time 19½ hours, lost time 4-3/4 hours--¼ rig service; 2 repair weight indicator; 2 trip; ½ surveys. Drilling. JRG

7-10-84:

Depth 1580', 236', days 3, pump 800, table 60, wt on bit 15 tons, mud wt 9.0, vis 36, bit #1 12½ SD RT cut 1580' from 0' to 1580' in 32½ hours, survey 1° at 1580', drilling time 8 hours, lost time 16 hours--¼ rig service; ½ circulate; 1½ survey and trip out; ¾ rig up casing crews; 2-¾ ran 40 joints 9-5/8-inch, 36-pound, K-55, ST&C casing, landed at 1569 feet KBM; 1-¾ circulate with rig pump; 2½ cement with 325 sacks Howco lite with 10# per sack gilsonite, 2% CaCl and ¼# flocele per sack, followed with 180 sacks of Regular B treated with 3% CaCl and ¼# flocele per sack, full returns, bumped plug to 1000 psi, float held okay, returned 33 barrels slurry to surface, in place at 9:15 P.M. 7-9-84, cement dropped 60'; 1 rig up one-inch to pump cement, Halliburton bulk truck broke down; 4 wait on truck from Cortez; ½ cement through one-inch pipe with 60 sacks Class B treated with 3% CaCl, returned 3 barrels slurry to surface, cement in place at 4:30 A.M. 7-10-84; ¾ wait on cement. Waiting on cement. JRG

Patterson Unit Well No. 5
Wexpro Company, Operator
678' FSL, 664' FWL
SW SW 4-38S-25E
San Juan County, Utah

API No.: 43-037-31019
Lease No.: UT-11668
Projected Depth: 5645'
Ground Elevation: 5222'

Drilling Contractor: Arapahoe Drilling, Rig No. 2

SPUDED 1:00 A.M. 7-8-84.

7-8-84:

Depth 274', 274', days 1, pump 800, table 80, wt on bit 35 tons, drilling with water, bit #1 12 $\frac{1}{4}$ f2 cut 274' from 0' to 274' in 5 hours, drilling time 5 hours, lost time 19 hours--1 wait on Halliburton; 1 ran and cemented conductor; 17 wait on cement and nipple up conductor. Drilling. JRG

7-9-84:

Depth 1344', 1070', days 2, pump 800, table 70, wt on bit 17 $\frac{1}{2}$ tons, drilling with water, bit #1 12 $\frac{1}{4}$ SD RR cut 1344' from 0' to 1344' in 24 $\frac{1}{2}$ hours, surveys $\frac{1}{2}$ ° at 514' and 1° at 1098', drilling time 19 $\frac{1}{4}$ hours, lost time 4-3/4 hours-- $\frac{1}{4}$ rig service; 2 repair weight indicator; 2 trip; $\frac{1}{2}$ surveys. Drilling. JRG

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

FINAL REPORT

CORE ANALYSIS REPORT

FOR

CELSIUS ENERGY COMPANY

PATTERSON UNIT #5
PATTERSON
SAN JUAN, UTAH

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5
 PATTERSON
 SAN JUAN, UTAH

DALLAS, TEXAS
 DATE : 20-JUL-1984
 FORMATION : ISMAY
 DRLG. FLUID: WBM
 LOCATION : SW,SW SEC. 4-T38S-R25E

FILE NO : 3803-003332
 ANALYSTS : DS#EV
 ELEVATION: 5233 KB

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO AIR (MD) MAXIMUM | 90 DEG | POR. He | FLUID OIL | SATS. WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|---------------------------|--------|---------|-----------|-----------|-----------|---------------------------|
| | 5408.0-35.0 | | | | | | | LM/SHALE -- NO ANALYSIS |
| | 5435.0-39.0 | | | | | | | ANHYDRITE -- NO ANALYSIS |
| 1 | 5439.0-40.0 | 0.01 | * | 1.3 | 0.0 | 64.7 | 2.70 | LM GRY VFXLN |
| 2 | 5440.0-41.0 | 0.01 | * | 1.0 | 0.0 | 66.7 | 2.73 | LM GRY VFXLN CVF |
| 3 | 5441.0-42.0 | 0.34 | 0.04 | 3.7 | 0.0 | 67.5 | 2.71 | LM GRY VFXLN OVF ** |
| 4 | 5442.0-43.0 | 0.01 | * | 6.5 | 2.7 | 64.5 | 2.72 | LM GRY VFXLN OVF |
| 5 | 5443.0-44.0 | 0.32 | * | 5.1 | 3.9 | 38.7 | 2.74 | LM GRY VFXLN SL/DOL OVF |
| 6 | 5444.0-45.0 | 0.01 | * | 1.8 | 0.0 | 60.5 | 2.73 | LM GRY VFXLN STYL CVF |
| 7 | 5445.0-46.0 | 0.44 | 0.31 | 4.8 | 9.3 | 55.5 | 2.73 | LM GRY VFXLN CVF ** |
| 8 | 5446.0-47.0 | 0.02 | 0.02 | 3.9 | 3.9 | 61.9 | 2.73 | LM GRY VFXLN STYL CVF |
| 9 | 5447.0-48.0 | 2.70 | 0.18 | 5.2 | 0.0 | 68.5 | 2.71 | LM GRY VFXLN OVF ** |
| 10 | 5448.0-49.0 | 0.10 | * | 3.8 | 4.4 | 44.0 | 2.70 | LM GRY VFXLN CVF |
| 11 | 5449.0-50.0 | 2.00 | 0.74 | 2.7 | 6.1 | 48.6 | 2.72 | LM GRY VFXLN STYL CVF ** |
| 12 | 5450.0-51.0 | 6.70 | 5.70 | 4.7 | 4.0 | 39.9 | 2.73 | LM GRY VFXLN STYL CVF ** |
| 13 | 5451.0-52.0 | 2.30 | 0.01 | 4.1 | 0.0 | 55.8 | 2.71 | LM GRY VFXLN OVF CVF ** |
| 14 | 5452.0-53.0 | 0.28 | 0.22 | 2.2 | 6.9 | 55.0 | 2.73 | LM GRY VFXLN STYL |
| 15 | 5453.0-54.0 | 0.98 | 0.18 | 2.1 | 5.2 | 51.7 | 2.73 | LM GRY VFXLN STYL CVF ** |
| 16 | 5454.0-55.0 | 0.01 | * | 3.9 | 4.9 | 39.3 | 2.73 | LM GRY VFXLN |
| 17 | 5455.0-56.0 | 0.46 | 0.21 | 7.6 | 1.3 | 49.0 | 2.73 | LM GRY FNXLN |
| 18 | 5456.0-57.0 | 0.43 | 0.40 | 9.3 | 8.5 | 43.7 | 2.73 | LM GRY FNXLN |
| 19 | 5457.0-58.0 | 0.78 | 0.74 | 10.8 | 3.6 | 58.9 | 2.75 | LM GRY FNXLN SL/DOL |
| 20 | 5458.0-59.0 | 0.42 | 0.41 | 8.9 | 0.0 | 40.6 | 2.74 | LM GRY FNXLN SL/DOL |
| 21 | 5459.0-60.0 | 0.43 | 0.40 | 6.1 | 10.5 | 35.9 | 2.77 | LM GRY FNXLN SL/DOL |
| 22 | 5460.0-61.0 | 4.30 | 3.70 | 15.3 | 5.2 | 34.8 | 2.80 | DOL GRY/BRN FNXLN SL/CALC |
| 23 | 5461.0-62.0 | 9.40 | 6.50 | 18.3 | 13.0 | 35.4 | 2.82 | DOL GRY/BRN FNXLN SL/CALC |
| 24 | 5462.0-63.0 | 28. | * | 18.8 | 8.5 | 43.7 | 2.80 | DOL GRY/BRN FNXLN SL/CALC |
| 25 | 5463.0-64.0 | 3.40 | 3.30 | 12.4 | 5.9 | 22.1 | 2.76 | LM GRY/BRN FNXLN SL/DOL |
| 26 | 5464.0-65.0 | 3.90 | 3.50 | 13.1 | 5.4 | 28.7 | 2.77 | LM GRY/BRN FNXLN SL/DOL |

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5

DALLAS, TEXAS
 DATE : 20-JUL-1984
 FORMATION : ISMAY

FILE NO : 3803-003332
 ANALYSTS : DS;EV

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO MAXIMUM | AIR (MD) 90 DEG | POR. He | FLUID OIL | SATS. WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|------------------|-----------------|---------|-----------|-----------|-----------|-------------------------------|
| 27 | 5465.0-66.0 | 20. | 15. | 22.2 | 7.8 | 29.7 | 2.80 | DOL BRN FNXLN SL/CALC |
| 28 | 5466.0-67.0 | 37. | * | 20.2 | 7.2 | 41.1 | 2.81 | DOL BRN FNXLN SL/CALC |
| 29 | 5467.0-68.0 | 6.70 | 6.40 | 17.1 | 5.9 | 38.2 | 2.81 | DOL BRN FNXLN SL/CALC SL/ANHY |
| 30 | 5468.0-69.0 | 1.90 | 1.40 | 6.8 | 11.6 | 49.8 | 2.77 | LM GRY FNXLN SL/DOL |
| 31 | 5469.0-70.0 | 1.10 | 1.00 | 8.3 | 9.8 | 19.5 | 2.76 | LM GRY FNXLN SL/DOL |
| 32 | 5470.0-71.0 | 6.40 | 6.10 | 14.1 | 4.2 | 16.9 | 2.79 | LM GRY FNXLN SL/DOL |
| 33 | 5471.0-72.0 | 14. | 13. | 15.0 | 4.7 | 40.5 | 2.81 | DOL LTBRN FNXLN SL/CALC |
| 34 | 5472.0-73.0 | 4.10 | 4.10 | 11.7 | 8.0 | 43.3 | 2.79 | DOL GRY FNXLN SL/CALC |
| 35 | 5473.0-74.0 | 2.30 | 2.30 | 9.2 | 8.4 | 28.7 | 2.81 | DOL LTBRN FNXLN SL/CALC |
| 36 | 5474.0-75.0 | 23. | * | 18.6 | 7.9 | 51.5 | 2.79 | DOL GRY FNXLN SL/CALC |
| 37 | 5475.0-76.0 | 0.22 | 0.18 | 5.8 | 10.4 | 38.5 | 2.83 | DOL LTBRN FNXLN SL/CALC |
| 38 | 5476.0-77.0 | 10. | 9.30 | 13.1 | 14.3 | 40.9 | 2.78 | DOL GRY FNXLN SL/CALC |
| 39 | 5477.0-78.0 | 13. | 11. | 16.6 | 7.2 | 41.0 | 2.84 | DOL LTBRN FNXLN SL/CALC |
| 40 | 5478.0-79.0 | 10. | 9.70 | 14.7 | 7.8 | 28.6 | 2.84 | DOL LTBRN FNXLN SL/CALC |
| 41 | 5479.0-80.0 | 7.80 | * | 14.4 | 7.1 | 25.3 | 2.86 | DOL LTBRN FNXLN SL/CALC |
| 42 | 5480.0-81.0 | 3.30 | 2.60 | 10.6 | 5.2 | 47.7 | 2.85 | DOL LTBRN FNXLN SL/CALC |
| 43 | 5481.0-82.0 | 1.20 | * | 12.0 | 0.0 | 66.6 | 2.83 | DOL LTBRN FNXLN SL/CALC |
| 44 | 5482.0-83.0 | 2.40 | 0.12 | 4.2 | 0.0 | 57.5 | 2.77 | LM LTBRN FNXLN SL/DOL ** |
| 45 | 5483.0-84.0 | 0.42 | 0.08 | 7.2 | 0.0 | 53.9 | 2.76 | LM LTBRN FNXLN SL/DOL |
| 46 | 5484.0-85.0 | 4.10 | * | 12.8 | 1.0 | 59.4 | 2.77 | LM LTBRN FNXLN SL/DOL |
| 47 | 5485.0-86.0 | 5.30 | * | 16.3 | 9.5 | 58.4 | 2.79 | LM LTBRN FNXLN SL/DOL |
| 48 | 5486.0-87.0 | 1.20 | 1.20 | 10.2 | 0.7 | 54.1 | 2.71 | LM LTBRN FNXLN DOL |
| 49 | 5487.0-88.0 | 1.10 | 1.00 | 5.7 | 4.4 | 37.4 | 2.76 | LM GRY VFXLN SL/ANHY |
| 50 | 5488.0-89.0 | 0.29 | 0.28 | 4.8 | 0.0 | 31.4 | 2.75 | LM GRY VFXLN SL/ANHY |
| 51 | 5489.0-90.0 | 0.31 | 0.19 | 3.2 | 0.0 | 40.7 | 2.75 | LM GRY VFXLN SL/ANHY |
| 52 | 5490.0-91.0 | 2.10 | 0.75 | 2.6 | 0.0 | 47.5 | 2.76 | LM GRY VFXLN SL/ANHY |
| 53 | 5491.0-92.0 | 0.43 | 0.17 | 3.7 | 0.0 | 84.1 | 2.76 | LM GRY VFXLN SL/ANHY |
| 54 | 5492.0-93.0 | 0.04 | * | 2.0 | 0.0 | 28.8 | 2.76 | LM GRY VFXLN SL/ANHY |
| 55 | 5493.0-94.0 | 0.10 | 0.06 | 1.4 | 0.0 | 61.0 | 2.77 | LM GRY VFXLN SL/ANHY |
| 56 | 5494.0-95.0 | 0.40 | 0.35 | 1.6 | 0.0 | 59.0 | 2.75 | LM GRY VFXLN SL/ANHY |

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

DALLAS, TEXAS

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5

DATE : 20-JUL-1984
 FORMATION : ISMAY

FILE NO : 3803-003332
 ANALYSTS : DS#EV

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO MAXIMUM | AIR (MD) 90 DEG | POR. He | FLUID SATS. OIL | WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|------------------|-----------------|---------|-----------------|------|-----------|---------------------------------|
| 57 | 5495.0-96.0 | 0.10 | 0.10 | 1.1 | 0.0 | 67.6 | 2.74 | LM GRY VFXLN SL/ANHY |
| 58 | 5496.0-97.0 | 0.09 | 0.06 | 1.2 | 0.0 | 61.4 | 2.73 | LM GRY VFXLN SL/ANHY |
| 59 | 5497.0-98.0 | 0.09 | 0.07 | 2.1 | 0.0 | 58.2 | 2.75 | LM GRY VFXLN SL/ANHY |
| 60 | 5498.0-99.0 | 0.06 | * | 1.5 | 0.0 | 58.9 | 2.74 | LM GRY VFXLN SL/ANHY |
| 61 | 5499.0-00.0 | 0.02 | * | 1.4 | 0.0 | 65.0 | 2.75 | LM GRY VFXLN SL/ANHY |
| 62 | 5500.0-01.0 | 0.01 | * | 1.2 | 0.0 | 76.8 | 2.75 | LM GRY VFXLN SL/ANHY |
| 63 | 5501.0-02.0 | 0.01 | * | 1.8 | 0.0 | 45.5 | 2.75 | LM GRY VFXLN SL/ANHY |
| 64 | 5502.0-03.0 | 0.03 | * | 6.7 | 0.0 | 65.9 | 2.83 | DOL LTBRN VFXLN SL/CALC SL/ANHY |
| 65 | 5503.0-04.0 | 0.02 | * | 7.4 | 0.0 | 54.9 | 2.81 | DOL LTBRN VFXLN SL/CALC SL/ANHY |
| | 5504.0-11.0 | | | | | | | LM SL/SHY -- NO ANALYSIS |
| | 5511.0-28.0 | | | | | | | SHALE -- NO ANALYSIS |

** INDICATES FRACTURE PERMEABILITY

* SAMPLE NOT SUITABLE FOR FULL DIAMETER ANALYSIS

CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

DALLAS, TEXAS

CELSIUS ENERGY COMPANY
PATTERSON UNIT #5

DATE : 20-JUL-1984
FORMATION : ISMAY

FILE NO. : 3803-003332
ANALYSTS : DS:EV

*** CORE SUMMARY AND CALCULATED RECOVERABLE OIL ***

DEPTH INTERVAL: 5439.0 TO 5504.0

FEET OF CORE ANALYZED : 65.0 FEET OF CORE INCLUDED IN AVERAGES: 65.0

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --
 PERMEABILITY HORIZONTAL RANGE (MD.) : 0.00 TO 38. (UNCORRECTED FOR SLIPPAGE)
 HELIUM POROSITY RANGE (%) : 0.9 TO 100.0
 OIL SATURATION RANGE (%) : 0.0 TO 100.0
 WATER SATURATION RANGE (%) : 0.0 TO 100.0
 SHALE SAMPLES EXCLUDED FROM AVERAGES.

| | | | |
|---------------------------------------|--------|-------------------------------------|------------|
| AVERAGE PERMEABILITY (MILLIDARCIES) | | AVERAGE TOTAL WATER SATURATION | : 43.3 |
| ARITHMETIC PERMEABILITY | : 3.8 | (PERCENT OF PORE SPACE) | |
| GEOMETRIC PERMEABILITY | : 0.62 | AVERAGE CONNATE WATER SATURATION | : (E) 30.0 |
| HARMONIC PERMEABILITY | : 0.06 | (PERCENT OF PORE SPACE) | |
| PRODUCTIVE CAPACITY (MILLIDARCY-FEET) | | OIL GRAVITY (API) | : (E) 43.0 |
| ARITHMETIC CAPACITY | : 248. | ORIGINAL FORMATION VOLUME FACTOR | : (E) 1.30 |
| GEOMETRIC CAPACITY | : 40. | (BBLs SATURATED OIL/STOCK-TANK BBL) | |
| HARMONIC CAPACITY | : 4.1 | ORIGINAL STOCK-TANK OIL IN PLACE | : (C) 326. |
| AVERAGE POROSITY (PERCENT) | : 7.8 | (BARRELS PER ACRE-FOOT) | |
| AVERAGE RESIDUAL OIL SATURATION | : 5.7 | | |
| (PERCENT OF PORE SPACE) | | | |

=====

INTERPRETATION OF DATA

5439-5455 NON PRODUCTIVE DUE TO LOW POROSITY
 5455-5481 OIL PRODUCTIVE WHERE PERMEABLE
 5481-5504 WATER PRODUCTIVE WHERE PERMEABLE

=====

(C) CALCULATED (E) ESTIMATED (M) MEASURED (*) REFER TO ATTACHED LETTER.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5

DATE : 20-JUL-1984
 FORMATION : ISMAY

FILE NO. : 3803-003332
 ANALYSTS : DS;EV

*** CORE SUMMARY AVERAGES FOR 1 ZONE ***

DEPTH INTERVAL: 5439.0 TO 5504.0

FEET OF CORE ANALYZED : 65.0 FEET OF CORE INCLUDED IN AVERAGES: 65.0

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --

| | | | |
|----------------------------------|---|--------------|----------------------------|
| PERMEABILITY MAXIMUM RANGE (MD.) | : | 0.00 TO 38. | (UNCORRECTED FOR SLIPPAGE) |
| HELIUM POROSITY RANGE (%) | : | 0.9 TO 100.0 | |
| OIL SATURATION RANGE (%) | : | 0.0 TO 100.0 | |
| WATER SATURATION RANGE (%) | : | 0.0 TO 100.0 | |

SHALE SAMPLES EXCLUDED FROM AVERAGES.

AVERAGES FOR DEPTH INTERVAL: 5439.0 TO 5504.0

| | |
|--|--|
| <p>AVERAGE PERMEABILITY (MILLIDARCIES)</p> <p>ARITHMETIC PERMEABILITY : 3.8</p> <p>GEOMETRIC PERMEABILITY : 0.62</p> <p>HARMONIC PERMEABILITY : 0.06</p> <p>GEOMETRIC MAXIMUM & 90 DEG PERM. : 0.22</p> <p>AVERAGE POROSITY (PERCENT) : 7.8</p> <p>AVERAGE RESIDUAL OIL SATURATION (PERCENT OF PORE SPACE) : 5.7</p> | <p>PRODUCTIVE CAPACITY (MILLIDARCY-FEET)</p> <p>ARITHMETIC CAPACITY : 248.</p> <p>GEOMETRIC CAPACITY : 40.</p> <p>HARMONIC CAPACITY : 4.1</p> <p>GEOMETRIC MAXIMUM & 90 DEG CAPACITY: 15.</p> <p>AVERAGE TOTAL WATER SATURATION (PERCENT OF PORE SPACE) : 43.3</p> <p>AVERAGE CONNATE WATER SATURATION ** (PERCENT OF PORE SPACE) : 40.9</p> |
|--|--|

** ESTIMATED FROM TOTAL
 WATER SAUTRATION.

PERMEABILITY VS POROSITY

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

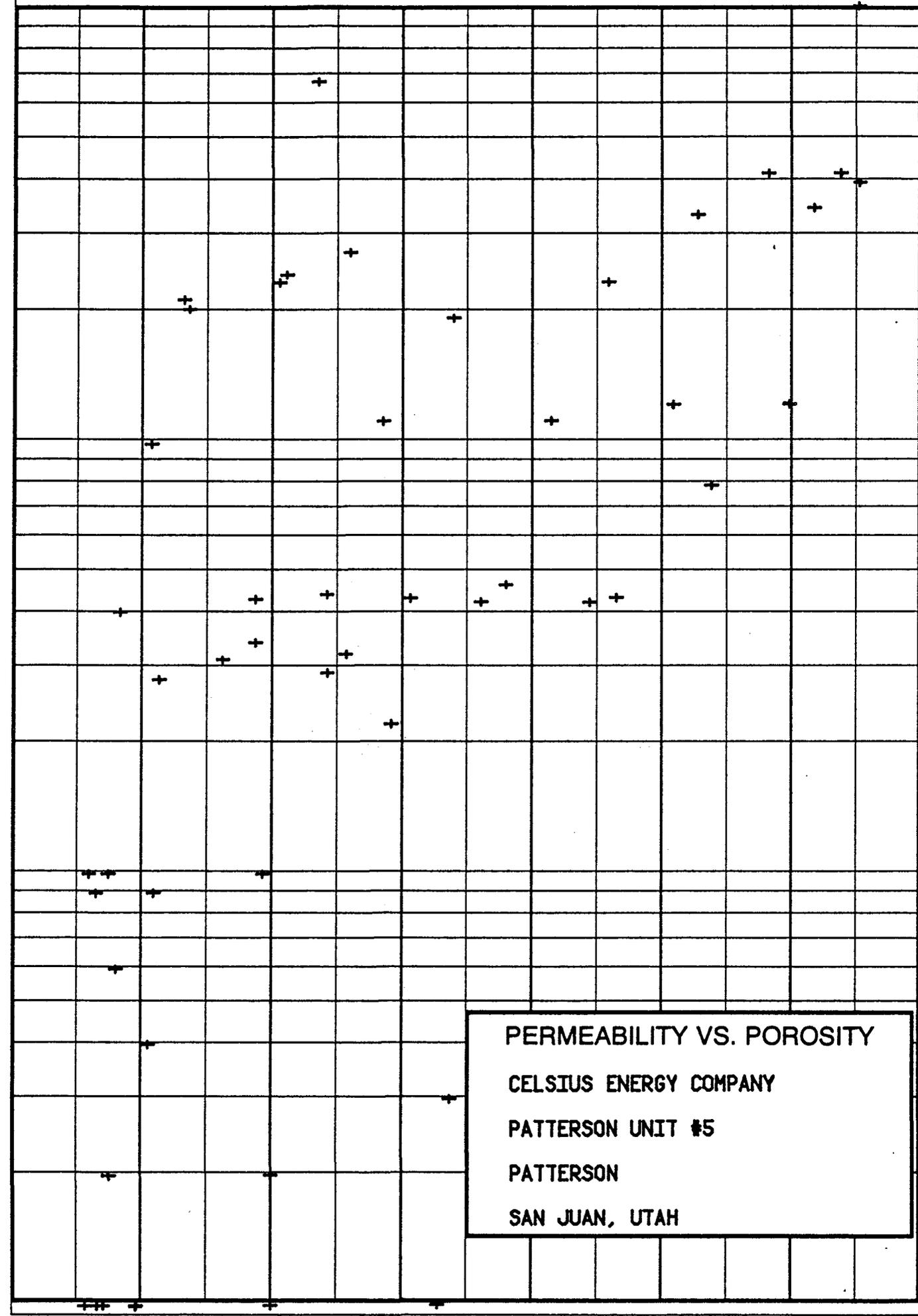
AIR PERMEABILITY : MD - HORIZONTAL (UNCORRECTED FOR SLIPPAGE)
 POROSITY : PERCENT (HELIUM)

| DEPTH INTERVAL | RANGE & SYMBOL | PERMEABILITY | | POROSITY | | POROSITY AVERAGE | PERMEABILITY AVERAGES | | |
|-------------------|-------------------|--------------|---------|----------|------|---------------------|-----------------------|----------|-----------|
| | | MINIMUM | MAXIMUM | MIN. | MAX. | | ARITHMETIC | HARMONIC | GEOMETRIC |
| 5439.0 - 5504.0 | 1 (+) | 0.010 | 40.0 | 0.0 | 25.0 | 7.8 | 3.8 | 0.06 | 0.62 |

PERMEABILITY: MILLIDARCIES

0.1

0.01



0.0 2.0 4.0 6.0 8.0 10.0 12.0

POROSITY: PERCENT

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
FIELD : PATTERSON

WELL : PATTERSON UNIT #5
COUNTY, STATE: SAN JUAN, UTAH

AIR PERMEABILITY : MD. (HORIZONTAL) RANGE USED 0.001 TO 38.
POROSITY : PERCENT (HELIUM) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS : 5439.0 - 5504.0 INTERVAL LENGTH : 65.0
FEET ANALYZED IN ZONE : 65.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

| POROSITY AVERAGE | PERMEABILITY AVERAGES | | |
|---------------------|-----------------------|----------|-----------|
| | ARITHMETIC | HARMONIC | GEOMETRIC |
| 7.8 | 3.8 | 0.06 | 0.62 |

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

GROUPING BY POROSITY RANGES

| POROSITY RANGE | FEET IN RANGE | AVERAGE POROSITY | AVERAGE PERM. | | FREQUENCY (PERCENT) | CUMULATIVE FREQUENCY (%) |
|-------------------|------------------|---------------------|---------------|---------|------------------------|-----------------------------|
| | | | (GEOM.) | (ARITH) | | |
| 0.0 - 2.0 | 11.0 | 1.4 | 0.033 | 0.075 | 16.9 | 16.9 |
| 2.0 - 4.0 | 12.0 | 3.0 | 0.199 | 0.558 | 18.5 | 35.4 |
| 4.0 - 6.0 | 9.0 | 4.9 | 0.999 | 1.8 | 13.8 | 49.2 |
| 6.0 - 8.0 | 7.0 | 6.9 | 0.138 | 0.467 | 10.8 | 60.0 |
| 8.0 - 10.0 | 4.0 | 8.9 | 0.822 | 1.1 | 6.2 | 66.2 |
| 10.0 - 12.0 | 4.0 | 10.8 | 1.9 | 2.3 | 6.2 | 72.3 |
| 12.0 - 14.0 | 5.0 | 12.7 | 3.7 | 4.5 | 7.7 | 80.0 |
| 14.0 - 16.0 | 5.0 | 14.7 | 7.9 | 8.5 | 7.7 | 87.7 |
| 16.0 - 18.0 | 3.0 | 16.7 | 7.7 | 8.3 | 4.6 | 92.3 |
| 18.0 - 20.0 | 3.0 | 18.6 | 18. | 20. | 4.6 | 96.9 |
| 20.0 - 22.0 | 1.0 | 20.2 | 37. | 37. | 1.5 | 98.5 |
| 22.0 - 24.0 | 1.0 | 22.2 | 20. | 20. | 1.5 | 100.0 |

TOTAL NUMBER OF FEET = 65.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

GROUPING BY PERMEABILITY RANGES

| PERMEABILITY RANGE | FEET IN RANGE | AVERAGE PERM. (GEOM.) | AVERAGE PERM. (ARITH) | AVERAGE POROSITY | FREQUENCY (PERCENT) | CUMULATIVE FREQUENCY (%) |
|-----------------------|------------------|--------------------------|--------------------------|---------------------|------------------------|-----------------------------|
| 0.010 - 0.020 | 7.0 | 0.010 | 0.010 | 2.5 | 10.8 | 10.8 |
| 0.020 - 0.039 | 4.0 | 0.022 | 0.023 | 4.8 | 6.2 | 16.9 |
| 0.039 - 0.078 | 2.0 | 0.049 | 0.050 | 1.8 | 3.1 | 20.0 |
| 0.078 - 0.156 | 5.0 | 0.096 | 0.096 | 1.9 | 7.7 | 27.7 |
| 0.156 - 0.312 | 4.0 | 0.273 | 0.275 | 4.0 | 6.2 | 33.8 |
| 0.312 - 0.625 | 10.0 | 0.407 | 0.409 | 5.8 | 15.4 | 49.2 |
| 0.625 - 1.250 | 6.0 | 1.0 | 1.1 | 8.2 | 9.2 | 58.5 |
| 1.250 - 2.500 | 6.0 | 2.2 | 2.2 | 4.9 | 9.2 | 67.7 |
| 2.500 - 5.000 | 7.0 | 3.6 | 3.7 | 11.6 | 10.8 | 78.5 |
| 5.- 10. | 6.0 | 6.9 | 7.0 | 14.2 | 9.2 | 87.7 |
| 10.- 20. | 4.0 | 12. | 12. | 14.9 | 6.2 | 93.8 |
| 20.- 40. | 4.0 | 26. | 27. | 20.0 | 6.2 | 100.0 |

TOTAL NUMBER OF FEET = 65.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

POROSITY--FEET OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

| POROSITY CUT OFF | FEET LOST | CAPACITY LOST (%) | FEET REMAINING | CAPACITY REMAINING (%) | ARITH MEAN | MEDIAN |
|---------------------|--------------|----------------------|-------------------|---------------------------|---------------|--------|
| 0.0 | 0.0 | 0.0 | 65.0 | 100.0 | 7.8 | 6.1 |
| 2.0 | 11.0 | 3.0 | 54.0 | 97.0 | 9.1 | 7.7 |
| 4.0 | 23.0 | 10.1 | 42.0 | 89.9 | 10.9 | 10.5 |
| 6.0 | 32.0 | 18.8 | 33.0 | 81.2 | 12.5 | 12.6 |
| 8.0 | 39.0 | 28.3 | 26.0 | 71.7 | 14.0 | 14.0 |
| 10.0 | 43.0 | 35.4 | 22.0 | 64.6 | 14.9 | 14.8 |
| 12.0 | 47.0 | 43.9 | 18.0 | 56.1 | 15.8 | 15.6 |
| 14.0 | 52.0 | 56.4 | 13.0 | 43.6 | 17.0 | 17.0 |
| 16.0 | 57.0 | 70.8 | 8.0 | 29.2 | 18.5 | 18.7 |
| 18.0 | 60.0 | 80.7 | 5.0 | 19.3 | 19.6 | |
| 20.0 | 63.0 | 91.7 | 2.0 | 8.3 | 21.2 | 22.0 |
| 22.0 | 64.0 | 95.6 | 1.0 | 4.4 | 22.2 | |
| 24.0 | 65.0 | 100.0 | 0.0 | 0.0 | | |

TOTAL STORAGE CAPACITY IN POROSITY--FEET = 507.9

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

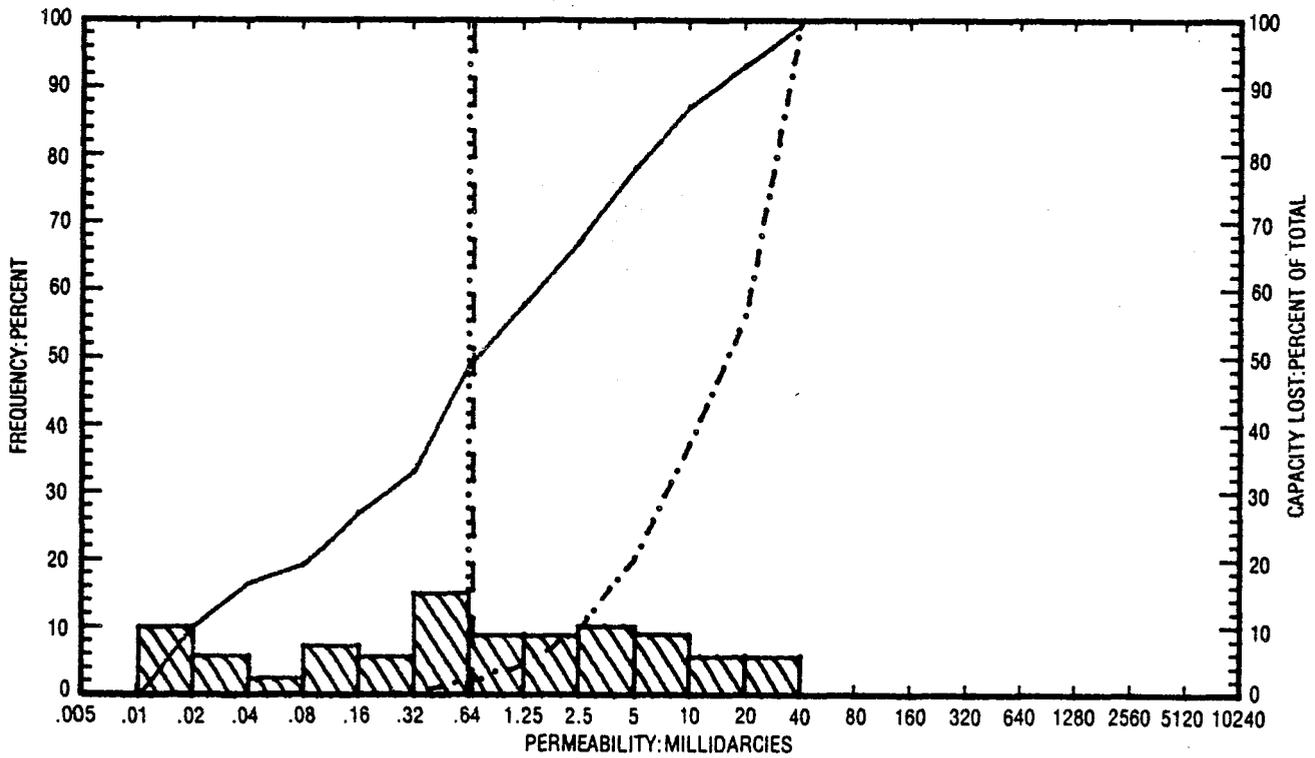
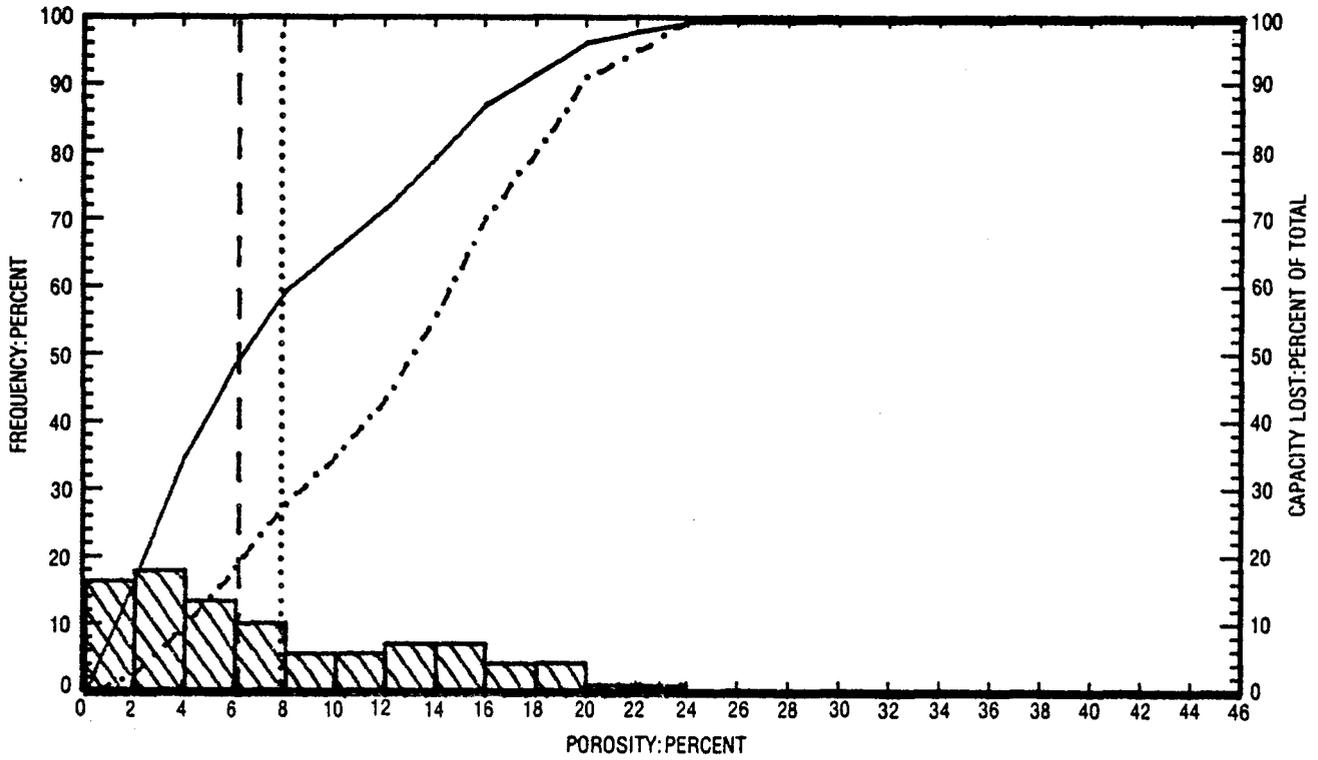
COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

MILLIDARCY-FEET OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

| PERMEABILITY CUT OFF | FEET LOST | CAPACITY LOST (%) | FEET REMAINING | CAPACITY REMAINING (%) | GEOM MEAN | MEDIAN |
|-------------------------|--------------|----------------------|-------------------|---------------------------|--------------|--------|
| 0.005 | 0.0 | 0.0 | 65.0 | 100.0 | 0.62 | 0.66 |
| 0.010 | 0.0 | 0.0 | 65.0 | 100.0 | 0.63 | 0.66 |
| 0.020 | 7.0 | 0.0 | 58.0 | 100.0 | 1.02 | 0.99 |
| 0.039 | 11.0 | 0.1 | 54.0 | 99.9 | 1.36 | 1.25 |
| 0.078 | 13.0 | 0.1 | 52.0 | 99.9 | 1.54 | 1.40 |
| 0.156 | 18.0 | 0.3 | 47.0 | 99.7 | 2.07 | 1.87 |
| 0.312 | 22.0 | 0.7 | 43.0 | 99.3 | 2.50 | 2.36 |
| 0.625 | 32.0 | 2.4 | 33.0 | 97.6 | 4.34 | 3.90 |
| 1.250 | 38.0 | 4.9 | 27.0 | 95.1 | 5.96 | 5.30 |
| 2.500 | 44.0 | 10.2 | 21.0 | 89.8 | 7.96 | 7.49 |
| 5. | 51.0 | 20.6 | 14.0 | 79.4 | 11.76 | 11.89 |
| 10. | 57.0 | 37.6 | 8.0 | 62.4 | 17.47 | 20.00 |
| 20. | 61.0 | 56.5 | 4.0 | 43.5 | 26.27 | |
| 40. | 65.0 | 100.0 | 0.0 | 0.0 | | |

TOTAL FLOW CAPACITY IN MILLIDARCY-FEET (ARITHMETIC) = 248.39



PERMEABILITY AND POROSITY HISTOGRAMS

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5
 PATTERSON
 SAN JUAN, UTAH

LEGEND
 ARITHMETIC MEAN POROSITY
 GEOMETRIC MEAN PERMEABILITY
 MEDIAN VALUE
 CUMULATIVE FREQUENCY
 CUMULATIVE CAPACITY LOST
 (Note: The legend symbols correspond to the lines used in the histograms above.)



CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

COMPANY CELSIUS ENERGY COMPANY FILE NO. 3803-003332
 WELL PATTERSON # 5 DATE JUL-20-1984 ENGRS. D.S.;E.V.
 FIELD PATTERSON FORMATION AS NOTED ELEV. 5233 KB
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES 1,2

CoRes Log

CORE and RESISTIVITY EVALUATION

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted) but Core Laboratories, Inc. and its officers and employees assume no responsibility and make no warranty or representations as to the productivity, proven operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

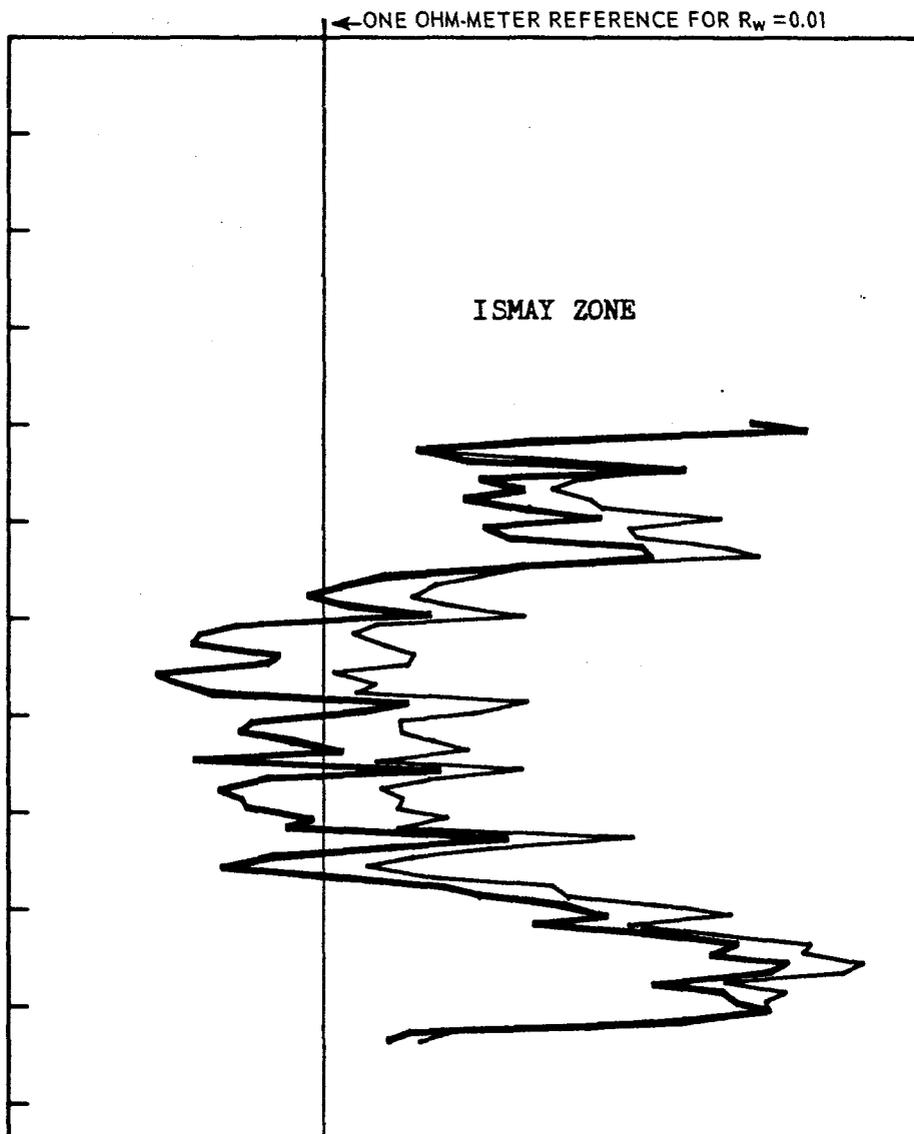
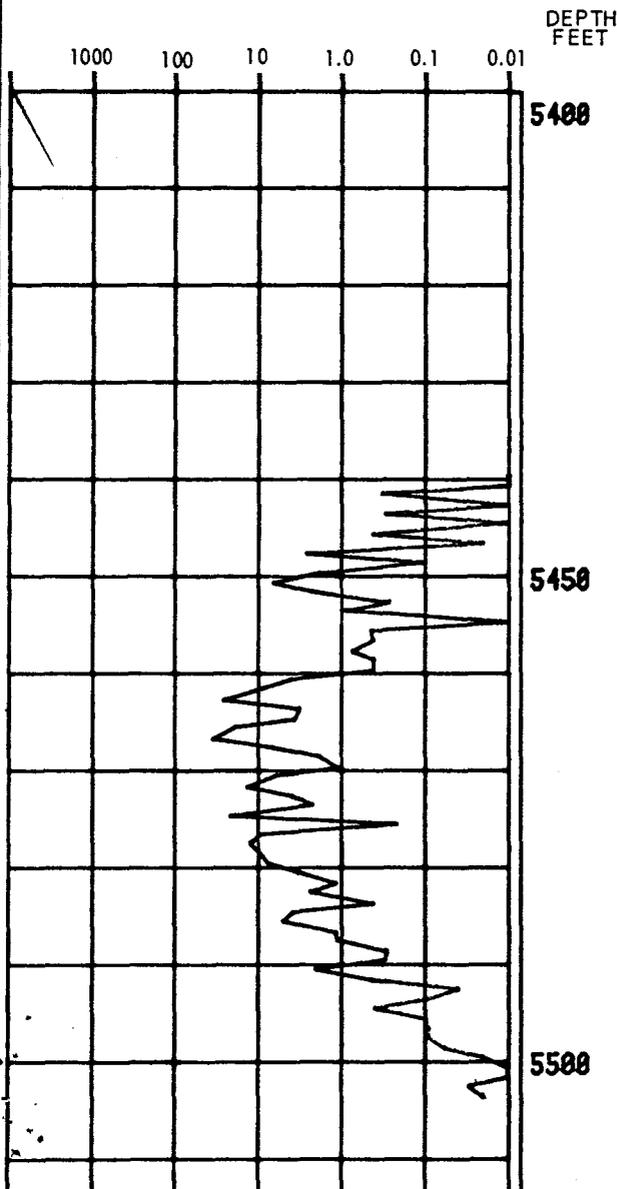
RESISTIVITY PARAMETERS: $a = 1.0$ $m = 2.0$ $n = 2.0$. Depths 5439 to 5504 .
 $a =$ _____ $m =$ _____ $n =$ _____ . Depths _____ to _____ .

PERMEABILITY
MILLIDARCIES

CORE ANALYSIS CALCULATED RESISTIVITY

R_o = OHM-METERS AT 100% S_w _____

R_{mp} = OHM-METERS AT CRITICAL S_w _____



CORE LABORATORIES, INC.



Petroleum Reservoir Engineering

COMPANY CELSIUS ENERGY COMPANY FILE NO. 3803-003332
 WELL PATTERSON UNIT #5 DATE 20-JUL-1984
 FIELD PATTERSON FORMATION ISMAY ELEV. 5233 KB
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES _____
 LOCATION SW, SW SEC. 4-T38S-R25E

CORRELATION COREGRAPH

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VERTICAL SCALE: 5" = 100'

Total Water _____

PERCENT PORE SPACE

100 80 60 40 20 0

Oil Saturation _____

PERCENT PORE SPACE

0 0 20 40 60 80 100

Gamma Ray

RADIATION INCREASE →

Permeability _____

MILLIDARCIES

Porosity _____

PERCENT

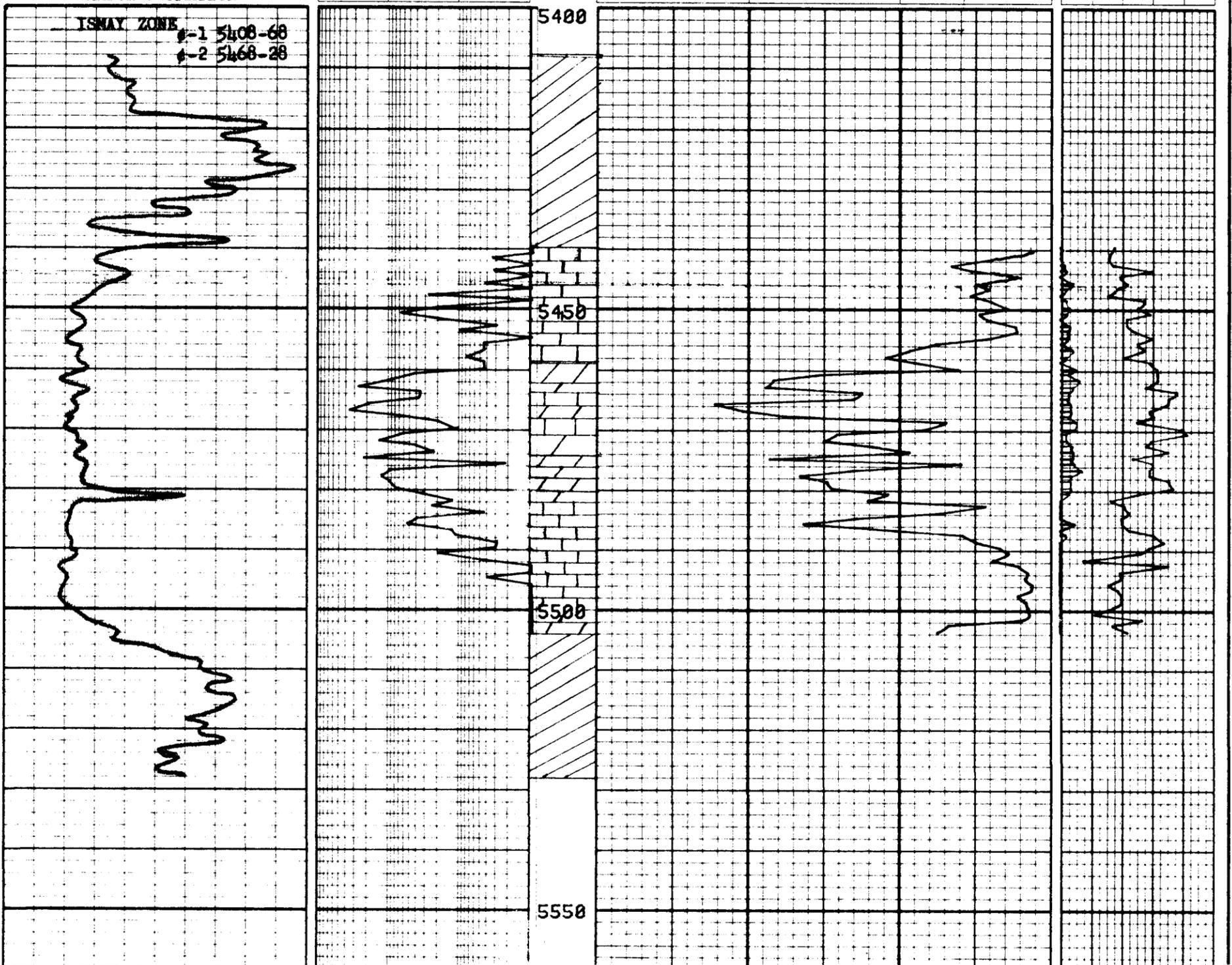
PARADOX FORMATION

100 10 1.0 .1

Depth Feet

20 10

0 0 20 40 60 80 100



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

FINAL REPORT

CORE ANALYSIS REPORT

FOR

CELSIUS ENERGY COMPANY

PATTERSON UNIT #5
PATTERSON
SAN JUAN, UTAH

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

DALLAS, TEXAS

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5

DATE : 20-JUL-1984
 FORMATION : ISMAY

FILE NO. : 3803-00333
 ANALYSTS : DS/EV

*** CORE SUMMARY AND CALCULATED RECOVERABLE OIL ***

DEPTH INTERVAL: 5439.0 TO 5504.0

FEET OF CORE ANALYZED : 65.0 FEET OF CORE INCLUDED IN AVERAGES: 65.0

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --

PERMEABILITY HORIZONTAL RANGE (MD.) : 0.00 TO 38. (UNCORRECTED FOR SLIPPAGE)
 HELIUM POROSITY RANGE (%) : 0.9 TO 100.0
 OIL SATURATION RANGE (%) : 0.0 TO 100.0
 WATER SATURATION RANGE (%) : 0.0 TO 100.0
 SHALE SAMPLES EXCLUDED FROM AVERAGES.

| | | | |
|---------------------------------------|--------|-------------------------------------|------------|
| AVERAGE PERMEABILITY (MILLIDARCIES) | | AVERAGE TOTAL WATER SATURATION | : 43.3 |
| ARITHMETIC PERMEABILITY | : 3.8 | (PERCENT OF PORE SPACE) | |
| GEOMETRIC PERMEABILITY | : 0.62 | AVERAGE CONNATE WATER SATURATION | : (E) 30.0 |
| HARMONIC PERMEABILITY | : 0.06 | (PERCENT OF PORE SPACE) | |
| PRODUCTIVE CAPACITY (MILLIDARCY-FEET) | | OIL GRAVITY (API) | : (E) 43.0 |
| ARITHMETIC CAPACITY | : 248. | ORIGINAL FORMATION VOLUME FACTOR | : (E) 1.30 |
| GEOMETRIC CAPACITY | : 40. | (BBLs SATURATED OIL/STOCK-TANK BBL) | |
| HARMONIC CAPACITY | : 4.1 | ORIGINAL STOCK-TANK OIL IN PLACE | : (C) 326. |
| AVERAGE POROSITY (PERCENT) | : 7.8 | (BARRELS PER ACRE-FOOT) | |
| AVERAGE RESIDUAL OIL SATURATION | : 5.7 | | |
| (PERCENT OF PORE SPACE) | | | |

=====

INTERPRETATION OF DATA

5439-5455 NON PRODUCTIVE DUE TO LOW POROSITY
 5455-5481 OIL PRODUCTIVE WHERE PERMEABLE
 5481-5504 WATER PRODUCTIVE WHERE PERMEABLE

=====

(C) CALCULATED (E) ESTIMATED (M) MEASURED (*) REFER TO ATTACHED LETTER.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5

DATE : 20-JUL-1984
 FORMATION : ISMAY

FILE NO. : 3803-003332
 ANALYSTS : DS;EV

*** CORE SUMMARY AVERAGES FOR 1 ZONE ***

DEPTH INTERVAL: 5439.0 TO 5504.0

FEET OF CORE ANALYZED : 65.0 FEET OF CORE INCLUDED IN AVERAGES: 65.0

--- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED ---

| | | | |
|----------------------------------|---|--------------|----------------------------|
| PERMEABILITY MAXIMUM RANGE (MD.) | : | 0.00 TO 38. | (UNCORRECTED FOR SLIPPAGE) |
| HELIUM POROSITY RANGE (%) | : | 0.9 TO 100.0 | |
| OIL SATURATION RANGE (%) | : | 0.0 TO 100.0 | |
| WATER SATURATION RANGE (%) | : | 0.0 TO 100.0 | |

SHALE SAMPLES EXCLUDED FROM AVERAGES.

AVERAGES FOR DEPTH INTERVAL: 5439.0 TO 5504.0

| | | | |
|-------------------------------------|--------|---------------------------------------|--------|
| AVERAGE PERMEABILITY (MILLIDARCIES) | | PRODUCTIVE CAPACITY (MILLIDARCY-FEET) | |
| ARITHMETIC PERMEABILITY | : 3.8 | ARITHMETIC CAPACITY | : 248. |
| GEOMETRIC PERMEABILITY | : 0.62 | GEOMETRIC CAPACITY | : 40. |
| HARMONIC PERMEABILITY | : 0.06 | HARMONIC CAPACITY | : 4.1 |
| GEOMETRIC MAXIMUM & 90 DEG PERM. | : 0.22 | GEOMETRIC MAXIMUM & 90 DEG CAPACITY | : 15. |
| AVERAGE POROSITY (PERCENT) | | AVERAGE TOTAL WATER SATURATION | |
| | : 7.8 | (PERCENT OF PORE SPACE) | : 43.3 |
| AVERAGE RESIDUAL OIL SATURATION | | AVERAGE CONNATE WATER SATURATION ** | |
| (PERCENT OF PORE SPACE) | : 5.7 | (PERCENT OF PORE SPACE) | : 40.9 |

** ESTIMATED FROM TOTAL
 WATER SAUTRATION.

PERMEABILITY VS POROSITY

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

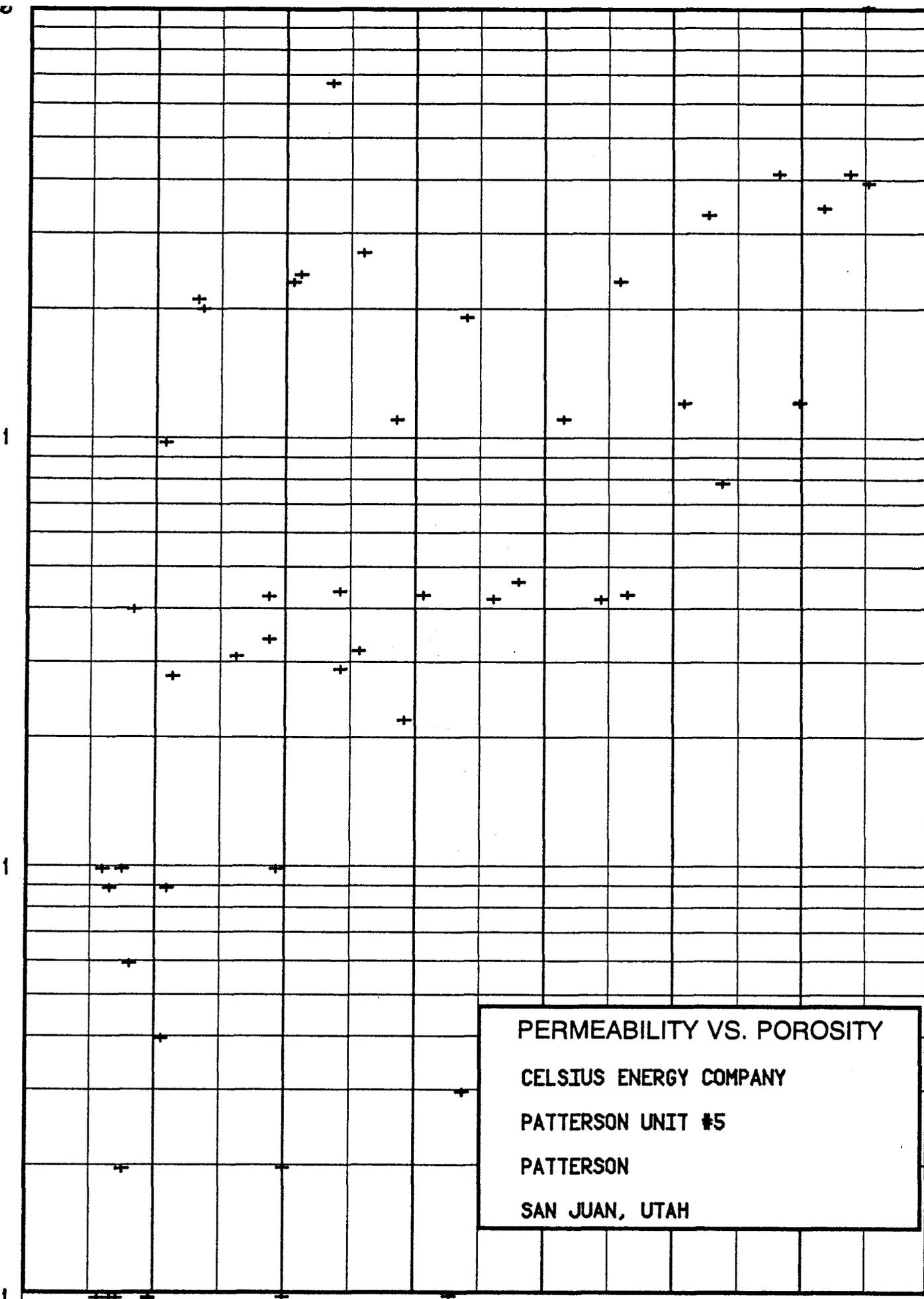
WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

AIR PERMEABILITY : MD - HORIZONTAL (UNCORRECTED FOR SLIPPAGE)
 POROSITY : PERCENT (HELIUM)

| DEPTH INTERVAL | RANGE & SYMBOL | PERMEABILITY | | POROSITY | | POROSITY AVERAGE | PERMEABILITY AVERAGES | | |
|-------------------|-------------------|--------------|---------|----------|------|---------------------|-----------------------|----------|-----------|
| | | MINIMUM | MAXIMUM | MIN. | MAX. | | ARITHMETIC | HARMONIC | GEOMETRIC |
| 5439.0 - 5504.0 | 1 (+) | 0.010 | 40.0 | 0.0 | 25.0 | 7.8 | 3.8 | 0.06 | 0.62 |

PERMEABILITY: MILLIDARCIES

0.1



PERMEABILITY VS. POROSITY
CELSIUS ENERGY COMPANY
PATTERSON UNIT #5
PATTERSON
SAN JUAN, UTAH

0.01

0.0 2.0 4.0 6.0 8.0 10.0 12.0

POROSITY: PERCENT

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
FIELD : PATTERSON

WELL : PATTERSON UNIT #5
COUNTY, STATE: SAN JUAN, UTAH

AIR PERMEABILITY : MD. (HORIZONTAL) RANGE USED 0.001 TO 38.
POROSITY : PERCENT (HELIUM) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS : 5439.0 - 5504.0 INTERVAL LENGTH : 65.0
FEET ANALYZED IN ZONE : 65.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

| POROSITY AVERAGE | PERMEABILITY AVERAGES | | |
|---------------------|-----------------------|----------|-----------|
| | ARITHMETIC | HARMONIC | GEOMETRIC |
| 7.8 | 3.8 | 0.06 | 0.62 |

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

GROUPING BY POROSITY RANGES

| POROSITY RANGE | FEET IN RANGE | AVERAGE POROSITY | AVERAGE PERM. (GEOM.) | AVERAGE PERM. (ARITH) | FREQUENCY (PERCENT) | CUMULATIVE FREQUENCY (%) |
|-------------------|------------------|---------------------|--------------------------|--------------------------|------------------------|-----------------------------|
| 0.0 - 2.0 | 11.0 | 1.4 | 0.033 | 0.075 | 16.9 | 16.9 |
| 2.0 - 4.0 | 12.0 | 3.0 | 0.199 | 0.558 | 18.5 | 35.4 |
| 4.0 - 6.0 | 9.0 | 4.9 | 0.999 | 1.8 | 13.8 | 49.2 |
| 6.0 - 8.0 | 7.0 | 6.9 | 0.138 | 0.467 | 10.8 | 60.0 |
| 8.0 - 10.0 | 4.0 | 8.9 | 0.822 | 1.1 | 6.2 | 66.2 |
| 10.0 - 12.0 | 4.0 | 10.8 | 1.9 | 2.3 | 6.2 | 72.3 |
| 12.0 - 14.0 | 5.0 | 12.7 | 3.7 | 4.5 | 7.7 | 80.0 |
| 14.0 - 16.0 | 5.0 | 14.7 | 7.9 | 8.5 | 7.7 | 87.7 |
| 16.0 - 18.0 | 3.0 | 16.7 | 7.7 | 8.3 | 4.6 | 92.3 |
| 18.0 - 20.0 | 3.0 | 18.6 | 18. | 20. | 4.6 | 96.9 |
| 20.0 - 22.0 | 1.0 | 20.2 | 37. | 37. | 1.5 | 98.5 |
| 22.0 - 24.0 | 1.0 | 22.2 | 20. | 20. | 1.5 | 100.0 |

TOTAL NUMBER OF FEET = 65.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

GROUPING BY PERMEABILITY RANGES

| PERMEABILITY RANGE | FEET IN RANGE | AVERAGE PERM. (GEOM.) | AVERAGE PERM. (ARITH) | AVERAGE POROSITY | FREQUENCY (PERCENT) | CUMULATIVE FREQUENCY (%) |
|--------------------|---------------|-----------------------|-----------------------|------------------|---------------------|--------------------------|
| 0.010 - 0.020 | 7.0 | 0.010 | 0.010 | 2.5 | 10.8 | 10.8 |
| 0.020 - 0.039 | 4.0 | 0.022 | 0.023 | 4.8 | 6.2 | 16.9 |
| 0.039 - 0.078 | 2.0 | 0.049 | 0.050 | 1.8 | 3.1 | 20.0 |
| 0.078 - 0.156 | 5.0 | 0.096 | 0.096 | 1.9 | 7.7 | 27.7 |
| 0.156 - 0.312 | 4.0 | 0.273 | 0.275 | 4.0 | 6.2 | 33.8 |
| 0.312 - 0.625 | 10.0 | 0.407 | 0.409 | 5.8 | 15.4 | 49.2 |
| 0.625 - 1.250 | 6.0 | 1.0 | 1.1 | 8.2 | 9.2 | 58.5 |
| 1.250 - 2.500 | 6.0 | 2.2 | 2.2 | 4.9 | 9.2 | 67.7 |
| 2.500 - 5.000 | 7.0 | 3.6 | 3.7 | 11.6 | 10.8 | 78.5 |
| 5.- 10. | 6.0 | 6.9 | 7.0 | 14.2 | 9.2 | 87.7 |
| 10.- 20. | 4.0 | 12. | 12. | 14.9 | 6.2 | 93.8 |
| 20.- 40. | 4.0 | 26. | 27. | 20.0 | 6.2 | 100.0 |

TOTAL NUMBER OF FEET = 65.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

POROSITY-FEET OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

| POROSITY CUT OFF | FEET LOST | CAPACITY LOST (%) | FEET REMAINING | CAPACITY REMAINING (%) | ARITH MEAN | MEDIAN |
|---------------------|--------------|----------------------|-------------------|---------------------------|---------------|--------|
| 0.0 | 0.0 | 0.0 | 65.0 | 100.0 | 7.8 | 6.1 |
| 2.0 | 11.0 | 3.0 | 54.0 | 97.0 | 9.1 | 7.7 |
| 4.0 | 23.0 | 10.1 | 42.0 | 89.9 | 10.9 | 10.5 |
| 6.0 | 32.0 | 18.8 | 33.0 | 81.2 | 12.5 | 12.6 |
| 8.0 | 39.0 | 28.3 | 26.0 | 71.7 | 14.0 | 14.0 |
| 10.0 | 43.0 | 35.4 | 22.0 | 64.6 | 14.9 | 14.8 |
| 12.0 | 47.0 | 43.9 | 18.0 | 56.1 | 15.8 | 15.6 |
| 14.0 | 52.0 | 56.4 | 13.0 | 43.6 | 17.0 | 17.0 |
| 16.0 | 57.0 | 70.8 | 8.0 | 29.2 | 18.5 | 18.7 |
| 18.0 | 60.0 | 80.7 | 5.0 | 19.3 | 19.6 | |
| 20.0 | 63.0 | 91.7 | 2.0 | 8.3 | 21.2 | 22.0 |
| 22.0 | 64.0 | 95.6 | 1.0 | 4.4 | 22.2 | |
| 24.0 | 65.0 | 100.0 | 0.0 | 0.0 | | |

TOTAL STORAGE CAPACITY IN POROSITY-FEET = 507.9

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

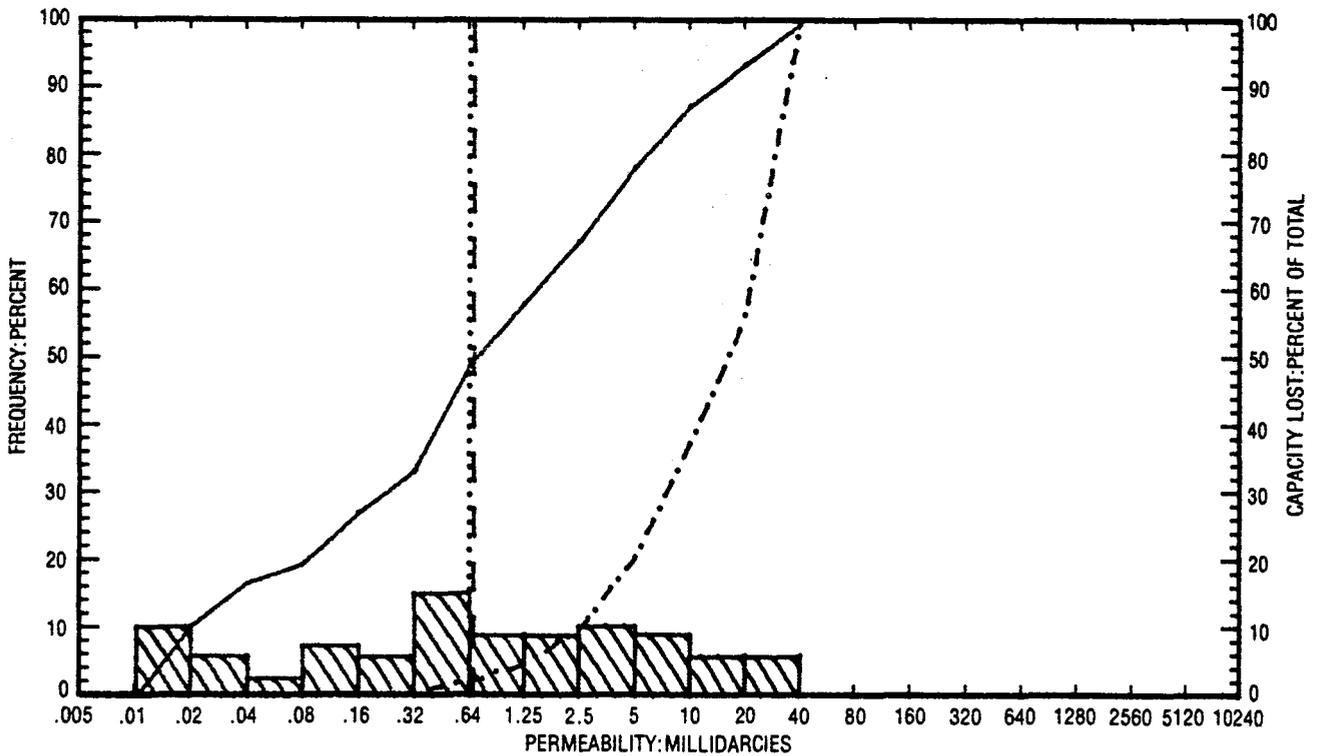
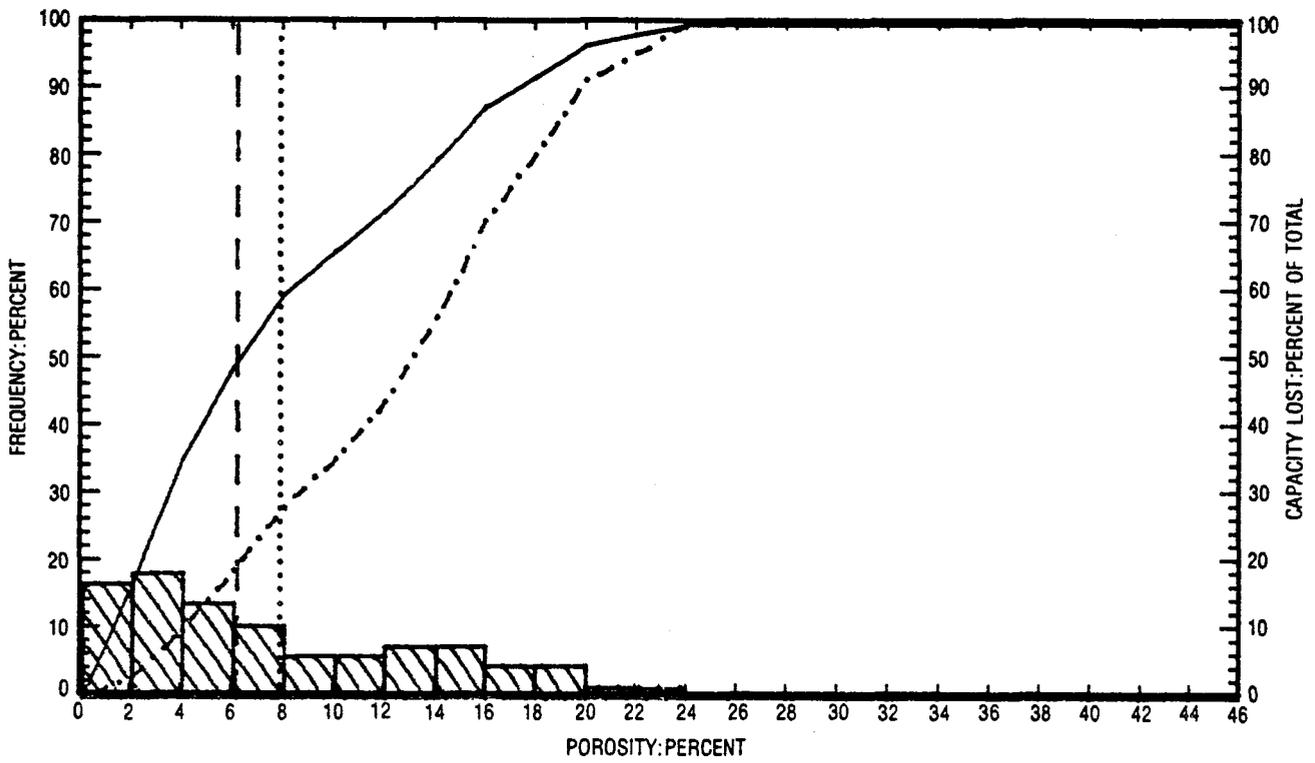
COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

MILLIDARCY-FEET OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

| PERMEABILITY CUT OFF | FEET LOST | CAPACITY LOST (%) | FEET REMAINING | CAPACITY REMAINING (%) | GEOM MEAN | MEDIAN |
|-------------------------|--------------|----------------------|-------------------|---------------------------|--------------|--------|
| 0.005 | 0.0 | 0.0 | 65.0 | 100.0 | 0.62 | 0.66 |
| 0.010 | 0.0 | 0.0 | 65.0 | 100.0 | 0.63 | 0.66 |
| 0.020 | 7.0 | 0.0 | 58.0 | 100.0 | 1.02 | 0.99 |
| 0.039 | 11.0 | 0.1 | 54.0 | 99.9 | 1.36 | 1.25 |
| 0.078 | 13.0 | 0.1 | 52.0 | 99.9 | 1.54 | 1.40 |
| 0.156 | 18.0 | 0.3 | 47.0 | 99.7 | 2.07 | 1.87 |
| 0.312 | 22.0 | 0.7 | 43.0 | 99.3 | 2.50 | 2.36 |
| 0.625 | 32.0 | 2.4 | 33.0 | 97.6 | 4.34 | 3.90 |
| 1.250 | 38.0 | 4.9 | 27.0 | 95.1 | 5.96 | 5.30 |
| 2.500 | 44.0 | 10.2 | 21.0 | 89.8 | 7.96 | 7.49 |
| 5. | 51.0 | 20.6 | 14.0 | 79.4 | 11.76 | 11.89 |
| 10. | 57.0 | 37.6 | 8.0 | 62.4 | 17.47 | 20.00 |
| 20. | 61.0 | 56.5 | 4.0 | 43.5 | 26.27 | |
| 40. | 65.0 | 100.0 | 0.0 | 0.0 | | |

TOTAL FLOW CAPACITY IN MILLIDARCY-FEET (ARITHMETIC) = 248.39



PERMEABILITY AND POROSITY HISTOGRAMS

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5
 PATTERSON
 SAN JUAN, UTAH

LEGEND

- ARITHMETIC MEAN POROSITY (dotted line)
- GEOMETRIC MEAN PERMEABILITY (dotted line)
- MEDIAN VALUE (dotted line)
- CUMULATIVE FREQUENCY (solid line)
- CUMULATIVE CAPACITY LOST (dash-dot line)



CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

COMPANY CELSIUS ENERGY COMPANY FILE NO. 3803-003332
 WELL PATTERSON # 5 DATE JUL-20-1984 ENGRS. D.S;E.V.
 LOCATION PATTERSON FORMATION AS NOTED ELEV. 5233 KB
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES 1,2

CoRes Log

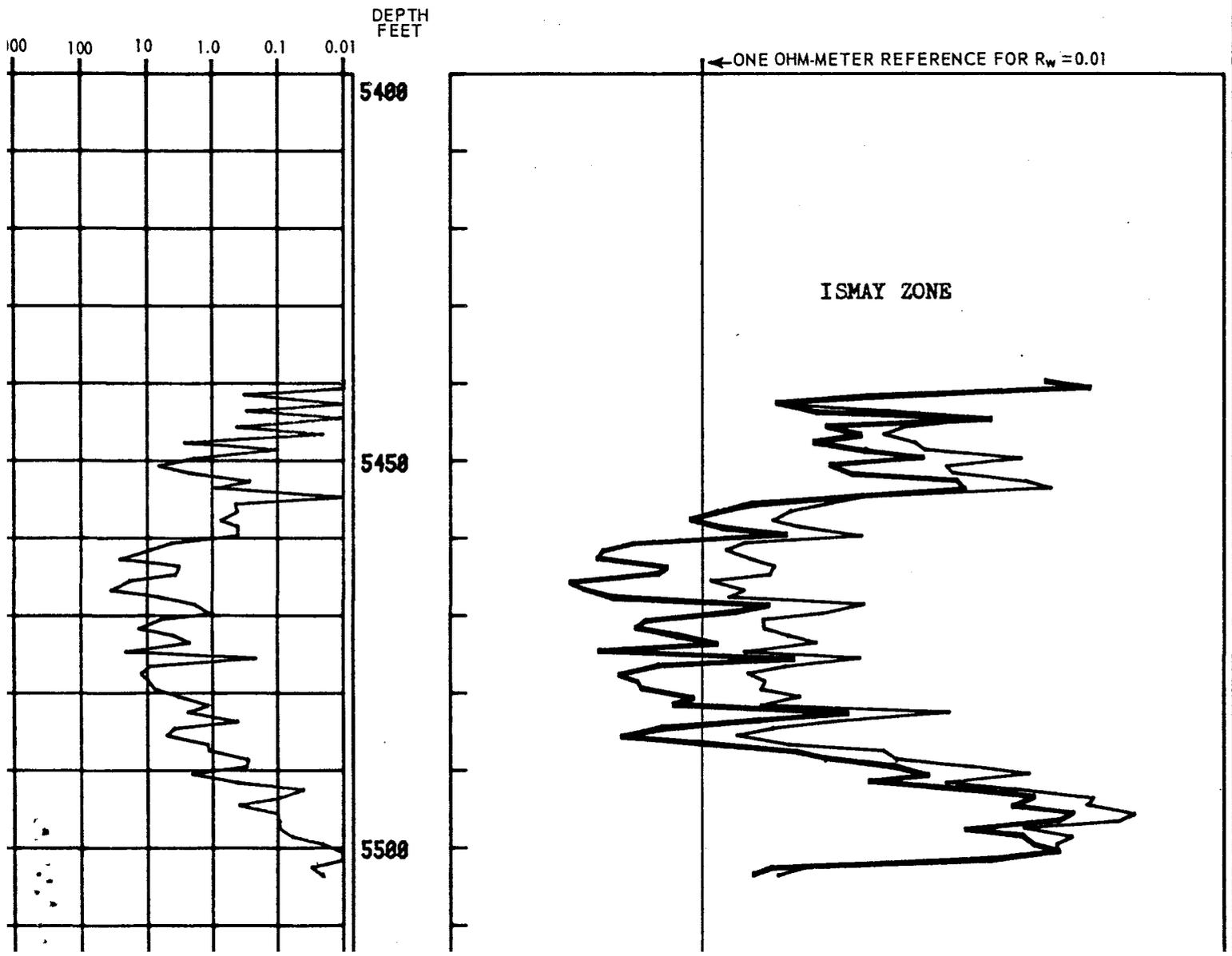
CORE and RESISTIVITY EVALUATION

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted) but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proven operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

RESISTIVITY PARAMETERS: $a = 1.0$ $m = 2.0$ $n = 2.0$. Depths 5439 to 5504 .
 $a =$ $m =$ $n =$. Depths _____ to _____ .

PERMEABILITY
MILLIDARCIES

CORE ANALYSIS CALCULATED RESISTIVITY
 $R_o =$ OHM-METERS AT 100% S_w _____
 $R_{mp} =$ OHM-METERS AT CRITICAL S_w _____



COMPANY CELSIUS ENERGY COMPANY

FILE NO. 3003-003332

WELL PATTERSON UNIT #5

DATE 20-JUL-1984

FIELD PATTERSON

FORMATION ISMAY

ELEV. 5233 KB

COUNTY SAN JUAN STATE UTAH

DRLG. FLD. WBM

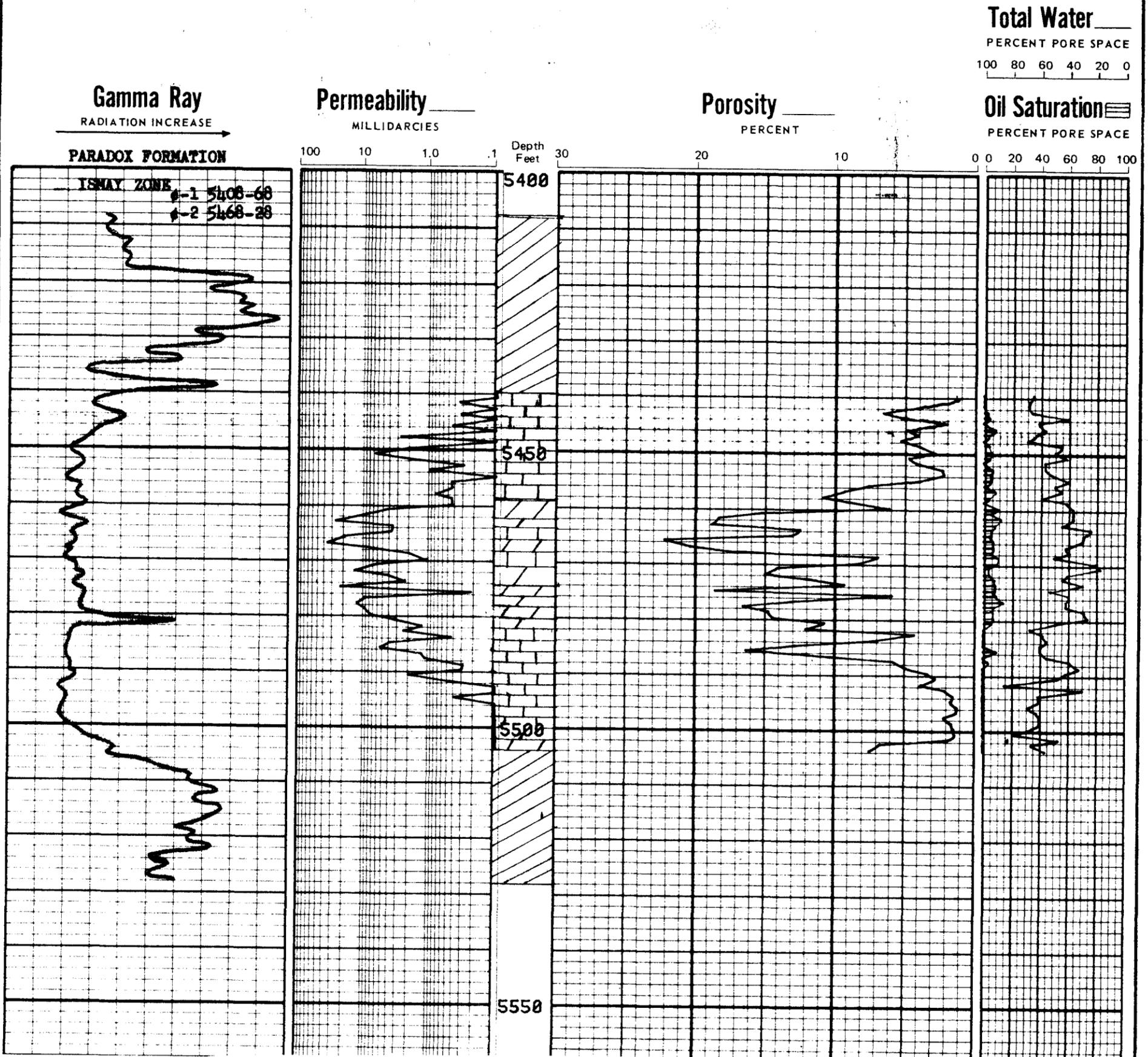
CORES _____

LOCATION SW, SW SEC. 4-T30S-R25E

CORRELATION COREGRAPH

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VERTICAL SCALE: 5" = 100'



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS REPORT

FOR

CELSIUS ENERGY COMPANY

PATTERSON UNIT #5
PATTERSON
SAN JUAN, UTAH

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

DALLAS, TEXAS

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5
 PATTERSON
 SAN JUAN, UTAH

DATE : 20-JUL-1984
 FORMATION : ISMAY
 DRLG. FLUID: WBM
 LOCATION : SW,SW SEC. 4-T38S-R25E

FILE NO : 3803-003332
 ANALYSTS : DS#EV
 ELEVATION: 5233 KB

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO MAXIMUM | AIR (MD) 90 DEG | POR. He | FLUID OIL | SATS. WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|------------------|-----------------|---------|-----------|-----------|-----------|---------------------------|
| | 5408.0-35.0 | | | | | | | LM/SHALE -- NO ANALYSIS |
| | 5435.0-39.0 | | | | | | | ANHYDRITE -- NO ANALYSIS |
| 1 | 5439.0-40.0 | 0.01 | * | 1.3 | 0.0 | 64.7 | 2.70 | LM GRY VFXLN |
| 2 | 5440.0-41.0 | 0.01 | * | 1.0 | 0.0 | 66.7 | 2.73 | LM GRY VFXLN CVF |
| 3 | 5441.0-42.0 | 0.34 | 0.04 | 3.7 | 0.0 | 67.5 | 2.71 | LM GRY VFXLN OVF ** |
| 4 | 5442.0-43.0 | 0.01 | * | 6.5 | 2.7 | 64.5 | 2.72 | LM GRY VFXLN OVF |
| 5 | 5443.0-44.0 | 0.32 | * | 5.1 | 3.9 | 38.7 | 2.74 | LM GRY VFXLN SL/DOL OVF |
| 6 | 5444.0-45.0 | 0.01 | * | 1.8 | 0.0 | 60.5 | 2.73 | LM GRY VFXLN STYL CVF |
| 7 | 5445.0-46.0 | 0.44 | 0.31 | 4.8 | 9.3 | 55.5 | 2.73 | LM GRY VFXLN CVF ** |
| 8 | 5446.0-47.0 | 0.02 | 0.02 | 3.9 | 3.9 | 61.9 | 2.73 | LM GRY VFXLN STYL CVF |
| 9 | 5447.0-48.0 | 2.70 | 0.18 | 5.2 | 0.0 | 68.5 | 2.71 | LM GRY VFXLN OVF ** |
| 10 | 5448.0-49.0 | 0.10 | * | 3.8 | 4.4 | 44.0 | 2.70 | LM GRY VFXLN CVF |
| 11 | 5449.0-50.0 | 2.00 | 0.74 | 2.7 | 6.1 | 48.6 | 2.72 | LM GRY VFXLN STYL CVF ** |
| 12 | 5450.0-51.0 | 6.70 | 5.70 | 4.7 | 4.0 | 39.9 | 2.73 | LM GRY VFXLN STYL CVF ** |
| 13 | 5451.0-52.0 | 2.30 | 0.01 | 4.1 | 0.0 | 55.8 | 2.71 | LM GRY VFXLN OVF CVF ** |
| 14 | 5452.0-53.0 | 0.28 | 0.22 | 2.2 | 6.9 | 55.0 | 2.73 | LM GRY VFXLN STYL |
| 15 | 5453.0-54.0 | 0.98 | 0.18 | 2.1 | 5.2 | 51.7 | 2.73 | LM GRY VFXLN STYL CVF ** |
| 16 | 5454.0-55.0 | 0.01 | * | 3.9 | 4.9 | 39.3 | 2.73 | LM GRY VFXLN |
| 17 | 5455.0-56.0 | 0.46 | 0.21 | 7.6 | 1.3 | 49.0 | 2.73 | LM GRY FNXLN |
| 18 | 5456.0-57.0 | 0.43 | 0.40 | 9.3 | 8.5 | 43.7 | 2.73 | LM GRY FNXLN |
| 19 | 5457.0-58.0 | 0.78 | 0.74 | 10.8 | 3.6 | 58.9 | 2.75 | LM GRY FNXLN SL/DOL |
| 20 | 5458.0-59.0 | 0.42 | 0.41 | 8.9 | 0.0 | 40.6 | 2.74 | LM GRY FNXLN SL/DOL |
| 21 | 5459.0-60.0 | 0.43 | 0.40 | 6.1 | 10.5 | 35.9 | 2.77 | LM GRY FNXLN SL/DOL |
| 22 | 5460.0-61.0 | 4.30 | 3.70 | 15.3 | 5.2 | 34.8 | 2.80 | DOL GRY/BRN FNXLN SL/CALC |
| 23 | 5461.0-62.0 | 9.40 | 6.50 | 18.3 | 13.0 | 35.4 | 2.82 | DOL GRY/BRN FNXLN SL/CALC |
| 24 | 5462.0-63.0 | 28. | * | 18.8 | 8.5 | 43.7 | 2.80 | DOL GRY/BRN FNXLN SL/CALC |
| 25 | 5463.0-64.0 | 3.40 | 3.30 | 12.4 | 5.9 | 22.1 | 2.76 | LM GRY/BRN FNXLN SL/DOL |
| 26 | 5464.0-65.0 | 3.90 | 3.50 | 13.1 | 5.4 | 28.7 | 2.77 | LM GRY/BRN FNXLN SL/DOL |

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5

DALLAS, TEXAS
 DATE : 20-JUL-1984
 FORMATION : ISMAY

FILE NO : 3803-003332
 ANALYSTS : DS#EV

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO MAXIMUM | AIR (MD) 90 DEG | POR. He | FLUID OIL | SATS. WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|------------------|-----------------|---------|-----------|-----------|-----------|-------------------------------|
| 27 | 5465.0-66.0 | 20. | 15. | 22.2 | 7.8 | 29.7 | 2.80 | DOL BRN FNXLN SL/CALC |
| 28 | 5466.0-67.0 | 37. | * | 20.2 | 7.2 | 41.1 | 2.81 | DOL BRN FNXLN SL/CALC |
| 29 | 5467.0-68.0 | 6.70 | 6.40 | 17.1 | 5.9 | 38.2 | 2.81 | DOL BRN FNXLN SL/CALC SL/ANHY |
| 30 | 5468.0-69.0 | 1.90 | 1.40 | 6.8 | 11.6 | 49.8 | 2.77 | LM GRY FNXLN SL/DOL |
| 31 | 5469.0-70.0 | 1.10 | 1.00 | 8.3 | 9.8 | 19.5 | 2.76 | LM GRY FNXLN SL/DOL |
| 32 | 5470.0-71.0 | 6.40 | 6.10 | 14.1 | 4.2 | 16.9 | 2.79 | LM GRY FNXLN SL/DOL |
| 33 | 5471.0-72.0 | 14. | 13. | 15.0 | 4.7 | 40.5 | 2.81 | DOL LTBRN FNXLN SL/CALC |
| 34 | 5472.0-73.0 | 4.10 | 4.10 | 11.7 | 8.0 | 43.3 | 2.79 | DOL GRY FNXLN SL/CALC |
| 35 | 5473.0-74.0 | 2.30 | 2.30 | 9.2 | 8.4 | 28.7 | 2.81 | DOL LTBRN FNXLN SL/CALC |
| 36 | 5474.0-75.0 | 23. | * | 18.6 | 7.9 | 51.5 | 2.79 | DOL GRY FNXLN SL/CALC |
| 37 | 5475.0-76.0 | 0.22 | 0.18 | 5.8 | 10.4 | 38.5 | 2.83 | DOL LTBRN FNXLN SL/CALC |
| 38 | 5476.0-77.0 | 10. | 9.30 | 13.1 | 14.3 | 40.9 | 2.78 | DOL GRY FNXLN SL/CALC |
| 39 | 5477.0-78.0 | 13. | 11. | 16.6 | 7.2 | 41.0 | 2.84 | DOL LTBRN FNXLN SL/CALC |
| 40 | 5478.0-79.0 | 10. | 9.70 | 14.7 | 7.8 | 28.6 | 2.84 | DOL LTBRN FNXLN SL/CALC |
| 41 | 5479.0-80.0 | 7.80 | * | 14.4 | 7.1 | 25.3 | 2.86 | DOL LTBRN FNXLN SL/CALC |
| 42 | 5480.0-81.0 | 3.30 | 2.60 | 10.6 | 5.2 | 47.7 | 2.85 | DOL LTBRN FNXLN SL/CALC |
| 43 | 5481.0-82.0 | 1.20 | * | 12.0 | 0.0 | 66.6 | 2.83 | DOL LTBRN FNXLN SL/CALC |
| 44 | 5482.0-83.0 | 2.40 | 0.12 | 4.2 | 0.0 | 57.5 | 2.77 | LM LTBRN FNXLN SL/DOL ** |
| 45 | 5483.0-84.0 | 0.42 | 0.08 | 7.2 | 0.0 | 53.9 | 2.76 | LM LTBRN FNXLN SL/DOL |
| 46 | 5484.0-85.0 | 4.10 | * | 12.8 | 1.0 | 59.4 | 2.77 | LM LTBRN FNXLN SL/DOL |
| 47 | 5485.0-86.0 | 5.30 | * | 16.3 | 9.5 | 58.4 | 2.79 | LM LTBRN FNXLN SL/DOL |
| 48 | 5486.0-87.0 | 1.20 | 1.20 | 10.2 | 0.7 | 54.1 | 2.71 | LM LTBRN FNXLN OOM |
| 49 | 5487.0-88.0 | 1.10 | 1.00 | 5.7 | 4.4 | 37.4 | 2.76 | LM GRY VFXLN SL/ANHY |
| 50 | 5488.0-89.0 | 0.29 | 0.28 | 4.8 | 0.0 | 31.4 | 2.75 | LM GRY VFXLN SL/ANHY |
| 51 | 5489.0-90.0 | 0.31 | 0.19 | 3.2 | 0.0 | 40.7 | 2.75 | LM GRY VFXLN SL/ANHY |
| 52 | 5490.0-91.0 | 2.10 | 0.75 | 2.6 | 0.0 | 47.5 | 2.76 | LM GRY VFXLN SL/ANHY |
| 53 | 5491.0-92.0 | 0.43 | 0.17 | 3.7 | 0.0 | 84.1 | 2.76 | LM GRY VFXLN SL/ANHY |
| 54 | 5492.0-93.0 | 0.04 | * | 2.0 | 0.0 | 28.8 | 2.76 | LM GRY VFXLN SL/ANHY |
| 55 | 5493.0-94.0 | 0.10 | 0.06 | 1.4 | 0.0 | 61.0 | 2.77 | LM GRY VFXLN SL/ANHY |
| 56 | 5494.0-95.0 | 0.40 | 0.35 | 1.6 | 0.0 | 59.0 | 2.75 | LM GRY VFXLN SL/ANHY |

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5

DALLAS, TEXAS
 DATE : 20-JUL-1984
 FORMATION : ISMAY

FILE NO : 3803-003332
 ANALYSTS : DS#EV

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO AIR (MD) MAXIMUM | AIR (MD) 90 DEG | POR. He | FLUID SATS. OIL | WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|---------------------------|-----------------|---------|-----------------|------|-----------|---------------------------------|
| 57 | 5495.0-96.0 | 0.10 | 0.10 | 1.1 | 0.0 | 67.6 | 2.74 | LM GRY VFXLN SL/ANHY |
| 58 | 5496.0-97.0 | 0.09 | 0.06 | 1.2 | 0.0 | 61.4 | 2.73 | LM GRY VFXLN SL/ANHY |
| 59 | 5497.0-98.0 | 0.09 | 0.07 | 2.1 | 0.0 | 58.2 | 2.75 | LM GRY VFXLN SL/ANHY |
| 60 | 5498.0-99.0 | 0.06 | * | 1.5 | 0.0 | 58.9 | 2.74 | LM GRY VFXLN SL/ANHY |
| 61 | 5499.0-00.0 | 0.02 | * | 1.4 | 0.0 | 65.0 | 2.75 | LM GRY VFXLN SL/ANHY |
| 62 | 5500.0-01.0 | 0.01 | * | 1.2 | 0.0 | 76.8 | 2.75 | LM GRY VFXLN SL/ANHY |
| 63 | 5501.0-02.0 | 0.01 | * | 1.8 | 0.0 | 45.5 | 2.75 | LM GRY VFXLN SL/ANHY |
| 64 | 5502.0-03.0 | 0.03 | * | 6.7 | 0.0 | 65.9 | 2.83 | DOL LTBRN VFXLN SL/CALC SL/ANHY |
| 65 | 5503.0-04.0 | 0.02 | * | 7.4 | 0.0 | 54.9 | 2.81 | DOL LTBRN VFXLN SL/CALC SL/ANHY |
| | 5504.0-11.0 | | | | | | | LM SL/SHY -- NO ANALYSIS |
| | 5511.0-28.0 | | | | | | | SHALE -- NO ANALYSIS |

** INDICATES FRACTURE PERMEABILITY

* SAMPLE NOT SUITABLE FOR FULL DIAMETER ANALYSIS



CORE LABORATORIES, INC.

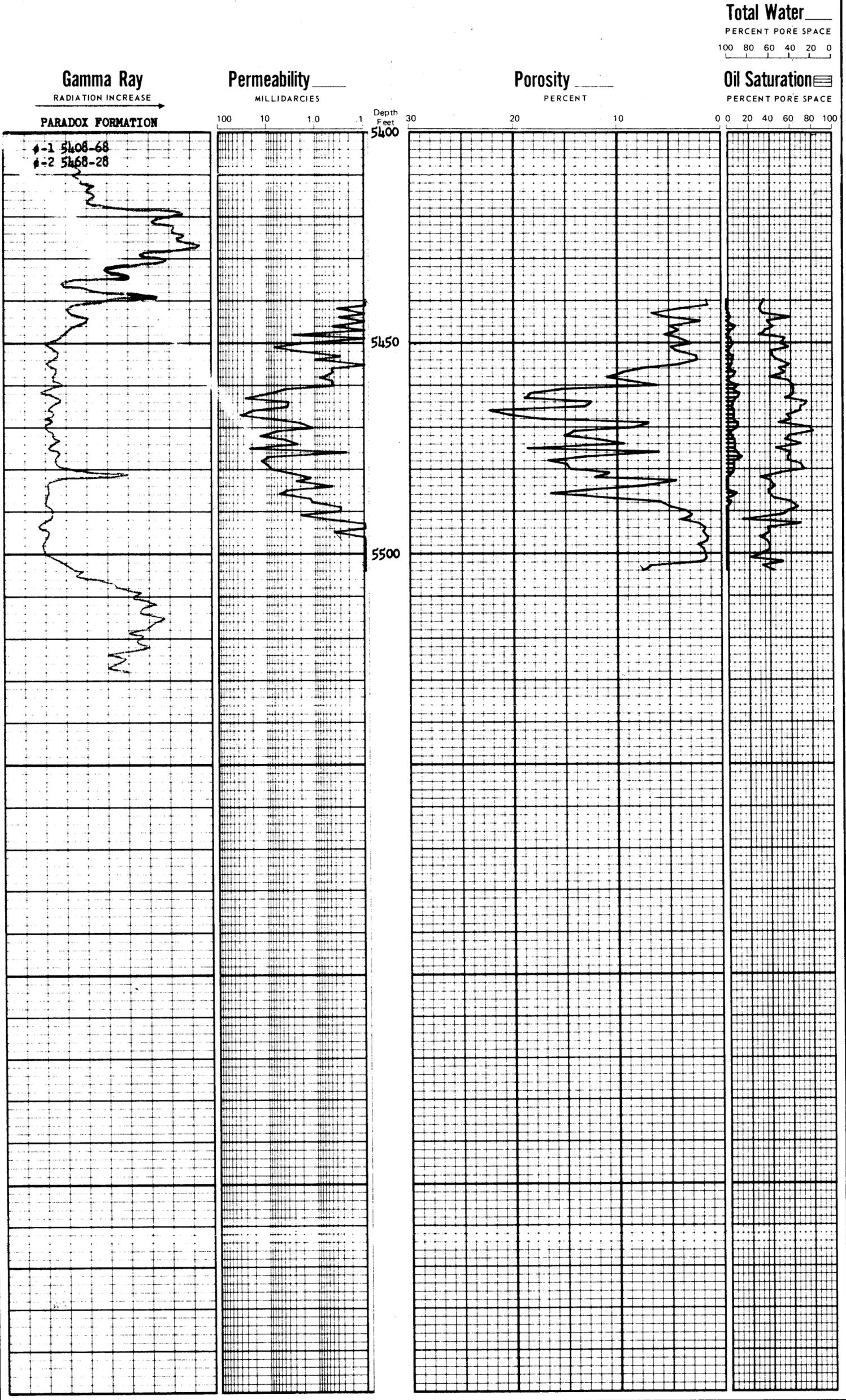
Petroleum Reservoir Engineering

COMPANY CELSIUS ENERGY COMPANY FILE NO. 3803-003332
 WELL PATTERSON UNIT #5 DATE JULY 26, 1984
 FIELD PATTERSON FORMATION ISMAY ELEV. 5233 KB
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES _____
 LOCATION SW, SW SEC. 4-T38S-R25E

CORRELATION COREGRAPH

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc., (all errors or omissions excepted), but Core Laboratories, Inc., and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

VERTICAL SCALE: 5" = 100'



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS REPORT

FOR

CELSIUS ENERGY COMPANY

PATTERSON UNIT #5
PATTERSON
SAN JUAN, UTAH

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5
 PATTERSON
 SAN JUAN, UTAH

DALLAS, TEXAS

DATE : 20-JUL-1984
 FORMATION : ISMAY
 DRLG. FLUID: WBM
 LOCATION : SW,SW SEC. 4-T38S-R25E

FILE NO : 3803-003332
 ANALYSTS : DS:EV
 ELEVATION: 5233 KB

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO AIR (MD) MAXIMUM | 90 DEG | POR. He | FLUID OIL | SATS. WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|---------------------------|--------|---------|-----------|-----------|-----------|---------------------------|
| | 5408.0-35.0 | | | | | | | LM/SHALE -- NO ANALYSIS |
| | 5435.0-39.0 | | | | | | | ANHYDRITE -- NO ANALYSIS |
| 1 | 5439.0-40.0 | 0.01 | * | 1.3 | 0.0 | 64.7 | 2.70 | LM GRY VFXLN |
| 2 | 5440.0-41.0 | 0.01 | * | 1.0 | 0.0 | 66.7 | 2.73 | LM GRY VFXLN CVF |
| 3 | 5441.0-42.0 | 0.34 | 0.04 | 3.7 | 0.0 | 67.5 | 2.71 | LM GRY VFXLN OVF ** |
| 4 | 5442.0-43.0 | 0.01 | * | 6.5 | 2.7 | 64.5 | 2.72 | LM GRY VFXLN OVF |
| 5 | 5443.0-44.0 | 0.32 | * | 5.1 | 3.9 | 38.7 | 2.74 | LM GRY VFXLN SL/DOL OVF |
| 6 | 5444.0-45.0 | 0.01 | * | 1.8 | 0.0 | 60.5 | 2.73 | LM GRY VFXLN STYL CVF |
| 7 | 5445.0-46.0 | 0.44 | 0.31 | 4.8 | 9.3 | 55.5 | 2.73 | LM GRY VFXLN CVF ** |
| 8 | 5446.0-47.0 | 0.02 | 0.02 | 3.9 | 3.9 | 61.9 | 2.73 | LM GRY VFXLN STYL CVF |
| 9 | 5447.0-48.0 | 2.70 | 0.18 | 5.2 | 0.0 | 68.5 | 2.71 | LM GRY VFXLN OVF ** |
| 10 | 5448.0-49.0 | 0.10 | * | 3.8 | 4.4 | 44.0 | 2.70 | LM GRY VFXLN CVF |
| 11 | 5449.0-50.0 | 2.00 | 0.74 | 2.7 | 6.1 | 48.6 | 2.72 | LM GRY VFXLN STYL CVF ** |
| 12 | 5450.0-51.0 | 6.70 | 5.70 | 4.7 | 4.0 | 39.9 | 2.73 | LM GRY VFXLN STYL CVF ** |
| 13 | 5451.0-52.0 | 2.30 | 0.01 | 4.1 | 0.0 | 55.8 | 2.71 | LM GRY VFXLN OVF CVF ** |
| 14 | 5452.0-53.0 | 0.28 | 0.22 | 2.2 | 6.9 | 55.0 | 2.73 | LM GRY VFXLN STYL |
| 15 | 5453.0-54.0 | 0.98 | 0.18 | 2.1 | 5.2 | 51.7 | 2.73 | LM GRY VFXLN STYL CVF ** |
| 16 | 5454.0-55.0 | 0.01 | * | 3.9 | 4.9 | 39.3 | 2.73 | LM GRY VFXLN |
| 17 | 5455.0-56.0 | 0.46 | 0.21 | 7.6 | 1.3 | 49.0 | 2.73 | LM GRY FNXLN |
| 18 | 5456.0-57.0 | 0.43 | 0.40 | 9.3 | 8.5 | 43.7 | 2.73 | LM GRY FNXLN |
| 19 | 5457.0-58.0 | 0.78 | 0.74 | 10.8 | 3.6 | 58.9 | 2.75 | LM GRY FNXLN SL/DOL |
| 20 | 5458.0-59.0 | 0.42 | 0.41 | 8.9 | 0.0 | 40.6 | 2.74 | LM GRY FNXLN SL/DOL |
| 21 | 5459.0-60.0 | 0.43 | 0.40 | 6.1 | 10.5 | 35.9 | 2.77 | LM GRY FNXLN SL/DOL |
| 22 | 5460.0-61.0 | 4.30 | 3.70 | 15.3 | 5.2 | 34.8 | 2.80 | DOL GRY/BRN FNXLN SL/CALC |
| 23 | 5461.0-62.0 | 9.40 | 6.50 | 18.3 | 13.0 | 35.4 | 2.82 | DOL GRY/BRN FNXLN SL/CALC |
| 24 | 5462.0-63.0 | 28. | * | 18.8 | 8.5 | 43.7 | 2.80 | DOL GRY/BRN FNXLN SL/CALC |
| 25 | 5463.0-64.0 | 3.40 | 3.30 | 12.4 | 5.9 | 22.1 | 2.76 | LM GRY/BRN FNXLN SL/DOL |
| 26 | 5464.0-65.0 | 3.90 | 3.50 | 13.1 | 5.4 | 28.7 | 2.77 | LM GRY/BRN FNXLN SL/DOL |

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5

DALLAS, TEXAS
 DATE : 20-JUL-1984
 FORMATION : ISMAY

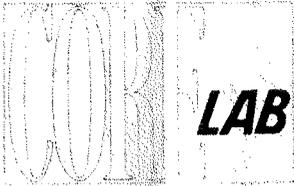
FILE NO : 3803-003332
 ANALYSTS : DS:EV

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO MAXIMUM | AIR (MD) 90 DEG | POR. He | FLUID SATS. OIL | WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|------------------|-----------------|---------|-----------------|------|-----------|-------------------------------|
| 27 | 5465.0-66.0 | 20. | 15. | 22.2 | 7.8 | 29.7 | 2.80 | DOL BRN FNXLN SL/CALC |
| 28 | 5466.0-67.0 | 37. | * | 20.2 | 7.2 | 41.1 | 2.81 | DOL BRN FNXLN SL/CALC |
| 29 | 5467.0-68.0 | 6.70 | 6.40 | 17.1 | 5.9 | 38.2 | 2.81 | DOL BRN FNXLN SL/CALC SL/ANHY |
| 30 | 5468.0-69.0 | 1.90 | 1.40 | 6.8 | 11.6 | 49.8 | 2.77 | LM GRY FNXLN SL/DOL |
| 31 | 5469.0-70.0 | 1.10 | 1.00 | 8.3 | 9.8 | 19.5 | 2.76 | LM GRY FNXLN SL/DOL |
| 32 | 5470.0-71.0 | 6.40 | 6.10 | 14.1 | 4.2 | 16.9 | 2.79 | LM GRY FNXLN SL/DOL |
| 33 | 5471.0-72.0 | 14. | 13. | 15.0 | 4.7 | 40.5 | 2.81 | DOL LTBRN FNXLN SL/CALC |
| 34 | 5472.0-73.0 | 4.10 | 4.10 | 11.7 | 8.0 | 43.3 | 2.79 | DOL GRY FNXLN SL/CALC |
| 35 | 5473.0-74.0 | 2.30 | 2.30 | 9.2 | 8.4 | 28.7 | 2.81 | DOL LTBRN FNXLN SL/CALC |
| 36 | 5474.0-75.0 | 23. | * | 18.6 | 7.9 | 51.5 | 2.79 | DOL GRY FNXLN SL/CALC |
| 37 | 5475.0-76.0 | 0.22 | 0.18 | 5.8 | 10.4 | 38.5 | 2.83 | DOL LTBRN FNXLN SL/CALC |
| 38 | 5476.0-77.0 | 10. | 9.30 | 13.1 | 14.3 | 40.9 | 2.78 | DOL GRY FNXLN SL/CALC |
| 39 | 5477.0-78.0 | 13. | 11. | 16.6 | 7.2 | 41.0 | 2.84 | DOL LTBRN FNXLN SL/CALC |
| 40 | 5478.0-79.0 | 10. | 9.70 | 14.7 | 7.8 | 28.6 | 2.84 | DOL LTBRN FNXLN SL/CALC |
| 41 | 5479.0-80.0 | 7.80 | * | 14.4 | 7.1 | 25.3 | 2.86 | DOL LTBRN FNXLN SL/CALC |
| 42 | 5480.0-81.0 | 3.30 | 2.60 | 10.6 | 5.2 | 47.7 | 2.85 | DOL LTBRN FNXLN SL/CALC |
| 43 | 5481.0-82.0 | 1.20 | * | 12.0 | 0.0 | 66.6 | 2.83 | DOL LTBRN FNXLN SL/CALC |
| 44 | 5482.0-83.0 | 2.40 | 0.12 | 4.2 | 0.0 | 57.5 | 2.77 | LM LTBRN FNXLN SL/DOL ** |
| 45 | 5483.0-84.0 | 0.42 | 0.08 | 7.2 | 0.0 | 53.9 | 2.76 | LM LTBRN FNXLN SL/DOL |
| 46 | 5484.0-85.0 | 4.10 | * | 12.8 | 1.0 | 59.4 | 2.77 | LM LTBRN FNXLN SL/DOL |
| 47 | 5485.0-86.0 | 5.30 | * | 16.3 | 9.5 | 58.4 | 2.79 | LM LTBRN FNXLN SL/DOL |
| 48 | 5486.0-87.0 | 1.20 | 1.20 | 10.2 | 0.7 | 54.1 | 2.71 | LM LTBRN FNXLN OOM |
| 49 | 5487.0-88.0 | 1.10 | 1.00 | 5.7 | 4.4 | 37.4 | 2.76 | LM GRY VFXLN SL/ANHY |
| 50 | 5488.0-89.0 | 0.29 | 0.28 | 4.8 | 0.0 | 31.4 | 2.75 | LM GRY VFXLN SL/ANHY |
| 51 | 5489.0-90.0 | 0.31 | 0.19 | 3.2 | 0.0 | 40.7 | 2.75 | LM GRY VFXLN SL/ANHY |
| 52 | 5490.0-91.0 | 2.10 | 0.75 | 2.6 | 0.0 | 47.5 | 2.76 | LM GRY VFXLN SL/ANHY |
| 53 | 5491.0-92.0 | 0.43 | 0.17 | 3.7 | 0.0 | 84.1 | 2.76 | LM GRY VFXLN SL/ANHY |
| 54 | 5492.0-93.0 | 0.04 | * | 2.0 | 0.0 | 28.8 | 2.76 | LM GRY VFXLN SL/ANHY |
| 55 | 5493.0-94.0 | 0.10 | 0.06 | 1.4 | 0.0 | 61.0 | 2.77 | LM GRY VFXLN SL/ANHY |
| 56 | 5494.0-95.0 | 0.40 | 0.35 | 1.6 | 0.0 | 59.0 | 2.75 | LM GRY VFXLN SL/ANHY |

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CORE LABORATORIES, INC.



Petroleum Reservoir Engineering

COMPANY CELSIUS ENERGY COMPANY FILE NO. 3803-003332
 WELL PATTERSON UNIT #5 DATE JULY 26, 1984
 FIELD PATTERSON FORMATION ISMAY ELEV. 5233 KB
 COUNTY SAN JUAN STATE UTAH DRUG. FLD. WBM CORES _____
 LOCATION SW, SW SEC. 4-T38S-R25E

CORRELATION COREGRAPH

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VERTICAL SCALE: 5" = 100'

Gamma Ray

RADIATION INCREASE →

PARADOX FORMATION

#-1 5408-68
 #-2 5468-28

Permeability

MILLIDARCIES

100 10 1.0 1

Depth
 Feet
 5400

Porosity

PERCENT

20 10

Total Water

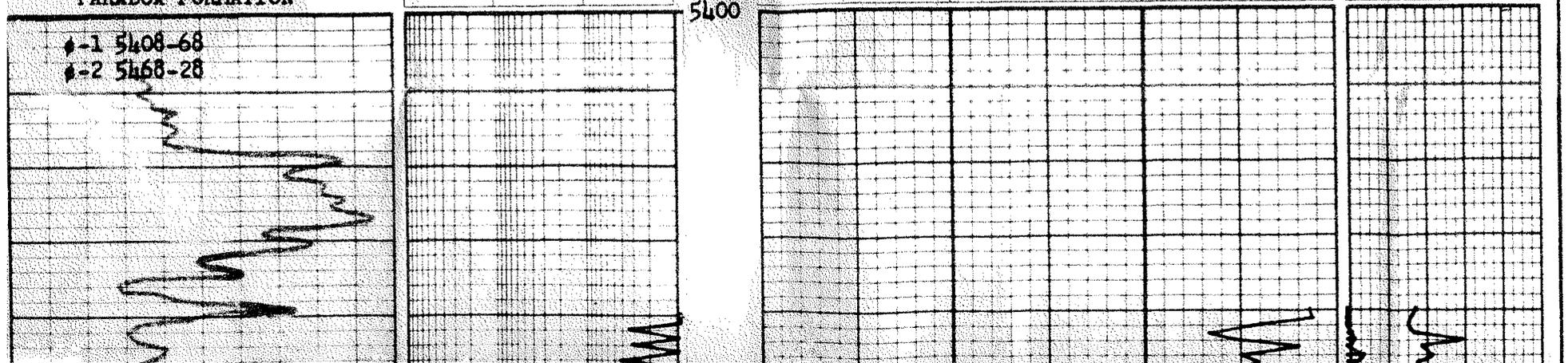
PERCENT PORE SPACE

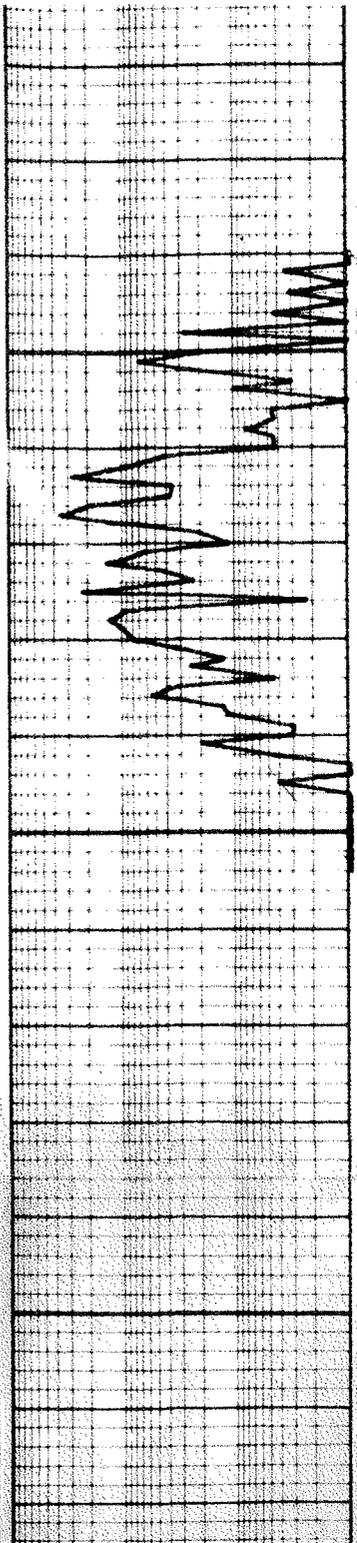
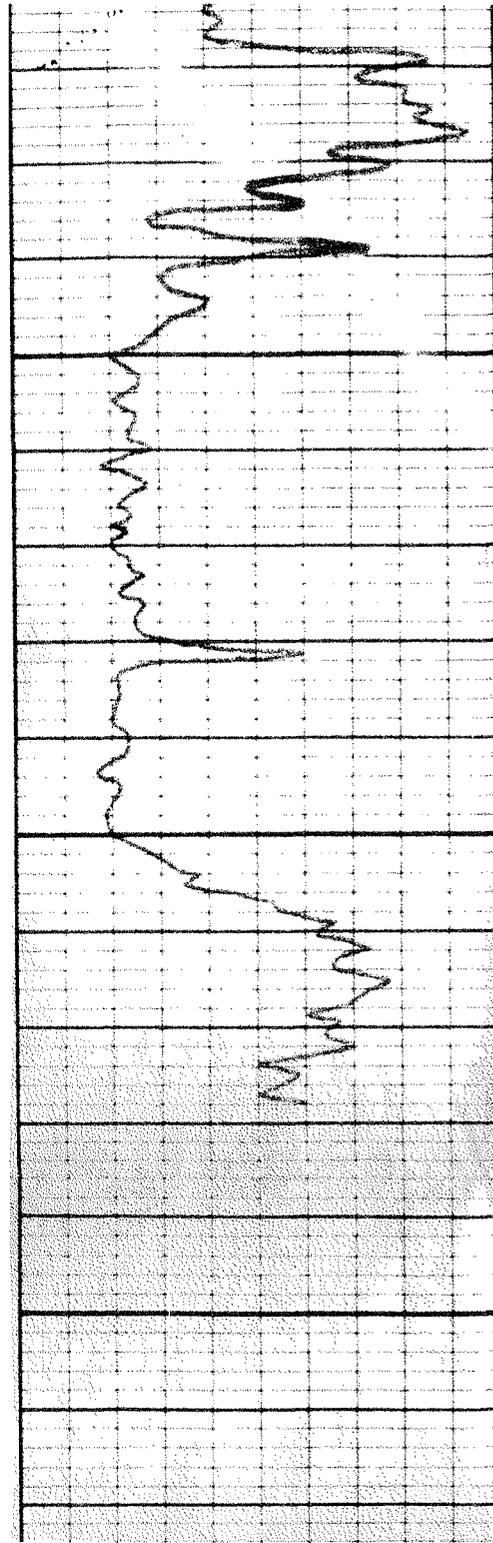
100 80 60 40 20 0

Oil Saturation

PERCENT PORE SPACE

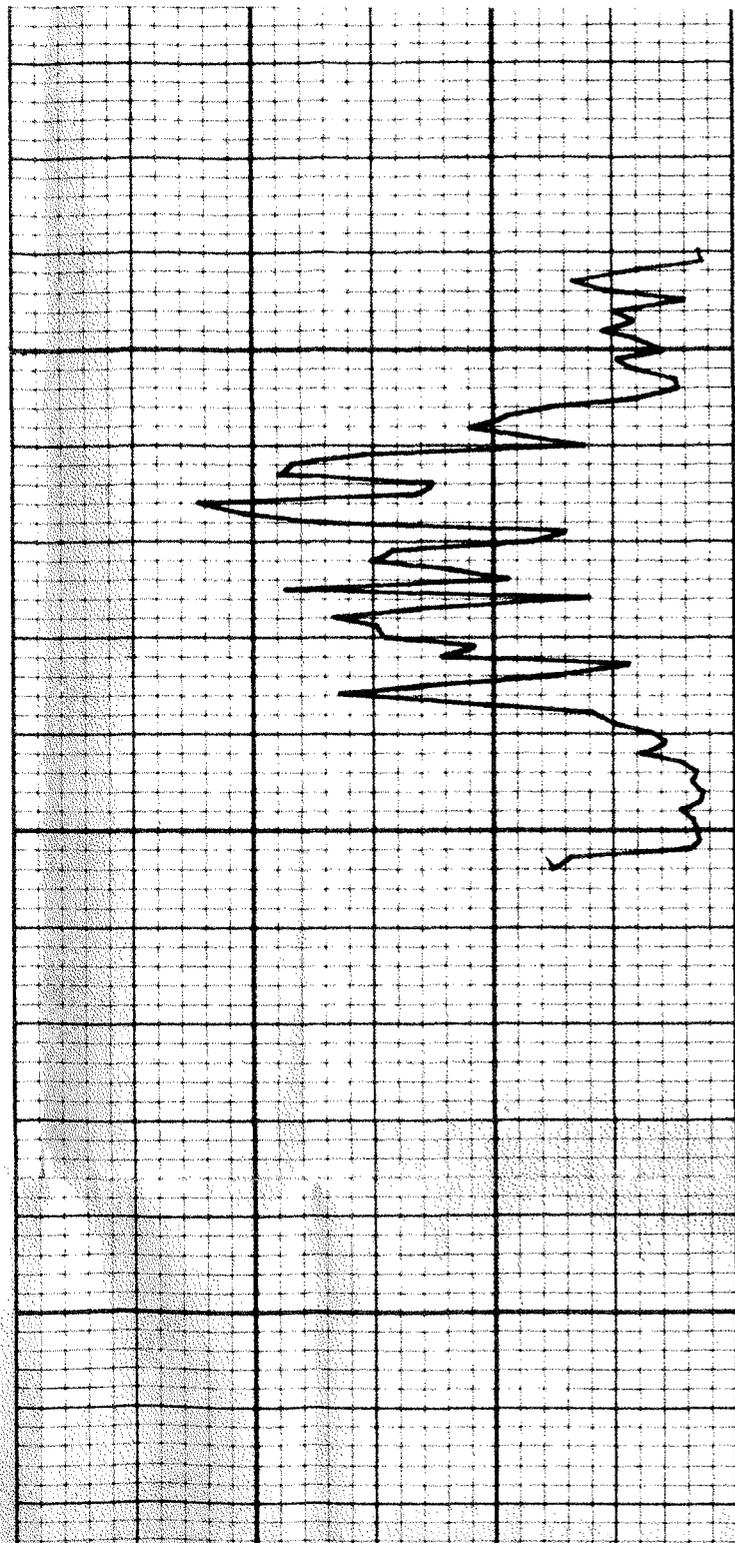
0 0 20 40 60 80 100





5450

5500



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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

3

SUNDRY NOTICES AND REPORTS ON WELLS

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

RECEIVED

JUL 13

DIVISION OF OIL
GAS & MINING

| | | | |
|---|--|--|--|
| 1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> | | 7. UNIT AGREEMENT NAME Patterson | |
| 2. NAME OF OPERATOR Wexpro Company | | 8. FARM OR LEASE NAME Unit | |
| 3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, WY 82902 | | 9. WELL NO. 5 | |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface SW $\frac{1}{4}$ SW $\frac{1}{4}$, 678' FSL, 664' FWL | | 10. FIELD AND POOL, OR WILDCAT Patterson Unit | |
| 14. PERMIT NO. 43-037-31019 | | 12. COUNTY OR PARISH San Juan | |
| 15. ELEVATIONS (Show whether DF, RT, GR, etc.) GR 5222 | | 13. STATE Utah | |

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

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

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

SPUDDED 7-8-84 at 1:00 A.M.

Depth 1580', drilling.

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

SIGNED Lee Martin TITLE Asst. Drilling Superintendent DATE July 10, 1984

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Budget Bureau No. 1004-0135
Expires August 31, 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 "APPLICATION FOR PERMIT—" for such proposals.)

| | | | |
|--|--|---|-------------------|
| 1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> | | 5. LEASE DESIGNATION AND SERIAL NO. UT-11668 | |
| 2. NAME OF OPERATOR Wexpro Company | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME --- | |
| 3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, WY 82902 | | 7. UNIT AGREEMENT NAME Patterson | |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface SW SW, 678' FSL, 664' FWL | | 8. FARM OR LEASE NAME Unit | |
| 14. PERMIT NO. 43-037-31019 | | 9. WELL NO. 5 | |
| 15. ELEVATIONS (Show whether DF, RT, GR, etc.) GR 5222' KB 5235.00' | | 10. FIELD AND POOL, OR WILDCAT Patterson Unit | |
| | | 11. SEC., T., E., M., OR BLK. AND SURVEY OR AREA 4-38S-25E | |
| | | 12. COUNTY OR PARISH San Juan | 13. STATE Utah |

RECEIVED

JUL 25 1984

DIVISION OF OIL
GAS & MINING

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

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

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

Depth 5528', drilling.

Landed 9-5/8-inch O.D., 36-pound, K-55, 8 round thread, ST&C casing at 1569.00' KBM or 13.00' below KB, circulated casing 45 minutes with rig pump prior to cementing, cemented with 325 sacks Howco light treated with 10% gilsonite/sack, 2% CaCl and 1/2% flocele/sack, followed with 180 sacks Regular cement treated with 3% CaCl and 1/2% flocele/sack, good and full returns while cementing, bumped plug with 1000 psi, 500 psi over pumping pressure, float held okay, cement in place at 9:15 P.M. 7-9-84, ran one-inch pipe down backside of 9-5/8-inch O.D. casing and cemented with 60 sacks Regular cement treated with 3% CaCl, cement in place at 4:30 A.M., 7-10-84.

DST #1: Total Depth 5468', Packers 5414' and 5420', testing Lower Sand of Upper Ismay 5445-5468', 70 unit gas increase above 60 unit background, IO 30 minutes, ISI 60 minutes, FO 90 minutes, FSI 843 minutes, first open 2-inch of water in bucket, increased to strong in 5 minutes, no gas to surface; second open strong, bottom of bucket, gas to surface in 11 minutes, NETG, recovered 463 feet of gas cut mud, Res 1.95%, 270 feet gas cut water, Res 1.14%, sample chamber recovered 1200 cc oil, 4.06 cc gas, 2450 psig, IHP 2801, IOFP's 54-188, ISIP 1856, FOFP's 161-296, FHP 2072, FHP 2801, BHT 130°F.

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

SIGNED R. Martin TITLE Asst. Drilling Superintendent DATE July 23, 1984

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 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 "APPLICATION FOR PERMIT—" for such proposals.)

| | | | |
|--|--|---|-------------------|
| 1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> | | 5. LEASE DESIGNATION AND SERIAL NO. UT-11668 | |
| 2. NAME OF OPERATOR Wexpro Company | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME --- | |
| 3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, WY 82902 | | 7. UNIT AGREEMENT NAME Patterson | |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface SW SW, 678' FSL, 664' FWL | | 8. FARM OR LEASE NAME Unit | |
| 14. PERMIT NO. 43-037-31019 | | 9. WELL NO. 5 | |
| 15. ELEVATIONS (Show whether DF, RT, GR, etc.) GR 5222' KB 5235.00' | | 10. FIELD AND POOL, OR WILDCAT Patterson Unit | |
| | | 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E | |
| | | 12. COUNTY OR PARISH San Juan | 13. STATE Utah |

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

NOTICE OF INTENTION TO:

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

SUBSEQUENT REPORT OF:

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

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

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

SIGNED Rue Martin TITLE Asst. Drilling Superintendent DATE July 23, 1984

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

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

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 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 "APPLICATION FOR PERMIT—" for such proposals.)

| | | |
|---|--|---|
| 1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> 2. NAME OF OPERATOR Wexpro Company 3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, WY 82902 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface SW SW, 678' FSL, 664' FWL 14. PERMIT NO. 43-037-31019 | | 5. LEASE DESIGNATION AND SERIAL NO. UT-11668 6. IF INDIAN, ALLOTTEE OR TRIBE NAME --- 7. UNIT AGREEMENT NAME Patterson 8. FARM OR LEASE NAME Unit 9. WELL NO. 5 10. FIELD AND POOL, OR WILDCAT Patterson Unit 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E 12. COUNTY OR PARISH 13. STATE San Juan Utah |
| 15. ELEVATIONS (Show whether DF, RT, OR, etc.) GR 5222' KB 5235.00' | | |

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

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

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

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

Total depth 5650' reached 7-25-84. Rig released 12:00 midnight 7-25-84.
Presently in the process of completing well.

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

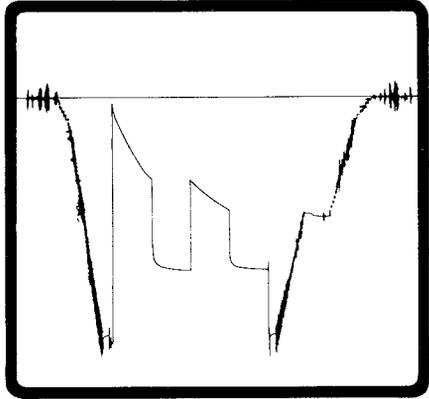
SIGNED *Cee Martin* TITLE Asst. Drilling Superintendent DATE August 1, 1984

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

FORMATION TESTING SERVICE REPORT



PATERSON UNIT
LEASE NAME
5
WELL NO.
1
TEST NO.
5418.1 - 5468.1
TESTED INTERVAL
CELSIUS ENERGY COMPANY
LEASE OWNER/COMPANY NAME



Duncan, Oklahoma 73536

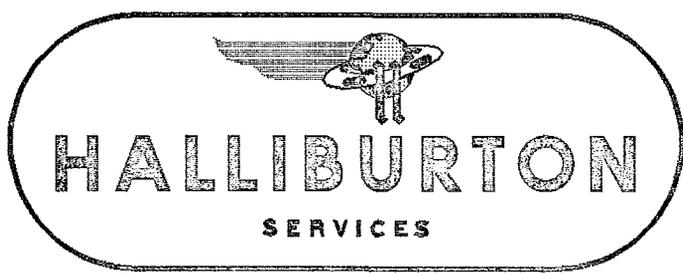


A Halliburton Company

NOMENCLATURE

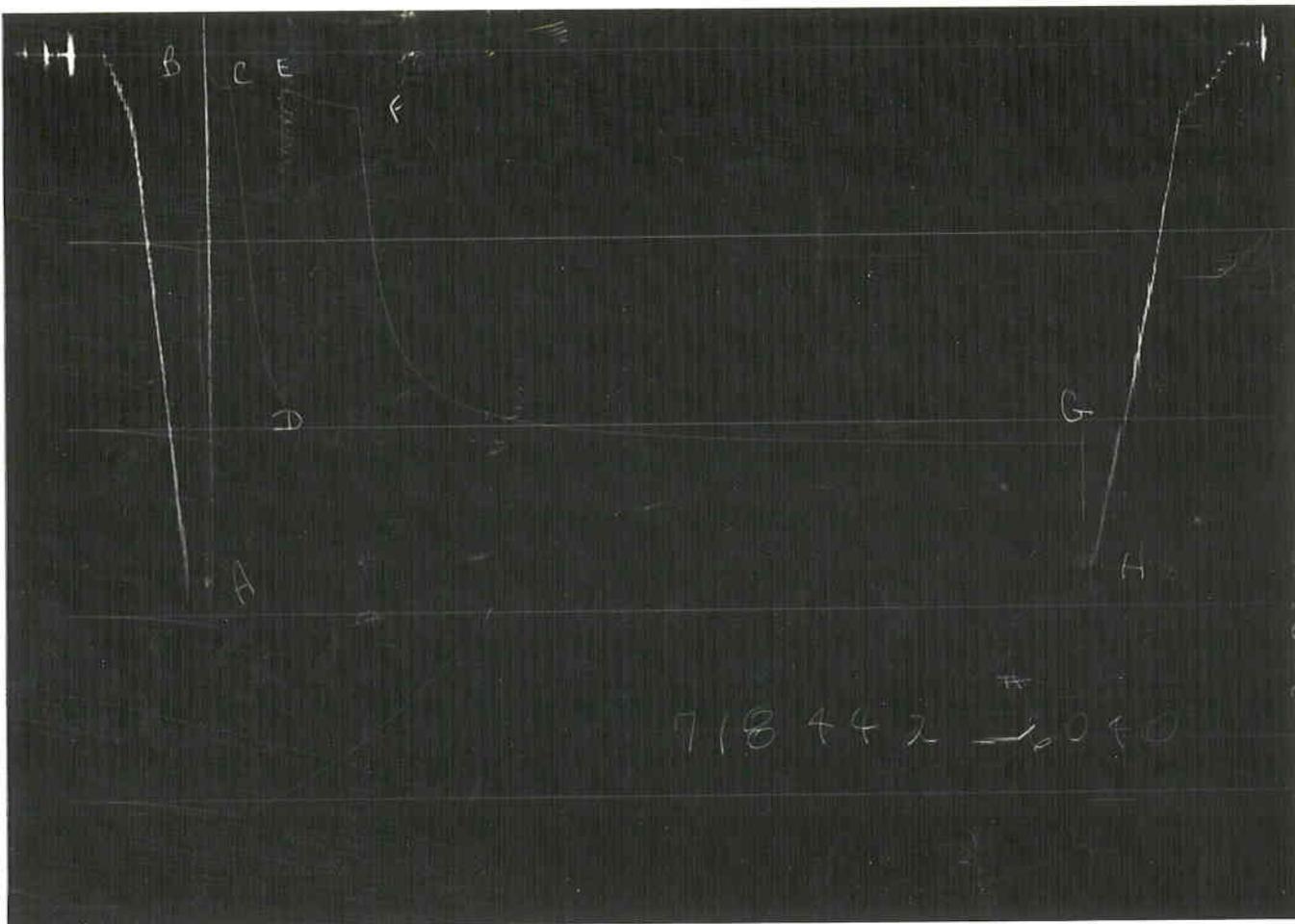
| | | |
|-------------------------|---|---|
| B | = Formation Volume Factor (Res Vol / Std Vol) | — |
| c_t | = System Total Compressibility | (Vol / Vol) / psi |
| DR | = Damage Ratio | — |
| h | = Estimated Net Pay Thickness | Ft |
| k | = Permeability | md |
| m | $\left\{ \begin{array}{l} \text{(Liquid) Slope Extrapolated Pressure Plot} \\ \text{(Gas) Slope Extrapolated } m(P) \text{ Plot} \end{array} \right.$ | <p>psi/cycle</p> <p>MM psi²/cp/cycle</p> |
| m(P*) | = Real Gas Potential at P* | MM psi ² /cp |
| m(P_f) | = Real Gas Potential at P _f | MM psi ² /cp |
| AOF₁ | = Maximum Indicated Absolute Open Flow at Test Conditions | MCFD |
| AOF₂ | = Minimum Indicated Absolute Open Flow at Test Conditions .. | MCFD |
| P* | = Extrapolated Static Pressure | Psig |
| P_f | = Final Flow Pressure | Psig |
| Q | = Liquid Production Rate During Test | BPD |
| Q₁ | = Theoretical Liquid Production w/ Damage Removed | BPD |
| Q_g | = Measured Gas Production Rate | MCFD |
| r_i | = Approximate Radius of Investigation | Ft |
| r_w | = Radius of Well Bore | Ft |
| S | = Skin Factor | |
| t | = Total Flow Time Previous to Closed-in | Minutes |
| Δt | = Closed-in Time at Data Point | Minutes |
| T | = Temperature Rankine | °R |
| φ | = Porosity | — |
| μ | = Viscosity of Gas or Liquid | cp |
| Log | = Common Log | |

| | | | | |
|---------------------------------------|---------------|---------------|-----------------|--------------------------|
| PATERSON UNIT | 5 | 1 | 5418.1 - 5468.1 | CELSUS ENERGY COMPANY |
| LEASE NAME | WELL NO. | TEST NO. | TESTED INTERVAL | LEASE OWNER/COMPANY NAME |
| LEGAL LOCATION SEC. - TWP. - RANG. | 4 - 38S - 24E | FIELD AREA | COUNTY | SRN JURN |
| | | | STATE | UTRH NM |



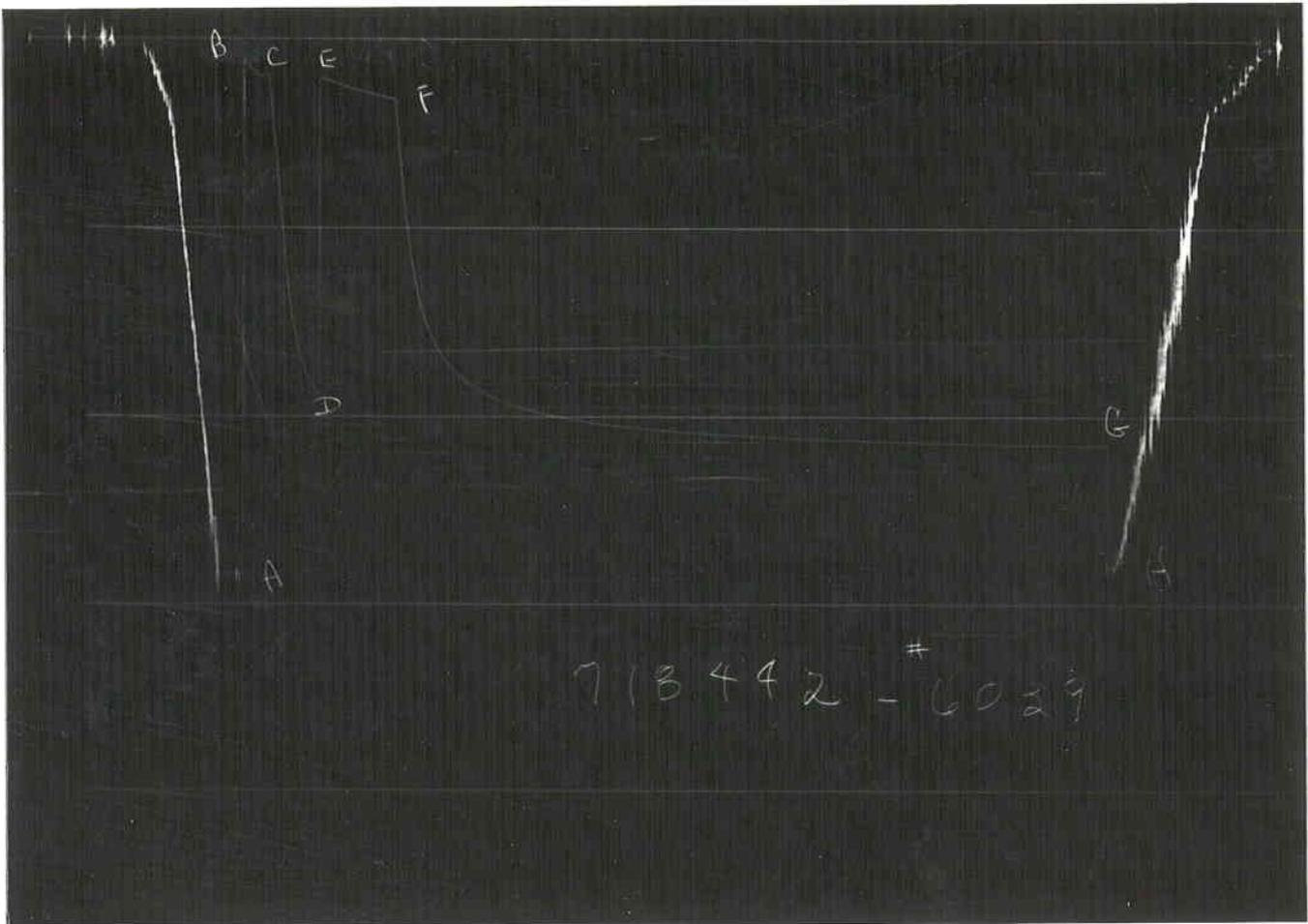
TICKET NO. 71844200
 31-JUL-84
 FARMINGTON

FORMATION TESTING SERVICE REPORT



GAUGE NO: 6040 DEPTH: 5400.0 BLANKED OFF: NO HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|----|--------------------------|----------|------------|----------|------------|------|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | 2801 | 2803.5 | | | |
| B | INITIAL FIRST FLOW | 54 | 83.5 | | | |
| C | FINAL FIRST FLOW | 188 | 176.2 | 30.0 | 29.3 | F |
| C | INITIAL FIRST CLOSED-IN | 188 | 176.2 | | | |
| D | FINAL FIRST CLOSED-IN | 1856 | 1862.3 | 60.0 | 60.0 | C |
| E | INITIAL SECOND FLOW | 161 | 200.9 | | | |
| F | FINAL SECOND FLOW | 296 | 300.5 | 90.0 | 89.1 | F |
| F | INITIAL SECOND CLOSED-IN | 296 | 300.5 | | | |
| G | FINAL SECOND CLOSED-IN | 2072 | 2120.0 | 846.0 | 846.0 | C |
| H | FINAL HYDROSTATIC | 2801 | 2764.3 | | | |



GAUGE NO: 6039 DEPTH: 5465.0 BLANKED OFF: YES HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|----|--------------------------|----------|------------|----------|------------|------|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | 2826 | 2835.3 | | | |
| B | INITIAL FIRST FLOW | 81 | 115.5 | | | |
| C | FINAL FIRST FLOW | 189 | 189.3 | 30.0 | 29.3 | F |
| C | INITIAL FIRST CLOSED-IN | 189 | 189.3 | | | |
| D | FINAL FIRST CLOSED-IN | 1882 | 1875.3 | 60.0 | 60.0 | C |
| E | INITIAL SECOND FLOW | 202 | 217.1 | | | |
| F | FINAL SECOND FLOW | 297 | 317.2 | 90.0 | 89.1 | F |
| F | INITIAL SECOND CLOSED-IN | 297 | 317.2 | | | |
| G | FINAL SECOND CLOSED-IN | 2151 | 2146.5 | 846.0 | 846.0 | C |
| H | FINAL HYDROSTATIC | 2826 | 2794.7 | | | |

EQUIPMENT & HOLE DATA

FORMATION TESTED: UPPER ISMAY
 NET PAY (ft): _____
 GROSS TESTED FOOTAGE: 50.0
 ALL DEPTHS MEASURED FROM: KELLY BUSHING
 CASING PERFS. (ft): _____
 HOLE OR CASING SIZE (in): 8.750
 ELEVATION (ft): 5233
 TOTAL DEPTH (ft): 5468.0
 PACKER DEPTH(S) (ft): 5412, 5418
 FINAL SURFACE CHOKE (in): _____
 BOTTOM HOLE CHOKE (in): 0.750
 MUD WEIGHT (lb/gal): _____
 MUD VISCOSITY (sec): _____
 ESTIMATED HOLE TEMP. (°F): _____
 ACTUAL HOLE TEMP. (°F): 130 @ _____ ft

TICKET NUMBER: 71844200
 DATE: 7-21-84 TEST NO: 1
 TYPE DST: OPEN HOLE
 HALLIBURTON CAMP:
FARMINGTON
 TESTER: HOWARD BELL
 WITNESS: BOB MASER
 DRILLING CONTRACTOR:
ARAPAHOE # 2

FLUID PROPERTIES FOR RECOVERED MUD & WATER

| SOURCE | RESISTIVITY | CHLORIDES |
|----------------|-------------------------|------------------|
| <u>PIT</u> | <u>1.480 @ 66 °F</u> | <u>_____ ppm</u> |
| <u>MIDDLE</u> | <u>1.950 @ 68 °F</u> | <u>_____ ppm</u> |
| <u>BOTTOM</u> | <u>1.140 @ 68 °F</u> | <u>_____ ppm</u> |
| <u>TOP</u> | <u>1.660 @ 64 °F</u> | <u>_____ ppm</u> |
| <u>SAMPLER</u> | <u>1.740 @ 62 °F</u> | <u>_____ ppm</u> |
| _____ | <u>_____ @ _____ °F</u> | <u>_____ ppm</u> |

SAMPLER DATA

Pstg AT SURFACE: 1450
 cu.ft. OF GAS: 4.06
 cc OF OIL: 1200
 cc OF WATER: 0
 cc OF MUD: 0
 TOTAL LIQUID cc: 1200

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): _____ @ _____ °F
 GAS/OIL RATIO (cu.ft. per bbl): _____
 GAS GRAVITY: _____

CUSHION DATA

| TYPE | AMOUNT | WEIGHT |
|-------|--------|--------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

RECOVERED:

463 FEET OF GAS AND OIL CUT MUD
 270 FEET OF GAS AND MUD CUT WATER

MEASURED FROM
 TESTER VALVE

REMARKS:

THE REPORTED OIL RECOVERED IN THE SAMPLER WAS MUD AND GAS CUT

TICKET NO: 71844200

CLOCK NO: 7276 HOUR: 24



GAUGE NO: 6040

DEPTH: 5400.0

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-----------------|---------|----------|--------|--|--------------------------------------|
| FIRST FLOW | | | | | |
| B 1 | 0.0 | 83.5 | | | |
| 2 | 2.0 | 85.6 | 2.2 | | |
| 3 | 4.0 | 112.5 | 26.9 | | |
| 4 | 6.0 | 125.2 | 12.6 | | |
| 5 | 8.0 | 137.9 | 12.8 | | |
| 6 | 10.0 | 146.7 | 8.7 | | |
| 7 | 12.0 | 155.0 | 8.3 | | |
| 8 | 14.0 | 163.3 | 8.3 | | |
| 9 | 16.0 | 170.7 | 7.4 | | |
| 10 | 18.0 | 176.5 | 5.8 | | |
| 11 | 20.0 | 180.9 | 4.4 | | |
| 12 | 22.0 | 183.4 | 2.4 | | |
| 13 | 24.0 | 179.3 | -4.0 | | |
| 14 | 26.0 | 176.2 | -3.1 | | |
| 15 | 28.0 | 176.2 | 0.0 | | |
| C 16 | 29.3 | 176.2 | 0.0 | | |
| FIRST CLOSED-IN | | | | | |
| C 1 | 0.0 | 176.2 | | | |
| 2 | 1.0 | 242.1 | 65.9 | 0.9 | 1.501 |
| 3 | 2.0 | 282.7 | 106.5 | 1.9 | 1.195 |
| 4 | 3.0 | 328.3 | 152.1 | 2.7 | 1.030 |
| 5 | 4.0 | 366.5 | 190.2 | 3.5 | 0.918 |
| 6 | 5.0 | 402.1 | 225.9 | 4.3 | 0.838 |
| 7 | 6.0 | 457.5 | 281.3 | 5.0 | 0.768 |
| 8 | 7.0 | 510.6 | 334.4 | 5.7 | 0.714 |
| 9 | 8.0 | 555.1 | 378.9 | 6.3 | 0.669 |
| 10 | 9.0 | 603.5 | 427.3 | 6.9 | 0.630 |
| 11 | 10.0 | 653.0 | 476.7 | 7.5 | 0.595 |
| 12 | 12.0 | 757.2 | 580.9 | 8.5 | 0.536 |
| 13 | 14.0 | 858.1 | 681.9 | 9.5 | 0.490 |
| 14 | 16.0 | 955.3 | 779.1 | 10.3 | 0.453 |
| 15 | 18.0 | 1060.2 | 884.0 | 11.1 | 0.421 |
| 16 | 20.0 | 1153.0 | 976.7 | 11.9 | 0.392 |
| 17 | 22.0 | 1243.8 | 1067.6 | 12.6 | 0.368 |
| 18 | 24.0 | 1320.1 | 1143.9 | 13.2 | 0.347 |
| 19 | 26.0 | 1386.6 | 1210.3 | 13.8 | 0.328 |
| 20 | 28.0 | 1449.4 | 1273.2 | 14.3 | 0.311 |
| 21 | 30.0 | 1497.4 | 1321.2 | 14.8 | 0.296 |
| 22 | 35.0 | 1603.3 | 1427.1 | 16.0 | 0.265 |
| 23 | 40.0 | 1679.6 | 1503.3 | 16.9 | 0.239 |
| 24 | 45.0 | 1742.9 | 1566.6 | 17.8 | 0.218 |
| 25 | 50.0 | 1789.9 | 1613.7 | 18.5 | 0.201 |
| 26 | 55.0 | 1830.0 | 1653.8 | 19.1 | 0.186 |
| D 27 | 60.0 | 1862.3 | 1686.0 | 19.7 | 0.173 |
| SECOND FLOW | | | | | |
| E 1 | 0.0 | 200.9 | | | |

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-------------------------|---------|----------|--------|--|--------------------------------------|
| SECOND FLOW - CONTINUED | | | | | |
| 2 | 5.0 | 198.4 | -2.5 | | |
| 3 | 10.0 | 202.7 | 4.3 | | |
| 4 | 15.0 | 209.3 | 6.6 | | |
| 5 | 20.0 | 217.5 | 8.2 | | |
| 6 | 25.0 | 224.9 | 7.4 | | |
| 7 | 30.0 | 232.6 | 7.7 | | |
| 8 | 35.0 | 239.4 | 6.9 | | |
| 9 | 40.0 | 246.4 | 7.0 | | |
| 10 | 45.0 | 253.7 | 7.3 | | |
| 11 | 50.0 | 259.3 | 5.6 | | |
| 12 | 55.0 | 264.3 | 5.0 | | |
| 13 | 60.0 | 268.3 | 4.0 | | |
| 14 | 65.0 | 274.5 | 6.2 | | |
| 15 | 70.0 | 279.9 | 5.4 | | |
| 16 | 75.0 | 285.0 | 5.1 | | |
| 17 | 80.0 | 289.0 | 4.0 | | |
| 18 | 85.0 | 292.7 | 3.6 | | |
| F 19 | 89.1 | 300.5 | 7.8 | | |
| SECOND CLOSED-IN | | | | | |
| F 1 | 0.0 | 300.5 | | | |
| 2 | 1.0 | 387.2 | 86.8 | 1.0 | 2.058 |
| 3 | 2.0 | 434.6 | 134.1 | 2.0 | 1.774 |
| 4 | 3.0 | 481.0 | 180.5 | 3.0 | 1.601 |
| 5 | 4.0 | 534.2 | 233.7 | 3.9 | 1.483 |
| 6 | 5.0 | 581.4 | 281.0 | 4.8 | 1.389 |
| 7 | 6.0 | 634.7 | 334.2 | 5.7 | 1.315 |
| 8 | 7.0 | 681.6 | 381.1 | 6.6 | 1.253 |
| 9 | 8.0 | 722.5 | 422.0 | 7.5 | 1.199 |
| 10 | 9.0 | 764.5 | 464.0 | 8.4 | 1.151 |
| 11 | 10.0 | 813.8 | 513.3 | 9.2 | 1.108 |
| 12 | 12.0 | 901.5 | 601.0 | 10.9 | 1.036 |
| 13 | 14.0 | 970.6 | 670.2 | 12.5 | 0.975 |
| 14 | 16.0 | 1039.2 | 738.7 | 14.1 | 0.925 |
| 15 | 18.0 | 1102.4 | 802.0 | 15.6 | 0.880 |
| 16 | 20.0 | 1157.9 | 857.4 | 17.1 | 0.841 |
| 17 | 22.0 | 1213.4 | 912.9 | 18.5 | 0.806 |
| 18 | 24.0 | 1260.3 | 959.9 | 20.0 | 0.774 |
| 19 | 26.0 | 1302.3 | 1001.8 | 21.3 | 0.744 |
| 20 | 28.0 | 1341.8 | 1041.3 | 22.6 | 0.719 |
| 21 | 30.0 | 1377.7 | 1077.2 | 23.9 | 0.695 |
| 22 | 35.0 | 1449.8 | 1149.3 | 27.0 | 0.642 |
| 23 | 40.0 | 1510.3 | 1209.9 | 29.9 | 0.598 |
| 24 | 45.0 | 1565.6 | 1265.1 | 32.6 | 0.560 |
| 25 | 50.0 | 1608.6 | 1308.2 | 35.2 | 0.528 |
| 26 | 55.0 | 1646.8 | 1346.4 | 37.5 | 0.499 |
| 27 | 60.0 | 1679.1 | 1378.6 | 39.8 | 0.474 |
| 28 | 70.0 | 1732.1 | 1431.6 | 44.0 | 0.430 |
| 29 | 80.0 | 1773.5 | 1473.0 | 47.7 | 0.395 |
| 30 | 90.0 | 1807.7 | 1507.2 | 51.2 | 0.365 |
| 31 | 100.0 | 1835.5 | 1535.0 | 54.2 | 0.339 |
| 32 | 110.0 | 1859.4 | 1559.0 | 57.0 | 0.318 |

REMARKS:

TICKET NO: 71844200

CLOCK NO: 13741 HOUR: 24



GAUGE NO: 6039

DEPTH: 5465.0

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-----------------|---------|----------|--------|--|--------------------------------------|
| FIRST FLOW | | | | | |
| B 1 | 0.0 | 115.5 | | | |
| 2 | 2.0 | 102.2 | -13.4 | | |
| 3 | 4.0 | 127.2 | 25.1 | | |
| 4 | 6.0 | 139.2 | 12.0 | | |
| 5 | 8.0 | 149.8 | 10.5 | | |
| 6 | 10.0 | 160.9 | 11.2 | | |
| 7 | 12.0 | 169.2 | 8.2 | | |
| 8 | 14.0 | 177.0 | 7.8 | | |
| 9 | 16.0 | 184.7 | 7.7 | | |
| 10 | 18.0 | 190.3 | 5.7 | | |
| 11 | 20.0 | 195.1 | 4.7 | | |
| 12 | 22.0 | 197.9 | 2.8 | | |
| 13 | 24.0 | 193.8 | -4.0 | | |
| 14 | 26.0 | 189.1 | -4.7 | | |
| 15 | 28.0 | 188.4 | -0.7 | | |
| C 16 | 29.3 | 189.3 | 0.8 | | |
| FIRST CLOSED-IN | | | | | |
| C 1 | 0.0 | 189.3 | | | |
| 2 | 1.0 | 230.4 | 41.1 | 1.0 | 1.482 |
| 3 | 2.0 | 271.9 | 82.6 | 1.9 | 1.189 |
| 4 | 3.0 | 317.2 | 127.9 | 2.7 | 1.033 |
| 5 | 4.0 | 359.3 | 170.0 | 3.5 | 0.921 |
| 6 | 5.0 | 404.7 | 215.4 | 4.3 | 0.837 |
| 7 | 6.0 | 447.6 | 258.3 | 5.0 | 0.772 |
| 8 | 7.0 | 499.6 | 310.3 | 5.7 | 0.714 |
| 9 | 8.0 | 547.9 | 358.6 | 6.3 | 0.669 |
| 10 | 9.0 | 593.6 | 404.3 | 6.9 | 0.630 |
| 11 | 10.0 | 648.4 | 459.1 | 7.5 | 0.595 |
| 12 | 12.0 | 747.4 | 558.1 | 8.5 | 0.538 |
| 13 | 14.0 | 854.8 | 665.5 | 9.5 | 0.491 |
| 14 | 16.0 | 958.3 | 769.0 | 10.4 | 0.452 |
| 15 | 18.0 | 1057.7 | 868.4 | 11.2 | 0.420 |
| 16 | 20.0 | 1151.7 | 962.4 | 11.9 | 0.393 |
| 17 | 22.0 | 1242.8 | 1053.5 | 12.6 | 0.368 |
| 18 | 24.0 | 1323.4 | 1134.1 | 13.2 | 0.347 |
| 19 | 26.0 | 1391.9 | 1202.6 | 13.8 | 0.328 |
| 20 | 28.0 | 1453.8 | 1264.5 | 14.3 | 0.311 |
| 21 | 30.0 | 1508.4 | 1319.1 | 14.8 | 0.296 |
| 22 | 35.0 | 1615.3 | 1426.0 | 16.0 | 0.265 |
| 23 | 40.0 | 1694.3 | 1505.0 | 16.9 | 0.239 |
| 24 | 45.0 | 1756.2 | 1566.9 | 17.8 | 0.218 |
| 25 | 50.0 | 1803.9 | 1614.6 | 18.5 | 0.201 |
| 26 | 55.0 | 1844.5 | 1655.2 | 19.1 | 0.186 |
| D 27 | 60.0 | 1875.3 | 1686.0 | 19.7 | 0.173 |
| SECOND FLOW | | | | | |
| E 1 | 0.0 | 217.1 | | | |

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-------------------------|---------|----------|--------|--|--------------------------------------|
| SECOND FLOW - CONTINUED | | | | | |
| 2 | 5.0 | 211.4 | -5.7 | | |
| 3 | 10.0 | 216.5 | 5.1 | | |
| 4 | 15.0 | 223.8 | 7.3 | | |
| 5 | 20.0 | 232.0 | 8.2 | | |
| 6 | 25.0 | 241.1 | 9.0 | | |
| 7 | 30.0 | 247.5 | 6.5 | | |
| 8 | 35.0 | 254.9 | 7.4 | | |
| 9 | 40.0 | 262.5 | 7.6 | | |
| 10 | 45.0 | 270.2 | 7.7 | | |
| 11 | 50.0 | 276.3 | 6.1 | | |
| 12 | 55.0 | 281.1 | 4.9 | | |
| 13 | 60.0 | 285.0 | 3.9 | | |
| 14 | 65.0 | 292.0 | 7.0 | | |
| 15 | 70.0 | 297.7 | 5.7 | | |
| 16 | 75.0 | 302.6 | 4.9 | | |
| 17 | 80.0 | 307.8 | 5.3 | | |
| 18 | 85.0 | 311.3 | 3.5 | | |
| F 19 | 89.1 | 317.2 | 5.9 | | |
| SECOND CLOSED-IN | | | | | |
| F 1 | 0.0 | 317.2 | | | |
| 2 | 1.0 | 367.8 | 50.6 | 1.0 | 2.091 |
| 3 | 2.0 | 421.9 | 104.7 | 1.9 | 1.787 |
| 4 | 3.0 | 477.3 | 160.1 | 2.9 | 1.608 |
| 5 | 4.0 | 539.4 | 222.2 | 3.9 | 1.483 |
| 6 | 5.0 | 587.5 | 270.3 | 4.8 | 1.395 |
| 7 | 6.0 | 635.6 | 318.4 | 5.7 | 1.317 |
| 8 | 7.0 | 684.4 | 367.2 | 6.6 | 1.255 |
| 9 | 8.0 | 733.1 | 415.9 | 7.5 | 1.198 |
| 10 | 9.0 | 780.5 | 463.3 | 8.4 | 1.150 |
| 11 | 10.0 | 829.3 | 512.1 | 9.2 | 1.108 |
| 12 | 12.0 | 911.6 | 594.4 | 10.9 | 1.036 |
| 13 | 14.0 | 987.6 | 670.4 | 12.5 | 0.976 |
| 14 | 16.0 | 1059.3 | 742.1 | 14.1 | 0.925 |
| 15 | 18.0 | 1120.1 | 802.9 | 15.6 | 0.881 |
| 16 | 20.0 | 1180.8 | 863.6 | 17.1 | 0.841 |
| 17 | 22.0 | 1232.3 | 915.1 | 18.6 | 0.804 |
| 18 | 24.0 | 1278.0 | 960.8 | 19.9 | 0.774 |
| 19 | 26.0 | 1324.3 | 1007.1 | 21.4 | 0.744 |
| 20 | 28.0 | 1362.9 | 1045.7 | 22.7 | 0.718 |
| 21 | 30.0 | 1398.0 | 1080.8 | 24.0 | 0.694 |
| 22 | 35.0 | 1473.4 | 1156.2 | 27.0 | 0.642 |
| 23 | 40.0 | 1534.8 | 1217.6 | 29.9 | 0.598 |
| 24 | 45.0 | 1585.9 | 1268.7 | 32.6 | 0.560 |
| 25 | 50.0 | 1629.5 | 1312.3 | 35.2 | 0.528 |
| 26 | 55.0 | 1666.7 | 1349.5 | 37.6 | 0.499 |
| 27 | 60.0 | 1699.2 | 1382.0 | 39.8 | 0.473 |
| 28 | 70.0 | 1751.7 | 1434.5 | 44.0 | 0.430 |
| 29 | 80.0 | 1794.0 | 1476.8 | 47.8 | 0.395 |
| 30 | 90.0 | 1827.6 | 1510.4 | 51.2 | 0.365 |
| 31 | 100.0 | 1855.8 | 1538.6 | 54.2 | 0.339 |
| 32 | 110.0 | 1879.6 | 1562.5 | 57.0 | 0.317 |

REMARKS:

TICKET NO: 71844200

CLOCK NO: 13741 HOUR: 24



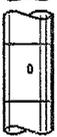
GAUGE NO: 6039

DEPTH: 5465.0

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|------------------------------|---------|----------|--------|--|--------------------------------------|
| SECOND CLOSED-IN - CONTINUED | | | | | |
| 33 | 120.0 | 1901.5 | 1584.3 | 59.6 | 0.298 |
| 34 | 150.0 | 1949.1 | 1631.9 | 66.2 | 0.253 |
| 35 | 180.0 | 1983.4 | 1666.3 | 71.4 | 0.220 |
| 36 | 210.0 | 2009.3 | 1692.1 | 75.7 | 0.194 |
| 37 | 240.0 | 2029.6 | 1712.4 | 79.3 | 0.174 |
| 38 | 270.0 | 2046.8 | 1729.6 | 82.3 | 0.158 |
| 39 | 300.0 | 2060.4 | 1743.2 | 84.9 | 0.145 |
| 40 | 330.0 | 2071.7 | 1754.6 | 87.2 | 0.133 |
| 41 | 360.0 | 2081.0 | 1763.9 | 89.1 | 0.124 |
| 42 | 390.0 | 2089.3 | 1772.1 | 90.9 | 0.115 |
| 43 | 420.0 | 2096.6 | 1779.4 | 92.4 | 0.108 |
| 44 | 450.0 | 2102.6 | 1785.4 | 93.8 | 0.102 |
| 45 | 480.0 | 2108.7 | 1791.5 | 95.0 | 0.096 |
| 46 | 510.0 | 2113.8 | 1796.6 | 96.1 | 0.091 |
| 47 | 540.0 | 2118.3 | 1801.1 | 97.2 | 0.086 |
| 48 | 570.0 | 2121.6 | 1804.4 | 98.1 | 0.082 |
| 49 | 600.0 | 2126.1 | 1808.9 | 98.9 | 0.078 |
| 50 | 630.0 | 2129.4 | 1812.3 | 99.7 | 0.075 |
| 51 | 660.0 | 2132.4 | 1815.2 | 100.5 | 0.072 |
| 52 | 690.0 | 2135.2 | 1818.1 | 101.1 | 0.069 |
| 53 | 720.0 | 2137.5 | 1820.3 | 101.7 | 0.066 |
| 54 | 750.0 | 2140.4 | 1823.2 | 102.3 | 0.064 |
| 55 | 780.0 | 2142.4 | 1825.2 | 102.9 | 0.061 |
| 56 | 810.0 | 2144.8 | 1827.6 | 103.4 | 0.059 |
| 57 | 840.0 | 2146.2 | 1829.0 | 103.8 | 0.057 |
| G 58 | 846.0 | 2146.5 | 1829.3 | 103.9 | 0.057 |

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-----|---------|----------|----|--|--------------------------------------|
| | | | | | |

REMARKS:

| | | O.D. | I.D. | LENGTH | DEPTH | |
|-------------|---|-------------------------------|-------|--------|--------|--------|
| 1 |  | DRILL PIPE..... | 4.000 | 3.340 | 4812.0 | |
| 3 |  | DRILL COLLARS..... | 6.250 | 2.250 | 480.0 | |
| 51 |  | PUMP OUT REVERSING SUB..... | 6.000 | 3.000 | 1.0 | 5293.0 |
| 3 |  | DRILL COLLARS..... | 6.250 | 2.250 | 91.0 | |
| 12 |  | DUAL CIP VALVE..... | 5.030 | 0.870 | 7.0 | |
| 60 |  | HYDROSPRING TESTER..... | 5.000 | 0.750 | 5.0 | 5396.0 |
| 80 |  | AP RUNNING CASE..... | 5.000 | 2.250 | 4.0 | 5400.0 |
| 15 |  | JAR..... | 5.030 | 1.750 | 5.0 | |
| 16 |  | VR SAFETY JOINT..... | 5.000 | 1.000 | 3.0 | |
| 70 |  | OPEN HOLE PACKER..... | 7.750 | 1.530 | 6.0 | 5412.0 |
| 70 |  | OPEN HOLE PACKER..... | 7.750 | 1.530 | 6.0 | 5418.0 |
| 20 |  | FLUSH JOINT ANCHOR..... | 5.750 | 3.000 | 44.0 | |
| 81 |  | BLANKED-OFF RUNNING CASE..... | 5.750 | | 4.0 | 5465.0 |
| TOTAL DEPTH | | | | | | 5468.0 |

EQUIPMENT DATA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 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 "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED

AUG 3 1984

DIVISION OF OIL
GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.
UT-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Patterson

8. FARM OR LEASE NAME
Unit

9. WELL NO.
5

10. FIELD AND POOL, OR WILDCAT
Patterson Unit

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
4-38S-25E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 458, Rock Springs, WY 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface
SW SW, 678' FSL, 664' FWL

14. PERMIT NO.
43-037-31019

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
GR 5222' KB 5235.00'

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

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

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

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

Total depth 5650' reached 7-25-84. Rig released 12:00 midnight 7-25-84.

Presently in the process of completing well.

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

SIGNED *Cee Montis* TITLE Asst. Drilling Superintendent DATE August 1, 1984

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

RECEIVED

AUG 6 1984

DIVISION OF OIL
GAS & MINING



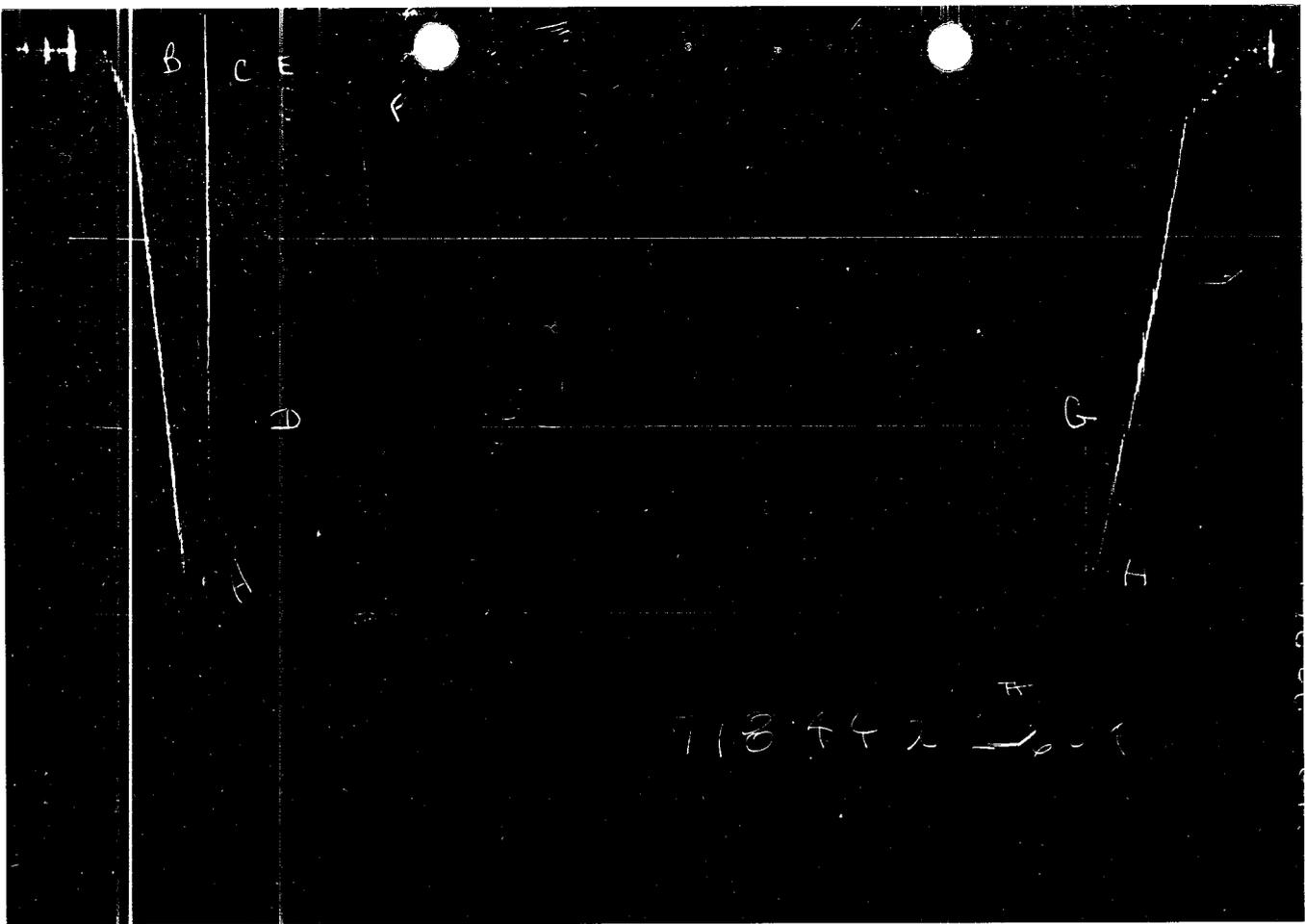
TICKET NO. 71844200

31-JUL-84

FARMINGTON

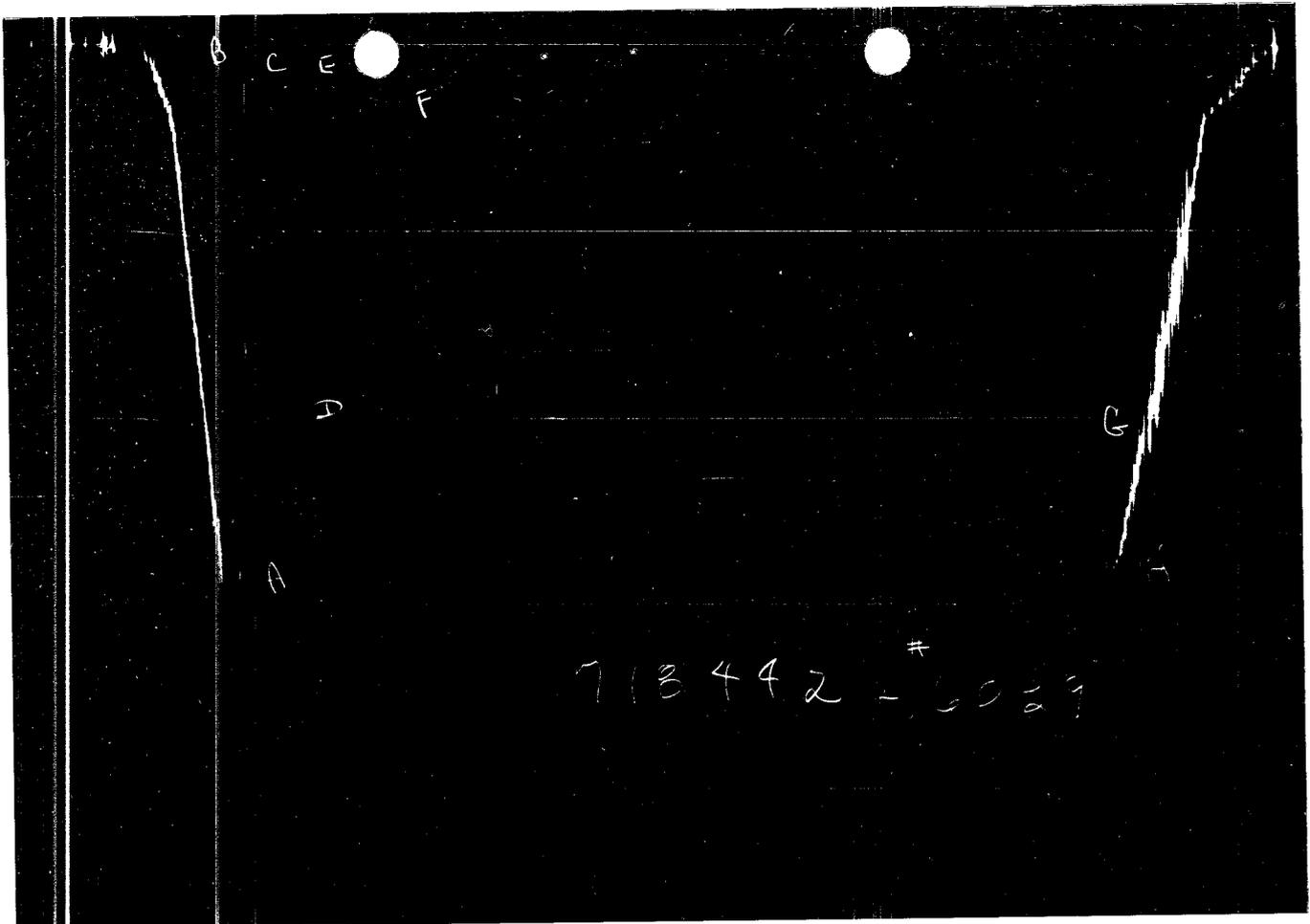
FORMATION TESTING SERVICE REPORT

| | | | | | | | |
|---------------------------------------|---------------|---------------|--------|----------|-----------------|-----------------|--------------------------|
| LEGAL LOCATION SEC. - TWP. - RANG. | 4 - 38S - 24E | FIELD AREA | COUNTY | SAN JUAN | STATE | UTAH | NM |
| PATERSON UNIT | 5 | WELL NO. | 1 | TEST NO. | 5418.1 - 5468.1 | TESTED INTERVAL | CELSIUS ENERGY COMPANY |
| LEASE NAME | | | | | | | LEASE OWNER/COMPANY NAME |



GAUGE NO: 6040 DEPTH: 5400.0 BLANKED OFF: NO HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|----|--------------------------|----------|------------|----------|------------|------|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | 2801 | 2803.5 | | | |
| B | INITIAL FIRST FLOW | 54 | 83.5 | | | |
| C | FINAL FIRST FLOW | 188 | 176.2 | 30.0 | 29.3 | F |
| C | INITIAL FIRST CLOSED-IN | 188 | 176.2 | | | |
| D | FINAL FIRST CLOSED-IN | 1856 | 1862.3 | 60.0 | 60.0 | C |
| E | INITIAL SECOND FLOW | 161 | 200.9 | | | |
| F | FINAL SECOND FLOW | 296 | 300.5 | 90.0 | 89.1 | F |
| F | INITIAL SECOND CLOSED-IN | 296 | 300.5 | | | |
| G | FINAL SECOND CLOSED-IN | 2072 | 2120.0 | 846.0 | 846.0 | C |
| H | FINAL HYDROSTATIC | 2801 | 2764.3 | | | |



GAUGE NO: 6039 DEPTH: 5465.0 BLANKED OFF: YES HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|----|--------------------------|----------|------------|----------|------------|------|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | 2826 | 2835.3 | | | |
| B | INITIAL FIRST FLOW | 81 | 115.5 | | | |
| C | FINAL FIRST FLOW | 189 | 189.3 | 30.0 | 29.3 | F |
| C | INITIAL FIRST CLOSED-IN | 189 | 189.3 | | | |
| D | FINAL FIRST CLOSED-IN | 1882 | 1875.3 | 60.0 | 60.0 | C |
| E | INITIAL SECOND FLOW | 202 | 217.1 | | | |
| F | FINAL SECOND FLOW | 297 | 317.2 | 90.0 | 89.1 | F |
| F | INITIAL SECOND CLOSED-IN | 297 | 317.2 | | | |
| G | FINAL SECOND CLOSED-IN | 2151 | 2146.5 | 846.0 | 846.0 | C |
| H | FINAL HYDROSTATIC | 2826 | 2794.7 | | | |

EQUIPMENT & HOLE DATA

FORMATION TESTED: UPPER ISMAY
 NET PAY (ft): _____
 GROSS TESTED FOOTAGE: 50.0
 ALL DEPTHS MEASURED FROM: KELLY BUSHING
 CASING PERFS. (ft): _____
 HOLE OR CASING SIZE (in): 8.750
 ELEVATION (ft): 5233
 TOTAL DEPTH (ft): 5468.0
 PACKER DEPTH(S) (ft): 5412, 5418
 FINAL SURFACE CHOKE (in): _____
 BOTTOM HOLE CHOKE (in): 0.750
 MUD WEIGHT (lb/gal): _____
 MUD VISCOSITY (sec): _____
 ESTIMATED HOLE TEMP. (°F): _____
 ACTUAL HOLE TEMP. (°F): 130 @ _____ ft

TICKET NUMBER: 71844200
 DATE: 7-21-84 TEST NO: 1
 TYPE DST: OPEN HOLE
 HALLIBURTON CAMP:
FARMINGTON
 TESTER: HOWARD BELL
 WITNESS: BOB MASER
 DRILLING CONTRACTOR:
ARAPAHOE # 2

FLUID PROPERTIES FOR RECOVERED MUD & WATER

| SOURCE | RESISTIVITY | CHLORIDES |
|----------------|-------------------------|------------------|
| <u>PIT</u> | <u>1.480 @ 66 °F</u> | <u>_____ ppm</u> |
| <u>MIDDLE</u> | <u>1.950 @ 68 °F</u> | <u>_____ ppm</u> |
| <u>BOTTOM</u> | <u>1.140 @ 68 °F</u> | <u>_____ ppm</u> |
| <u>TOP</u> | <u>1.660 @ 64 °F</u> | <u>_____ ppm</u> |
| <u>SAMPLER</u> | <u>1.740 @ 62 °F</u> | <u>_____ ppm</u> |
| _____ | <u>_____ @ _____ °F</u> | <u>_____ ppm</u> |

SAMPLER DATA

Pstg AT SURFACE: 1450
 cu.ft. OF GAS: 4.06
 cc OF OIL: 1200
 cc OF WATER: 0
 cc OF MUD: 0
 TOTAL LIQUID cc: 1200

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): _____ @ _____ °F
 GAS/OIL RATIO (cu.ft. per bbl): _____
 GAS GRAVITY: _____

CUSHION DATA

| TYPE | AMOUNT | WEIGHT |
|-------|--------|--------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

RECOVERED:

463 FEET OF GAS AND OIL CUT MUD
 270 FEET OF GAS AND MUD CUT WATER

MEASURED FROM
 TESTER VALVE

REMARKS:

THE REPORTED OIL RECOVERED IN THE SAMPLER WAS MUD AND GAS CUT

TICKET NO: 71844200

CLOCK NO: 7276 HOUR: 24



GAUGE NO: 6040

DEPTH: 5400.0

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-----------------|---------|----------|--------|--|--------------------------------------|
| FIRST FLOW | | | | | |
| B 1 | 0.0 | 83.5 | | | |
| 2 | 2.0 | 85.6 | 2.2 | | |
| 3 | 4.0 | 112.5 | 26.9 | | |
| 4 | 6.0 | 125.2 | 12.6 | | |
| 5 | 8.0 | 137.9 | 12.8 | | |
| 6 | 10.0 | 146.7 | 8.7 | | |
| 7 | 12.0 | 155.0 | 8.3 | | |
| 8 | 14.0 | 163.3 | 8.3 | | |
| 9 | 16.0 | 170.7 | 7.4 | | |
| 10 | 18.0 | 176.5 | 5.8 | | |
| 11 | 20.0 | 180.9 | 4.4 | | |
| 12 | 22.0 | 183.4 | 2.4 | | |
| 13 | 24.0 | 179.3 | -4.0 | | |
| 14 | 26.0 | 176.2 | -3.1 | | |
| 15 | 28.0 | 176.2 | 0.0 | | |
| C 16 | 29.3 | 176.2 | 0.0 | | |
| FIRST CLOSED-IN | | | | | |
| C 1 | 0.0 | 176.2 | | | |
| 2 | 1.0 | 242.1 | 65.9 | 0.9 | 1.501 |
| 3 | 2.0 | 282.7 | 106.5 | 1.9 | 1.195 |
| 4 | 3.0 | 328.3 | 152.1 | 2.7 | 1.030 |
| 5 | 4.0 | 366.5 | 190.2 | 3.5 | 0.918 |
| 6 | 5.0 | 402.1 | 225.9 | 4.3 | 0.838 |
| 7 | 6.0 | 457.5 | 281.3 | 5.0 | 0.768 |
| 8 | 7.0 | 510.6 | 334.4 | 5.7 | 0.714 |
| 9 | 8.0 | 555.1 | 378.9 | 6.3 | 0.669 |
| 10 | 9.0 | 603.5 | 427.3 | 6.9 | 0.630 |
| 11 | 10.0 | 653.0 | 476.7 | 7.5 | 0.595 |
| 12 | 12.0 | 757.2 | 580.9 | 8.5 | 0.536 |
| 13 | 14.0 | 858.1 | 681.9 | 9.5 | 0.490 |
| 14 | 16.0 | 955.3 | 779.1 | 10.3 | 0.453 |
| 15 | 18.0 | 1060.2 | 884.0 | 11.1 | 0.421 |
| 16 | 20.0 | 1153.0 | 976.7 | 11.9 | 0.392 |
| 17 | 22.0 | 1243.8 | 1067.6 | 12.6 | 0.368 |
| 18 | 24.0 | 1320.1 | 1143.9 | 13.2 | 0.347 |
| 19 | 26.0 | 1386.6 | 1210.3 | 13.8 | 0.328 |
| 20 | 28.0 | 1449.4 | 1273.2 | 14.3 | 0.311 |
| 21 | 30.0 | 1497.4 | 1321.2 | 14.8 | 0.296 |
| 22 | 35.0 | 1603.3 | 1427.1 | 16.0 | 0.265 |
| 23 | 40.0 | 1679.6 | 1503.3 | 16.9 | 0.239 |
| 24 | 45.0 | 1742.9 | 1566.6 | 17.8 | 0.218 |
| 25 | 50.0 | 1789.9 | 1613.7 | 18.5 | 0.201 |
| 26 | 55.0 | 1830.0 | 1653.8 | 19.1 | 0.186 |
| D 27 | 60.0 | 1862.3 | 1686.0 | 19.7 | 0.173 |
| SECOND FLOW | | | | | |
| E 1 | 0.0 | 200.9 | | | |

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-------------------------|---------|----------|--------|--|--------------------------------------|
| SECOND FLOW - CONTINUED | | | | | |
| 2 | 5.0 | 198.4 | -2.5 | | |
| 3 | 10.0 | 202.7 | 4.3 | | |
| 4 | 15.0 | 209.3 | 6.6 | | |
| 5 | 20.0 | 217.5 | 8.2 | | |
| 6 | 25.0 | 224.9 | 7.4 | | |
| 7 | 30.0 | 232.6 | 7.7 | | |
| 8 | 35.0 | 239.4 | 6.9 | | |
| 9 | 40.0 | 246.4 | 7.0 | | |
| 10 | 45.0 | 253.7 | 7.3 | | |
| 11 | 50.0 | 259.3 | 5.6 | | |
| 12 | 55.0 | 264.3 | 5.0 | | |
| 13 | 60.0 | 268.3 | 4.0 | | |
| 14 | 65.0 | 274.5 | 6.2 | | |
| 15 | 70.0 | 279.9 | 5.4 | | |
| 16 | 75.0 | 285.0 | 5.1 | | |
| 17 | 80.0 | 289.0 | 4.0 | | |
| 18 | 85.0 | 292.7 | 3.6 | | |
| F 19 | 89.1 | 300.5 | 7.8 | | |
| SECOND CLOSED-IN | | | | | |
| F 1 | 0.0 | 300.5 | | | |
| 2 | 1.0 | 387.2 | 86.8 | 1.0 | 2.058 |
| 3 | 2.0 | 434.6 | 134.1 | 2.0 | 1.774 |
| 4 | 3.0 | 481.0 | 180.5 | 3.0 | 1.601 |
| 5 | 4.0 | 534.2 | 233.7 | 3.9 | 1.483 |
| 6 | 5.0 | 581.4 | 281.0 | 4.8 | 1.389 |
| 7 | 6.0 | 634.7 | 334.2 | 5.7 | 1.315 |
| 8 | 7.0 | 681.6 | 381.1 | 6.6 | 1.253 |
| 9 | 8.0 | 722.5 | 422.0 | 7.5 | 1.199 |
| 10 | 9.0 | 764.5 | 464.0 | 8.4 | 1.151 |
| 11 | 10.0 | 813.8 | 513.3 | 9.2 | 1.108 |
| 12 | 12.0 | 901.5 | 601.0 | 10.9 | 1.036 |
| 13 | 14.0 | 970.6 | 670.2 | 12.5 | 0.975 |
| 14 | 16.0 | 1039.2 | 738.7 | 14.1 | 0.925 |
| 15 | 18.0 | 1102.4 | 802.0 | 15.6 | 0.880 |
| 16 | 20.0 | 1157.9 | 857.4 | 17.1 | 0.841 |
| 17 | 22.0 | 1213.4 | 912.9 | 18.5 | 0.806 |
| 18 | 24.0 | 1260.3 | 959.9 | 20.0 | 0.774 |
| 19 | 26.0 | 1302.3 | 1001.8 | 21.3 | 0.744 |
| 20 | 28.0 | 1341.8 | 1041.3 | 22.6 | 0.719 |
| 21 | 30.0 | 1377.7 | 1077.2 | 23.9 | 0.695 |
| 22 | 35.0 | 1449.8 | 1149.3 | 27.0 | 0.642 |
| 23 | 40.0 | 1510.3 | 1209.9 | 29.9 | 0.598 |
| 24 | 45.0 | 1565.6 | 1265.1 | 32.6 | 0.560 |
| 25 | 50.0 | 1608.6 | 1308.2 | 35.2 | 0.528 |
| 26 | 55.0 | 1646.8 | 1346.4 | 37.5 | 0.499 |
| 27 | 60.0 | 1679.1 | 1378.6 | 39.8 | 0.474 |
| 28 | 70.0 | 1732.1 | 1431.6 | 44.0 | 0.430 |
| 29 | 80.0 | 1773.5 | 1473.0 | 47.7 | 0.395 |
| 30 | 90.0 | 1807.7 | 1507.2 | 51.2 | 0.365 |
| 31 | 100.0 | 1835.5 | 1535.0 | 54.2 | 0.339 |
| 32 | 110.0 | 1859.4 | 1559.0 | 57.0 | 0.318 |

REMARKS:

TICKET NO: 71844200
 CLOCK NO: 13741 HOUR: 24



GAUGE NO: 6039
 DEPTH: 5465.0

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-----------------|---------|----------|--------|--|--------------------------------------|
| FIRST FLOW | | | | | |
| B | 1 | 0.0 | 115.5 | | |
| | 2 | 2.0 | 102.2 | -13.4 | |
| | 3 | 4.0 | 127.2 | 25.1 | |
| | 4 | 6.0 | 139.2 | 12.0 | |
| | 5 | 8.0 | 149.8 | 10.5 | |
| | 6 | 10.0 | 160.9 | 11.2 | |
| | 7 | 12.0 | 169.2 | 8.2 | |
| | 8 | 14.0 | 177.0 | 7.8 | |
| | 9 | 16.0 | 184.7 | 7.7 | |
| | 10 | 18.0 | 190.3 | 5.7 | |
| | 11 | 20.0 | 195.1 | 4.7 | |
| | 12 | 22.0 | 197.9 | 2.8 | |
| | 13 | 24.0 | 193.8 | -4.0 | |
| | 14 | 26.0 | 189.1 | -4.7 | |
| | 15 | 28.0 | 188.4 | -0.7 | |
| C | 16 | 29.3 | 189.3 | 0.8 | |
| FIRST CLOSED-IN | | | | | |
| C | 1 | 0.0 | 189.3 | | |
| | 2 | 1.0 | 230.4 | 41.1 | 1.0 1.482 |
| | 3 | 2.0 | 271.9 | 82.6 | 1.9 1.189 |
| | 4 | 3.0 | 317.2 | 127.9 | 2.7 1.033 |
| | 5 | 4.0 | 359.3 | 170.0 | 3.5 0.921 |
| | 6 | 5.0 | 404.7 | 215.4 | 4.3 0.837 |
| | 7 | 6.0 | 447.6 | 258.3 | 5.0 0.772 |
| | 8 | 7.0 | 499.6 | 310.3 | 5.7 0.714 |
| | 9 | 8.0 | 547.9 | 358.6 | 6.3 0.669 |
| | 10 | 9.0 | 593.6 | 404.3 | 6.9 0.630 |
| | 11 | 10.0 | 648.4 | 459.1 | 7.5 0.595 |
| | 12 | 12.0 | 747.4 | 558.1 | 8.5 0.538 |
| | 13 | 14.0 | 854.8 | 665.5 | 9.5 0.491 |
| | 14 | 16.0 | 958.3 | 769.0 | 10.4 0.452 |
| | 15 | 18.0 | 1057.7 | 868.4 | 11.2 0.420 |
| | 16 | 20.0 | 1151.7 | 962.4 | 11.9 0.393 |
| | 17 | 22.0 | 1242.8 | 1053.5 | 12.6 0.368 |
| | 18 | 24.0 | 1323.4 | 1134.1 | 13.2 0.347 |
| | 19 | 26.0 | 1391.9 | 1202.6 | 13.8 0.328 |
| | 20 | 28.0 | 1453.8 | 1264.5 | 14.3 0.311 |
| | 21 | 30.0 | 1508.4 | 1319.1 | 14.8 0.296 |
| | 22 | 35.0 | 1615.3 | 1426.0 | 16.0 0.265 |
| | 23 | 40.0 | 1694.3 | 1505.0 | 16.9 0.239 |
| | 24 | 45.0 | 1756.2 | 1566.9 | 17.8 0.218 |
| | 25 | 50.0 | 1803.9 | 1614.6 | 18.5 0.201 |
| | 26 | 55.0 | 1844.5 | 1655.2 | 19.1 0.186 |
| D | 27 | 60.0 | 1875.3 | 1686.0 | 19.7 0.173 |
| SECOND FLOW | | | | | |
| E | 1 | 0.0 | 217.1 | | |

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-------------------------|---------|----------|--------|--|--------------------------------------|
| SECOND FLOW - CONTINUED | | | | | |
| | 2 | 5.0 | 211.4 | -5.7 | |
| | 3 | 10.0 | 216.5 | 5.1 | |
| | 4 | 15.0 | 223.8 | 7.3 | |
| | 5 | 20.0 | 232.0 | 8.2 | |
| | 6 | 25.0 | 241.1 | 9.0 | |
| | 7 | 30.0 | 247.5 | 6.5 | |
| | 8 | 35.0 | 254.9 | 7.4 | |
| | 9 | 40.0 | 262.5 | 7.6 | |
| | 10 | 45.0 | 270.2 | 7.7 | |
| | 11 | 50.0 | 276.3 | 6.1 | |
| | 12 | 55.0 | 281.1 | 4.9 | |
| | 13 | 60.0 | 285.0 | 3.9 | |
| | 14 | 65.0 | 292.0 | 7.0 | |
| | 15 | 70.0 | 297.7 | 5.7 | |
| | 16 | 75.0 | 302.6 | 4.9 | |
| | 17 | 80.0 | 307.8 | 5.3 | |
| | 18 | 85.0 | 311.3 | 3.5 | |
| F | 19 | 89.1 | 317.2 | 5.9 | |
| SECOND CLOSED-IN | | | | | |
| F | 1 | 0.0 | 317.2 | | |
| | 2 | 1.0 | 367.8 | 50.6 | 1.0 2.091 |
| | 3 | 2.0 | 421.9 | 104.7 | 1.9 1.787 |
| | 4 | 3.0 | 477.3 | 160.1 | 2.9 1.608 |
| | 5 | 4.0 | 539.4 | 222.2 | 3.9 1.483 |
| | 6 | 5.0 | 587.5 | 270.3 | 4.8 1.395 |
| | 7 | 6.0 | 635.6 | 318.4 | 5.7 1.317 |
| | 8 | 7.0 | 684.4 | 367.2 | 6.6 1.255 |
| | 9 | 8.0 | 733.1 | 415.9 | 7.5 1.198 |
| | 10 | 9.0 | 780.5 | 463.3 | 8.4 1.150 |
| | 11 | 10.0 | 829.3 | 512.1 | 9.2 1.108 |
| | 12 | 12.0 | 911.6 | 594.4 | 10.9 1.036 |
| | 13 | 14.0 | 987.6 | 670.4 | 12.5 0.976 |
| | 14 | 16.0 | 1059.3 | 742.1 | 14.1 0.925 |
| | 15 | 18.0 | 1120.1 | 802.9 | 15.6 0.881 |
| | 16 | 20.0 | 1180.8 | 863.6 | 17.1 0.841 |
| | 17 | 22.0 | 1232.3 | 915.1 | 18.6 0.804 |
| | 18 | 24.0 | 1278.0 | 960.8 | 19.9 0.774 |
| | 19 | 26.0 | 1324.3 | 1007.1 | 21.4 0.744 |
| | 20 | 28.0 | 1362.9 | 1045.7 | 22.7 0.718 |
| | 21 | 30.0 | 1398.0 | 1080.8 | 24.0 0.694 |
| | 22 | 35.0 | 1473.4 | 1156.2 | 27.0 0.642 |
| | 23 | 40.0 | 1534.8 | 1217.6 | 29.9 0.598 |
| | 24 | 45.0 | 1585.9 | 1268.7 | 32.6 0.560 |
| | 25 | 50.0 | 1629.5 | 1312.3 | 35.2 0.528 |
| | 26 | 55.0 | 1666.7 | 1349.5 | 37.6 0.499 |
| | 27 | 60.0 | 1699.2 | 1382.0 | 39.8 0.473 |
| | 28 | 70.0 | 1751.7 | 1434.5 | 44.0 0.430 |
| | 29 | 80.0 | 1794.0 | 1476.8 | 47.8 0.395 |
| | 30 | 90.0 | 1827.6 | 1510.4 | 51.2 0.365 |
| | 31 | 100.0 | 1855.8 | 1538.6 | 54.2 0.339 |
| | 32 | 110.0 | 1879.6 | 1562.5 | 57.0 0.317 |

REMARKS:

| | | O.D. | I.D. | LENGTH | DEPTH | |
|-------------|---|-------------------------------|-------|--------|--------|--------|
| 1 |  | DRILL PIPE..... | 4.000 | 3.340 | 4812.0 | |
| 3 |  | DRILL COLLARS..... | 6.250 | 2.250 | 480.0 | |
| 51 |  | PUMP OUT REVERSING SUB..... | 6.000 | 3.000 | 1.0 | 5293.0 |
| 3 |  | DRILL COLLARS..... | 6.250 | 2.250 | 91.0 | |
| 12 |  | DUAL CIP VALVE..... | 5.030 | 0.870 | 7.0 | |
| 60 |  | HYDROSPRING TESTER..... | 5.000 | 0.750 | 5.0 | 5396.0 |
| 80 |  | AP RUNNING CASE..... | 5.000 | 2.250 | 4.0 | 5400.0 |
| 15 |  | JAR..... | 5.030 | 1.750 | 5.0 | |
| 16 |  | VR SAFETY JOINT..... | 5.000 | 1.000 | 3.0 | |
| 70 |  | OPEN HOLE PACKER..... | 7.750 | 1.530 | 6.0 | 5412.0 |
| 70 |  | OPEN HOLE PACKER..... | 7.750 | 1.530 | 6.0 | 5418.0 |
| 20 |  | FLUSH JOINT ANCHOR..... | 5.750 | 3.000 | 44.0 | |
| 81 |  | BLANKED-OFF RUNNING CASE..... | 5.750 | | 4.0 | 5465.0 |
| TOTAL DEPTH | | | | | | 5468.0 |

EQUIPMENT DATA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPlicate*
(Other instructions on reverse side)

Form approved
Budget Bureau No. 1004-0135
Expires August 31, 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 "APPLICATION FOR PERMIT—" for such proposals.)

| | | | | |
|--|--|---|--|---|
| 1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> | | RECEIVED AUG 21 1984 DIVISION OF OIL GAS & MINING | 7. UNIT AGREEMENT NAME Patterson | |
| 2. NAME OF OPERATOR Wexpro Company | | | 8. FARM OR LEASE NAME Unit | |
| 3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs WY 82902 | | | 9. WELL NO. 5 | |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface SW SW, 678' FSL, 664' FWL | | | 10. FIELD AND POOL, OR WILDCAT Patterson Unit | |
| 14. PERMIT NO. 43-037-31019 | | 15. ELEVATIONS (Show whether DF, RT, GR, etc.) GR 5222' KB 5235.00' | | 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E |
| | | 12. COUNTY OR PARISH San Juan | 13. STATE Utah | |

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

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

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

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

Total depth 5650' reached 7-25-84.

Landed 5-1/2-inch O.D., 17-pound, K-55, 8 round thread, LT&C casing at 5642.37 feet KBM or 13.00 feet below KB, circulated casing for 45 minutes prior to cementing operations, pumped 20 barrels water ahead of cement, cemented with 735 sacks 50-50 Pozmix with 2% gel, bumped plug with 1500 psi, 600 psi over displacement pressure, released pressure, flowed back 3/4 barrel water, float held okay, landed casing with full indicator weight of 81,000 pounds on slips, installed an ERC 10-inch by 7-1/16-inch 3000 psi tubing spool, tested seals to 2000 psi, held okay, cement in place at 4:30 P.M., 7-25-84.

18. I hereby certify that the foregoing is true and correct
SIGNED C. J. Maser TITLE Drilling Superintendent DATE 8-15-84

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TR. DATE*
(Other instructions on re-
verse side)

FORM APPROVAL
Budget Bureau No. 1004-0135
Expires August 31, 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 "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.

UT-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Patterson

8. FARM OR LEASE NAME

Unit

9. WELL NO.

5

10. FIELD AND POOL, OR WILDCAT

Patterson Unit

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

4-38S-25E

12. COUNTY OR PARISH 13. STATE

San Juan

Utah

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 458, Rock Springs, WY 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface SW SW, 678' FSL, 664' FWL

14. PERMIT NO.
43-037-31019

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
GR 5221 KB 5234

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON*

SHOOTING OR ACIDIZING

ABANDONMENT*

REPAIR WELL

CHANGE PLANS

(Other)

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

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

The well is currently completed in the Ismay formation 5440-5468 feet KBM. The well currently produces 12 BOPD and 75 BWPD. We intend to squeeze cement the present perforations with 50 sacks of 50-50 Pozmix cement. Twenty-four hours after cementing operations, the cement will be drilled out. The well will be perforated at 5440-5460 feet KBM and acidized with 1000 gallons of 28% HCL with 700 SCF/BB1. nitrogen. Rods and pump will be run and the well will be put on production.

RECEIVED

OCT 26 1984

DIVISION OF OIL
GAS & MINING

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

DATE: 11/1/84
BY: [Signature]

Federal approval of this action
is required before commencing
operations.

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

SIGNED

[Signature]

TITLE Director, Petro. Engrg.

DATE October 22, 1984

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other In-
structions on
reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

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

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

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 458, Rock Springs, WY 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface SW SW, 678' FSL, 664' FWL

At top prod. interval reported below
At total depth

14. PERMIT NO. 43-037-31019 DATE ISSUED _____

5. LEASE DESIGNATION AND SERIAL NO.

UT-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
--

7. UNIT AGREEMENT NAME
Patterson

8. FARM OR LEASE NAME
Unit

9. WELL NO.
5

10. FIELD AND POOL, OR WILDCAT
Patterson Unit

11. SEC. T., R., M., OR BLOCK AND SURVEY OR AREA
4-38S-25E

12. COUNTY OR PARISH San Juan 13. STATE Utah

15. DATE SPUDDED 7-8-84 16. DATE T.D. REACHED 7-25-84 17. DATE COMPL. (Ready to prod.) 8-2-84 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* GR 5222' KB 5235' 19. ELEV. CASINGHEAD 5235'

20. TOTAL DEPTH, MD & TVD 5650' 21. PLUG, BACK T.D., MD & TVD 5605.51' 22. IF MULTIPLE COMPL., HOW MANY* -- 23. INTERVALS DRILLED BY ROTARY TOOLS 0-5650' CABLE TOOLS --

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 5440'-5468' - Upper Ismay 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN FDC, LD, CNL, DIL, Electromagnetic Propagation, Composite Fracture Id. 27. WAS WELL CORED Yes

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

| CASINO SIZE | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|-------------|-----------------|----------------|-----------|--------------------------------|---------------|
| 9-5/8 | 36 | 1569 | 12-1/4 | 325 sx Howco Light, 180 sx Reg | -- |
| 5-1/2 | 17 | 5642.37 | 8-3/4 | 735 sx 50-50 Pozmix w/2% gel | -- |

29. LINER RECORD 30. TUBING RECORD

| SIZE | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SCREEN (MD) | SIZE | DEPTH SET (MD) | PACKER SET (MD) |
|------|----------|-------------|---------------|-------------|-------|----------------|-----------------|
| | | | | | 2-7/8 | 5436.29 | |

31. PERFORATION RECORD (Interval, size and number) 5440'-5468' - 4 holes per foot

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

| DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED |
|---------------------|----------------------------------|
| 5440-5468' | 4000 gallons 28% HCL acid |

33.* PRODUCTION

| DATE FIRST PRODUCTION | PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) | WELL STATUS (Producing or shut-in) | | | | | |
|-----------------------|--|------------------------------------|-------------------------|----------|------------|-------------------------|---------------|
| 8-31-84 | Pumping | Producing | | | | | |
| DATE OF TEST | HOURS TESTED | CHOKE SIZE | PROD'N. FOR TEST PERIOD | OIL—BBL. | GAS—MCF. | WATER—BBL. | GAS-OIL RATIO |
| 8/31-9/1/84 | 48 | -- | → | 91 | 152 | 359 | 1670 |
| FLOW. TUBING PRESS. | CASING PRESSURE | CALCULATED 24-HOUR RATE | OIL—BBL. | GAS—MCF. | WATER—BBL. | OIL GRAVITY-API (CORR.) | |
| 60 | 60 | → | 45 | 76 | 179 | -- | |

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

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
SIGNED Thomas H. [Signature] TITLE Director, Petroleum Eng. DATE 9-5-84

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

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. | NAME | TOP | |
|------------------------------|------|--------|--|---------------|-------------|------------------|
| | | | | | MEAS. DEPTH | TRUE VERT. DEPTH |
| Lower Sand of Upper Ismay | 5414 | 5468 | DST #1: TD 5468', Packers 5414' & 5420', IO 30 mins, ISI 60 mins, FO 90 mins, FSI 843 mins, 1st open 2" wtr in bucket, inc to strong in 5 mins, NGTS, 2nd open strong, bottom of bucket, GTS in 11 mins, NETG, rec 463' gas cut mud, Res 1.95%, 270' gas cut wtr, Res 1.14%, sample chamber rec 1200 cc oil, 4.06 cc gas, 2450 psig, IHHP 2801, IOFP's 54-188, ISIP 1856, FOFP's 161-296, FSIP 2072, FHHP 2801, BHT 130°F. | Morrison | Surface | |
| | | | | Entrada | 600' | |
| | | | | Carmel | 760' | |
| | | | | Navajo | 790' | |
| | | | | Chinle | 1,569' | |
| | | | | Shinarump | 2,360' | |
| | | | | Cutler | 2,516' | |
| | | | | Honaker Trail | 4,398' | |
| | | | | Paradox | 4,893' | |
| | | | | Ismay | 5,430' | |
| | | | | Lower Ismay | 5,580' | |
| | | | | B Zone Shale | 5,630' | |

WELL

Patterson Unit #5
 Wexpro
 4-38S-25E
 San Juan County, Utah

The following information and reports pertaining to the above captioned well have been incorporated into our files and copies of each have been forwarded to the Dallas office and other interested parties on the date indicated.

| | Well File | Jim Jordan Dallas | | | | | | | |
|--|-----------|---------------------------------|--|--|--|--|--|--|--|
| A. Location Plat | | | | | | | | | |
| B. Application for Permit to Drill | | | | | | | | | |
| 1. State (Unapproved)*** | 7/13/84 | 7/13/84 | | | | | | | |
| Supplement List | | | | | | | | | |
| (Approved) | | | | | | | | | |
| 2. Federal (Form 9-331-C) w/NTL-6* (Unapproved)** | | | | | | | | | |
| (Approved) | | | | | | | | | |
| 3. Sundry Notices (Form 9-331)*** Monthly activity report | | | | | | | | | |
| C. Geological Prognosis | | | | | | | | | |
| D. Electrical Logs | | | | | | | | | |
| 1. Field Prints DIL-SFL, Electromag. Propagation Log; | 7/29/84 | | | | | | | | |
| A. Run #1 Litho Cyberlook, LD-CN, Long Space Sonic | | | | | | | | | |
| B. Run #2 | | | | | | | | | |
| C. Run #3 | | | | | | | | | |
| D. Run #4 | | | | | | | | | |
| E. Run #5 | | | | | | | | | |
| 2. Final Prints comp. Inad. ID Computer Proc. (Mechanical) Computer Proc. (Volume) | 9/7/84 | | | | | | | | |
| A. Run #1 | | | | | | | | | |
| B. Run #2 1: LD-CN, Long Space | 10/2/84 | | | | | | | | |
| C. Run #3 Sonic, DIL-SFL, | | | | | | | | | |
| D. Run #4 ELECTROMAG. PROPAGATION | | | | | | | | | |
| E. Run #5 | | | | | | | | | |
| E. Core Analysis Reports | | | | | | | | | |
| 1. Report #1 | | | | | | | | | |
| 2. Report #2 | | | | | | | | | |
| 3. Report #3 | | | | | | | | | |
| F. Drill Stem Tests Reports | | | | | | | | | |
| 1. Test #1 | 8/3/84 | 8/3/84 | | | | | | | |
| 2. Test #2 | | | | | | | | | |
| 3. Test #3 | | | | | | | | | |
| 4. Test #4 | | | | | | | | | |
| 5. Test #5 | | | | | | | | | |
| G. Geological Well Completion Report | 8/3/84 | Rm geoto send copy to J. Jordan | | | | | | | |

| | Well File | Dallas | | | | | | | | |
|--|--------------|---------|--|--|--|--|--|--|--|--|
| H. Other Geologic Data (specify) | | | | | | | | | | |
| 1. | | | | | | | | | | |
| 2. | | | | | | | | | | |
| I. Abandonment Reports | | | | | | | | | | |
| 1. State Abandonment Reports (plugging & log of well) (unapproved)** | | | | | | | | | | |
| (approved) | | | | | | | | | | |
| 2. Federal* | | | | | | | | | | |
| A. Sundry Notices (Form 9-331) | | | | | | | | | | |
| 1. (unapproved) | | | | | | | | | | |
| 2. (approved) | | | | | | | | | | |
| B. Well completion Report and Log (Form 9-330) | 9/10/84 | | | | | | | | | |
| J. Misc. Geologic Data | | | | | | | | | | |
| 1. core analysis | 7/31/84 | 7/29/84 | | | | | | | | |
| 2. core analysis-final | 9/7/84 | 9/7/84 | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |

* 2nd Supplemental
History

7/25/84 7/25/84

Supplemental Hist.
corrected 3/60-4

8/3/84 8/3/84

9/24/84 9/24/84

*Applicable on wells drilled on U.S.A. leases

**Applicable only on Placid Operated Wells

***If applicable, see attached sheet

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other In-
structions on
reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

13

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

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

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

2. NAME OF OPERATOR: **Wexpro Company**

3. ADDRESS OF OPERATOR: **P. O. Box 458, Rock Springs, WY 82902**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements):
At surface: **SW SW, 678' FSL, 664' FWL**
At top prod. interval reported below:
At total depth: **SW SW**

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5. LEASE DESIGNATION AND SERIAL NO.: **UT-11668**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: _____

7. UNIT AGREEMENT NAME: **Patterson**

8. FARM OR LEASE NAME: **Unit**

9. WELL NO.: **5**

10. FIELD AND POOL, OR WILDCAT: **Patterson Canyon Unit**

11. SEC. T., R., M., OR BLOCK AND SURVEY OR AREA: **4-38S-25E**

14. PERMIT NO.: **43-037-31019** DATE ISSUED: _____

12. COUNTY OR PARISH: **San Juan** 13. STATE: **Utah**

15. DATE SPUDDED: **7-8-84** 16. DATE T.D. REACHED: **7-25-84** 17. DATE COMPL. (Ready to prod.): **8-2-84**

18. ELEVATIONS (DF, RKB, RT, GR, ETC.): **GR 5222' KB 5235'** 19. ELEV. CASINGHEAD: **5235'**

20. TOTAL DEPTH, MD & TVD: **5650'** 21. PLUG BACK T.D., MD & TVD: **5605.51'** 22. IF MULTIPLE COMPL., HOW MANY*: **--**

23. INTERVALS DRILLED BY: **0-5650'** 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: **5440'-5468' - Upper Ismay**

25. WAS DIRECTIONAL SURVEY MADE: **No**

26. TYPE ELECTRIC AND OTHER LOGS RUN: **FDC, LD, CNL, DTL, Electromagnetic Propagation, Composite Fracture Id.**

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 |
|-------------|-----------------|----------------|-----------|------------------------------|---------------|
| 9-5/8 | 36 | 1569 | 12-1/4 | 325 sx Howco Light, 180 sx | Reg -- |
| 5-1/2 | 17 | 5642.37 | 8-3/4 | 735 sx 50-50 Pozmix w/2% gel | -- |

29. LINER RECORD

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

30. TUBING RECORD

| SIZE | DEPTH SET (MD) | PACKER SET (MD) |
|-------|----------------|-----------------|
| 2-7/8 | 5436.29 | |

31. PERFORATION RECORD (Interval, size and number): **5440'-5468' - 4 holes per foot**

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

| DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED |
|---------------------|----------------------------------|
| 5440-5468' | 4000 gallons 28% HCL acid |

33.* PRODUCTION

DATE FIRST PRODUCTION: **8-31-84** PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump): **Pumping** WELL STATUS (Producing or shut-in): **Producing**

| DATE OF TEST | HOURS TESTED | CHOKE SIZE | PROD'N. FOR TEST PERIOD | OIL--BBL. | GAS--MCF. | WATER--BBL. | GAS-OIL RATIO |
|--------------|--------------|------------|-------------------------|-----------|-----------|-------------|---------------|
| 8/31-9/1/84 | 48 | -- | → | 91 | 152 | 359 | 1670 |

| FLOW. TUBING PRESS. | CASING PRESSURE | CALCULATED 24-HOUR RATE | OIL--BBL. | GAS--MCF. | WATER--BBL. | OIL GRAVITY-API (CORR.) |
|---------------------|-----------------|-------------------------|-----------|-----------|-------------|-------------------------|
| 60 | 60 | → | 45 | 76 | 179 | -- |

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): **Vented and used for fuel** TEST WITNESSED BY: **Eric Marsh**

35. LIST OF ATTACHMENTS

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

SIGNED: Thomas H. [Signature] TITLE: Director, Petroleum Eng. DATE: 9-5-84

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

22

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. | NAME | TOP | |
|---------------------------|------|--------|--|--|---|------------------|
| | | | | | MEAS. DEPTH | TRUE VERT. DEPTH |
| Lower Sand of Upper Ismay | 5414 | 5468 | DST #1: TD 5468', Packers 5414' & 5420', IO 30 mins, ISI 60 mins, FO 90 mins, FSI 843 mins, 1st open 2" wtr in bucket, inc to strong in 5 mins, NGTS, 2nd open strong, bottom of bucket, GTS in 11 mins, NETG, rec 463' gas cut mud, Res 1.95%, 270' gas cut wtr, Res 1.14%, sample chamber rec 1200 cc oil, 4.06 cc gas, 2450 psig, IHHP 2801, IOFP's 54-188, ISIP 1856, FOFP's 161-296, FSIP 2072, FHHP 2801, BHT 130°F. | Morrison Entrada Carmel Navajo Chinle Shinarump Cutler Honaker Trail Paradox Ismay Lower Ismay B Zone Shale | Surface 600' 760' 790' 1,569' 2,360' 2,516' 4,398' 4,893' 5,430' 5,580' 5,630' | |

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

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DIVISION OF OIL
GAS & MINING

FINAL REPORT

CORE ANALYSIS REPORT

FOR

CELSIUS ENERGY COMPANY

PATTERSON UNIT #5
PATTERSON
SAN JUAN, UTAH

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

DALLAS, TEXAS

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5
 PATTERSON
 SAN JUAN, UTAH

DATE : 20-JUL-1984
 FORMATION : ISMAY
 DRLG. FLUID: WBM
 LOCATION : SW,SW SEC. 4-T38S-R25E

FILE NO : 3803-003332
 ANALYSTS : DS;EV
 ELEVATION: 5233 KB

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO MAXIMUM | AIR (MD) 90 DEG | POR. He | FLUID OIL | SATS. WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|------------------|-----------------|---------|-----------|-----------|-----------|---------------------------|
| | 5408.0-35.0 | | | | | | | LM/SHALE -- NO ANALYSIS |
| | 5435.0-39.0 | | | | | | | ANHYDRITE -- NO ANALYSIS |
| 1 | 5439.0-40.0 | 0.01 | * | 1.3 | 0.0 | 64.7 | 2.70 | LM GRY VFXLN |
| 2 | 5440.0-41.0 | 0.01 | * | 1.0 | 0.0 | 66.7 | 2.73 | LM GRY VFXLN CVF |
| 3 | 5441.0-42.0 | 0.34 | 0.04 | 3.7 | 0.0 | 67.5 | 2.71 | LM GRY VFXLN OVF ** |
| 4 | 5442.0-43.0 | 0.01 | * | 6.5 | 2.7 | 64.5 | 2.72 | LM GRY VFXLN OVF |
| 5 | 5443.0-44.0 | 0.32 | * | 5.1 | 3.9 | 38.7 | 2.74 | LM GRY VFXLN SL/DOL OVF |
| 6 | 5444.0-45.0 | 0.01 | * | 1.8 | 0.0 | 60.5 | 2.73 | LM GRY VFXLN STYL CVF |
| 7 | 5445.0-46.0 | 0.44 | 0.31 | 4.8 | 9.3 | 55.5 | 2.73 | LM GRY VFXLN CVF ** |
| 8 | 5446.0-47.0 | 0.02 | 0.02 | 3.9 | 3.9 | 61.9 | 2.73 | LM GRY VFXLN STYL CVF |
| 9 | 5447.0-48.0 | 2.70 | 0.18 | 5.2 | 0.0 | 68.5 | 2.71 | LM GRY VFXLN OVF ** |
| 10 | 5448.0-49.0 | 0.10 | * | 3.8 | 4.4 | 44.0 | 2.70 | LM GRY VFXLN CVF |
| 11 | 5449.0-50.0 | 2.00 | 0.74 | 2.7 | 6.1 | 48.6 | 2.72 | LM GRY VFXLN STYL CVF ** |
| 12 | 5450.0-51.0 | 6.70 | 5.70 | 4.7 | 4.0 | 39.9 | 2.73 | LM GRY VFXLN STYL CVF ** |
| 13 | 5451.0-52.0 | 2.30 | 0.01 | 4.1 | 0.0 | 55.8 | 2.71 | LM GRY VFXLN OVF CVF ** |
| 14 | 5452.0-53.0 | 0.28 | 0.22 | 2.2 | 6.9 | 55.0 | 2.73 | LM GRY VFXLN STYL |
| 15 | 5453.0-54.0 | 0.98 | 0.18 | 2.1 | 5.2 | 51.7 | 2.73 | LM GRY VFXLN STYL CVF ** |
| 16 | 5454.0-55.0 | 0.01 | * | 3.9 | 4.9 | 39.3 | 2.73 | LM GRY VFXLN |
| 17 | 5455.0-56.0 | 0.46 | 0.21 | 7.6 | 1.3 | 49.0 | 2.73 | LM GRY FNXLN |
| 18 | 5456.0-57.0 | 0.43 | 0.40 | 9.3 | 8.5 | 43.7 | 2.73 | LM GRY FNXLN |
| 19 | 5457.0-58.0 | 0.78 | 0.74 | 10.8 | 3.6 | 58.9 | 2.75 | LM GRY FNXLN SL/DOL |
| 20 | 5458.0-59.0 | 0.42 | 0.41 | 8.9 | 0.0 | 40.6 | 2.74 | LM GRY FNXLN SL/DOL |
| 21 | 5459.0-60.0 | 0.43 | 0.40 | 6.1 | 10.5 | 35.9 | 2.77 | LM GRY FNXLN SL/DOL |
| 22 | 5460.0-61.0 | 4.30 | 3.70 | 15.3 | 5.2 | 34.8 | 2.80 | DOL GRY/BRN FNXLN SL/CALC |
| 23 | 5461.0-62.0 | 9.40 | 6.50 | 18.3 | 13.0 | 35.4 | 2.82 | DOL GRY/BRN FNXLN SL/CALC |
| 24 | 5462.0-63.0 | 28. | * | 18.8 | 8.5 | 43.7 | 2.80 | DOL GRY/BRN FNXLN SL/CALC |
| 25 | 5463.0-64.0 | 3.40 | 3.30 | 12.4 | 5.9 | 22.1 | 2.76 | LM GRY/BRN FNXLN SL/DOL |
| 26 | 5464.0-65.0 | 3.90 | 3.50 | 13.1 | 5.4 | 28.7 | 2.77 | LM GRY/BRN FNXLN SL/DOL |

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

DALLAS, TEXAS

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5

DATE : 20-JUL-1984
 FORMATION : ISMAY

FILE NO : 3803-003332
 ANALYSTS : DS:EV

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO AIR (MD) MAXIMUM | 90 DEG | POR. He | FLUID SATS. OIL | WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|---------------------------|--------|---------|-----------------|------|-----------|-------------------------------|
| 27 | 5465.0-66.0 | 20. | 15. | 22.2 | 7.8 | 29.7 | 2.80 | DOL BRN FNXLN SL/CALC |
| 28 | 5466.0-67.0 | 37. | * | 20.2 | 7.2 | 41.1 | 2.81 | DOL BRN FNXLN SL/CALC |
| 29 | 5467.0-68.0 | 6.70 | 6.40 | 17.1 | 5.9 | 38.2 | 2.81 | DOL BRN FNXLN SL/CALC SL/ANHY |
| 30 | 5468.0-69.0 | 1.90 | 1.40 | 6.8 | 11.6 | 49.8 | 2.77 | LM GRY FNXLN SL/DOL |
| 31 | 5469.0-70.0 | 1.10 | 1.00 | 8.3 | 9.8 | 19.5 | 2.76 | LM GRY FNXLN SL/DOL |
| 32 | 5470.0-71.0 | 6.40 | 6.10 | 14.1 | 4.2 | 16.9 | 2.79 | LM GRY FNXLN SL/DOL |
| 33 | 5471.0-72.0 | 14. | 13. | 15.0 | 4.7 | 40.5 | 2.81 | DOL LTBRN FNXLN SL/CALC |
| 34 | 5472.0-73.0 | 4.10 | 4.10 | 11.7 | 8.0 | 43.3 | 2.79 | DOL GRY FNXLN SL/CALC |
| 35 | 5473.0-74.0 | 2.30 | 2.30 | 9.2 | 8.4 | 28.7 | 2.81 | DOL LTBRN FNXLN SL/CALC |
| 36 | 5474.0-75.0 | 23. | * | 18.6 | 7.9 | 51.5 | 2.79 | DOL GRY FNXLN SL/CALC |
| 37 | 5475.0-76.0 | 0.22 | 0.18 | 5.8 | 10.4 | 38.5 | 2.83 | DOL LTBRN FNXLN SL/CALC |
| 38 | 5476.0-77.0 | 10. | 9.30 | 13.1 | 14.3 | 40.9 | 2.78 | DOL GRY FNXLN SL/CALC |
| 39 | 5477.0-78.0 | 13. | 11. | 16.6 | 7.2 | 41.0 | 2.84 | DOL LTBRN FNXLN SL/CALC |
| 40 | 5478.0-79.0 | 10. | 9.70 | 14.7 | 7.8 | 28.6 | 2.84 | DOL LTBRN FNXLN SL/CALC |
| 41 | 5479.0-80.0 | 7.80 | * | 14.4 | 7.1 | 25.3 | 2.86 | DOL LTBRN FNXLN SL/CALC |
| 42 | 5480.0-81.0 | 3.30 | 2.60 | 10.6 | 5.2 | 47.7 | 2.85 | DOL LTBRN FNXLN SL/CALC |
| 43 | 5481.0-82.0 | 1.20 | * | 12.0 | 0.0 | 66.6 | 2.83 | DOL LTBRN FNXLN SL/CALC |
| 44 | 5482.0-83.0 | 2.40 | 0.12 | 4.2 | 0.0 | 57.5 | 2.77 | LM LTBRN FNXLN SL/DOL ** |
| 45 | 5483.0-84.0 | 0.42 | 0.08 | 7.2 | 0.0 | 53.9 | 2.76 | LM LTBRN FNXLN SL/DOL |
| 46 | 5484.0-85.0 | 4.10 | * | 12.8 | 1.0 | 59.4 | 2.77 | LM LTBRN FNXLN SL/DOL |
| 47 | 5485.0-86.0 | 5.30 | * | 16.3 | 9.5 | 58.4 | 2.79 | LM LTBRN FNXLN SL/DOL |
| 48 | 5486.0-87.0 | 1.20 | 1.20 | 10.2 | 0.7 | 54.1 | 2.71 | LM LTBRN FNXLN OOM |
| 49 | 5487.0-88.0 | 1.10 | 1.00 | 5.7 | 4.4 | 37.4 | 2.76 | LM GRY VFXLN SL/ANHY |
| 50 | 5488.0-89.0 | 0.29 | 0.28 | 4.8 | 0.0 | 31.4 | 2.75 | LM GRY VFXLN SL/ANHY |
| 51 | 5489.0-90.0 | 0.31 | 0.19 | 3.2 | 0.0 | 40.7 | 2.75 | LM GRY VFXLN SL/ANHY |
| 52 | 5490.0-91.0 | 2.10 | 0.75 | 2.6 | 0.0 | 47.5 | 2.76 | LM GRY VFXLN SL/ANHY |
| 53 | 5491.0-92.0 | 0.43 | 0.17 | 3.7 | 0.0 | 84.1 | 2.76 | LM GRY VFXLN SL/ANHY |
| 54 | 5492.0-93.0 | 0.04 | * | 2.0 | 0.0 | 28.8 | 2.76 | LM GRY VFXLN SL/ANHY |
| 55 | 5493.0-94.0 | 0.10 | 0.06 | 1.4 | 0.0 | 61.0 | 2.77 | LM GRY VFXLN SL/ANHY |
| 56 | 5494.0-95.0 | 0.40 | 0.35 | 1.6 | 0.0 | 59.0 | 2.75 | LM GRY VFXLN SL/ANHY |

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

DALLAS, TEXAS

CELSIUS ENERGY COMPANY
PATTERSON UNIT #5DATE : 20-JUL-1984
FORMATION : ISMAYFILE NO : 3803-003332
ANALYSTS : DS/EV

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH | PERM. TO AIR (MD) MAXIMUM | AIR (MD) 90 DEG | POR. He | FLUID SATS. OIL | WTR | GRAIN DEN | DESCRIPTION |
|---------------|-------------|---------------------------|-----------------|---------|-----------------|------|-----------|---------------------------------|
| 57 | 5495.0-96.0 | 0.10 | 0.10 | 1.1 | 0.0 | 67.6 | 2.74 | LM GRY VFXLN SL/ANHY |
| 58 | 5496.0-97.0 | 0.09 | 0.06 | 1.2 | 0.0 | 61.4 | 2.73 | LM GRY VFXLN SL/ANHY |
| 59 | 5497.0-98.0 | 0.09 | 0.07 | 2.1 | 0.0 | 58.2 | 2.75 | LM GRY VFXLN SL/ANHY |
| 60 | 5498.0-99.0 | 0.06 | * | 1.5 | 0.0 | 58.9 | 2.74 | LM GRY VFXLN SL/ANHY |
| 61 | 5499.0-00.0 | 0.02 | * | 1.4 | 0.0 | 65.0 | 2.75 | LM GRY VFXLN SL/ANHY |
| 62 | 5500.0-01.0 | 0.01 | * | 1.2 | 0.0 | 76.8 | 2.75 | LM GRY VFXLN SL/ANHY |
| 63 | 5501.0-02.0 | 0.01 | * | 1.8 | 0.0 | 45.5 | 2.75 | LM GRY VFXLN SL/ANHY |
| 64 | 5502.0-03.0 | 0.03 | * | 6.7 | 0.0 | 65.9 | 2.83 | DOL LTBRN VFXLN SL/CALC SL/ANHY |
| 65 | 5503.0-04.0 | 0.02 | * | 7.4 | 0.0 | 54.9 | 2.81 | DOL LTBRN VFXLN SL/CALC SL/ANHY |
| | 5504.0-11.0 | | | | | | | LM SL/SHY -- NO ANALYSIS |
| | 5511.0-28.0 | | | | | | | SHALE -- NO ANALYSIS |

** INDICATES FRACTURE PERMEABILITY

* SAMPLE NOT SUITABLE FOR FULL DIAMETER ANALYSIS

CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

DALLAS, TEXAS

CELSIUS ENERGY COMPANY
PATTERSON UNIT #5

DATE : 20-JUL-1984
FORMATION : ISMAY

FILE NO. : 3803-003332
ANALYSTS : DS/EV

*** CORE SUMMARY AND CALCULATED RECOVERABLE OIL ***

DEPTH INTERVAL: 5439.0 TO 5504.0

FEET OF CORE ANALYZED : 65.0 FEET OF CORE INCLUDED IN AVERAGES: 65.0

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --

| | | | |
|-------------------------------------|---|--------------|----------------------------|
| PERMEABILITY HORIZONTAL RANGE (MD.) | : | 0.00 TO 38. | (UNCORRECTED FOR SLIPPAGE) |
| HELIUM POROSITY RANGE (%) | : | 0.9 TO 100.0 | |
| OIL SATURATION RANGE (%) | : | 0.0 TO 100.0 | |
| WATER SATURATION RANGE (%) | : | 0.0 TO 100.0 | |

SHALE SAMPLES EXCLUDED FROM AVERAGES.

| | | | | |
|---------------------------------------|---|-------------------------------------|---|----------|
| AVERAGE PERMEABILITY (MILLIDARCIES) | | AVERAGE TOTAL WATER SATURATION | : | 43.3 |
| ARITHMETIC PERMEABILITY | : | (PERCENT OF PORE SPACE) | | |
| GEOMETRIC PERMEABILITY | : | | | |
| HARMONIC PERMEABILITY | : | AVERAGE CONNATE WATER SATURATION | : | (E) 30.0 |
| | | (PERCENT OF PORE SPACE) | | |
| PRODUCTIVE CAPACITY (MILLIDARCY-FEET) | | | | |
| ARITHMETIC CAPACITY | : | OIL GRAVITY (API) | : | (E) 43.0 |
| GEOMETRIC CAPACITY | : | | | |
| HARMONIC CAPACITY | : | ORIGINAL FORMATION VOLUME FACTOR | : | (E) 1.30 |
| | | (BBLs SATURATED OIL/STOCK-TANK BBL) | | |
| AVERAGE POROSITY (PERCENT) | : | ORIGINAL STOCK-TANK OIL IN PLACE | : | (C) 326. |
| | | (BARRELS PER ACRE-FOOT) | | |
| AVERAGE RESIDUAL OIL SATURATION | : | | | |
| (PERCENT OF PORE SPACE) | : | | | |

=====

INTERPRETATION OF DATA

5439-5455 NON PRODUCTIVE DUE TO LOW POROSITY
5455-5481 OIL PRODUCTIVE WHERE PERMEABLE
5481-5504 WATER PRODUCTIVE WHERE PERMEABLE

=====

(C) CALCULATED (E) ESTIMATED (M) MEASURED (*) REFER TO ATTACHED LETTER.

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CELSIUS ENERGY COMPANY
PATTERSON UNIT #5

DATE : 20-JUL-1984
FORMATION : ISMAY

FILE NO. : 3803-003332
ANALYSTS : DS;EV

*** CORE SUMMARY AVERAGES FOR 1 ZONE ***

DEPTH INTERVAL: 5439.0 TO 5504.0

FEET OF CORE ANALYZED : 65.0 FEET OF CORE INCLUDED IN AVERAGES: 65.0

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --

PERMEABILITY MAXIMUM RANGE (MD.) : 0.00 TO 38. (UNCORRECTED FOR SLIPPAGE)
HELIUM POROSITY RANGE (%) : 0.9 TO 100.0
OIL SATURATION RANGE (%) : 0.0 TO 100.0
WATER SATURATION RANGE (%) : 0.0 TO 100.0

SHALE SAMPLES EXCLUDED FROM AVERAGES.

AVERAGES FOR DEPTH INTERVAL: 5439.0 TO 5504.0

| | | | |
|-------------------------------------|--------|---------------------------------------|--------|
| AVERAGE PERMEABILITY (MILLIDARCIES) | | PRODUCTIVE CAPACITY (MILLIDARCY-FEET) | |
| ARITHMETIC PERMEABILITY | : 3.8 | ARITHMETIC CAPACITY | : 248. |
| GEOMETRIC PERMEABILITY | : 0.62 | GEOMETRIC CAPACITY | : 40. |
| HARMONIC PERMEABILITY | : 0.06 | HARMONIC CAPACITY | : 4.1 |
| GEOMETRIC MAXIMUM & 90 DEG PERM. | : 0.22 | GEOMETRIC MAXIMUM & 90 DEG CAPACITY: | 15. |
| AVERAGE POROSITY (PERCENT) | : 7.8 | AVERAGE TOTAL WATER SATURATION | : 43.3 |
| | | (PERCENT OF PORE SPACE) | |
| AVERAGE RESIDUAL OIL SATURATION | : 5.7 | AVERAGE CONNATE WATER SATURATION ** | : 40.9 |
| (PERCENT OF PORE SPACE) | | (PERCENT OF PORE SPACE) | |

** ESTIMATED FROM TOTAL
WATER SAUTRATION.

PERMEABILITY VS POROSITY

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

AIR PERMEABILITY : MD - HORIZONTAL (UNCORRECTED FOR SLIPPAGE)
 POROSITY : PERCENT (HELIUM)

| DEPTH INTERVAL | RANGE & SYMBOL | PERMEABILITY | | POROSITY | | POROSITY AVERAGE | PERMEABILITY AVERAGES | | |
|-------------------|-------------------|--------------|---------|----------|------|---------------------|-----------------------|----------|-----------|
| | | MINIMUM | MAXIMUM | MIN. | MAX. | | ARITHMETIC | HARMONIC | GEOMETRIC |
| 5439.0 - 5504.0 | 1 (+) | 0.010 | 40.0 | 0.0 | 25.0 | 7.8 | 3.8 | 0.06 | 0.62 |

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
FIELD : PATTERSON

WELL : PATTERSON UNIT #5
COUNTY, STATE: SAN JUAN, UTAH

AIR PERMEABILITY : MD. (HORIZONTAL) RANGE USED 0.001 TO 38.
POROSITY : PERCENT (HELIUM) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS : 5439.0 - 5504.0 INTERVAL LENGTH : 65.0
FEET ANALYZED IN ZONE : 65.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

| POROSITY AVERAGE | PERMEABILITY AVERAGES | | |
|---------------------|-----------------------|----------|-----------|
| | ARITHMETIC | HARMONIC | GEOMETRIC |
| 7.8 | 3.8 | 0.06 | 0.62 |

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

GROUPING BY POROSITY RANGES

| POROSITY RANGE | FEET IN RANGE | AVERAGE POROSITY | AVERAGE PERM. (GEOM.) | (ARITH) | FREQUENCY (PERCENT) | CUMULATIVE FREQUENCY (%) |
|-------------------|------------------|---------------------|--------------------------|---------|------------------------|-----------------------------|
| 0.0 - 2.0 | 11.0 | 1.4 | 0.033 | 0.075 | 16.9 | 16.9 |
| 2.0 - 4.0 | 12.0 | 3.0 | 0.199 | 0.558 | 18.5 | 35.4 |
| 4.0 - 6.0 | 9.0 | 4.9 | 0.999 | 1.8 | 13.8 | 49.2 |
| 6.0 - 8.0 | 7.0 | 6.9 | 0.138 | 0.467 | 10.8 | 60.0 |
| 8.0 - 10.0 | 4.0 | 8.9 | 0.822 | 1.1 | 6.2 | 66.2 |
| 10.0 - 12.0 | 4.0 | 10.8 | 1.9 | 2.3 | 6.2 | 72.3 |
| 12.0 - 14.0 | 5.0 | 12.7 | 3.7 | 4.5 | 7.7 | 80.0 |
| 14.0 - 16.0 | 5.0 | 14.7 | 7.9 | 8.5 | 7.7 | 87.7 |
| 16.0 - 18.0 | 3.0 | 16.7 | 7.7 | 8.3 | 4.6 | 92.3 |
| 18.0 - 20.0 | 3.0 | 18.6 | 18. | 20. | 4.6 | 96.9 |
| 20.0 - 22.0 | 1.0 | 20.2 | 37. | 37. | 1.5 | 98.5 |
| 22.0 - 24.0 | 1.0 | 22.2 | 20. | 20. | 1.5 | 100.0 |

TOTAL NUMBER OF FEET = 65.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

GROUPING BY PERMEABILITY RANGES

| PERMEABILITY RANGE | FEET IN RANGE | AVERAGE FERM. (GEOM.) | AVERAGE FERM. (ARITH) | AVERAGE POROSITY | FREQUENCY (PERCENT) | CUMULATIVE FREQUENCY (%) |
|--------------------|---------------|-----------------------|-----------------------|------------------|---------------------|--------------------------|
| 0.010 - 0.020 | 7.0 | 0.010 | 0.010 | 2.5 | 10.8 | 10.8 |
| 0.020 - 0.039 | 4.0 | 0.022 | 0.023 | 4.8 | 6.2 | 16.9 |
| 0.039 - 0.078 | 2.0 | 0.049 | 0.050 | 1.8 | 3.1 | 20.0 |
| 0.078 - 0.156 | 5.0 | 0.096 | 0.096 | 1.9 | 7.7 | 27.7 |
| 0.156 - 0.312 | 4.0 | 0.273 | 0.275 | 4.0 | 6.2 | 33.8 |
| 0.312 - 0.625 | 10.0 | 0.407 | 0.409 | 5.8 | 15.4 | 49.2 |
| 0.625 - 1.250 | 6.0 | 1.0 | 1.1 | 8.2 | 9.2 | 58.5 |
| 1.250 - 2.500 | 6.0 | 2.2 | 2.2 | 4.9 | 9.2 | 67.7 |
| 2.500 - 5.000 | 7.0 | 3.6 | 3.7 | 11.6 | 10.8 | 78.5 |
| 5.- 10. | 6.0 | 6.9 | 7.0 | 14.2 | 9.2 | 87.7 |
| 10.- 20. | 4.0 | 12. | 12. | 14.9 | 6.2 | 93.8 |
| 20.- 40. | 4.0 | 26. | 27. | 20.0 | 6.2 | 100.0 |

TOTAL NUMBER OF FEET = 65.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

POROSITY-FEET OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

| <u>POROSITY CUT OFF</u> | <u>FEET LOST</u> | <u>CAPACITY LOST (%)</u> | <u>FEET REMAINING</u> | <u>CAPACITY REMAINING (%)</u> | <u>ARITH MEAN</u> | <u>MEDIAN</u> |
|-----------------------------|----------------------|------------------------------|---------------------------|-----------------------------------|-----------------------|---------------|
| 0.0 | 0.0 | 0.0 | 65.0 | 100.0 | 7.8 | 6.1 |
| 2.0 | 11.0 | 3.0 | 54.0 | 97.0 | 9.1 | 7.7 |
| 4.0 | 23.0 | 10.1 | 42.0 | 89.9 | 10.9 | 10.5 |
| 6.0 | 32.0 | 18.8 | 33.0 | 81.2 | 12.5 | 12.6 |
| 8.0 | 39.0 | 28.3 | 26.0 | 71.7 | 14.0 | 14.0 |
| 10.0 | 43.0 | 35.4 | 22.0 | 64.6 | 14.9 | 14.8 |
| 12.0 | 47.0 | 43.9 | 18.0 | 56.1 | 15.8 | 15.6 |
| 14.0 | 52.0 | 56.4 | 13.0 | 43.6 | 17.0 | 17.0 |
| 16.0 | 57.0 | 70.8 | 8.0 | 29.2 | 18.5 | 18.7 |
| 18.0 | 60.0 | 80.7 | 5.0 | 19.3 | 19.6 | |
| 20.0 | 63.0 | 91.7 | 2.0 | 8.3 | 21.2 | 22.0 |
| 22.0 | 64.0 | 95.6 | 1.0 | 4.4 | 22.2 | |
| 24.0 | 65.0 | 100.0 | 0.0 | 0.0 | | |

TOTAL STORAGE CAPACITY IN POROSITY-FEET = 507.9

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

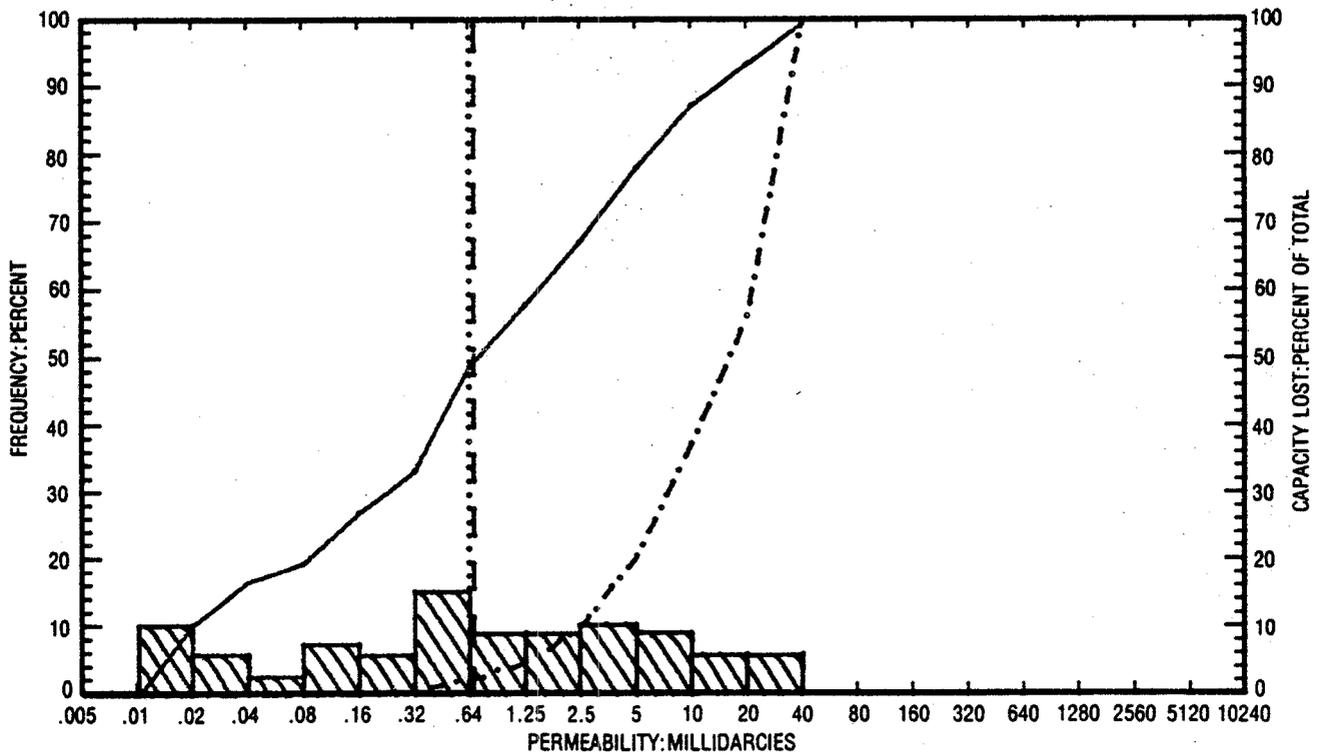
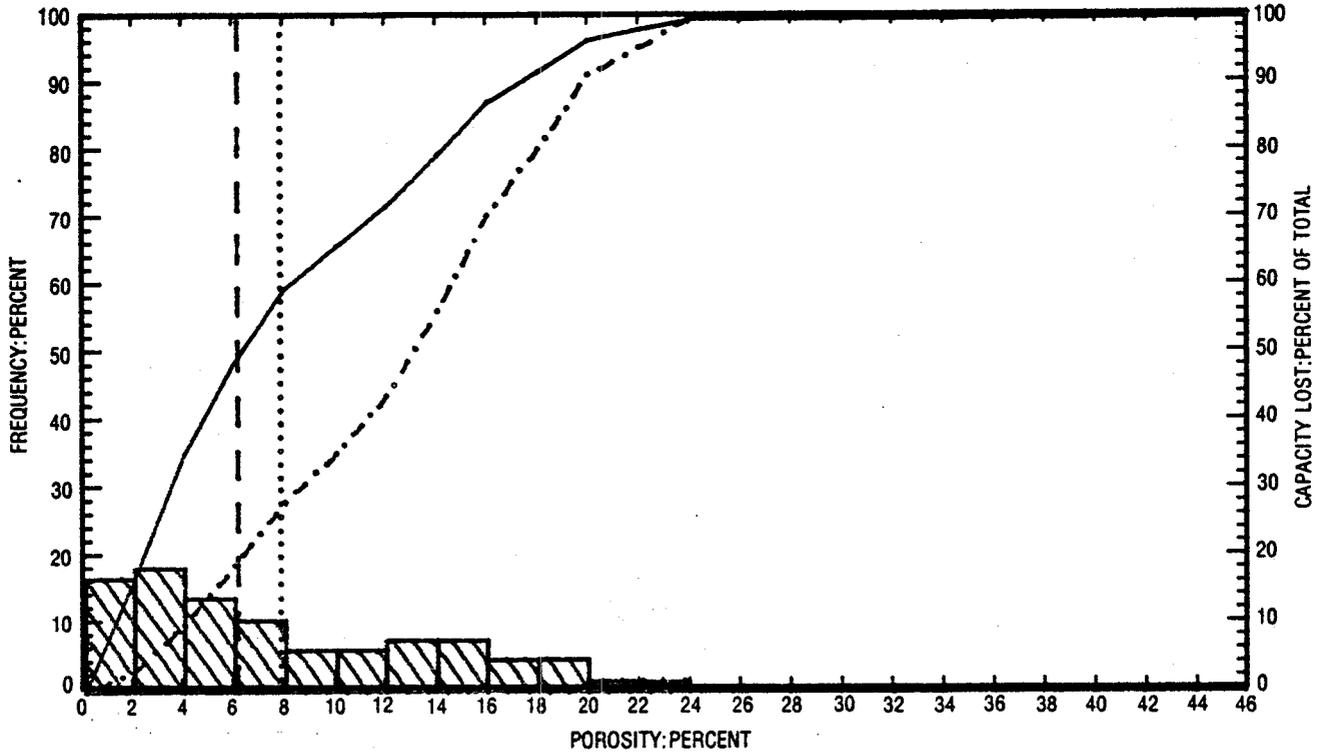
COMPANY: CELSIUS ENERGY COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT #5
 COUNTY, STATE: SAN JUAN, UTAH

MILLIDARCY-FEET OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

| PERMEABILITY CUT OFF | FEET LOST | CAPACITY LOST (%) | FEET REMAINING | CAPACITY REMAINING (%) | GEOM MEAN | MEDIAN |
|-------------------------|--------------|----------------------|-------------------|---------------------------|--------------|--------|
| 0.005 | 0.0 | 0.0 | 65.0 | 100.0 | 0.62 | 0.66 |
| 0.010 | 0.0 | 0.0 | 65.0 | 100.0 | 0.63 | 0.66 |
| 0.020 | 7.0 | 0.0 | 58.0 | 100.0 | 1.02 | 0.99 |
| 0.039 | 11.0 | 0.1 | 54.0 | 99.9 | 1.36 | 1.25 |
| 0.078 | 13.0 | 0.1 | 52.0 | 99.9 | 1.54 | 1.40 |
| 0.156 | 18.0 | 0.3 | 47.0 | 99.7 | 2.07 | 1.87 |
| 0.312 | 22.0 | 0.7 | 43.0 | 99.3 | 2.50 | 2.36 |
| 0.625 | 32.0 | 2.4 | 33.0 | 97.6 | 4.34 | 3.90 |
| 1.250 | 38.0 | 4.9 | 27.0 | 95.1 | 5.96 | 5.30 |
| 2.500 | 44.0 | 10.2 | 21.0 | 89.8 | 7.96 | 7.49 |
| 5. | 51.0 | 20.6 | 14.0 | 79.4 | 11.76 | 11.89 |
| 10. | 57.0 | 37.6 | 8.0 | 62.4 | 17.47 | 20.00 |
| 20. | 61.0 | 56.5 | 4.0 | 43.5 | 26.27 | |
| 40. | 65.0 | 100.0 | 0.0 | 0.0 | | |

TOTAL FLOW CAPACITY IN MILLIDARCY-FEET (ARITHMETIC) = 248.39



PERMEABILITY AND POROSITY HISTOGRAMS

CELSIUS ENERGY COMPANY
 PATTERSON UNIT #5
 PATTERSON
 SAN JUAN, UTAH

LEGEND
 ARITHMETIC MEAN POROSITY
 GEOMETRIC MEAN PERMEABILITY
 MEDIAN VALUE -----
 CUMULATIVE FREQUENCY _____
 CUMULATIVE CAPACITY LOST -.-.-.-

CORE LABORATORIES, INC.



Reply To:
10703 E. BETHANY DRIVE
AURORA, COLORADO 80014

September 11, 1984

Celsius Energy Company
Attention: Mr. Nick Thomaidis
P.O. Box 2329
Farmington, New Mexico 87499

RE: Patterson #5 Well
Spargo #1-36 Well

Dear Mr. Thomaidis:

Recently we mailed you and your partners the final reports on the Patterson #5 Well in San Juan County, Utah and the Spargo #1-36 Well in Dolores County, Colorado. It has come to my attention that the tabular data listing the Full Diameter Analysis (Boyle's Law Technique) was not included on these two wells. Please accept the revised final reports which include all data pertaining to the wells.

Thank you for your patience in this matter. We regret any inconvenience this may have caused you and your partners.

Sincerely,
CORE LABORATORIES, INC.

A handwritten signature in cursive script, appearing to read "Christy A. Rubano".

Christy A. Rubano
Administrative Assistant

Enclosures

cc: Celsius Energy Company
Distribution List of Partners

C O R R E C T E D
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

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

5. LEASE DESIGNATION AND SERIAL NO.

UT-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Patterson

8. FARM OR LEASE NAME

Unit

9. WELL NO.

5

10. FIELD AND POOL, OR WILDCAT

Patterson Unit

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

4-38S-25E

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

2. NAME OF OPERATOR

Wexpro Company

3. ADDRESS OF OPERATOR

P. O. Box 458, Rock Springs, WY 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface SW SW, 678' FSL, 664' FWL

At top prod. interval reported below

At total depth

14. PERMIT NO. DATE ISSUED

43-037-31019

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

15. DATE SPUDDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 19. ELEV. CASINGHEAD

7-8-84

7-25-84

8-2-84

GR 5221

KB 5234'

20. TOTAL DEPTH, MD & TVD 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 25. WAS DIRECTIONAL SURVEY MADE

5650'

5605.51'

0-5650'

5440'-5468' - Upper Ismay

No

26. TYPE ELECTRIC AND OTHER LOGS RUN
Sonic, LD-CNL, DIL, Electromagnetic Propagation, Composite Fracture Id.

27. WAS WELL CORRED
Yes

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

| CASING SIZE | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|-------------|-----------------|----------------|-----------|--------------------------------|---------------|
| 9-5/8 | 36 | 1569 | 12-1/4 | 325 sx Howco Light, 180 sx Reg | --- |
| 5-1/2 | 17 | 5642.37 | 8-3/4 | 735 sx 50-50 Pozmix w/2% gel | --- |

29. LINER RECORD

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

30. TUBING RECORD

| SIZE | DEPTH SET (MD) | PACKER SET (MD) |
|-------|----------------|-----------------|
| 2-7/8 | 5436.29 | |

31. PERFORATION RECORD (Interval, size and number)

5440'-5468' - 4 holes per foot

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

| DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED |
|---------------------|----------------------------------|
| 5440'-5468' | 4000 gallons 28% HCL acid |

33.* PRODUCTION

| | | | | | | | |
|-----------------------|-----------------|--|-------------------------|----------|------------|------------------------------------|---------------|
| DATE FIRST PRODUCTION | | PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) | | | | WELL STATUS (Producing or shut-in) | |
| 8-31-84 | | Pumping | | | | Producing | |
| DATE OF TEST | HOURS TESTED | CHOKE SIZE | PROD'N. FOR TEST PERIOD | OIL—BBL. | GAS—MCF. | WATER—BBL. | GAS-OIL RATIO |
| 8/31-9/1/84 | 48 | --- | → | 91 | 152 | 359 | 1670 |
| FLOW. TUBING PRESS. | CASING PRESSURE | CALCULATED 24-HOUR RATE | OIL—BBL. | GAS—MCF. | WATER—BBL. | OIL GRAVITY-API (CORR.) | |
| 60 | 60 | → | 45 | 76 | 179 | --- | |

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

Vented and used for fuel

TEST WITNESSED BY

Eric Marsh

35. LIST OF ATTACHMENTS

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

SIGNED James M. Kelly

TITLE Director, Petroleum Eng.

DATE 9-14-84

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

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. | NAME | TOP | |
|-----------|------|--------|---|--|--|------------------|
| | | | | | MEAS. DEPTH | TRUE VERT. DEPTH |
| Ismay | 5414 | 5468 | DST #1: TD 5468', packers 5414' & 5420'. IO 30 mins, ISI 60 mins, FO 90 mins, FSI 843 mins, 1 st open 2" wtr in bucket, inc to strong in 5 mins, NGTS; 2nd open strong, bottom of bucket, GTS in 11 mins, NETG, rec 463' gas cut mud, Res 1.95%, 270' gas cut wtr, Res 1.14%, sample chamber rec 1200 cc oil, 4.06 cc gas, 1450 psig, IHHP 2801, IOFP's 54-188, ISIP 1856, FOFP's 161-296, FSIP 2072, FHHP 2801, BHT 130°F. | Morrison Entrada Carmel Navajo Chinle Shinarump Cutler Honaker Trail Paradox Ismay Lower Ismay B Zone Shale | Surface 600 760 790 1,569 2,360 2,516 4,398 4,893 5,430 5,580 5,630 | |

WEXPRO COMPANY
PATTERSON UNIT WELL #5
SW/SW, SECTION 4-T38S-R25E
SAN JUAN COUNTY - UTAH

GEOLOGIC REPORT
BY
ART CURTIS
ROCKY MOUNTAIN GEO-ENGINEERING COMPANY

T A B L E O F C O N T E N T S

| | |
|---|----|
| WELL SUMMARY----- | 3 |
| WELL CHRONOLOGY----- | 4 |
| BIT RECORD----- | 5 |
| DEVIATION SURVEYS----- | 6 |
| MUD RECORD----- | 7 |
| SHOW REPORTS----- | 8 |
| DRILL STEM TEST----- | 13 |
| CORE DESCRIPTIONS----- | 14 |
| SAMPLE DESCRIPTIONS----- | 15 |
| FORMATION TOPS----- | 22 |
| GEOLOGIC SUMMARY & ZONES OF INTEREST----- | 23 |

WELL SUMMARY

OPERATOR: WEXPRO COMPANY
WELL NAME: PATTERSON UNIT WELL #5
LOCATION: SW/SW, SECTION 4, T38S, R25E
AREA: PATTERSON CANYON
COUNTY: SAN JUAN
STATE: UTAH
ELEVATION: 5221' GL - 5233' KB
SPUD DATE: 7/8/84
COMPLETION DATE: 7/24/84
TOTAL DEPTH 5660'
HOLE SIZE: 12¼" TO 1580'; 8 3/4" TO T.D.
CASING RECORD: 9 5/8" 36# TO 1569'; 5½" TO T.D.
CONTRACTOR: ARAPAHOE DRILLING, RIG #2
TOOL PUSHER: LLOYD SALVESON
DRILLING FOREMAN: BOB MASER
WELL SITE GEOLOGY: ROCKY MOUNTAIN GEO-ENGINEERING COMPANY
GEOLOGIST: ART CURTIS
ELECTRIC LOGGING: SCHLUMBERGER, FARMINGTON, NM
LOGS RUN: DIL-GR-SONIC, FDC-CNL-EPT
MUD COMPANY: BAROID
ENGINEER: KEN PENFIELD
TESTERS: HALLIBURTON
ENGINEER: HOWARD BELL
CORING: CHRISTENSEN, FARMINGTON, NM
CORE ANALYSIS: CORE LABS, FARMINGTON, NM
OBJECTIVES: UPPER ISMAY POROSITY
STATUS: RUN PRODUCTION CASING

WEXPRO COMPANY
 PATTERSON UNIT #1
 SW/SW SECTION 4-T38S-R25E
 SAN JUAN CO. - UTAH

WELL CHRONOLOGY

| DATE & # DAYS | MDNT DEPTH | FTG/ DAY | DAILY OPERATIONS |
|------------------|---------------|-------------|---|
| 7/12/84 (1) | 2563 | 729 | 2-MAN LOGGING UNIT W/GEOLOGIST RIGGED UP & LOGGING @ 12:00 AM - DRLG AHEAD IN CUTLER FM |
| 7/13/84 (2) | 3292 | 563 | DRLG AHEAD IN CUTLER - WATER FLOW ON CONN @ 3463', APPROXIMATELY 1½" STREAM - DRLG AHEAD |
| 7/14/84 (3) | 3855 | 369 | DRLG AHEAD IN CUTLER TO 4020' - TOH FOR BIT #2 - TIH W/RR #3 - DRLG AHEAD |
| 7/15/84 (4) | 4224 | 373 | DRLG AHEAD IN CUTLER - TOP HONAKER TRAIL @ 4360' (SAMPLE TOP) - DRLG AHEAD |
| 7/16/84 (5) | 4597 | 313 | DRLG AHEAD IN HONAKER TRAIL - TOP PARADOX FM @ 4880' (SAMPLE TOP) |
| 7/17/84 (6) | 4910 | 148 | DRLG AHEAD IN PARADOX - TOH FOR RR#3 @ 5016' - TIH W/RR#4 - DRLG - BIT LOCKED UP - TOH & TIH W/RR #5 |
| 7/18/84 (7) | 5058 | 172 | FINISH TIH - DRLG AHEAD IN PARADOX FM |
| 7/19/84 (8) | 5230 | 159 | DRLG AHEAD IN PARADOX - REPAIR DRUM CLUTCH - DRLG |
| 7/20/84 (9) | 5389 | 67 | DRLG AHEAD - TOP 2ND ISMAY SHALE @ 5391' - DRLG AHEAD TO CORE PT #1 @ 5403' - CIRC BOTTOMS UP - TOH & STRAP OUT - SLM 5403' = 5408' - TIH W/CORE BIT & CORE |
| 7/21/84 (10) | 5456 | 12 | CORE TO 5468' - PULL CORE #1 & LAY DN - W/O TESTERS - PU DST #1 - TIH - RUN DST #1 - SHUT IN OVERNITE |
| 7/22/84 (11) | 5468 | 37 | SHUT IN DST #1 - PULL DST #1 @ DAYBREAK - LAY DN DST TOOL - PU CORE BARREL - TIH FOR CORE #2 & CORE |
| 7/23/84 (12) | 5505 | 103 | CORE TO 5528' - PULL CORE #2 - LAY DN CORE - TIH W/RR #8 - DRLG AHEAD |
| 7/24/84 (13) | 5608 | 52 | DRLG AHEAD TO T.D. @ 5660' - CIRC FOR E-LOGS - TOH FOR LOGS - GEOLOGIST & LOGGING UNIT RELEASED |

SHOW REPORT

WELL PATTERSON #5 AREA PATTERSON CANYON Co. SAN JUAN STATE UTAH

SHOW NO. 1 from 4849' to 4858' P.T.D. 4871'

DRILLING BREAK - from 4849 to 4858. GROSS 9 ft, NET 9 ft.

LITHOLOGY: Type - SS LS DOLO SH SLTSTN OTHER
% (X) () () () ()

Remarks SS frost-wh ltgn f-mg sbang-sbrd m-wcmt calc mica frm

POROSITY: (Matrix) Est. % <10
(Fracture) Evidence for fracturing

STAIN: Even, Patchy, Pin Point, (Other)
Light, Dark, "Live", "Dead"
% in total cuttings _____; % in prob. reservoir lithology _____
Stain on fracture faces _____

FLUORESCENCE: Color NONE; % in total ctgs _____

CUT (Chlorothene): NONE

| PERIOD | DT | MUD GAS | CUTTINGS GAS | GAS CHROMATOGRAPH | | | | | | | |
|--------|----|---------|--------------|-------------------|----------------|----------------|----------------|----------------|----------------|-----------------|------|
| | | | | C ₁ | C ₂ | C ₃ | C ₄ | C ₅ | C ₆ | CO ₂ | Etc. |
| | | UNITS | UNITS | | | | | | | | |
| Before | 4½ | 1 | | 90 | TR | | | | | | |
| During | 3 | 13 | | 1000 | 78 | TR | | | | | |
| After | 5 | 1 | | 95 | TR | | | | | | |

RECOGNIZED BY: JAY CARTER Time 8:30 ~~XXX~~ P.M. Date 7/16/84

CALLED PAUL MATHENY Time 8:45 ~~XXX~~ P.M. Date 7/16

REMARKS: CORRELATED W/SHOW #3 ON PATTERSON UNIT #3 from 4956-60'

SHOW REPORT

WELL PATTERSON UNIT #5 AREA PATTERSON CANYON CO. SAN JUAN STATE UTAH

SHOW NO. 2 from 4970 to 4985 P.T.D. 4993

DRILLING BREAK - from 4970 to 4985. GROSS 15 ft, NET 15 ft.

LITHOLOGY: Type - SS LS DOLO SH SLTSTN OTHER
% () (X) () (X) ()
Remarks LS gy-dkgy offwh-buff micxl arg w/SH m-dkgy calc lmy

POROSITY: (Matrix) Est. % NIL
(Fracture) Evidence for fracturing NONE

STAIN: Even, Patchy, Pin Point, _____ (Other)
Light, Dark, "Live", "Dead"
% in total cuttings _____; % in prob. reservoir lithology _____
Stain on fracture faces _____

FLUORESCENCE: Color NONE; % in total ctgs _____

CUT (Chlorothene): NONE

| PERIOD | DT | MUD GAS | CUTTINGS GAS | GAS CHROMATOGRAPH | | | | | | | |
|--------|-----|---------|--------------|-------------------|----------------|----------------|----------------|----------------|----------------|-----------------|------|
| | | | | C ₁ | C ₂ | C ₃ | C ₄ | C ₅ | C ₆ | CO ₂ | Etc. |
| | | UNITS | UNITS | | | | | | | | |
| Before | 5 | 1 | | 140 | TR | | | | | | |
| During | 6-8 | 18 | | 2440 | 162 | 55 | TR | | | | |
| After | 8 | 10 | | 520 | 105 | 45 | TR | | | | |

RECOGNIZED BY: ART CURTIS Time 6:20 ~~XXX~~ A.M. Date 7/17/84

CALLED PAUL MATHENY Time 8:10 ~~XXX~~ A.M. Date 7/17

REMARKS: GAS INCR TO 18 UNITS FROM 4970-75', DROPPING TO 3 U, INCR TO 14 U, 4980-85 DROPPING BACK @ REPORT TIME TO 10 U

SHOW REPORT

WELL PATTERSON UNIT #5 AREA PATTERSON CANYON CO. SAN JUAN STATE UTAH

SHOW NO. 3 from 5034 to 5048 P.T.D. 5110

DRILLING BREAK - from 5034 to 5048 GROSS 14 ft, NET 3 ft.

LITHOLOGY: Type - SS LS DOLO SH SLTSTN OTHER _____
% (X) () () () ()
Remarks SS FRST-VLTGN WH-LIGY VF-MG SBANG-SBRD M-WCMT CALC

POROSITY: (Matrix) Est. % < 10
(Fracture) Evidence for fracturing NONE

STAIN: Even, Patchy, Pin Point, _____ (Other)
Light, Dark, "Live", "Dead"
% in total cuttings _____; % in prob. reservoir lithology _____
Stain on fracture faces _____

FLUORESCENCE: Color NONE; % in total ctgs _____

CUT (Chlorothene): NONE

| PERIOD | DT | MUD GAS | CUTTINGS GAS | GAS CHROMATOGRAPH | | | | | | | |
|--------|------|---------|--------------|-------------------|----------------|----------------|----------------|----------------|----------------|-----------------|------|
| | | | | C ₁ | C ₂ | C ₃ | C ₄ | C ₅ | C ₆ | CO ₂ | Etc. |
| | | UNITS | UNITS | | | | | | | | |
| Before | 6 | 4 | | 150 | 30 | 20 | TR | | | | |
| During | 2-3½ | 8 | | 530 | 105 | 46 | TR | | | | |
| After | 10 | 5 | | 310 | 25 | TR | TR | | | | |

RECOGNIZED BY: JAY CARTER Time 7:45 ~~P.M.~~ Date 7/17/84

CALLED PAUL MATHENY Time 8:00 ~~P.M.~~ A.M. Date 7/17/84

REMARKS:

SHOW REPORT

WELL PATTERSON UNIT #5 AREA PATTERSON CANYON CO. SAN JUAN STATE UTAH

SHOW NO. 4 from 5113 to 5116 P.T.D. 5129

DRILLING BREAK - from 5113 to 5116. GROSS 3 ft, NET 3 ft.

LITHOLOGY: Type - SS LS DOLO SH SLTSTN OTHER COAL
% () () () () ()
Remarks COAL blk shly conch frac brit-sft w/CHT amber dkgy /sm trnsl pyr ip
brit-vhd

POROSITY: (Matrix) Est. % _____
(Fracture) Evidence for fracturing _____

STAIN: Even, Patchy, Pin Point, _____ (Other)
Light, Dark, "Live", "Dead"
% in total cuttings _____; % in prob. reservoir lithology _____
Stain on fracture faces _____

FLUORESCENCE: Color NONE; % in total ctgs _____

CUT (Chlorothene): NONE

| PERIOD | DT | MUD GAS | CUTTINGS GAS | GAS CHROMATOGRAPH | | | | | | | |
|--------|-----|---------|--------------|-------------------|----------------|----------------|----------------|----------------|----------------|-----------------|------|
| | | | | C ₁ | C ₂ | C ₃ | C ₄ | C ₅ | C ₆ | CO ₂ | Etc. |
| | | UNITS | UNITS | | | | | | | | |
| Before | 7-8 | 16 | | 518 | 243 | 189 | 70 | | | | |
| During | 5-6 | 75 | | 2775 | 1295 | 730 | 295 | | | | |
| After | 7-8 | 13 | | 444 | 216 | 162 | 66 | | | | |

RECOGNIZED BY: ART CURTIS Time 9:30 ~~PM~~ A.M. Date 7/18/84

CALLED PAUL MATHENY Time 10:00 ~~PM~~ A.M. Date 7/18

REMARKS: SHARP GAS INCR THRU ZONE

SHOW REPORT

WELL PATTERSON UNIT #5 AREA PATTERSON CANY CO. SAN JUAN STATE UT

SHOW NO. 5 from 5442 to 5468 P.T.D. 5468

DRILLING BREAK - from 5442 to 5468. GROSS 26 ft, NET 14 ft.

LITHOLOGY: Type - SS LS DOLO SH SLTSTN OTHER
% () (X) () () ()
Remarks LS ltqy f-mxl scat crin w/DOL gy-brn vfxl crin good algal tex

POROSITY: (Matrix) Est. % 5
(Fracture) Evidence for fracturing NONE

STAIN: Even, Patchy, Pin Point, _____ (Other)
Light, Dark, "Live", "Dead"
% in total cuttings 75; % in prob. reservoir lithology 75
Stain on fracture faces _____

FLUORESCENCE: Color YEL-GOLD; % in total ctgs 90%

CUT (Chlorothene): FAST STRMG MLKY

| PERIOD | DT | MUD GAS UNITS | CUTTINGS GAS UNITS | GAS CHROMATOGRAPH | | | | | | | | |
|--------|------|------------------|-----------------------|-------------------|----------------|----------------|----------------|----------------|----------------|-----------------|------|--|
| | | | | C ₁ | C ₂ | C ₃ | C ₄ | C ₅ | C ₆ | CO ₂ | Etc. | |
| Before | 20 | 15 | | 500 | 250 | 150 | 75 | | | | | |
| During | 7-15 | 70 | | 1500 | 1080 | 700 | 300 | TR | | | | |
| After | | | | | | | | | | | | |

RECOGNIZED BY: JAY CARTER Time 2:00 ~~P.M.~~ A.M. Date 7/21/84

CALLED PAUL MATHENY Time 2:00 ~~P.M.~~ A.M. Date 7/21/84

REMARKS: CORE #1 - SEE CORE DESC.
GAS INCR TO 70 UNITS @ 5462' - PULLED CORE #1 BEFORE ALL THE GAS WAS CIRC OUT

WELL: PATTERSON UNIT #5 DATE: 7/21/84

TEST: #1 FORMATION: LOWER UPPER ISMAY WITNESS: ART CURTIS

REASON: ISMAY POROSITY (5456-68) 12' w/70 UNITS INCR ABOVE 15 U BACKGROUND GAS

INTERVAL: 5420-68' T.D. 5468'

TESTING CO.: HALLIBURTON, HOWARD BELL TESTER

TYPE TEST: CONVENTIONAL OPEN HOLE

CUSHION: NONE

I. FLOW: OPENED W/MOD BLOW IN 2 IN H2O - INCREASED TO A STRONG BLOW IN 5 MIN - REMAINED THRU-NGTS

F. FLOW: OPENED W/STRONG BLOW IN BOT OF BUCKET - GTS IN 11 MIN - REMAINED THRUOUT-NEIG

GAUGES

I. FLOW OPEN 30 MIN.

F. FLOW OPEN 90 MIN.

| | | | | | |
|-------|------------|-------|-------------|-------|------------|
| GTS | NGTS | GTS | 11 MIN NETG | Mcf | min. |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | Mcf _____ | _____ | Mcf _____ | _____ | Mcf _____ |
| _____ | min. _____ | _____ | min. _____ | _____ | min. _____ |
| _____ | Mcf _____ | _____ | Mcf _____ | _____ | Mcf _____ |
| _____ | min. _____ | _____ | min. _____ | _____ | min. _____ |
| _____ | Mcf _____ | _____ | Mcf _____ | _____ | Mcf _____ |
| _____ | min. _____ | _____ | min. _____ | _____ | min. _____ |

RECOVERY: 463' G&OCM 270' G&MCW

SAMPLE CHAMBER: 4.06 cfg and 1200 CC O&GCM @ 1450 psi

| | | | |
|------|----------------|------|-------------------|
| | TOP CHART 5400 | TIME | BOTTOM CHART 5468 |
| IH: | 2801.4 | | 2825.7 |
| IF: | 53.8-188.2 | 30 | 80.9-188 |
| ISI: | 1856.2 | 60 | 1881.5 |
| FF: | 161.2-295.7 | 90 | 202.2-296.5 |
| FSI: | 2071.7 | 846 | 2825.7 |
| FH: | 2801.4 | | |

BHT 130 °F

SAMPLES CAUGHT: Gas (X) Oil (X) Water (X) Mud (X)

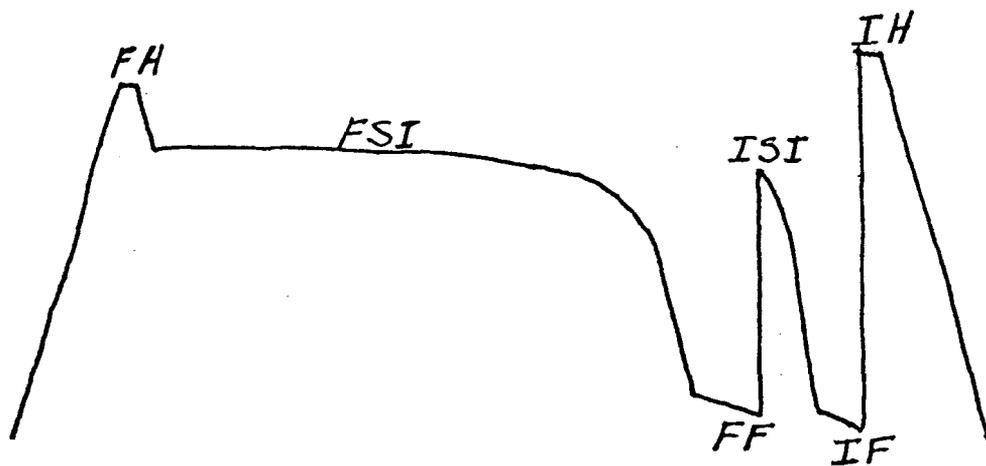
WHERE CAUGHT: Drill pipe (X) Flow Line () Separator () MFE Tool (X)

RESISTIVITIES @ 68° REMARKS:

PIT MUD: 1.48 @ 66° FILTRATE:

REC. MUD: 1.66 @ 64° REC. WTR: 1.14 @ 68°

5400 - TOP CHART



| | |
|-----------|-----------|
| BOTTOM | 1.14 @ 68 |
| MIDDLE | 1.95 @ 68 |
| TOP | 1.66 @ 64 |
| SAMPLER - | 1.74 @ 62 |

CORE DESCRIPTIONS

CORE #1 (5408'-5468½') RECV 60½'

- 5408-08 3/4 - LS dkgy fxl arg
- 5408 3/4-09 - SH blk lmy fiss
- 5409-24½ - LS dkgy fxl sl anhy sl pyr arg dol crinoidal brach - NO SHOWS
- 5424½-26 - LS dkgy crpxl sl dol arg black SH in top ½ ft LS
- 5426-29½ - LS dkgy-blk arg fiss crpxl foss brach v arg
- 5429½-30½ - SH blk fiss calc-dol
- 5430½-35 - LS dkgy vfxl indst foss arg
- 5435-38½ - ANHY wh-trnsl nod /dkgy LS mtx
- 5438½-39 - SH blk fiss
- 5439-42 - LS mgy fxl sl ANHY /TR dul yel FLOR
- 5442-55½ - LS ltgy f-mxl styl ANHY w/nod up to 3 cm diam scat crin fr-g intxl
Ø fr OIL STN & ODOR brt yel FLOR fast mlky CUT bleeding OIL in spots
- 5455½-60 - LS AA w/incr pp-vuggy Ø incr show - TOP OF CORING BREAK @ 5456'
- 5460-62½ - LS AA w/good intxl pp-vugg Ø g STN & ODOR even brt yel-wh FLOR
fast strmg mlky CUT
- 5462½-68½ - DOL gy-brn vfxl ANHY slcalc crin g algal tex g intxl & pp-vuggy Ø
g OIL STN even yel-gold FLOR fast strmg mlky CUT

CORE #2 (5468'-5528') RECV 59'

- 5468-68 3/4 - DOL gy-bn vfxl fr-g pp & vuggy Ø f odor even brt yel-gld FLOR
fast mlky CUT
- 5468 3/4-77 - LS gy vfxl dol sl ANHY fr-g pp Ø f OIL ODOR above 5475' g FLOR
fast mlky CUT
- 5477-82 - DOL gy-brn vfxl calc ANHY styl @ base fr-g pp Ø NO OIL ODOR even
gld FLOR mod mlky CUT
- 5482-87 - LS gy fxl f pp Ø NO OIL ODOR spotty dul yel FLOR slo faint CUT
- 5487-91½ - LS gy fxl dol g algal text fr-g vug & pp Ø NO OIL ODOR /TR dul
yel FLOR
- 5491½-98 - LS gy fxl dol ANHY crin scat algal text /TR open frac & TR f pp
Ø NO ODOR & NO FLOR
- 5498-5501½ - LS gy fxl ANHY crin NO VIS Ø & NO ODOR OR FLOR
- 5501½-03½ - DOL brn vfxl slcalc ANHY crin NO VIS Ø, FLOR OR ODOR
- 5503½-24½ - MUDSTONE dkgy-blk calc varg dol ANHY crin sponge spicules vcrin
@ 5509-11 brachs are v common below 5511½ orng mnrl FLOR
- 5524½-28 - SH blk dol brach fiss conch frac ip

WEXPRO COMPANY
 PATTERSON UNIT #5
 SW/SW SECTION 4, T38S, R25E
 SAN JUAN CO. - UTAH

SAMPLE DESCRIPTIONS

| | |
|-----------|---|
| 2560-2570 | 70% SLTST redbrn ltgy mica slcalc blkly frm 30% SH redbrn lav blgy noncalc plty-blky frm |
| 2570-2580 | 60% SLTST AA 40% SH AA |
| 2580-2600 | 60% SH redbrn lav-mar gygn wxy-slty n-slcalc /occ mica blkly frm 40% SLTST redbrn ltgy slcalc blkly brit-frm |
| 2600-2610 | 50% SS frst pk cg rdd uncons NSFOC 30% SLTST AA 20% SH AA |
| 2610-2620 | 40% SLTST AA 30% SS AA 20% SH AA |
| 2620-2630 | 60% SH brn-redbrn gy-gygn wxy ip slty ip n-slcalc blkly frm 40% SLTST orng-redbrn arg sdy ip slcalc blkly brit-frm |
| 2630-2640 | 60% SLTST AA 40% SH AA |
| 2640-2650 | 50% SLTST AA 30% SH AA 20% SS pk-red /sm wh f-vfg slty ip ang-sbang msrt mcmt fri tt NFSOC |
| 2650-2660 | 40% SLTST AA 40% SH AA 20% SS AA |
| 2660-2670 | 50% SH AA 40% SLTST AA 10% SS AA |
| 2670-2680 | 50% SH AA 50% SLTST AA |
| 2680-2690 | 70% SH redbrn choc-brn gygn wxy ip slty ip n-slcalc sbplty-blky frm 30% SLTST AA |
| 2690-2700 | 50% SH AA bcmg sft ip 50% SLTST AA |
| 2700-2730 | 80% SH AA 20% SLTST orng arg /sm sdy slcalc blkly frm |
| 2730-2740 | 70% SH AA 30% SLTST AA |
| 2740-2750 | 50% SH redbrn mar gygn wxy ip slty ip n-slcalc blkly sft-frm 30% SLTST AA 20% SS clr-pk f-vfg ang-sbang arg ip msrt mcmt tt NFSOC |
| 2750-2760 | 70% SH AA 30% SLTST AA |
| 2760-2850 | 80% SH brn-redbrn mar-lav gygn wxy ip /sm slty n-slcalc blkly-hckly sft-frm 20% SLTST rust arg /sm sdy sl-modcalc frm |
| 2850-2860 | 70% SH AA bcmg plty ip 30% SLTST AA |
| 2860-2870 | 80% SH AA 20% SLTST AA |
| 2870-2880 | 70% SH AA 30% SLTST AA |
| 2880-2900 | 60% SH AA 20% SLTST AA 20% SS rust-brn vfg slty sl-modcalc arg wsrt m-wcmt tt NSFOC |

WEXPRO COMPANY
 PATTERSON UNIT #5
 SAMPLE DESCRIPTION CONTINUED

2900-2920 70% SH rust-brn lav-mar gygn slty ip wxy ip n-slcalc blkly /sm plty
 sft-frm
 30% SLTST rust arg /sm sdy sl-modcalc blkly frm

2920-2930 60% SH AA
 40% SLTST AA

2930-2950 80% SH rust-redbrn lav-mar ltgy-gygn wxy ip /SH slty n-slcalc plty-blky
 sft-frm
 20% SLTST AA rust /incr sdy

2950-2960 50% SH AA
 50% SLTST AA sdy

2960-2970 50% SH AA
 40% SLTST AA
 10% SS pk-rust /sm offwh f-vfg ang-sbang slcalc ip slty ip arg m-wsrt
 mcmt tt NSFOC

2970-3000 60% SH AA
 30% SH AA
 10% SS AA

3000-3010 70% SH bcmg blgn ltgybrn wxy ncalc blkly sft-frm
 30% SLTST AA

3010-3020 60% SH AA
 40% SLTST AA

3020-3040 50% SH AA
 50% SLTST redbrn-rust pk slcalc-calc sdy ip blkly brit-frm

3040-3060 70% SH orng redbrn ltgygn chocbrn wxy slty n-slcalc blkly frm
 30% SLTST AA

3060-3080 60% SH AA
 40% SLTST AA

3080-3100 70% SH redbrn-orng mar blgn-gygn /occ mbrn n-slcalc slty ip wxy ip
 sft-frm
 30% SLTST AA

3100-3130 60% SH AA
 40% SLTST redbrn-rust slcalc /sm sdy occ mica plty-blky frm-occ

3130-3140 70% SH AA
 30% SLTST AA

3140-3160 70% SH orng-redbrn pk blgy mar n-slcalc slty ip /occ wxy plty-blky
 sft-frm
 30% SLTST AA

3160-3170 50% SH AA
 50% SLTST AA

3170-3190 70% SLTST rdbrn-ltbrn-pk slcalc ark blkly frm-brit
 30% SH AA

3190-3210 80% SLTST AA
 20% SH rdbrn-orng ltbl mbrn ncalc-calc slty ip blkly sft-frm

3210-3220 70% SLTST AA
 30% SH AA

3220-3260 60% SLTST rust pk /occ mott w/tan yel slcalc-calc blkly frm
 40% SH rd-orng ltbl gy vcalc-calc smth ip plty-sbblky sft

3260-3280 80% SLTST AA sdy ip
 20% SH AA

3280-3320 70% SH ltornng lav gygn brn smth-slty n-slcalc plty-blky sft-frm
 30% SLTST AA sdy ip
 TR SS wh-frst f-vfg sbang-sbrd calc msrt mcmt fri-slfrm NFSOC

3320-3380 60% SH rd-orng rust ltbl lav /occ mott w/tan yel ncalc-calc smth ip
 plty-blky sft
 40% SLTST rust slcalc-calc /sm mica /occ sdy blkly frm

3380-3420 60% SLTST rdorng brn /occ mott w/ltbl slcalc-calc mica ip /occ sdy
 blkly sft-frm

WEXPRO COMPANY
PATTERSON UNIT #5
SAMPLE DESCRIPTION CONTINUED

3380-3420 40% SH rdorng rdbrn ltbl lav ncalc-calc smth ip /sm carb prtgs plty-
blky sft
TR SS wh rust f-vfg ang-sbang calc msrt p-mcmt fri NFSOC

3420-3440 50% SLTST AA
50% SH AA

3440-3460 60% SH AA
40% SLTST rdorng brn slcalc-calc mica ip /occ sdy blky sft-frm

3460-3510 70% SH rdorng rdbrn ltbl lav ncalc-calc smth ip plty-blky sft-frm
30% SLTST AA

3510-3520 50% SH AA pred plty sft
30% SLTST AA sdy ip

3520-3550 20% SS clr wh pk f-vfg sbang fltg rdd cg arg ip psrt mcmt fri tt NFSOC
70% SH rust pk /sm lav-mar /sm ltgy-blgy slty ip /sm wxy n-slcalc plty-
blky sft-frm
30% SLTST rust-pk mica sdy ip sl-modcalc blky brit-frm

3550-3570 60% SH AA
40% SLTST AA

3570-3590 70% SH AA decr slty /sm mica
30% SLTST AA

3590-3600 60% SH AA
40% SLTST AA /sm grdg to vfg SS

3600-3620 70% SH rust orng pk /sm blgy slty-smth /sm wxy sl-modcalc plty-blky
sft-frm
30% SLTST AA

3620-3630 80% SH AA w/wh vcalc strks
20% SLTST AA bcmg vcalc ip

3630-3650 60% SH AA
40% SLTST rust pk offwh sdy calc-vcalc arg blky brit-frm

3650-3660 80% SH rust-ltorng /occ pk & wh strks blgy /occ chocbrn calc-vcalc v-
slty ip blky sft-frm
20% SLTST AA

3660-3680 70% SH AA
30% SLTST AA

3680-3700 60% SH AA /incr blky vsmth
40% SLTST rdbrn-rust calc ark grdg to SH ip blky frm

3700-3710 60% SH AA
20% SLTST AA

3710-3730 20% SS wh-frst orng f-vfg ang-sbang calc slty ip msrt mcmt frm NFSOC
80% SH rdbrn chocbrn gygn ltgy vsmth ip vslty ip ncalc-calc /occ mica
plty-blky frm
20% SLTST AA

3730-3750 70% SH AA
30% SLTST AA

3750-3790 50% SH AA
30% SLTST rdbrn-rust calc ark mica ip plty-blky frm
20% SS orng-pk f-vfg ang-sbang vslty orng mtx vcalc mica ark p-msrt
wcmt frm NFSOC

3790-3800 40% SH AA
30% SLTST AA
30% SS AA slty mtx ark NFSOC

3800-3820 50% SH rdorn ltbl chocbrn vsmth ip n-vcalc mica ip plty-blky brit-frm
30% SLTST AA
20% SS AA

3820-3880 60% SH rust chocbrn ltbl vsmth ip vslty ip ncalc-calc mica ip plty-
blky sft-frm
20% SLTST rust vcalc-calc ark mica ip frm
20% SS wh frst orng-pk f-vfg ang-sbang slty mtx ark mica ip fri-frm
NFSOC

WEXPRO COMPANY
 PATTERSON UNIT #5
 SAMPLE DESCRIPTION CONTINUED

3880-3910 70% SH AA
 30% SLTST AA

3910-3920 50% SH AA
 30% SLTST AA
 20% SS orng-pk wh-frst f-vfg ang-sbang slty mtx calc-vcalc ark mica ip
 p-msrt wcmt frm NFSOC

3920-3930 40% SH AA
 30% SLTST rust calc-vcalc ark mica frm
 30% SS AA

3930-3940 40% SS AA
 30% SLTST AA
 20% SH AA

3940-3970 50% SH rust chocbrn /sm ltbl wxy ip smth ip /sm vslty ncalc-vcalc mica
 ip plty-blky sft-frm
 30% SLTST AA
 20% SS AA

3970-3990 60% SLTST mbrn mica arg calc /sm sdy blky brit
 40% SH brickred rdbn-mbrn /sm lav /sm ltgy /occ offwh-pk strks ncalc-
 calc mica wxy ip slty ip blky /sm plty frm-hd

3990-4060 80% SH brkrd rust /sm ltgy ncalc-calc mica ip slty ip plty-blky frm
 20% SLTST chocbrn-mbrn rdbn mica arg calc /sm sdy blky brit-frm

4060-4110 60% SH AA
 40% SLTST AA

4110-4120 40% SH AA
 30% SLTST AA
 30% SS wh-pk f-mg ang ark mica ip calc-vcalc msrt wcmt brit-hd NFSOC

4120-4130 60% SS AA
 40% SH AA

4130-4140 40% SS AA
 40% SH brkrd rdorng chocbrn /sm ltgy ncalc-calc mica ip slty ip plty-
 blky frm
 20% SLTST AA

4140-4150 50% SH AA
 30% SLTST AA
 20% SS AA

4150-4200 60% SH choc brkrd /sm ltgy ncalc-calc mic ip slty ip blky brit-frm
 40% SLTST chocbrn-mbrn brkrd calc-vcalc mica ip ark /sm sdy blky brit-
 frm

4200-4210 40% SH AA
 20% SS wh-rd f-mg sbang msrt mcmt ark mica ip slty mtx ip calc-vcalc
 brit-frm NFSOC
 40% SLTST AA

4210-4220 40% SS AA
 30% SLTST AA
 30% SH AA

4220-4230 50% SLTST chocbrn ltbl-tan offwh calc-vcalc mic ip /sm sdy blky brit-
 frm
 30% SH AA
 20% SS AA

4230-4240 60% SLTST AA
 40% SH AA

4240-4260 40% SLTST gy-gybrn mica s&p ip sdy ip ncalc-calc brit-frm
 30% SH AA
 30% LS gy buff crm micxl /sm chk brit-sft dns

4260-4280 50% SLTST AA
 30% SH AA
 20% LS AA

WEXPRO COMPANY
 PATTERSON UNIT #5
 SAMPLE DESCRIPTION CONTINUED

4280-4290 50% SLTST AA
 30% SS wh-pk fg ang-sbang calc-vcalc sl-ark m-wsrt m-wcmt fri NFSOC
 20% COAL blk shly brit-hd

4290-4300 40% LS lt-mgy offwh mic-vfxl arg ip chk ip plty-blky sft-frm dns NFSOC
 40% SH chocbrn rdbrn /sm gy AA
 20% SLTST AA

4300-4320 50% SLTST tan-brn /sm ltgy arg sl-vcalc /sm sdy /sm ark /sm ANHY brit-
 frm
 30% SH brn-gybrn brkrd /sm lt-mgy m-vcalc slty ip smth ip /sm wxy plty-
 blky sft-vfrm
 20% LS AA
 TR ANHY AA

4320-4330 50% SH AA
 30% SLTST AA
 20% LS AA

4330-4340 40% SS wh-buff /sm rd fg ang-sbang mica cly-fl sl-ark ip msrt wcmt
 brit-frm NFSOC
 30% SLTST AA /sm ANHY
 30% SH AA

4340-4360 40% SH AA /sm pk ANHY
 20% SS AA
 20% SLTST AA
 20% ANHY wh-ofwh mott pk-rd vsft amor

4360-4370 80% LS lt-mgy buff-tan mic-vfxl /sm crpxl arg ip /sm slty scat mica
 frm dns NFSOC
 20% SH m-dkbrn gybrn mica-vmica ip smth ip slty ip sl-vcalc plty-blky
 frm

4370-4380 60% SH AA
 40% LS AA

4380-4390 50% SS offwh-ltgy fg sbang mica-vmica sl-mcalc m-wsrt wcmt brit-frm
 30% SH AA NFSOC
 20% LS AA

4390-4410 100% LS buff-tan-brn micxl /sm vfxl chk ip /sm arg plty-blky brit-hd
 dns NFSOC

4410-4430 100% LS buff-tan-brn micxl /sm vfxl chk ip /sm arg plty-blky sft-hd dns

4430-4450 100% LS AA bcmg sdy & arg vslty ip NFSOC

4450-4470 80% LS AA sdy
 20% SS frst-ltgn fg sbang msrt wcmt vcalc mica slfri-frm NFSOC

4470-4490 80% LS wh-buff gy-gybrn brn chk-crpxl slty ip sil ip blky-ang dns
 brit-frm
 20% CHT vdkbrn-trnsl varg splty vhd

4490-4510 80% LS AA
 20% SS frst-wh ltgy vfg sbang m-wsrt wcmt vcalc fri-slfrm NFSOC

4510-4530 50% SLTST lt-mgy vmica vcalc lmy arg sdy frm
 50% LS buff-brn mgy mic-fxl arg sdy ip blky dns brit-vfrm

4530-4550 30% SLTST AA
 30% SS wh-frst ltgy vfg-slty sbang-sbrd wsrt vwcmt vcalc cln ip fri-frm
 20% LS AA
 20% SH rdbrn-orng blky-plty slty sl-vcalc frm

4550-4560 60% SLTST lt-mgy vcalc-lmy sdy brit-frm
 30% LS AA
 10% SS AA

4560-4570 60% LS buff-brn crp-micxl chk ip blky-ang dns brit-hd
 20% SLTST AA
 20% SS AA

4570-4580 50% SS wh-frst f-mg sbang-sbrd msrt mcmt calc mica ip frm NFSOC
 40% LS AA
 10% SLTST AA

WEXPRO COMPANY
 PATTERSON UNIT #5
 SAMPLE DESCRIPTION CONTINUED

4580-4600 40% SS wh-frst f-mg sbang-sbrd msrt mcmt calc mica ip frm NFSOC
 30% SLTST mgy vcalc sdy ip mica ip brit-frm
 30% LS AA

4600-4610 30% LS AA
 20% SLTST AA
 20% SH rust brkrd mica ip slty ip calc-vcalc plty-blky frm

4610-4620 30% LS AA
 20% SH AA
 20% SLTST AA
 20% SS AA

4620-4640 70% LS AA
 20% SLTST AA
 10% SH AA

4640-4660 50% LS AA
 30% SH rust-brkrd slty ip calc-vcalc plty-blky brit-frm
 20% SLTST mgy choc vcalc /sm sdy mica ip brit-frm

4660-4680 50% SLTST tan-brn ltgy-gybrn calc-vcalc arg blky brit-sft
 30% SH AA
 20% LS AA

4680-4710 40% SH brn-rdbrn rust gy sl-vcalc mica ip slty ip blky-hckly frm-vfrm
 30% LS gy-gybrn ofwh-crm micxl /sm vf-fxl blky /sm plty frm-hd dns
 30% SLTST AA

4710-4720 40% SS wh-ltpk frst-clr f-mg ang-sbang p-msrt mcmt calc fri-brit NFSOC
 30% LS AA
 20% SH AA
 10% SLTST AA

4720-4740 100% LS offwh-gybrn /sm dkgy micxl chk ip /sm arg slmica /sm ool plty-
 ang sft-hd NFSOC

4740-4750 60% LS AA
 20% SH brn-rdbrn rust slty ip mica ip calc blky frm
 20% SLTST tan-brn gy-gygn calc arg blky frm-vfrm

4750-4760 40% LS AA
 40% SLTST AA
 20% SH AA

4760-4780 50% SH brn-rdbrn slty ip mica ip /sm wxy sl-vcalc blky frm-slfrm
 30% LS AA offwh-crm indst foss frags
 20% SLTST AA

4780-4790 30% SS wh-frst-ltbrn fg-occ mg sbang-sbrd msrt wcmt vcalc vmica ip
 NFSOC
 30% LS AA
 30% SLTST ltgy-ltbrn sdy calc arg mica ip frm-vfrm
 10% SH AA

4790-4800 40% SLTST AA
 30% LS AA
 20% SH AA
 10% SS AA

4800-4810 90% LS buff-tan ltgy-ltgybrn mic-fxl sdy arg ip blky-ang vfrm-hd
 10% SLTST AA

4810-4820 100% LS AA

4820-4830 50% SLTST mgy sdy vcalc grdg to LS blky brit
 40% LS AA
 10% SH AA

4830-4850 80% LS wh-buff ltgy-gybrn crp-fxl chk ip /occ arg /ABNT INDST FOSS
 FRAGS blky-ang sft-frm
 20% SLTST AA

4850-4860 50% SS frst-wh-ltgn vf-mg sbang-sbrd msrt wcmt calc vmica ip p vis
 0 frm NFSOC
 40% SLTST AA
 10% LS AA

WEXPRO COMPANY
 PATTERSON UNIT #5
 SAMPLE DESCRIPTION CONTINUED

4680-4880 70% SLTST lt-mgy brn rdorng mica varg calc-lmy ip frm
 10% SS AA
 10% LS AA
 10% SH AA

4880-4890 40% LS lt-mgy buf-crm crp-micxl arg ip plty-blky sft-frm dns
 40% SLTST AA
 20% SH brkrd mbrn slty ip mica ip calc-vcalc blky frm

4890-4900 40% LS AA
 30% SLTST AA
 30% SH AA

4900-4910 60% LS AA
 20% SH AA
 20% SLTST AA

4910-4930 90% LS lt-mgy /sm dkgy /sm offwh crp-fxl arg ip /sm slty plty-blky
 sft-frm dns
 10% SH rdbrn AA poss cvgs

4930-4970 100% LS ltgy offwh /sm m-dkgy crp-fxl /sm slty /sm arg plty-ang sft-
 frm dns NFSOC

4970-4980 70% LS AA
 30% SH m-dkgy calc-lmy grd to arg LS ip mica fiss-blky brit-hd

4980-4990 60% LS lt-mgy mic-vfxl arg mica /sm chk plty-blky sft hd dns NFSOC
 40% SH AA

4990-5000 60% SH AA
 40% LS AA

5000-5020 80% LS offwh-ltbrn ltgy crp-micxl chk ip /sm arg plty-ang sft-hd dns
 20% SH m-dkgy vlmy grd to arg LS plty-blky vfrm-hd NFSOC

5020-5030 60% LS AA
 20% SH AA
 20% SLTST lt-mgy mbrn blky calc-lmy /occ mica frm-vfrm

5030-5040 40% SLTST AA
 20% SS frst-vltgn wh-ltgy vf-mg sbang-sbrd p-msrt m-wcmt calc vslty
 ip /TR mica frm NFSOC
 20% SH AA
 20% LS AA

5040-5050 50% SS AA
 30% SLTST AA
 20% LS AA

5050-5060 60% LS buff-tan ltbrn-gybrn crp-micxl arg ip /occ slty blky-ang brit-hd
 20% SH dkgy lmy grd to arg LS carb ip plty-blky brit-hd
 20% SLTST AA

5060-5070 100% LS AA cln slarg chk ip

5070-5080 90% LS lt-dkgy /sm buf-ltbrn crp-micxl incr arg slmica slty ip blky-ang
 brit-hd
 10% SH AA

5080-5090 70% LS AA
 30% SH AA

5090-5110 80% SH dkgy /sm blk lmy grd to varg LS ip /sm carb fiss-blky brit-hd
 20% LS AA

5110-5120 50% SH AA
 30% LS AA
 10% CHT dkbrn-dkgy /sm trns1 /occ pyr brit-vhd
 10% COAL blk shly conch frac ip brit-sft

5120-5140 90% LS buff-tan micxl /sm chk pred cln /sm slarg /TR INDST FOSS FRAGS
 plty-ang brit-sft dns NFSOC
 10% SH AA

5140-5150 80% SH AA
 20% SH m-dkgy lmy blky brit-sft

WEXPRO COMPANY
PATTERSON UNIT #5
SAMPLE DESCRIPTION CONTINUED

5150-5190 90% SH mgy vlmy grd to varg LS plty-blky brit-frm
10% LS AA

5190-5200 70% SH lt-dkgy vlmy slty ip pyr ip blky sft-hd
30% LS buff-crm ltbrn crp-micxl /occ arg blky brit-hd

5200-5210 90% LS buff-tan ltgybrn crp-fxl cln ip slty ip blky-ang frm-hd
10% SH AA

5210-5220 60% SH mgy /sm dkgy lmy grd to arg LS /sm slty blky sft-hd
40% LS AA

5220-5250 70% LS wh-buff ltgy crp-fxl chk ip arg ip plty-blky sft-frm dns
30% SH AA

5250-5270 70% SH m-dkgy lmy-vlmy grd to arg LS scat vf pyr fiss-blky brit-hd
30% LS AA arg ip

5270-5280 70% LS buff-tan crp-fxl /sm chk cln-slrg slpyr blky-ang /sm plty
sft-hd dns
30% SH AA

5280-5300 90% LS AA bcmg pred tan /TR INDST FOSS FRAGS
10% SH AA

5300-5310 70% LS AA bcmg mgybrn arg ip
30% SH AA

5310-5330 60% SH mgy /sm gybrn lmy grd to arg LS slpyr blky frm-hd
40% LS AA

5330-5350 70% LS buff-ltgy gybrn-ltbrn arg ip slty ip blky-ang vfrm-hd
30% SH m-dkgy lmy blky brit-hd

5350-5360 100% LS lt-mgybrn mic-cxl slrg blky-ang brit-hd dns

5360-5380 90% LS AA bcmg sil ip
10% CHT ltbrn-trnsl smky conch splty brit-vhd

5380-5385 100% LS buf-tan mic-vfxl /smcxl cln-slrg sil ip plty-ang dns sft-hd

5385-5390 90% LS AA bcmg lt-dkgy arg-varg
10% SH m-dkgy lmy grd to arg LS slpyr fiss blky sft-hd

5390-5403 70% SH AA lmy
30% LS AA arg

SLM 5403=5408'

5408-5468 SEE CORE #1 DESCRIPTION

5468-5528 SEE CORE #2 DESCRIPTION

5528-5580 100% SH dkgy-blk calc-lmy carb ip pyr ip fiss-blky brit-sft

5580-5590 90% SH AA
10% LS buff-ltgybrn mic-cxl slrg ip blky-ang vfrm-brit dns

5590-5600 80% SH AA
10% LS AA
10% ANHY wh f-cxl blky sft-slfrm

5600-5610 60% SH dkgy-blk AA
30% LS buff lt-dkgy crp-micxl arg ip blky-ang brit-frm dns

5610-5620 50% LS AA
40% SH AA
10% CHT buff-trnsl splty vhd

5620-5630 70% LS buff lt-mgy mic-fxl arg ip plty-blky brit-frm dns
10% SH AA
10% ANHY wh mic-fxl blky sft
10% CHT smky-trnsl vhd

5630-5640 80% LS AA
10% CHT AA
10% ANHY AA

5640-5650 70% SH dkgy-blk calc-lmy carb-vcarb ip/ TR vf pyr fiss-blky brit-sft
20% LS AA
10% ANHY AA

5650-5660 80% SH AA
20% LS AA

WEXPRO COMPANY
PATTERSON UNIT WELL #5
SW/SW, SECTION 4-T38S-R25E
SAN JUAN COUNTY - UTAH

FORMATION TOPS

| <u>FORMATION</u> | <u>SAMPLE TOP</u> |
|-------------------|-------------------|
| HONAKER TRAIL | 4360' |
| PARADOX | 4880' |
| LOWER UPPER ISMAY | 5435' |
| ISMAY POROSITY | 5456' |
| ISMAY SHALE | 5524' |
| LOWER ISMAY | 5588' |
| "B" ZONE SHALE | 5642' |

GEOLOGIC SUMMARY
AND
ZONES OF INTEREST

Geologic coverage of Wexpro Company's Patterson Unit Well #5 began at 2563' on 12 July, 1984. Red shale and siltstone and white to red sandstone of the Permian Culter Formation were observed in the samples. No shows were encountered in the Culter.

Patterson #5 was drilled to a total depth of 5660' on 24 July, 1984 in the "B" Zone Shale.

HERMOSA GROUP, HONAKER TRAIL FM (4360' - 4880')

The top of the Honaker Trail was picked with the appearance of a light to medium gray argillaceous limestone in the sample at 4360'. The formation consisted of interbedded red to brown to gray shale and siltstone and white to gray, fine to medium grained sandstone with gray to buff to brown, variably argillaceous limestone.

A gas increase from 1 to 13 units occurred in a drilling break from 4849'-4858'. Samples contained a frosted to gray, very fine to medium grained, calcareous sandstone. No oil show was observed.

PARADOX FM (4880' - T.D.)

The Paradox Formation was composed of gray to buff to brown limestone, gray calcitic shale and several thin frosted to gray to light green, very fine to medium grained sandstone in the upper portion.

Three shows were noted in the Paradox Formation. The first gas increase was from 1 to 18 units at 4970'-4985' in gray argillaceous limestone and medium to dark gray limy shale. No oil show was seen in the samples. The second gas increase of 4 to 8 units occurred from 5034'-5048' in a frosted to very light green, very fine to medium grained, calcareous sandstone. No oil show was noted. From 5113'-5116' there was a sharp gas increase from 16 to 75 units, dropping back to 13 units. Black, shaly, soft coal appeared in the sample from this interval. No oil show was observed.

LOWER UPPER ISMAY MEMBER (5435' - 5524')

The Lower Upper Ismay was picked from the appearance of white to translucent anhydrite at the base of the 2nd Ismay Shale in the Core #1. This member consisted of gray, variably argillaceous, fossiliferous, occasionally dolomitic and anhydritic limestone with several thin gray to brown, fossiliferous dolomites.

Background gas ranged from 10 to 25 units at 5435' to 5456'. The Ismay porosity was picked on a coring break at 5456' and a gas increase that occurred of 10 to 26 units.

Light brown oil stain and odor with oil bleeding in spots and a bright yellow fluorescence were observed from 5442'-5456'. Fair to good intercrystalline porosity was apparent in the limestone. From 5456' to 5462' the oil show increased and good pinpoint to vuggy porosity was noted in the limestone. Gray-brown, slightly anhydritic, crinoidal, algal dolomite was cored from 5462'-5469' with good stain and odor and a even gold

fluorescence and fast streaming milky cut. Total gas increased to 70 units before Core #1 was pulled before circulating bottoms up.

During Core #2, background gas ranged from 150 to 330 units from 5468'-5482', dropping to 10 units at the top of the Ismay Shale. Fair oil shows were observed from 5471'-5478', with the oil odor disappearing from the core at 5477'. Above the top of the Ismay Shale at 5524', 21 feet of limy mudstone was cored.

LOWER ISMAY MEMBER (5588' - 5642')

This top was picked with the appearance of buff to gray-brown limestone and white, fine to coarse crystalline anhydrite in the samples. A 20 foot massive anhydrite was drilled from 5588' to 5608'. Background gas was 40 to 80 units throughout the Lower Ismay.

"B" ZONE SHALE (5642' - 5660')

The "B" Zone Shale contained background gas of 40 to 180 units, dropping to 40 units at total depth. No oil shows, however, were evident in this zone.

I appreciated the opportunity to serve Wexpro and very much welcomed their cooperation. It would be my pleasure to serve you again in the future. Thank you, again.

Arthur H. Curtis III

CORRECTED
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPL.

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____
 b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEPEN PLUG BACK DIFF. RESVR. Other _____

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 458, Rock Springs, WY 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
 At surface SW SW, 678' FSL, 664' FWL
 At top prod. interval reported below
 At total depth

14. PERMIT NO. 43-037-31019 DATE ISSUED _____

5. LEASE DESIGNATION AND SERIAL NO.
UT-11668
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME

 7. UNIT AGREEMENT NAME
Patterson
 8. FARM OR LEASE NAME
Unit
 9. WELL NO.
5
 10. FIELD AND POOL, OR WILDCAT
Patterson Unit
 11. SEC., T., R., N., OR BLOCK AND SURVEY OR AREA
4-38S-25E

12. COUNTY OR PARISH
San Juan 13. STATE
Utah

15. DATE SPUNDED 7-8-84 16. DATE T.D. REACHED 7-25-84 17. DATE COMPL. (Ready to prod.) 8-2-84 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* GR 5221 KB 5234' 19. ELEV. CASINGHEAD --

20. TOTAL DEPTH, MD & TVD 5650' 21. PLUG, BACK T.D., MD & TVD 5605.51' 22. IF MULTIPLE COMPL., HOW MANY* -- 23. INTERVALS DRILLED BY ROTARY TOOLS 0-5650' CABLE TOOLS --

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
5440'-5468' - Upper Ismay 25. WAS DIRECTIONAL SURVEY MADE
No

26. TYPE ELECTRIC AND OTHER LOGS RUN
Sonic, LD-CNL, DIL, Electromagnetic Propagation, Composite Fracture Id. 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 |
|-------------|-----------------|----------------|-----------|------------------------------|---------------|
| 9-5/8 | 36 | 1569 | 12-1/4 | 325 sx Howco Light, 180 sx | Reg -- |
| 5-1/2 | 17 | 5642.37 | 8-3/4 | 735 sx 50-50 Pozmix w/2% gel | -- |

29. LINER RECORD

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

30. TUBING RECORD

| SIZE | DEPTH SET (MD) | PACKER SET (MD) |
|-------|----------------|-----------------|
| 2-7/8 | 5436.29 | |

31. PERFORATION RECORD (Interval, size and number)
5440'-5468' - 4 holes per foot

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

| DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED |
|---------------------|----------------------------------|
| 5440'-5468' | 4000 gallons 28% HCL acid |

33.* PRODUCTION

| DATE FIRST PRODUCTION | PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) | WELL STATUS (Producing or shut-in) |
|-----------------------|--|------------------------------------|
| 8-31-84 | Pumping | Producing |

| DATE OF TEST | HOURS TESTED | CHOKE SIZE | PROD'N. FOR TEST PERIOD | OIL—BBL. | GAS—MCF. | WATER—BBL. | GAS-OIL RATIO |
|--------------|--------------|------------|-------------------------|----------|----------|------------|---------------|
| 8/31-9/1/84 | 48 | -- | → | 91 | 152 | 359 | 1670 |

| FLOW. TUBING PRESS. | CASING PRESSURE | CALCULATED 24-HOUR RATE | OIL—BBL. | GAS—MCF. | WATER—BBL. | OIL GRAVITY-API (CORR.) |
|---------------------|-----------------|-------------------------|----------|----------|------------|-------------------------|
| 60 | 60 | → | 45 | 76 | 179 | -- |

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

35. LIST OF ATTACHMENTS

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

SIGNED [Signature] TITLE Director, Petroleum Eng. DATE 9-14-84

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

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

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. | NAME | TOP | |
|-----------|------|--------|---|--|--|------------------|
| | | | | | MEAS. DEPTH | TRUE VERT. DEPTH |
| Ismay | 5414 | 5468 | DST #1: TD 5468', packers 5414' & 5420'. IO 30 mins, ISI 60 mins, FO 90 mins, FSI 843 mins, 1 st open 2" wtr in bucket, inc to strong in 5 mins, NGTS, 2nd open strong, bottom of bucket, GTS in 11 mins, NETG, rec 463' gas cut mud, Res 1.95%, 270' gas cut wtr, Res 1.14%, sample chamber rec 1200 cc oil, 4.06 cc gas, 1450 psig, IHHP 2801, IOFP's 54-188, ISIP 1856, FOFP's 161-296, FSIP 2072, FHHP 2801, BHT 130°F. | Morrison Entrada Carmel Navajo Chinle Shinarump Cutler Honaker Trail Paradox Ismay Lower Ismay B Zone Shale | Surface 600 760 790 1,569 2,360 2,516 4,398 4,893 5,430 5,580 5,630 | |

The Navajo Sandstone is an areally extensive sheet sandstone which lies at a depth of 700 to 950 feet below the surface. The Navajo was deposited by aeolian processes and reaches a thickness in the field area of about 350 feet.

The Kayenta Formation consists of fluvial sandstones and thin bedded shales and siltstones. The sandstones are generally lenticular in shape and have coalesced to create an areally extensive sand body. The Kayenta directly underlies the Navajo Sandstone and is about 160 feet thick.

The Wingate Sandstone is present across the entire Patterson Field area. The sandstone is aeolian in origin and is about 250 feet thick. The Wingate directly overlies the Chinle Formation.

JPM/kgt

WEXPRO COMPANY
PATTERSON CANYON UNIT WELL NO. 5
SALT WATER DISPOSAL WELL APPLICATION

UTAH BOARD OF OIL, GAS, AND MINING
February 26, 1987

ATTACHMENT FOR RULE 502 (b)(11)

CAUSE: UIC-091

PRESENT STATUS DRAWING

KB 5237.50'

GL 5225'

WELL

Well 1

FIELD

Patterson Unit

LOCATION

9 38S 25E

10-3/4", 32.75#, H40 ST&C

538.53' KBM

Perforations (Ismay)

5464' to 5476' KBM

2-7/8", 6.5#, J55 8rd EUE

5515.01' KBM

Plug Back Depth

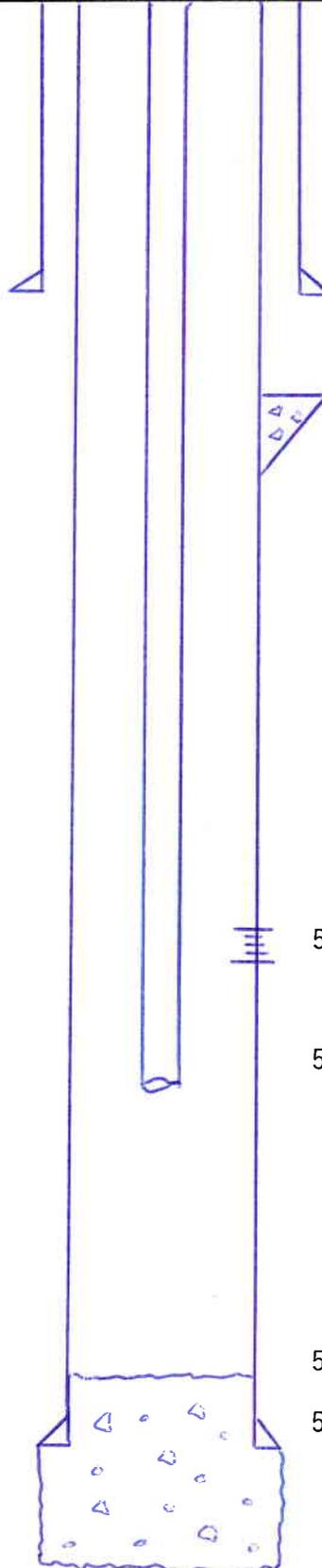
5702' KBM

4-1/2", 10.5#, K55 ST&C

5726.62' KBM

Total Depth

5818' KBM



PRESENT STATUS DRAWING

KB 5151'

GL 5139'

WELL

Well 3

FIELD

Patterson Unit

LOCATION

5 38S 25E

9-5/8" 32.3# H40 LT&C

306.00' KBM

Cement Top

3400' KBM

Perforations (Ismay)

5362' to 5372' KBM

2-7/8", 6.5#, J55 8rd EUE

5406.62' KBM

Plug Back Depth

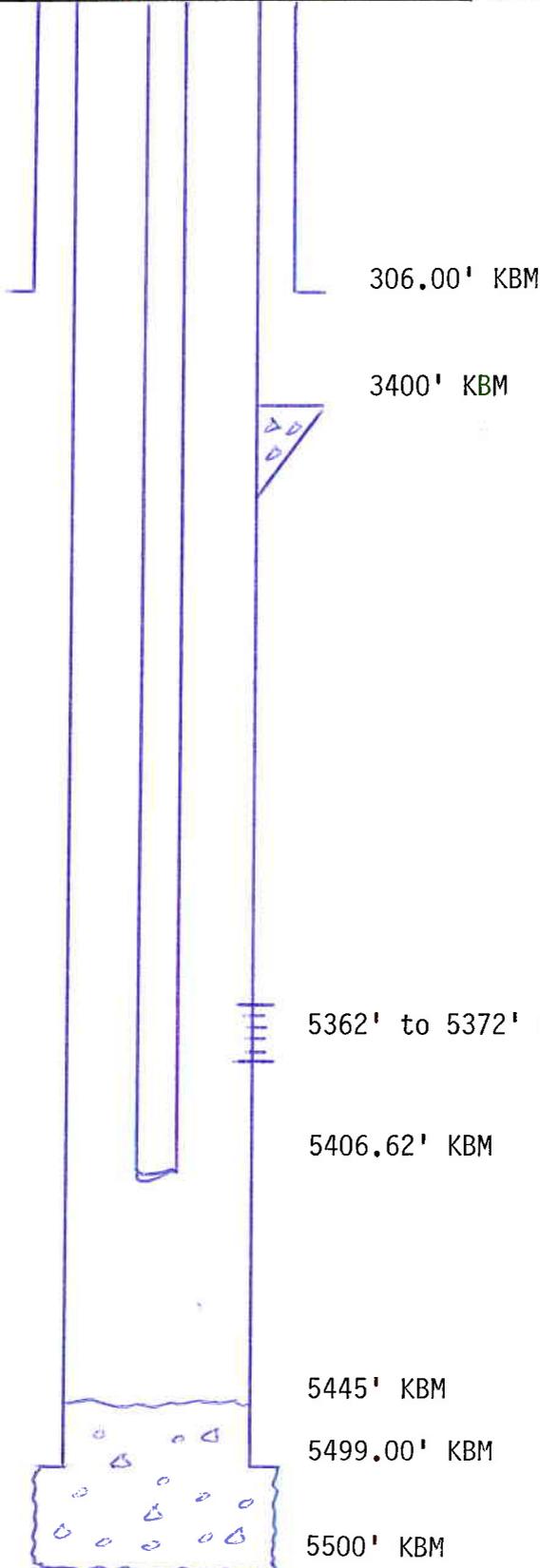
5445' KBM

5 1/2", 17#, K55 LT&C

5499.00' KBM

Total Depth

5500' KBM



PRESENT STATUS DRAWING

KB 5174'

GL 5160'

WELL

Unit Well 6

FIELD

Patterson Unit

LOCATION

4 38S 25E

Plug No. 5 30 SX

100' KBM

10-3/4" 40.5# K55 ST&C

1525' KBM

Plug No. 4 30 SX

1574.00' KBM

1625' KBM

Plug No. 3 60 SX

2000' KBM

2200' KBM

Plug No. 2 40 SX

5360' KBM

5500' KBM

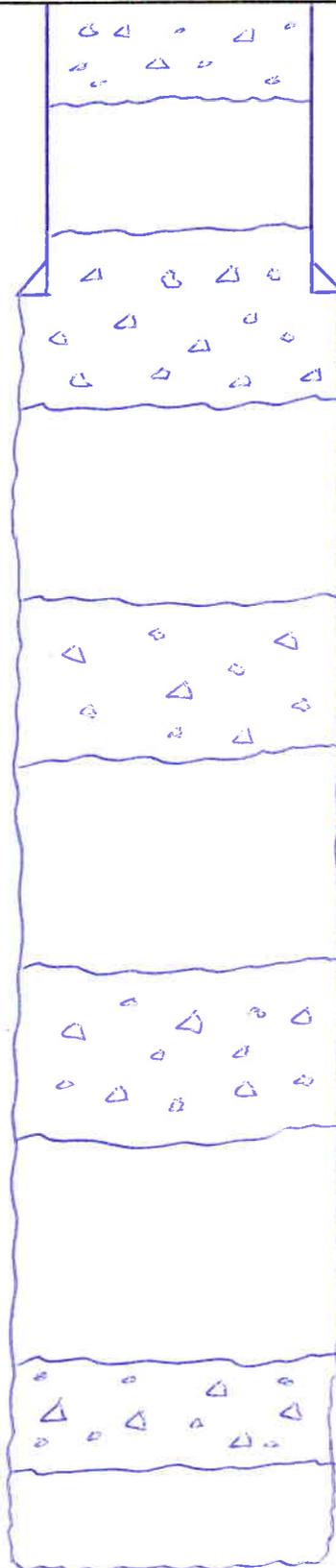
Plug No. 1 30 SX

5600' KBM

5700' KBM

Total Depth

5714' KBM



WEXPRO COMPANY
PATTERSON CANYON UNIT WELL NO. 5
SALT WATER DISPOSAL WELL APPLICATION

UTAH BOARD OF OIL, GAS, AND MINING
February 26, 1987

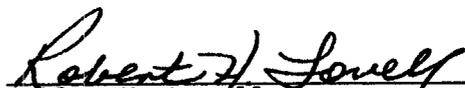
ATTACHMENT FOR RULE 502 (b)(12)

CAUSE: UIC-091

AFFIDAVIT

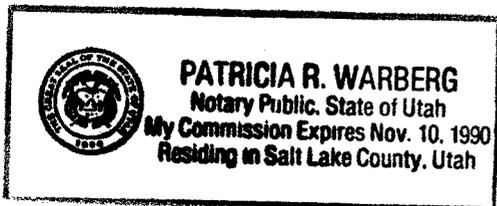
STATE OF UTAH)
) ss.
COUNTY OF SALT LAKE)

COMES NOW, Robert H. Lovell, attorney for Wexpro Company, and certifies that a copy of the foregoing application of Wexpro Company for an injection well has been provided to all operators, owners, and surface owners within a one-half mile radius of the proposed injection well, by depositing a true and complete copy of such application in the United States mail, postage prepaid, and properly addressed to such persons at their last known address.


Robert H. Lovell

SUBSCRIBED AND SWORN to before me the undersigned authority on this 9th day of January, 1987.





C O R R E C T E D
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other In-
structions on
reverse side)

Form approved.
Budget Bureau No. 1004-013
Expires August 31, 1985

13

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____
 b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEPEN PLUG BACK DIFF. RESVR. Other _____

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 458, Rock Springs, WY 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
 At surface SW SW, 678' FSL, 664' FWL
 At top prod. interval reported below
 At total depth

RECEIVED
SEP 21 1984
DIVISION OF OIL
GAS & MINING

14. PERMIT NO. 43-037-31019 DATE ISSUED _____
 12. COUNTY OR PARISH San Juan 13. STATE Utah

15. DATE SPUNDED 7-8-84 16. DATE T.D. REACHED 7-25-84 17. DATE COMPL. (Ready to prod.) 8-2-84 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* GR 5221 KB 5234' 19. ELEV. CASINGHEAD --

20. TOTAL DEPTH, MD & TVD 5650' 21. PLUG, BACK T.D., MD & TVD 5605.51' 22. IF MULTIPLE COMPL., HOW MANY* -- 23. INTERVALS DRILLED BY ROTARY TOOLS CABLE TOOLS --

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 5440'-5468' - Upper Ismay 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN Sonic, LD-CNL, DIL, Electromagnetic Propagation, Composite Fracture Id. 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 |
|-------------|-----------------|----------------|-----------|------------------------------|---------------|
| 9-5/8 | 36 | 1569 | 12-1/4 | 325 sx Howco Light, 180 sx | Reg -- |
| 5-1/2 | 17 | 5642.37 | 8-3/4 | 735 sx 50-50 Pozmix w/2% gel | -- |

29. LINER RECORD **30. TUBING RECORD**

| SIZE | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SCREEN (MD) | SIZE | DEPTH SET (MD) | PACKER SET (MD) |
|------|----------|-------------|---------------|-------------|-------|----------------|-----------------|
| | | | | | 2-7/8 | 5436.29 | |

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

| | | |
|---------------------------------------|---------------------|----------------------------------|
| <u>5440'-5468' - 4 holes per foot</u> | DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED |
| | <u>5440'-5468'</u> | <u>4000 gallons 28% HCL acid</u> |

33.* PRODUCTION

| | | | | | | | |
|--------------------------------------|---------------------------|---|----------------------------------|--------------------|-----------------------|---|---------------------------|
| DATE FIRST PRODUCTION <u>8-31-84</u> | | PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) <u>Pumping</u> | | | | WELL STATUS (Producing or shut-in) <u>Producing</u> | |
| DATE OF TEST <u>8/31-9/1/84</u> | HOURS TESTED <u>48</u> | CHOKE SIZE <u>--</u> | PROD'N. FOR TEST PERIOD <u>→</u> | OIL—BBL. <u>91</u> | GAS—MCF. <u>152</u> | WATER—BBL. <u>359</u> | GAS-OIL RATIO <u>1670</u> |
| FLOW. TUBING PRESS. <u>60</u> | CASING PRESSURE <u>60</u> | CALCULATED 24-HOUR RATE <u>→</u> | OIL—BBL. <u>45</u> | GAS—MCF. <u>76</u> | WATER—BBL. <u>179</u> | OIL GRAVITY-API (CORR.) <u>--</u> | |

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

35. LIST OF ATTACHMENTS
057

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

SIGNED [Signature] TITLE Director, Petroleum Eng. DATE 9-14-84

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

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. | NAME | TOP | |
|-----------|------|--------|---|--|--|------------------|
| | | | | | MEAS. DEPTH | TRUE VERT. DEPTH |
| Ismay | 5414 | 5468 | DST #1: TD 5468', packers 5414' & 5420'. IO 30 mins, ISI 60 mins, FO 90 mins, FSI 843 mins, 1 st open 2" wtr in bucket, inc to strong in 5 mins, NGTS, 2nd open strong, bottom of bucket, GTS in 11 mins, NETG, rec 463' gas cut mud, Res 1.95%, 270' gas cut wtr, Res 1.14%, sample chamber rec 1200 cc oil, 4.06 cc gas, 1450 psig, IHHP 2801, IOFP's 54-188, ISIP 1856, FOFP's 161-296, FSIP 2072, FHHP 2801, BHT 130°F. | Morrison Entrada Carmel Navajo Chinle Shinarump Cutler Honaker Trail Paradox Ismay Lower Ismay B Zone Shale | Surface 600 760 790 1,569 2,360 2,516 4,398 4,893 5,430 5,580 5,630 | |



WEXPRO COMPANY

79 SOUTH STATE STREET • P. O. BOX 11070 • SALT LAKE CITY, UTAH 84147 • PHONE (801) 530-2651

ROBERT H. "BOB" LOVELL
SENIOR ATTORNEY

January 9, 1987

RECEIVED
JAN 09 1987

DIVISION OF
OIL, GAS & MINING

Mr. Gilbert Hunt
Utah Division of Oil Gas and Mining
355 W. North Temple
3 Triad Center Suite 350
Salt Lake City, UT 84180-1203

Dear Mr. Hunt:

Re: UIC-091

Please accept for filing with the Board of Oil, Gas and Mining the enclosed application of Wexpro Company for a water disposal well. Wexpro Company does not request a hearing and hopes that its application may be granted administratively.

Very truly yours,

Robert H. Lovell

pw
Encl.

RECEIVED
JAN 09 1987

DIVISION OF
OIL, GAS & MINING

ATTACHMENTS

Application for Approval of a Class II Injection Well

Applicant: Wexpro Company
79 South State Street
P. O. Box 11070
Salt Lake City, Utah 84147

Subject Well: Patterson Unit Well No. 5
Section 4, Township 36 South, Range 25 East
San Juan County, Utah

Rule 502 (b)

Form DOGM-UIC-1 is attached.

Rule 502 (b)(1)

The location plat is attached together with the names and addresses of all surface owners and operators within one-half mile of the subject well.

Rule 502 (b)(2)

Copies of all open-hole logs for the subject well have been previously filed with the Division.

Rule 502 (b)(3)

A copy of the Cement Bond Log is attached.

Rule 502 (b)(4)

Please refer to Rule 502 (b)(2), above.

Rule 502 (b)(5)

Schematic drawings of the present well completion and proposed well completion, along with pertinent casing/cementing reports are attached. Wexpro Company proposes to test the tubing/casing annulus to 1000 psig for 15 minutes. The Division will be notified prior to testing in order to provide an opportunity to witness the test.

Rule 502 (b)(6)

Wexpro Company proposes to inject produced water associated with oil production at its Patterson Canyon Unit (T36S, R25E, San Juan County, Utah). The produced water is predominately from the Ismay Formation. Small amounts of Desert Creek Formation water will also be injected. Estimated average daily volumes are:

| | |
|--------------------|----------|
| Ismay Water | 275 BWPD |
| Desert Creek Water | 25 BWPD |
| Total Water | 300 BWPD |

Rule 502 (b)(7)

Laboratory analyses of the formation waters for the Ismay and Desert Creek are attached.

Rule 503 (b)(8)

Proposed average and maximum injection conditions are as follows:

| <u>Average</u> | <u>Maximum</u> |
|------------------|---------------------|
| 300 BWPD | 1000 BWPD |
| - psig @ Surface | 2554 psig @ Surface |

These are estimated values. A short injectivity test will be run prior to commencing injection operations to determine actual pressures and rates.

Rule 502 (b)(9)

The injection fluid is salt water, with a weight of approximately 9.75 pounds per gallon. This will exert a hydrostatic pressure of 0.506 psig per foot of depth. Under maximum injection conditions, the pressure exerted at the midpoint of the Ismay injection interval (5485 feet KBM) will be:

$$\begin{aligned}\text{Midpoint Pressure} &= 2554 \text{ psig} + (5485)(0.506) \text{ psig} \\ &= 5329 \text{ psig}\end{aligned}$$

This is equivalent to a fracture gradient of 0.972 psig/ft.

Fracture gradients calculated from acid treatments on Patterson Unit Well No. 5 have ranged from 1.10-1.15 psig/ft. As calculated, the maximum operating pressure is still below the estimated fracture gradient in the Patterson Unit area. In addition, because of the small volume of produced water that will be disposed of daily (300 BWPB), the chances of increasing the pressure to maximum conditions is rather low.

Rule 502 (b)(10)

Copies of Wexpro Company's "Geology of Fresh Water Aquifers - Patterson Field Area and a Well Completion Report for Unit Well No. 5 showing geologic markers are attached.

Rule 502 (b)(11)

A review of wells within one-half mile of Unit Well No. 5 indicates no conduit exists for injected fluids to migrate up or down the wellbore and enter improper intervals. Patterson Canyon Wells No. 1 and 3 currently produce from same interval as the proposed injection zone. Patterson Unit No. 6 is properly plugged and abandoned with a 40-sack cement plug across the Ismay interval. Present status drawings for these three wells are attached.

Rule 502 (b)(12)

A copy of the mailing affidavit is attached.

WEXPRO COMPANY
PATTERSON CANYON UNIT WELL NO. 5
SALT WATER DISPOSAL WELL APPLICATION

UTAH BOARD OF OIL, GAS, AND MINING
February 26, 1987

ATTACHMENT FOR RULE 502 (b)

CAUSE: UIC-091

STATE OF UTAH
 DIVISION OF OIL, GAS, AND MINING
 ROOM 4241 STATE OFFICE BUILDING
 SALT LAKE CITY, UTAH 84114
 (801) 533-5771
 (RULE I-5 & RULE I-4)

RECEIVED
 JAN 09 1987

FORM NO. DOGM-UIC-1
 (Revised 1982)

DIVISION OF
 OIL, GAS & MINING

IN THE MATTER OF THE APPLICATION OF
Wexpro Company
 ADDRESS 79 South State Street
Salt Lake City, Utah ZIP 84147
 INDIVIDUAL PARTNERSHIP CORPORATION *
 FOR ADMINISTRATIVE APPROVAL TO DISPOSE OR
 INJECT FLUID INTO THE Patterson Unit 5 WELL
 SEC. 4 TWP. 38S RANGE 25E
San Juan COUNTY, UTAH

CAUSE NO. UIC-091

| | |
|-----------------------------|-------------------------------------|
| ENHANCED RECOVERY INJ. WELL | <input type="checkbox"/> |
| DISPOSAL WELL | <input checked="" type="checkbox"/> |
| LP GAS STORAGE | <input type="checkbox"/> |
| EXISTING WELL (RULE I-4) | <input type="checkbox"/> |

APPLICATION

Comes now the applicant and shows the Corporation Commission the following:

1. That Rule I-5 (g) (iv) authorizes administrative approval of enhanced recovery injections, disposal or LP Gas storage operations.
2. That the applicant submits the following information.

| | | | |
|---|--|--|-------------------------------|
| Lease Name <u>Patterson Unit</u> | Well No. <u>Unit Well No. 5</u> | Field <u>Patterson Unit</u> | County <u>San Juan</u> |
| Location of Enhanced Recovery Injection or Disposal Well <u>678' FSL</u> <u>664' FWI</u> | Sec. <u>4</u> | Twp. <u>38S</u> | Rge. <u>25E</u> |
| New Well To Be Drilled Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Old Well To Be Converted Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Casing Test Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Date <u>Will Notify</u> | |
| Depth-Base Lowest Known Fresh Water Within 1/2 Mile <u>1600' KBM</u> | Does Injection Zone Contain Oil-Gas-Fresh Water Within 1/2 Mile YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> | | State What <u>Oil, Gas</u> |
| Location of Injection Source(s) <u>Producing wells within Patterson Unit</u> | Geologic Name(s) and Depth of Source(s) <u>Ismay (5430') Desert Creek (6300')</u> | | |
| Geologic Name of Injection Zone <u>Ismay</u> | Depth of Injection Interval <u>5476' to 5494' KBM</u> | | |
| a. Top of the Perforated Interval: <u>5476' KBM</u> | b. Base of Fresh Water: <u>1600' KBM</u> | c. Intervening Thickness (a minus b) <u>3876'</u> | |
| Is the intervening thickness sufficient to show fresh water will be protected without additional data? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | | | |
| Lithology of Intervening Zones <u>See attachment</u> | | | |
| Injection Rates and Pressures Maximum <u>1000</u> B/D <u>2554</u> PSI | | | |
| The Names and Addresses of Those to Whom Notice of Application Should be Sent. <u>See attachment</u> | | | |

State of Utah
 County of Salt Lake

Jeffrey L. Ingerson
 Applicant

Before me, the undersigned authority, on this day personally appeared Jeffrey L. Ingerson
 known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on
 oath states, that he is duly authorized to make the above report and that he has knowledge of the facts stated
 therein, and that said report is true and correct.

Suscribed and sworn to before me this 9th day of January 19 87

PATRICIA R. WARBERG
 Notary Public, State of Utah
 My Commission Expires Nov. 10, 1990
 My commission is in Salt Lake County, Utah

Patricia R. Warberg
 Notary Public in and for _____

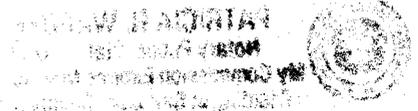
(OVER)

INSTRUCTIONS

1. Attach qualitative and quantitative analysis of representative sample of water to be injected and a qualitative and quantitative analysis of the injection formation of water.
2. Attach plat showing subject well and all known oil and gas wells, abandoned, drilling and dry holes within one-half mile, together and with the name of the operator(s).
3. Attach Drillers Log (Form DOGM-UIC-2). (Appropriate Surety must be on file with Conservation Division or appropriate government agencies.)
4. Attach Electric or Radioactivity Log of Subject well (if released).
5. Attach schematic drawing of subsurface facilities including; Size, setting depth, amount of cement used measured or calculated tops of cement surface, intermediate (if any) and production casings; size and setting depth of tubing; type and setting depth of packer; geologic name of injection zone showing top and bottom of injection interval.
6. If the application is for a NEW well the original and six (6) copies of the application and three (3) complete sets of attachments shall be mailed to the Division. For EXISTING well applications (Rule I-4) only ONE copy of the application and ONE complete set of attachments are required to be mailed to the Division.
7. The Division is required to send notice of application to the surface owner of the land within one-half mile of the injection well and to each operator of a producing leasehold within one-half mile of the injection well. List all required names and addresses in the appropriate space provided on the front of this form.
8. Notice that an application has been filed shall be published by the Division in a newspaper of general circulation in the county of publication before the application is approved. The notice shall include the name and address of applicant, location of proposed injection or disposal well, injection zone, injection pressure and volume. If no written objection is received within 15 days from date of publication the application may be approved administratively.
9. A well shall not be used for injection or disposal unless completed machine accounting Form DOGM-UIC-3b is filed by January 31st each year.
10. Approval of this application, if granted, is valid only as long as there is no substantial change in the operations set forth in the application. A substantial operation change requires the approval of a new application.
11. If there is less intervening thickness required by Rule I-5 (b) 4, attach sworn evidence and data.
12. For enhanced recovery projects, information required by Rule I-4 which is common to more than one well, need be reported only once on the application.

CASING AND TUBING DATA

| NAME OF STRING | SIZE | SETTING DEPTH | SACKS CEMENT | TOP OF CEMENT | TOP DETERMINED BY |
|----------------------------|---|--|---|---|-------------------|
| Surface | 9-5/8" | 1569' | 565 SX | Surface | Visual Inspection |
| Intermediate | | | | | |
| Production | 5-1/2" | 5642.37' | 735 SX | 3030' | Bond Log |
| Tubing | 2-7/8" | 5472' | Name - Type - Depth of Tubing Packer Baker @ 5472' KBM | | |
| Total Depth 5650 | Geologic Name - Inj. Zone Ismay | Depth - Top of Inj. Interval 5430' KBM | | Depth - Base of Inj. Interval 5508' KBM | |



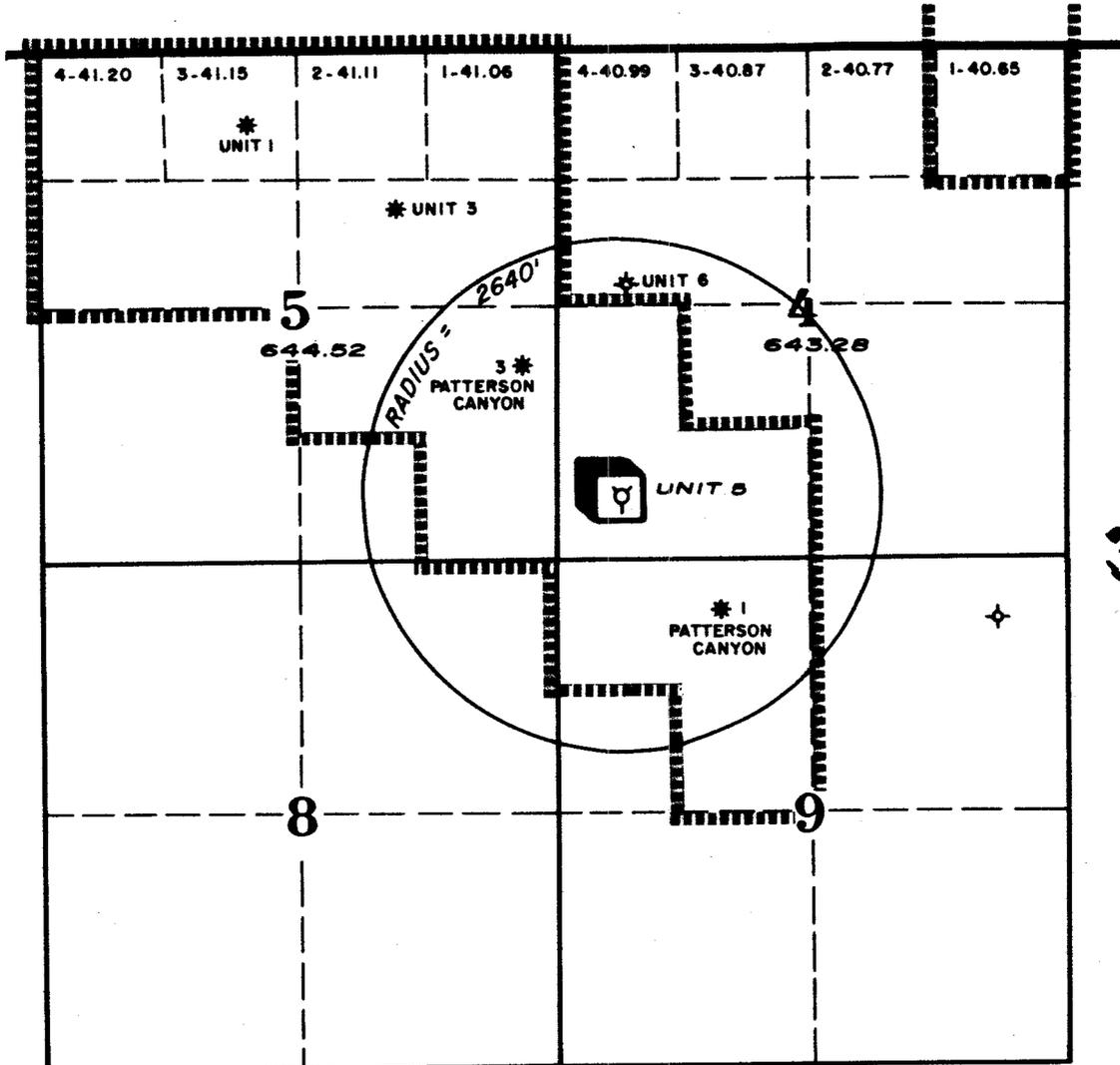
WEXPRO COMPANY
PATTERSON CANYON UNIT WELL NO. 5
SALT WATER DISPOSAL WELL APPLICATION

UTAH BOARD OF OIL, GAS, AND MINING
February 26, 1987

ATTACHMENT FOR RULE 502 (b)(1)

CAUSE: UIC-091

R 25 E



T
38
S

1/87 RG

PATTERSON UNIT

SAN JUAN COUNTY, UTAH

1" = 2000'

-  **PATTERSON UNIT**
-  **WATER INJECTION WELL
(PROPOSED)**
-  **OIL & GAS WELL**
-  **DRY HOLE**

SURFACE OWNERSHIP WITHIN ONE-HALF MILE

PATTERSON UNIT WELL NO. 5

Section 4 - Township 38 South - Range 25 East

SE/4 NW/4

Redburn Flying R Ranch
Marvin D. & Vivian Redburn
25292 Hiway 145
Dolores, Colorado 81323

SW/4 NW/4

Bureau of Land Management
P. O. Box 7
Monticello, Utah 84535

E/2 SW/4

Redburn Flying R Ranch
Marvin D. & Vivian Redburn
25292 Hiway 145
Dolores, Colorado 81323

W/2 SW/4

Bureau of Land Management
P. O. Box 7
Monticello, Utah 84535

W/2 SE/4

Redburn Flying R Ranch
Marvin D. & Vivian Redburn
25292 Hiway 145
Dolores, Colorado 81323

Section 5 - Township 38 South - Range 25 East

SE/4 NE/4

Bureau of Land Management
P. O. Box 7
Monticello, Utah 84535

SE/4

Bureau of Land Management
P. O. Box 7
Monticello, Utah 84535

Section 8 - Townsyhip 38 South - Range 25 East

NE/4 NE/4

Bureau of Land Management
P. O. Box 7
Monticello, Utah 84535

NW/4 NE/4

Bureau of Land Management
P. O. Box 7
Monticello, Utah 84535

SE/4 NE/4

Bureau of Land Management
P. O. Box 7
Monticello, Utah 84535

Section 9 - Township 38 South - Range 25 East

NW/4 NW/4

Redburn Flying R Ranch
Marvin D. & Vivian Redburn
25292 Hiway 145
Dolores, Colorado 81323

E/2 NW/4

Redburn Flying R Ranch
Marvin D. & Vivian Redburn
25292 Hiway 145
Dolores, Colorado 81323

W/2 NW/4

Bureau of Land Management
P. O. Box 7
Monticello, Utah 84535

OPERATORS WITHIN ONE-HALF MILE

PATTERSON UNIT WELL NO. 5

Section 4 - Township 38 South - Range 25 East

S/2 NW/4

Wexpro Company
P. O. Box 11070
Salt Lake City, Utah 84147

Mobil Oil Corporation
P. O. Box 5444
Terminal Annex
Denver, Colorado 80217

W/2 SW/4

Wexpro Company
P. O. Box 11070
Salt Lake City, Utah 84147

Mobil Oil Corporation
P. O. Box 5444
Terminal Annex
Denver, Colorado 80217

NW/4 SE/4

MCO Resources, Incorporated
5718 Westheimer
Houston, Texas 77057

NE/4 SW/4

Wexpro Company
P. O. Box 11070
Salt Lake City, Utah 84147

Mobil Oil Corporation
P. O. Box 5444
Terminal Annex
Denver, Colorado 80217

SE/4 SW/4

Celsius Energy Company
P. O. Box 11070
Salt Lake City, Utah 84147

SE/4 SE/4

Celsius Energy Company
P. O. Box 11070
Salt Lake City, Utah 84147

Section 5 - Township 38 South - Range 25 East

SE/4 NW/4

Wexpro Company
P. O. Box 11070
Salt Lake City, Utah 84147

Mobil Oil Corporation
P. O. Box 5444
Terminal Annex
Denver, Colorado 80217

SE/4

Wexpro Company
P. O. Box 11070
Salt Lake City, Utah 84147

Mobil Oil Corporation
P. O. Box 5444
Terminal Annex
Denver, Colorado 80217

Section 8 - Township 38 South - Range 25 East

N/3 NE/4

Wexpro Company
P. O. Box 11070
Salt Lake City, Utah 84147

Mobil Oil Corporation
P. O. Box 5444
Terminal Annex
Denver, Colorado 80217

SE/4 NE/4

Wexpro Company
P. O. Box 11070
Salt Lake City, Utah 84147

Mobil Oil Corporation
P. O. Box 5444
Terminal Annex
Denver, Colorado 80217

Section 9 - Township 38 South - Range 25 East

NW/4 NE/4

Wexpro Company
P. O. Box 11070
Salt Lake City, Utah 84147

Mobil Oil Corporation
P. O. Box 5444
Terminal Annex
Denver, Colorado 80217

Helene Wolf
P. O. Box 98
Alief, Texas 77401

Marvin Wolf
P. O. Box 1715
Denver, Colorado 80201

Barbra A. Powell
101 Hickory Ridge
Houston, Texas 77024

Stovall Oil Company
P. O. Box 2331
Casper, Wyoming 82602

E/2 NW/4

Wexpro Company
P. O. Box 11070
Salt Lake City, Utah 84147

Mobil Oil Corporation
P. O. Box 5444
Terminal Annex
Denver, Colorado 80217

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P. O. Box 98
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P. O. Box 11070
Salt Lake City, Utah 84147

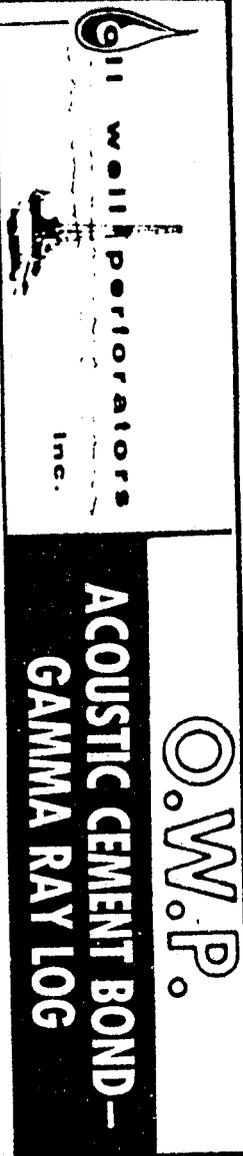
Mobil Oil Corporation
P. O. Box 5444
Terminal Annex
Denver, Colorado 80217

WEXPRO COMPANY
PATTERSON CANYON UNIT WELL NO. 5
SALT WATER DISPOSAL WELL APPLICATION

UTAH BOARD OF OIL, GAS, AND MINING
February 26, 1987

ATTACHMENT FOR RULE 502 (b)(3)

CAUSE: UIC-091



COMPANY WEXPRO COMPANY
 WELL PATTERSON UNIT 5
 FIELD PATTERSON
 County SAN JUAN
 State UTAH
 File _____

COMPANY WEXPRO COMPANY
 WELL PATTERSON UNIT NO. 5
 FIELD PATTERSON
 COUNTY SAN JUAN STATE UTAH
 Location 678 FSL 664 FWL
 Sec. 4 Twp. 38 -S Rge. 25 E
 Elevation _____

Permanent Datum GROUND LEVEL Elev. 5221
 Log Measured From KELLY BUSHING OR 12 AGL DF. 5232
 Drilling Measured From KELLY BUSHING OR 12 AGL GL. 5221

| | | |
|-----------------------|--------------|------------|
| Type Log | CBL - GR | Other Logs |
| Run No. | ONE | |
| Date | 7-29-84 | |
| Total Depth Driller | 5660 | |
| Present Depth Driller | 5605 PB | |
| Total Depth O.W.P. | 5606 | |
| Key Begins | 2800 | |
| Key Ends | 5603 | |
| Truck No. | 527 | |
| Location | VERNAL WATER | |
| Type Fluid In Hole | | |
| Salinity PPM Cl | | |
| Weight lb./gal | 300 | |
| Fluid Level | 1160 SWS | |
| Max. Hole Temp. | | |
| Recorded By | ETTER | |
| Witnessed By | MR MARSH | |

BORE HOLE RECORD

| Run | Bit | From | To | Size | Wgt. | From | To |
|-----|-----|------|----|-------|------|---------|------|
| | | | | 5 1/2 | 17 | SURFACE | 5660 |

CASING RECORD

| Run | Bit | From | To | Size | Wgt. | From | To |
|-----|-----|------|----|------|------|------|----|
| | | | | | | | |

LOGGING TOOL DATA

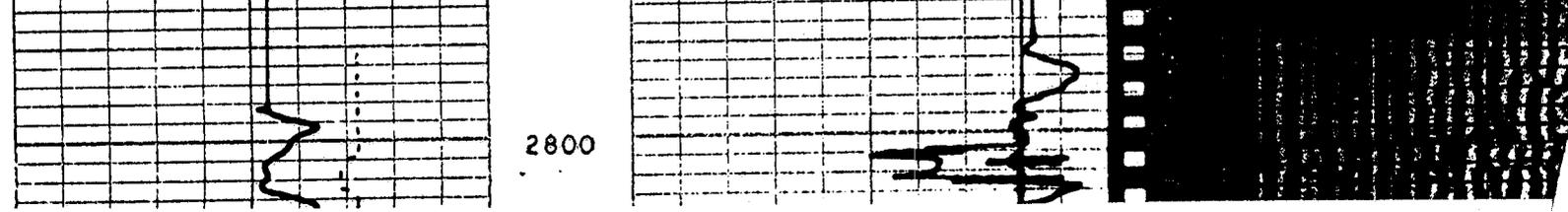
| | | |
|-----------------------------|---------------------------------|-----------------------------|
| Truck No. <u>527</u> | Inst. Truck No. _____ | Tool Serial No. <u>33</u> |
| <u>GAMMA RAY</u> | | <u>CEMENT BOND</u> |
| Tool Model No. <u>10 CS</u> | Dia. <u>3.125</u> | Log Type <u>ACOUSTIC</u> |
| Detector Model No. _____ | Length <u>4</u> | Tool Model No. <u>10 CS</u> |
| Type <u>SCINTILLATION</u> | Distance To Bond Ref. <u>7'</u> | Dia. <u>3.375</u> |
| | | Detector Model No. _____ |
| | | Free Casing = <u>3' 10</u> |
| | | API Div. _____ |
| | | Spacing <u>3'</u> |

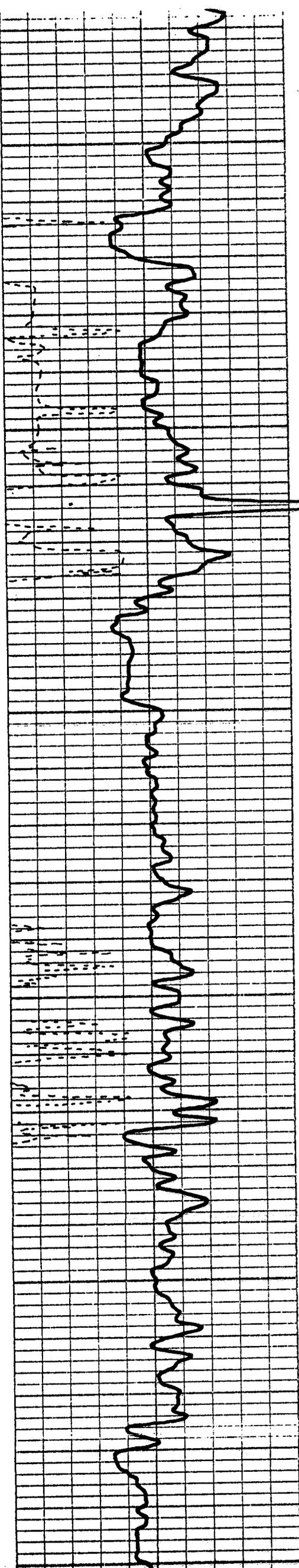
LOGGING DATA

| Depth | Speed | T. C. | Gamma Ray Setting | | | Bond Setting | | |
|------------------|----------------|-----------|-------------------|------------|----------------|--------------------|-----------------|------------------|
| | | | Sensitivity | Zero | Scale | Sensitivity | Zero | Scale |
| From <u>2800</u> | To <u>5603</u> | <u>30</u> | <u>2</u> | <u>350</u> | <u>SEE LOG</u> | <u>CORRELATION</u> | <u>GAIN 115</u> | <u>DELAY 485</u> |

Calibration Data _____

CEMENTING DATA & REMARKS: NONE

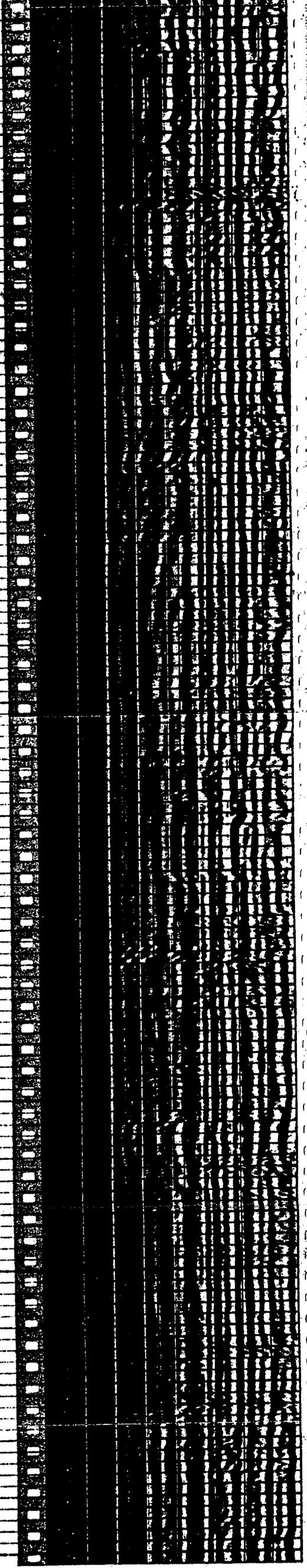
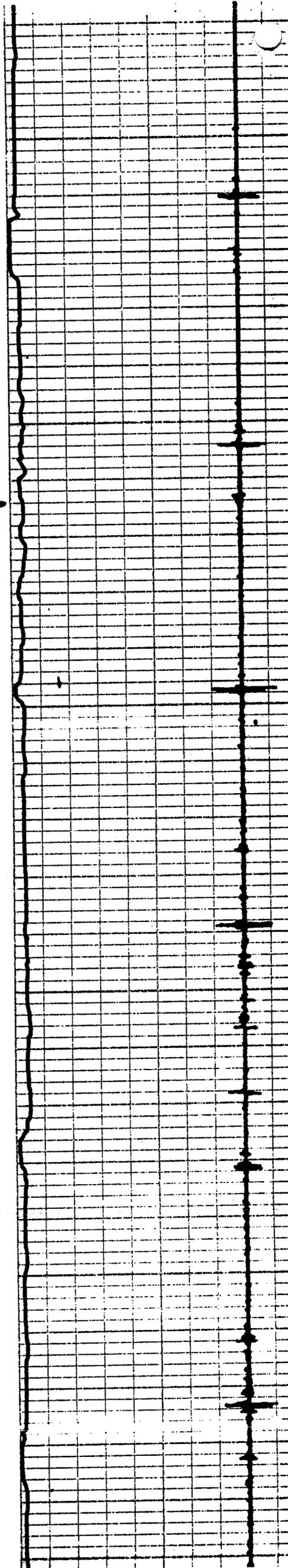


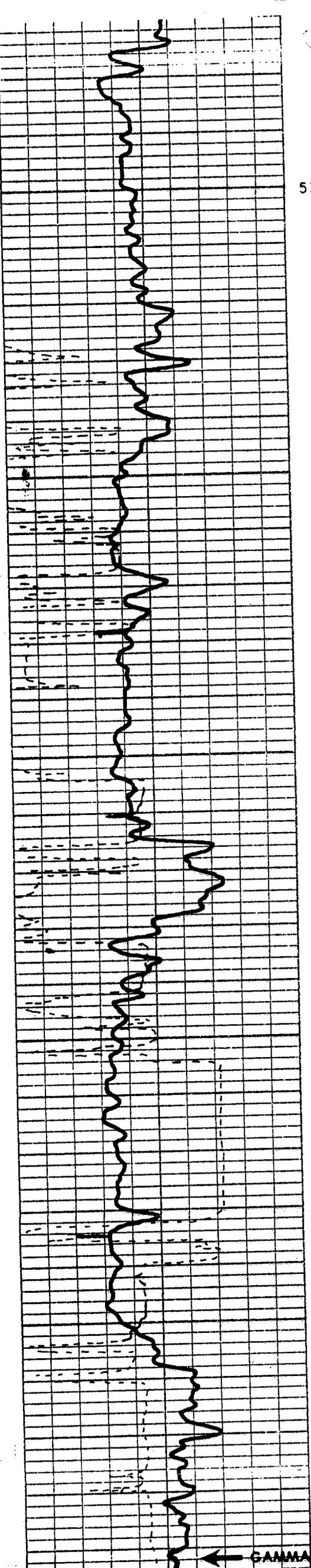


5100

5200

5300



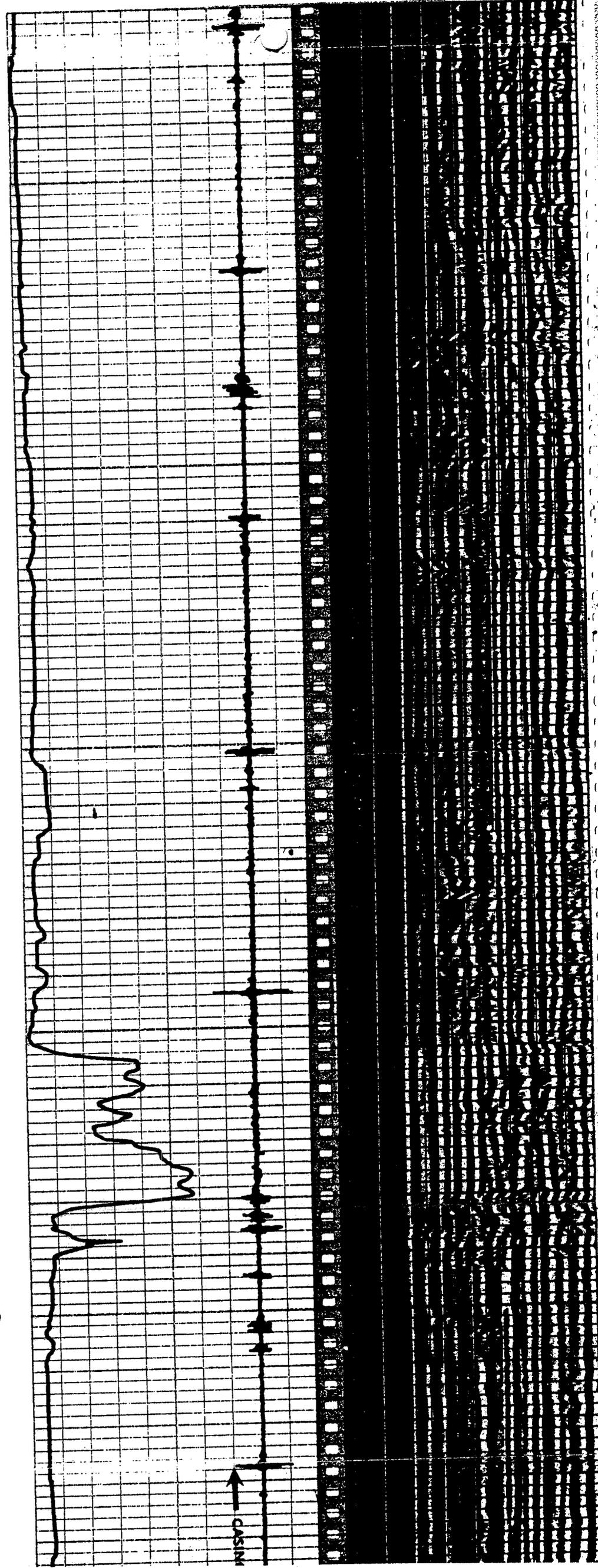


5300

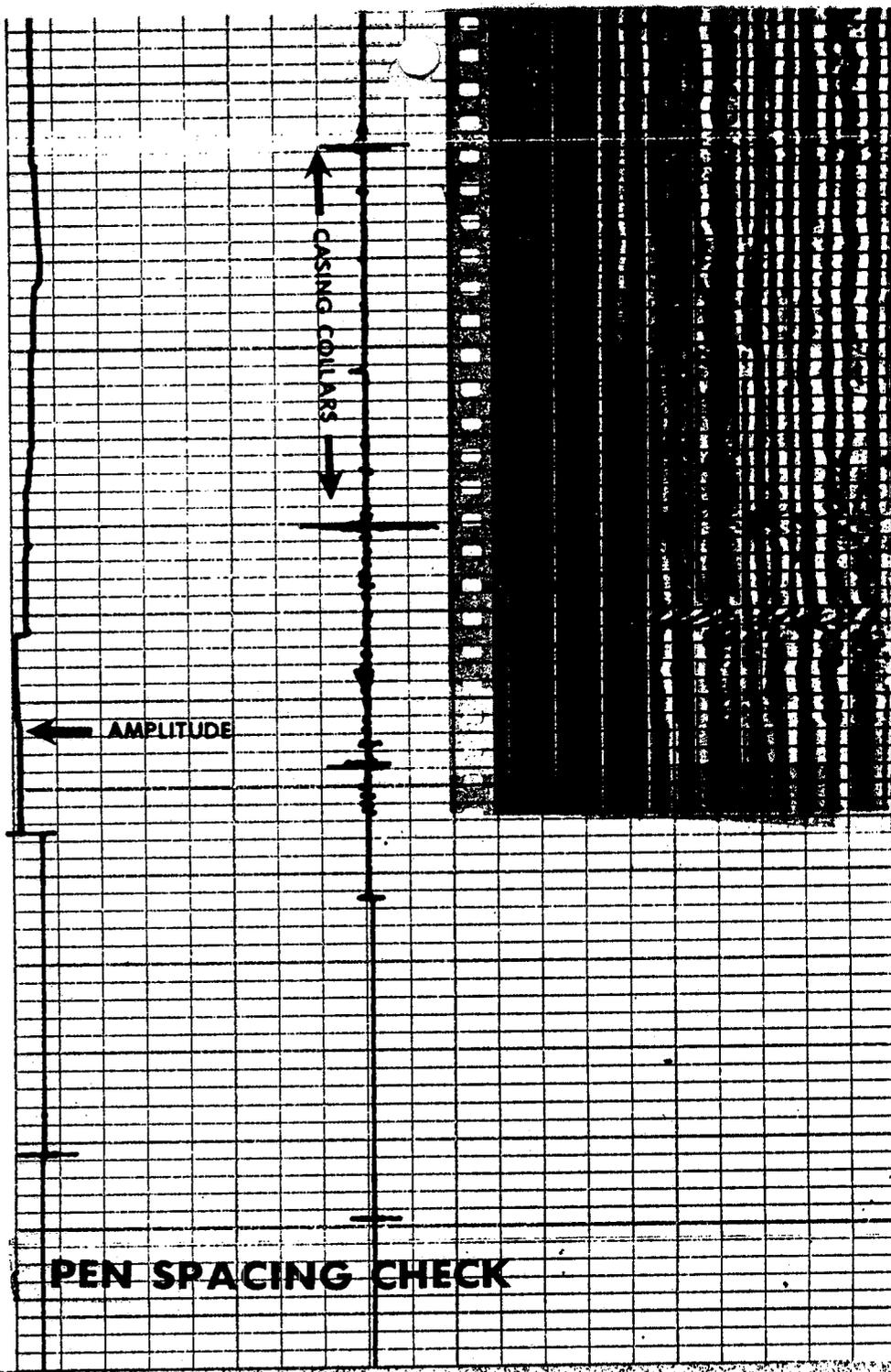
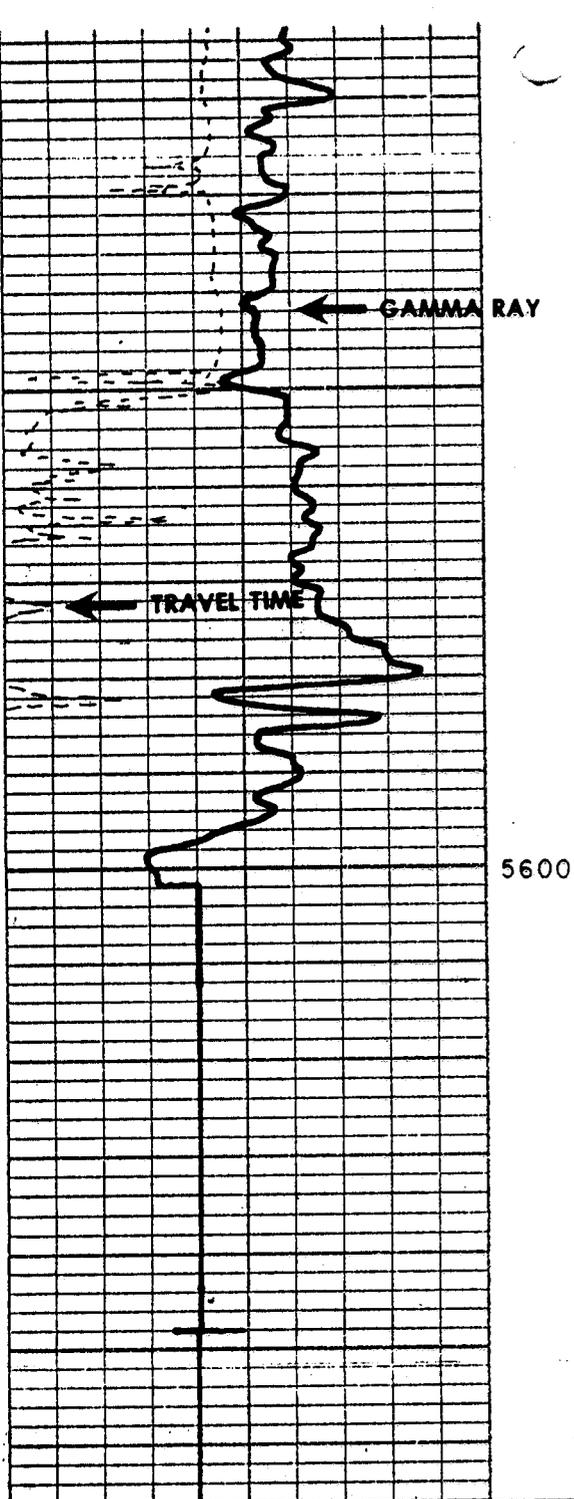
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5500

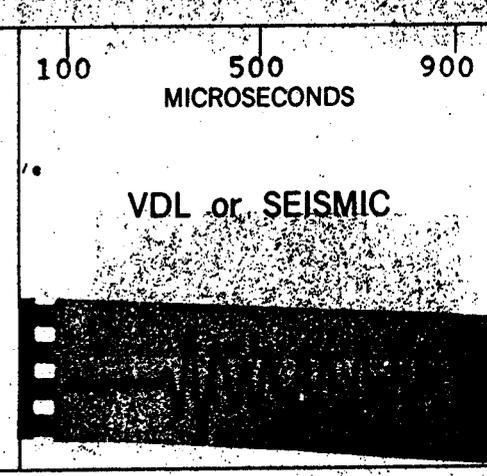
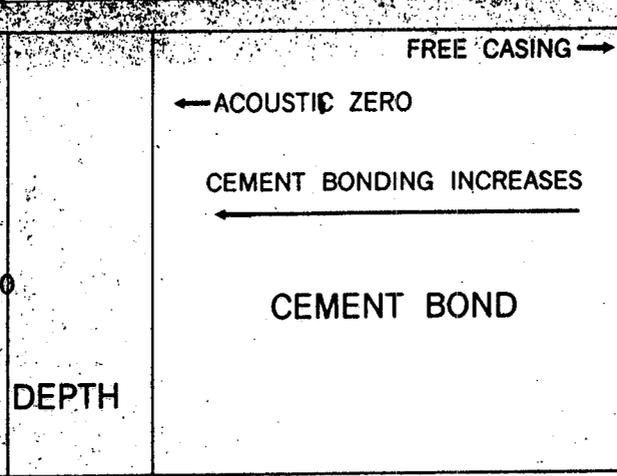
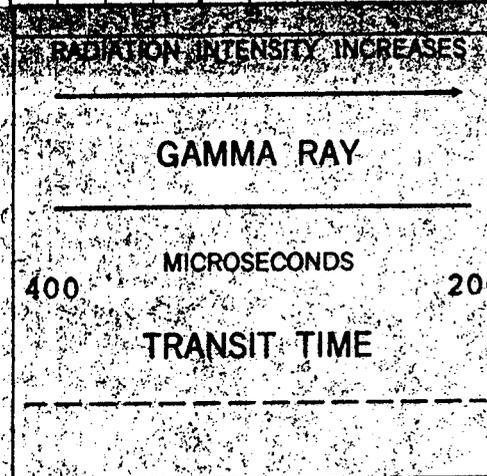
← GAMMA RAY



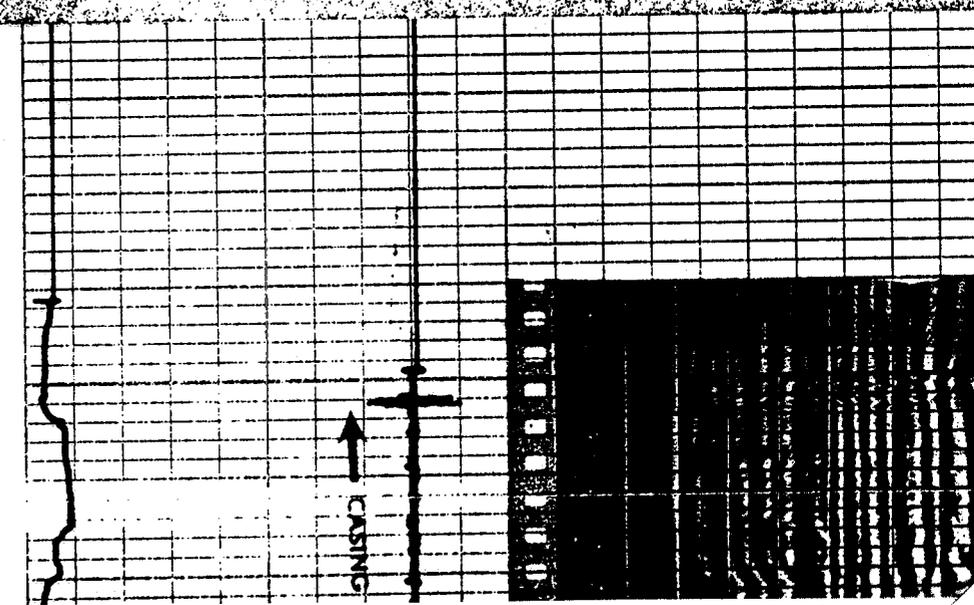
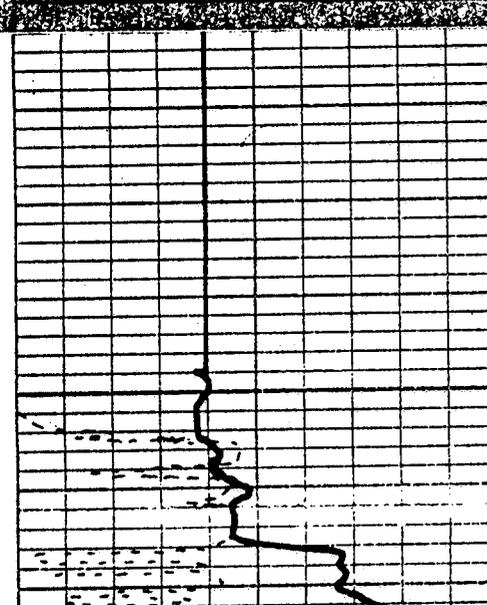
↑ CASIM



PEN SPACING CHECK



REPEAT SECTION



RECEIVED
JAN 09 1987

DIVISION OF
OIL, GAS & MINING

WEXPRO COMPANY
PATTERSON CANYON UNIT WELL NO. 5
SALT WATER DISPOSAL WELL APPLICATION

UTAH BOARD OF OIL, GAS, AND MINING

February 26, 1987

ATTACHMENT FOR RULE 502 (b)(5)

CAUSE: UIC-091

PRESENT STATUS DRAWING

| | |
|----------|----------------|
| WELL | Unit Well 5 |
| FIELD | Patterson Unit |
| LOCATION | 4 38S 25E |

KB 5234'

GL 5221'

9-5/8", 36#, K55 ST&C

Cement Top

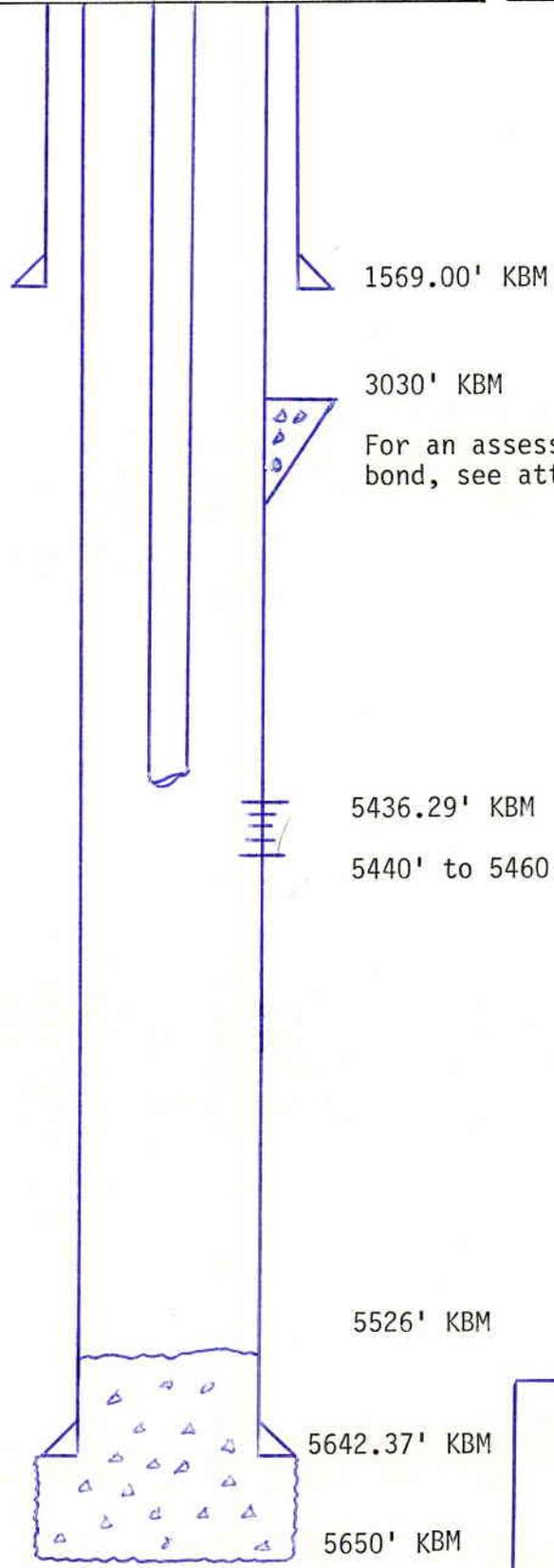
2-7/8", 6.5#, J55 8Rd EUE

Perforations (Ismay)

Plug Back Depth

5 1/2", 17#, K55, LT&C

Total Depth



1569.00' KBM

3030' KBM

For an assessment of the cement bond, see attached Bond Log

5436.29' KBM

5440' to 5460' KBM

5526' KBM

5642.37' KBM

5650' KBM

Present Completion

PRESENT STATUS DRAWING

KB 5234'

GL 5221'

| | |
|----------|----------------|
| WELL | Unit Well 5 |
| FIELD | Patterson Unit |
| LOCATION | 4 38S 25E |

9-5/8", 36#, K55 ST&C

1569.00' KBM

Cement Top

3030' KBM

For an assessment of the Cement Bond, see attached Bond Log

Perforations (squeezed)

5440' to 5460' KBM

2-7/8", 6.5#, J55 8Rd EUE
on Packer

5472' KBM

Proposed Perforations (Ismay)

5476' to 5494' KBM

Plug Back Depth

5526' KBM

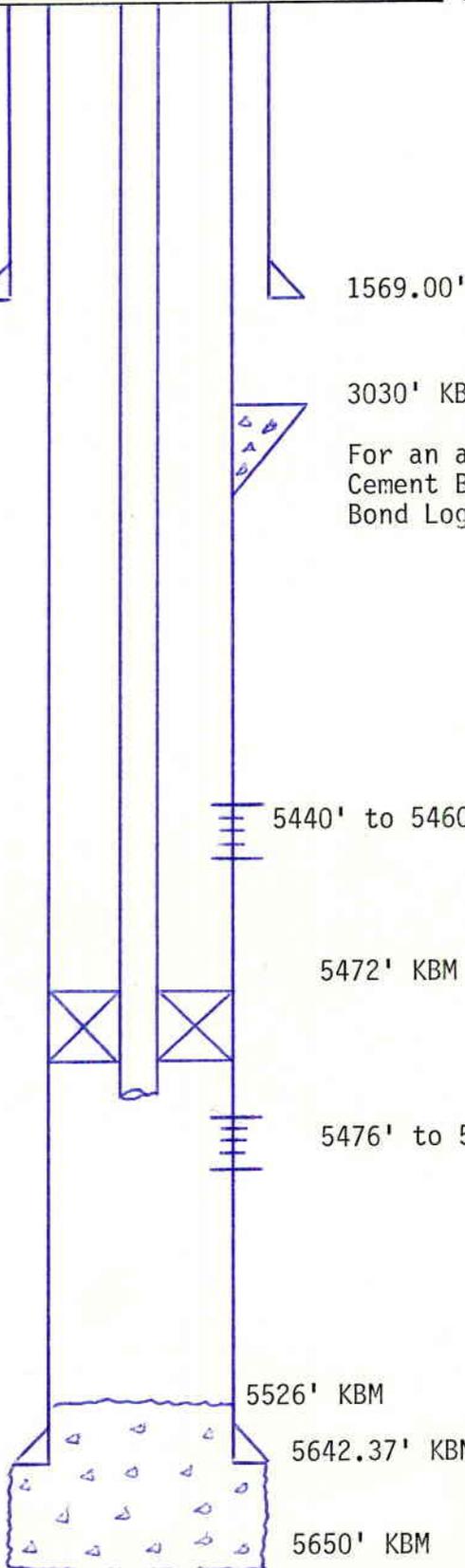
5 1/2", 17#, K55 LT&C

5642.37' KBM

Total Depth

5650' KBM

Proposed Completion



PATTERSON UNIT WELL NO. 5

Casing Report

Landed 9-5/8-inch O.D., 36-pound, K-55, 8 round thread, ST&C casing at 1569.00 feet KBM or 13.00 feet below KB, circulated casing 45 minutes with rig pump prior to cementing, cemented with 325 sacks Howco Light treated with 10-pounds Gilsonite per sack, 2% CaCl and 1/4-pound flocele per sack, followed with 180 sacks Regular cement treated with 3% CaCl and 1/4-pound flocele per sack, good and full returns while cementing bumped plug with 1000 psi, 500 psi over pumping pressure, float held okay, cement in place at 9:15 P.M. 7-9-84, ran one-inch pipe down backside of 9-5/8-inch O.D. casing and cemented with 60 sacks Regular cement treated with 3% CaCl, cement in place at 4:30 A.M. 7-10-84.

Casing Report

Ran and landed 5-1/2" O.D., 17#, K-55, 8 rd thrd, LT&C casing at 5642.37 feet KBM or 13.00 feet below KB, circulated casing for 45 minutes prior to cementing operations, pumped 20 barrels water ahead of cement, cemented with 735 sacks 50-50 Pozmix with 2% gel, bumped plug with 1500 psi, 600 psi over displacement pressure, released pressure, flowed back 3/4 barrel water, float held okay, landed casing with full indicator weight of 81,000 pounds on slips, installed an ERC 10" by 7-1/16" 3000 psi tubing spool, tested seals to 2000 psi, held okay, cement in place @ 4:30 P.M., 7-25-84.

WEXPRO COMPANY
PATTERSON CANYON UNIT WELL NO. 5
SALT WATER DISPOSAL WELL APPLICATION

UTAH BOARD OF OIL, GAS, AND MINING
February 26, 1987

ATTACHMENT FOR RULE 502 (b)(7)

CAUSE: UIC-091

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

WATER ANALYSIS REPORT

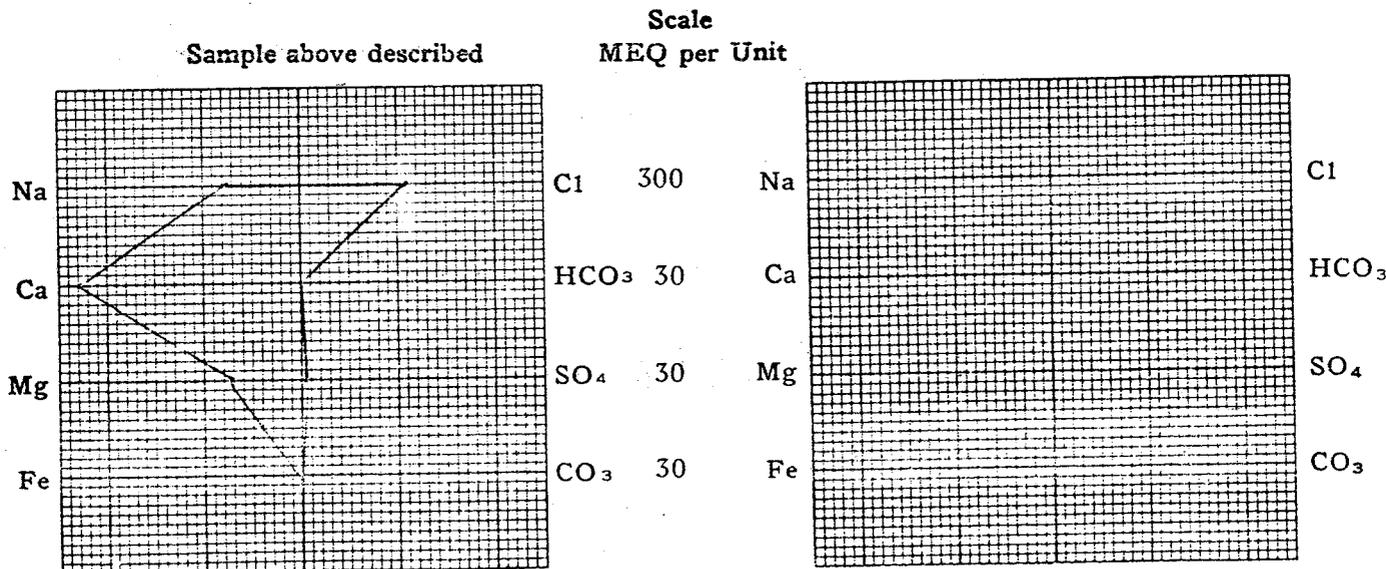
| | | |
|--|-----------------------------------|-----------------------|
| OPERATOR <u>Celsius Energy Company</u> | DATE <u>8-23-83</u> | LAB NO. <u>W30734</u> |
| WELL NO. <u>Unit Well #3</u> | LOCATION <u>Section 5-38N-25E</u> | |
| FIELD <u>Patterson Unit</u> | FORMATION <u>Ismay</u> | |
| COUNTY <u>San Juan</u> | INTERVAL <u>5572'-5580'</u> | |
| STATE <u>Utah</u> | SAMPLE FROM <u>Separator</u> | |

REMARKS & CONCLUSIONS: Due to the high salt content this water is unsuitable for vegetation or livestock use.

| <u>Cations</u> | <u>mg/l</u> | <u>meq/l</u> | <u>Anions</u> | <u>mg/l</u> | <u>meq/l</u> |
|----------------|-------------|--------------|------------------|-------------|--------------|
| Sodium | 53509 | 2327.62 | Sulfate | 950 | 19.76 |
| Potassium | 1360 | 34.82 | Chloride | 115000 | 3243.00 |
| Lithium | -- | -- | Carbonate | 0 | 0.00 |
| Calcium | 13707 | 683.98 | Bicarbonate | 41 | 0.67 |
| Magnesium | 2640 | 217.01 | Hydroxide | -- | -- |
| Iron | -- | -- | Hydrogen sulfide | -- | -- |
| Total Cations | | | Total Anions | | |
| 3263.43 | | | 3263.43 | | |

| | | | |
|------------------------------|--------|------------------------------|------------------|
| Total dissolved solids, mg/l | 187185 | Specific resistance @ 68°F.: | |
| NaCl equivalent, mg/l | 188676 | Observed | 0.050 ohm-meters |
| Observed pH | 5.5 | Calculated | 0.052 ohm-meters |

WATER ANALYSIS PATTERN



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l = Milligrams per liter Meq/l = Milligram equivalents per liter
Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

WATER ANALYSIS REPORT

| | | |
|--|------------------------------------|------------------------|
| OPERATOR <u>Celsius Energy Company</u> | DATE <u>8-10-83</u> | LAB. NO. <u>W30710</u> |
| WELL NO. <u>#4</u> | LOCATION <u>Section 32-37N-25E</u> | |
| FIELD <u>Patterson Unit</u> | FORMATION <u>Ismay</u> | |
| COUNTY <u>San Juan</u> | INTERVAL <u>5658'-5674'</u> | |
| STATE <u>Utah</u> | SAMPLE FROM <u>Flow Line</u> | |

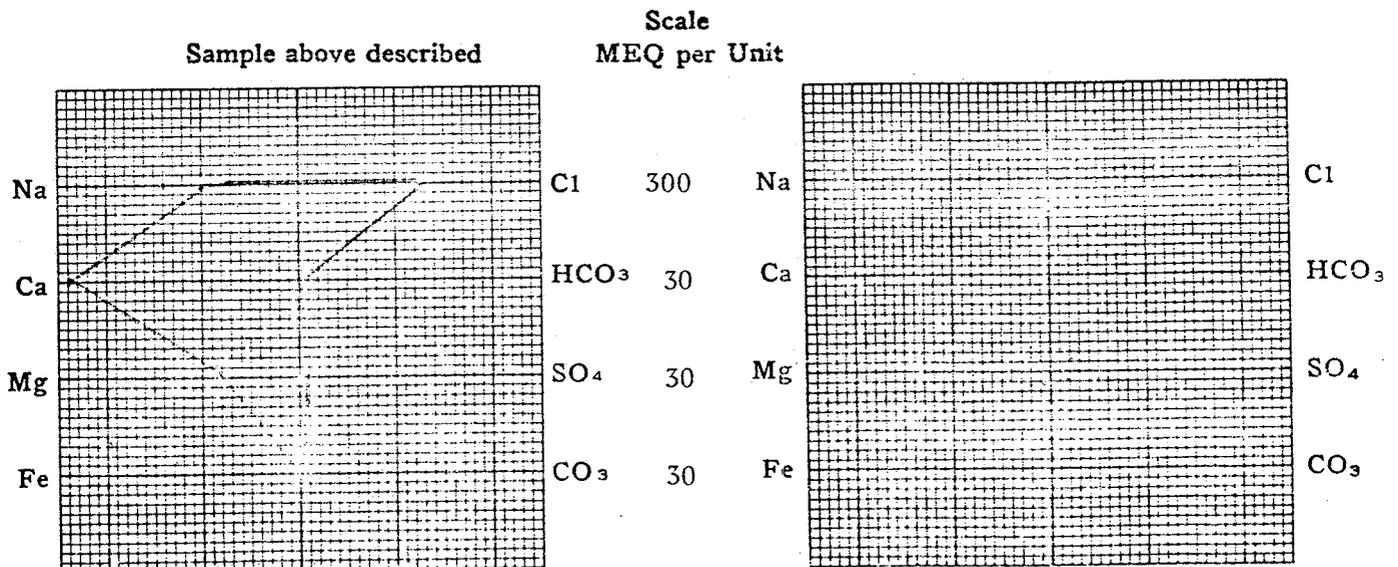
REMARKS & CONCLUSIONS: Due to the high salt content this water is not suitable for livestock or vegetation use.

| Cations | mg/l | meq/l | Anions | mg/l | meq/l |
|---------------|-------|---------|------------------|--------|---------|
| Sodium | 64515 | 2806.42 | Sulfate | 807 | 16.79 |
| Potassium | 1460 | 37.38 | Chloride | 134000 | 3778.80 |
| Lithium | -- | -- | Carbonate | 0 | 0.00 |
| Calcium | 14328 | 714.97 | Bicarbonate | 195 | 3.20 |
| Magnesium | 2920 | 240.02 | Hydroxide | -- | -- |
| Iron | -- | -- | Hydrogen sulfide | -- | -- |
| Total Cations | | 3798.79 | Total Anions | | 3798.79 |

| | |
|------------------------------|--------|
| Total dissolved solids, mg/l | 218126 |
| NaCl equivalent, mg/l | 219857 |
| Observed pH | 7.0 |

| | |
|------------------------------|------------------|
| Specific resistance @ 68°F.: | |
| Observed | 0.056 ohm-meters |
| Calculated | 0.048 ohm-meters |

WATER ANALYSIS PATTERN



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l = Milligrams per liter Meq/l = Milligram equivalents per liter
Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components

CORE LABORATORIES, INC.

ANALYTICAL REPORT

LAB #: W40969-1 DATE: 25-OCT-84

OPERATOR: CELSIUS ENERGY CORPORATION

WELL #: PATTERSON UNIT WELL #9

FIELD: PATTERSON

COUNTY: SAN JUAN STATE: UT

LOCATION: SEC 33-37S-25E

FORMATION: DESERT CREEK

INTERVAL: 5734-5739

SAMPLE ORIGIN: SEPARATOR

REMARKS: SAMPLE TAKEN 9-13-84

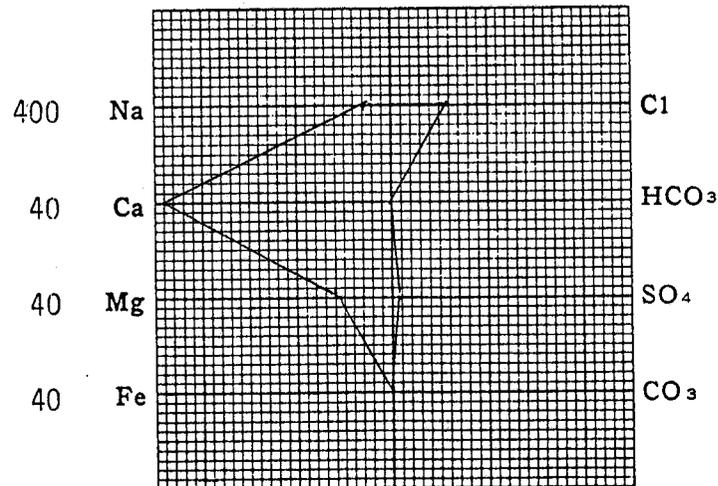
Due to the high salt content this water is unsuitable for
livestock or vegetation.

| CATIONS | MG/L | MEQ/L | ANIONS | MG/L | MEQ/L |
|-----------------|-------|---------|----------------|-------|---------|
| ----- | ----- | ----- | ----- | ----- | ----- |
| SODIUM | 25617 | 1114.32 | SULFATE | 900 | 18.72 |
| POTASSIUM | 2260 | 57.86 | CHLORIDE | 82400 | 2323.68 |
| CALCIUM | 19100 | 953.09 | CARBONATE | 0 | 0.00 |
| MAGNESIUM | 2700 | 221.94 | RICARBONATE | 293 | 4.80 |
| | | | HYDROXIDE | 0 | 0.00 |
| | | | | | |
| TOTAL CATIONS = | | 2347.20 | TOTAL ANIONS = | | 2347.20 |

CALCULATED TDS MG/L = 133121
 NA CL EQUIVALENTS MG/L = 134232
 OBSERVED PH = 6.7

SPECIFIC RESISTANCE AT 68F (OHM-M):
 OBSERVED = 0.08
 CALCULATED = 0.05

WATER ANALYSIS PATTERN
 Scale
 MEQ per Unit



(Na value in above graph includes Na and K)

NOTE: Mg/l = milligrams per liter
 Meq/l = milligram equivalent per liter

Sodium chloride equivalent =
 by Dunlap & Hawthorne
 calculation from components

WEXPRO COMPANY
PATTERSON CANYON UNIT WELL NO. 5
SALT WATER DISPOSAL WELL APPLICATION

UTAH BOARD OF OIL, GAS, AND MINING
February 26, 1987

ATTACHMENT FOR RULE 502 (b)(10)

CAUSE: UIC-091

**GEOLOGY OF FRESH WATER AQUIFERS
PATTERSON FIELD AREA
T. 37 & 38 S., R. 25 E.
SAN JUAN COUNTY, UTAH**

TOPOGRAPHY AND SURFACE GEOLOGY

Topography in the Patterson Field area consists of hills and low mesas which are separated by Nancy Patterson, Little Nancy, and Bug Canyons and their tributaries. Topographic relief in the area is approximately 400 feet and the Morrison Formation is exposed at the surface.

STRUCTURE

Structural dip in the area is approximately 100 feet per mile (1°) toward the southwest, as mapped at the top of the Chinle Formation. Structural dip of the fresh water formations above the Chinle is essentially identical.

STRATIGRAPHY AND WATER QUALITY OF FRESH WATER FORMATIONS

Fresh water formations in the Patterson Field area occur from the surface (Morrison Formation) to a depth of about 1600 feet (Wingate Sandstone). The Chinle Formation underlying the Wingate is generally considered the first formation to contain brackish water in this area. Water contained in porous rocks below the Chinle becomes increasingly higher in total dissolved solids with depth.

Water quality in fresh water aquifers in this area of San Juan County, Utah, usually ranges from 200 to 1800 ppm total dissolved solids. For more detailed information on water quality information in this area, please refer to the Utah State Engineer, Technical Publication No. 15, published in 1966, entitled: "Water from Bedrock in the Colorado Plateau of Utah."

A brief geologic description of the fresh water bearing formations is listed below in descending order beginning at the surface.

The Morrison Formation is found at the surface in the Patterson Field area. The fresh water aquifers of the Morrison generally consist of areally limited lenticular, fluvial sandstones. The thickness of the Morrison Formation that has been drilled in the Patterson Field ranges from 500 to 750 feet.

The Entrada Sandstone is an areally extensive body which was deposited by aeolian (wind) processes. The unit is about 160 feet thick in the Patterson Field area. The depth to the top of the Entrada Sandstone ranges from 500 to 750 feet.

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

| |
|---|
| 5. LEASE DESIGNATION AND SERIAL NO. UT-11668 |
| 6. IF INDIAN, ALLOTTEE OR TRIBE NAME |
| 7. UNIT AGREEMENT NAME Patterson |
| 8. FARM OR LEASE NAME Unit |
| 9. WELL NO. 5 |
| 10. FIELD AND POOL, OR WILDCAT Patterson Unit |
| 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E |
| 12. COUNTY OR PARISH San Juan |
| 13. STATE Utah |

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL GAS WELL OTHER Salt Water Disposal

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
79 South State Street, Salt Lake City, Utah 84147

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
NE, SW,SW Section 4
678' FSL, 664' FWL

14. PERMIT NO.
API #43-037-31019

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
GR: 5221' KB: 5234'

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

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

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

Notice of intent to convert the subject well to salt water disposal by performing the following work:

Rig up contract workover rig. Pull existing 2-7/8" O.D. tubing. Squeeze cement existing perforations at 5440' to 5460' KBM. Clean out hole to plug back depth. Perforate the Ismay interval from 5476' to 5494' KBM with 4 shots per foot. The new perforations are two feet (2') below the original oil/water contact for Patterson Unit. Pick up packer and run 2-7/8" O.D. tubing. Set tubing/packer at 5472' KBM. Pressure test tubing/casing annulus to 1000 psig. Run a short injectivity test. Release workover rig.

RECEIVED
JAN 09 1987

DIVISION OF OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct
SIGNED James G. Baird TITLE Chief Engineer DATE 1/9/87

(This space for Federal or State office use)

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



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

January 14, 1987

Mr. Robert H. Lovell
Wexpro Company
79 South State Street
P.O. Box 11070
Salt Lake City, Utah 84147

Dear Mr. Lovell:

RE: Cause UIC-091 Disposal Well Application

- The above referenced application requests administrative approval for a water disposal well in accordance with Rule 502 and Rule 503(f) of the Oil and Gas Conservation General Rules. Pursuant to that application please provide technical information to justify the classification of this as a disposal operation rather than an enhanced recovery or pressure maintenance project.

A review of the application shows the proposed injection well to be located between two producing wells both within one-half mile and the proposed injection interval approximately equal to the producing intervals in the producing wells.

If you have any questions concerning this matter, please call.

Sincerely,

A handwritten signature in black ink, appearing to read "Gil Hunt".

Gil Hunt
UIC Program Manager

mfp
0134U/27

UIC CHECKLIST FOR APPLICATION APPROVAL

OPERATOR Nexpro Company WELL NUMBER Patterson Unit #5
 SEC. 4 T. 38S R. 25E COUNTY SAN JUAN
 API # 43-037-31019

NEW WELL DISPOSAL WELL ENHANCED RECOVERY WELL

- | | | |
|----------------------------------|---|--|
| - Plat showing surface ownership | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| - Application forms complete | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| - Schematic of well bore | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| - Adequate geologic information | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| - Rate and Pressure information | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| - Fluid source | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| - Analysis of formation fluid | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| - Analysis of injection fluid | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| - USDW information | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| - Mechanical integrity test | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |

MAY 1000 IS PD - 2554 PSI
 AVG 300

Comments: There are 2 producing wells and 1 P.A well in the area of review. All seem to be mechanically sound.

Division will be notified when the well is pressured up to test the mechanical integrity

Reviewed by 

Operator WEXpro COMPANY

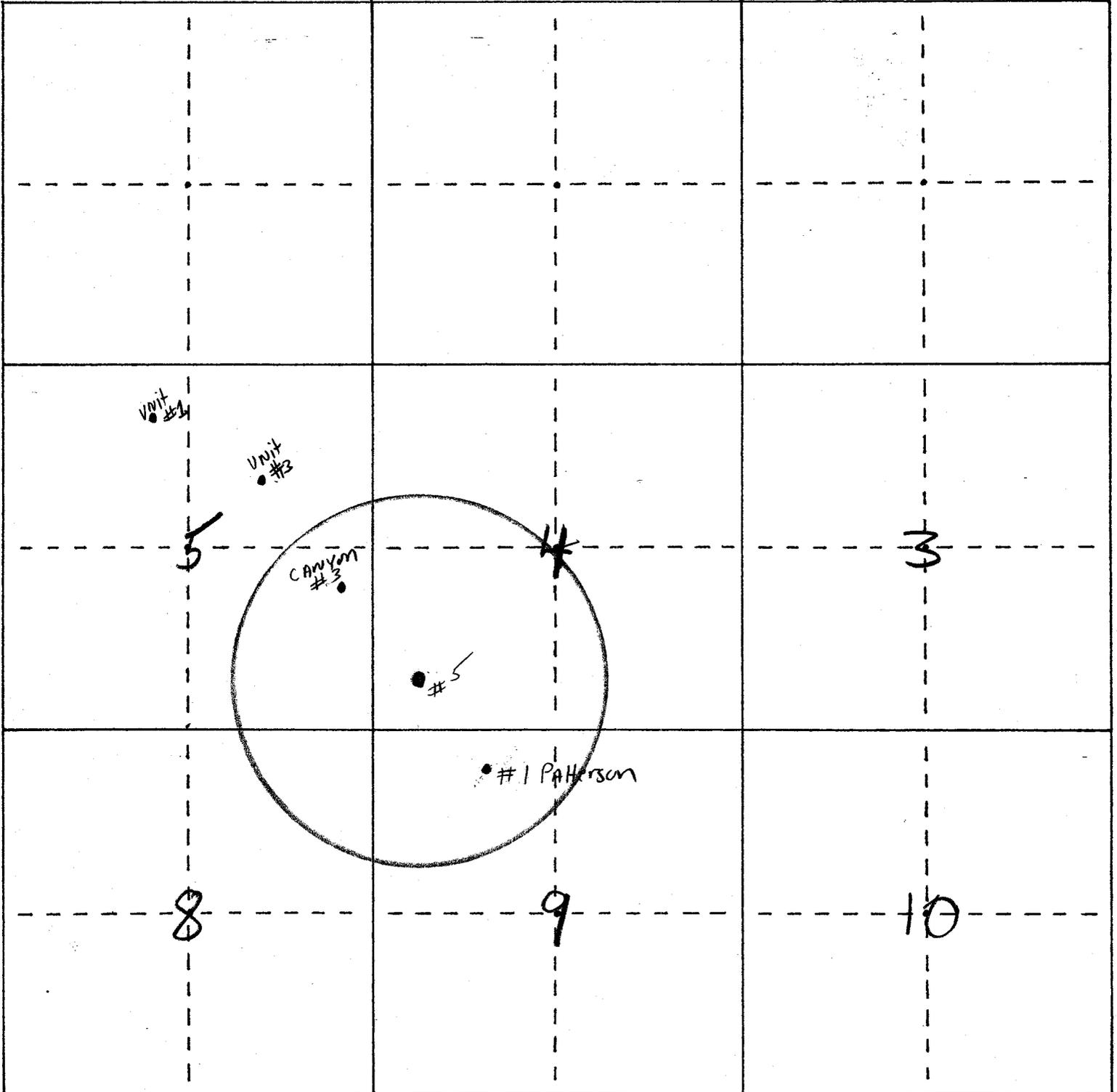
Well PATTERSON Unit #5

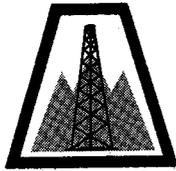
Location T.38S., R.25E. Sec 4

SAN JUAN County, UTAH

678 FSL

664 FWL





RECEIVED
JAN 21 1987

WEXPRO COMPANY DIVISION OF
OIL, GAS & MINING

79 SOUTH STATE STREET • P.O. BOX 11070 • SALT LAKE CITY, UTAH 84147 • PHONE (801) 536-2600

January 19, 1987

State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining
355 West North Temple
3 Triad Center
Suite 350
Salt Lake City, Utah 84180

Attention: Gil Hunt

Re: Cause UIC-091 Application

Dear Mr. Hunt:

Per our telephone conversation of January 15, 1987, concerning your inquiry as to the classification of the above application as a water disposal operation as opposed to an enhanced recovery or pressure maintenance project; please find enclosed Wexpro Company's calculations concerning reservoir voidage and proposed injection volumes.

As determined by Wexpro's calculations, the daily volume of produced fluids (oil, gas, water) is approximately 1300 reservoir barrels greater than the anticipated initial water injection volume (200 barrels per day).

Based on this information Wexpro asserts that pressure maintenance will not be supplied by the proposed water disposal project. In addition, Wexpro believes that since less than fifteen percent (15%) of the daily fluid production would be returned to the formation via water injection, very little, if any, enhanced recovery benefits would be realized.

Wexpro requests that you consider our application in view of the above information and approve the same as a water disposal project.

Should you have questions concerning this response, please contact me at 530-2653.

Sincerely,

Jeffrey L. Ingerson
Senior Reservoir Engineer

JLI:lh1
Attach.

Patterson Unit Area
January 14, 1987 Production

| <u>Well</u> | <u>Oil</u> | <u>Gas</u> | <u>Water</u> |
|-------------|------------|------------|--------------|
| Unit 1 | 26 | 75 | 27 |
| Unit 3 | 12 | 56 | 16 |
| Unit 4 | 0 | 124 | 47 |
| Well 1 | 41 | 74 | 71 |
| Well 3 | <u>47</u> | <u>524</u> | <u>37</u> |
| Ismay Total | 126 | 853 | 198 |

Reservoir Voidage @ 1422 psig

$$\text{Oil} \quad 126 \text{ STBOPD} \quad * \quad \frac{1.25 \text{ RB}}{1.00 \text{ STBO}} \quad = \quad \underline{158 \text{ RBPD}}$$

$$\text{Water} \quad 198 \text{ STBOPD} \quad * \quad \frac{1.00 \text{ RB}}{1.00 \text{ STBW}} \quad = \quad \underline{198 \text{ RBPD}}$$

Gas

$$853,000 \text{ SCFPD} \quad - \quad \frac{(447 \text{ SCF}}{\text{STBO}} \quad * \quad 126 \text{ STBOPD}) \quad = \quad 795,678 \text{ SCFPD}$$

$$795,678 \text{ SCFPD} \quad * \quad \frac{0.00799 \text{ CF}}{\text{SCF}} \quad = \quad 6,365 \text{ CFPD}$$

$$6,365 \text{ CFPD} \quad * \quad \frac{1 \text{ RB}}{5.615 \text{ CF}} \quad = \quad \underline{1,134 \text{ RBPD}}$$

Voidage Total:

| | |
|------------|-------------------|
| Oil | 158 RBPD |
| Water | 198 RBPD |
| <u>Gas</u> | <u>1,134 RBPD</u> |
| Total | 1,490 RBPD |

Reservoir Injection Volume

$$198 \text{ STBWPD} \quad * \quad \frac{1.00 \text{ RB}}{1.00 \text{ STBW}} \quad = \quad \underline{198 \text{ RBPD}}$$

Differential Volume

Voidage 1,490 RBPD

Injection 198 RBPD

△ Volume 1,292 RBPD Production over Injection

1/19/87
JLI



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

January 29, 1987

San Juan Record
Legal Advertising
P.O. Box 879
937 East Highway 666
Monticello, Utah 84535

Gentlemen:

RE: Cause No. UIC-091

Enclosed is a Notice of Application of Administrative Approval before the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah.

It is requested that this notice be published ONCE ONLY, as soon as possible, but no later than the 11th day of February, 1987. In the event that said notice cannot be published by this date, please notify me immediately by calling 538-5340.

Upon completion of this request, please send proof of publication and statement of cost to the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

Sincerely,

A handwritten signature in cursive script that reads "Marjorie L. Anderson".

Marjorie L. Anderson
Administrative Assistant

mfp

Enclosure



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

January 29, 1987

Newspaper Agency Corporation
Legal Advertising
143 South Main - Mezzanine Floor
Salt Lake City, Utah 84111

Gentlemen:

RE: Cause No. UIC-091

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Sincerely,

A handwritten signature in cursive script that reads "Marjorie L. Anderson".

Marjorie L. Anderson
Administrative Assistant

mfp

Enclosure

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

---oo0oo---

IN THE MATTER OF THE APPLICATION : CAUSE NO. UIC-091
OF WEXPRO COMPANY, FOR :
ADMINISTRATIVE APPROVAL TO :
INJECT WATER INTO A PROPOSED :
SALTWATER DISPOSAL WELL LOCATED :
IN SECTION 4, TOWNSHIP 38 SOUTH, :
RANGE 25 EAST; S.L.M., SAN JUAN :
COUNTY, UTAH :

---oo0oo---

THE STATE OF UTAH TO ALL INTERESTED PARTIES IN THE ABOVE ENTITLED
MATTER.

Notice is hereby given that Wexpro Company, 79 South State Street,
Salt Lake City, Utah 84147 has requested administrative approval from
the Division to convert the following listed well to a saltwater
disposal well:

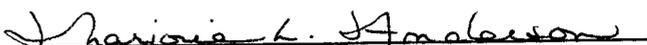
PATTERSON UNIT - San Juan County, Utah
Unit Well No. 5

INJECTION INTERVAL: Paradox Formation 5476' to 5494'
MAXIMUM ESTIMATED SURFACE PRESSURE: 2554 psig
MAXIMUM ESTIMATED WATER INJECTION RATE: 1000 BWPD

Conditional approval of this application will be granted unless
objections are filed with the Division of Oil, Gas and Mining within
fifteen days after publication of this Notice. Objections, if any,
should be mailed to the Division of Oil, Gas and Mining, Attention:
UIC Program Manager, 355 West North Temple, 3 Triad Center, Suite 350,
Salt Lake City, Utah 84180-1203.

DATED this 28th day of January, 1987.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING


MARJORIE L. ANDERSON
Administrative Assistant

RECEIPT FOR CERTIFIED MAILNO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1984-446-014

PS Form 3800, Feb. 1982

| | |
|--|----|
| Sent to <i>Wexpro Company</i> | |
| Street and No. <i>PO Box 11070</i> | |
| P.O., State and ZIP Code <i>SLC, Utah 84147</i> | |
| Postage | \$ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to whom and Date Delivered | |
| Return receipt showing to whom, Date, and Address of Delivery | |
| TOTAL Postage and Fees | \$ |
| Postmark or Date | |

P 001 71 519

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1984-446-014

PS Form 3800, Feb. 1982

| | |
|---|----|
| Sent to <i>Mobil Oil Corporation</i> | |
| Street and No. <i>PO Box 5444 Terminal Annex</i> | |
| P.O., State and ZIP Code <i>Denver Colorado 80217</i> | |
| Postage | \$ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to whom and Date Delivered | |
| Return receipt showing to whom, Date, and Address of Delivery | |
| TOTAL Postage and Fees | \$ |
| Postmark or Date | |

RECEIPT FOR CERTIFIED MAILNO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1984-446-014

PS Form 3800, Feb. 1982

| | |
|--|----|
| Sent to <i>MCO Resources, Inc.</i> | |
| Street and No. <i>5718 Westheimer</i> | |
| P.O., State and ZIP Code <i>Houston, TX 77057</i> | |
| Postage | \$ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to whom and Date Delivered | |
| Return receipt showing to whom, Date, and Address of Delivery | |
| TOTAL Postage and Fees | \$ |
| Postmark or Date | |

P 001 770 517

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1984-446-014

PS Form 3800, Feb. 1982

| | |
|--|----|
| Sent to <i>Helene Wolf</i> | |
| Street and No. <i>PO Box 98</i> | |
| P.O., State and ZIP Code <i>Alief, Texas 77401</i> | |
| Postage | \$ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to whom and Date Delivered | |
| Return receipt showing to whom, Date, and Address of Delivery | |
| TOTAL Postage and Fees | \$ |
| Postmark or Date | |

P 001 7 514

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1984-446-014

PS Form 3800, Feb. 1982

| | |
|---|----|
| Sent to Stovall Oil Co. | |
| Street and No. | |
| P.O. State and ZIP Code PO Box 2331 Casper, Wyoming | |
| Postage | \$ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to whom and Date Delivered | |
| Return receipt showing to whom, Date, and Address of Delivery | |
| TOTAL Postage and Fees | \$ |
| Postmark or Date | |

P 001 770 515

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1984-446-014

PS Form 3800, Feb. 1982

| | |
|---|----|
| Sent to <i>Barbra Powell</i> | |
| Street and No. <i>101 Hickory Ridge</i> | |
| P.O., State and ZIP Code <i>Houston, TX 77024</i> | |
| Postage | \$ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to whom and Date Delivered | |
| Return receipt showing to whom, Date, and Address of Delivery | |
| TOTAL Postage and Fees | \$ |
| Postmark or Date | |

P 001 770 116

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, Feb. 1982
★ U.S.G.P.O. 1984-446-014

| | |
|--|----|
| Sent to Marvin Wolf | |
| Street and No. PO Box 1715 | |
| P.O., State and ZIP Code Denver Co 80201 | |
| Postage | \$ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to whom and Date Delivered | |
| Return receipt showing to whom, Date, and Address of Delivery | |
| TOTAL Postage and Fees | \$ |
| Postmark or Date | |

PS
n 3811, July 1983

Marjorie Poulsen (W/C) DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4.
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees, the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

- 1. Show to whom, date and address of delivery.
- 2. Restricted Delivery.

3. Article Addressed to:
*Stovall Oil Company
PO Box 2331
Casper, Wyoming 82602*

4. Type of Service:
- Registered
 - Certified
 - Express Mail
 - Insured
 - COD

Article Number
P001-770-514

Always obtain signature of addressee or agent and **DATE DELIVERED**

5. Signature - Addressee
X Francis Stovall

6. Signature - Agent
X

7. Date of Delivery
2-2-87

8. Addressee's Address (*ONLY if requested and fee paid*)
SAME

PS Form 3811, July 1983

(11C)

Paulsen

W.

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.

2. Restricted Delivery.

3. Article Addressed to:
*Wexpro Company
 PO Box 11070
 Salt Lake City, Utah
 84147*

| | |
|--|---------------------------------------|
| 4. Type of Service: <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> COD | Article Number <i>P001-770-520</i> |
|--|---------------------------------------|

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee
[Signature]

6. Signature - Agent
[Signature]

7. Date of Delivery *1987*
FEB 2

8. Addressee's Address (*ONLY if requested and fee paid*)
Same as #3

PS Form 3811, July 1983

(7817) M. P. P. W. DOMESTIC RETURN RECEIPT

● **SENDER: Complete items 1, 2, 3 and 4.**

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to, and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

- 1. Show to whom, date and address of delivery.
- 2. Restricted Delivery.

3. Article Addressed to:
 Mobil Oil Corp.
 PO Box 5444
 Terminal Annex
 Denver, Colorado 80217

| | |
|---|----------------|
| 4. Type of Service: | Article Number |
| <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail | R001-770-519 |

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee

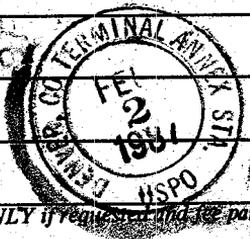
X

6. Signature - Agent

X T. D. ...

7. Date of Delivery

8. Addressee's Address (ONLY if required and fee paid)



PS Form 3811, July 1983

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

- 1. Show to whom, date and address of delivery.
- 2. Restricted Delivery.

3. Article Addressed to:

Helene Wolf
PO Box 98
Alief TX 77401

4. Type of Service:

Registered Insured
 Certified COD
 Express Mail

Article Number

P001-770-517

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Addressee

X

6. Signature - Agent

X *Chuck Churchill*

7. Date of Delivery

2/4/87

8. Addressee's Address *(ONLY if requested and fee paid)*

M. Paulsen (LRL)

DOMESTIC RETURN RECEIPT

PS Form 3811, July 1983

M. Poulsen
DOMESTIC RETURN RECEIPT

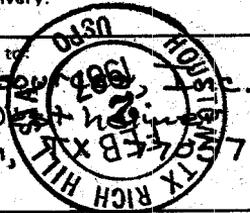
SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

- 1. Show to whom, date and address of delivery.
- 2. Restricted Delivery.

3. Article Addressed to:

MCO Reser
5718 W
Houston,



4. Type of Service:

- Registered
- Certified
- Express Mail
- Insured
- COD

Article Number

P001-770-518

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee

X

6. Signature - Agent

X *Mcounlade*

7. Date of Delivery

8. Addressee's Address (*ONLY if requested and fee paid*)

6811, July 1983

being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

- 1. Show to whom, date and address of delivery.
- 2. Restricted Delivery.

3. Article Addressed to:

Barbra A. Powell
101 Hickory Ridge
Houston, TX 77024

4. Type of Service:

- Registered
- Certified
- Express Mail
- Insured
- COD

Article Number

PO01-770-515

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee

X Barbara A. Powell

6. Signature - Agent

X

7. Date of Delivery

FEB 03 1987

8. Addressee's Address (ONLY if requested and fee paid)

101 Hickory Ridge
Houston, TX 77024

Marlayne Paulsen (URS)

DOMESTIC RETURN RECEIPT

PS Form 3811, July 1983 (air)
Marlayne Poulson (air)
DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

- 1. Show to whom, date and address of delivery.
- 2. Restricted Delivery.

3. Article Addressed to:
Marvin Wolf
PO Box 1715
Denver Colorado 80201

| 4. Type of Service: | Article Number |
|---|----------------|
| <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail | P001 770 516 |
| <input type="checkbox"/> Insured <input type="checkbox"/> COD | |

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee
X 

6. Signature - Agent
X

7. Date of Delivery
FEB 05 1987

8. Addressee's Address (ONLY if requested and fee paid)



116 State Capitol Building
Salt Lake City, UT 84114
Telephone 801-533-5245

office of planning and budget

Norman H. Bangerter, Governor Dale C. Hatch, C.P.A., J.D., Director Michael E. Christensen, Ph.D., Deputy Director

RECEIVED
FEB 11 1987

DIVISION OF
OIL, GAS & MINING

February 10, 1987

Gil Hunt
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203

SUBJECT: Patterson Unit Disposal Well No. 5
State Application Identifier #UT870202-030

Dear Mr. Hunt:

The Resource Development Coordinating Committee of the State of Utah has reviewed this proposed action and no comments have been indicated.

Thank you for the opportunity of reviewing this document. Please address any other questions regarding this correspondence to Carolyn Wright (801) 533-4971.

Sincerely,

Michael E. Christensen

Michael E. Christensen
Deputy Director

MEC/jw

123 SOUTH MAIN ST.
P.O. BOX 45838
SALT LAKE CITY, UTAH 84145
FED. TAX I.D. # 87-0217663

Newspaper Agency Corporation
AGENT
The Salt Lake Tribune
MORNING & SUNDAY
DESERET NEWS
EVENING & SUNDAY

Affidavit of Publication

STATE OF UTAH. }
County of Salt Lake }

I, Ruth A Russell Hereby certify that the attached advertisement of CAUSE UIC-001 for STATE OF UT DIV. OF OIL, GAS, & MINING was published by the NEWSPAPER AGENCY CORPORATION, AGENT FOR THE SALT LAKE TRIBUNE and DESERET NEWS, daily newspapers printed in the English language with general circulation in Utah, and published in Salt Lake City, Salt Lake County in the State of Utah.

PUBLISHED ON FEB 5, 1987

SUBSCRIBED AND SWORN TO BEFORE ME THIS 10th DAY OF FEBRUARY 19 87



M. T. Davis
NOTARY PUBLIC

MARCH 3, 1987
COMMISSION EXPIRES

BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES STATE OF UTAH CAUSE NO. UIC-001

IN THE MATTER OF THE APPLICATION OF WEXPRO COMPANY FOR ADMINISTRATIVE APPROVAL TO INJECT WATER INTO A PROPOSED SALTWATER DISPOSAL WELL LOCATED IN SECTION 4, TOWNSHIP 38 SOUTH, RANGE 25 EAST, S.L.M., SUN JUAN COUNTY, UTAH.

THE STATE OF UTAH TO ALL INTERESTED PARTIES IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that Wexpro Company, 79 South State Street, Salt Lake City, Utah 84147 has requested administrative approval from the Division to convert the following listed well as a saltwater disposal well:

PATTERSON UNIT - San Juan County, Utah
Unit Well No. 5

INJECTION INTERVAL: Paradox Formation 5478' to 5494'
MAXIMUM ESTIMATED SURFACE INJECTION PRESSURE: 2554 psig
MAXIMUM ESTIMATED WATER INJECTION RATE: 1000 BWPD

Conditional approval of this application will be granted unless objections are filed with the Division of Oil, Gas and Mining within fifteen days after publication of this Notice. Objections should be mailed to the Division of Oil, Gas and Mining, Attention: UIC Program Manager, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

DATED this 28th day of January, 1987.

STATE OF UTAH
DIVISION OF OIL,
GAS AND MINING
Marjorie L. Anderson
Administrative Assistant

LEGAL ADVERTISING INVOICE

| ACCOUNT NAME | | AD NUMBER | TELEPHONE | | |
|---|----------------|-----------|-----------|-------------------------|--|
| STATE OF UTAH, DIV. OF OIL, GAS, & MINING | | 0-33 | 330-5000 | | |
| SCHEDULE | | | | MISC. CHARGES | |
| FEB 5, 1987 | | | | | |
| OPTION | SIZE | TIMES | RATE | AD CHARGE | |
| | 67 AGATE LINES | 1 | 1.22 | 81.74 | |
| DUE AND PAYABLE ON RECEIPT OF THIS INVOICE | | | | TOTAL AMOUNT DUE | |
| FOR BILLING INFORMATION CALL 801-237-2796 | | | | 81.74 | |

TO INSURE PROPER CREDIT

PLEASE RETURN THIS PORTION

WITH YOUR PAYMENT IN THE ENCLOSED ENVELOPE
MAKE CHECKS PAYABLE TO:

NEWSPAPER AGENCY CORPORATION

(PLEASE WRITE YOUR ACCOUNT NUMBER ON YOUR CHECK)

| ACCOUNT NUMBER | BILLING DATE |
|----------------|-----------------|
| 530-5000 | 2/10/87 |
| AD NUMBER | PAY THIS AMOUNT |
| 0-33 | 81.74 |

BILL TO:

STATE OF UTAH NATURAL RESOURCES
DIVISION OF OIL, GAS, & MINING
3 TRIAD CENTER SUITE 350
SALT LAKE CITY, UT 84180-1203

143 SOUTH MAIN ST.
P.O. BOX 45838
SALT LAKE CITY, UTAH 84145
FED. TAX I.D. # 87-0217663

Newspaper Agency Corporation
AGENT
The Salt Lake Tribune **DESERET NEWS**
MORNING & SUNDAY EVENING & SUNDAY

Affidavit of Publication

STATE OF UTAH. }
County of Salt Lake } ss.

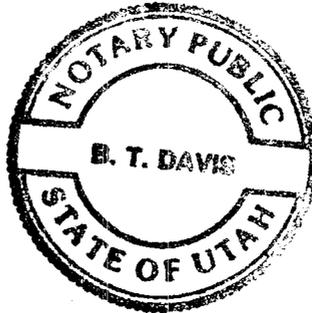
I, Ruth A Russell

Hereby certify that the attached

advertisement of **CAUSE #UIC-091**
for **STATE OF UT DIV. OF OIL, GAS, & MINING** was published by
NEWSPAPER AGENCY CORPORATION, AGENT FOR THE SALT LAKE
TRIBUNE and DESERET NEWS, daily newspapers printed in the English
language with general circulation in Utah, and published in Salt Lake City, Salt
Lake County in the State of Utah.

PUBLISHED ON FEB 5, 1987

SUBSCRIBED AND SWORN TO BEFORE ME THIS 10th DAY OF FEBRUARY 19 87



B. T. Davis
NOTARY PUBLIC

MARCH 1, 1987

COMMISSION EXPIRES

BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES STATE OF UTAH CAUSE NO. UIC-091

IN THE MATTER OF THE APPLICATION OF WEXPRO COMPANY, FOR ADMINISTRATIVE APPROVAL TO INJECT WATER INTO A PROPOSED SALTWATER DISPOSAL WELL LOCATED IN SECTION 4, TOWNSHIP 38 SOUTH, RANGE 25 EAST, S.L.M., SUN JUAN COUNTY, UTAH.

THE STATE OF UTAH TO ALL INTERESTED PARTIES IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that Wexpro Company, 79 South State Street, Salt Lake City, Utah 84147 has requested administrative approval from the Division to convert the following listed well as a saltwater disposal well:

PATTERSON UNIT - San Juan County, Utah
Unit Well No. 5

INJECTION INTERVAL: Paradox Formation 5476' to 5494'

MAXIMUM ESTIMATED SURFACE INJECTION PRESSURE: 2554 psig

MAXIMUM ESTIMATED WATER INJECTION RATE: 1000 BWPD

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DATED this 28th day of January, 1987.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
Marjorie L. Anderson
Administrative Assistant

0-33
CAUSE #UIC-091

LEGAL ADVERTISING INVOICE

| ACCOUNT NAME | | AD NUMBER | TELEPHONE | | |
|--|----------------|-----------|-----------|---------------|--|
| STATE OF UTAH DIV. OF OIL, GAS, & MINING | | 0-33 | 538-5340 | | |
| SCHEDULE | | | | MISC. CHARGES | |
| C FEB 5, 1987 | | | | | |
| PORTION | SIZE | TIMES | RATE | AD CHARGE | |
| | 67 AGATE LINES | 1 | 1.22 | 81.74 | |

DUE AND PAYABLE ON RECEIPT OF THIS INVOICE
FOR BILLING INFORMATION CALL 801-237-2796

TOTAL AMOUNT DUE

81.74

TO INSURE PROPER CREDIT

PLEASE RETURN THIS PORTION

WITH YOUR PAYMENT IN THE ENCLOSED ENVELOPE
MAKE CHECKS PAYABLE TO:

NEWSPAPER AGENCY CORPORATION

(PLEASE WRITE YOUR ACCOUNT NUMBER ON YOUR CHECK)

BILL TO:

| ACCOUNT NUMBER | BILLING DATE |
|----------------|-----------------|
| 538-5340 | 2/10/87 |
| AD NUMBER | PAY THIS AMOUNT |
| 0-33 | 81.74 |

STATE OF UTAH NATURAL RESOURCES
DIVISION OF OIL, GAS, & MINING
3 TRIAD CENTER SUITE 350
SALT LAKE CITY, UT 84180-1203

Stovall Oil Company
PO Box 2331
Casper, Wyoming 82602

Barbra A. Powell
101 Hickory Ridge
Houston, Texas 77024

Marvin Wolf
PO Box 1715
Denver, Colorado 80201

Helene Wolf
PO Box 98
Alief, Texas 77401

Celsius Energy Company
PO Box 11070
Salt Lake City, Utah 84147

Mobil Oil Corporation
PO Box 5444
Terminal Annex
Denver, Colorado 80217

Wexpro Company
PO Box 11070
Salt Lake City, Utah 84147

Bureau of Land Management
PO Box 7
Monticello, Utah 84535

Redburn Flying R Ranch
Marvin D. and Vivian Redburn
25292 Highway 145
Dolores, Colorado 81323

Bureau of Land Management
Fluid Minerals Caller Service #4101
Farmington, New Mexico 87499

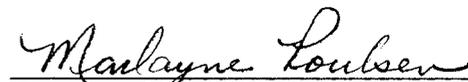
Utah State Department of Health
Water Pollution Control
Attn: Loren Morton
288 North 1480 West
PO Box 16690
Salt Lake City, Utah 84116-0690

Grants Coordinator
State Clearinghouse
116 State Capitol
Salt Lake City, Utah 84114

Newspaper Agency
Legal Advertising
Mezzanine Floor
143 South Main
Salt Lake City, Utah 84111

San Juan Record
PO Box 879
937 East Highway 666
Monticello, Utah 84535
Legal Advertising

MCO Resources, Incorporated
5718 Westheimer
Houston, Texas 77057


January 29, 1987

AFFIDAVIT OF PUBLICATION

Public notice

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

IN THE MATTER OF THE APPLICA-
TION OF WEXPRO COMPANY, FOR
ADMINISTRATIVE APPROVAL TO
INJECT WATER INTO A PROPOSED
SALTWATER DISPOSAL WELL LO-
CATED IN SECTION 4, TOWNSHIP 38
SOUTH, RANGE 25 EAST; S.L.M., SAN
JUAN COUNTY, UTAH

CAUSE NO. UIC-091

THE STATE OF UTAH TO ALL
INTERESTED PARTIES IN THE
ABOVE ENTITLED MATTER.

Notice is hereby given that Wexpro
Company, 79 South State Street, Salt
Lake City, Utah 84147 has requested
administrative approval from the
Division to convert the following listed
well to a saltwater disposal well:

PATTERSON UNIT
San Juan County, Utah
Unit Well No. 5

INJECTION INTERVAL: Paradox
Formation 5476' to 5494'

MAXIMUM ESTIMATED SURFACE
PRESSURE: 2554 psig

MAXIMUM ESTIMATED WATER
INJECTION RATE: 1000 BWPD

Conditional approval of this applica-
tion will be granted unless objections are
filed with the Division of Oil, Gas and
Mining within fifteen days after publi-
cation of this Notice. Objections, if any,
should be mailed to the Division of Oil,
Gas and Mining, Attention: UIC
Program Manager, 355 West North
Temple, 3 Triad Center, Suite 350, Salt
Lake City, Utah 84180-1203.

DATED this 28th day of January,
1987.

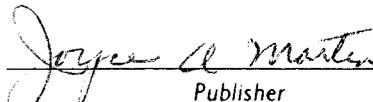
STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
s/MARJORIE L. ANDERSON

Administrative Assistant

Published in The San Juan Record
February 4, 1987.

I, Joyce Martin, being duly sworn, depose and say that I am the publisher of **The San
Juan Record**, a weekly newspaper of general circulation published at Monticello,
Utah every Wednesday; that notice of application for administrative
approval, Cause No. UIC-091

a copy of which is hereunto attached, was published in the regular and entire issue
of each number of said newspaper for a period of one issues, the
first publication having been made on February 4, 1987. ~~and the~~
last publication having been made on _____.



Publisher

Subscribed and sworn to before me this 4th day of February,
A.D. 1987



Notary Public residing at Monticello, Utah

My commission expires December 2, 1987

AFFIDAVIT OF PUBLICATI...

Public notice

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

IN THE MATTER OF THE APPLICA-
TION OF WEXPRO COMPANY, FOR
ADMINISTRATIVE APPROVAL TO
INJECT WATER INTO A PROPOSED
SALTWATER DISPOSAL WELL LO-
CATED IN SECTION 4, TOWNSHIP 38
SOUTH, RANGE 25 EAST, S.L.M., SAN
JUAN COUNTY, UTAH

CAUSE NO. UIC-091

THE STATE OF UTAH TO ALL
INTERESTED PARTIES IN THE
ABOVE ENTITLED MATTER.

Notice is hereby given that Wexpro
Company, 79 South State Street, Salt
Lake City, Utah 84147 has requested
administrative approval from the
Division to convert the following listed
well to a saltwater disposal well:

PATTERSON UNIT
San Juan County, Utah
Unit Well No. 5

INJECTION INTERVAL: Paradox
Formation 5476' to 5494'

MAXIMUM ESTIMATED SURFACE
PRESSURE: 2554 psig

MAXIMUM ESTIMATED WATER
INJECTION RATE: 1000 BWPD

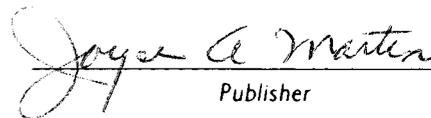
Conditional approval of this applica-
tion will be granted unless objections are
filed with the Division of Oil, Gas and
Mining within fifteen days after publi-
cation of this Notice. Objections, if any,
should be mailed to the Division of Oil,
Gas and Mining, Attention: UIC
Program Manager, 355 West North
Temple, 3 Triad Center, Suite 350, Salt
Lake City, Utah 84180-1203.

DATED this 28th day of January,
1987.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
s/ MARJORIE L. ANDERSON
Administrative Assistant
Published in The San Juan Record
February 4, 1987.

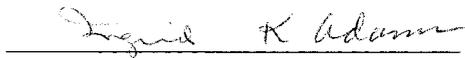
I, Joyce Martin, being duly sworn, depu... and say that I am the publisher of **The San
Juan Record**, a weekly newspaper of general circulation published at Monticello,
Utah every Wednesday; that notice of application for administrative
approval, Cause No. UIC-091

a copy of which is hereunto attached, was published in the regular and entire issue
of each number of said newspaper for a period of one issues, the
first publication having been made on February 4, 1987. ~~and the~~
last publication having been made on _____.


Publisher

Subscribed and sworn to before me this 4th day of February,

A.D. 1987


Notary Public residing at Monticello, Utah

My commission expires December 2, 1987



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 25, 1987

Wexpro Company
79 South State Street
Salt Lake City, Utah 84147

Gentlemen:

RE: Patterson Unit #5, Section 4, Township 38 South, Range 25 East;
S.L.M.; San Juan County, Utah; UIC-091

In accordance with Rule 503(c), Oil and Gas Conservation General Rules, your Application for administrative approval to dispose or inject fluid into the referenced well is granted.

The following actions are necessary to fully comply with this approval:

- 1) Production (reservoir voidage) and water injection volumes shall be closely monitored to determine if enhanced recovery benefits are occurring as a result of the water injection. Such benefits of enhanced recovery would necessitate a hearing before the Board of Oil, Gas and Mining, for their approval of such a project.
- 2) Compliance with the UIC requirements for operation, maintenance and reporting for Class II injection wells.
- 3) Conformance with all conditions of the submitted application.

If you have any questions regarding this approval or the necessary requirements, please contact this office.

Best regards,

A handwritten signature in cursive script that reads "Dianne R. Nielson".

Dianne R. Nielson
Director

mfp
7627U

Copied 5/87

SUNDRY NOTICES AND REPORTS ON WELLS

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

| | | |
|---|--|--|
| <p>1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Salt Water Disposal Well</p> <p>2. NAME OF OPERATOR Wexpro Company</p> <p>3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, Wyoming 82901</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface SW SW, 678' FSL, 664' FWL</p> | | <p>5. LEASE DESIGNATION AND SERIAL NO. U-11668</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME ---</p> <p>7. UNIT AGREEMENT NAME Patterson</p> <p>8. FARM OR LEASE NAME Unit</p> <p>9. WELL NO. 5</p> <p>10. FIELD AND POOL, OR WILDCAT Patterson Unit</p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E</p> |
| <p>14. PERMIT NO. 49-037-31019</p> | <p>15. ELEVATIONS (Show whether DF, RT, GR, etc.) Gr 5222'</p> | <p>12. COUNTY OR PARISH San Juan</p> <p>18. STATE Utah</p> |

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

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

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

The above captioned well was an uncommercial oil well completed in the Ismay Formation with the following perforations, 5440-5460' KBM. The above perforations were cement squeezed and new perforations were shot below the oil-water contact (5476-5494'). A packer was installed at 5472' and the perforations acidized in an attempt to allow the formation to receive brine. During the acid treatment the squeezed perforations communicated with the lower perforations. In total 1800 gallons of 28% HCL were pumped. The packer was reset at 5433' KBM and the tubing-casing annulus pressure tested to 1000 psi for 15 minutes. An injectivity test was performed which indicated that the well was receiving 367 BWPD with an injection pressure of 1400 psi.

RECEIVED

MAY 21 1987

DIVISION OF
OIL, GAS & MINING

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

SIGNED Thomas Hoban TITLE Director Pet. Eng. DATE 5-19-87

(This space for Federal or State office use)

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

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

| | | | |
|---|--|---|-------------------|
| | | 5. LEASE DESIGNATION AND SERIAL NO. U-14668 | |
| | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME --- | |
| 1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Salt Water Disposal Well | | 7. UNIT AGREEMENT NAME Patterson | |
| 2. NAME OF OPERATOR Wexpro Company | | 8. FARM OR LEASE NAME Unit | |
| 3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, Wyoming 82901 | | 9. WELL NO. 5 | |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface SW SW, 678' FSL, 664' FWL | | 10. FIELD AND POOL, OR WILDCAT Patterson Unit | |
| | | 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E | |
| 14. PERMIT NO. 49-037-31019 | 15. ELEVATIONS (Show whether DF, RT, GR, etc.) Gr 5222' | 12. COUNTY OR PARISH San Juan | 13. STATE Utah |

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

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

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

The above captioned well was an uncommercial oil well completed in the Ismay Formation with the following perforations, 5440-5460' KBM. The above perforations were cement squeezed and new perforations were shot below the oil-water contact (5476-5494'). A packer was installed at 5472' and the perforations acidized in an attempt to allow the formation to receive brine. During the acid treatment the squeezed perforations communicated with the lower perforations. In total 1800 gallons of 28% HCL were pumped. The packer was reset at 5433' KBM and the tubing-casing annulus pressure tested to 1000 psi for 15 minutes. An injectivity test was performed which indicated that the well was receiving 367 BWPD with an injection pressure of 1400 psi.

RECEIVED

MAY 21 1987

DIVISION OF
OIL, GAS & MINING

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

SIGNED Thomas M. Moran TITLE Director Pet. Eng. DATE 5-19-87

(This space for Federal or State office use)

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

Commencement

AUG 12 1987

MONTHLY INJECTION REPORT

DEPARTMENT OF OIL
AND MINING

For the month of July, 1987

Operator: Wexpro Company Telephone: 307-382-9791

Address: P. O. Box 458

City: Rock Springs State: Wyoming Zip: 82902

Well no.: Patterson Unit Well No. 5 Field or Unit name: Patterson

Sec.: 4 Twp.: 38S Rng.: 25E County: San Juan Lease no.: U-11668

| Date | Volume Disposed | Hours In Service | Maximum Pressure | Average Oper. Press. | Tbg/Csg Annulus Press. |
|------|------------------------------|------------------|------------------|----------------------|------------------------|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | STARTED DISPOSAL ON 7/16/87. | | | | |
| 16. | 54 | 1 | down | down | 0 |
| 17. | 155 | 4 | down | down | 1405 |
| 18. | 29 | 1 | down | down | 0 |
| 19. | 332 | 12 | down | down | 1000 |
| 20. | 279 | 11 | 0 | 0 | 1000 |
| 21. | 80 | 1-1/2 | down | down | 0 |
| 22. | 475 | 20-1/2 | 1975 | 1975 | 0 |
| 23. | 0 | 0 | down | down | 300 |
| 24. | 55 | 2 | down | down | 250 |
| 25. | 407 | 24 | 1310 | 1310 | 340 |
| 26. | 392 | 24 | 1550 | 1550 | 640 |
| 27. | 385 | 25 | 1630 | 1630 | 710 |
| 28. | 289 | 18 | down | down | 925 |
| 29. | 0 | 0 | 0 | 0 | 0 |
| 30. | 412 | 24 | 1730 | 1730 | 400 |
| 31. | 392 | 24 | 1810 | 1810 | 700 |

Total volume injected for month: 3,736
All time cumulative volume injected: 3,736

I hereby certify that the foregoing is true and correct to the best of my knowledge:

Signed: Shirley R. Burdett Title: Engineering Analyst Trainee Date: 8-10-87

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE*
(Other instructions
verse side)

Budget Bureau No. 1004-0135
Expires August 31, 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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL GAS WELL OTHER Salt Water Disposal

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 458, Rock Springs, Wyoming 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
Sec also space 17 below.)
At surface
678' FSL, 664' FWL

14. PERMIT NO. 43-037-31019 15. ELEVATIONS (Show whether DF, RT, GR, etc.)
GR 5221 KB 5234

5. LEASE DESIGNATION AND SERIAL NO

U-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Patterson

8. FARM OR LEASE NAME

Unit

9. WELL NO.

5

10. FIELD AND POOL, OR WILDCAT

Patterson Unit

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

4-38S-25E

12. COUNTY OR PARISH 13. STATE

San Juan

Utah

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON*

SHOOTING OR ACIDIZING

ABANDONMENT*

REPAIR WELL

CHANGE PLANS

(Other)

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

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

The above captioned well disposes of water produced from the Patterson Unit. The wells that produce brine for disposal are:

- Patterson Unit Well No. 1 - NE NW Sec. 5, T. 38 S., R. 25 E.
- Patterson Unit Well No. 3 - SE NE Sec. 5, T. 38 S., R. 25 E.
- Patterson Unit Well No. 4 - SW SW Sec. 32, T. 37S., R. 25 E.
- Patterson Unit Well No. 9 - SE SE Sec. 33, T. 37S, R. 25 E.
- Patterson Canyon Well No. 1 - NE NW Sec. 9, T. 38 S., R. 25 E.
- Patterson Canyon Well No. 3 - NE SE Sec. 5, T. 38 S., R. 25 E.

Injection of the brine has recently begun. A water analysis will be obtained and sent to the BLM and the State of Utah.

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

SIGNED

Thomas H. ...

TITLE Director Pet. Eng.

DATE July 21, 1987

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

RECEIVED
AUG 7 1987

DIVISION OF OIL
GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIP!
(Other instructions
verse side)

Firm approved.
Budget Bureau No. 1004-0-3
Expires August 31, 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 "APPLICATION FOR PERMIT-" for such proposals.)

1. OIL WELL GAS WELL OTHER Salt Water Disposal

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 458, Rock Springs, Wyoming 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface
678' FSL, 664' FWL

14. PERMIT NO. 43-037-31019

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
GR 5221 KB 5234

5. LEASE DESIGNATION AND SERIAL NO.
U-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Patterson

8. FARM OR LEASE NAME
Unit

9. WELL NO.
5

10. FIELD AND POOL, OR WILDCAT
Patterson Unit

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
4-38S-25E

12. COUNTY OR PARISH San Juan 13. STATE Utah

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

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

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

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

The above captioned well disposes of water produced from the Patterson Unit. The wells that produce brine for disposal are:

- Patterson Unit Well No. 1 - NE NW Sec. 5, T. 38 S., R. 25 E.
- Patterson Unit Well No. 3 - SE NE Sec. 5, T. 38 S., R. 25 E.
- Patterson Unit Well No. 4 - SW SW Sec. 32, T. 37S., R. 25 E.
- Patterson Unit Well No. 9 - SE SE Sec. 33, T. 37S, R. 25 E.
- Patterson Canyon Well No. 1 - NE NW Sec. 9, T. 38 S., R. 25 E.
- Patterson Canyon Well No. 3 - NE SE Sec. 5, T. 38 S., R. 25 E.

Injection of the brine has recently begun. A water analysis will be obtained and sent to the BLM and the State of Utah.

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

SIGNED [Signature] TITLE Director Pet. Eng. DATE July 21, 1987

(This space for Federal or State office use)

APPROVED BY NOTED TITLE BRANCH OF FLUID MINERALS DATE AUG 27 1987
CONDITIONS OF APPROVAL, IF ANY: MOAB DISTRICT

NOTED PUB 8/20/87

*See Instructions on Reverse Side

AUG 31 1987

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

Budget Bureau No. 1004-0.35
Expires August 31, 1985
5. LEASE DESIGNATION AND SERIAL NO
U-11668 SDW
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
120838

SUNDRY NOTICES AND REPORTS ON WELLS

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

RECEIVED
DEC 02 1987
DIVISION OF
OIL, GAS & MINING

1. OIL WELL GAS WELL OTHER Salt Water Disposal

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 458, Rock Springs, Wyoming 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface
678' FSL, 664' FWL

14. PERMIT NO. 43-037-31019

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
GR 5221' KB 5234'

7. UNIT AGREEMENT NAME
Patterson

8. FARM OR LEASE NAME
Unit

9. WELL NO.
5

10. FIELD AND POOL, OR WILDCAT
Patterson Unit

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
4-38S-25E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

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

NOTICE OF INTENTION TO:

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

SUBSEQUENT REPORT OF:

| | |
|---|--|
| WATER SHUT-OFF <input type="checkbox"/> | REPAIRING WELL <input type="checkbox"/> |
| FRACTURE TREATMENT <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| SHOOTING OR ACIDIZING <input type="checkbox"/> | ABANDONMENT* <input type="checkbox"/> |
| (Other) Use off lease fuel gas. <input checked="" type="checkbox"/> | |

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

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

See attached sheet.

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

SIGNED Robert L. Cassman TITLE Staff Engineer DATE November 25, 1987

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

Sundry Notice

Use of off lease fuel gas.

Patterson Unit Well No. 5
San Juan County, Utah
Lease No.: U-11668

Patterson Unit Well No. 5 disposes of water from Patterson Unit Wells No. 1, 3, 4 and 9, Patterson Canyon Well No. 1, and Patterson Canyon Well No. 3. Patterson Canyon Well No. 1 is in the "B" participating area, Patterson Unit Well No. 5 is in service as a lease basis only.

Because of the various participating areas in the Patterson Field, Wexpro Company is using fuel gas which is off lease and is being metered in the following manner. Patterson Canyon Well No. 1 produces oil, gas and water which is separated in a treater which is on Patterson Canyon Well No. 1's location. The treater gas is metered on Patterson Canyon Well No. 1's location and enters a 3" gas lateral that goes to the Patterson Battery. A 2" fuel gas line intersects the 3" gas lateral where fuel gas is piped to Patterson Unit Well No. 5's location. The fuel gas is metered via a 3" Daniel Sr. Meter Run and a Barton Flow Recorder to ensure that any fuel gas used on Patterson Well No. 5's location is properly accounted. Patterson Unit Well No. 5's fuel gas is then purchased from Patterson Canyon Well No. 1 so that the various working interest partners are paid for the fuel gas. Since the gas is properly metered, the gas is accounted for.

Should you need any additional information concerning the fuel gas on Patterson Unit Well No. 5, please call Eric Marsh at 307-382-9791.

srl

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

13

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL GAS WELL OTHER Salt Water Disposal

2. NAME OF OPERATOR Wexpro Company

3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, Wyoming

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface 678' FSL, 664' FWL, SW SW

RECEIVED
MAR 03 1989

DIVISION OF OIL, GAS & MINING

14. PERMIT NO. 43-037-31019

15. ELEVATIONS (Show whether DF, RT, GR, etc.) GR 5221', KB 5234'

5. LEASE DESIGNATION AND SERIAL NO. U-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME Patterson

8. FARM OR LEASE NAME Unit

9. WELL NO. 5

10. FIELD AND POOL OR WILDCAT Patterson

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E SLB&M

12. COUNTY OR PARISH San Juan

13. STATE Utah

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

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

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

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

On February 27, 1989, at approximately 1:30 pm, BLM representative, Mike Wade, reported to Wexpro Company personnel an undesirable event at Patterson Unit Well No. 5. Tank No. 741 had overflowed, dumping approximately 20-25 barrels of brine water and 5 barrels of oil into the surrounding tank dike. Clean up commenced at 3:00 pm. A vacuum truck was used to suck up the oil and water which was dumped in the production pit at the Patterson Battery.

The overflow was caused by the operator starting the transfer pump at the Patterson Battery which pumped fluid to the tank. The tank did not have sufficient storage capacity for the fluid.

To prevent a recurrence of this event, a high level shut down will be installed at the Patterson Unit Well No. 5 tanks.

All clean up will be completed by March 1, 1989.

The Monthly Report of Operations will reflect the amount of fluid lost.

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

SIGNED [Signature] TITLE District Manager DATE February 28, 1989

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE
(Other than
reverse side)

Form approved.
Budget Bureau No. 1004-0135
November 22, 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 "APPLICATION FOR PERMIT-" for such proposals.)

1. OIL WELL GAS WELL OTHER Salt Water Disposal

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 458, Rock springs, Wyoming

4. LOCATION OF WELL (Report location clearly and in accordance with instructions on the reverse side.)
See also space 17 below.)
At surface
678' FSL, 664' FWL

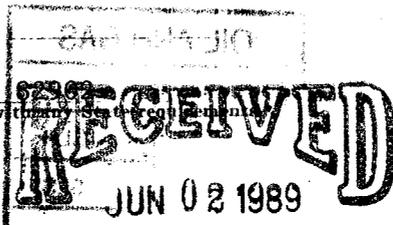
14. PERMIT NO. 43-037-31019

15. ELEVATIONS (Show whether DF, RT, or CB)
GR 5221'

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

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

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



5. LEASE DESIGNATION AND SERIAL NO.
U-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Patterson

8. FARM OR LEASE NAME
Unit

9. WELL NO.
5

10. FIELD AND POOL OR WILDCAT
Patterson Unit

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
4-38S-25E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

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.)*

Permission is requested to haul by tank truck produced water from Cedar Well No. 1 located in the NE SE 34-37S-25E, SLB&M on Lease No. U-44822. The anticipated daily water production will be 60 barrels. The haul route will be over Unit, lease and county roads for which Wexpro has authorization for use. As this well has a very short life expectancy, it is not expected that it will be necessary to dispose of water for more than six months. A water analysis will be obtained but water quality is not expected to be greatly different than water produced from the Patterson Unit. Produced water will be hauled to Bug Well No. 12 located in the NE NW 21-36S-26E, SLB&M on a Fee Lease or to Patterson Unit Well No. 5 located in 4-38S-25E SLB&M on Lease No. U-11668, depending on which facility can accommodate the volume to be disposed.

→ Your expeditious approval would be greatly appreciated as storage for this water is limited.

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

SIGNED G. T. [Signature] TITLE District Manager DATE May 31, 1989

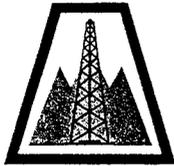
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____

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

Accepted by the State of Utah Division of Oil, Gas and Mining
Date: 6-6-89
By: [Signature]

*See Instructions on Reverse Side



WEXPRO COMPANY

P. O. BOX 458 • ROCK SPRINGS, WYOMING 82902 • PHONE (307) 382-9791

June 30, 1989

Utah Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Re: Cedar Well No. 1
34-37S-25E
San Juan County, Utah
Lease U-44822

RECEIVED
JUL 06 1989

DIVISION OF
OIL, GAS & MINING

Gentlemen;

As stated in our May 31, 1989 sundry notices to haul water from Cedar Well No. 1 to Bug Well No. 12 and Patterson Unit Well No. 5, I am enclosing a water analysis of the Cedar wells produced water.

If you need further information, please let me know.

Sincerely,

C. J. Flansburg
Coordinator, Regulatory Affairs

CJF/srl

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPlicate
(Other instruction
verse side)

Form approved.
Budget Bureau No. 1004-0135

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL GAS WELL OTHER Salt Water Disposal

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 458, Rock springs, Wyoming 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface
678' FSL, 664' FWL

14. PERMIT NO. 43-037-31019

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
GR 5221' KB 5234'

RECEIVED
JUL 06 1989

DIVISION OF
OIL, GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.
U-11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Patterson

8. FARM OR LEASE NAME
Unit

9. WELL NO.
5

10. FIELD AND POOL OR WILDCAT
Patterson Unit

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
4-38S-25E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

MICROFILME

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

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

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

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

Permission is requested to haul by tank truck produced water from Cedar Well No. 1 located in the NE SE 34-37S-25E, SLB&M on Lease No. U-44822. The anticipated daily water production will be 60 barrels. The haul route will be over Unit, lease and county roads for which Wexpro has authorization for use. As this well has a very short life expectancy, it is not expected that it will be necessary to dispose of water for more than six months. A water analysis will be obtained but water quality is not expected to be greatly different than water produced from the Patterson Unit. Produced water will be hauled to Bug Well No. 12 located in the NE NW 21-36S-26E, SLB&M on a Fee Lease or to Patterson Unit Well No. 5 located in 4-38S-25E SLB&M on Lease No. U-11668, depending on which facility can accommodate the volume to be disposed.

Your expeditious approval would be greatly appreciated as storage for this water is limited.

18. I hereby certify that the foregoing is true and correct
SIGNED GTR TITLE District Manager DATE May 31, 1989

(This space for Federal or State office use)

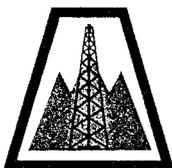
APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

Federal Approval of this Action is Necessary

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 7-10-89
BY: [Signature]

*See Instructions on Reverse Side



WEXPRO COMPANY

79 SOUTH STATE STREET • P. O. BOX 11070 • SALT LAKE CITY, UTAH 84147 • PHONE (801) 530-2600

RECEIVED

DEC 14 1992

DIVISION OF
OIL GAS & MINING

December 11, 1992

Department of Natural Resources
Oil, Gas, and Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

ATTN: Dan Jarvis

Dear Mr. Jarvis:

RE: Mechanical Integrity Tests
Bug Well #12
Patterson Unit Well #5

On November 18, 1992, you witnessed the mechanical integrity tests at Wexpro Company's Bug Well #12 and Patterson Unit Well #5; both located in San Juan County.

It is my understanding both of these wells passed the integrity tests and may continue to receive produced water for disposal. Wexpro Company would like written confirmation from your offices as to these assumptions. Please forward your authorization for continued injection operations to:

Wexpro Company
P. O. Box 11070
Salt Lake City, UT 84147

ATTN: Jeffrey L. Ingerson

Should you have any questions concerning this request, please contact me at (801) 530-2653.

Sincerely,

Jeffrey L. Ingerson
Staff Petroleum Engineer

JLI/jlz

Utah Division of Oil, Gas, and Mining
 Casing - ~~Breakdown~~ Test

Pressure

Operator: WEXPRO COMPANY Field/Unit:
 Well: PATTERSON UNIT #5 Township: 38S Range: 25E Sect: 4
 API: 43-037-31019 Welltype: INJD Max Pressure: 2554
 Lease type: FEDERAL Surface Owner: BLM

Test Date: 11/18/92

11:00 AM

| CASING STRING | SIZE | SET AT | PRESSURE | OBSERVATIONS |
|---------------|------|--------|----------|--------------|
|---------------|------|--------|----------|--------------|

| | | | | |
|----------|-------|------|--|--|
| Surface: | 9 5/8 | 1569 | | |
|----------|-------|------|--|--|

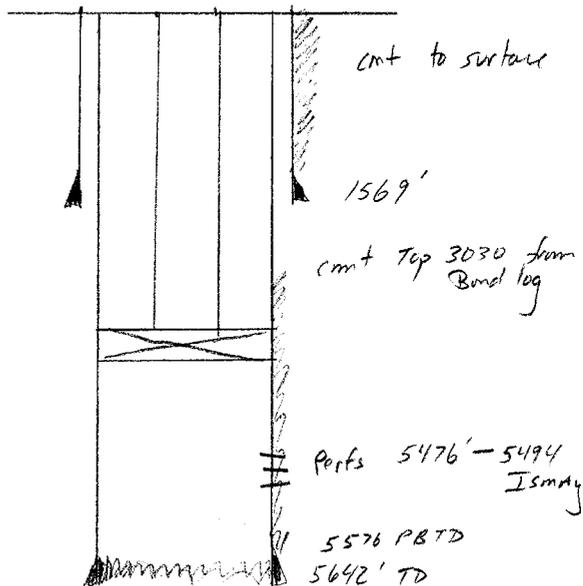
| | | | | |
|---------------|-------|------|--|--|
| Intermediate: | 5 1/2 | 5642 | | |
|---------------|-------|------|--|--|

| | | | | |
|-------------|--|---|--|--|
| Production: | | 0 | | |
|-------------|--|---|--|--|

| | | | | |
|--------|--|---|--|--|
| Other: | | 0 | | |
|--------|--|---|--|--|

| | | | | |
|---------|-------|--|--|--|
| Tubing: | 2 7/8 | | | |
|---------|-------|--|--|--|

| | | | | |
|---------|--|------|--|--|
| Packer: | | 5472 | | |
|---------|--|------|--|--|



Recommendations: Comments & Observations

well was injecting at 2450 PSI }
 casing tubing annulus 0 PSI } } Prior to test

Casing was pressured to 900 PSI
 held for 15 min with no pressure loss

Passed MIT. D. Jannus

In Attendance

DAN JACKSON - EPA
 Brad Hill }
 DAN JARVIS } DOGM
 Glenn Goodwin }

Pumper for Wexpro
 Circle K Hot Oil Service



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

December 30, 1992

Jeffery Ingerson
Wexpro Company
79 South State Street
P.O. Box 11070
Salt Lake City, Utah 84147

Dear Jeffery:

Re: Authorization for Continued Injection

On November 18, 1992, Wexpro Company's Bug #12 and Patterson #5 injection wells were pressure tested. The casing/tubing annulus in both wells were pressured to approximately 1000 psig. Pressure was held for 15 minutes with no loss, passing the required mechanical integrity test.

Wexpro is hereby authorized to continue injection into both wells. If you have any questions please contact me at (801)538-5340.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel J. Jarvis".

Daniel J. Jarvis
UIC Geologist

ldc
WUI37

INJECTION WELL - INSPECTION RECORD

| | | | |
|-------------------------------------|---------------------------------|---|-------------------|
| Well Name: <u>Patterson Unit #5</u> | API Number: <u>43-037-31019</u> | | |
| Qtr/Qtr: _____ | Section: <u>4</u> | Township: <u>38S</u> | Range: <u>25E</u> |
| Company Name: <u>Wexpro</u> | | | |
| Lease: State _____ | Fee _____ | Federal <input checked="" type="checkbox"/> | Indian _____ |
| Inspector: <u>[Signature]</u> | Date: <u>5-24-99</u> | | |

Injection Type:

Disposal: Enhanced Recovery: _____ Other: _____

Injecting: _____ Shut-In:

Rate: _____ (bpd) Totalizer: _____
(bbls)

Gauges: Tubing: _____
Casing: _____ Casing Pressure: _____ (psig)

Tubing Pressure: _____ (psig) Housekeeping: Fair

Equipment Condition: OK

COMMENTS: Pit on location has been netted.

Wexpro
43-037-31019 Sec. 4, T. 38S, R. 25E

PATTERSON CANYON NO. 5 - WORKOVER

6/8/99

Perfs: 5440-460' and 5476-494', 4 HPF. PBD: 5540'. SITP: vac, SICP: slight blow. MI&RU workover rig 6/7/99. Remove upper wellhead. NU BOP's. Unset packer. RU working floor and Tuboscope Vetco pipe inspection unit. TOH inspecting tubing. LD 54 jts w/greater than 30% wall loss. Net ftg of 54 jts - 1632.64'. Ten of 54 had visible holes. RD Tuboscope Vetco. CWI and SD. Will PU packer and replacement tubing in morning. Note: 45 jts had up to 15% wall loss, 78 jts with 16-30%, and 54 jts with 31-100%. **Daily cost:\$2,981. Cumulative:\$2,981.** M. R. Sliger

6/9/99

Perfs: 5440-460' and 5476-494', 4 SPF. PBD: 5540'. SICP: 0 psi. PU re-dressed arrow set 1 packer and 53 jts 2-7/8", 6.5#, J-55, 8rd EUE used tubing (1619.07') from Cortez yard. TIH WLM w/61 stands and 1 single. PU 6' pup jt and reverse circ until clean returns out of tubing. Set packer at 5385' KBM. Press test packer and casing to 1000 psi f/10 mins; held okay. Pump 12-1/4 bbls prod water down tubing to est. rate and press. Avg rate at 3/4 bbl/min, press at 1850 psi and building. SD and monitor press for 15 mins. Press declined f/1550 to 500 psi. Unset packer and circ bottoms up. CWI and SD. Will spot 500 gals 25% HCl w/Halliburton in morning.. **Daily cost:\$3,105. Cumulative:\$6,086.** M. R. Sliger

6/10/99

Perfs: 5440-460' and 5476-494', 4 SPF. PBD: 5540'. SITP/SICP: 0 psi. RU Halliburton and mix 100 bbls Pkr chemical. Pump 100 bbls pkr chem, 500 gals 28% HCl, and 14,661 prod water. Set Arrowset 1 pkr at 5385' KBM. RD working floor, ND BOP's, make up upper wellhead to tubing. Land tubing at 5392' KBM and NU wellhead. Displace acid into perfs w/35 bbls prod water. Observed 100 psi press break at 1-1/4 bbls/min w/acid at perfs. Displaced acid into perfs at 1-1/2 bbls/min and 1800 psi. Over displacement slowed to 1/2 - 3/4 bbls/min at 2200 psi. Close tubing in. Press up tubing/casing annulus to 1000 psi f/30 mins f/integrity test. RD workover rig and move to Patterson Canyon Unit #1. **Daily cost:\$10,241. Cumulative:\$16,327.** M. R. Sliger

OIL AND GAS

| | |
|--------------|---|
| JRB | |
| 2 ELIK | → |
| SLS | |
| GLH | |
| DTS | |
| J | |
| J | |
| J | |
| 3 MICROFILM | ✓ |
| 6 FILE | |

T

CUSTOMER AND JOB INFORMATION

| | | | |
|------------|------------------|------------|-------------|
| Customer | WEXPRO | Date | 10-Jun-1999 |
| Contractor | KEY | County | SAN JUAN |
| Lease | PATTERSON CANYON | Town | 38/S |
| Location | FARMINGTON | Section | 4 |
| Formation | | Range | 25/E |
| Job Type | ACID | Permit No | |
| Country | U.S.E | Well No | 5 |
| State | UT. | Field Name | |

Customer Representative

Halliburton Operator

Ticket No. 81780

STAGE DESCRIPTIONS

WELL CONFIGURATION INFORMATION

Packer Type
Bottom Hole Temp. 140.0 Deg F Depth 5394 ft

PIPE CONFIGURATION

| Wellbore Segment Number | Measured Depth (ft) | TVD (ft) | Casing ID (inch) | Casing OD (inch) | Tubing ID (inch) | Tubing OD (inch) |
|-------------------------|---------------------|----------|------------------|------------------|------------------|------------------|
| 1 | 5500 | 5500 | 4.892 | 5.500 | 2.441 | 2.875 |

PERFORATIONS

| Perforation Interval | Top (ft) | Bottom (ft) | Shots per (ft) |
|----------------------|----------|-------------|----------------|
|----------------------|----------|-------------|----------------|

REMARKS ABOUT JOB

NOTICE: THIS REPORT IS BASED ON SOUND ENGINEERING PRACTICES, BUT BECAUSE OF VARIABLE WELL CONDITIONS AND OTHER INFORMATION WHICH MUST BE RELIED UPON, HALLIBURTON MAKES NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ACCURACY OF THE DATA OR OF ANY CALCULATIONS OR OPINIONS EXPRESSED HEREIN. YOU AGREE THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER DUE TO NEGLIGENCE OR OTHERWISE ARISING OUT OF OR IN CONNECTION WITH SUCH DATA, CALCULATIONS OR OPINIONS.

Customer: WEXPRO
Well Desc: PATTERSON CANYON 5
Formation:

Date: 10-Jun-1999
Ticket #: 81780
Job Type: ACID

JOB SUMMARY

JOB START TIME: 10:24:07
JOB END TIME: 11:45:02
JOB DURATION: 01:20:55

STAGES AND EVENTS:

| Chart | Time | Slurry Rate (bpm) | Slurry Stage Volume (bbl) | Casing Press. (psi) | Remark |
|----------|----------|-------------------------|------------------------------------|---------------------------|-------------|
| Event #1 | 10:24:07 | 0.00 | 0.0 | 0 | Start Job |
| Event #2 | 10:33:12 | 0.00 | 0.0 | 463 | Test Lines |
| Event #3 | 10:34:43 | 0.80 | 0.0 | 469 | Start Flush |
| Stage #1 | 10:35:34 | 1.46 | 35.1 | 520 | Start Flush |
| Stage #2 | 11:09:37 | 0.00 | 0.3 | 240 | TEST CASING |
| Event #4 | 11:43:47 | 0.00 | 0.0 | 1069 | END TEST |
| Event #5 | 11:45:02 | 2.13 | 0.0 | 871 | End Job |

Customer: WEXPRO
Well Desc: PATTERSON CANYON 5
Formation:

Date: 10-Jun-1999
Ticket #: 81780
Job Type: ACID

DATA LISTING

| TIME | Casing Pr (psi) |
|----------|--------------------|
| 11:06:35 | 239 |
| 11:07:35 | 238 |
| 11:08:35 | 237 |
| 11:09:35 | 240 |

==== Stage Total 35.10 (bbl) ====

11:09:37 Stage #2 TEST CASING

| | |
|----------|------|
| 11:10:34 | 1073 |
| 11:11:34 | 1060 |
| 11:12:34 | 1057 |
| 11:13:34 | 1055 |
| 11:14:34 | 1054 |
| 11:15:34 | 1053 |
| 11:16:34 | 1053 |
| 11:17:34 | 1052 |
| 11:18:34 | 1052 |
| 11:19:34 | 1053 |
| 11:20:34 | 1053 |
| 11:21:34 | 1053 |
| 11:22:34 | 1054 |
| 11:23:34 | 1054 |
| 11:24:34 | 1055 |
| 11:25:34 | 1055 |
| 11:26:34 | 1056 |
| 11:27:34 | 1057 |
| 11:28:34 | 1057 |
| 11:29:34 | 1058 |
| 11:30:34 | 1059 |
| 11:31:34 | 1060 |
| 11:32:34 | 1060 |
| 11:33:34 | 1061 |
| 11:34:34 | 1062 |
| 11:35:34 | 1062 |
| 11:36:34 | 1063 |
| 11:37:34 | 1064 |
| 11:38:34 | 1065 |
| 11:39:34 | 1065 |
| 11:40:34 | 1066 |
| 11:41:34 | 1067 |
| 11:42:34 | 1067 |
| 11:43:34 | 1068 |

Customer: WEXPRO
Well Desc: PATTERSON CANYON 5
Formation:

Date: 10-Jun-1999
Ticket #: 81780
Job Type: ACID

TIME Casing Pr
 (psi)

11:43:47 Event #4 END TEST

11:44:33 1004

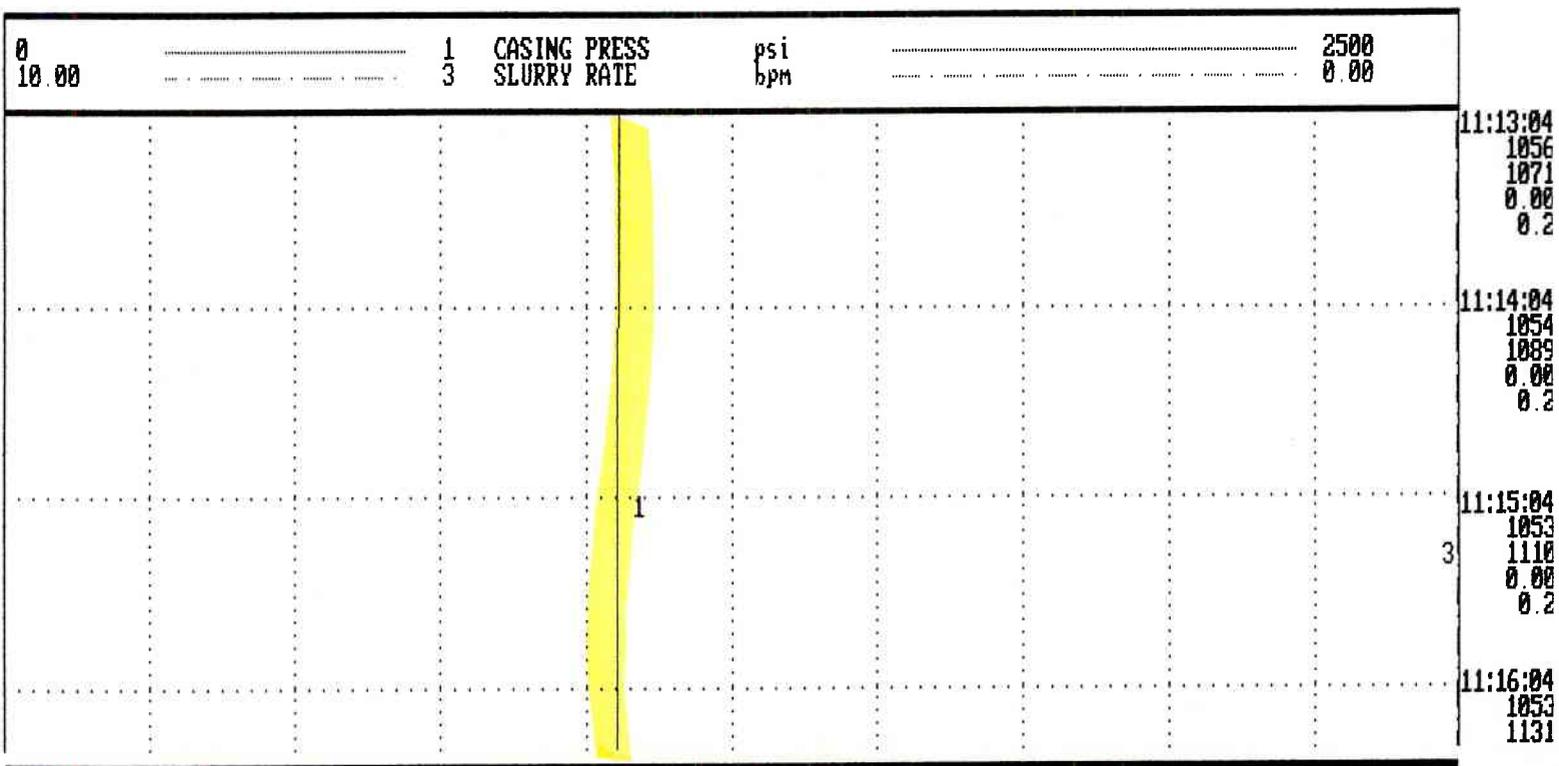
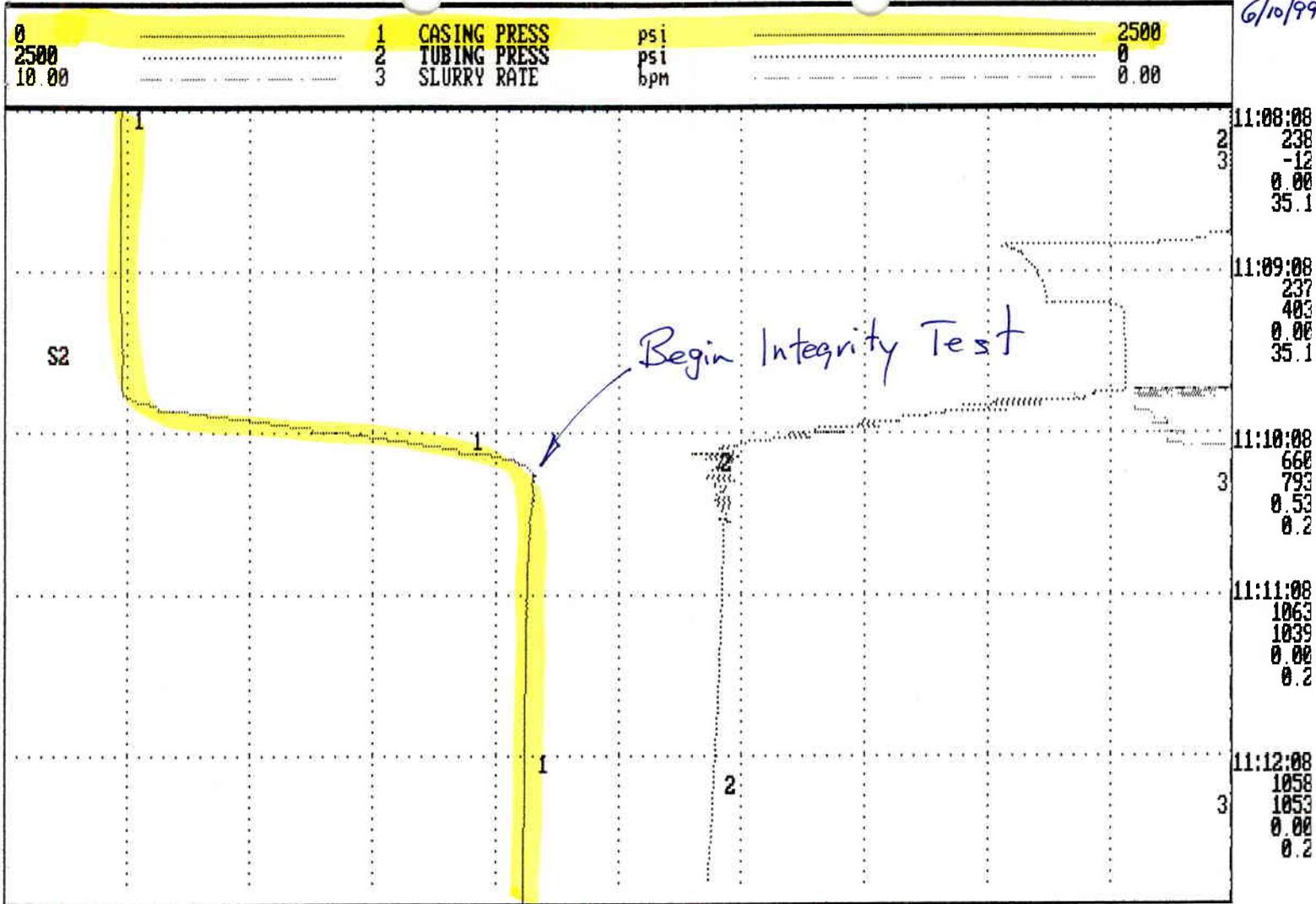
==== Stage Total 0.33 (bbl) ====

11:45:02 Event #5 End Job

STRIP CHART OF THE CASING INTEGRITY TEST

PATERSON UNIT 5

6/10/99



| Time | Slurry Rate (bpm) | Casing Pressure (psi) |
|----------|-------------------|-----------------------|
| 11:17:04 | 3 | 1053 |
| 11:18:04 | 3 | 1169 |
| 11:19:04 | 3 | 1187 |
| 11:20:04 | 3 | 1205 |
| 11:21:04 | 3 | 1225 |
| 11:22:04 | 3 | 1243 |
| 11:23:04 | 3 | 1263 |
| 11:24:04 | 3 | 1282 |
| 11:25:04 | 3 | 1301 |

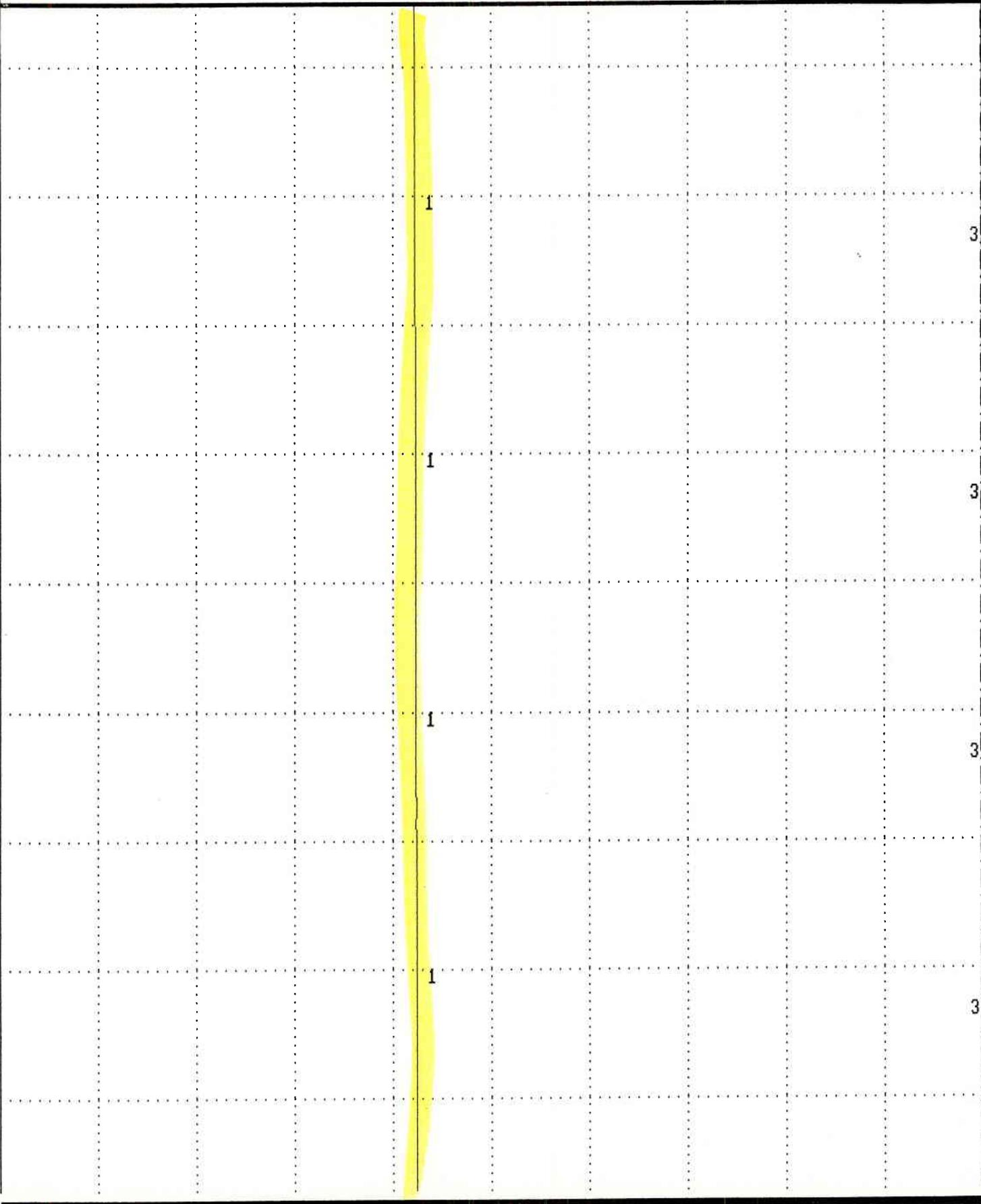
0
10.00

1
3

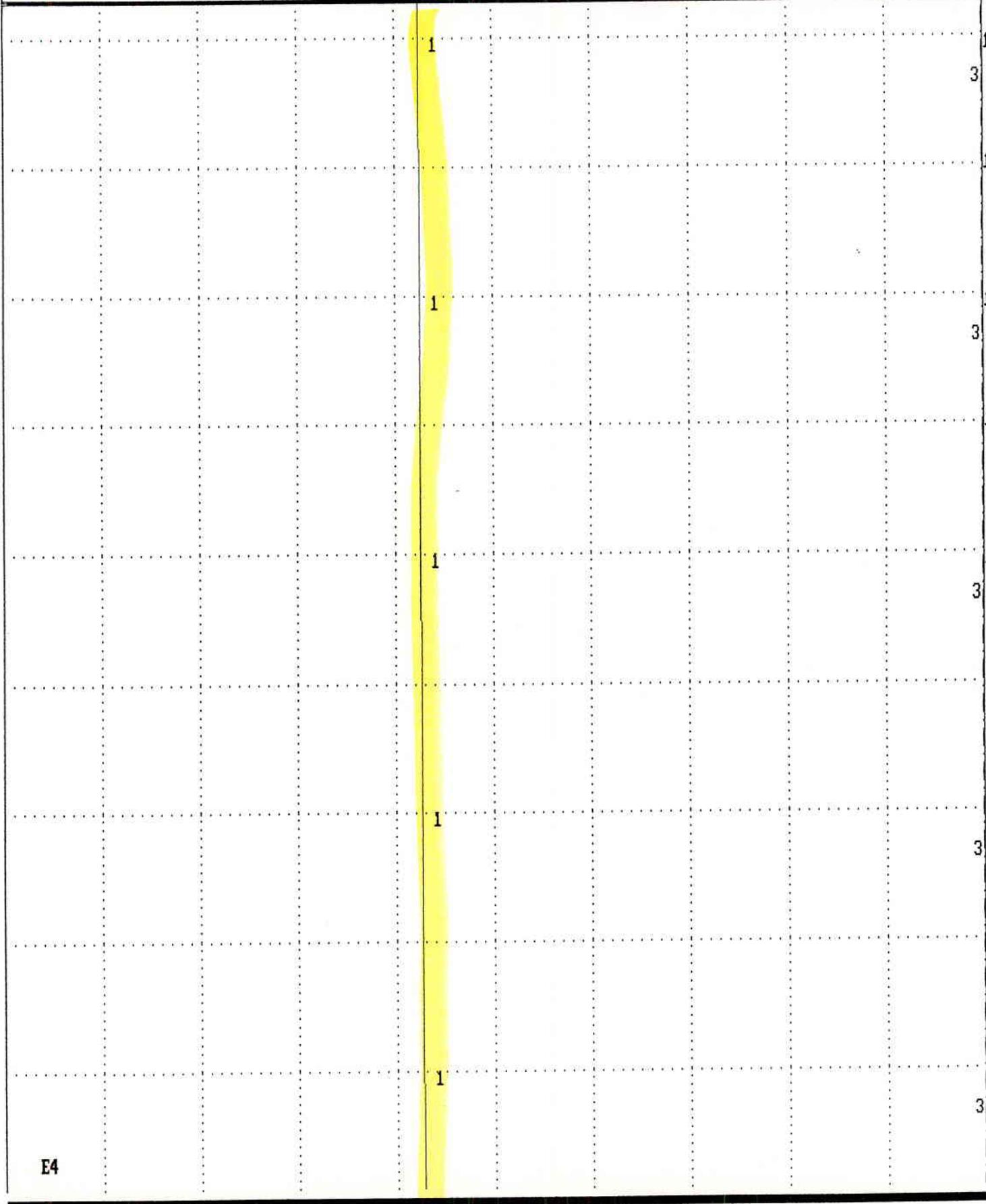
CASING PRESS
SLURRY RATE

psi
bpm

2500
0.00



0.2
11:26:04
1056
0.00
0.2
11:27:04
1056
3
0.00
0.2
11:28:04
1057
0.00
0.2
11:29:04
1058
3
0.00
0.2
11:30:04
1058
0.00
0.2
11:31:04
1059
3
0.00
0.2
11:32:04
1060
0.00
0.2
11:33:04
1061
3
0.00
0.2
11:34:04
1061
0.00
0.2



11:35:04
1062
3
0.00
0.2
11:36:04
1063
0.00
0.2
11:37:04
1063
3
0.00
0.2
11:38:04
1064
0.00
0.2
11:39:04
1065
3
0.00
0.2
11:40:04
1066
0.00
0.2
11:41:04
1066
3
0.00
0.2
11:42:04
1067
0.00
0.2
11:43:04
1068
3
0.00
0.2

E4

0 10.00 1 CASING PRESS psi 2500
3 SLURRY RATE bpm 0.00



11:44:04
1069

0.00
0.2

11:45:02



Memorandum

Wexpro Company

To: Lisha Cordova @ OG&M
From: Jeffrey L. Ingerson *JLI*
Subject: Patterson Unit Well 5 UIC - Workover Records
Date: June 22, 1999

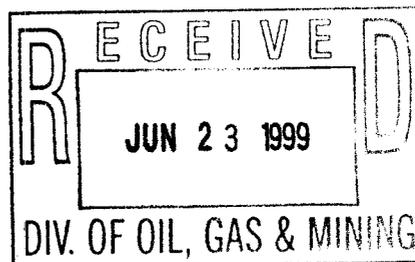
In my previous information submission to you concerning UIC operations at our Patterson Unit Well 5, I indicated Wexpro Company had determined there was a leak somewhere in the tubing string and that we had discontinued injection operations.

Attached for your review and files is a copy of Wexpro Company's workover records for this well which indicate the tubing/packer were leaking. The records document Wexpro's successful effort to repair the situation and pressure test the repair.

Be advised that Wexpro has returned Patterson Unit Well 5 to injection operations.

Should you have any questions concerning this information, please contact me at (801) 324-2653 or by e-mail at jeffi@qstr.com.

Thanks ... jli



QUESTAR

Jeffrey L. Ingerson
Senior Environmental Specialist
(801) 324-2653

Wexpro Company
100 East 100 South
P.O. Box 45601
Salt Lake City, UT 84145-0601
Tel 801 324 2600
Fax 801 324 2637

August 19, 1999

Dan Jarvis
Utah Division of Oil Gas and Mining
1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801

Dear Mr. Jarvis:

Re: MIT Results for Bug Well 12 and Patterson Unit 5
San Juan County, Utah

43-037-31019
Sec. 4, 38S 25E

Wexpro Company (Wexpro) is in receipt of your letter of August 13, 1999 concerning integrity testing of the casing at two (2) of our water injection wells located in San Juan County, Utah. The wells are Bug Well 12 and Patterson Unit 5.

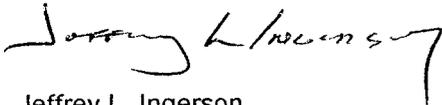
Please be advised that Wexpro Company tested these wells in November 1998 (both wells) and again in June 1999 (Patterson Unit 5). Copies of these tests were forwarded to Lisha Cordova of your office earlier this year. Telephone conversations with Jim Thompson of your office indicate your files do not contain this information. I have enclosed copies of my correspondence with her for your reference and files.

Both wells have passed the mechanical integrity test and are being used by Wexpro to dispose of produced fluids. Wexpro believes these tests meet the criteria set forth by the Division and that we should not have to test again for five (5) years; barring obvious problems.

Wexpro requests the Division review our test data and confirm our interpretation of the test regulations.

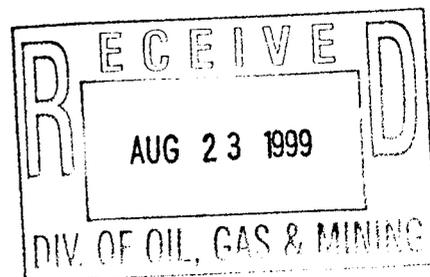
Should you have any questions concerning this information and request, please feel free to contact me at the letterhead address or at (801) 324-2653 (phone) or (801) 324-2570 (fax).

Sincerely,



Jeffrey L. Ingerson
for Wexpro Company

cc: Environmental Files - Utah UIC



To: Lisha Cordova @ OGM
From: Jeffrey L. Ingerson *JLI*
Subject: Bug 12/Patterson 5: 1998 Injection Volumes
Date: June 11, 1999

Attached are reports for Bug 12 and Patterson 5. Sorry for the delay. I will put originals in mail today.

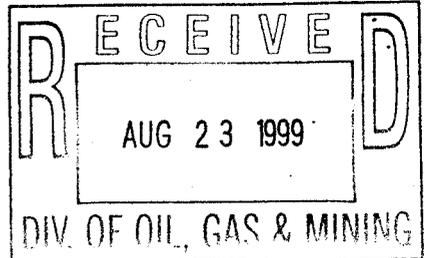
Call me at 324-2653 if you have questions.

Thanks ... jli

FAX to 359-3940

(3) pages including this cover.

FAXED



ANNUAL FLUID INJECTION REPORT - UIC FORM 4

OPERATOR Wexrpo Company
ADDRESS PO Box 45601
Salt Lake City, Utah 84145-0601

OPERATIONS PERIOD:
JANUARY 1 - DECEMBER 31, 1998

CORRECTED REPORT

PURPOSE OF FLUID INJECTION

Enhanced recovery LPG storage Disposal
(Complete applicable sections below)

ENHANCED RECOVERY OR LPG STORAGE PROJECT

1. Field or Unit name: _____
2. Formation and depth: _____
3. County(ies): _____
4. Nature of injected fluid: Gas Fresh water
 LPG Salt water
 Other _____
5. Average daily injection volume (Barrels or MCF): _____
6. Number of active injection wells: _____
7. Number of shut-in injection wells: _____
8. Average well head injection pressure (psig): _____
9. If all or part of injected fluid is fresh water, accurately describe source: _____
10. Briefly describe any major project changes and/or well testing programs performed during the year. Attach additional pages if necessary.

DISPOSAL WELL

1. Well name and number: Patterson Unit 5 API no. 43 037 31019
2. Well location: QQ sw section 4 township 38S range 25E county San Juan
3. Formation and depth: Ismay @ 5440' to 5494' KBM
4. Average daily disposal volume (Barrels): 115 bwpd
5. Average daily wellhead pressure (psig): 1990 psig
6. Briefly describe any major repair performed on the well during the year. Attach additional pages if necessary.

Shut well in during November because of failure of MIT. Repair options under consideration.

I certify that this report is true and complete to the best of my knowledge.

Name Jeffrey L. Ingerson Signature Jeffrey L. Ingerson
Title Senior Environmental Specialist Date 6-11-99
Phone No. (801) 324-2653



Memorandum

Wexpro Company

To: Lisha Cordova @ OG&M
From: Jeffrey L. Ingerson
Subject: Patterson Unit Well 5 UIC - Workover Records
Date: June 22, 1999

In my previous information submission to you concerning UIC operations at our Patterson Unit Well 5, I indicated Wexpro Company had determined there was a leak somewhere in the tubing string and that we had discontinued injection operations.

Attached for your review and files is a copy of Wexpro Company's workover records for this well which indicate the tubing/packer were leaking. The records document Wexpro's successful effort to repair the situation and pressure test the repair.

Be advised that Wexpro has returned Patterson Unit Well 5 to injection operations.

Should you have any questions concerning this information, please contact me at (801) 324-2653 or by e-mail at jeffi@qstr.com.

Thanks ... jli

QB 441



REBEL
Hot Oil Service

P.O. Box 142
Roosevelt
Utah 84066

Jeff,

6/15/99

HERE IS A COPY OF THE
6/10/99 CIT OF PATTERSON
UNIT 5 AND THE JOB LOG.
LET ME KNOW IF YOU NEED
ANYTHING ELSE .

LATER,

CHRIS

J. C.
823-6456

Greg
823-7512

John
823-7132

PATTERSON CANYON NO. 5 - WORKOVER

6/8/99

Perfs: 5440-460' and 5476-494', 4 HPF. PBD: 5540'. SITP: vac, SICP: slight blow. MI&RU workover rig 6/7/99. Remove upper wellhead. NU BOP's. Unset packer. RU working floor and Tuboscope Vetco pipe inspection unit. TOH inspecting tubing. LD 54 jts w/greater than 30% wall loss. Net ftg of 54 jts - 1632.64'. Ten of 54 had visible holes. RD Tuboscope Vetco. CWI and SD. Will PU packer and replacement tubing in morning. Note: 45 jts had up to 15% wall loss, 78 jts with 16-30%, and 54 jts with 31-100%. **Daily cost:\$2,981. Cumulative:\$2,981.** M. R. Sliger

6/9/99

Perfs: 5440-460' and 5476-494', 4 SPF. PBD: 5540'. SICP: 0 psi. PU re-dressed arrow set 1 packer and 53 jts 2-7/8", 6.5#, J-55, 8rd EUE used tubing (1619.07') from Cortez yard. TIH WLM w/61 stands and 1 single. PU 6' pup jt and reverse circ until clean returns out of tubing. Set packer at 5385' KBM. Press test packer and casing to 1000 psi f/10 mins; held okay. Pump 12-1/4 bbls prod water down tubing to est. rate and press. Avg rate at 3/4 bbl/min, press at 1850 psi and building. SD and monitor press for 15 mins. Press declined f/1550 to 500 psi. Unset packer and circ bottoms up. CWI and SD. Will spot 500 gals 25% HCl w/Halliburton in morning.. **Daily cost:\$3,105. Cumulative:\$6,086.** M. R. Sliger

6/10/99

Perfs: 5440-460' and 5476-494', 4 SPF. PBD: 5540'. SITP/SICP: 0 psi. RU Halliburton and mix 100 bbls Pkr chemical. Pump 100 bbls pkr chem, 500 gals 28% HCl, and 14,661 prod water. Set Arrowset 1 pkr at 5385' KBM. RD working floor, ND BOP's, make up upper wellhead to tubing. Land tubing at 5392' KBM and NU wellhead. Displace acid into perfs w/35 bbls prod water. Observed 100 psi press break at 1-1/4 bbls/min w/acid at perfs. Displaced acid into perfs at 1-1/2 bbls/min and 1800 psi. Over displacement slowed to 1/2 - 3/4 bbls/min at 2200 psi. Close tubing in. Press up tubing/casing annulus to 1000 psi f/30 mins f/integrity test. RD workover rig and move to Patterson Canyon Unit #1. **Daily cost:\$10,241. Cumulative:\$16,327.** M. R. Sliger

Customer: WEXPRO
Well Desc: PATTERSON CANYON 5
Formation:

Date: 10-Jun-1999
Tick #: 81780
Job Type: ACID

JOB SUMMARY

JOB START TIME: 10:24:07
JOB END TIME: 11:45:02
JOB DURATION: 01:20:55

STAGES AND EVENTS:

| Chart | Time | Slurry Rate (bpm) | Slurry Stage Volume (bbl) | Casing Press. (psi) | Remark |
|----------|----------|-------------------------|------------------------------------|---------------------------|-------------|
| Event #1 | 10:24:07 | 0.00 | 0.0 | 0 | Start Job |
| Event #2 | 10:33:12 | 0.00 | 0.0 | 463 | Test Lines |
| Event #3 | 10:34:43 | 0.80 | 0.0 | 469 | Start Flush |
| Stage #1 | 10:35:34 | 1.46 | 35.1 | 520 | Start Flush |
| Stage #2 | 11:09:37 | 0.00 | 0.3 | 240 | TEST CASING |
| Event #4 | 11:43:47 | 0.00 | 0.0 | 1069 | END TEST |
| Event #5 | 11:45:02 | 2.13 | 0.0 | 871 | End Job |

Customer: WEXPRO
Well Desc: PATTERSON CANYON 5
Formation:

Date: 10-Jun-1999
Ticket #: 81780
Job Type: ACID

DATA LISTING

| TIME | Casing Pr (psi) |
|----------|--------------------|
| 11:06:35 | 239 |
| 11:07:35 | 238 |
| 11:08:35 | 237 |
| 11:09:35 | 240 |

==== Stage Total 35.10 (bbl) ====

11:09:37 Stage #2 TEST CASING

| | |
|----------|------|
| 11:10:34 | 1073 |
| 11:11:34 | 1060 |
| 11:12:34 | 1057 |
| 11:13:34 | 1055 |
| 11:14:34 | 1054 |
| 11:15:34 | 1053 |
| 11:16:34 | 1053 |
| 11:17:34 | 1052 |
| 11:18:34 | 1052 |
| 11:19:34 | 1053 |
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| 11:35:34 | 1062 |
| 11:36:34 | 1063 |
| 11:37:34 | 1064 |
| 11:38:34 | 1065 |
| 11:39:34 | 1065 |
| 11:40:34 | 1066 |
| 11:41:34 | 1067 |
| 11:42:34 | 1067 |
| 11:43:34 | 1068 |

Customer: WEXPRO
Well Desc: PATTERSON CANYON 5
Formation:

Date: 10-Jun-1999
Tick #: 81780
Job Type: ACID

TIME Casing Pr
 (psi)

11:43:47 Event #4 END TEST

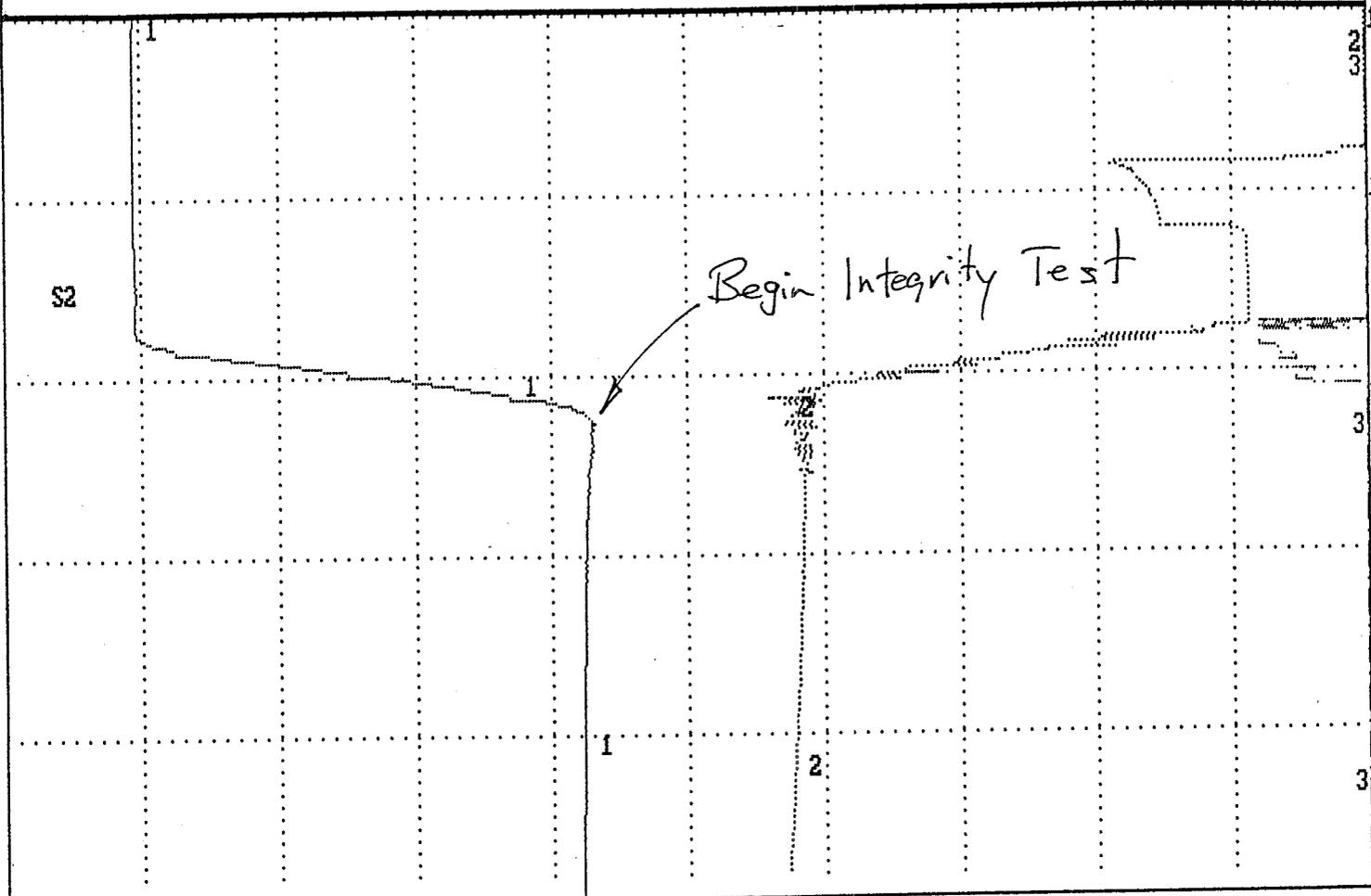
11:44:33 1004

==== Stage Total 0.33 (bbl) ====

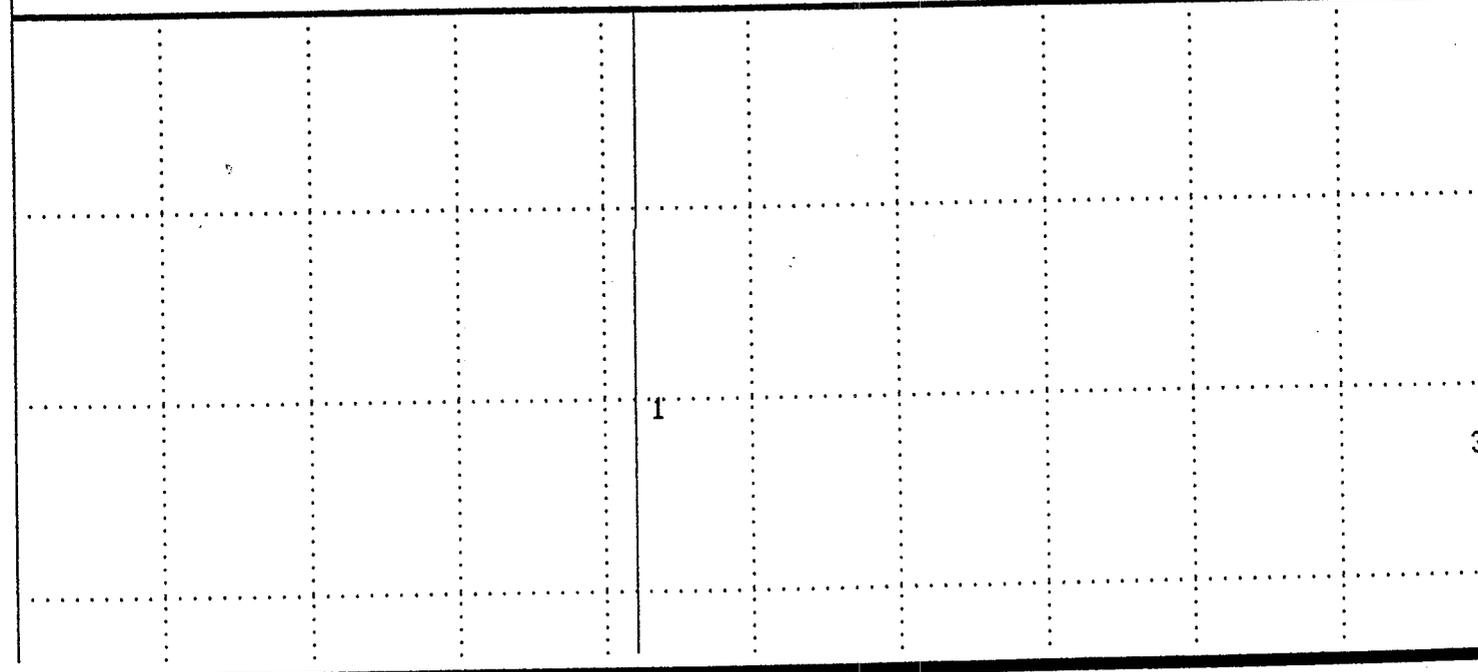
11:45:02 Event #5 End Job

6/10/94

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| 0 | ————— | 1 | CASING PRESS | psi | ————— | 2500 |
| 2500 | | 2 | TUBING PRESS | psi | | 0 |
| 10.00 | ----- | 3 | SLURRY RATE | bpm | ----- | 0.00 |



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|-------|-------|---|--------------|-----|-------|------|
| 0 | ————— | 1 | CASING PRESS | psi | ————— | 2500 |
| 10.00 | | 3 | SLURRY RATE | bpm | ----- | 0.00 |



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11:19:04
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11:21:04
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← End Integrity Test

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires: Nov. 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

| | | |
|---|---|---|
| 1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other SALT WATER DISPOSAL WELL | | 5. Lease Serial No. U-11668 |
| 2. Name of Operator WEXPRO COMPANY | | 6. If Indian, Allottee or Tribe Name NA |
| 3a. Address P. O. BOX 458, ROCK SPRINGS, WY 82902 | 3b. Phone No. (include area code) (307) 382-9791 | 7. If Unit or CA, Agreement, Name and/or No. PATTERSON |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 678' FSL, 664' FWL, SW SW 4-38S-25E, SLB&M | | 8. Well Name and No. PATTERSON UNIT NO. 5 |
| | | 9. API Well No. 43-037-31019 |
| | | 10. Field and Pool, or Exploratory Area PATTERSON |
| | | 11. County or Parish, State SAN JUAN COUNTY, UTAH |

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"/> Subsequent Report | <input type="checkbox"/> Deepen |
| <input type="checkbox"/> Final Abandonment Notice | <input type="checkbox"/> Fracture Treat |
| | <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>Replace Water Line</u> |

13. Describe Proposed or Completed Operation (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 is 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.)

Wexpro Company requests approval to replace the existing 2-inch buried steel water line with a 2-inch buried polyethylene water line. The line begins at Patterson Canyon Well No. 1, NE NW 9-38S-24E, Lease No. U-0136520-A and ends at the above well. The line is being replaced due to deterioration of the walls of the pipe from corrosion. The new 2-inch poly-pipeline will be installed on and follow the existing right-of-way. The right-of-way will be re-seeded as required. The line is believed to be approved via ROW U-48019. This work is scheduled for July, 2001.

*Federal Approval Of This
Action Is Necessary*

**Accepted by the
Utah Division of
Oil, Gas and Mining**

Date: 6/11/01
By: R. Allen Myle

6-11-01
CHD

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

| | |
|-------------------------------------|-----------------------------|
| Name (Printed/Typed) G. T. Nimmo | Title Operations Manager |
| Signature <i>G. T. Nimmo</i> | Date June 5, 2001 |

THIS SPACE FOR FEDERAL OR STATE OFFICE 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 | |

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires: Nov. 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals

5. Lease Serial No.
SEE BELOW

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA/Agreement, Name and/or No.
PATTERSON UNIT

8. Well Name and No.
SEE BELOW

9. API Well No.
SEE BELOW

10. Field and Pool, or Exploratory Area
PATTERSON

11. County or Parish, State
SAN JUAN COUNTY, UTAH

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
WEXPRO COMPANY

3a. Address
P. O. BOX 458, ROCK SPRINGS, WYOMING 82902-0458

3b. Phone No. (include area code)
307-382-9791

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEE BELOW

43-037-31019

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"/> 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 VARIANCE |
| | <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 Operation (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 is 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.)

Wexpro Company is requesting a variance from Onshore Order No. 5, III.B.17 which requires meter calibrations on a quarterly basis. Wexpro Company is requesting that meter calibrations be performed on the following wells on a semi-annual basis:

| | | | |
|---|--|--|--|
| Patterson Unit Well No. 1 NE NW 5-38S-25E San Juan County, Utah Lease No. U-11668 Meter Location 1087 API No. 43-037-30510 Currently does not produce | Patterson Unit Well No. 3 SW NE 5-38S-25E San Juan County, Utah Lease No. U-11668 Meter Location 1627 API No. 43-037-30848 Produces 10 MCFPD | Patterson Unit Well No. 5 SW SW 4-38S-25E San Juan County, Utah Lease No. U-11668 Meter Location 2294 API No. 43-037-31019 Water Injection Well Fuel Gas Meter - No sales | Patterson Canyon Well No. 1 NE NW 9-38S-25E San Juan County, Utah Lease No. U-0146520-A Meter Location 1878 API No. 43-037-30170 Produces 45 MCFPD |
|---|--|--|--|

RECEIVED

JUL 18 2001

DIVISION OF
OIL, GAS AND MINING

CONTINUED ON PAGE TWO

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

Name (Printed/Typed)

G. T. Nimmo

Title Operations Manager

Signature

Date July 12, 2001

THIS SPACE FOR FEDERAL OR STATE OFFICE 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 | |

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals

SUBMIT IN TRIPLICATE - Other instructions on reverse side

| | | |
|--|---|---|
| 1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other | | 5. Lease Serial No. SEE BELOW |
| 2. Name of Operator WEXPRO COMPANY | | 6. If Indian, Allottee or Tribe Name NA |
| 3a. Address P. O. BOX 458, ROCK SPRINGS, WYOMING 82902-0458 | 3b. Phone No. (include area code) 307-382-9791 | 7. If Unit or CA/Agreement, Name and/or No. PATTERSON UNIT |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SEE BELOW | | 8. Well Name and No. SEE BELOW |
| | | 9. API Well No. SEE BELOW |
| | | 10. Field and Pool, or Exploratory Area PATTERSON |
| | | 11. County or Parish, State SAN JUAN COUNTY, UTAH |

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"/> 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 VARIANCE |
| | <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 Operation (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 is 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.)

The request for variance is based on the following reasons:

- (1) Questar Gas Management takes delivery of the gas produced from the Patterson A Battery located in the SW SW 33-37S-25E, through Meter Location 377 (Master Meter) which is the delivery and royalty point for the gas produced from the above wells.
- (2) The well meters listed are for allocation purposes only.
- (3) A change from quarterly to semi-annual meter calibrations would be more cost effective for Wexpro due to the low gas production.
- (4) Conducting meter calibrations on a semi-annual basis would not have a negative impact on royalties or royalty payments.

Accepted by the
Utah Division of
Oil, Gas and Mining

Date: 7/23/01
By: [Signature]

Federal Approval Of This
Action Is Necessary

COPY SENT TO OPERATOR
Date: 7-23-01
Initials: CHD

RECEIVED

JUL 28 2001

DIVISION OF
OIL, GAS AND MINING

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 3/6/2006
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 3/15/2006
3. The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 6/13/2006
4. Is the new operator registered in the State of Utah: YES Business Number: 5260313-0160
5. If **NO**, the operator was contacted on:

- 6a. (R649-9-2) Waste Management Plan has been received on: Requested 6/13/06
- 6b. Inspections of LA PA state/fee well sites complete on: n/a
- 6c. Reports current for Production/Disposition & Sundries on: ok

-
7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 5/5/2006 BIA n/a

-
8. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: 5/5/2006

-
9. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

-
10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 6/12/2006

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database** on: 6/13/2006
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 6/13/2006
3. Bond information entered in RBDMS on: n/a
4. Fee/State wells attached to bond in RBDMS on: n/a
5. Injection Projects to new operator in RBDMS on: 6/13/2006
6. Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: UT0692
2. Indian well(s) covered by Bond Number: n/a
3. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number n/a
 - a. The **FORMER** operator has requested a release of liability from their bond on: n/a
The Division sent response by letter on: n/a

LEASE INTEREST OWNER NOTIFICATION:

4. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS:

FORM 8

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

| | |
|---|--|
| SUNDRY NOTICES AND REPORTS ON WELLS | 5. Lease Designation and Serial Number: UTU-11668 |
| Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals. | 6. If Indian, Altona or Tribe Name: |
| 1. Type of Well: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER: Injection Well | 7. Unit Agreement Name: Patterson Canyon |
| 2. Name of Operator: SEELEY OIL COMPANY, LLC N2880 | 8. Well Name and Number: Patterson Unit 5 |
| 3. Address and Telephone Number: P.O. Box 9105, Salt Lake City, UT 84109 (801) 467-6419 | 9. API Well Number: 43-037-3109 |
| 4. Location of Well Footage: 678' from South Line, 664' from West Line CO. Sec., T., R., M.: SWSW, Sec. 4, T38S, R25E | 10. Field and Pool, or Wildcat: Patterson Canyon County: San Juan State: Utah |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| NOTICE OF INTENT <small>(Submit in Duplicate)</small> | SUBSEQUENT REPORT <small>(Submit Original Form Only)</small> |
|---|---|
| <input type="checkbox"/> Abandon <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input type="checkbox"/> Multiple Completion <input type="checkbox"/> Other _____ | <input type="checkbox"/> Abandon* <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input checked="" type="checkbox"/> Other <u>Change of Operator</u> |
| <input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recomplete <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off | <input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off |
| Approximate date work will start _____ | Date of work completion _____ <small>Report results of Multiple Completions and Re Completions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.</small> <small>* Must be accompanied by a corenet verification report.</small> |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give entrance locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Seeley Oil Company, LLC is considered to be the operator of the above referenced well, Lease UTU-11668, San Juan County, Utah, and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Utah Federal Bond UT0692.

13. Name & Signature: B. K. Seeley Title: President Date: 3/08/06

(This space for State use only)

APPROVED 6/13/06
Earlene Russell
 Division of Oil, Gas and Mining
 Earlene Russell, Engineering Technician

MAR 10 2006

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires: January 31, 2004

5. Lease Serial No. U-11668

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

7. If Unit or CA. Agreement Designation Patterson

8. Well Name and No. Patterson Unit 5

9. API Well No. 43-037-31019

10. Field and Pool, or Exploratory Area Patterson

11. County or Parish, State San Juan, Utah

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPPLICATE - Other Instructions on reverse side

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
WEXPRO COMPANY N1070

3a. Address
P. O. BOX 458, ROCK SPRINGS, WY 82902

3b. Phone No. (include area code)
(307) 382-9791

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
678' FLS, 664' FWL
SWSW: 4-T38S-R25E

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|--|---|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> 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"/> Altering 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>Change of Operator</u> |
| | <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 Operation (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 or pertinent markers and sands. Attach the Bond under which the work will performed or provide the Bond No. on file with the 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 Notice 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.)

Please be advised that Seeley Oil Company, LLC is considered to be the operator of the above referenced well pursuant to that certain Assignment and Bill of Sale dated November 18, 2005. Seeley Oil Company, LLC is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. The effective date of change is January 2, 2006.

Bond #58023144

Seeley Oil Company, LLC
P.O. Box 9015
Salt Lake City, Utah 84109-0015

B.K. Seeley APPROVED 6/13/06 Date March 10, 2006
B.K. Seeley Jr. President

Earlene Russell
Division of Oil, Gas and Mining

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

Name (Printed/ Typed) J.R. Livsey Title Vice President

Signature [Signature] Date March 10, 2006

THIS SPACE FOR FEDERAL OR STATE OFFICIAL 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 _____

Title 18 U.S.C. Section 1001 AND Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.
(Instructions on reverse)

RECEIVED
MAR 15 2006

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

UIC FORM 5

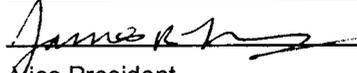
TRANSFER OF AUTHORITY TO INJECT

| | |
|---|---|
| Well Name and Number Patterson Unit Well No. 5 | API Number 4303731019 |
| Location of Well Footage : 678' FSL, 664' FWL County : San Juan QQ, Section, Township, Range: SWSW 4 38S 25E State : UTAH | Field or Unit Name Patterson Lease Designation and Number UT-11668 |

EFFECTIVE DATE OF TRANSFER: 1/2/2006

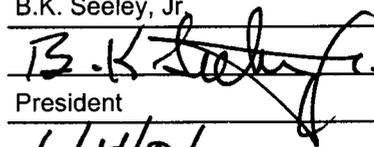
CURRENT OPERATOR

Company: Wexpro Company
Address: 180 E. 100 S.
city Salt Lake state UT zip 84111
Phone: (801) 324-2600
Comments:

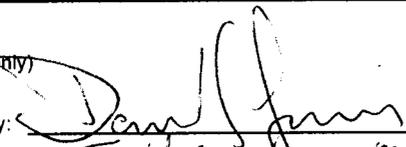
Name: James R. Livsey
Signature: 
Title: Vice President
Date: _____

NEW OPERATOR

Company: Seeley Oil Company, LLC
Address: P.O. Box 9015
city Salt Lake state UT zip 84109-0015
Phone: (801) 467-6419
Comments:

Name: B.K. Seeley, Jr.
Signature: 
Title: President
Date: 6/4/06

(This space for State use only)

Transfer approved by: 
Title: Field Operations Manager

Approval Date: 6/12/06

Comments:

RECEIVED

JUN 09 2006

DIV. OF OIL, GAS & MINING



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155



IN REPLY REFER TO
3180
UT-922

May 5, 2006

Seeley Oil Company, LLC
P.O. Box 9015
Salt Lake City, Utah 84109

Re: Patterson Unit
San Juan County, Utah

Gentlemen:

On April 14, 2006, we received an indenture dated January 2, 2006, whereby Wexpro Company resigned as Unit Operator and Seeley Oil Company, LLC was designated as Successor Unit Operator for the Patterson Unit, San Juan County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective May 5, 2006. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Patterson Unit Agreement.

Your Utah statewide oil and gas bond No. UT0692 will be used to cover all federal operations within the Patterson Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ James Fouts

for Douglas Cook
Chief, Branch of Fluid Minerals

Enclosure

bcc: Field Manager - Moab (w/enclosure)
SITLA
Division of Oil, Gas & Mining
File - Patterson Unit (w/enclosure)
Agr. Sec. Chron
Reading File
Central Files

UT922:TAThompson:tt:5/5/06

RECEIVED

MAY 08 2006

DIV. OF OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE

1. Type of Well
 Oil Well Gas Well Other Injection Well

2. Name of Operator
SEELEY OIL COMPANY, LLC

3. Address and Telephone No.
P.O. Box 9105, Salt Lake City, UT 84109 (801) 467-6419

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
678' From South Line
664' From West Line
Sec. 4: SWSW T38S, R25E

5. Lease Designation and Serial No.
UTU-11668

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation
Patterson Canyon

8. Well Name and No.
Patterson Unit 5

9. API Well No.
43-037-31019

10. Field and Pool, or Exploratory Area
Patterson Canyon

11. County or Parish, State
San Juan, Utah

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

| TYPE OF SUBMISSION | TYPE OF ACTION |
|---|---|
| <input type="checkbox"/> Notice of Intent | <input type="checkbox"/> Abandonment |
| <input checked="" type="checkbox"/> Subsequent Report | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Final Abandonment Notice | <input type="checkbox"/> Plugging Back |
| | <input type="checkbox"/> Casing Repair |
| | <input type="checkbox"/> Altering Casing |
| | <input checked="" type="checkbox"/> Other <u>Change of Operator</u> |
| | <input type="checkbox"/> Change of Plans |
| | <input type="checkbox"/> New Construction |
| | <input type="checkbox"/> Non-Routine Fracturing |
| | <input type="checkbox"/> Water Shut-Off |
| | <input type="checkbox"/> Conversion to Injection |
| | <input type="checkbox"/> Dispose Water |

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

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Seeley Oil Company, LLC is considered to be the operator of the above referenced well, Lease UTU-11668, San Juan County, Utah, and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Utah Federal Bond UT0692.

RECEIVED

MAR 20 2006

DIV. OF OIL, GAS & MINERAL

RECEIVED
 MOAB FIELD OFFICE
 2006 MAR 17 A 10:00

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

Signed

B.K. Seeley Jr.

Title

President

Date

3/08/06

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

ACCEPTED

Title

Division of Resources
Moab Field Office

Date

3/17/06

CC: UDOsim 3/17/06

Conditions Attached

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.

Seeley Oil Company, LLC
Well No. 5
Section 4, T38s, R25E
Lease UTU11668
San Juan County, Utah

CONDITIONS OF ACCEPTANCE

Acceptance 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 Seeley Oil Company, LLC is considered to be the operator of the above well effective March 1, 2006, 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 UT0692 (Principal – Seeley Oil Company, 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 43CFR 3106.7-2 continuing responsibility are met.

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

FORM 9

| | | |
|--|--|---|
| SUNDRY NOTICES AND REPORTS ON WELLS | | 5. LEASE DESIGNATION AND SERIAL NUMBER: U-11668 |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: |
| 1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Water injection well</u> | | 7. UNIT or CA AGREEMENT NAME: Patterson |
| 2. NAME OF OPERATOR: Seeley Oil Company | | 8. WELL NAME and NUMBER: #5 |
| 3. ADDRESS OF OPERATOR: P.O. Box 9015 CITY <u>Salt Lake City</u> STATE <u>UT</u> ZIP <u>84109</u> | | 9. API NUMBER: 43-037-310 19 |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 678' FSL, 664' FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSW 4 38s 25e | | 10. FIELD AND POOL, OR WILDCAT: Patterson Unit |
| | | COUNTY: San Juan STATE: UTAH |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|--|
| <input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____ | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> REPERFORATE CURRENT FORMATION |
| | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> SIDETRACK TO REPAIR WELL |
| | <input type="checkbox"/> CASING REPAIR | <input type="checkbox"/> NEW CONSTRUCTION | <input type="checkbox"/> TEMPORARILY ABANDON |
| | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> TUBING REPAIR |
| | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> VENT OR FLARE |
| <input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____ | <input type="checkbox"/> CHANGE WELL NAME | <input type="checkbox"/> PLUG BACK | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> PRODUCTION (START/RESUME) | <input type="checkbox"/> WATER SHUT-OFF |
| | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input checked="" type="checkbox"/> OTHER: <u>Well Integrity</u> |
| | <input type="checkbox"/> CONVERT WELL TYPE | <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION | |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Workover. 4/07/10 MIRU RedRock Well Service. Unflange well head and flow line. Release packer. Nipple up BOPs. Rig up PRS tubing inspection. POOH 98jts of 2 7/8. Lay down. 13 bad jts. Rig down PRS. Broke off packer. Shut in well. GIH circ. packer fluid. set packer. Pressure test to 1000 psi. Release packer. Nipple Down BOP. Nipple up wellhead. Land tbq. 15000lb compression. Pressure test to 1000lbs. RU Pace. Pump 1000 gal 25% HCL with inhibitor. Displace with 32.5 bbl. water. Average Treat press 3000 psi. Average rate 0.8 ISIP 3070 psi, 5 min @ 2700 psi, 10 min @ 2450 psi, 15 min @ 2240 psi. Rig down Pace, leave well si overnight. RDMO.
05/12/10 - MIRU RedRock, Nipple Down wellhead. Nipple up BOP. POOH breaking every collar top and bottom. Replace all bad collars. GIH Re torque all connections. Hook up pump, load hole with packer fluid. Nipple down BOP. Set packer 15000 lbs compression. Nipple up wellhead. Pressure test to 1160 lbs. Good test finally. Witnessed by Bart Kettle. RDMO.

**Accepted by the
Utah Division of
Oil, Gas and Mining**
B. K. Seeley
12-28-10

COPY SENT TO OPERATOR
Date: 12-28-2010
Initials: KS

| | |
|--|------------------------|
| NAME (PLEASE PRINT) <u>B.K. Seeley</u> | TITLE <u>President</u> |
| SIGNATURE <u><i>B.K. Seeley</i></u> | DATE <u>12/21/2010</u> |

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RECEIVED
DEC 23 2010
DIV. OF OIL, GAS & MINING

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

5. LEASE DESIGNATION AND SERIAL NUMBER:
Federal UTU - 11668

SUNDRY NOTICES AND REPORTS ON WELLS

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

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME:
Patterson Unit

1. TYPE OF WELL OIL WELL GAS WELL OTHER Water Injection

8. WELL NAME and NUMBER:
Patterson #5

2. NAME OF OPERATOR:
Seeley Oil Company

9. API NUMBER:
4303731019

3. ADDRESS OF OPERATOR:
P.O. Box 9015 CITY Salt Lake City STATE UT ZIP 84109

PHONE NUMBER:
(801) 467-6419

10. FIELD AND POOL, OR WILDCAT:
Patterson Canyon

4. LOCATION OF WELL
FOOTAGES AT SURFACE: SW SW 678' ffl, 664' fwl

COPY SENT TO OPERATOR

COUNTY: San Juan

Date: 7/25/2012

Initials: KS

STATE: UTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSW 4 38s 25e

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|--|---|---|---|
| <input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>7/20/2012</u> | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> DEEPEN | <input checked="" type="checkbox"/> REPERFORATE CURRENT FORMATION |
| <input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> SIDETRACK TO REPAIR WELL |
| | <input type="checkbox"/> CASING REPAIR | <input type="checkbox"/> NEW CONSTRUCTION | <input type="checkbox"/> TEMPORARILY ABANDON |
| | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> TUBING REPAIR |
| | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> VENT OR FLARE |
| | <input type="checkbox"/> CHANGE WELL NAME | <input type="checkbox"/> PLUG BACK | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> PRODUCTION (START/RESUME) | <input type="checkbox"/> WATER SHUT-OFF |
| | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input checked="" type="checkbox"/> OTHER: _____ |
| | <input type="checkbox"/> CONVERT WELL TYPE | <input type="checkbox"/> RECOMPLEYE - DIFFERENT FORMATION | |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The subject water injection well has a suspected tubing leak. In conjunction with our tubing repair we propose to do the following additional work,
 1. Re perforate 5476'-5494', @6spf.
 2. Stimulate new perforations with Gas Gun. Expected discharge pressure of Gas Gun is 15-20,000psi over 20 milliseconds.
 3. Swab well.
 4. Treat well with small amount of mild acid to clean up fine particulates.
 5. Return well to injection configuration and perform MIT.

Additional technical information about the Gas Gun may be obtained from the company at 877-557-1370 or from their web site @ www.thegasgun.com.

For any additional information regarding this sundry notice contact Nate Seeley @ 970-560-2780.

This work is scheduled to commence on 7/23/2012 @ 8:00am. Your prompt response to this application is appreciated.

NAME (PLEASE PRINT) B.K. Seeley TITLE President
 SIGNATURE *B.K. Seeley* DATE 7/17/2012

(This space for State use only)
APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
 DATE: 7/18/2012
 BY: *[Signature]*

Federal Approval Of This
Action Is Necessary

RECEIVED
JUL 17 2012
 DIV. OF OIL, GAS & MINING

P. O. Box 9015
Salt Lake City, UT 84109-0015
Phone: (801) 467-6419
Fax: (801) 274-3704



Fax

To: Dustin Doucet From: _____
Fax: 801-359-3940 Date: 7/17/12
Phone: _____ Pages: 2
Re: _____ CC: _____

- Urgent For Review Please Comment Please Reply Please Recycle

•Comments:

RECEIVED
JUL 17 2012
DIV. OF OIL, GAS & MINING

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

FORM 9

| | | |
|--|--|---|
| SUNDRY NOTICES AND REPORTS ON WELLS | | 5. LEASE DESIGNATION AND SERIAL NUMBER: Federal UTU 11668 |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A |
| 1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Disposal Well</u> | | 7. UNIT or CA AGREEMENT NAME: Patterson Unit |
| 2. NAME OF OPERATOR: Seeley Oil Company, LLC | | 8. WELL NAME and NUMBER: Patterson #5 Unit 3 |
| 3. ADDRESS OF OPERATOR: P.O. Box 9015 CITY Salt Lake City STATE UT ZIP 84109 | | 9. API NUMBER: 43037310139 |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: SWSW 678' fsl, 664' fwl | | 10. FIELD AND POOL, OR WILDCAT: Patterson Canyon |
| QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSW 4 38s 25e | | COUNTY: San Juan |
| | | STATE: UTAH |

| 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA | | | |
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| TYPE OF SUBMISSION | TYPE OF ACTION | | |
| <input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____ | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> REPERFORATE CURRENT FORMATION |
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| | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> TUBING REPAIR |
| | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> VENT OR FLARE |
| <input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: 8/6/2012 | <input type="checkbox"/> CHANGE WELL NAME | <input type="checkbox"/> PLUG BACK | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> PRODUCTION (START/RESUME) | <input type="checkbox"/> WATER SHUT-OFF |
| | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input checked="" type="checkbox"/> OTHER: <u>Workover</u> |
| | <input type="checkbox"/> CONVERT WELL TYPE | <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION | |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Workover well due to suspected hole in tubing. 7/23/12, MIRU Four Corners Well Service. Pull tubing, lay down bad joints. Rig up Jet West, run CBL. Run in hole with tricone bit and clean out to 5545'. Run csg. scraper to 5540'. Rig up Jet West and perforate 5476' - 5494' with 6 spf. Gas Gun 5476'-5494'.
RIH with tubing and pressure test tubing to 1000 lbs. for 15 min. Good test. Swab hole with 10 runs cleaning out trash. Rig up Baker Petrolite and run 550 gal. of 15% HCL to clean up perms. Set packer @ 5418'. Pump packer fluid down backside. Pressure test annulus to 1000 lbs. Good test. Run MIT : Pressure to 1025 lbs. for 30 min. Test. Ending pressure 1019 lbs. Re-start injection pump.

**Accepted by the
Utah Division of
Oil, Gas and Mining**

FOR RECORD ONLY

| | |
|--|------------------------|
| NAME (PLEASE PRINT) <u>B.K. Seeley</u> | TITLE <u>President</u> |
| SIGNATURE | DATE <u>8/20/2012</u> |

(This space for State use only)

RECEIVED
AUG 23 2012