

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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.
6

10. FIELD AND POOL, OR WILDCAT
Patterson Unit *Undesignated*

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

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 NW, 2470' FNL, 700' FWL
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Approximately 14 miles north-northeast of Hatch Trading Post

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
620'

16. NO. OF ACRES IN LEASE
1926.16

17. NO. OF ACRES ASSIGNED TO THIS WELL
NA

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

19. PROPOSED DEPTH
5730' *527*

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5160' GG

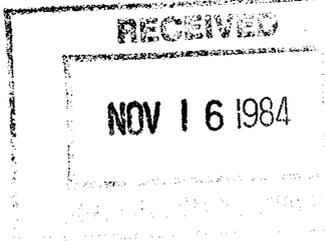
22. APPROX. DATE WORK WILL START*
Upon approval

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4	9-5/8	36	1550	1100' Halliburton Light w/10# gilsonite/sx, 2% CaCl & 1/4# flocele/sx + 300' Reg w/3% CaCl & 1/4# flocele/sx
8-3/4	7	26	5730	4500' 50-50 Pozmix.

See attached drilling plan.

APPROVED BY THE STATE
DIVISION OF
OIL, GAS, AND MINING
DATE 11/27/84
BY: John R. Dusa



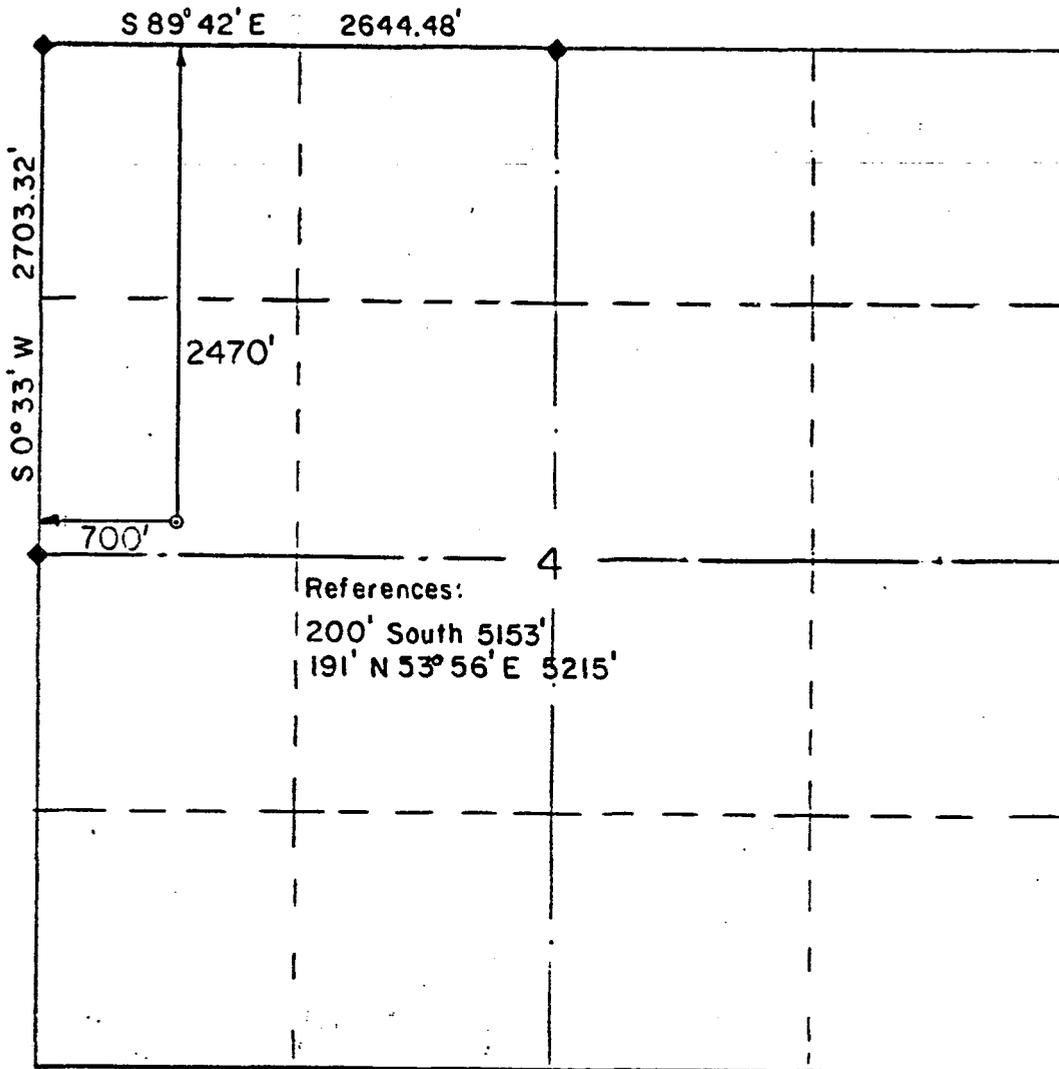
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer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

24. SIGNED A. J. Maser TITLE Drilling Superintendent DATE November 9, 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

WELL LOCATION AND ACPEAGE DEDICATION PLAT



1"=1000'

Operator Wexpro Company		Well name Patterson Unit #6	
Section 4	Township 38 South	Range 25 East	Meridian SLM
Footages 2470' FNL & 700' FWL		County/State San Juan, Utah	Elevation 5160' GG
Formation	Dedicated Acreage	Requested by Jennifer Head	
<p>The above plat is true and correct to the best of my knowledge and belief.</p> <p>21 August '84</p> <p><i>Gerald G. Huddleston</i> 5705 Gerald G. Huddleston, L.S.</p>			

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN THE REVERSE SIDE
(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"/>		5. LEASE DESIGNATION AND SERIAL NO. U-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 NW, 2470' FNL, 700' FWL		8. FARM OR LEASE NAME Unit
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.) GG 5160'	9. WELL NO. 6
		10. FIELD AND POOL, OR WILDCAT Patterson Unit
		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

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 checked="" type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>

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

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

Change drilling plan on APD as follows:

Casing Program:

Footage	Size	Grade	Wt.	Condition	Thread	Cement
1550'	10-3/4	K-55	40.5	New	8 rd ST&C	1100' Halliburton Light with 10# gilsonite/sx, 2% CaCl and 1/4# flocele/sx + 300' Reg w/3% CaCl & 1/4# flocele/sx
5730	7	N-80	26	New	8 rd LT&C	4500' 50-50 Pozmix

9-5/8-inch casing was changed to 10-3/4-inch casing to obtain better cement bond between hole wall and casing.

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

SIGNED A. J. Maser TITLE Drilling Superintendent DATE 11-20-84

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

Federal approval of this action is required before commencing operations.

*See Instructions on Reverse Side
DATE 12/12/84
BY: John R. Boy

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

Drilling Plan
Celsius Energy Company
Patterson Unit Well No. 6
San Juan County, Utah

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

Morrison	- Surface, minor coal beds
Entrada	- 530
Carmel	- 690
Navajo	- 720
Chinle	- 1,500
Shinarump	- 2,285, minor coal beds
Cutler	- 2,425
Honaker Trail	- 4,335, gas
Paradox	- 4,835
Ismay (Base 2nd Shale)	- 5,355
Ismay Porosity	- 5,380, objective, oil and gas
Ismay Shale	- 5,490
Lower Ismay	- 5,520
B Zone Shale	- 5,560
Desert Creek	- 5,580
Lower Bench	- 5,620
Desert Creek Porosity	- 5,640, oil and gas
Salt	- 5,725
Total Depth	- 5,730

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 1550 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>
1550	9-5/8	K-55	36	New	8 rd ST&C	1100' Halliburton Light with 10# gilsonite/sack, 2% CaCl, & 1/4# flocele/sack and 300' Regular with 3% CaCl and 1/4# flocele/sack
5730	7	N-80	26	New	8 rd LT&C	4500' 50-50 Pozmix

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

5. 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.

6. LOGGING: DIL-SP-GR - surface casing to total depth
 CNL-FDC-GR-Caliper - surface casing to total depth
 (GR & Neutron to surface)

TESTING: Four Drill Stem Tests are anticipated as follows:

<u>Test</u>	<u>Depth or Formation</u>
1	4335' - Honaker Trail
2	5440' - Ismay
3	5500' - Ismay
4	5640' - Lower Bench Desert Creek

CORING: Two cores are anticipated as follows:

- 5375'-5435' - Ismay Porosity
- 5620'-5680' - Desert Creek Porosity

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. 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.

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

If porosity is encountered in the Desert Creek zone, pressures of 3700 psi are expected, no potential hazards are anticipated, BHT of 129°F is expected.

8. ANTICIPATED STARTING DATE: Upon approval.

DURATION OF OPERATION: Approximately 20 days.

Wexpro Company 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. If the spudding is on a weekend or holiday, the Sundry will be submitted on the following regular work day.

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.

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

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. In emergencies, verbal approval can be obtained from the District Petroleum Engineer.

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 Petroleum Engineer. 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.

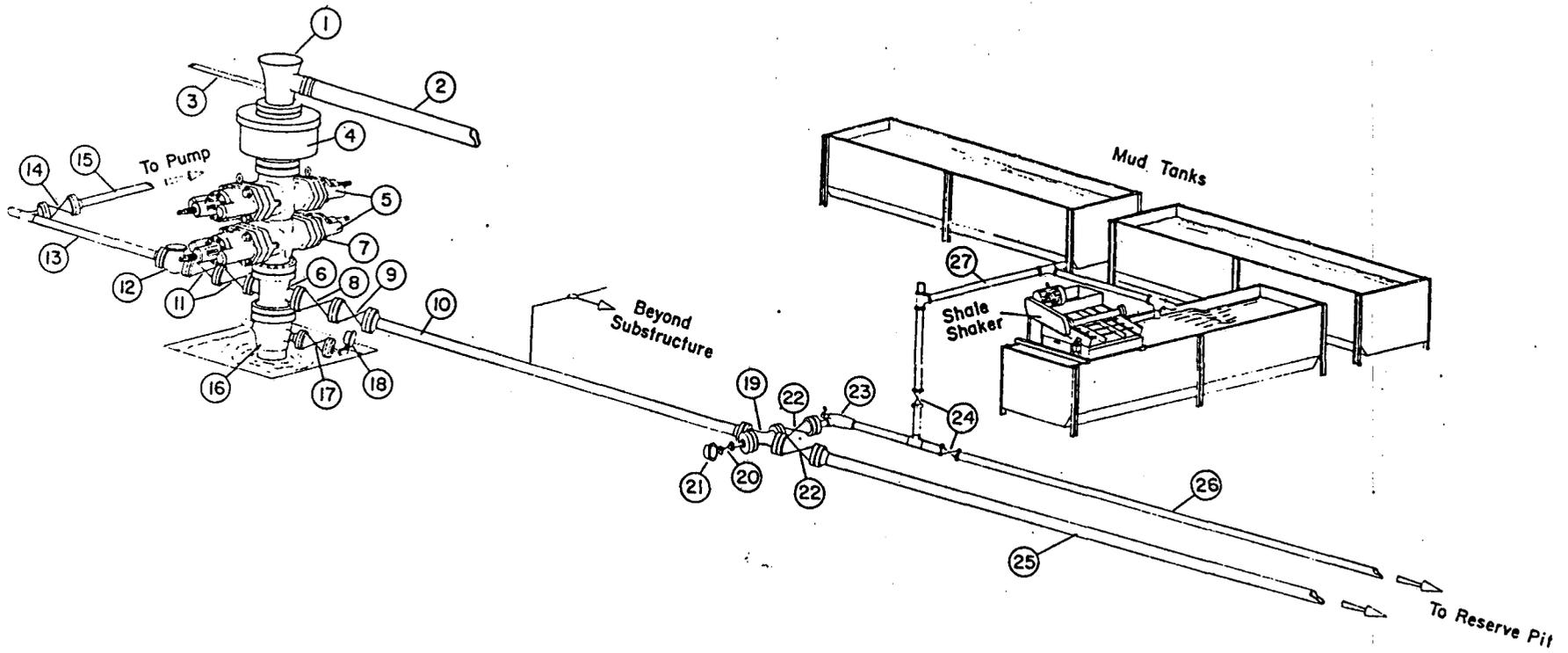
Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the San Juan Area Manager or his representative, or the appropriate Surface Managing Agency.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.

Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The following information will be permanently beaded-on with a welding torch: Federal well number, location by quarter-quarter section, township and range, and lease number.

A first production conference will be scheduled within 15 days after receipt of the first production notice. Wexpro Company will schedule the conference with the San Juan Area Manager.

CELSIUS/WEXPRO 3000 psi BLOWOUT PREVENTION EQUIPMENT



STANDARD STACK REQUIREMENTS

Nº	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.			U.ORG; 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 Welpros Co. DATE 11-26-84
WELL NAME Patterson Unit #6
SEC SW NW 4 T 38S R 25E COUNTY San Juan

43-037-31108
API NUMBER

Lease
TYPE OF LEASE

CHECK OFF:

PLAT

BOND

NEAREST WELL

LEASE

FIELD

POTASH OR OIL SHALE

PROCESSING COMMENTS:

Unit well - OK on POD per Teresa 11/27/84
Need water permit - (T-60003 #09-1367 & 11/29/84)

APPROVAL LETTER:

SPACING:

A-3

Patterson
UNIT

c-3-a

CAUSE NO. & DATE

c-3-b

c-3-c

STIPULATIONS:

1- water



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

November 27, 1984

Wexpro Company
P. O. Box 458
Rock Springs, Wyoming 82902

Gentlemen:

Re: Well No. Patterson Unit #6 - SW NW Sec. 4, T. 38S, R. 25E
2470' FNL, 700' FWL - San Juan County, Utah

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

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

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

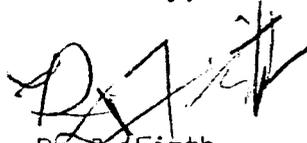
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695 or R. J. Firth, Associate Director, (Home) 571-6068.
4. Compliance with the requirements and regulations of Rule C-27, Associated Gas Flaring, General Rules and Regulations, Oil and Gas Conservation.

Wexpro Company
Well No. Patterson Unit #6
November 27, 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 43-037-31108.

Sincerely,



R. S. Firth
Associate Director, Oil & Gas

as
Enclosures
cc: Branch of Fluid Minerals

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 NW, 2470' FNL, 700' FWL
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 Approximately 14 miles north-northeast of Hatch Trading Post

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 620'

16. NO. OF ACRES IN LEASE 1926.16

17. NO. OF ACRES ASSIGNED TO THIS WELL NA

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

19. PROPOSED DEPTH 5730'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5160' GG

22. APPROX. DATE WORK WILL START* Upon approval

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4	9-5/8	36	1550	1100' Halliburton Light w/10# gilsonite/sx, 2% CaCl & 1/4# flocele/sx + 300' Reg w/3% CaCl & 1/4# flocele/sx
8-3/4	7	26	5730	4500' 50-50 Pozmir

See attached drilling plan.

RECEIVED
NOV 30 1984

DIVISION OF
OIL, GAS & MINING

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

24. SIGNED C. J. Maser TITLE Drilling Superintendent DATE November 9, 1984

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY Kenneth V. Rhea TITLE Acting DISTRICT MANAGER DATE 27 NOV 1984

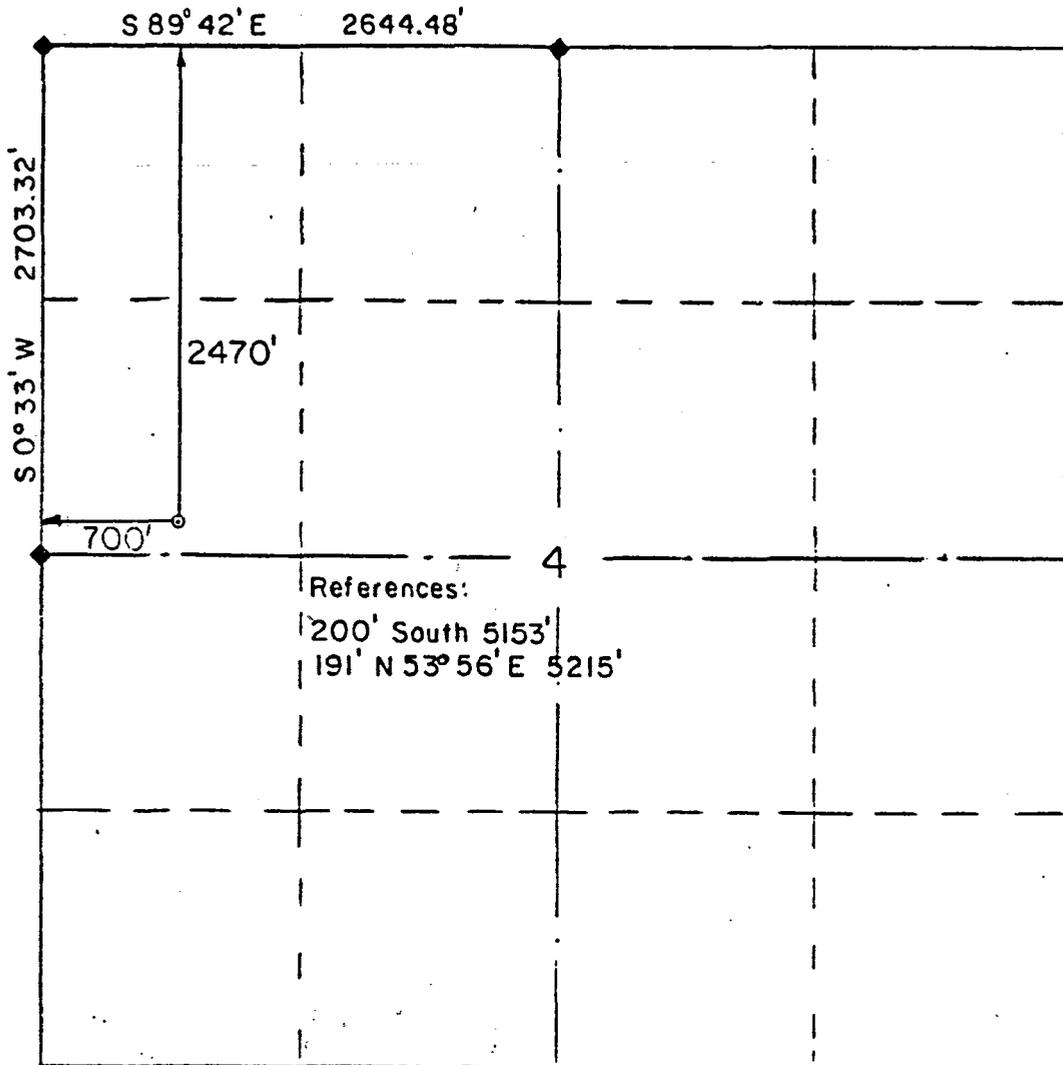
NOTICE OF APPROVAL

*See Instructions On Reverse Side

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

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.

WELL LOCATION AND ACREAGE DEDICATION PLAT



1"=1000'

◆ found brass cap

Operator Wexpro Company		Well name Patterson Unit #6	
Section 4	Township 38 South	Range 25 East	Meridian SLM
Footages 2470' FNL & 700' FWL		County/State San Juan, Utah	Elevation 5160' GG
Formation	Dedicated Acreage	Requested by Jennifer Head	
<p>The above plat is true and correct to the best of my knowledge and belief.</p> <p>21 August '84</p> <p style="text-align: right;"><i>Gerald G. Huddleston</i> 5705 Gerald G. Huddleston, L.S.</p>			

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

API #43-037-31108

NAME OF COMPANY: Wexpro

WELL NAME: Patterson Unit #6

SECTION SW NW 4 TOWNSHIP 38S RANGE 25E COUNTY San Juan

DRILLING CONTRACTOR Arapahoe

RIG # 10

SPUDDED: DATE 12-21-84

TIME 4:00 AM

HOW Rotary

DRILLING WILL COMMENCE _____

REPORTED BY Kathy

TELEPHONE # 307-382-9791

DATE 12-21-84 SIGNED CJ

11-23
11-16
well file

Form 3160-5
November 1983
Formerly 9-331

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"/>		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. 6	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface SW NW, 2470' FNL, 700' FWL		10. FIELD AND POOL, OR WILDCAT Patterson Unit	
14. PERMIT NO. 43-037-31108		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E, SLB&M	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) GG 5160'		12. COUNTY OR PARISH San Juan	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 checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Spud</u>	

(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 4:00 A.M. 12-21-84, depth 50', waiting on conductor casing.

18. I hereby certify that the foregoing is true and correct
SIGNED A. J. Maser TITLE Drilling Superintendent DATE 12-21-84
(This space for Federal or State office use)

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

*See Instructions on Reverse Side

Form 1001-5
(November 1983)
Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN THE MANNER INDICATED
(Other instructions on reverse side)

EXPIRES August 31, 1985
LEASE DENIGATION AND SERIAL NO.

U-11668

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		7. UNIT AGREEMENT NAME Patterson	
2. NAME OF OPERATOR Wexpro Company		8. FARM OR LEASE NAME Unit Well	
3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, WY 82902		9. WELL NO. 6	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface SW NW, 2470' FNL, 700' FWL		10. FIELD AND POOL, OR WILDCAT Patterson	
14. PERMIT NO. 43-037-31108		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) GG 5160' KB 5174.00'		12. COUNTY OR PARISH San Juan	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) <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.)*

Depth 5383', coring.

Landed Armco 10-3/4-inch O.D., 40.5-pound, K-55, 8 round thread, ST&C casing at 1574.00 feet KBM or 14.00 feet below KB. Cemented casing with 600 sacks of Halliburton Light treated with 10 pounds gilsonite per sack, 2% calcium chloride and 1/4-pound flocele per sack. Tailed in with 250 sacks Regular cement treated with 3% CaCl and 1/4-pound flocele per sack. Ran 60 feet one-inch alongside 10-3/4-inch casing and cemented through one-inch with 75 sacks Regular cement treated with 3% calcium chloride. Good returns throughout. Cement in place at 1:50 A.M., 12-27-84.

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

SIGNED A. J. Maser TITLE Drilling Superintendent DATE 1-9-85

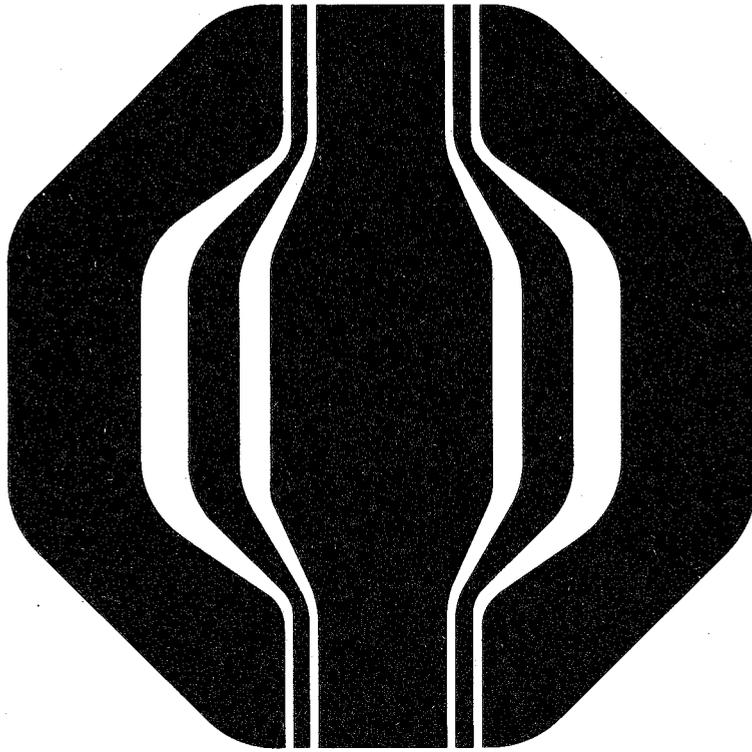
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

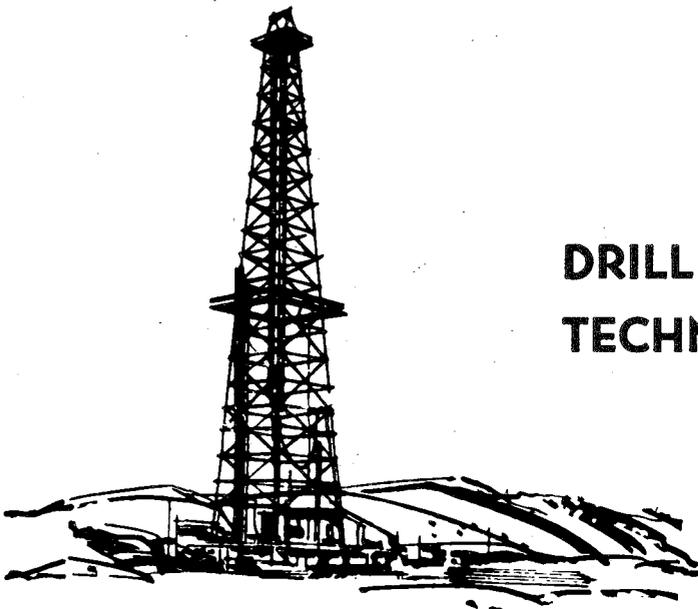
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

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



LYNES



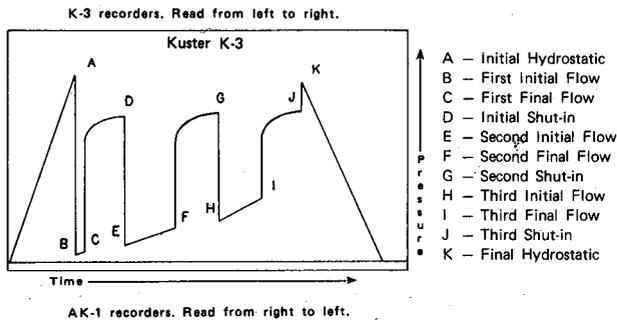
**DRILL STEM TEST
TECHNICAL SERVICE REPORT**

Operator Mexpro
P.O. Box 458
Rock Springs, Wv. 82901
Well Name and No. Patterson #6
Ticket No. 21290
Date 1/10/95
DST No. 1
No. Final Copies 17

GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

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

CODE USED ON CHART ENVELOPES



Symbol	Definition	DST Unit
k	permeability.....	millidarcys (md)
h	pay thickness.....	feet (ft.)
u	viscosity.....	centipoise
T	reservoir temperature.....	°Rankin (°R)
z	gas compressibility factor at average condition.....	—
q _{sc}	gas production rate.....	MCF/d
M	Horner slope for liquid analysis.....	PSI/Cycle
Mg	Horner slope for (P ²) gas analysis.....	PSI ² /Cycle
P _i	initial static reservoir pressure.....	PSI
P _{wf}	flowing bottom hole pressure.....	PSI
φ	porosity.....	(fraction)
r _w	well bore radius.....	ft.
S	skin factor.....	—
AOF	absolute open flow.....	MCF/d
D. R.	damage ratio.....	—
r _e	external drainage radius.....	ft.
ISIP	initial shut-in pressure.....	PSI
FSIP	final shut-in pressure.....	PSI
b	approx. radius of investigation.....	ft.
t	flowing time.....	hrs.
B	formation volume factor.....	—
q	liquid production rate.....	bbls/day
c̄	gas compressibility.....	1/PSI
c	liquid compressibility.....	1/PSI

A. Liquid Calculations

1. Transmissibility $\frac{Kh}{u} = \frac{162.6 q B}{m}$ 2. Capacity $Kh = \frac{Kh}{u} \times u$ 3. Permeability $K = \frac{Kh}{h}$

4. Skin Factor $S = 1.151 \left[\frac{P_i - P_{wf}}{m} \cdot \log \frac{Kt}{\phi u c r_w^2} + 3.2275 \right]$

5. Pressure Drop Due to Skin $\Delta P_{skin} = \frac{162.6 B q u}{Kh} \times 0.869s$ or $\Delta P_{skin} = 0.869 M S$

6. Damage Ratio $\frac{P_i - P_{wf}}{m} \left[\log \frac{Kt}{\phi u c r_w^2} - 3.2275 \right]$

7. Productivity Index $P. I. = \frac{qa}{P_i - P_{wf}}$

8. Productivity Index Damage Removed $\frac{qt}{P_i - P_{wf}} = P. I. a \times D. R.$

9. Radius of Investigation $b = 0.029 \sqrt{\frac{Kt}{\phi u c}}$ 10. Depletion Factor % $\frac{ISIP - FSIP}{ISIP} \times 100$

B. Gas Calculations

1. Transmissibility $\frac{Kh}{u} = \frac{1637 T z q_{sc}}{Mg}$ 2. Capacity $\frac{Kh}{u} \times u = Kh$ 3. Permeability $\frac{Kh}{h} = K$

4. Apparent Skin Factor $S = 1.151 \left[\frac{P_i^2 - P_{wf}^2}{Mg} - \log \left(\frac{Kt}{\phi u c r_w^2} \right) + 3.2275 \right]$

5. Pressure Drop Due to Skin $\Delta P_{skin} = P_i - P_{wf} = \sqrt{(P_{wf}^2) + 0.869 Mg S}$

6. Damage Ratio $\frac{P_i^2 - P_{wf}^2}{Mg} \left[\log \frac{Kt}{\phi u c r_w^2} - 3.2275 \right]$

7. Absolute Open Flow $Mg \left[\frac{(P_i^2) (Kh)}{\log \frac{Kt}{\phi u c r_w^2} - 3.2275 + .869s} \right]$

8. AOF Damage removed $AOF \times DR$

10. Radius of Investigation $b = 0.029 \sqrt{\frac{Kt}{\phi u c}}$

9. Estimated Stabilized AOF $\frac{(P_i^2) (Kh)}{3263 u z t \left[\log \left(\frac{.472 r_e}{r_w} \right) + \frac{s}{2.303} \right]}$

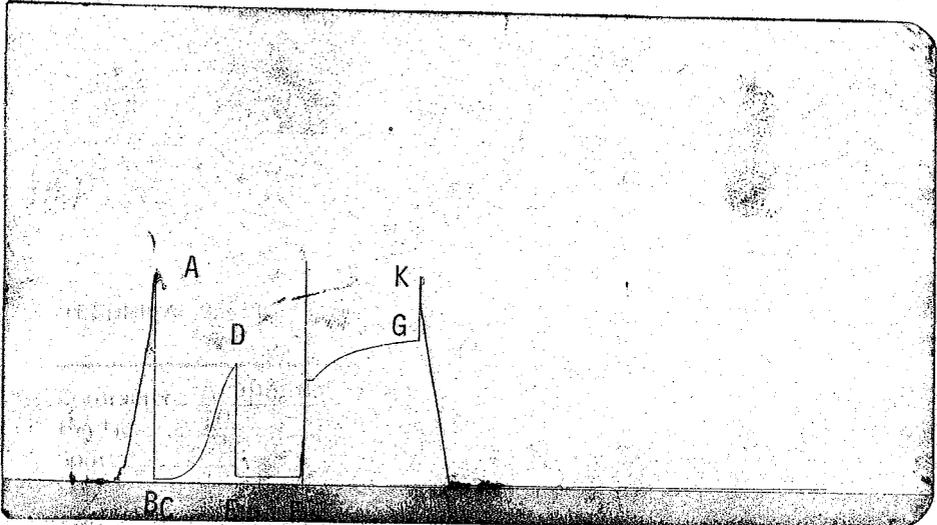
11. Depletion % $\frac{ISIP - FSIP}{ISIP} \times 100$

LYNES

TECHNICAL SERVICES, Security Life Bldg. • Suite 1350 • 1616 Glenarm • Denver, Colorado 80202 • Phone: (303) 573-8027

Contractor <u>Arapahoe</u>	Top Choke <u>1/4"</u>	Flow No. 1 <u>26</u> Min.
Rig No. <u>10</u>	Bottom Choke <u>3/4"</u>	Shut-in No. 1 <u>123</u> Min.
Spot <u>--</u>	Size Hole <u>8 3/4"</u>	Flow No. 2 <u>116</u> Min.
Sec. <u>4</u>	Size Rat Hole <u>--</u>	Shut-in No. 2 <u>360</u> Min.
Twp. <u>39 S</u>	Size & Wt. D. P. <u>4 1/2" XH 16.60#</u>	Flow No. 3 <u>--</u> Min.
Rng. <u>25 E</u>	Size Wt. Pipe <u>--</u>	Shut-in No. 3 <u>--</u> Min.
Field <u>Patterson</u>	I. D. of D. C. <u>2 1/4"</u>	Bottom Hole Temp. <u>127^oF</u>
County <u>San Juan</u>	Length of D. C. <u>372 Ft.</u>	Mud Weight <u>10.4</u>
State <u>Utah</u>	Total Depth <u>5415 Ft.</u>	Gravity <u>--</u>
Elevation <u>--</u>	Interval Tested <u>5380-5415 Ft.</u>	Viscosity <u>53</u>
Formation <u>Ismay</u>	Type of Test <u>Bottom Hole Conventional</u>	Tool opened @ <u>00:41</u>

Operator Wexpro
 Address Rock Springs, WY. 82901
 P.O. Box 458
 Well Name and No. Patterson #6
 Ticket No. 21280
 Date 1/10/85
 DST No. 1
 No. Final Copies 17



Inside Recorder		
PRD Make <u>Kuster K-3</u>		
No. <u>24521</u> Cap. <u>6625 @ 5395'</u>		
	Press	Corrected
Initial Hydrostatic	A	2911
Final Hydrostatic	K	2861
Initial Flow	B	47
Final Initial Flow	C	52
Initial Shut-in	D	1684
Second Initial Flow	E	88
Second Final Flow	F	94
Second Shut-in	G	2053
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist. Rock Springs, WY.
 Our Tester: Bryan Scott
 Witnessed By: --

Did Well Flow - Gas NO Oil NO Water NO

RECOVERY IN PIPE: 125 ft. Drilling mud and filtrate = .6 bbls.

Blow Description:

1st Flow: Tool opened with a surface blow throughout the flow.

2nd Flow: Tool opened with a 1/2" underwater blow, increasing to a 3" underwater blow in 5 minutes, decreasing to nil in 115 minutes through the end of the flow.

Comments: A slight hydrostatic leak from the annulus into the interval occurred at the beginning of the final shutin. This did not seriously affect the final shutin.

The flow and shutin curves suggest low permeability within the zone tested.

WEXPRO CO
 DST#: 1
 PATTERSON #6
 5380 - 5415ft.

Location: 4-39S-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5410 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
A	INITIAL HYDROSTATIC	0.00		2983.0		
B	START OF 1st FLOW	0.00		80.0		
	1st FLOW PERIOD	5.00	8.0	88.0		
		10.00	10.0	90.0		
		16.00	15.0	95.0		
		20.00	19.0	99.0		
		25.00	21.0	101.0		
C	END OF 1st FLOW	26.00	18.0	98.0		
	1st SHUTIN PERIOD	0.00	0.0	98.0	0.0000	
		1.00	2.0	100.0	27.0000	
		2.00	3.0	101.0	14.0000	
		3.00	6.0	104.0	9.6667	
		4.00	8.0	106.0	7.5000	
		6.00	13.0	111.0	5.3333	
		7.00	16.0	114.0	4.7143	
		8.00	18.0	116.0	4.2500	
		9.00	21.0	119.0	3.8889	
		10.00	26.0	124.0	3.6000	
		15.00	41.0	139.0	2.7333	
		20.00	57.0	155.0	2.3000	
		25.00	77.0	175.0	2.0400	
		30.00	98.0	196.0	1.8667	
		35.00	126.0	224.0	1.7429	
		40.00	157.0	255.0	1.6500	
		46.00	202.0	300.0	1.5652	
		50.00	238.0	336.0	1.5200	
		55.00	293.0	391.0	1.4727	
		60.00	361.0	459.0	1.4333	
		65.00	443.0	541.0	1.4000	
		70.00	542.0	640.0	1.3714	
		75.00	661.0	759.0	1.3467	
		80.00	796.0	894.0	1.3250	
		86.00	967.0	1065.0	1.3023	
		90.00	1078.0	1176.0	1.2889	
		95.00	1207.0	1305.0	1.2737	
		100.00	1321.0	1419.0	1.2600	

WEXPRO CO
 DST#: 1
 PATTERSON #6
 5380 - 5415ft.

Location: 4-39S-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5410 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
		105.00	1418.0	1516.0	1.2476	
		110.00	1501.0	1599.0	1.2364	
		115.00	1572.0	1670.0	1.2261	
		120.00	1631.0	1729.0	1.2167	
D	END OF 1st SHUTIN	123.00	1663.0	1761.0	1.2114	
E	START OF 2nd FLOW	0.00		114.0		
	2nd FLOW PERIOD	5.00	7.0	121.0		
		10.00	10.0	124.0		
		16.00	12.0	126.0		
		20.00	12.0	126.0		
		25.00	14.0	128.0		
		30.00	15.0	129.0		
		35.00	16.0	130.0		
		40.00	17.0	131.0		
		45.00	17.0	131.0		
		50.00	20.0	134.0		
		56.00	21.0	135.0		
		60.00	22.0	136.0		
		65.00	24.0	138.0		
		70.00	25.0	139.0		
		75.00	25.0	139.0		
		80.00	26.0	140.0		
		85.00	27.0	141.0		
		90.00	29.0	143.0		
		96.00	30.0	144.0		
		100.00	31.0	145.0		
		105.00	32.0	146.0		
		110.00	32.0	146.0		
F	END OF 2nd FLOW	116.00	35.0	149.0		
	2nd SHUTIN PERIOD	0.00	0.0	149.0	0.0000	
		10.00	1335.0	1484.0	15.2000	
		15.00	1344.0	1493.0	10.4667	
		20.00	1380.0	1529.0	8.1000	
		25.00	1422.0	1571.0	6.6800	
		30.00	1466.0	1615.0	5.7333	
		36.00	1515.0	1664.0	4.9444	

WEXPRO CO
 DST#: 1
 PATTERSON #6
 5380 - 5415ft.

Location: 4-39S-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5410 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
		40.00	1542.0	1691.0	4.5500	
		45.00	1576.0	1725.0	4.1556	
		50.00	1606.0	1755.0	3.8400	
		55.00	1635.0	1784.0	3.5818	
		60.00	1660.0	1809.0	3.3667	
		65.00	1682.0	1831.0	3.1846	
		70.00	1704.0	1853.0	3.0286	
		76.00	1726.0	1875.0	2.8684	
		80.00	1740.0	1889.0	2.7750	
		85.00	1757.0	1906.0	2.6706	
		90.00	1772.0	1921.0	2.5778	
		95.00	1787.0	1936.0	2.4947	
		100.00	1800.0	1949.0	2.4200	
		105.00	1812.0	1961.0	2.3524	
		110.00	1825.0	1974.0	2.2909	
		116.00	1837.0	1986.0	2.2241	
		120.00	1845.0	1994.0	2.1833	
		130.00	1864.0	2013.0	2.0923	
		140.00	1880.0	2029.0	2.0143	
		150.00	1896.0	2045.0	1.9467	
		160.00	1909.0	2058.0	1.8875	
		170.00	1921.0	2070.0	1.8353	
		180.00	1934.0	2083.0	1.7889	
		190.00	1944.0	2093.0	1.7474	
		200.00	1954.0	2103.0	1.7100	
		220.00	1972.0	2121.0	1.6455	
		240.00	1987.0	2136.0	1.5917	
		260.00	2001.0	2150.0	1.5462	
		280.00	2012.0	2161.0	1.5071*	
		300.00	2024.0	2173.0	1.4733*	
		320.00	2034.0	2183.0	1.4438*	
		340.00	2042.0	2191.0	1.4176*	
G	END OF 2nd SHUTIN	360.00	2050.0	2199.0	1.3944*	
Q	FINAL HYDROSTATIC	0.00		2910.0		

* VALUES USED FOR EXTRAPOLATIONS

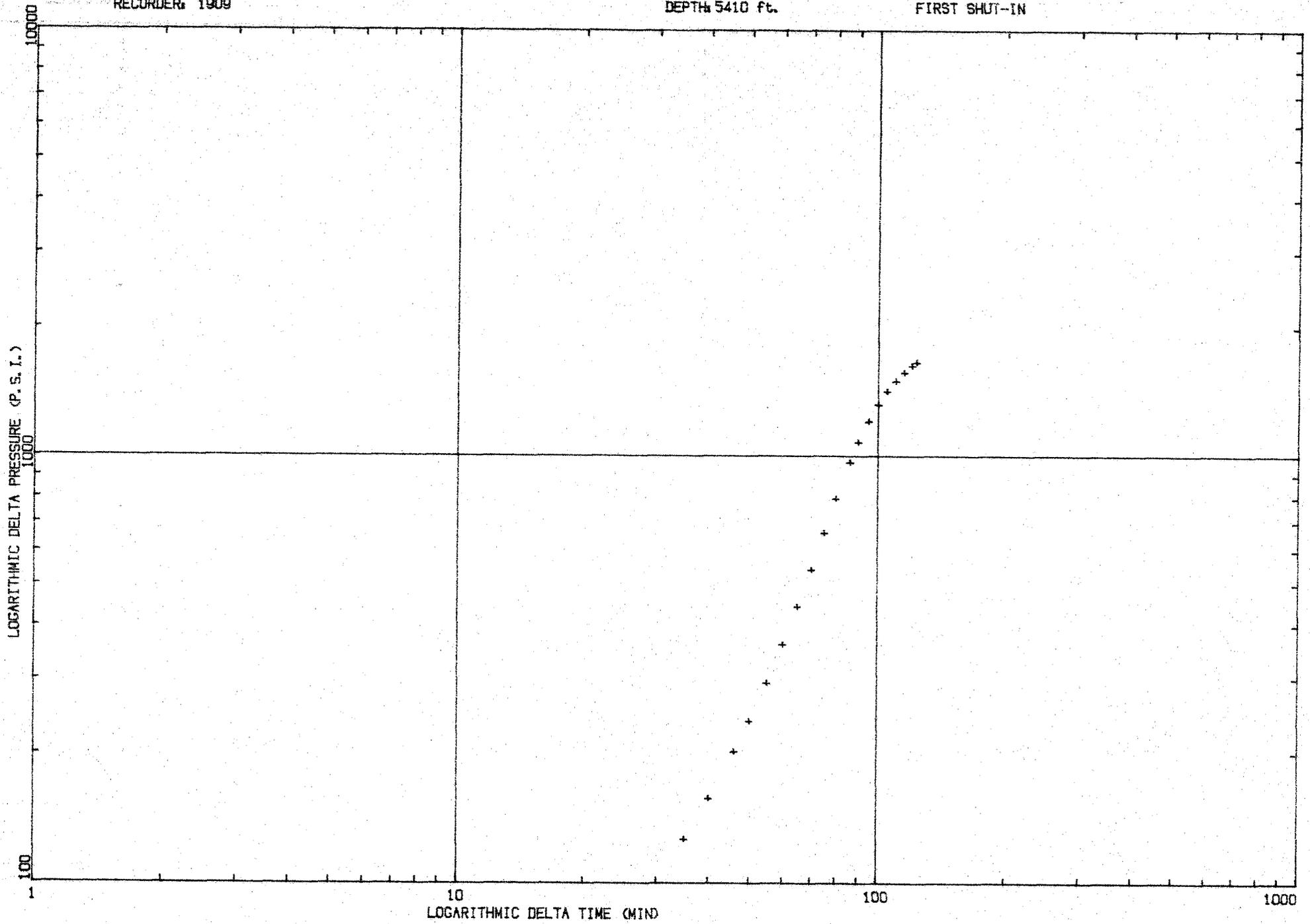
2nd SHUT-IN
 HORNER EXTRAPOLATION 2360.73 PSI

HORNER SLOPE 1118.19 psi/cycle

OPERATOR: WEXPRO CO
LOCATION: 4-39S-25E
RECORDER: 1909

WELL NAME: PATTERSON #8
DST #: 1
DEPTH: 5410 ft.

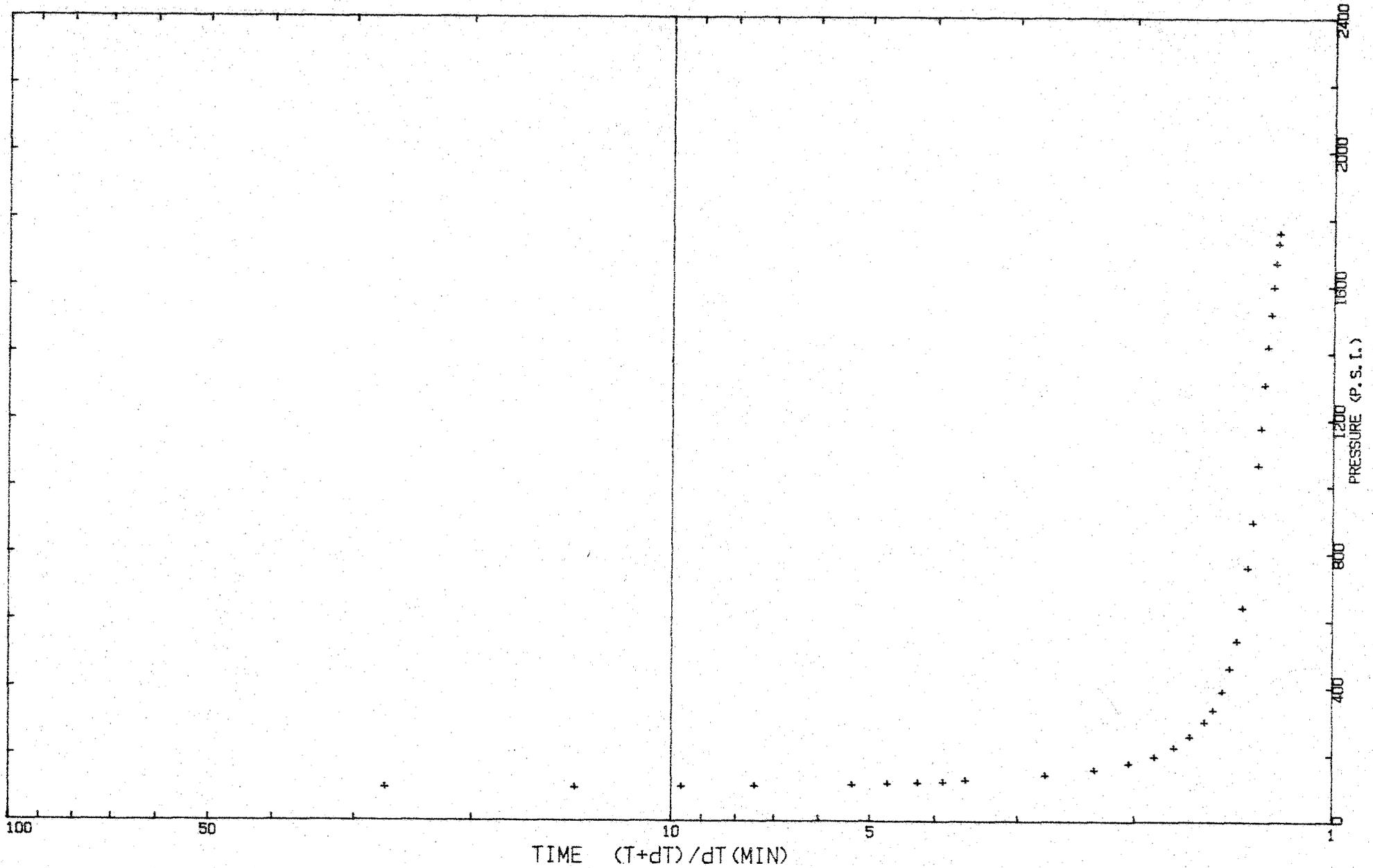
FIRST SHUT-IN



OPERATOR: WEXPRO CO
WELL NAME: PATTERSON #6
LOCATION: 4-39S-25E
FIRST SHUT-IN
RECORDER: 1909

DST #: 1

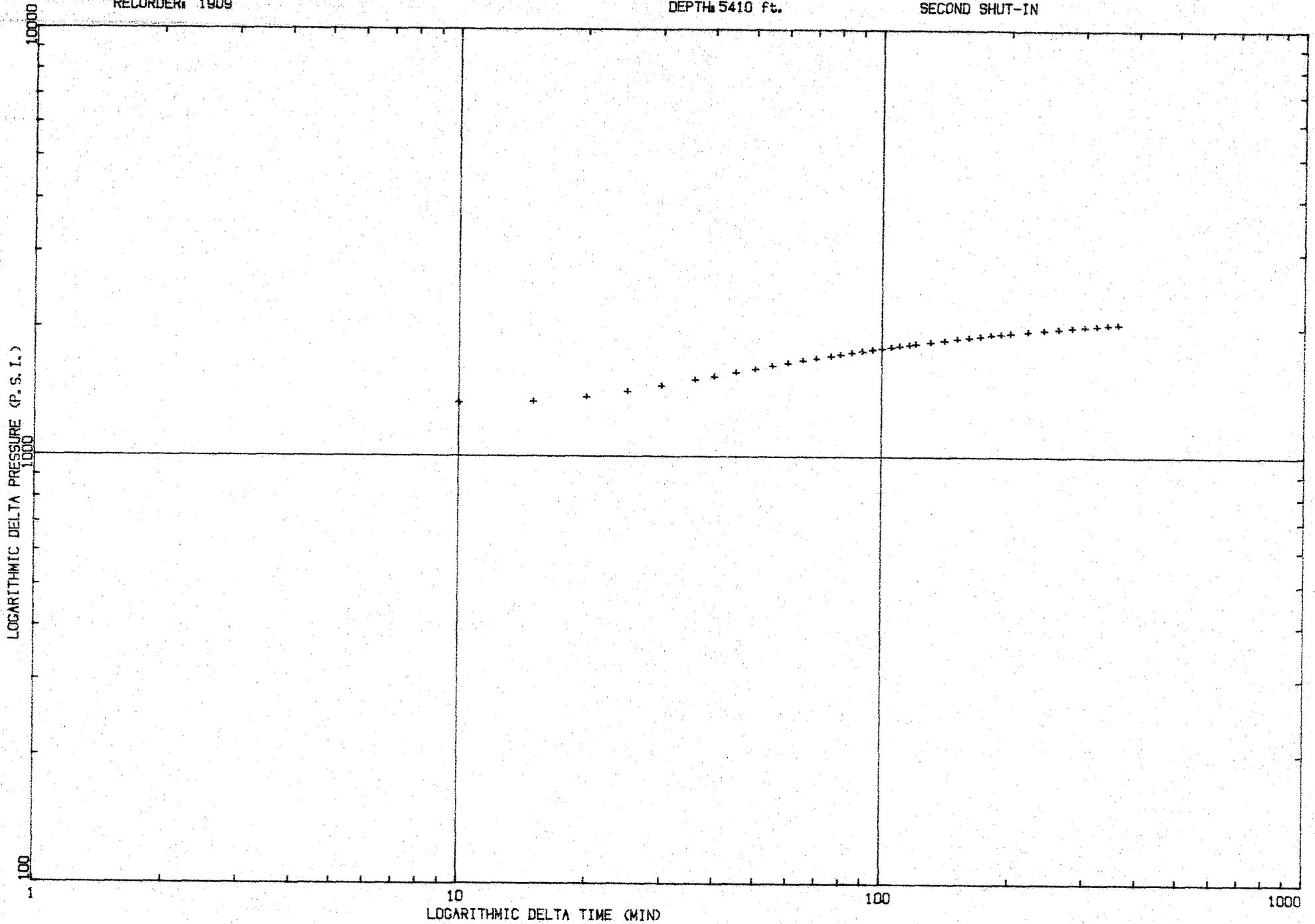
DEPTH: 5410 ft.



OPERATOR: WEXPRO CO
LOCATION: 4-39S-25E
RECORDER: 1909

WELL NAME: PATTERSON #6
DST #: 1
DEPTH: 5410 ft.

SECOND SHUT-IN

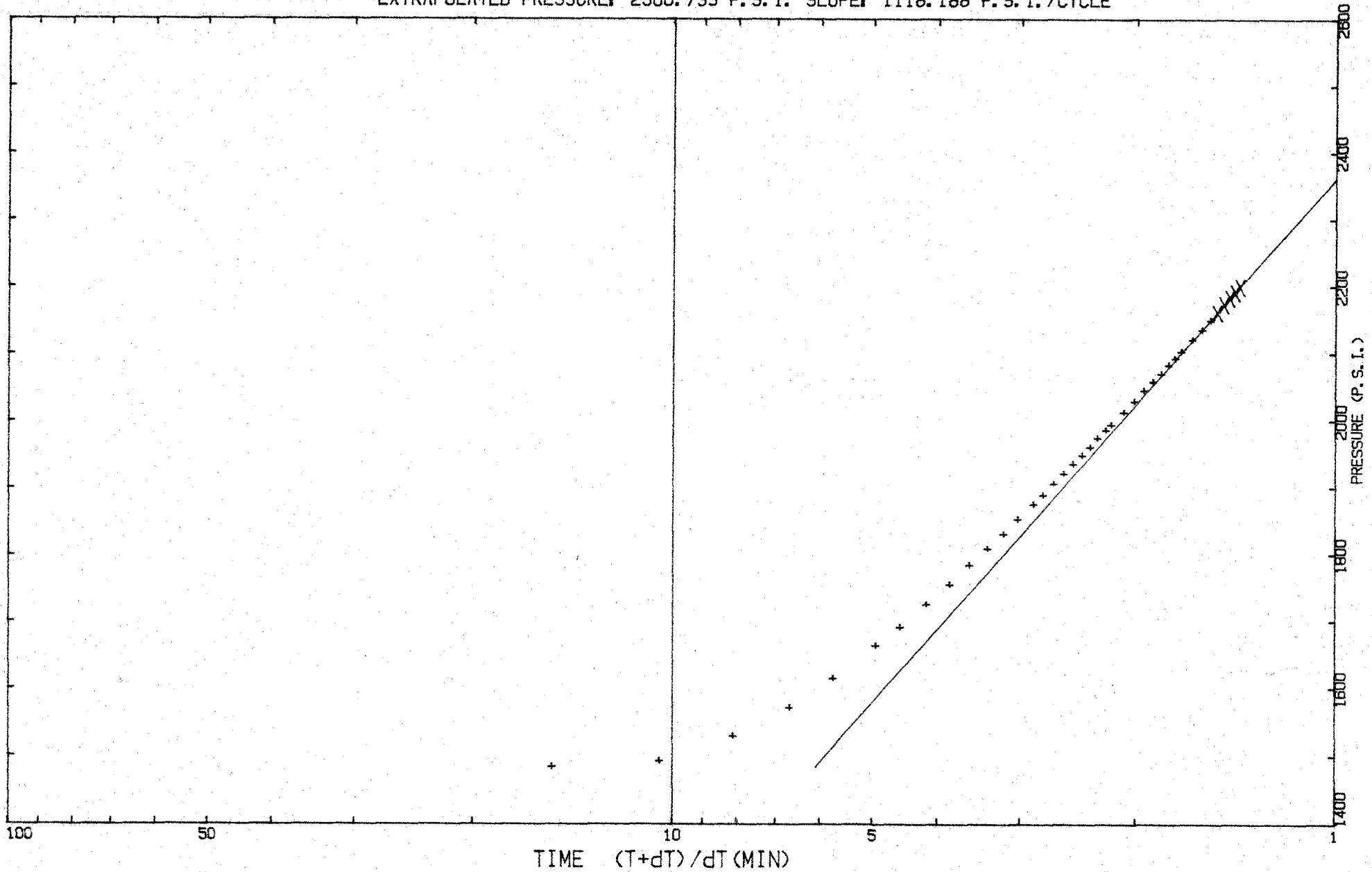


OPERATOR: WEXPRO CO
WELL NAME: PATTERSON #6
LOCATION: 4-39S-25E
SECOND SHUT-IN
RECORDER: 1909

DST #: 1

DEPTH: 5410 ft.

EXTRAPOLATED PRESSURE: 2360.733 P. S. I. SLOPE: 1118.188 P. S. I. /CYCLE



WEXPRO CO.
DST#: 1
PATTERSON #6
5380 - 5415ft.

Location: SEC. 4 T39S R25E
Test Type: BOTTOM HOLE CONVENTIONAL
Formation: ISMAY

Recorder Number: 1909
Recorder Depth: 5410

SAMPLE DATA

SAMPLE CHAMBER:

Capacity of sample chamber	2150	cc
Volume of sample.....	1500	cc
Pressure in sampler.....	55	psig
Where sampler was drained...	on location	

Sampler contained:
Water 700 cc
Mud 800 cc

RESISTIVITY DATA:

Top.....	79 000 PPM NACL
Middle.....	
Bottom.....	60 000 PPM NACL
Sampler.....	50 000 PPM NACL
Mud pit.....	14 500 PPM NACL
Make-up Water...	

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 5000 AT 5410

OPERATOR	Hexpro Co.	WELL NAME	Patterson #6	TICKET NO. 21280	DST. NO. 1				
DMR T'PE #2		01:29:30	119.875	02:41:30	122.437	03:53:30	123.437	04:05:30	124.500
SKIP = 16.0000			162.500		1280.00		131.250		147.500
PHS = 22:17:00			166.250		1305.00		131.250		146.250
EMP. IN DEG. F			170.000		1330.00		131.250		147.500
FRES. IN P.S.I.			175.000		1352.50		131.250		147.500
			178.750		1376.25		131.250	End 2nd flow	-148.750
			183.750		1397.50		131.250		2990.00
01:25:30			187.500		1418.75		132.500		2311.25
		01:37:30	120.250	02:49:30	122.625	03:01:30	123.625	03:13:30	124.875
			196.250		1460.00		132.500		1690.00
			202.500		1478.75		133.750		1608.75
			207.500		1498.75		133.750		1556.25
			212.500		1516.25		133.750		1522.50
			218.750		1533.75		133.750		1501.25
00:33:30			223.750		1551.25		133.750		1488.75
			228.750		1567.50		133.750		1483.75
		01:45:30	120.625	02:57:30	122.812	03:09:30	123.687	03:21:30	125.000
			241.250		1598.75		135.000		1481.25
Initial Hydro.			248.750		1613.75		135.000		1483.75
			255.000		1628.75		135.000		1487.50
			261.250		1643.75		136.250		1492.50
			268.750		1656.25		136.250		1498.75
			276.250		1670.00		136.250		1506.25
00:41:30			283.750		1682.50		136.250		1513.75
Start 1st flow		01:53:30	120.937	03:05:30	123.000	03:17:30	123.812	03:29:30	125.062
			300.000		1706.25		136.250		1528.75
			308.750		1718.75		137.500		1537.50
			317.500		1728.75		137.500		1546.25
			327.500		1740.00		137.500		1555.00
			336.250		1750.00		137.500		1563.75
			347.500	End 1st shut-in	1761.25		138.750		1571.25
00:49:30			356.250		158.750		138.750		1581.25
		02:01:30	121.187	03:13:30	123.062	03:25:30	123.937	03:37:30	125.187
			378.750	Start 2nd flow	113.750		138.750		1597.50
			391.250		116.250		138.750		1606.25
			403.750		118.750		138.750		1615.00
			416.250		121.250		138.750		1623.75
			430.000		121.250		138.750		1631.25
			443.750		121.250		140.000		1638.75
			458.750		122.500		140.000		1647.50
00:57:30			121.437	03:21:30	122.875	03:33:30	124.062	03:45:30	125.250
			488.750		123.750		140.000		1663.75
			506.250		123.750		141.250		1670.00
			523.750		123.750		141.250		1677.50
			541.250		123.750		141.250		1683.75
			558.750		125.000		141.250		1691.25
			578.750		125.000		141.250		1698.75
01:05:30			598.750		126.250		141.250		1706.25
		02:17:30	121.687	03:29:30	123.062	03:41:30	124.187	03:53:30	125.312
End 1st flow			640.000		126.250		142.500		1718.75
			663.750		126.250		142.500		1725.00
			686.250		126.250		142.500		1731.25
			710.000		126.250		143.750		1737.50
			735.000		126.250		143.750		1743.75
			758.750		126.250		143.750		1750.00
			786.250		127.500		143.750		1755.00
01:13:30		03:25:30	121.937	03:37:30	123.187	03:49:30	124.312	04:01:30	125.375
			838.750		127.500		143.750		1766.25
			866.250		127.500		143.750		1772.50
			893.750		127.500		143.750		1777.50
			921.250		127.500		145.000		1783.75
			950.000		127.500		145.000		1788.75
			978.750		128.750		145.000		1793.75
01:21:30		03:33:30	122.187	03:45:30	123.312	03:57:30	124.375	04:09:30	125.437
			1007.50		128.750		145.000		1798.75
			1065.00		128.750		146.250		1808.75
			1093.75		128.750		146.250		1813.75
			1121.25		128.750		146.250		1817.50
			1148.75		130.000		146.250		1822.50
			1176.25		130.000		146.250		1826.25
			1203.75		130.000		146.250		1831.25
			1228.75		130.000		146.250		1835.00

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 5000 AT 5410

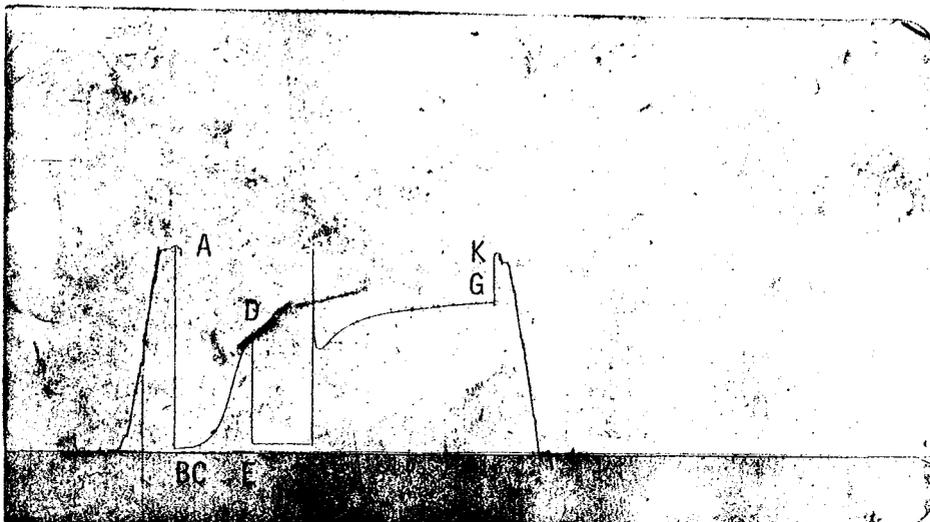
OPERATOR	Wexpro Co.	WELL NAME	Patterson #6	TICKET NO. 21280	DST. NO. 1
06:17:30	125.500	07:29:30	126.000	08:53:30	127.000
	1843.75		2028.75		2197.50
	1848.75		2113.75		2198.75
	1852.50		2031.25		2198.75
	1856.25		2032.50		2198.75
	1860.00		2033.75		2198.75
	1863.75		2035.00		2198.75
	1868.75		2036.25		2901.25
	1875.00		2038.75		2912.50
06:25:30	125.562	07:37:30	126.062	08:51:30	127.187
	1878.75		2041.25		2913.75
	1882.50		2042.50		2911.25
	1886.25		2045.00		2910.00
	1888.75		2046.25		2910.00
	1892.50		2047.50		2910.00
	1896.25		2048.75		2908.75
	1902.50		2050.00		2908.75
	1906.25		126.125		127.000
	1908.75		2052.50		2887.50
	1911.25		2053.75		2860.00
	1915.00		2055.00		
	1917.50		2056.25		
	1921.25		2057.50		
	1927.50		2058.75		
	1930.00		2061.25		
	1933.75		126.125		
	1936.25		2063.75		
	1938.75		2065.00		
	1941.25		2066.25		
	1943.75		2067.50		
	1949.75		2068.75		
	1951.25		2070.00		
	1953.75		126.187		
	1956.25		2072.50		
	1958.75		2073.75		
	1961.25		2075.00		
	1963.75		2076.25		
	1968.75		2077.50		
	1970.00		2078.75		
	1973.75		2078.75		
	1975.00		126.250		
	1977.50		2082.50		
	1978.75		2083.75		
	1981.25		2085.00		
	1986.25		2086.25		
	1988.75		2086.25		
	1990.00		2086.25		
	1991.25		2087.50		
	1993.75		2088.75		
	1996.25		126.312		
	1998.75		2091.25		
	2001.25		2091.25		
	2003.75		2092.50		
	2005.00		2093.75		
	2007.50		2095.00		
	2008.75		2096.25		
	2010.00		2096.25		
	2012.50		2098.75		
	2016.25		2100.00		
	2017.50		2101.25		
	2018.75		2101.25		
	2021.25		2102.50		
	2022.50		2103.75		
	2025.00		2105.00		
	2026.25		126.375		
			2098.75		
			2100.00		
			2101.25		
			2101.25		
			2102.50		
			2103.75		
			2105.00		
			126.375		
			2106.25		
			2107.50		
			2108.75		
			2108.75		
			2110.00		
			2111.25		
			2111.25		
			126.437		
			2113.75		
			2113.75		
			2115.00		
			2116.25		
			2117.50		
			2118.75		
			126.437		
			2121.25		
			2121.25		
			2122.50		
			2123.75		
			2123.75		
			2123.75		
			2125.00		
			126.500		
			2126.25		
			2127.50		
			2128.75		
			2128.75		
			2130.00		
			2130.00		
			2131.25		
			126.500		
			2132.50		
			2133.75		
			2133.75		
			2135.00		
			2136.25		
			2136.25		
			2136.25		
			126.562		
			2138.75		
			2138.75		
			2140.00		
			2141.25		
			2141.25		
			2142.50		
			2142.50		
			126.562		
			2143.75		
			2145.00		
			2146.25		
			2146.25		
			2146.25		
			2147.50		
			2148.75		
			126.625		
			2150.00		
			2150.00		
			2151.25		
			2151.25		
			2151.25		
			2152.50		
			2153.75		
			126.687		
			2153.75		
			2155.00		
			2156.25		
			2156.25		
			2156.25		
			2157.50		
			2157.50		
			126.687		
			2158.75		
			2160.00		
			2160.00		
			2161.25		
			2161.25		
			2162.50		
			2162.50		
			127.000		
			2163.75		
			2163.75		
			2165.00		
			2166.25		
			2166.25		
			2167.50		
			127.000		
			2168.75		
			2168.75		
			2170.00		
			2170.00		
			2171.25		
			2171.25		
			127.000		
			2172.50		
			2172.50		
			2173.75		
			2173.75		
			2173.75		
			2175.00		
			2176.25		
			2176.25		
			2177.50		
			2178.75		
			2178.75		
			2178.75		
			2178.75		
			126.875		
			2180.00		
			2181.25		
			2181.25		
			2182.50		
			2182.50		
			2183.75		
			2183.75		
			2185.00		
			2185.00		
			2186.25		
			2186.25		
			2186.25		
			2187.50		
			126.937		
			2188.75		
			2188.75		
			2188.75		
			2188.75		
			2190.00		
			2190.00		
			2191.25		
			126.937		
			2191.25		
			2191.25		
			2192.50		
			2192.50		
			2193.75		
			2193.75		
			127.000		
			2195.00		
			2195.00		
			2196.25		
			2196.25		
			2196.25		
			2196.25		

PRESSURE RECORDER NUMBER : 24623

DEPTH : 5350.00ft. LOCATION : INSIDE
TYPE : K-3 CAPACITY : 6650.00psi

PRESSURE
psi

A)Initial Hydro : 2914.0
B)1st Flow Start: 47.0
C)1st Flow End : 69.0
D)END 1st Shutin: 1704.0
E)2nd Flow Start: 114.0
F)2nd Flow End : 119.0
G)END 2nd Shutin: 2153.0
Q)Final Hydro. : 2867.0



TEST TIMES(MIN)
1st FLOW : 26
SHUTIN: 123
2nd FLOW : 116
SHUTIN: 360

PRESSURE RECORDER NUMBER : 1909

DEPTH : 5410.00ft. LOCATION : OUTSIDE
TYPE : DMR CAPACITY : 5000.00psi

PRESSURE
psi

A)Initial Hydro : 2983.0
B)1st Flow Start: 80.0
C)1st Flow End : 98.0
D)END 1st Shutin: 1761.0
E)2nd Flow Start: 114.0
F)2nd Flow End : 149.0
G)END 2nd Shutin: 2199.0
Q)Final Hydro. : 2910.0

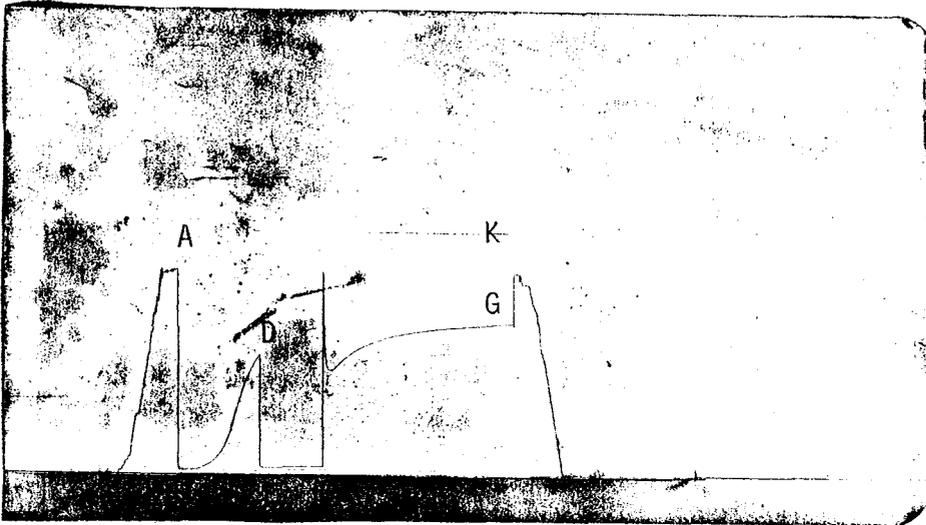
WEXPRO CO.
DST#: 1
PATTERSON #6
5380 - 5415ft.

PRESSURE RECORDER NUMBER : 24552

DEPTH : 5400.00ft. LOCATION : OUTSIDE
TYPE : K-3 CAPACITY : 6625.00psi

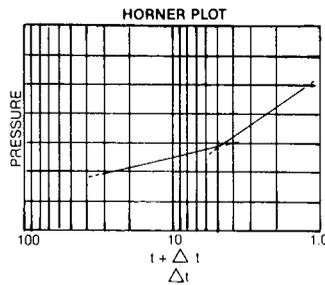
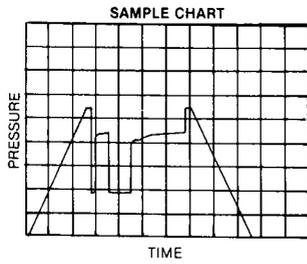
PRESSURE
psi

A)Initial Hydro : 2881.0
B)1st Flow Start: 60.0
C)1st Flow End : 63.0
D)END 1st Shutin: 1678.0
E)2nd Flow Start: 93.0
F)2nd Flow End : 99.0
G)END 2nd Shutin: 2125.0
Q)Final Hydro. : 2839.0



TEST TIMES(MIN)
1st FLOW : 26
SHUTIN: 123
2nd FLOW : 116
SHUTIN: 360

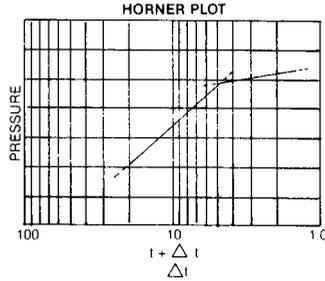
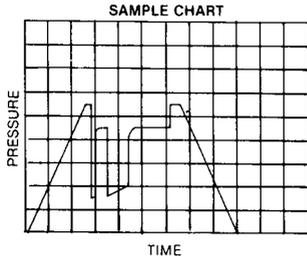
Lynes Guide to Detection of Geological Anomalies



Horner Plot Slope Breaks Upward

Possible Causes

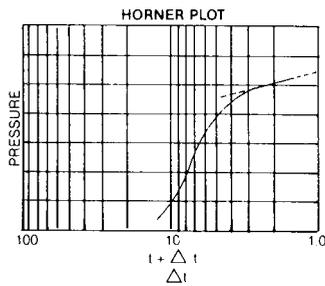
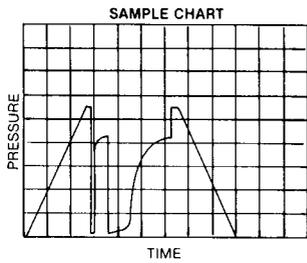
- (1) decrease in pay thickness away from the wellbore
- (2) decrease in permeability away from the wellbore
- (3) increase in viscosity of reservoir fluid (fluid contact)
- (4) barrier within the radius of investigation



Horner Plot Slope Breaks Downward

Possible Causes

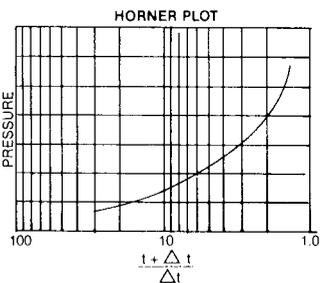
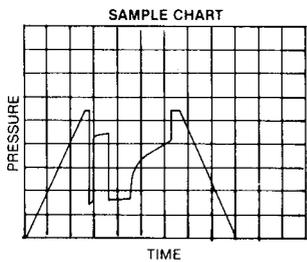
- (1) increase in pay thickness away from the wellbore
- (2) increase in permeability away from the wellbore
- (3) decrease in viscosity away from the wellbore



Early Time Deviation of Horner Plot

Possible Causes

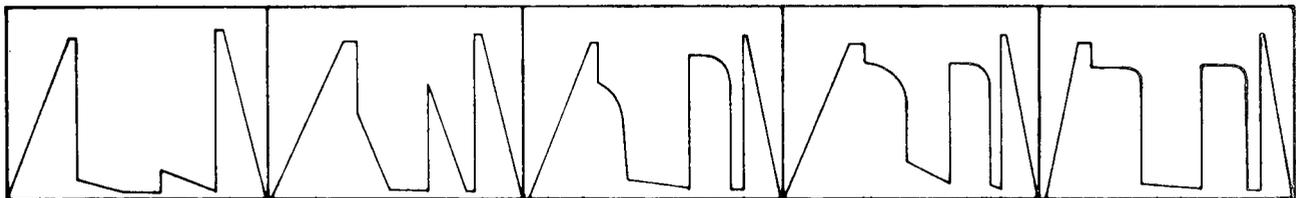
- (1) wellbore damage due to filtrate invasion, drilling solids, etc.
- (2) partial penetration of pay zone
- (3) plugging or choking of perforations (casing test only)
- (4) wellbore storage effects (low permeability gas wells)



Horner Plot Slope Continually Increasing

Possible Causes

- (1) well between two parallel boundaries (channel sand)
- (2) induced hydraulic fractures



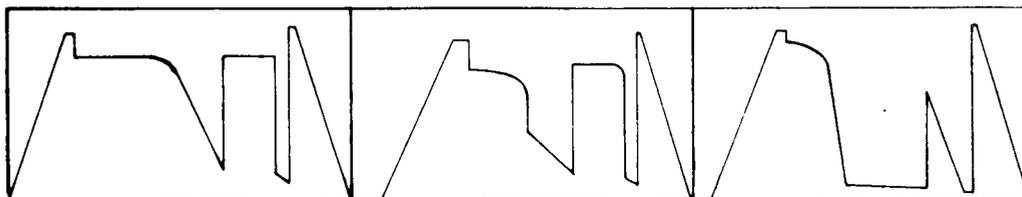
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200 ft.

Average permeability. Final and initial shut-ins differ by 50 psi.

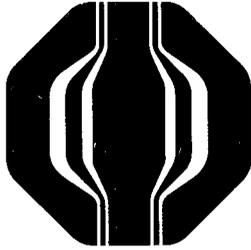
Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.



LYNES

1616 Glenarm Pl.
Suite 1350
Denver, CO 80202
1-303-573-8027



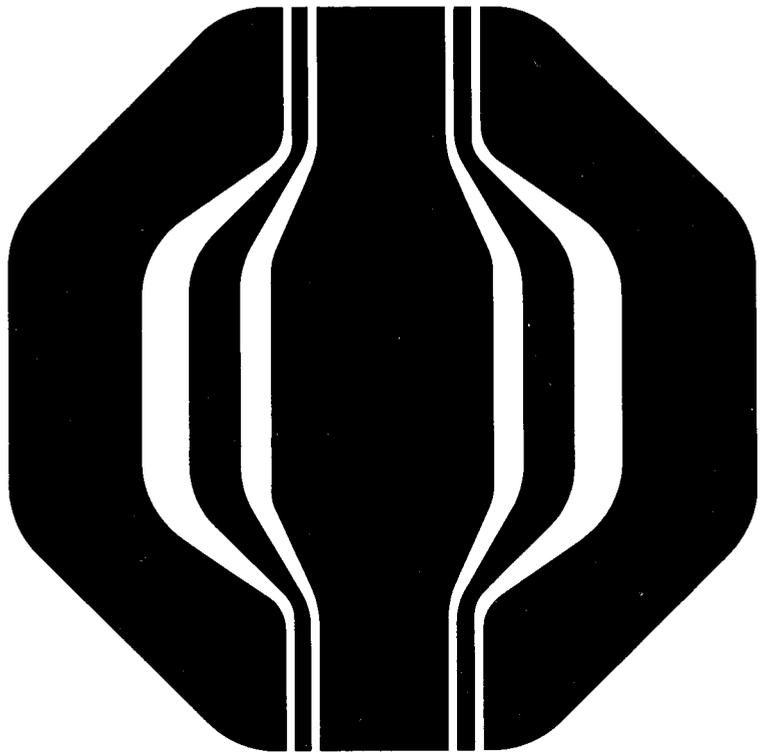
Operator Mexpro Co.
P.O. Box 458
Address Rock Springs, WY 82901

Well Name and No. Ticker No. 21281

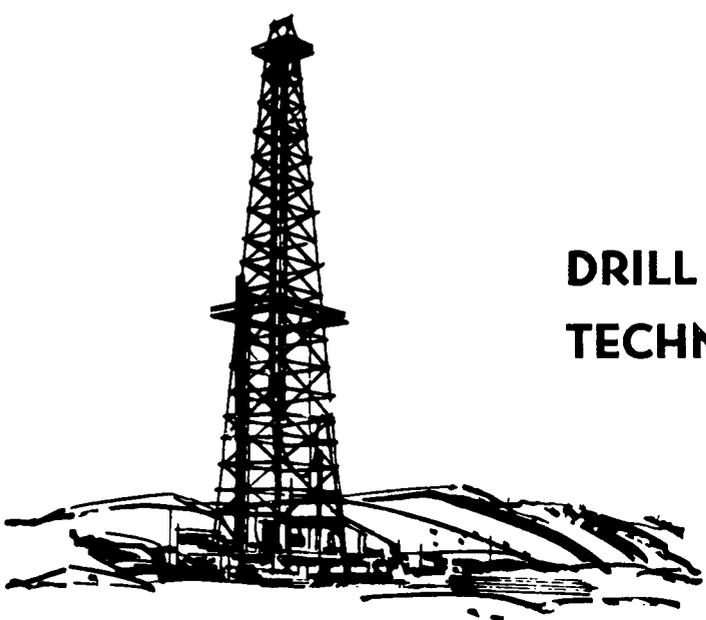
Patterson #6

Date 1-11-85

DST No. 2
No. Final Copies 17



LYNES



**DRILL STEM TEST
TECHNICAL SERVICE REPORT**

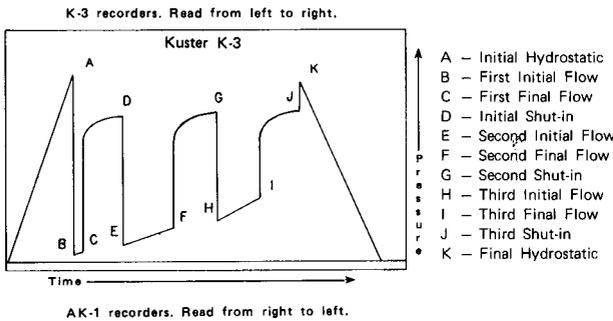
GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

NOMENCLATURE

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

Symbol	Definition	DST Unit
k	permeability.....	millidarcys (md)
h	pay thickness.....	feet (ft.)
u	viscosity	centipoise
T	reservoir temperature	°Rankin (°R)
Z	gas compressibility factor at average condition ...	—
q _{sc}	gas production rate	MCF/d
M	Horner slope for liquid analysis	PSI/Cycle
Mg	Horner slope for (P ²) gas analysis.....	PSI ² /Cycle
P _i	initial static reservoir pressure.....	PSI
P _{wf}	flowing bottom hole pressure	PSI
φ	porosity.....	(fraction)
r _w	well bore radius	ft.
S	skin factor	—
AOF	absolute open flow	MCF/d
D. R.	damage ratio.....	—
r _e	external drainage radius.....	ft.
ISIP	initial shut-in pressure.....	PSI
FSIP	final shut-in pressure	PSI
b	approx. radius of investigation	ft.
t	flowing time.....	hrs.
B	formation volume factor.....	—
q	liquid production rate	bbbls/day
c̄	gas compressibility.....	1/PSI
c	liquid compressibility	1/PSI

CODE USED ON CHART ENVELOPES



A. Liquid Calculations

1. Transmissibility $\frac{Kh}{u} = \frac{162.6 q B}{m}$ 2. Capacity $Kh = Kh \times u = \frac{Kh}{u}$ 3. Permeability $K = \frac{Kh}{h}$

4. Skin Factor $S = 1.151 \left[\frac{P_i - P_{wf}}{m} \cdot \text{Log} \frac{Kt}{\phi u c_{r_w}^2} + 3.2275 \right]$

5. Pressure Drop Due to Skin $\Delta P_{skin} = \frac{162.6 B q u}{Kh} \times 0.869s$ or $\Delta P_{skin} = 0.869 M S$

6. Damage Ratio $\frac{P_i - P_{wf}}{m} \left[\text{Log} \frac{Kt}{\phi u c_{r_w}^2} - 3.2275 \right]$

7. Productivity Index $P. I. = \frac{qa}{P_i - P_{wf}}$

8. Productivity Index Damage Removed $\frac{qt}{P_i - P_{wf}} = P. I. a \times D. R.$

9. Radius of Investigation $b = 0.029 \sqrt{\frac{Kt}{\phi u c}}$ 10. Depletion Factor % $\frac{ISIP - FSIP}{ISIP} \times 100$

B. Gas Calculations

1. Transmissibility $\frac{Kh}{u} = \frac{1637 T \neq q_{sc}}{Mg}$ 2. Capacity $\frac{Kh}{u} \times u = Kh$ 3. Permeability $\frac{Kh}{h} = K$

4. Apparent Skin Factor $S = 1.151 \left[\frac{P_i^2 - P_{wf}^2}{Mg} \cdot \text{log} \left(\frac{Kt}{\phi u c_{r_w}} \right) + 3.2275 \right]$

5. Pressure Drop Due to Skin $\Delta P_{skin} = P_i - P_{wf} = \sqrt{(P_{wf}^2) + 0.869 Mg S}$

6. Damage Ratio $\frac{P_i^2 - P_{wf}^2}{Mg} \left[\text{Log} \frac{Kt}{\phi u c_{r_w}^2} - 3.2275 \right]$

7. Absolute Open Flow $Mg \left[\frac{(P_i^2) (Kh)}{\text{Log} \frac{Kt}{\phi u c_{r_w}^2} - 3.2275 + .869s} \right]$

8. AOF Damage removed $AOF \times DR$

10. Radius of Investigation $b = 0.029 \sqrt{\frac{Kt}{\phi u c}}$

9. Estimated Stabilized AOF $3263 \text{ uzt} \left[\frac{(P_i^2) (Kh)}{\text{Log} \left(\frac{.472 re}{r_w} \right) + \frac{s}{2.303}} \right]$

11. Depletion % $\frac{ISIP - FSIP}{ISIP} \times 100$

LYNES

TECHNICAL SERVICES, Security Life Bldg. • Suite 1350 • 1616 Glenarm • Denver, Colorado 80202 • Phone. (303) 573-8027

Contractor Arapahoe
 Rig No. 10
 Spot --
 Sec. 4
 Twp. 38S
 Rng. 25E
 Field Patterson
 County San Juan
 State Utah
 Elevation --
 Formation Ismay

Top Choke 1/4"
 Bottom Choke 3/4"
 Size Hole 8 3/4"
 Size Rat Hole --
 Size & Wt. D. P. 4 1/2" XH 16.60#
 Size Wt. Pipe --
 I. D. of D. C. 2 1/4" 4 1/2" XH
 Length of D. C. 372 ft.
 Total Depth 5469 ft.
 Interval Tested 5414-5469 ft.
 Type of Test Bottom Hole Conventional

Flow No. 1 28 Min.
 Shut-in No. 1 120 Min.
 Flow No. 2 117 Min.
 Shut-in No. 2 364 Min.
 Flow No. 3 -- Min.
 Shut-in No. 3 -- Min.

Bottom Hole Temp. 128^oF
 Mud Weight 11.4#
 Gravity --
 Viscosity 43

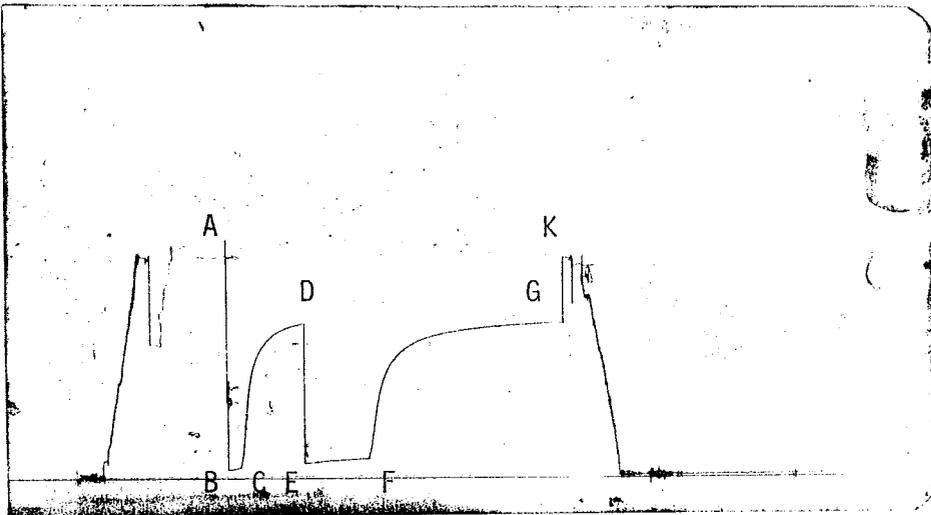
Tool opened @ 3:20 p.m.

Inside Recorder

PRD Make Kuster K-3
 No. 24552 Cap. 6625 @ 5424'

	Press	Corrected
Initial Hydrostatic	A	3141
Final Hydrostatic	K	3116
Initial Flow	B	69
Final Initial Flow	C	96
Initial Shut-in	D	2169
Second Initial Flow	E	159
Second Final Flow	F	225
Second Shut-in	G	2175
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist. Rock Springs, WY
 Our Tester: Byron Scott
 Witnessed By: Howard Leeper



Did Well Flow - Gas No Oil No Water No

RECOVERY IN PIPE:

450 ft. Total Recovery = 2.92 Bbls
 50 ft. Slightly water-cut drilling mud = .71 Bbls
 400 ft. Slightly mud-cut water = 2.21 Bbls

Blow Description:

1st Flow: Tool opened with a 1/2" blow, increasing to a 1" blow at the end of the flow.

2nd Flow: Tool opened with a 1/2" blow, increasing gradually to a 1" blow in 5 minutes for 20 minutes, then decreasing until dead at 55 minutes. Remained dead for duration of flow.

Comments:

The test results indicate a mechanically successful test. Reservoir calculations are enclosed. DMR pressures are recorded in PSIA.

Operator Mexpro Co.
 Address Rock Springs, WY 82901
 P.O. Box 458
 Well Name and No. Patterson #6
 Ticket No. 21281
 Date 1-11-85
 No. Final Copies 17
 DST No. 2

LYNES, INC.

Wexpro Co.

Patterson #6

2

Operator

Well Name and No.

DST No.

Comments relative to DST #2 run on Patterson #6 in San Juan County, Utah,
4-38S-25E for Wexpro Co.

The enclosed calculations were performed by plotting the time pressure data on a semi-log scale and using the resultant slope and extrapolated pressures in the appropriate fluid calculations. The final shut-in was extrapolated to 2349.9 psi with a slope of 757.45 psi/cycle. The initial shut-in could not be accurately extrapolated due to insufficient curve development.

The calculations indicate a zone of low permeability with no damage indicated on this test. If you should have any questions concerning this test or data, please call.



T.H. Adams, C.E.T.
Manager Technical Services

THA/bss

Operator.....: WEXPRO CO
 Well ID.....: PATTERSON #6
 Location.....: 4-38S-25E
 DST Number.....: 2
 Formation.....: ISMAY
 Type of test....: BOTTOM HOLE CONVENTIONAL
 Test interval...: 5414 - 5469ft.
 Recorder number : 1909
 Recorder depth : 5465

RESERVOIR CALCULATIONS: Fluid calculations based on 2nd shut-in

RESERVOIR PARAMATERS USED:

Net Pay.....	10.00 ft
Porosity.....	10.00 %
Bottom Hole Temp.....	128.00 F
Specific Gravity.....	1.000
API Gravity.....	10.00
Compressibility.....	.3000E-006 /psi
Viscosity.....	.64 cp
Total Recovery.....	450.00 ft
Total flowing time....	145.00 minutes
Flow rate.....	30.00 bbl/d
Final flowing pressure:	304.00 psi
Slope.....	757.451 psi/cycle
Extrapolation.....	2349.99 psi
Formation vol. factor :	1.01 Reservoir/Surface
Wellbore radius.....	4.38 in

RESULTS:

Effective Permeability...(k)....	.42 mD
Transmissibility.....(kh/u)....	6.50 mD.ft/cp
Flow capacity.....(kh)....	4.16 mD.ft
Skin.....(s)....	-3.07
Pressure drop across skin.....	-2020.61 psi
Radius of investigation.....	209.92 ft
Damage ratio.....	.50
Productivity index.....	.015 bbl/psi.d
Productivity index W/O damage :	.015 bbl/psi.d

WEXPRO CO
 DST#: 2
 PATTERSON #6
 5414 - 5469ft.

Location: 4-389-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5465 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	PRESSURE SQUARED psi ² /10 ⁶
A	INITIAL HYDROSTATIC	0.00		3178.0	
B	START OF 1st FLOW	0.00		108.0	
	1st FLOW PERIOD	6.00	22.0	130.0	
		10.00	35.0	143.0	
		15.00	47.0	155.0	
		20.00	58.0	166.0	
		25.00	68.0	176.0	
C	END OF 1st FLOW	30.00	76.0	184.0	
	1st SHUTIN PERIOD	0.00	0.0	184.0	0.0000
		2.00	46.0	230.0	15.0000
		3.00	76.0	260.0	10.3333
		4.00	112.0	296.0	8.0000
		5.00	160.0	344.0	6.6000
		6.00	216.0	400.0	5.6667
		7.00	286.0	470.0	5.0000
		8.00	369.0	553.0	4.5000
		10.00	566.0	750.0	3.8000
		15.00	1016.0	1200.0	2.8667
		20.00	1287.0	1471.0	2.4000
		26.00	1485.0	1669.0	2.0769
		30.00	1575.0	1759.0	1.9333
		35.00	1662.0	1846.0	1.8000
		40.00	1730.0	1914.0	1.7000
		45.00	1785.0	1969.0	1.6222
		50.00	1830.0	2014.0	1.5600
		55.00	1867.0	2051.0	1.5091
		60.00	1900.0	2084.0	1.4667
		66.00	1932.0	2116.0	1.4242
		70.00	1950.0	2134.0	1.4000
		75.00	1970.0	2154.0	1.3733
		80.00	1989.0	2173.0	1.3500
		85.00	2004.0	2188.0	1.3294
		90.00	2017.0	2201.0	1.3111
		95.00	2028.0	2213.0	1.2947
		100.00	2037.0	2224.0	1.2800
		106.00	2044.0	2234.0	1.2642

WEXPRO CO
 DST#: 2
 PATTERSON #6
 5414 - 5469ft.

Location: 4-38S-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5465 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
		110.00	2057.0	2241.0	1.2545	
		115.00	2065.0	2249.0	1.2435	
D	END OF 1st SHUTIN	120.00	2071.0	2255.0	1.2333	
E	START OF 2nd FLOW	0.00		213.0		
	2nd FLOW PERIOD	5.00	11.0	224.0		
		10.00	18.0	231.0		
		15.00	27.0	240.0		
		20.00	33.0	246.0		
		25.00	41.0	254.0		
		30.00	48.0	261.0		
		35.00	55.0	268.0		
		40.00	61.0	274.0		
		45.00	63.0	276.0		
		50.00	66.0	279.0		
		56.00	67.0	280.0		
		60.00	70.0	283.0		
		65.00	72.0	285.0		
		70.00	75.0	288.0		
		75.00	76.0	289.0		
		80.00	77.0	290.0		
		85.00	78.0	291.0		
		90.00	81.0	294.0		
		96.00	83.0	296.0		
		100.00	86.0	299.0		
		105.00	87.0	300.0		
F	END OF 2nd FLOW	110.00	88.0	301.0		
		117.00	91.0	304.0		
	2nd SHUTIN PERIOD	0.00	0.0	304.0	0.0000	
		1.00	14.0	318.0	146.0000	
		3.00	65.0	369.0	49.3333	
		4.00	95.0	399.0	37.2500	
		5.00	127.0	431.0	30.0000	
		6.00	165.0	469.0	25.1667	
		7.00	205.0	509.0	21.7143	
		8.00	250.0	554.0	19.1250	
		9.00	297.0	601.0	17.1111	

WEXPRO CO
 DST#: 2
 PATTERSON #6
 5414 - 5469ft.

Location: 4-38S-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5465 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
		15.00	626.0	930.0	10.6667	
		20.00	862.0	1166.0	8.2500	
		25.00	1032.0	1336.0	6.8000	
		30.00	1156.0	1460.0	5.8333	
		35.00	1251.0	1555.0	5.1429	
		40.00	1326.0	1630.0	4.6250	
		45.00	1387.0	1691.0	4.2222	
		51.00	1449.0	1753.0	3.8431	
		55.00	1484.0	1788.0	3.6364	
		60.00	1521.0	1825.0	3.4167	
		65.00	1555.0	1859.0	3.2308	
		70.00	1584.0	1888.0	3.0714	
		75.00	1610.0	1914.0	2.9333	
		80.00	1634.0	1938.0	2.8125	
		85.00	1655.0	1959.0	2.7059	
		91.00	1677.0	1981.0	2.5934	
		95.00	1690.0	1994.0	2.5263	
		100.00	1706.0	2010.0	2.4500	
		105.00	1720.0	2024.0	2.3810	
		110.00	1732.0	2036.0	2.3182	
		115.00	1745.0	2049.0	2.2609	
		120.00	1756.0	2060.0	2.2083	
		125.00	1766.0	2070.0	2.1600	
		131.00	1779.0	2083.0	2.1069	
		140.00	1794.0	2098.0	2.0357	
		150.00	1809.0	2113.0	1.9667	
		160.00	1822.0	2126.0	1.9063	
		171.00	1835.0	2139.0	1.8480	
		180.00	1845.0	2149.0	1.8056	
		190.00	1852.0	2156.0	1.7632	
		200.00	1861.0	2165.0	1.7250	
		211.00	1870.0	2174.0	1.6872	
		220.00	1877.0	2181.0	1.6591	
		230.00	1882.0	2186.0	1.6304	
		240.00	1889.0	2193.0	1.6042	
		250.00	1895.0	2199.0	1.5800	
		260.00	1900.0	2204.0	1.5577	
		270.00	1905.0	2209.0	1.5370	
		280.00	1909.0	2213.0	1.5179*	

WEXPRO CO
DST#: 2
PATTERSON #6
5414 - 5469ft.

Location: 4-385-25E
Test Type: BOTTOM HOLE CONVENTIONAL
Formation: ISMAY

Recorder Number: 1909
Recorder Depth: 5465 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
		290.00	1912.0	2216.0	1.5000*	
		300.00	1916.0	2220.0	1.4833*	
		310.00	1920.0	2224.0	1.4677*	
		320.00	1924.0	2228.0	1.4531*	
		330.00	1926.0	2230.0	1.4394*	
		340.00	1929.0	2233.0	1.4265*	
		350.00	1932.0	2236.0	1.4143*	
		360.00	1935.0	2239.0	1.4028*	
G	END OF 2nd SHUTIN	364.00	1935.0	2239.0	1.3984*	
Q	FINAL HYDROSTATIC	0.00		3154.0		

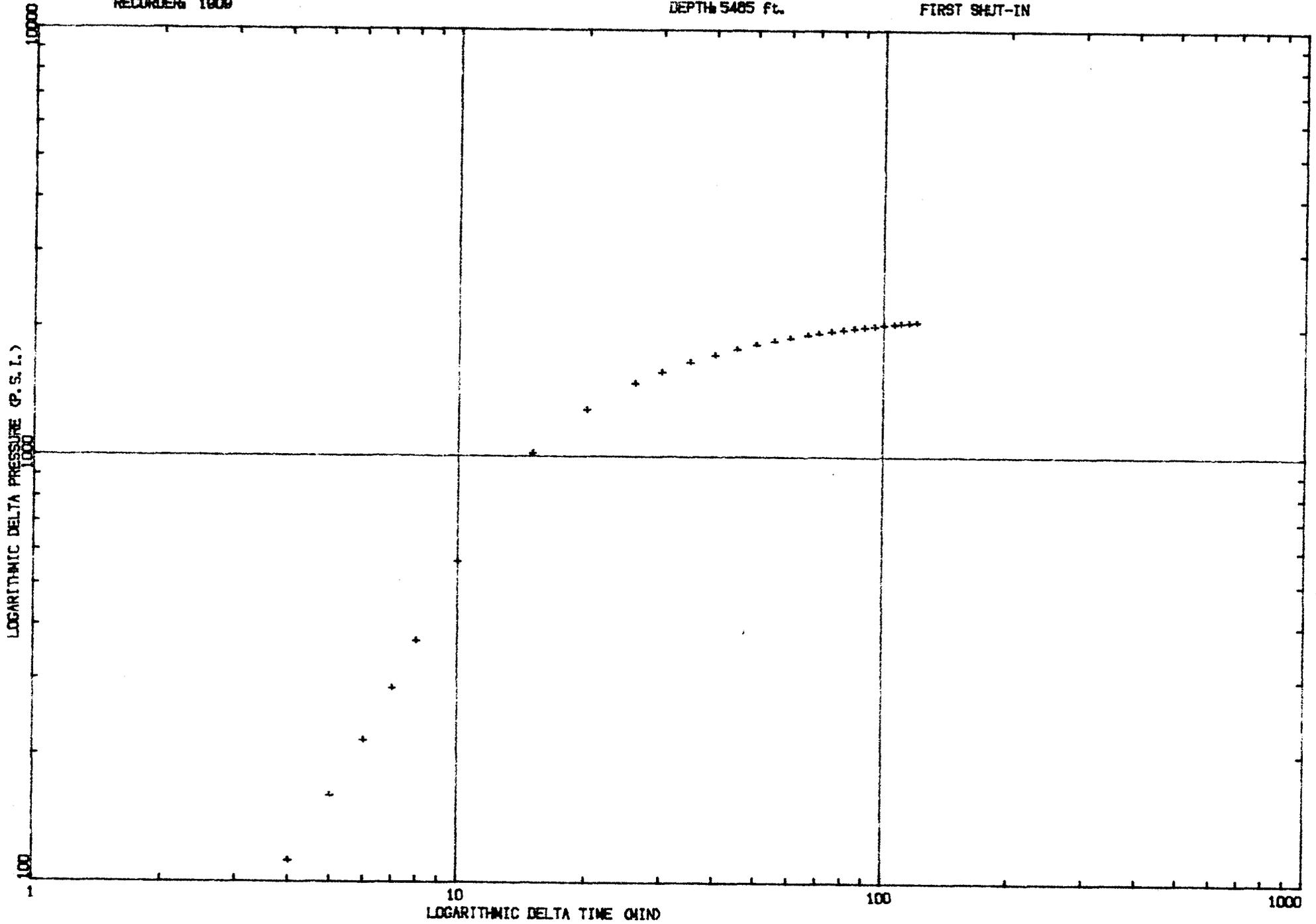
* VALUES USED FOR EXTRAPOLATIONS

2nd SHUT-IN
HORNER EXTRAPOLATION 2349.99 PSI
HORNER SLOPE 757.45 psi/cycle

OPERATOR: WEXPRO CO
LOCATION: 4-989-25E
RECORDER: 1809

WELL NAME: PATTERSON #8
DOT #2
DEPTH: 5485 ft.

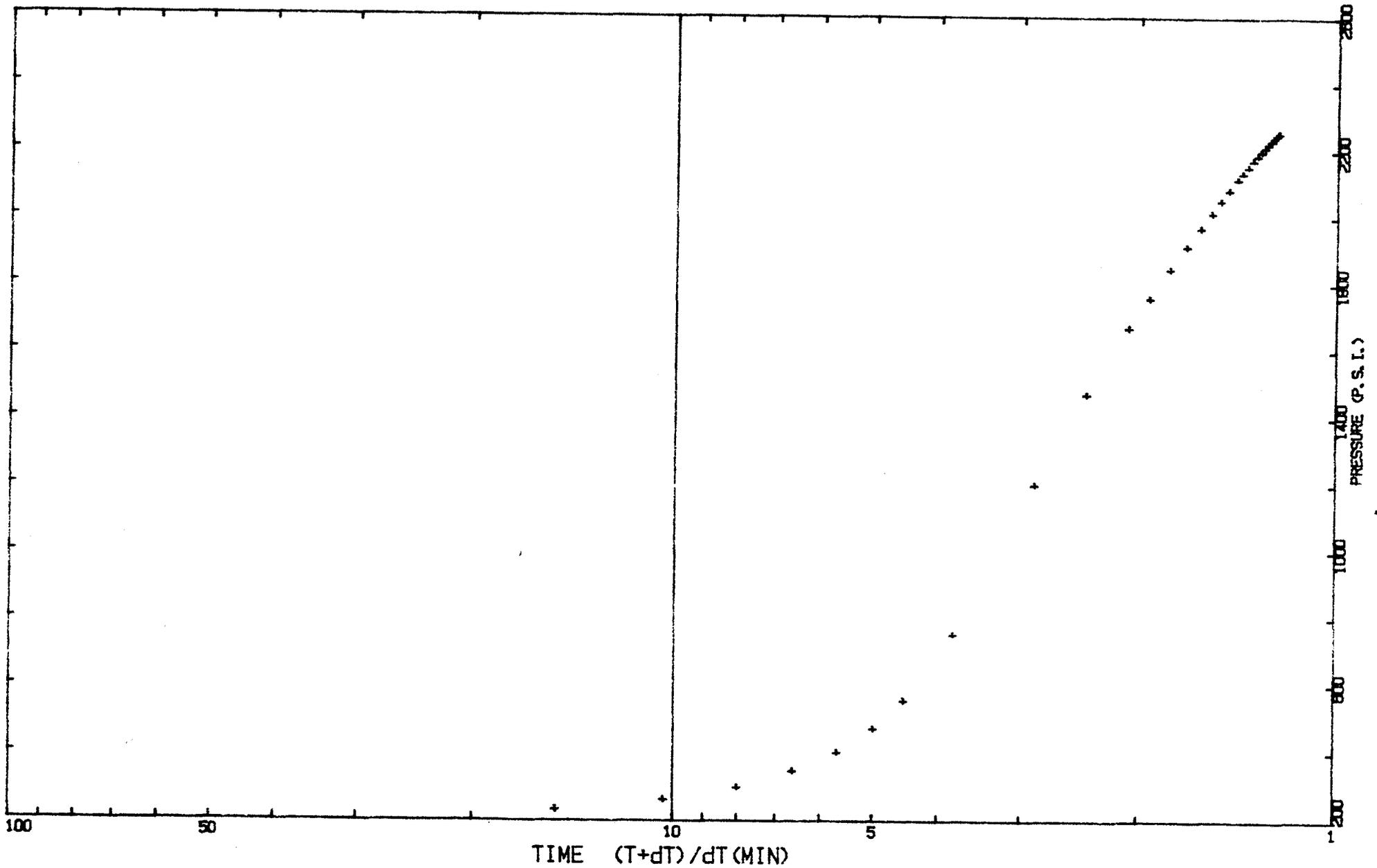
FIRST SHUT-IN



OPERATOR: WEXPRO CO
WELL NAME: PATTERSON #6
LOCATION: 4-38S-25E
FIRST SHUT-IN
RECORDER: 1909

DST #: 2

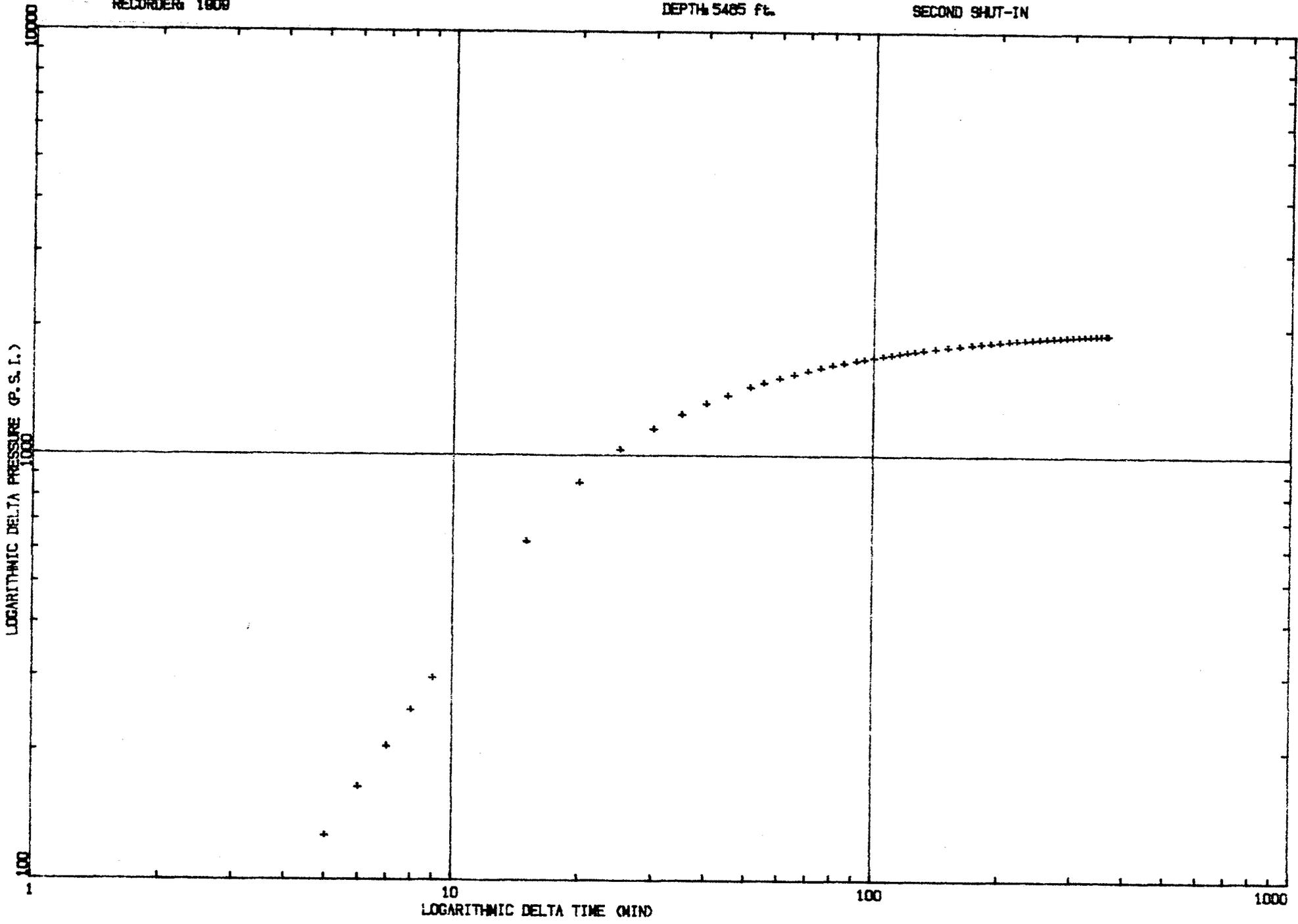
DEPTH: 5465 ft.



OPERATOR: WEXPRO CO
LOCATION: 4-989-25E
RECORDER: 1909

WELL NAME: PATTERSON #8
DST # 2
DEPTH: 5485 ft.

SECOND SHUT-IN



OPERATOR: WEXPRO CO
WELL NAME: PATTERSON #6

LOCATION: 4-38S-25E

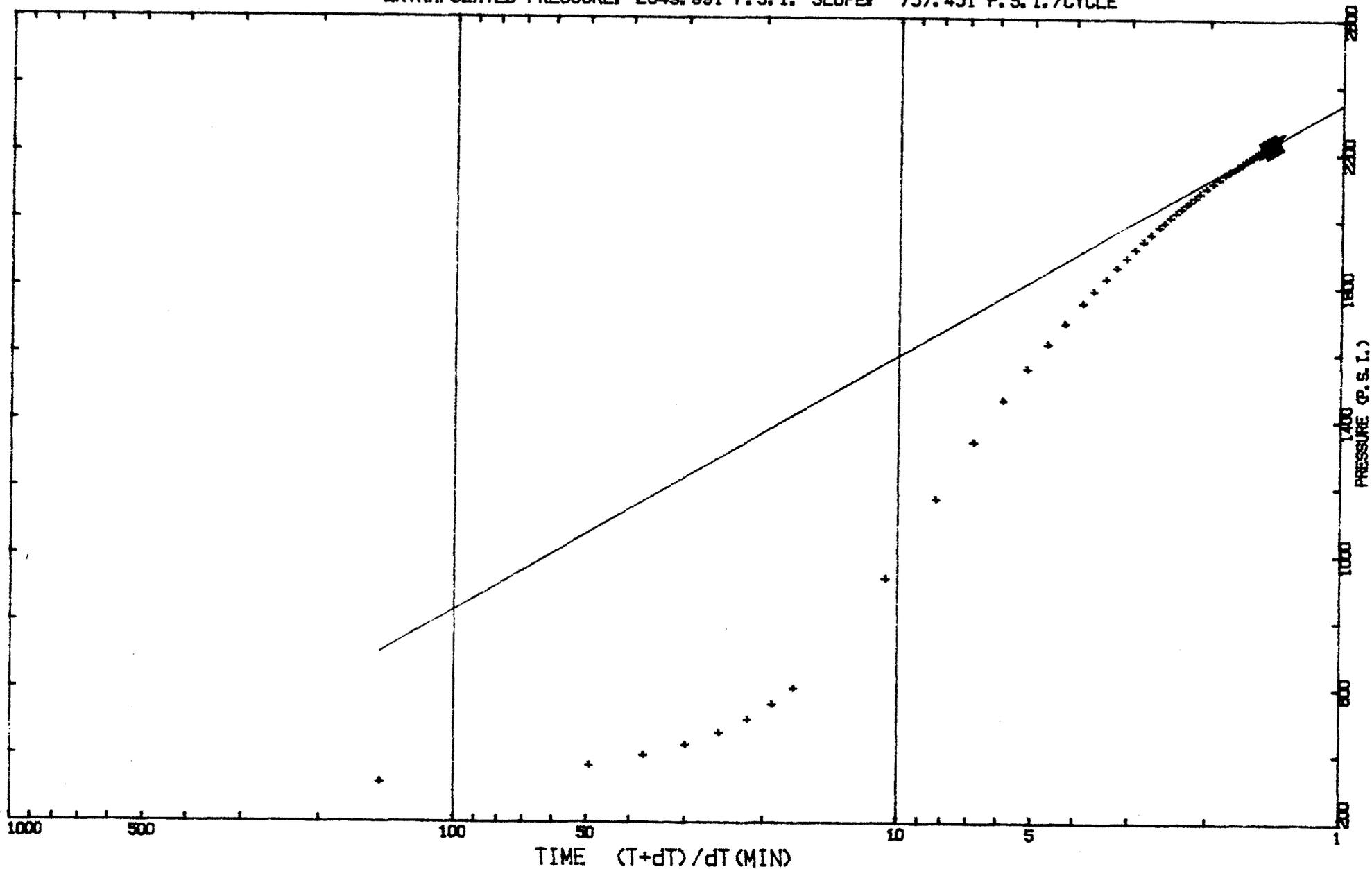
SECOND SHUT-IN

RECORDER: 1909

EXTRAPOLATED PRESSURE: 2349.991 P. S. I. SLOPE: 757.451 P. S. I. /CYCLE

DST # 2

DEPTH: 5465 ft.



WEXPRO CO
DST#: 2
PATTERSON #6
5414 - 5469ft.

Location: 4-38S-25E
Test Type: BOTTOM HOLE CONVENTIONAL
Formation: ISMAY

Recorder Number: 1909
Recorder Depth: 5465

SAMPLE DATA

SAMPLE CHAMBER:

Capacity of sample chamber 2150 cc
Volume of sample..... 1650 cc
Pressure in sampler..... 290 psig
Where sampler was drained... on location

Sampler contained:

Water 950 cc
Mud 600 cc

RESISTIVITY DATA:

Top..... 3800 PPM NACL
Middle..... 6500 PPM NACL
Bottom..... 7500 PPM NACL
Sampler..... 120 000 PPM NACL
Mud pit..... 15 000 PPM NACL
Make-up Water...

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 5000 AT 5465

OPERATOR	Well Name	Patterson #	TICKET NO.	DST. NO.
Mexpro Co.			21281	2
DMR TYPE #2	121.937	124.062	124.937	
DATE = 14.2000	1668.75	2218.75	277.500	
TIME = 13:17:00	1693.75	2221.25	277.500	
TEMP IN DEG. F	1718.25	2223.75	278.750	
TEMP IN P.S.I.	1738.75	2225.00	278.750	
	1758.75	2227.50	278.750	
114.687	1778.75	2228.75	278.750	
3190.00	1796.25	2230.00	278.750	
3189.75	1831.25	2231.25	278.750	
3186.25	1846.25	2236.25	281.000	
3182.50	1861.25	2237.50	281.250	
3181.25	1875.00	2238.75	281.250	
3180.00	1888.75	2241.25	282.500	
Initial Hydro. -3177.50	1901.25	2243.75	283.750	
115.937	1913.75	2243.75	283.750	
3247.50	1922.50	2246.25	285.000	
3231.25	1937.50	2248.75	285.000	
Start 1st flow -107.500	1948.75	2248.75	286.250	
115.000	1958.75	2250.00	286.250	
118.750	1968.75	2251.25	286.250	
121.250	1978.75	2252.50	286.250	
123.750	1988.75	2253.75	286.250	
117.937	1996.25	2255.00	287.500	
130.000	2001.25	2255.00	287.500	
133.750	2013.75	2255.00	287.500	
136.250	2022.50	2255.00	288.750	
138.750	2028.75	2255.00	288.750	
142.500	2037.50	2255.00	288.750	
145.000	2043.75	2255.00	288.750	
147.500	2051.25	2255.00	290.000	
118.687	2058.75	2255.00	290.000	
153.750	2071.25	2255.00	290.000	
155.000	2076.25	2255.00	291.250	
157.500	2083.75	2255.00	291.250	
160.000	2088.75	2255.00	291.250	
163.750	2095.00	2255.00	291.250	
165.000	2095.00	2255.00	291.250	
166.250	2101.25	2255.00	291.250	
119.312	2106.25	2255.00	291.250	
171.250	2106.25	2255.00	292.500	
172.500	2106.25	2255.00	292.500	
175.000	2116.25	2255.00	292.500	
176.250	2121.25	2255.00	293.750	
178.750	2126.25	2255.00	293.750	
180.000	2130.00	2255.00	293.750	
End 1st flow -183.750	2133.75	2255.00	295.000	
120.062	2138.75	2255.00	295.000	
230.000	2143.75	2255.00	295.000	
260.000	2143.75	2255.00	295.000	
296.250	2151.25	2255.00	295.000	
343.750	2153.75	2255.00	296.250	
400.000	2158.75	2255.00	297.500	
470.000	2161.25	2255.00	297.500	
552.500	2165.00	2255.00	298.750	
120.687	2168.75	2255.00	298.750	
750.000	2172.50	2255.00	298.750	
852.500	2172.50	2255.00	298.750	
951.250	2178.75	2255.00	298.750	
1043.75	2181.25	2255.00	298.750	
1126.25	2183.75	2255.00	300.000	
1200.00	2187.50	2255.00	300.000	
1266.25	2190.00	2255.00	300.000	
121.375	2193.75	2255.00	301.250	
1378.75	2196.25	2255.00	301.250	
1426.25	2196.25	2255.00	301.250	
1471.25	2201.25	2255.00	302.500	
1510.00	2203.75	2255.00	302.500	
1547.50	2206.25	2255.00	303.750	
1581.25	2208.75	2255.00	303.750	
1612.50	2210.00	2255.00	303.750	
	2212.50	2255.00	303.750	
	2215.00	2255.00	317.500	

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 5000 AT 5465

OPERATOR	Mexpro Co.	WELL NAME	Patterson #6	TICKET NO.	21281	DST. NO.	2
1940-1130 T	125.312	1940-1130 T	126.412	1940-1130 T	127.250	1940-1130 T	127.625
	368.750		1913.75		2108.75		2178.75
	398.750		1918.75		2110.00		2180.00
	431.250		1923.75		2111.25		2181.25
	468.750		1928.75		2112.50		2181.25
	508.750		1932.50		2113.75		2182.50
	553.750		1937.50		2115.00		2182.50
	601.250		1941.25		2116.25		2183.75
1940-1130 T	125.937	1940-1130 T	126.412	1940-1130 T	127.312	1940-1130 T	127.687
	707.500		1950.00		2118.75		2183.75
	763.750		1953.75		2121.25		2185.00
	820.000		1958.75		2121.25		2186.25
	875.000		1962.50		2123.75		2186.25
	930.000		1966.25		2123.75		2186.25
	982.500		1970.00		2126.25		2187.50
	1032.50		1973.75		2126.25		2188.75
1940-1130 T	126.187	1940-1130 T	126.937	1940-1130 T	127.312	1940-1130 T	127.687
	1123.75		1981.25		2128.75		2188.75
	1166.25		1983.75		2130.00		2190.00
	1203.75		1987.50		2131.25		2190.00
	1241.25		1991.25		2132.50		2191.25
	1273.75		1993.75		2133.75		2191.25
	1306.25		1997.50		2135.00		2192.50
	1336.25		2000.00		2136.25		2192.50
1940-1130 T	126.312	1940-1130 T	126.937	1940-1130 T	127.312	1940-1130 T	127.687
	1390.00		2006.25		2138.75		2193.75
	1415.00		2010.00		2138.75		2193.75
	1438.75		2012.50		2141.25		2195.00
	1460.00		2016.25		2141.25		2195.00
	1481.25		2018.75		2142.50		2196.25
	1501.25		2021.25		2143.75		2196.25
	1520.00		2023.75		2145.00		2196.25
1940-1130 T	126.437	1940-1130 T	127.000	1940-1130 T	127.437	1940-1130 T	127.750
	1555.00		2028.75		2146.25		2198.75
	1571.25		2031.25		2147.50		2198.75
	1587.50		2033.75		2148.75		2198.75
	1602.50		2036.25		2150.00		2200.00
	1616.25		2038.75		2150.00		2200.00
	1630.00		2042.50		2151.25		2201.25
	1643.75		2043.75		2152.50		2201.25
1940-1130 T	126.500	1940-1130 T	127.062	1940-1130 T	127.437	1940-1130 T	127.812
	1668.75		2048.75		2153.75		2202.50
	1681.25		2051.25		2155.00		2203.75
	1691.25		2053.75		2156.25		2203.75
	1703.75		2056.25		2156.25		2203.75
	1713.75		2058.75		2157.50		2203.75
	1723.75		2060.00		2158.75		2205.00
	1733.75		2062.50		2158.75		2205.00
1940-1130 T	126.562	1940-1130 T	127.125	1940-1130 T	127.500	1940-1130 T	127.812
	1752.50		2066.25		2161.25		2206.25
	1762.50		2068.75		2162.50		2206.25
	1771.25		2070.00		2162.50		2207.50
	1778.75		2072.50		2163.75		2207.50
	1787.50		2075.00		2165.00		2208.75
	1796.25		2076.25		2165.00		2208.75
	1803.75		2078.75		2166.25		2208.75
1940-1130 T	126.687	1940-1130 T	127.187	1940-1130 T	127.562	1940-1130 T	127.812
	1818.75		2082.50		2167.50		2210.00
	1825.00		2083.75		2168.75		2210.00
	1832.50		2086.25		2168.75		2210.00
	1838.75		2087.50		2170.00		2211.25
	1846.25		2088.75		2170.00		2211.25
	1851.25		2091.25		2171.25		2211.25
	1858.75		2092.50		2172.50		2212.50
1940-1130 T	126.687	1940-1130 T	127.187	1940-1130 T	127.562	1940-1130 T	127.812
	1870.00		2096.25		2173.75		2213.75
	1876.25		2097.50		2173.75		2213.75
	1882.50		2098.75		2175.00		2213.75
	1887.50		2101.25		2176.25		2213.75
	1892.50		2102.50		2176.25		2215.00
	1898.75		2103.75		2177.50		2215.00
	1903.75		2105.00		2177.50		2215.00

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 5000 AT 5465

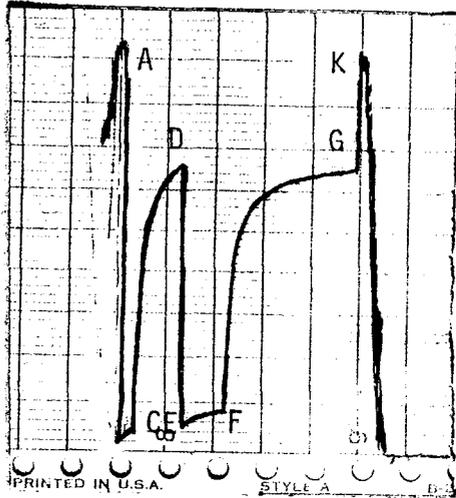
OPERATOR Wexpro Co. WELL NAME Patterson #6 TICKET NO. 21281 DST. NO. 2

0100-130 T	227.500	0100-130 T	28.100
	2216.25		2238.75
	2216.25		2238.75
	2216.25	End 2nd shut-in	2238.75
	2217.50		2240.00
	2217.50		3143.75
	2218.75		3162.50
	2218.75		3158.75
0100-130 T	227.937	0100-130 T	28.305
	2219.75		3156.25
	2220.00		3155.00
	2220.00	Final Hydro.	3153.75
	2221.25		3153.75
	2221.25		3153.75
	2221.25		3152.50
	2221.25		3152.50
0100-130 T	228.000	0100-130 T	28.312
	2222.50		3151.25
	2222.50		3166.25
	2223.75		
	2223.75		
	2223.75		
	2223.75		
0100-130 T	228.000		
	2225.00		
	2226.25		
	2226.25		
	2226.25		
	2226.25		
	2227.50		
0100-130 T	228.000		
	2227.50		
	2228.75		
	2228.75		
	2228.75		
	2228.75		
	2228.75		
	2229.00		
0100-130 T	228.000		
	2230.50		
	2230.00		
	2230.00		
	2231.25		
	2231.25		
	2231.25		
0100-130 T	228.100		
	2232.50		
	2232.50		
	2233.75		
	2233.75		
	2233.75		
	2233.75		
0100-130 T	228.100		
	2235.00		
	2235.00		
	2235.00		
	2235.00		
	2236.25		
	2236.25		
	2236.25		
0100-130 T	228.100		
	2236.25		
	2237.50		
	2237.50		
	2237.50		
	2238.75		
	2238.75		
	2238.75		

WEXPRO CO
DST#: 2
PATTERSON #6
5414 - 5469ft.

PRESSURE RECORDER NUMBER : 1909

DEPTH : 5465.00ft. LOCATION : OUTSIDE
TYPE : DMR CAPACITY : 5000.00psi

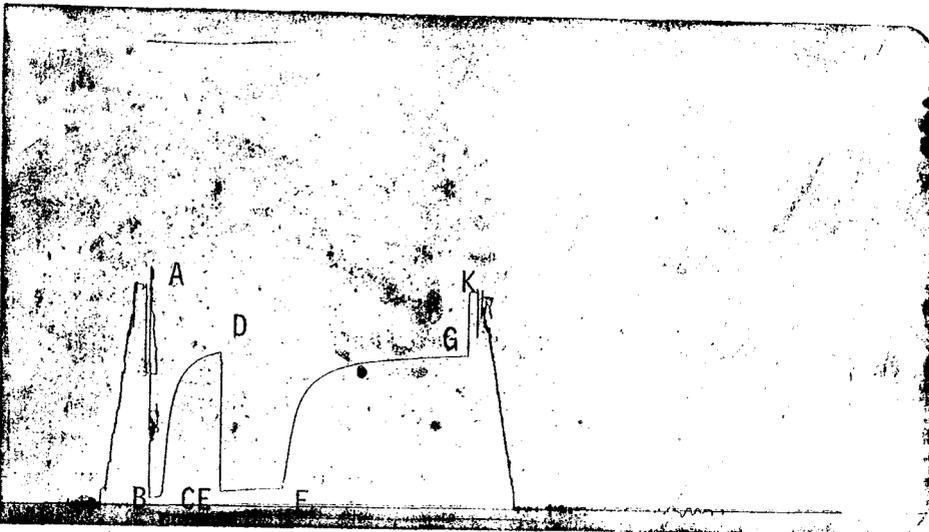


PRESSURE
psi
A)Initial Hydro : 3178.0
B)1st Flow Start: 108.0
C)1st Flow End : 184.0
D)END 1st Shutin: 2255.0
E)2nd Flow Start: 213.0
F)2nd Flow End : 304.0
G)END 2nd Shutin: 2239.0
Q)Final Hydro. : 3154.0

TEST TIMES(MIN)
1st FLOW : 28
SHUTIN: 120
2nd FLOW : 117
SHUTIN: 364

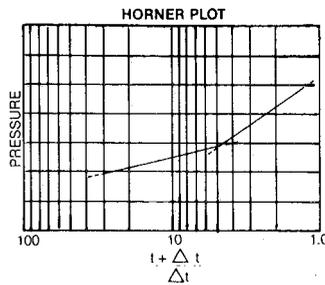
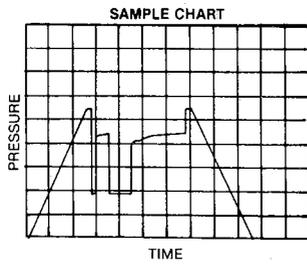
PRESSURE RECORDER NUMBER : 24523

DEPTH : 5427.00ft. LOCATION : INSIDE
TYPE : K-3 CAPACITY : 6650.00psi



PRESSURE
psi
A)Initial Hydro : 3148.0
B)1st Flow Start: 78.0
C)1st Flow End : 94.0
D)END 1st Shutin: 2181.0
E)2nd Flow Start: 180.0
F)2nd Flow End : 233.0
G)END 2nd Shutin: 2181.0
Q)Final Hydro. : 3106.0

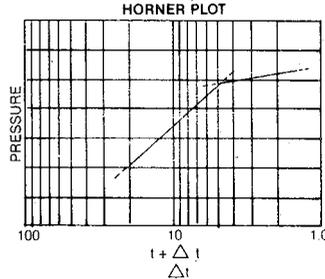
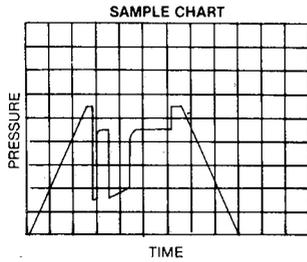
Lynes Guide to Detection of Geological Anomalies



Horner Plot Slope Breaks Upward

Possible Causes

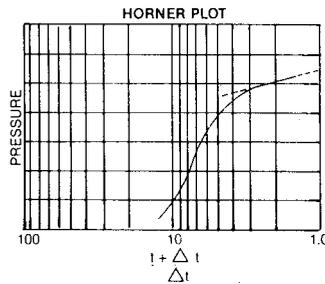
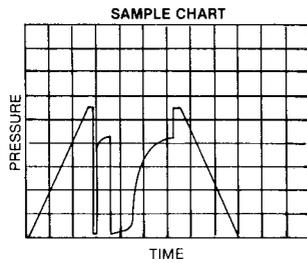
- (1) decrease in pay thickness away from the wellbore
- (2) decrease in permeability away from the wellbore
- (3) increase in viscosity of reservoir fluid (fluid contact)
- (4) barrier within the radius of investigation



Horner Plot Slope Breaks Downward

Possible Causes

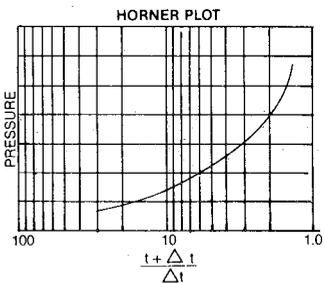
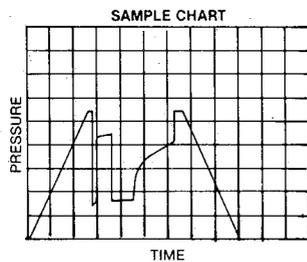
- (1) increase in pay thickness away from the wellbore
- (2) increase in permeability away from the wellbore
- (3) decrease in viscosity away from the wellbore



Early Time Deviation of Horner Plot

Possible Causes

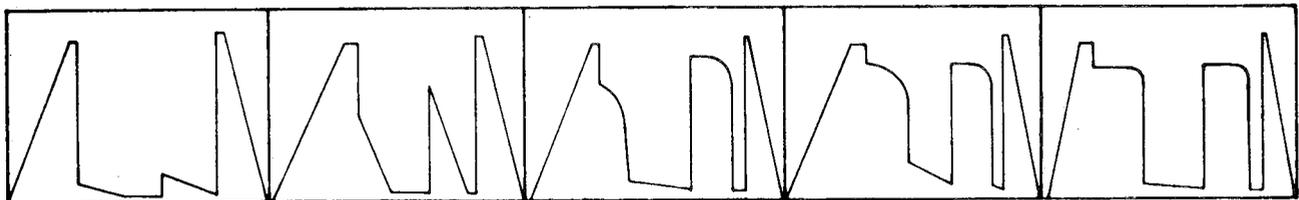
- (1) wellbore damage due to filtrate invasion, drilling solids, etc.
- (2) partial penetration of pay zone
- (3) plugging or choking of perforations (casing test only)
- (4) wellbore storage effects (low permeability gas wells)



Horner Plot Slope Continually Increasing

Possible Causes

- (1) well between two parallel boundaries (channel sand)
- (2) induced hydraulic fractures



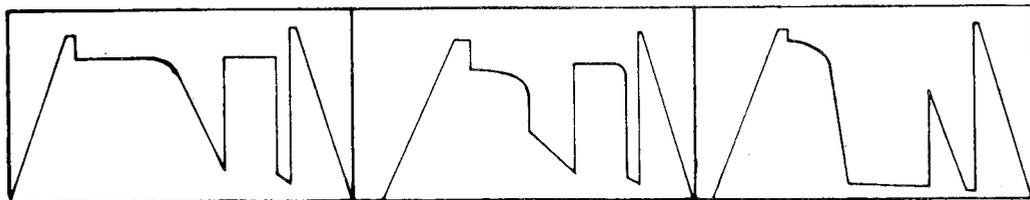
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200 ft.

Average permeability. Final and initial shut-ins differ by 50 psi.

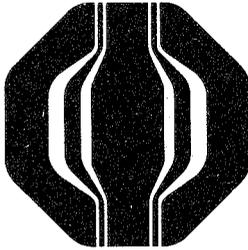
Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

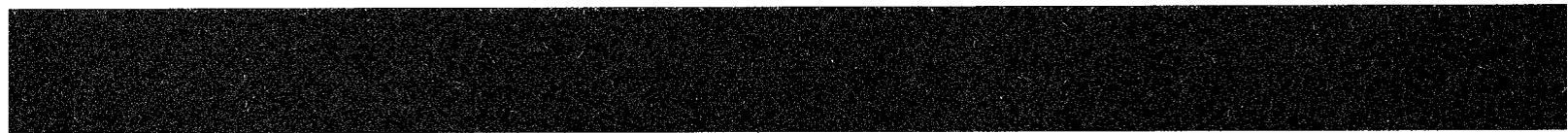
High permeability where ISIP and FSIP are within 10 psi.

Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.



LYNES

1616 Glenarm Pl.
Suite 1350
Denver, CO 80202
1-303-573-8027



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

PRELIMINARY REPORT

CORE ANALYSIS REPORT

FOR

WEXPRO COMPANY

PATTERSON UNIT # 6
PATTERSON
SAN JUAN, UTAH

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

DALLAS, TEXAS

WEXPRO COMPANY
 PATTERSON UNIT # 6
 PATTERSON
 SAN JUAN, UTAH

DATE : 13-JAN-1985
 FORMATION : PARADOX
 DRLG. FLUID: WBM
 LOCATION : SW,NW SEC. 4-T38S-R25E

FILE NO : 3803-003373
 ANALYSTS : DS;EV
 ELEVATION: 5174 KB

FULL DIAMETER ANALYSIS-B.L. POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO AIR (MD)		POR. He	FLUID SATS.		GRAIN DEN	DESCRIPTION
		MAXIMUM	90 DEG		OIL	WTR		
PARADOX FORMATION - CORE # 1 5323-5383								
	5323.0-83.0							ANHYDRITE & SHALE -- NO ANALYSIS
ISMAY ZONE CORE # 2 5383-5415								
	5383.0-86.0							ANHYDRITE -- NO ANALYSIS
	5386.0-94.0							LM-DOL SL/SHY -- NO ANALYSIS
1	5394.0-95.0	0.97	0.74	17.5	0.0	25.9	2.79	DOL LTBRN VFXLN SL/CALC
2	5395.0-96.0	0.10	0.08	1.6	0.0	25.2	2.80	LM GRY VFXLN SL/ANHY
3	5396.0-97.0	0.33	0.22	3.2	0.0	10.1	2.80	LM GRY VFXLN SL/ANHY
4	5397.0-98.0	0.37	0.24	2.6	0.0	58.4	2.79	LM GRY VFXLN SL/ANHY
5	5398.0-99.0	0.21	0.20	4.6	0.0	65.8	2.82	LM GRY-BRN VFXLN SL/DOL SL/ANHY
6	5399.0-00.0	0.90	0.86	7.5	3.6	49.9	2.83	DOL BRN-GRY VFXLN SL/CALC SL/ANHY
7	5400.0-01.0	2.33	2.33	11.1	1.2	51.1	2.85	DOL BRN VFXLN SL/ANHY
8	5401.0-02.0	1.24	1.18	11.9	1.3	55.2	2.86	DOL BRN VFXLN SL/ANHY
9	5402.0-03.0	1.23	1.13	11.0	4.0	41.5	2.87	DOL BRN VFXLN SL/ANHY
10	5403.0-04.0	2.12	2.08	11.6	0.0	64.3	2.84	DOL BRN VFXLN SL/ANHY
11	5404.0-05.0	0.14	0.12	3.3	0.0	51.0	2.80	LM GRY VFXLN SL/ANHY SL/DOL
12	5405.0-06.0	3.36	0.87	1.9	0.0	39.5	2.76	LM GRY VFXLN SL/ANHY
13	5406.0-07.0	6.34	0.16	1.9	0.0	46.2	2.77	LM GRY VFXLN SL/ANHY
14	5407.0-08.0	0.11	0.10	1.8	0.0	65.6	2.77	LM GRY VFXLN SL/ANHY
15	5408.0-09.0	0.48	0.16	2.2	0.0	41.2	2.77	LM GRY VFXLN SL/ANHY
16	5409.0-10.0	0.03	*	2.5	0.0	56.0	2.78	LM GRY VFXLN SL/ANHY
17	5410.0-11.0	0.14	0.13	3.0	0.0	34.7	2.77	LM GRY VFXLN SL/ANHY
18	5411.0-12.0	0.20	0.18	2.7	0.0	20.4	2.78	LM GRY VFXLN SL/ANHY
19	5412.0-13.0	0.15	0.10	3.0	0.0	57.7	2.76	LM GRY VFXLN SL/ANHY

**
**

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

WEXPRO COMPANY
 PATTERSON UNIT # 6

DALLAS, TEXAS
 DATE : 13-JAN-1985
 FORMATION : PARADOX

FILE NO : 3803-003373
 ANALYSTS : DS;EV

FULL DIAMETER ANALYSIS-B.L. POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
20	5413.0-14.0	0.22	0.20	3.9	0.0	55.7	2.75	LM GRY VFXLN SL/ANHY
21	5414.0-15.0	0.74	*	6.0	0.0	35.7	2.73	LM GRY VFXLN SL/ANHY
ISMAY ZONE CORE # 3 5415-5470								
22	5415.0-16.0	0.78	0.57	4.9	0.0	60.1	2.74	LM GRY VFXLN SL/ANHY
23	5416.0-17.0	0.52	0.51	5.0	0.0	32.4	2.75	LM GRY VFXLN SL/ANHY
24	5417.0-18.0	0.56	0.49	5.4	0.0	33.7	2.74	LM GRY VFXLN SL/ANHY
25	5418.0-19.0	3.54	2.76	6.0	0.0	60.6	2.74	LM GRY VFXLN SL/ANHY
26	5419.0-20.0	0.56	0.45	5.9	0.0	44.5	2.74	LM GRY VFXLN SL/ANHY
27	5420.0-21.0	2.33	1.55	7.4	0.0	32.3	2.73	LM GRY VFXLN SL/ANHY
28	5421.0-22.0	0.76	0.66	5.8	0.0	39.3	2.74	LM GRY VFXLN SL/ANHY
29	5422.0-23.0	0.60	0.59	5.8	0.0	53.2	2.74	LM GRY VFXLN SL/ANHY
30	5423.0-24.0	0.86	0.56	5.3	0.0	47.0	2.75	LM GRY VFXLN SL/ANHY
31	5424.0-25.0	1.28	0.94	6.7	0.0	51.4	2.74	LM GRY VFXLN SL/ANHY
32	5425.0-26.0	0.72	0.59	5.4	0.0	36.3	2.74	LM GRY VFXLN SL/ANHY
33	5426.0-27.0	0.32	0.29	5.4	0.0	46.8	2.75	LM GRY VFXLN SL/ANHY
34	5427.0-28.0	0.20	0.16	2.9	0.0	58.3	2.76	LM GRY VFXLN SL/ANHY
35	5428.0-29.0	0.09	0.08	7.4	0.0	47.8	2.84	DOL LTBRN-GRY VFXLN SL/CALC SL/ANHY
36	5429.0-30.0	0.08	0.05	12.9	0.0	82.1	2.82	DOL LTBRN VFXLN SL/ANHY
37	5430.0-31.0	0.15	0.13	11.1	0.0	63.5	2.82	DOL BRN VFXLN SL/ANHY SL/CALC
38	5431.0-32.0	0.03	*	14.6	0.0	70.1	2.82	DOL BRN VFXLN SL/ANHY SL/CALC
39	5432.0-33.0	0.43	0.31	15.7	0.0	59.7	2.82	DOL BRN VFXLN SL/ANHY SL/CALC
40	5433.0-34.0	0.66	0.60	6.7	0.0	60.8	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
41	5434.0-35.0	3.30	2.83	9.2	0.0	68.1	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
42	5435.0-36.0	0.31	*	6.2	0.0	57.8	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
43	5436.0-37.0	4.85	3.25	13.9	0.0	66.8	2.86	DOL BRN VFXLN SL/ANHY SL/CALC
44	5437.0-38.0	3.72	3.43	16.2	0.0	74.5	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
45	5438.0-39.0	0.23	*	12.6	0.0	52.3	2.83	DOL BRN VFXLN SL/ANHY SL/CALC
46	5439.0-40.0	15.	11.	21.5	0.0	61.7	2.83	DOL BRN VFXLN SL/ANHY SL/CALC

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

DALLAS, TEXAS

WEXPRO COMPANY
 PATTERSON UNIT # 6

DATE : 13-JAN-1985
 FORMATION : PARADOX

FILE NO : 3803-003373
 ANALYSTS : DS/EV

FULL DIAMETER ANALYSIS-B.L. POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
47	5440.0-41.0	3.90	3.50	16.8	0.0	48.6	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
48	5441.0-42.0	2.89	2.57	15.3	0.0	68.4	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
49	5442.0-43.0	8.24	7.47	18.0	0.0	57.8	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
50	5443.0-44.0	5.43	4.28	17.0	0.0	70.1	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
51	5444.0-45.0	4.73	3.93	15.6	0.0	62.6	2.86	DOL BRN VFXLN SL/ANHY SL/CALC
52	5445.0-46.0	3.96	3.91	14.9	0.0	64.7	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
53	5446.0-47.0	2.38	2.06	12.7	0.0	59.5	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
54	5447.0-48.0	4.79	3.49	20.0	0.0	40.4	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
55	5448.0-49.0	0.66	*	16.3	0.0	49.7	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
	5449.0-70.0							LM-DOL SL/SHY -- NO ANALYSIS
	5470.0-23.0							DRILLED TO DESERT CREEK
DESERT CREEK ZONE CORE # 4 5623-5674								
	5623.0-30.0							LM/DOL SL/ANHY SL/SHY -- NO ANALYSIS
	5630.0-35.0							ANHYDRITE -- NO ANALYSIS
56	5635.0-36.0	2.20	0.15	8.1	10.5	74.8	2.75	DOL LTBRN VFXLN SL/CALC SL/SHY **
57	5636.0-37.0	0.02	*	6.5	7.7	80.2	2.76	DOL LTBRN VFXLN SL/CALC SL/SHY
58	5637.0-38.0	0.25	0.09	12.1	8.3	83.5	2.77	DOL BRN VFXLN SL/CALC
59	5638.0-39.0	0.19	0.13	8.3	25.3	27.1	2.78	DOL BRN VFXLN SL/CALC
60	5639.0-40.0	0.13	0.13	12.5	12.9	53.3	2.77	DOL BRN VFXLN SL/CALC
61	5640.0-41.0	1.03	0.90	8.3	16.5	44.9	2.78	DOL BRN VFXLN SL/CALC SL/ANHY **
62	5641.0-42.0	0.01	0.01	5.3	0.0	79.3	2.74	LM LTBRN VFXLN SL/DOL
63	5642.0-43.0	0.03	0.02	7.1	0.0	88.9	2.75	LM LTBRN VFXLN SL/DOL
64	5643.0-44.0	8.27	0.39	5.0	0.0	77.9	2.71	LM GRY VFXLN SL/SHY **
65	5644.0-45.0	0.01	0.01	3.1	0.0	66.2	2.70	LM GRY VFXLN SL/SHY
66	5645.0-46.0	0.08	0.04	3.3	25.5	51.0	2.71	LM GRY VFXLN SL/SHY
67	5646.0-47.0	1.31	0.04	5.8	0.0	77.4	2.74	LM GRY VFXLN SL/DOL SL/SHY **
	5647.0-74.0							SHALE SL/CALC -- NO ANALYSIS

** DENOTES FRACTURE PERMEABILITY

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

DALLAS, TEXAS

WEXPRO COMPANY
 PATTERSON UNIT # 6

DATE : 13-JAN-1985
 FORMATION : PARADOX

FILE NO : 3803-003373
 ANALYSTS : DS#EV

FULL DIAMETER ANALYSIS-B.L. POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO AIR (MD) MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID SATS. OIL	WTR	GRAIN DEN	DESCRIPTION
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* SAMPLE NOT SUITABLE FOR FULL DIAMETER ANALYSIS

CORE LABORATORIES, INC.

LAB

Petroleum Reservoir Engineering

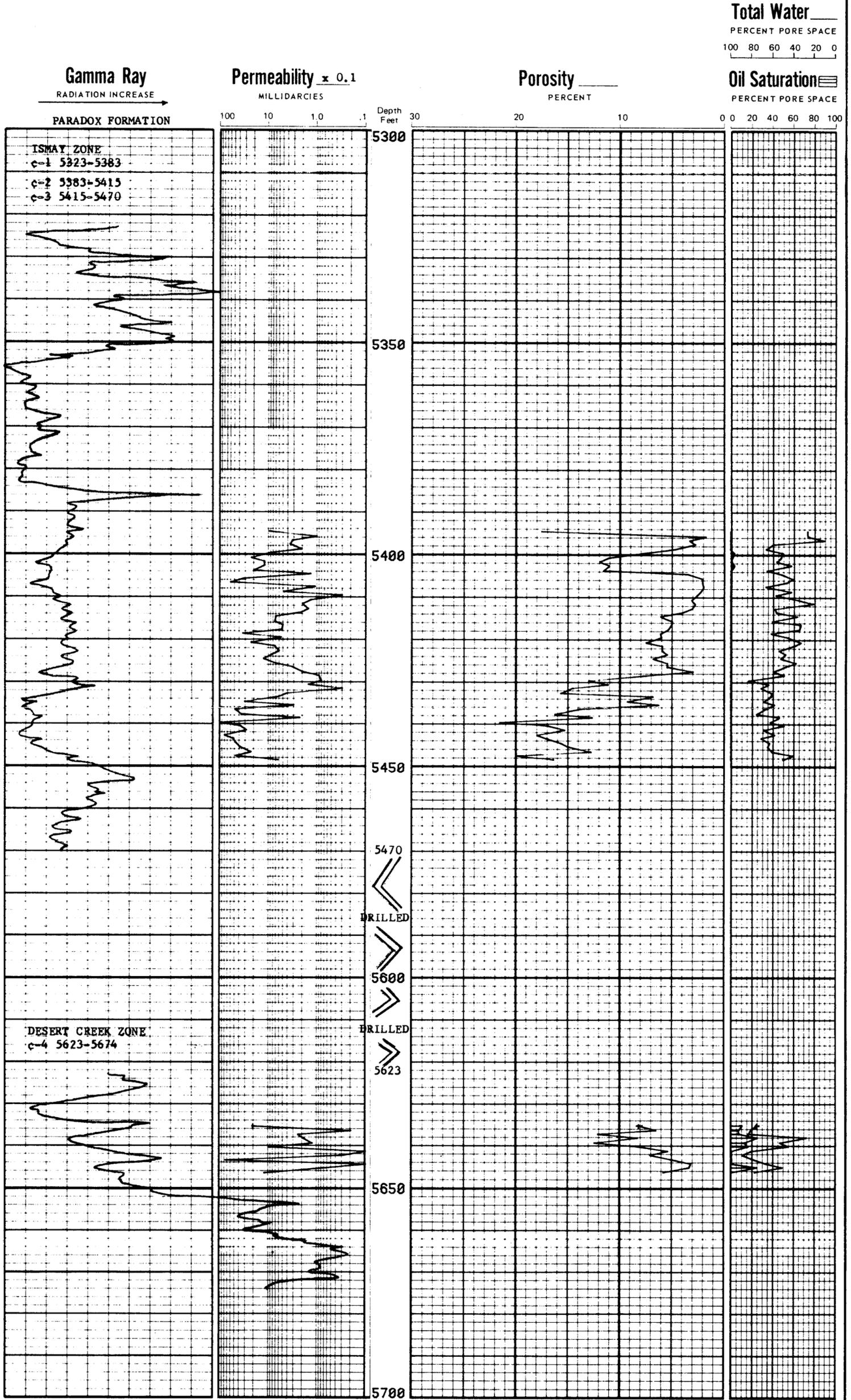
COMPANY **WEXPRO COMPANY**
 WELL **PATTERSON UNIT # 8**
 FIELD **PATTERSON**
 COUNTY **SAN JUAN** STATE **UTAH**
 LOCATION **SW,NW SEC. 4-T389-R25E**

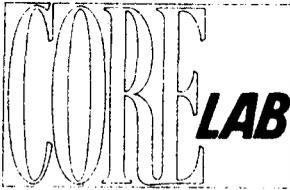
FILE NO. **3803-003373**
 DATE **13-JAN-1985**
 ELEV. **5174 KB**
 CORES _____

CORRELATION COREGRAPH

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VERTICAL SCALE: 5" = 100'





CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

COMPANY WEXPRO COMPANY FILE NO. 3803-003373
 WELL PATTERSON UNIT # 6 DATE 13-JAN-1985 ENGRS. DS;EV
 FIELD PATTERSON FORMATION PARADOX ELEV. 5174 KB
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES _____

CoRes Log
CORE and RESISTIVITY EVALUATION

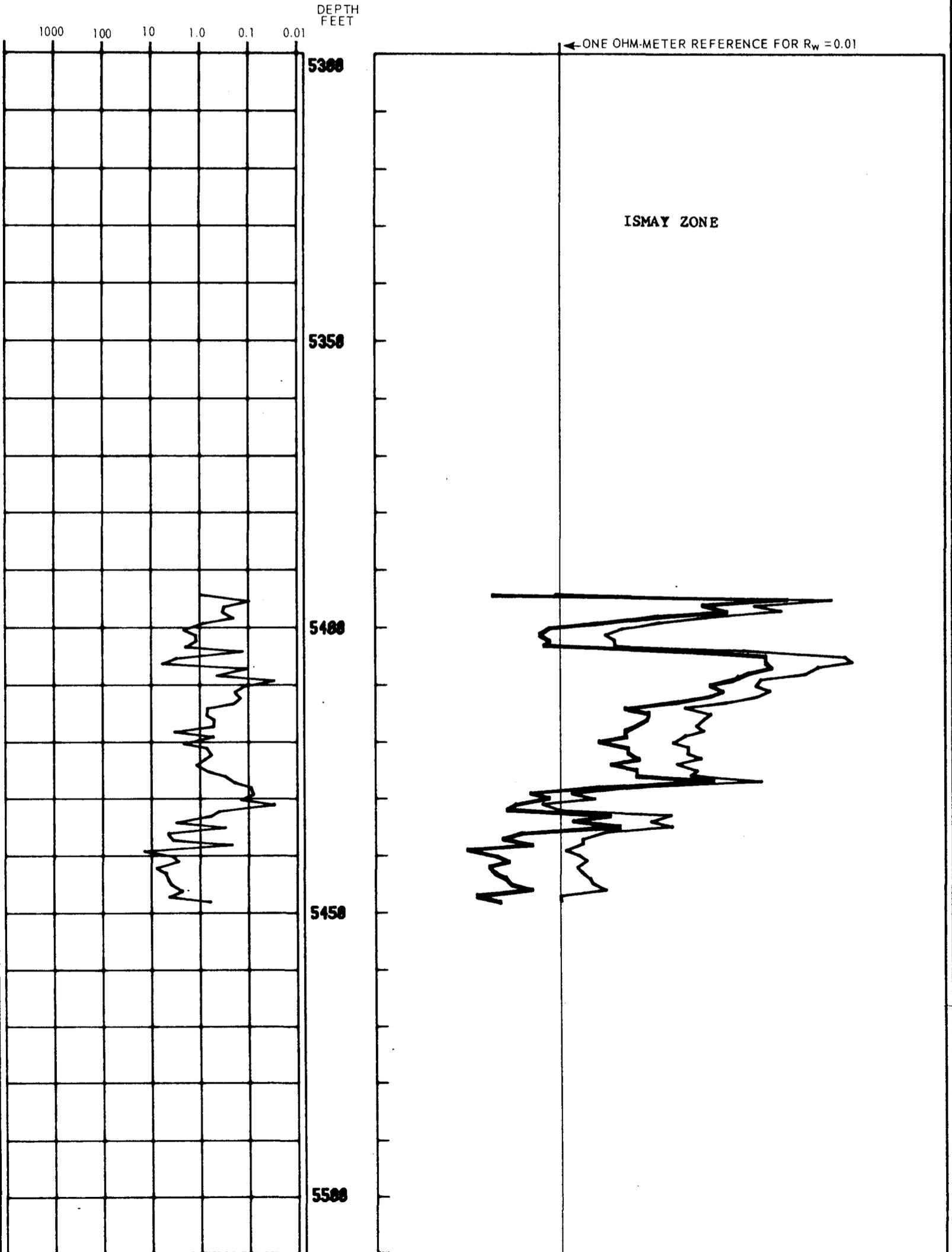
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RESISTIVITY PARAMETERS: $a = 1.0$ $m = 2.0$ $n = 2.0$ Depths 5394 to 5449
 $a =$ _____ $m =$ _____ $n =$ _____ Depths _____ to _____

PERMEABILITY
MILLIDARCIES

CORE ANALYSIS CALCULATED RESISTIVITY

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

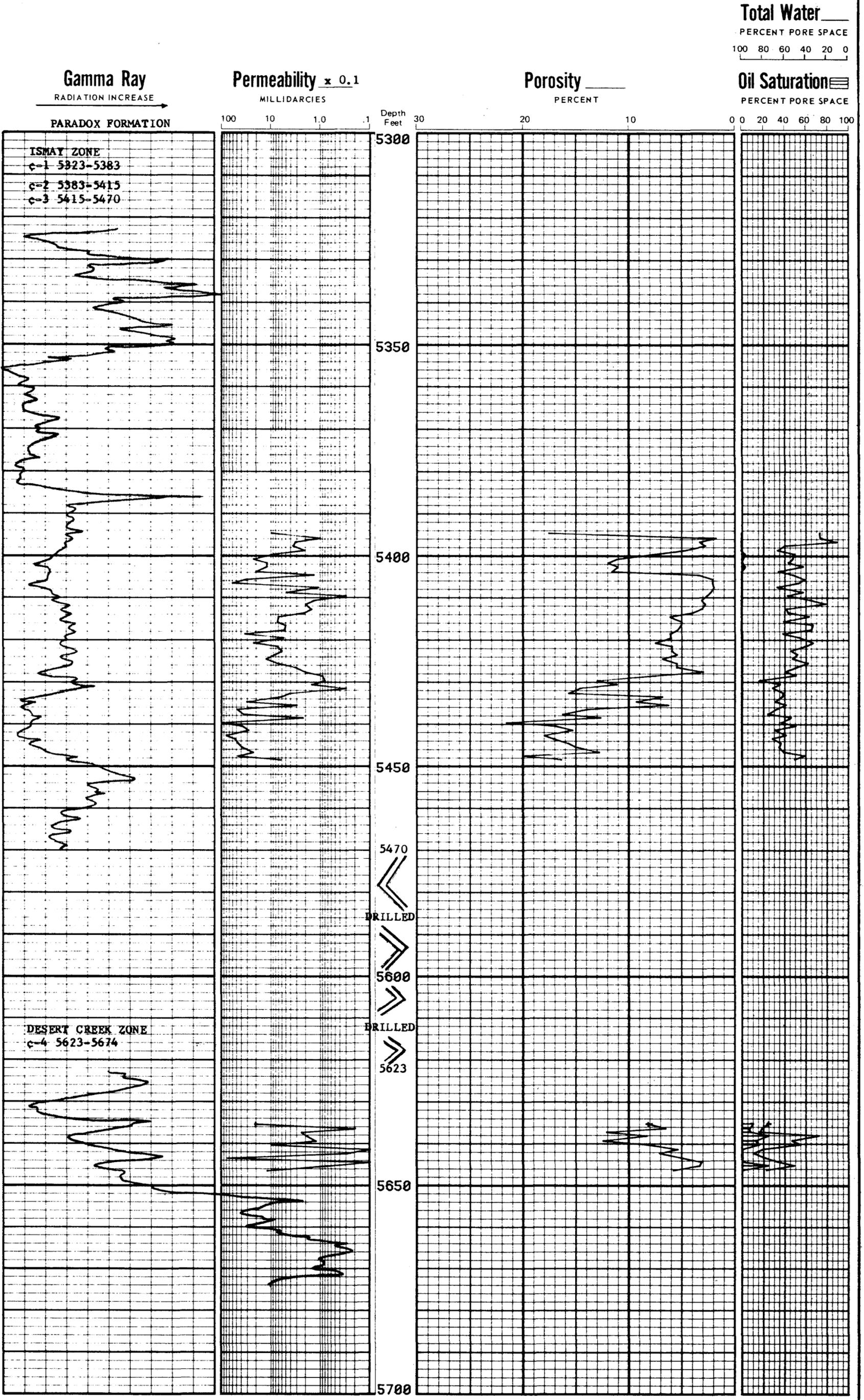


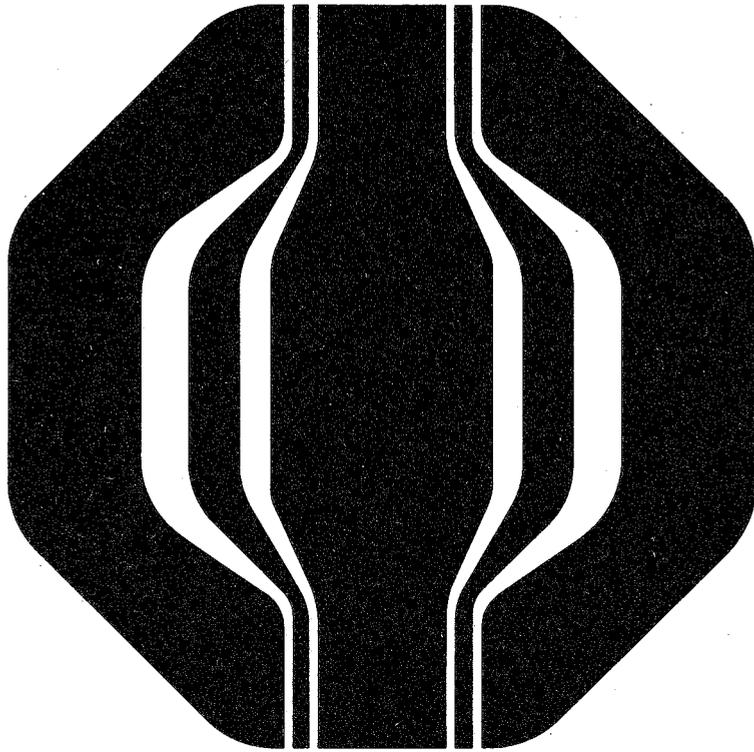
COMPANY WEXPRO COMPANY FILE NO. 3803-003373
 WELL PATTERSON UNIT # 8 DATE 13-JAN-1985
 FIELD PATTERSON FORMATION PARADOX ELEV. 5174 KB
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES _____
 LOCATION SW, NW SEC. 4-T38S-R25E

CORRELATION COREGRAPH

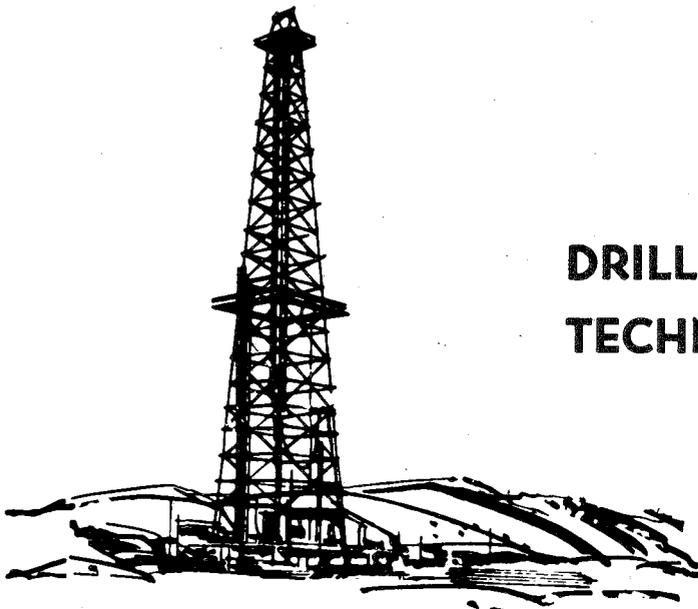
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VERTICAL SCALE: 5" = 100'





LYNES



**DRILL STEM TEST
TECHNICAL SERVICE REPORT**

Operator Mexpro
P.O. Box 458
Pahr, Swinburne Hwy 82001

Well Name and No. Patterson #6

DST No. 3

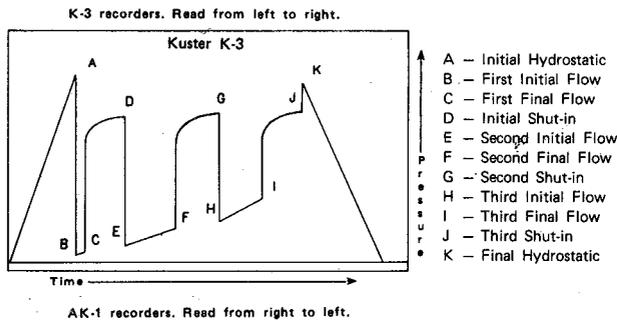
GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

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

NOMENCLATURE

Symbol	Definition	DST Unit
k	permeability.....	millidarcys (md)
h	pay thickness.....	feet (ft.)
u	viscosity.....	centipoise
T	reservoir temperature.....	°Rankin (°R)
Z	gas compressibility factor at average condition.....	---
q _{sc}	gas production rate.....	MCF/d
M	Horner slope for liquid analysis.....	PSI/Cycle
Mg	Horner slope for (P ²) gas analysis.....	PSI ² /Cycle
Pi	initial static reservoir pressure.....	PSI
Pwf	flowing bottom hole pressure.....	PSI
φ	porosity.....	(fraction)
r _w	well bore radius.....	ft.
S	skin factor.....	---
AOF	absolute open flow.....	MCF/d
D. R.	damage ratio.....	---
re	external drainage radius.....	ft.
ISIP	initial shut-in pressure.....	PSI
FSIP	final shut-in pressure.....	PSI
b	approx. radius of investigation.....	ft.
t	flowing time.....	hrs.
B	formation volume factor.....	---
q	liquid production rate.....	bbbls/day
c̄	gas compressibility.....	1/PSI
c	liquid compressibility.....	1/PSI

CODE USED ON CHART ENVELOPES



A. Liquid Calculations

1. Transmissibility 2. Capacity 3. Permeability

$$\frac{Kh}{u} = \frac{162.6}{m} \frac{q B}{m}$$

$$Kh = \frac{Kh}{u} \times u$$

$$K = \frac{Kh}{h}$$

4. Skin Factor

$$S = 1.151 \left[\frac{P_i - P_{wf}}{m} \cdot \frac{\log \frac{Kt}{\phi u c_{r_w}^2}}{3.2275} + 3.2275 \right]$$

5. Pressure Drop Due to Skin

$$\Delta P_{skin} = \frac{162.6 B q u}{Kh} \times 0.869s \text{ or } \Delta P_{skin} = 0.869 M S$$

6. Damage Ratio

$$\frac{P_i - P_{wf}}{m} \left[\frac{\log \frac{Kt}{\phi u c_{r_w}^2}}{3.2275} \right]$$

7. Productivity Index

$$P. I. = \frac{q_a}{P_i - P_{wf}}$$

8. Productivity Index Damage Removed

$$\frac{q_t}{P_i - P_{wf}} = P. I. a \times D. R.$$

9. Radius of Investigation 10. Depletion Factor %

$$b = 0.029 \sqrt{\frac{Kt}{\phi u c}}$$

$$\frac{ISIP - FSIP}{ISIP} \times 100$$

B. Gas Calculations

1. Transmissibility 2. Capacity 3. Permeability

$$\frac{Kh}{u} = \frac{1637 T z q_{sc}}{Mg}$$

$$\frac{Kh}{u} \times u = Kh$$

$$\frac{Kh}{h} = K$$

4. Apparent Skin Factor

$$S = 1.151 \left[\frac{P_i^2 - P_{wf}^2}{Mg} \cdot \frac{\log \left(\frac{Kt}{\phi u c_{r_w}^2} \right)}{3.2275} + 3.2275 \right]$$

5. Pressure Drop Due to Skin

$$\Delta P_{skin} = P_i - P_{wf} = \sqrt{(P_{wf}^2) + 0.869 Mg S}$$

6. Damage Ratio

$$\frac{P_i^2 - P_{wf}^2}{Mg} \left[\frac{\log \frac{Kt}{\phi u c_{r_w}^2}}{3.2275} \right]$$

7. Absolute Open Flow

$$Mg \left[\frac{(P_i^2) (Kh)}{\log \frac{Kt}{\phi u c_{r_w}^2} - 3.2275 + .869s} \right]$$

8. AOF Damage removed 10. Radius of Investigation

$$AOF \times DR$$

$$b = 0.029 \sqrt{\frac{Kt}{\phi u c}}$$

9. Estimated Stabilized AOF 11. Depletion %

$$3263 \text{ uzt} \left[\frac{(P_i^2) (Kh)}{\log \left(\frac{.472 re}{r_w} \right) + \frac{s}{2.303}} \right]$$

$$\frac{ISIP - FSIP}{ISIP} \times 100$$

LYNES

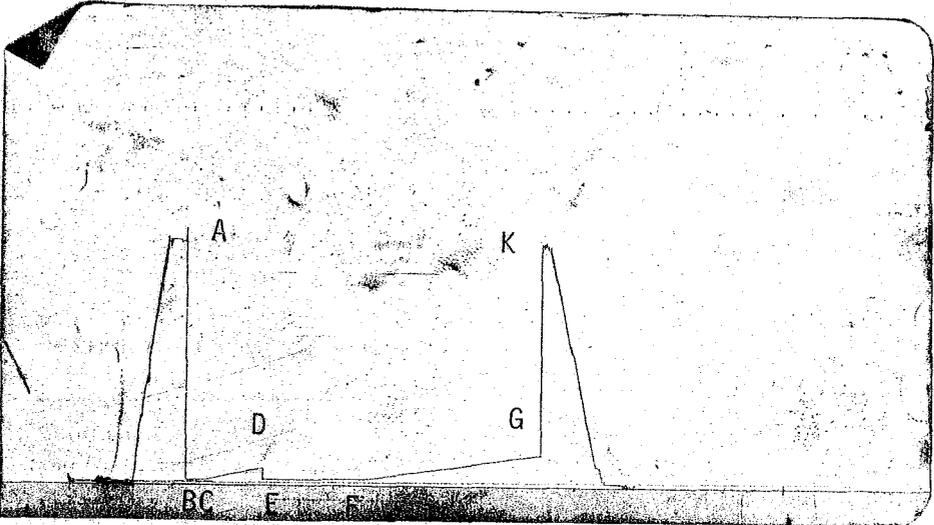
TECHNICAL SERVICES, Security Life Bldg. • Suite 1350 • 1616 Glenarm • Denver, Colorado 80202 • Phone: (303) 573-8027

Contractor <u>Arapahoe</u>	Top Choke <u>1/4"</u>	Flow No. 1 <u>28</u> Min.
Rig No. <u>10</u>	Bottom Choke <u>3/4"</u>	Shut-in No. 1 <u>120</u> Min.
Spot <u>--</u>	Size Hole <u>8 3/4"</u>	Flow No. 2 <u>190</u> Min.
Sec. <u>4</u>	Size Rat Hole <u>--</u>	Shut-in No. 2 <u>360</u> Min.
Twp. <u>39 S</u>	Size & Wt. D. P. <u>4 1/2" XH 16.60#</u>	Flow No. 3 <u>--</u> Min.
Rng. <u>25 E</u>	Size Wt. Pipe <u>--</u>	Shut-in No. 3 <u>--</u> Min.
Field <u>Patterson</u>	I. D. of D. C. <u>2 1/4"</u>	Bottom Hole Temp. <u>131⁰F</u>
County <u>San Juan</u>	Length of D. C. <u>372 Ft.</u>	Mud Weight <u>12.1</u>
State <u>Utah</u>	Total Depth <u>5674 Ft.</u>	Gravity <u>--</u>
Elevation <u>5174 Ft.</u>	Interval Tested <u>5635-5674 Ft.</u>	Viscosity <u>41</u>
Formation <u>Desert Creek</u>	Type of Test <u>Bottom Hole Conventional</u>	Tool opened @ <u>1:50</u>

Operator Mexpro
 Address P.O. Box 458
Rock Springs, WY. 82901

Well Name and No. Patterson #6
 Ticket No. 21282

Date 1/16/85
 No. Final Copies 17
 DST No. 3



Inside Recorder		
PRD Make <u>Kuster K-3</u>		
No. <u>24552</u> Cap. <u>6625</u> @ <u>5645'</u>		
Press	Corrected	
Initial Hydrostatic	A	3485
Final Hydrostatic	K	3485
Initial Flow	B	28
Final Initial Flow	C	36
Initial Shut-in	D	200
Second Initial Flow	E	42
Second Final Flow	F	72
Second Shut-in	G	433
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist. Rock Springs, WY.
 Our Tester: Bryan Scott
 Witnessed By: Howard Leeper

Did Well Flow - Gas NO Oil NO Water NO
 RECOVERY IN PIPE:

110 ft. Slight gas cut drilling mud = 5.39 bbls.

Blow Description:

1st Flow: Tool opened with a 1/2" underwater blow, increasing to 13" in 5 minutes, slowly decreasing to a 2" underwater blow at the end of the flow.

2nd Flow: Tool opened with a 12" underwater blow, increasing to a 20" blow in 1 minute, slowly decreasing to a surface blow in 50 minutes through the end of the flow.

Comments: The test results indicate a mechanically successful test. The flow and shut-in curves suggest virtually no permeability within the zone tested.

DMR Pressures recorded in PSIA.

WEXPRO CO.
DST#: 3
PATTERSON #6
5635 - 5674ft.

Location: SEC. 4 T39S R25E
Test Type: BOTTOM HOLE CONVENTIONAL
Formation: DESERT CREEK

Recorder Number: 1909
Recorder Depth: 5670

SAMPLE DATA

SAMPLE CHAMBER:

Capacity of sample chamber	2150	cc
Volume of sample.....	1800	cc
Pressure in sampler.....	48	psig
Where sampler was drained...	on location	

Sampler contained:
Mud 1800 cc

RESISTIVITY DATA:

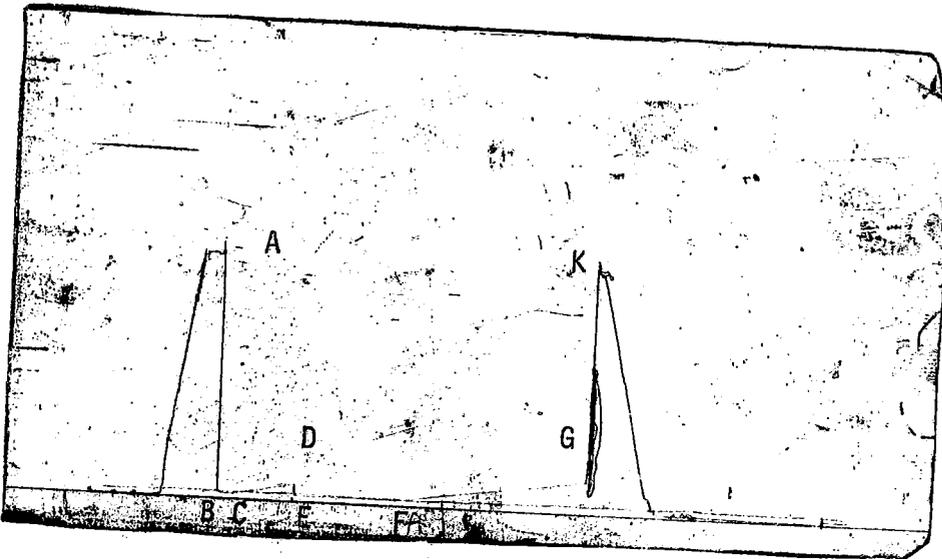
Top.....	26 000	PPM NACL
Middle.....	30 000	PPM NACL
Bottom.....	20 000	PPM NACL
Sampler.....	20 000	PPM NACL
Mud pit.....	10 000	PPM NACL
Make-up Water...		

PRESSURE RECORDER NUMBER : 24521

DEPTH : 5606.00ft. LOCATION : INSIDE
TYPE : K-3 CAPACITY : 6625.00psi

PRESSURE
psi

A)Initial Hydro : 3511.0
B)1st Flow Start: 94.0
C)1st Flow End : 96.0
D)END 1st Shutin: 226.0
E)2nd Flow Start: 96.0
F)2nd Flow End : 69.0
G)END 2nd Shutin: 419.0
Q)Final Hydro. : 3459.0



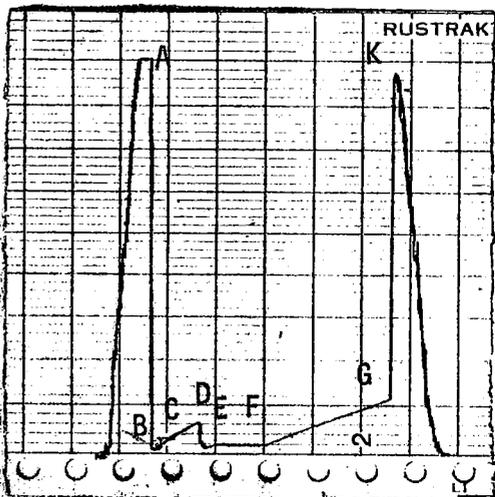
TEST TIMES(MIN)
1st FLOW : 28
SHUTIN: 120
2nd FLOW : 190
SHUTIN: 360

PRESSURE RECORDER NUMBER : 1909

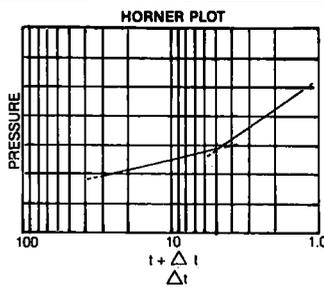
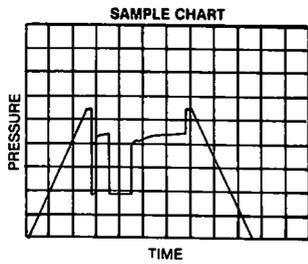
DEPTH : 5670.00ft. LOCATION : OUTSIDE
TYPE : DMR CAPACITY : 6625.00psi

PRESSURE
psi

A)Initial Hydro : 3571.0
B)1st Flow Start: 106.0
C)1st Flow End : 110.0
D)END 1st Shutin: 306.0
E)2nd Flow Start: 99.0
F)2nd Flow End : 118.0
G)END 2nd Shutin: 503.0
Q)Final Hydro. : 3526.0



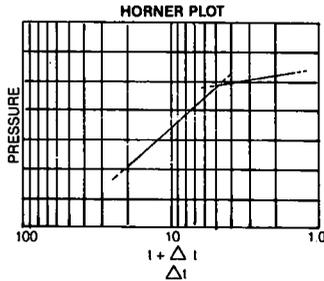
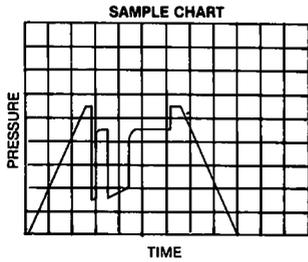
Lynes Guide to Detection of Geological Anomalies



Horner Plot Slope Breaks Upward

Possible Causes

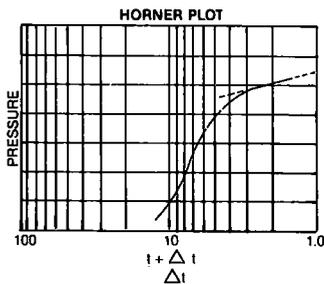
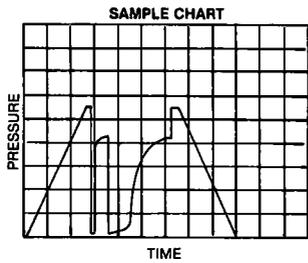
- (1) decrease in pay thickness away from the wellbore
- (2) decrease in permeability away from the wellbore
- (3) increase in viscosity of reservoir fluid (fluid contact)
- (4) barrier within the radius of investigation



Horner Plot Slope Breaks Downward

Possible Causes

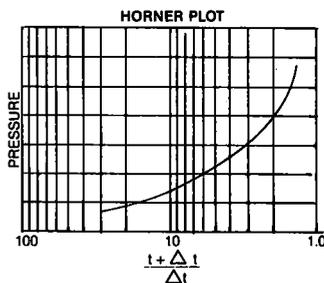
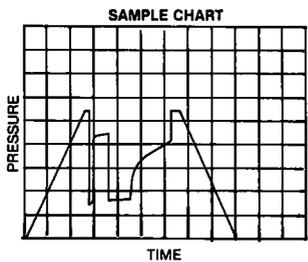
- (1) increase in pay thickness away from the wellbore
- (2) increase in permeability away from the wellbore
- (3) decrease in viscosity away from the wellbore



Early Time Deviation of Horner Plot

Possible Causes

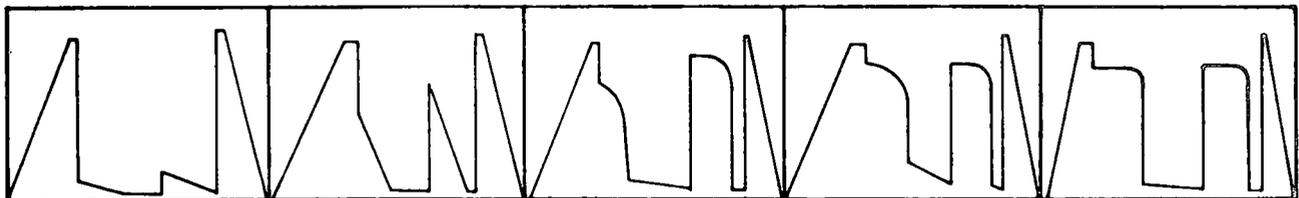
- (1) wellbore damage due to filtrate invasion, drilling solids, etc.
- (2) partial penetration of pay zone
- (3) plugging or choking of perforations (casing test only)
- (4) wellbore storage effects (low permeability gas wells)



Horner Plot Slope Continually Increasing

Possible Causes

- (1) well between two parallel boundaries (channel sand)
- (2) induced hydraulic fractures



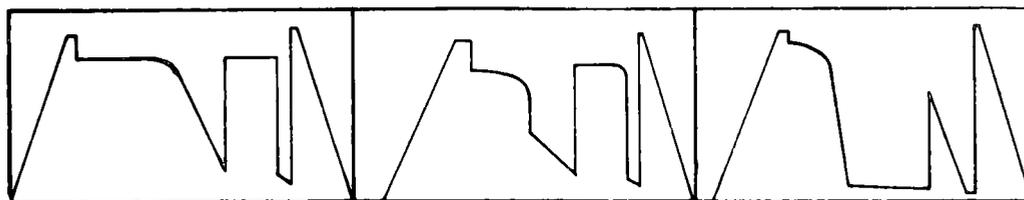
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200 ft.

Average permeability. Final and initial shut-ins differ by 50 psi.

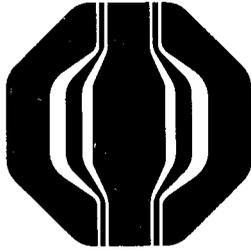
Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.



LYNES

1616 Glenarm Pl.
Suite 1350
Denver, CO 80202
1-303-573-8027



Patterson Unit Well No. 6

1-17-85:

Depth 5690', 16', days 28, pump 1150, table 60, wt on bit 17½ tons, mud wt 12.0, vis 41, sand ¼%, wl 9.4, fc 2/32, ph 11, solids 27, chlorides 10,000 ppm, bit #15 9½ f3 RR cut 16' from 5674' to 5690' in 2¼ hours, drilling time 2¼ hours, lost time 21-¾ hours--12 DST #3; 2¼ trip in hole; 7½ ream 8-¾-inch hole to 9-½-inch. Drilling. HRL

Drill Stem Test No. 4

Total Depth 5674', Packers 5635' and 5626'

Testing Desert Creek

IO 30 mins, ISI 120 mins, FO 190 mins, FSI 260 mins, opened weak, increased to medium, decreased to weak in 30 minutes, NGTS, opened medium, increased to strong, decreased to weak in 50 minutes, NGTS, recovered 110' slightly gas cut mud, 9.8 ppg, Res .310, 15,000 ppm, sample chamber recovery 1800 cc mud, 48 psig, 9.8, ppg, .31, 15,000 ppm, pit mud 12 ppg, Res .60, 10,000 ppm, IHHP 3533, IOFP's 110-124, ISIP 386, FOFP's 124-138, FSIP 496, FHHP 3506, BHT 131°F.

1-18-85:

Depth 5714', 24', days 29, pump 1000, table 64, wt on bit 22½ tons, mud wt 12.0, vis 46, sand ¼%, wl 9.4, fc 2/32, ph 10, solids 27, chlorides 10,000 ppm, bit #15 9½ f3 RR cut 40' from 5674' to 5714' in 5 hours, survey ½° at 5714', drilling time 2-¾ hours, lost time 21½ hours--1½ circulate for logs; 3½ trip out of hole for logs; 13-¾ log with Welex; 2½ lay down drill collars and pick up 15 joints of drill pipe. Tripping in hole. HRL

1-19-85:

Depth 5714', 0', days 30, lost time 24 hours--2 trip in hole; 15 wait on plugging orders; 6 set Plug #1 with 30 sacks from 5600 feet to 5700 feet; Plug #2 with 40 sacks from 5360 feet to 5500 feet; Plug #3 with 60 sacks from 2000 feet to 2200 feet; Plug #4 with 30 sacks from 1525 feet to 1625 feet; Plug #5 with 30 sacks at surface; 1 nipple down BOP's. Nippling down BOP's. HRL

1-20-85:

Depth 5714', 0', days 31, lost time 9 hours--5 nipple down blowout preventers; cut off casing flange; welded plate on 10-¾-inch casing; 4 clean mud pits.

RIG RELEASED 3:00 P.M. 1-19-85.

Patterson Unit Well No. 6

1-17-85:

Depth 5690', 16', days 28, pump 1150, table 60, wt on bit 17½ tons, mud wt 12.0, vis 41, sand ¼%, wl 9.4, fc 2/32, ph 11, solids 27, chlorides 10,000 ppm, bit #15 9½ f3 RR cut 16' from 5674' to 5690' in 2½ hours, drilling time 2½ hours, lost time 21-¾ hours--12 DST #3; 2½ trip in hole; 7½ ream 8-¾-inch hole to 9-½-inch. Drilling. HRL

Drill Stem Test No. 4

Total Depth 5674', Packres 5635' and 5626'

Testing Desert Creek

IO 30 mins, ISI 120 mins, FO 190 mins, FSI 260 mins, opened weak, increased to medium, decreased to weak in 30 minutes, NGTS, opened medium, increased to strong, decreased to weak in 50 minutes, NGTS, recovered 110' slightly gas cut mud, 9.8 ppg, Res .310, 15,000 ppm, sample chamber recovery 1800 cc mud, 48 psig, 9.8, ppg, .31, 15,000 ppm, pit mud 12 ppg, Res .60, 10,000 ppm, IHHP 3533, IOFP's 110-124, ISIP 386, FOFP's 124-138, FSIP 496, FHHP 3506, BHT 131°F.

1-18-85:

Depth 5714', 24', days 29, pump 1000, table 64, wt on bit 22½ tons, mud wt 12.0, vis 46, sand ¼%, wl 9.4, fc 2/32, ph 10, solids 27, chlorides 10,000 ppm, bit #15 9½ f3 RR cut 40' from 5674' to 5714' in 5 hours, survey ½° at 5714', drilling time 2-¾ hours, lost time 21½ hours--1½ circulate for logs; 3½ trip out of hole for logs; 13-¾ log with Welex; 2½ lay down drill collars and pick up 15 joints of drill pipe. Tripping in hole. HRL

Patterson Unit Well No. 6

1-17-85:

Depth 5690', 16', days 28, pump 1150, table 60, wt on bit 17½ tons, mud wt 12.0, vis 41, sand ¼%, wl 9.4, fc 2/32, ph 11, solids 27, chlorides 10,000 ppm, bit #15 9½ f3 RR cut 16' from 5674' to 5690' in 2½ hours, drilling time 2½ hours, lost time 21-¾ hours--12 DST #3; 2½ trip in hole; 7½ ream 8-¾-inch hole to 9-½-inch. Drilling. HRL

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Total Depth 5674', Packres 5635' and 5626'

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IO 30 mins, ISI 120 mins, FO 190 mins, FSI 260 mins, opened weak, increased to medium, decreased to weak in 30 minutes, NGTS, opened medium, increased to strong, decreased to weak in 50 minutes, NGTS, recovered 110' slightly gas cut mud, 9.8 ppg, Res .310, 15,000 ppm, sample chamber recovery 1800 cc mud, 48 psig, 9.8, ppg, .31, 15,000 ppm, pit mud 12 ppg, Res .60, 10,000 ppm, IHHP 3533, IOFP's 110-124, ISIP 386, FOFP's 124-138, FSIP 496, FHHP 3506, BHT 131°F.

Patterson Unit Well No. 6

1-12-85:

Depth 5470', 9', days 23, pump 1100, table 50, wt on bit 12½ tons, mud wt 11.3, vis 48, sand ¼%, wl 12.8, fc 2/32, ph 10.5, solids 20, Core Head #1, Core #3, 8-3/4 c23 011108 cut 147' from 5323' to 5470' in 42-3/4 hours, drilling time 3½ hours, lost time 20½ hours--2½ trip out Core #3, recovered 54½ feet; 17-3/4 DST #2. Laying down test tools. HRL

Drill Stem Test No. 2

Total Depth 5470', Packers 5406' and 5414'

Testing Lower Ismay, Water Zone

IO 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened weak, increased slightly no gas, reopened weak, remained throughout, no gas, dead in 55 minutes, recovered 450 feet water cut mud, top 10.2 ppg, Res 0.18, bottom 9.1, Res .08, sample chamber recovery 1650 cc, 290 psig, Res 0.6, 96 pp, pit mud 11.3 ppg, Res .16, IHHP 3170, IOFP's 110-137, ISIP 2202, FOFP's 165-247, FSIP 2202, FHHP 3143.

1-13-85:

Depth 5470', 0', days 24, pump 1150, table 60, wt on bit 5 tons, mud wt 12.2, vis 45, sand ½%, wl 12.8, fc 2/32, ph 10.5, solids 20.4, bit #12 9½ f3 A-3481 RR reamed from 5323' to 5410' in 21½ hours, drilling time 0 hours, lost time 24 hours--½ DST #2; 2 trip in hole; ¼ rig service and check BOP's; 21½ ream. Ream 8-3/4-inch core hole to 9-1/2-inch. HRL

1-14-85:

Depth 5524', 54', days 25, pump 1150, table 60, wt on bit 25 tons, mud wt 12.1, vis 44, sand ¼%, wl 12.6, fc 2/32, ph 10, solids 13.5, bit #12 9½ s3 RR cut 147' from 5323' to 5470' in 30½ hours, bit #13 9½ s3 RR cut 54' from 5470' to 5524' in 9½ hours, drilling time 9½ hours, lost time 14-3/4 hours--½ rig service; 4 trip for bit; 9½ ream 5410 feet to 5470 feet; 1½ re-ream 75' with bit #13. Drilling. HRL

1-15-85:

Depth 5630', 106', days 26, pump 1150, table 56, wt on bit 12 tons, mud wt 12.0, vis 41, sand ½%, wl 16.4, fc 2/32, ph 10.5, solids 26.5, chlorides 11,700 ppm, bit #13 9½ s3 RR cut 153' from 5470' to 5623' in 24 hours, Core Head #1, Core #4 8-3/4 c23 0111108 cut 7' from 5623' to 5630' in 1-3/4 hours, drilling time 16½ hours, lost time 7½ hours--½ rig service; 2 circulate for Core #4; 5½ trip for core barrel. Core #4. HRL

1-16-85:

Depth 5674', 44', days 27, pump 1150, table 56, wt on bit 12 tons, mud wt 12.0, vis 39, sand ½%, wl 14.8, fc 2/32, ph 11, solids 17, chlorides 10,900 ppm, Core Head #1, Core #4 8-3/4 c23 0111108 cut 51' from 5623' to 5674' in 13 hours, drilling time 11½ hours, lost time 12-3/4 hours--½ rig service; 1½ circulate; 3 trip out, laid down Core #4, cut 51', recovered 51'; 8½ DST #3. DST #3. HRL

Drill Stem Test No. 4

Total Depth 5674', Packers 5635' and 5626'

Testing Desert Creek

IO 30 mins, ISI 120 mins, FO 190 mins, opened weak, increased to medium, decreased to weak in 30 minutes, NGTS, opened medium, increased to strong, decreased to weak in 50 minutes, NGTS.

Patterson Unit Well No. 6

1-12-85:

Depth 5470', 9', days 23, pump 1100, table 50, wt on bit 12½ tons, mud wt 11.3, vis 48, sand ¼%, wl 12.8, fc 2/32, ph 10.5, solids 20, Core Head #1, Core #3, 8-3/4 c23 011108 cut 147' from 5323' to 5470' in 42-3/4 hours, drilling time 3½ hours, lost time 20½ hours--2¼ trip out Core #3, recovered 54½ feet; 17-3/4 DST #2. Laying down test tools. HRL

Drill Stem Test No. 2

Total Depth 5470', Packers 5406' and 5414'

Testing Lower Ismay, Water Zone

IO 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened weak, increased slightly no gas, reopened weak, remained throughout, no gas, dead in 55 minutes, recovered 450 feet water cut mud, top 10.2 ppg, Res 0.18, bottom 9.1, Res .08, sample chamber recovery 1650 cc, 290 psig, Res 0.6, 96 pp, pit mud 11.3 ppg, Res .16, IHHP 3170, IOFP's 110-137, ISIP 2202, FOFP's 165-247, FSIP 2202, FHHP 3143.

1-13-85:

Depth 5470', 0', days 24, pump 1150, table 60, wt on bit 5 tons, mud wt 12.2, vis 45, sand ¼%, wl 12.8, fc 2/32, ph 10.5, solids 20.4, bit #12 9½ f3 A-3481 RR reamed from 5323' to 5410' in 21½ hours, drilling time 0 hours, lost time 24 hours--½ DST #2; 2 trip in hole; ¼ rig service and check BOP's; 21½ ream. Ream 8-3/4-inch core hole to 9-1/2-inch. HRL

1-14-85:

Depth 5524', 54', days 25, pump 1150, table 60, wt on bit 25 tons, mud wt 12.1, vis 44, sand ¼%, wl 12.6, fc 2/32, ph 10, solids 13.5, bit #12 9½ s3 RR cut 147' from 5323' to 5470' in 30½ hours, bit #13 9½ s3 RR cut 54' from 5470' to 5524' in 9½ hours, drilling time 9½ hours, lost time 14-3/4 hours--¼ rig service; 4 trip for bit; 9½ ream 5410 feet to 5470 feet; 1½ re-ream 75' with bit #13. Drilling. HRL

Patterson Unit Well No. 6

1-12-85:

Depth 5470', 9', days 23, pump 1100, table 50, wt on bit 12½ tons, mud wt 11.3, vis 48, sand ¼%, wl 12.8, fc 2/32, ph 10.5, solids 20, Core Head #1, Core #3, 8-3/4 c23 011108 cut 147' from 5323' to 5470' in 42-3/4 hours, drilling time 3½ hours, lost time 20½ hours--2½ trip out Core #3, recovered 54½ feet; 17-3/4 DST #2. Laying down test tools. HRL

Drill Stem Test No. 2

Total Depth 5470', Packers 5406' and 5414'

Testing Lower Ismay, Water Zone

IO 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened weak, increased slightly no gas, reopened weak, remained throughout, no gas, dead in 55 minutes, recovered 450 feet water cut mud, top 10.2 ppg, Res 0.18, bottom 9.1, Res .08, sample chamber recovery 1650 cc, 290 psig, Res 0.6, 96 pp, pit mud 11.3 ppg, Res .16, IHHP 3170, IOFP's 110-137, ISIP 2202, FOFP's 165-247, FSIP 2202, FHHP 3143.

1-13-85:

Depth 5470', 0', days 24, pump 1150, table 60, wt on bit 5 tons, mud wt 12.2, vis 45, sand ¼%, wl 12.8, fc 2/32, ph 10.5, solids 20.4, bit #12 9½ f3 A-3481 RR reamed from 5323' to 5410' in 21½ hours, drilling time 0 hours, lost time 24 hours--½ DST #2; 2 trip in hole; ½ rig service and check BOP's; 21½ ream. Ream 8-3/4-inch core hole to 9-1/2-inch. HRL

1-14-85:

Depth 5524', 54', days 25, pump 1150, table 60, wt on bit 25 tons, mud wt 12.1, vis 44, sand ¼%, wl 12.6, fc 2/32, ph 10, solids 13.5, bit #12 9½ s3 RR cut 147' from 5323' to 5470' in 30½ hours, bit #13 9½ s3 RR cut 54' from 5470' to 5524' in 9½ hours, drilling time 9½ hours, lost time 14-3/4 hours--½ rig service; 4 trip for bit; 9½ ream 5410 feet to 5470 feet; 1½ re-ream 75' with bit #13. Drilling. HRL

1-15-85:

Depth 5630', 106', days 26, pump 1150, table 56, wt on bit 12 tons, mud wt 12.0, vis 41, sand ¼%, wl 16.4, fc 2/32, ph 10.5, solids 26.5, chlorides 11,700 ppm, bit #13 9½ s3 RR cut 153' from 5470' to 5623' in 24 hours, Core Head #1, Core #4 8-3/4 c23 011108 cut 7' from 5623' to 5630' in 1-3/4 hours, drilling time 16½ hours, lost time 7½ hours--½ rig service; 2 circulate for Core #4; 5½ trip for core barrel. Core #4. HRL

Patterson Unit Well No. 6

1-9-85:

Depth 5383', 59', days 20, pump 1100, table 50, wt on bit 12½ tons, mud wt 10.4, vis 53, sand ¼%, wl 22.5, fc 2/32, ph 10.5, solids 14, Core Head #1, Core #1, 8-3/4 c23 011108 cut 60' from 5323' to 5383' in 19½ hour, drilling time 18-3/4 hours, lost time 5½ hours--1 circulate; 3½ trip out of hole; 1 lay down Core #1, cut 60', recovered 60'. Will cut Core #2 30 feet before testing. Waiting on orders. GCN

Casing Report

KB 5174.00

Landed Armco 10-3/4-inch O.D., 40.5-pound, K-55, 8 round thread, ST&C casing at 1574.00 feet KBM or 14.00 feet below KB. Cemented casing with 600 sacks of Halliburton Light treated with 10 pounds gilsonite per sack, 2% calcium chloride and 1/4-pound flocele per sack. Tailed in with 250 sacks Regular cement treated with 3% CaCl and 1/4-pound flocele per sack. Ran 60 feet one-inch alongside 10-3/4-inch casing and cemented through one-inch with 75 sacks Regular cement treated with 3% calcium chloride. Good returns throughout. Cement in place at 1:50 A.M., 12-27-84.

1-10-85:

Depth 5415', 32', days 21, pump 1100, table 50, wt on bit 12½ tons, mud wt 10.5, vis 40, sand ¼%, wl 10.8, fc 2/32, ph 10, solids 14.7, 16,400 ppm chlorides, Core Head #1, Core #2, 8-3/4 c23 011108 cut 92' from 5323' to 5415' in 26-3/4 hours, drilling time 7½ hours, lost time 16½ hours--1½ wait on orders; 2½ trip in with core barrel; 2-3/4 trip out, lay down 32' core, cut 32' from 5383' to 5415'; 1½ circulate; 8½ DST #1. DST #1. GCN

1-11-85:

Depth 5461', 46', days 22, pump 1100, table 50, wt on bit 12½ tons, mud wt 11.3, vis 42, sand ¼%, wl 16.2, fc 2/32, ph 9, solids 19.6, Core Head #1, Core #3, 8-3/4 c23 011108 cut 46' from 5415' to 5461' in 12½ hours, drilling time 12½ hours, lost time 11-3/4 hours--8½ DST #1; 1 cut drilling line; 2½ pick up core barrel and trip in hole. Cutting Core #3. HRL

Drill Stem Test Nov 1

Total Depth 5415', Packers 5371' and 5380'

Testing Upper Ismay, Limestone, 5393-5396, 10 unit increase

5400 to 5405, 13 unit gas increase

10 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened very weak, continued throughout no gas, reopened weak, dead in 2 hours, no gas, recovered 125 feet gas cut mud, top 9.7 ppg, Res 1.2, 4500 ppm, bottom 9.7 ppg, Res 1.13, 4800 ppm, sample chamber recovered 700 cc water, 800 cc mud, 55 psig, water Res 1.5, 5500 ppm, mud Res 1.2, 4500 ppm, pit mud 10.3 ppg, Res 1.45, 10,000 ppm, IHHP 2911, IOFP's 55-97, ISIP 1717, FOFP's 111-125, FSIP 2133, FHHP 2856, BHT 127°F.

Patterson Unit Well No. 6

1-9-85:

Depth 5383', 59', days 20, pump 1100, table 50, wt on bit 12½ tons, mud wt 10.4, vis 53, sand ¼%, wl 22.5, fc 2/32, ph 10.5, solids 14, Core Head #1, Core #1, 8-3/4 c23 011108 cut 60' from 5323' to 5383' in 19½ hour, drilling time 18-3/4 hours, lost time 5½ hours--1 circulate; 3½ trip out of hole; 1 lay down Core #1, cut 60', recovered 60'. Will cut Core #2 30 feet before testing. Waiting on orders. GCN

Casing Report

KB 5174.00

Landed Armco 10-3/4-inch O.D., 40.5-pound, K-55, 8 round thread, ST&C casing at 1574.00 feet KBM or 14.00 feet below KB. Cemented casing with 600 sacks of Halliburton Light treated with 10 pounds gilsonite per sack, 2% calcium chloride and 1/4-pound flocele per sack. Tailed in with 250 sacks Regular cement treated with 3% CaCl and 1/4-pound flocele per sack. Ran 60 feet one-inch alongside 10-3/4-inch casing and cemented through one-inch with 75 sacks Regular cement treated with 3% calcium chloride. Good returns throughout. Cement in place at 1:50 A.M., 12-27-84.

1-10-85:

Depth 5415', 32', days 21, pump 1100, table 50, wt on bit 12½ tons, mud wt 10.5, vis 40, sand ¼%, wl 10.8, fc 2/32, ph 10, solids 14.7, 16,400 ppm chlorides, Core Head #1, Core #1, 8-3/4 c23 011108 cut 92' from 5323' to 5415' in 26-3/4 hours, drilling time 7½ hours, lost time 16½ hours--1½ wait on orders; 2½ trip in with core barrel; 2-3/4 trip out, lay down 32' core, cut 32' from 5383' to 5415'; 1½ circulate; 8½ DST #1. DST #1. GCN

Drill Stem Test No. 1

Total Depth 5415', Packers 5371' and 5380'

Testing Upper Ismay, Limestone, 5393-5396, 10 unit increase

5400 to 5405, 13 unit gas increase

IO 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened very weak, continued throughout no gas, reopened weak, dead in 2 hours, no gas.

Patterson Unit Well No. 6

1-9-85:

Depth 5383', 59', days 20, pump 1100, table 50, wt on bit 12½ tons, mud wt 10.4, vis 53, sand ¼%, wl 22.5, fc 2/32, ph 10.5, solids 14, Core Head #1, Core #1, 8-3/4 c23 011108 cut 60' from 5323' to 5383' in 19¼ hour, drilling time 18-3/4 hours, lost time 5¼ hours--1 circualte; 3¼ trip out of hole; 1 lay down Core #1, cut 60', recovered 60'. Will cut Core #2 30 feet before testing. Waiting on orders. GCN

Patterson Unit Well No. 6

1-2-85:

Depth 3932', 307', days 13, pump 1200, table 60, wt on bit 19 tons, mud wt 9.1, vis 32, sand $\frac{1}{4}\%$, wl 24, fc 2/32, ph 9.0, solids 4.5, bit #7 9 $\frac{1}{2}$ RR cut 448' from 3484' to 3932' in 32 hours, drilling time 23 $\frac{1}{2}$ hours, lost time $\frac{1}{2}$ hour-- $\frac{1}{4}$ rig service and check BOP's; $\frac{1}{4}$ rig repair. Drilling. Leo Lewis

1-3-85:

Depth 4280', 348', days 14, pump 1200, table 52, wt on bit 17.5 tons, mud wt 9.5, vis 33, sand $\frac{1}{4}\%$, wl 26, fc 2/32, ph 9.4, solids 7.4, bit #7 9 $\frac{1}{2}$ RR cut 796' from 3484' to 4280' in 55 $\frac{1}{2}$ hours, survey 1° at 3979', drilling time 23 $\frac{1}{2}$ hours, lost time $\frac{1}{2}$ hour-- $\frac{1}{2}$ rig service and check BOP's. Drilling. Leo Lewis

1-4-85:

Depth 4532', 252', days 15, pump 1200, table 55, wt on bit 17.5, mud wt 9.7, vis 34, sand $\frac{1}{4}\%$, wl 18.6, fc 2/32, ph 9.2, solids 8.5, 24,700 ppm, bit #7 9 $\frac{1}{2}$ retip cut 874' from 3484' to 4358' in 62 $\frac{1}{2}$ hours, bit #8 9 $\frac{1}{2}$ retip 974219 cut 174' from 4358' to 4532' in 12 $\frac{1}{2}$ hours, survey 3/4° at 4358', drilling time 19 $\frac{1}{2}$ hours, lost time 4 $\frac{1}{2}$ hours-- $\frac{1}{4}$ rig service and check BOP's; 4 $\frac{1}{4}$ trip for bit and survey. Drilling. Leo Lewis

1-5-85:

Depth 4861', 329', days 16, pump 1250, table 58, wt on bit 17.5, mud wt 9.6, vis 34, sand $\frac{1}{4}\%$, wl 20, fc 2/32, ph 9.6, solids 7, 25,200 ppm, bit #8 9 $\frac{1}{2}$ retip 974219 cut 503' from 4358' to 4861' in 36 $\frac{1}{4}$ hours, drilling time 23-3/4 hours, lost time $\frac{1}{4}$ hours-- $\frac{1}{4}$ rig service and check BOP's. Drilling. GCN

1-6-85:

Depth 5058', 197', days 17, pump 1250, table 60, wt on bit 17 $\frac{1}{2}$ tons, mud wt 10.3, vis 38, sand $\frac{1}{4}\%$, wl 15, fc 2/32, ph 10, solids 15, 21,400 ppm, bit #8 9 $\frac{1}{2}$ c84f 974219 cut 692' from 4358' to 5050' in 54 $\frac{1}{2}$ hours, bit #9 9 $\frac{1}{2}$ j33 cut 8' from 5050' to 5058' in 3/4 hours, surveys 1° at 4897' and 3/4° at 5050', drilling time 19 hours, lost time 5 hours-- $\frac{1}{2}$ rig service and check BOP's, and wireline survey; 4 $\frac{1}{2}$ trip and survey. Drilling. GCN

1-7-85:

Depth 5221', 163', days 18, pump 1200, table 60, wt on bit 17 $\frac{1}{2}$ tons, mud wt 10.3, vis 37, sand $\frac{1}{4}\%$, wl 16, fc 2/32, ph 10, solids 13.2, bit #9 9 $\frac{1}{2}$ j33 WL-2194 cut 90' from 5050' to 5140' in 10 hours, bit #10 9 $\frac{1}{2}$ f3 EH-5157 cut 81' from 5140' to 5221' in 10 $\frac{1}{2}$ hours, drilling time 19-3/4 hours, lost time 4 $\frac{1}{2}$ hours-- $\frac{1}{4}$ rig service and check BOP's; 4 trip for bit #10. Drilling. GCN

1-8-85:

Depth 5324', 103', days 19, pump 1100, table 50, wt on bit 9 tons, mud wt 10.2, vis 40, sand $\frac{1}{4}\%$, wl 14.8, fc 2/32, ph 10, solids 12.4, bit #10 9 $\frac{1}{2}$ f3 EH-5157 cut 183' from 5140' to 5323' in 24 hours, Core Head #1, Core #1, 8-3/4 c23 011108 cut 1' from 5323' to 5324' in $\frac{1}{2}$ hour, survey $\frac{1}{2}$ ° at 5323', drilling time 14 hours, lost time 10 hours-- $\frac{1}{2}$ rig service; 1 $\frac{1}{2}$ circulate and wait on orders; 2 $\frac{1}{2}$ survey, tripped out SLM, no correction; 5 pick up core barrel and trip in hole; 3/4 wash and circulate to bottom and drop ball. Core GCN

Patterson Unit Well No. 6

1-2-85:

Depth 3932', 307', days 13, pump 1200, table 60, wt on bit 19 tons, mud wt 9.1, vis 32, sand $\frac{1}{4}\%$, wl 24, fc 2/32, ph 9.0, solids 4.5, bit #7 9 $\frac{1}{2}$ RR cut 448' from 3484' to 3932' in 32 hours, drilling time 23 $\frac{1}{2}$ hours, lost time $\frac{1}{2}$ hour-- $\frac{1}{4}$ rig service and check BOP's; $\frac{1}{4}$ rig repair. Drilling. Leo Lewis

1-3-85:

Depth 4280', 348', days 14, pump 1200, table 52, wt on bit 17.5 tons, mud wt 9.5, vis 33, sand $\frac{1}{4}\%$, wl 26, fc 2/32, ph 9.4, solids 7.4, bit #7 9 $\frac{1}{2}$ RR cut 796' from 3484' to 4280' in 55 $\frac{1}{2}$ hours, survey 1° at 3979', drilling time 23 $\frac{1}{2}$ hours, lost time $\frac{1}{2}$ hour-- $\frac{1}{2}$ rig service and check BOP's. Drilling. Leo Lewis

1-4-85:

Depth 4532', 252', days 15, pump 1200, table 55, wt on bit 17.5, mud wt 9.7, vis 34, sand $\frac{1}{4}\%$, wl 18.6, fc 2/32, ph 9.2, solids 8.5, 24,700 ppm, bit #7 9 $\frac{1}{2}$ retip cut 874' from 3484' to 4358' in 62 $\frac{1}{2}$ hours, bit #8 9 $\frac{1}{2}$ retip 974219 cut 174' from 4358' to 4532' in 12 $\frac{1}{2}$ hours, survey 3/4° at 4358', drilling time 19 $\frac{1}{2}$ hours, lost time 4 $\frac{1}{2}$ hours-- $\frac{1}{4}$ rig service and check BOP's; 4 $\frac{1}{4}$ trip for bit and survey. Drilling. Leo Lewis

1-5-85:

Depth 4861', 329', days 16, pump 1250, table 58, wt on bit 17.5, mud wt 9.6, vis 34, sand $\frac{1}{4}\%$, wl 20, fc 2/32, ph 9.6, solids 7, 25,200 ppm, bit #8 9 $\frac{1}{2}$ retip 974219 cut 503' from 4358' to 4861' in 36 $\frac{1}{4}$ hours, drilling time 23-3/4 hours, lost time $\frac{1}{4}$ hours-- $\frac{1}{4}$ rig service and check BOP's. Drilling. GCN

1-6-85:

Depth 5058', 197', days 17, pump 1250, table 60, wt on bit 17 $\frac{1}{2}$ tons, mud wt 10.3, vis 38, sand $\frac{1}{4}\%$, wl 15, fc 2/32, ph 10, solids 15, 21,400 ppm, bit #8 9 $\frac{1}{2}$ c84f 974219 cut 692' from 4358' to 5050' in 54 $\frac{1}{2}$ hours, bit #9 9 $\frac{1}{2}$ j33 cut 8' from 5050' to 5058' in 3/4 hours, surveys 1° at 4897' and 3/4° at 5050', drilling time 19 hours, lost time 5 hours-- $\frac{1}{2}$ rig service and check BOP's, and wireline survey; 4 $\frac{1}{2}$ trip and survey. Drilling. GCN

1-7-85:

Depth 5221', 163', days 18, pump 1200, table 60, wt on bit 17 $\frac{1}{2}$ tons, mud wt 10.3, vis 37, sand $\frac{1}{4}\%$, wl 16, fc 2/32, ph 10, solids 13.2, bit #9 9 $\frac{1}{2}$ j33 WL-2194 cut 90' from 5050' to 5140' in 10 hours, bit #10 9 $\frac{1}{2}$ f3 EH-5157 cut 81' from 5140' to 5221' in 10 $\frac{1}{2}$ hours, drilling time 19-3/4 hours, lost time 4 $\frac{1}{4}$ hours-- $\frac{1}{4}$ rig service and check BOP's; 4 trip for bit #10. Drilling. GCN

Patterson Unit Well No. 6

1-2-85:

Depth 3932', 307', days 13, pump 1200, table 60, wt on bit 19 tons, mud wt 9.1, vis 32, sand $\frac{1}{4}\%$, wl 24, fc 2/32, ph 9.0, solids 4.5, bit #7 9 $\frac{1}{2}$ RR cut 448' from 3484' to 3932' in 32 hours, drilling time 23 $\frac{1}{2}$ hours, lost time $\frac{1}{2}$ hour-- $\frac{1}{4}$ rig service and check BOP's; $\frac{1}{4}$ rig repair. Drilling. Leo Lewis

1-3-85:

Depth 4280', 348', days 14, pump 1200, table 52, wt on bit 17.5 tons, mud wt 9.5, vis 33, sand $\frac{1}{4}\%$, wl 26, fc 2/32, ph 9.4, solids 7.4, bit #7 9 $\frac{1}{2}$ RR cut 796' from 3484' to 4280' in 55 $\frac{1}{2}$ hours, survey 1° at 3979', drilling time 23 $\frac{1}{2}$ hours, lost time $\frac{1}{2}$ hour-- $\frac{1}{2}$ rig service and check BOP's. Drilling. Leo Lewis

1-4-85:

Depth 4532', 252', days 15, pump 1200, table 55, wt on bit 17.5, mud wt 9.7, vis 34, sand $\frac{1}{4}\%$, wl 18.6, fc 2/32, ph 9.2, solids 8.5, 24,700 ppm, bit #7 9 $\frac{1}{2}$ retip cut 874' from 3484' to 4358' in 62 $\frac{1}{2}$ hours, bit #8 9 $\frac{1}{2}$ retip 974219 cut 174' from 4358' to 4532' in 12 $\frac{1}{2}$ hours, survey 3/4° at 4358', drilling time 19 $\frac{1}{2}$ hours, lost time 4 $\frac{1}{2}$ hours-- $\frac{1}{4}$ rig service and check BOP's; 4 $\frac{1}{4}$ trip for bit and survey. Drilling. Leo Lewis

Patterson Unit Well No. 6

1-2-85:

Depth 3932', 307', days 13, pump 1200, table 60, wt on bit 19 tons, mud wt 9.1, vis 32, sand $\frac{1}{4}\%$, wl 24, fc 2/32, ph 9.0, solids 4.5, bit #7 9 $\frac{1}{2}$ RR cut 448' from 3484' to 3932' in 32 hours, drilling time 23 $\frac{1}{2}$ hours, lost time $\frac{1}{2}$ hour-- $\frac{1}{4}$ rig service and check BOP's; $\frac{1}{4}$ rig repair.
Drilling. Leo Lewis

Patterson Unit Well No. 6

12-27-84:

Depth 1581', 91', days 7, pump 1200, table 66, wt on bit 22½ tons, drilling with water, bit #4 RR 14-3/4 cut 91' from 1490' to 1581' in 4-3/4 hours, survey 1° at 1581', drilling time 4-3/4 hours, lost time 19½ hours--4½ start up rig, tripped in hole, washed 35 feet to bottom; 2-3/4 short trip, ten stands and wait on Halliburton; 2 tripped out, laid down three 10-inch drill collars; 3½ ran 10-3/4-inch casing, landed at 1574 feet KBM; 1 circulate with rig pump; 1-3/4 cement 600 sacks Howco lite followed with 250 sacks Class H Regular with 3% CaCl, no cement returned to surface; 1½ cement through one-inch pipe with 75 sacks Class G Regular with 3% CaCl, filled hole, cement dropped 40 feet; 2-3/4 wait on cement (will fill hole back to surface.) Waiting on cement. Leo Lewis

12-28-84:

Depth 1690', 109', days 8, pump 1100, table 68, wt on bit 17½ tons, mud wt 8.5, vis 28, bit #5 RR 9½ cut 109' from 1581' to 1690' in 5 hours, drilling time 5 hours, lost time 19 hours--4½ WOC and cement through one-inch with 75 sacks with 3% CaCl; 6 WOC and nipple up; 3½ pressure test blind rams and casing to 1500 psi, held okay; 2½ picked up seven 6-inch drill collars and tripped in hole and pressure tested pipe rams to 1500 psi for 15 minutes, held okay; 2½ drilled cement and shoe joint. Drilling. Leo Lewis

12-29-84:

Depth 2423', 733', days 9, pump 1200, table 65, wt on bit 23 tons, drilling with water, bit #5 RR 9½ cut 842' from 1581' to 2423' in 28½ hours, survey 1° at 1987', drilling time 23½ hours, lost time ½ hours--¼ survey; ¼ rig service. Drilling. Leo Lewis

12-30-84:

Depth 2951', 528', days 10, pump 1150, table 65, wt on bit 17½ tons, mud wt 8.6, vis 38, bit #5 9½ RR cut 1264' from 1581' to 2845' in 45½ hours, bit #6 9½ RR cut 106' from 2845' to 2951' in 4 hours, surveys 1¼° at 2482' and 3/4° at 2845', drilling time 20-3/4 hours, lost time 3¼ hours--¼ rig service; ¼ survey; 2-3/4 trip. Drilling Leo Lewis

12-31-84:

Depth 3455', 504', days 11, pump 1200, table 64, wt on bit 17½ tons, mud wt 8.8, vis 29, bit #6 9½ RR cut 610' from 2845' to 3455' in 27½ hours, survey 3/4° at 3393', drilling time 23½ hours, lost time ½ hour--¼ rig service; ¼ survey. Drilling. Leo Lewis

1-1-85:

Depth 3625', 170', days 12, pump 1200, table 65, wt on bit 17½ tons, mud wt 8.8, vis 28, sand ¼%, wl 23, fc 1/32, ph 10, solids 2.4, bit #6 9½ RR cut 640' from 2845' to 3485' in 29-3/4 hours, bit #7 9½ cut 140' from 3485' to 3625' in 8½ hours, survey 3/4° at 3404', drilling time 10-3/4 hours, lost time 13¼ hour--3/4 work on pump; ½ rig service; 10½ trip for bit #7; 1½ wash and ream 185 feet to bottom. Drilling. Leo Lewis

Patterson Unit Well No. 6

12-27-84:

Depth 1581', 91', days 7, pump 1200, table 66, wt on bit 22½ tons, drilling with water, bit #4 RR 14-3/4 cut 91' from 1490' to 1581' in 4-3/4 hours, survey 1° at 1581', drilling time 4-3/4 hours, lost time 19½ hours--4½ start up rig, tripped in hole, washed 35 feet to bottom; 2-3/4 short trip, ten stands and wait on Halliburton; 2 tripped out, laid down three 10-inch drill collars; 3½ ran 10-3/4-inch casing, landed at 1574 feet KBM; 1 circulate with rig pump; 1-3/4 cement 600 sacks Howco lite followed with 250 sacks Class H Regular with 3% CaCl, no cement returned to surface; 1½ cement through one-inch pipe with 75 sacks Class G Regular with 3% CaCl, filled hole, cement dropped 40 feet; 2-3/4 wait on cement (will fill hole back to surface.) Waiting on cement. Leo Lewis

12-28-84:

Depth 1690', 109', days 8, pump 1100, table 68, wt on bit 17½ tons, mud wt 8.5, vis 28, bit #5 RR 9½ cut 109' from 1581' to 1690' in 5 hours, drilling time 5 hours, lost time 19 hours--4½ WOC and cement through one-inch with 75 sacks with 3% CaCl; 6 WOC and nipple up; 3½ pressure test blind rams and casing to 1500 psi, held okay; 2½ picked up seven 6-inch drill collars and tripped in hole and pressure tested pipe rams to 1500 psi for 15 minutes, held okay; 2½ drilled cement and shoe joint. Drilling. Leo Lewis

12-29-84:

Depth 2423', 733', days 9, pump 1200, table 65, wt on bit 23 tons, drilling with water, bit #5 RR 9½ cut 842' from 1581' to 2423' in 28½ hours, survey 1° at 1987', drilling time 23½ hours, lost time ½ hours--¼ survey; ¼ rig service. Drilling. Leo Lewis

12-30-84:

Depth 2951', 528', days 10, pump 1150, table 65, wt on bit 17½ tons, mud wt 8.6, vis 38, bit #5 9½ RR cut 1264' from 1581' to 2845' in 45½ hours, bit #6 9½ RR cut 106' from 2845' to 2951' in 4 hours, surveys 1¼° at 2482' and 3/4° at 2845', drilling time 20-3/4 hours, lost time 3½ hours--¼ rig service; ¼ survey; 2-3/4 trip. Drilling Leo Lewis

12-31-84:

Depth 3455', 504', days 11, pump 1200, table 64, wt on bit 17½ tons, mud wt 8.8, vis 29, bit #6 9½ RR cut 610' from 2845' to 3455' in 27½ hours, survey 3/4° at 3393', drilling time 23½ hours, lost time ½ hour--¼ rig service; ¼ survey. Drilling. Leo Lewis

J.H.
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Patterson Unit Well No. 6

12-27-84:

Depth 1581', 91', days 7, pump 1200, table 66, wt on bit 22½ tons, drilling with water, bit #4 RR 14-3/4 cut 91' from 1490' to 1581' in 4-3/4 hours, survey 1° at 1581', drilling time 4-3/4 hours, lost time 19½ hours--4½ start up rig, tripped in hole, washed 35 feet to bottom; 2-3/4 short trip, ten stands and wait on Halliburton; 2 tripped out, laid down three 10-inch drill collars; 3½ ran 10-3/4-inch casing, landed at 1574 feet KBM; 1 circulate with rig pump; 1-3/4 cement 600 sacks Howco lite followed with 250 sacks Class H Regular with 3% CaCl, no cement returned to surface; 1½ cement through one-inch pipe with 75 sacks Class G Regular with 3% CaCl, filled hole, cement dropped 40 feet; 2-3/4 wait on cement (will fill hole back to surface.) Waiting on cement. Leo Lewis

12-28-84:

Depth 1690', 109', days 8, pump 1100, table 68, wt on bit 17½ tons, mud wt 8.5, vis 28, bit #5 RR 9½ cut 109' from 1581' to 1690' in 5 hours, drilling time 5 hours, lost time 19 hours--4½ WOC and cement through one-inch with 75 sacks with 3% CaCl; 6 WOC and nipple up; 3½ pressure test blind rams and casing to 1500 psi, held okay; 2½ picked up seven 6-inch drill collars and tripped in hole and pressure tested pipe rams to 1500 psi for 15 minutes, held okay; 2½ drilled cement and shoe joint. Drilling. Leo Lewis

Patterson Unit Well No. 6

12-27-84:

Depth 1581', 91', days 7, pump 1200, table 66, wt on bit 22½ tons, drilling with water, bit #4 RR 14-3/4 cut 91' from 1490' to 1581' in 4-3/4 hours, survey 1° at 1581', drilling time 4-3/4 hours, lost time 19½ hours--4½ start up rig, tripped in hole, washed 35 feet to bottom; 2-3/4 short trip, ten stands and wait on Halliburton; 2 tripped out, laid down three 10-inch drill collars; 3½ ran 10-3/4-inch casing, landed at 1574 feet KBM; 1 circulate with rig pump; 1-3/4 cement 600 sacks Howco lite followed with 250 sacks Class H Regular with 3% CaCl, no cement returned to surface; 1¼ cement through one-inch pipe with 75 sacks Class G Regular with 3% CaCl, filled hole, cement dropped 40 feet; 2-3/4 wait on cement (will fill hole back to surface.) Waiting on cement. Leo Lewis

Patterson Unit Well No. 6
Wexpro Company, Operator
2470' FNL, 700' FWL
SW NW 4-38S-25E
San Juan County, Utah

API No.: 43-037-31108
Lease No.: U-11668
Projected Depth: 5730'
Elevation: 5160' GG

Drilling Contractor: Arapahoe Drilling Company, Rig No. 10

SPUDED 4:00 A.M. 12-21-84.

12-21-84:

Depth 50', 50', days 1, pump 400, table 80, drilling with water, bit #1 17½ cut 50' from 0' to 50' in 2 hours, drilling time 2 hours, lost time 20 hours--12 rig up; 2 wait on water; 1½ mix spud mud; 4 drill rat hole and mouse hole; ½ pick up 17-inch bit and shock sub, spud at 4:00 A.M. Waiting on Halliburton to set conductor pipe. Leo Lewis

12-22-84:

Depth 50', 0', days 2, pump 400, table 80, wt on bit 2 tons, mud wt 8.4, vis 35, bit #1 17½ retip reamed from 0' to 44', bit #2 18½ retip reamed from 0' to 44', lost time 24 hours--5 circulate, wait on Halco; 8 attempted to run 16-inch casing in 17½-inch hole, re-reamed three times; 3-¾ wait on 18-1/2-inch bit; 1½ reamed from 0-44' with 18-1/2-inch bit; 1½ run 44 feet of 16-inch conductor; 1½ cement conductor with 50 sacks; 3 WOC, nipple up, roads are muddy. Nipple up WOC. Leo Lewis

12-23-84:

Depth 372', 322', days 3, pump 1250, table 66, wt on bit 10-20 tons, mud wt 8.5, vis 28, bit #3 14-¾ cut 322' from 50' to 372' in 12½ hours, drilling time 12½ hours, lost time 11½ hours--7½ WOC; 3 trip out, pick up 10-inch collars; 1 repairs. Drilling. Leo Lewis

12-24-84:

Depth 1427', 1055', days 4, pump 1200, table 66, wt on bit 22½ tons, mud wt 8.6, vis 28, bit #3 14-¾ retip cut 1377' from 50' to 1427' in 35¼ hours, survey ½° at 493' and ¾° at 986', drilling time 22-¾ hours, lost time 1½ hours--1½ surveys and rig service, rig repairs. Drilling. Leo Lewis

12-25-84:

Depth 1490', 63', days 5, pump 1250, table 66, wt on bit 20½ tons, mud wt 8.6, vis 28, bit #3 14-¾ retip cut 1440' from 50' to 1490' in 39-¾ hours, survey 1° at 1490', drilling time 4½ hours, lost time 19½ hours--1-¾ tripped out of hole; 3 drain up rig and shut down; 14-¾ rig shut down for Christmas. Shut down for Christmas. Leo Lewis

12-26-84:

Depth 14,90', 0', days 6, lost time 24 hours--24 Shut down for Christmas. Leo Lewis

Patterson Unit Well No. 6
Wexpro Company, Operator
2470' FNL, 700' FWL
SW NW 4-38S-25E
San Juan County, Utah

API No.: 43-037-31108
Lease No.: U-11668
Projected Depth: 5730'
Elevation: 5160' GG

Drilling Contractor: Arapahoe Drilling Company, Rig No. 10

SPUDED 4:00 A.M. 12-21-84.

12-21-84:

Depth 50', 50', days 1, pump 400, table 80, drilling with water, bit #1 17½ cut 50' from 0' to 50' in 2 hours, drilling time 2 hours, lost time 20 hours--12 rig up; 2 wait on water; 1½ mix spud mud; 4 drill rat hole and mouse hole; ½ pick up 17-inch bit and shock sub, spud at 4:00 A.M. Waiting on Halliburton to set conductor pipe. Leo Lewis

12-22-84:

Depth 50', 0', days 2, pump 400, table 80, wt on bit 2 tons, mud wt 8.4, vis 35, bit #1 17½ retip reamed from 0' to 44', bit #2 18½ retip reamed from 0' to 44', lost time 24 hours--5 circulate, wait on Halco; 8 attempted to run 16-inch casing in 17½-inch hole, re-reamed three times; 3-¾ wait on 18-1/2-inch bit; 1½ reamed from 0-44' with 18-1/2-inch bit; 1½ run 44 feet of 16-inch conductor; 1½ cement conductor with 50 sacks; 3 WOC, nipple up, roads are muddy. Nipple up WOC. Leo Lewis

12-23-84:

Depth 372', 322', days 3, pump 1250, table 66, wt on bit 10-20 tons, mud wt 8.5, vis 28, bit #3 14-¾ cut 322' from 50' to 372' in 12½ hours, drilling time 12½ hours, lost time 11½ hours--7½ WOC; 3 trip out, pick up 10-inch collars; 1 repairs. Drilling. Leo Lewis

12-24-84:

Depth 1427', 1055', days 4, pump 1200, table 66, wt on bit 22½ tons, mud wt 8.6, vis 28, bit #3 14-¾ retip cut 1377' from 50' to 1427' in 35½ hours, survey ½° at 493' and ¾° at 986', drilling time 22-¾ hours, lost time 1½ hours--1½ surveys and rig service, rig repairs. Drilling. Leo Lewis

Patterson Unit Well No. 6
Wexpro Company, Operator
2470' FNL, 700' FWL
SW NW 4-38S-25E
San Juan County, Utah

API No.: 43-037-31108
Lease No.: U-11668
Projected Depth: 5730'
Elevation: 5160' GG

Drilling Contractor: Arapahoe Drilling Company, Rig No. 10

SPUDED 4:00 A.M. 12-21-84.

12-21-84:

Depth 50', 50', days 1, pump 400, table 80, drilling with water, bit #1
17½ cut 50' from 0' to 50' in 2 hours, drilling time 2 hours, lost time
20 hours--12 rig up; 2 wait on water; 1½ mix spud mud; 4 drill rat hole
and mouse hole; ½ pick up 17-inch bit and shock sub, spud at 4:00 A.M.
Waiting on Halliburton to set conductor pipe. Leo Lewis

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. U-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.) A ¹ SW ¹ NW, 2470' FNL, 700' FWL	8. FARM OR LEASE NAME Unit Well
14. PERMIT NO. 43-037-31108	9. WELL NO. 6
15. ELEVATIONS (Show whether DE, RL, CR, etc.) GG 5160' KB 5174.00'	10. FIELD AND POOL, OR WILDCAT Patterson
	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E
	12. COUNTY OR PARISH San Juan
	13. STATE Utah

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-OFFS <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) <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.)*

Drill Stem Test No. 3
Total Depth 5674', Packers 5635' and 5626'

Testing Desert Creek

IO 30 mins, ISI 120 mins, FO 190 mins, FSI 260 mins, opened weak, increased to medium, decreased to weak in 30 minutes, NGTS, opened medium, increased to strong, decreased to weak in 50 minutes, NGTS, recovered 110' slightly gas cut mud, 9.8 ppg, Res .310, 15,000 ppm, sample chamber recovery 1800 cc mud, 48 psig, 9.8, ppg, .31, 15,000 ppm, pit mud 12 ppg, Res .60, 10,000 ppm, IHHP 3533, IOFP's 110-124, ISIP 386, FOFP's 124-138, FSIP 496, FHHP 3506, BHT 131°F.

Well plugged as follows: Plug #1 with 30 sacks from 5600 feet to 5700 feet; Plug #2 with 40 sacks from 5360 feet to 5500 feet; Plug #3 with 60 sacks from 2000 feet to 2200 feet; Plug #4 with 30 sacks from 1525 feet to 1625 feet; Plug #5 with 30 sacks at surface. Cut off casing and installed dry hole marker. RIG RELEASED 3:00 P.M. 1-19-85.

Verbal permission to plug and abandon the well received from Greg Noble, BLM (801-259-6111) by Robert Rasmussen on 1-18-85.

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

SIGNED

Robert Rasmussen

TITLE

Asst. Dir. Superintendent

DATE

1-21-85

(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 TRIPPLICATE*
(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. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. J-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 NW, 2470' FNL, 700' FWL		8. FARM OR LEASE NAME Unit Well
14. PERMIT NO. 43-037-31108		9. WELL NO. 6
15. ELEVATIONS (Show whether DE, RL, CR, etc.) GG 5160' KB 5174.00'		10. FIELD AND POOL, OR WILDCAT Patterson
		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"/>	
(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.)*

Drill Stem Test No. 1
 Total Depth 5415', Packers 5371' and 5380'
 Testing Upper Ismay, Limestone, 5393-5396, 10 unit increase
 5400 to 5405, 13 unit gas increase
 10 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened very weak, continued throughout no gas, reopened weak, dead in 2 hours, no gas, recovered 125 feet gas cut mud, top 9.7 ppg, Res 1.2, 4500 ppm, bottom 9.7 ppg, Res 1.13, 4800 ppm, sample chamber recovered 700 cc water, 800 cc mud, 55 psig, water Res 1.5, 5500 ppm, mud Res 1.2, 4500 ppm, pit mud 10.3 ppg, Res 1.45, 10,000 ppm, IHHP 2911, IOFP's 55-97, ISIP 1717, FOFP's 111-125, FSIP 2133, FHHP 2856, BHT 127°F.

Drill Stem Test No. 2
 Total Depth 5470', Packers 5406' and 5414'
 Testing Lower Ismay, Water Zone
 10 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened weak, increased slightly no gas, reopened weak, remained throughout, no gas, dead in 55 minutes, recovered 450 feet water cut mud, top 10.2 ppg, Res 0.18, bottom 9.1, Res .08, sample chamber recovery 1650 cc, 290 psig, Res 0.6, 96 pp, pit mud 11.3 ppg, Res .16, IHHP 3170, IOFP's 110-137, ISIP 2202, FOFP's 165-247, FSIP 2202, FHHP 3143.

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

SIGNED *Lee Martin*

TITLE Asst. Dirg. Superintendent

DATE 1-21-85

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

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.
6

10. FIELD AND POOL, OR WILDCAT
Patterson

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

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 NW, 2470' FNL, 700' FWL
At top prod. interval reported below
At total depth

14. PERMIT NO. 43-037-31108 DATE ISSUED

12. COUNTY OR PARISH San Juan 13. STATE Utah

15. DATE SPUDDED 12-21-84 16. DATE T.D. REACHED 1-18-85 17. DATE COMPL. (Ready to prod.) -- 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* GG 5160' KB 5174.00' 19. ELEV. CASINGHEAD 5160'

20. TOTAL DEPTH, MD & TVD 5714' 21. PLUG, BACK T.D., MD & TVD Surface 22. IF MULTIPLE COMPL., HOW MANY* -- 23. INTERVALS DRILLED BY -- ROTARY TOOLS X CABLE TOOLS --

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

26. TYPE ELECTRIC AND OTHER LOGS RUN DIL, CNL-FDC, BHC 27. WAS WELL COBED Yes

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

CASINO SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
10-3/4	40.5	1574'	14-3/4	600 Sx Halco Lite & 250 Sx Regular	N/A

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

DATE FIRST PRODUCTION N/A	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) N/A	WELL STATUS (Producing or shut-in) P & A - 1-19-85					
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	

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

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
SIGNED Thomas H. Smith TITLE Director, Petroleum Eng DATE January 21, 1985

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

INSTRUCTIONS

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

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

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

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

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

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS
Upper Ismay	5371	5415'	DST #1: TD 5415', Pkrs 5371' & 5380', IO 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened very weak, continued throughout no gas, reopened weak, dead in 2 hours, no gas, rec 125' gas cut mud, top 9.7 ppg, Res 1.2, 4500 ppm, bottom 9.7 ppg, Res 1.13, 4800 ppm, sample chamber rec 700 cc wtr, 800 cc mud, 55 psig, wtr Res 1.5, 5500 ppm, mud Res 1.2, 4500 ppm, pit mud 10.3 ppg, Res 1.45, 10,000 ppm, IHHP 2911, IOFP's 55-97, ISIP 1717, FOFP's 111-125, FSIP 2133, FHHP 2856, BHT 127°F.	Morrison Entrada Carmel Navajo Chinle Shinarump Cutler Honaker Trail Paradox Ismay Base 2nd Shale Ismay Porosity Lower Shale Lower Ismay B Zone Shale Desert Creek Lower Bench Desert Ck Por. Salt
Lower Ismay	5406	5470	DST #2: TD 5470', Pkrs 5406' & 5414', IO 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened weak, increased slightly no gas, reopened weak, remained throughout, no gas, dead in 55 mins, rec 450' wtr cut mud, top 10.2 ppg, Res 0.18, bottom 9.1, Res 0.08, sample chamber rec 1650 cc, 290 psig, Res 0.6, 96 ppg, pit mud 11.3 ppg, Res .16, IHHP 3170, IOFP's 110-137, ISIP 2202, FOFP's 165-247, FSIP 2202, FHHP 3143. See attached sheet for DST #3.	Surface 530 690 720 1,500 2,238 2,332 4,310 4,800 5,338 5,380 5,490 5,520 5,560 5,594 5,620 5,640 5,730

INSTRUCTIONS

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

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

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

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

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

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES		38. GEOLOGIC MARKERS	
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Desert Creek	5626'	5674'	<p>DST #3: TD 5674', Pkrs 5635' & 5626' IO 30 mins, ISI 120 mins, FO 190 mins, FSI 260 mins, opened weak, inc to med, dec to weak in 30 mins, NGTS, opened med, inc to strong, dec to weak in 50 mins, NGTS, rec 110' slightly gas cut mud, 9.8 ppg, Res .310, 15,000 ppm, sample chamber recovery 1800 cc mud, 48 psig, 9.8 ppg, Res .31, 15,000 ppm, pit mud 12 ppg, Res .60, 10,000 ppm, IHHP 3533, IOFP's 110-124, ISIP 386, FOFp's 124-138, FSIP 496, FHHP 3506, BHT 131°F.</p>
			NAME
			MEAS. DEPTH
			TRUE VERT. DEPTH

	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)			1/23/85	1/23/85						
2. (approved)										
B. Well completion Report and Log (Form 9-330)			1/23/85	1/23/85						
J. Misc. Geologic Data										
1.										
2.										
3.										
4.										
5.										

*Applicable on wells drilled on U.S.A. leases
**Applicable only on Placid Operated Wells
***If applicable, see attached sheet

WEXPRO COMPANY
PATTERSON UNIT NO. 6
SW/NW Sec. 4, T38S-R25E
San Juan County, Utah

GEOLOGIC REPORT
for
WEXPRO COMPANY
on
PATTERSON UNIT NO. 6

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Bit Record.....4
Daily Drilling Summary.....6
Drill Stem Tests.....7
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Lithologic Descriptions.....36

January 1985



Brian K. Johnson
Geologist

WELL DATA SUMMARY

FORMATION TOPS

ENGINEERING DATA

FORMATION
EVALUATION

LITHOLOGIC
DESCRIPTIONS

WELL DATA SUMMARY

WELL NAME: Patterson Unit no. 6

OPERATOR: Wexpro Company

LOCATION: SW/NW Sec. 4, T38S-R25E

COUNTY: San Juan

STATE: Utah

DRILLING CONTRACTOR: Arapaho Rig no. 10

ELEVATION: G.L. 5160'
K.B. 5700'

DEPTH LOGGED: 4500' - 5700'

WELL STATUS:

CASING PROGRAM: sfc. csg. 10 3/4" run at 1574'

MECHANICAL LOGS RUN: DIL w/GR sfc. csg. - TD
Neutron/Density Neutron/Density to surface
Acoustic sfc. csg. - TD

CORES: 1st Core Upper Ismay 5323 - 83
2nd Core Upper Ismay 5383 - 5415
3rd Core Upper Ismay 5415 - 5469.5
4th Core Lower Desert Creek 5623 - 5674

DST: DST no. 1 Upper Ismay 5380 - 5415
DST no. 2 Upper Ismay 5415 - 5469.5
DST no. 3 Lower Desert Creek 5635 - 5674

MUDLOGGING COMPANY: Decollement Consulting, Inc.

MUD COMPANY: Baroid

COMPANY FOREMAN: Leo Lewis, Grover Nelson, Howard Leeper

FORMATION TOPS

ENGINEERING DATA

FORMATION
EVALUATION

LITHOLOGIC
DESCRIPTIONS

FORMATION TOPS

FORMATION	PROGNOSIS	SAMPLE	ESTIMATED TOP	E-LOG	SUBSEA LOG
Morrison	Surface	----	----	----	----
Entrada	530	----	----	----	----
Carmel	690	----	----	----	----
Navajo	720	----	----	----	----
Chinle	1500	----	----	----	----
Shinarump	2285	----	----	2282	2892
Cutler	2425	----	----	2428	2746
Honaker Trail	4335	----	----	4325	849
Paradox	4835	4838	4850	4802	372
Upper Ismay	5355	5324	5324	5332	- 158
Ismay \emptyset	5380	5388	5388	5403	- 229
Ismay Shale	5490	5450	5450	5486	- 312
Lower Ismay	5526	5520	5512	5523	- 349
"B" Zone Shale	5560	5560	5555	5571	- 397
Desert Creek	5580	5580	5574	5594	- 420
Lower Bench DC	5620	5628	5628	5638	- 464
Desert Creek \emptyset	5640	5638	5638	5653	- 479
Akah Shale		5651	5651	5669	- 495
Salt	5725	----	----	----	----
TD	5730	5700	5700	5718	- 544

ENGINEERING DATA

EVALUATION

DESCRIPTIONS

DEVIATION SURVEYS

<u>DEPTH</u>	<u>SURVEY</u>	<u>CHANGE</u>
493	1/2°	+1/2°
1490	1°	+1/2°
1987	1°	---
2482	1 1/4°	+1/4°
2845	3/4°	-1/2°
3393	3/4°	---
3484	3/4°	---
3979	1°	+1/4°
4368	3/4°	-1/4°
4897	1°	+1/4°
5050	3/4°	-1/4°
5323	1/4°	-1/2°

BIT RECORD

OIL COMPANY: Wexpro Company

WELL NAME: Patterson Unit no. 6

CONTRACTOR: Arapahoe

RIG NUMBER: 10

COUNTY: San Juan

STATE: Utah

SPUD DATE: 12/21/84

T.D. DATE: 1/17/85

NO. 1 PUMP, MAKE & MODEL: National C-250

NO. 2 PUMP, MAKE & MODEL: National C-150

SURFACE CASING: 10 3/4" 1574

GROUND LEVEL: 5160

KELLY BUSHING: 5174

BIT NO.	SIZE INCHES	TYPE MAKE	JETS	BIT SER. NO.	DEPTH OUT FEET	DEPTH FEET	HOURS	ACCUM HOURS	WEIGHT LBS.	RPM	VERT. DEV.	PUMP PRESS	MUD WT.	VIS.	REMARKS
1	17 1/2	HTC OSC3A	13/13/13	RT	50	50	2 1/2	2 1/2	10,000	80		400	---	---	
2	18 1/2	HTC OSC	----	RT	50	50	1 1/4	3 3/4	10	80		400	---	---	
3	14 3/4	STC F-2	13/14/B	RR	1440	1440	39 1/2	43 1/4	35/40	65		1250	28	8.7	
4	14 3/4	STC F-2	14/14/B	RR	1580	1580	4 3/4	48	40	65	1°	1250		H ₂ O	
5	9 1/2	STC F-2	13/14/B	RR	2845	2845	45 1/4	98 1/4	35	65	3/4°	1100		H ₂ O	
6	9 1/2	HTC J-22	14/14/B	RR	3484	3484	29 3/4	128	35	65	3/4°	1100		H ₂ O	
7	9 1/2	REED H551	13/13/B	New	4358	4358	62 1/4	190 1/4	35	65	3/4°	1000	9.2	28	
8	9 1/2	SEC 584F	14/14/B	974219	5650	5650	54 1/2	244 3/4	35	55	3/4°	1250	9.6	34	
9	9 1/2	HTC J-33	14/14/B	RR	5143	5143	10	254 3/4	35	55	3/4°	1100	10.3	38	
10	9 1/2	STC F-3	15/15/B	EH5157	5323	5323	24	278 3/4	35	60	1/4°	1050	10.3	37	
11	8 3/4	Chris MC-23	----	0111108	5464	5469	42 3/4	321 1/2	25	50		1100	11.3	48	
12	9 1/2	STC F-3	13/13/13	RR	5469	5469	30 1/2	352	7	66		1150	12.2	45	

BIT RECORD (cont'd)

BIT NO.	SIZE INCHES	TYPE MAKE	JETS	BIT SER. NO.	DEPTH OUT FEET	HOURS	ACCUM HOURS	WEIGHT LBS.	RPM	VERT. DEV.	PUMP PRESS	MUD WT.	VIS	REMARKS
13	9 1/2	STC F-3 Chris	13/14/15	RR #10	5623	5623	24	376	35	65	1100	12.1	40	
14	8 3/4	MC-20 STC	----	RR #11	5674	5674	13 1/4	389 1/4	24	50	1000	12.1	40	
15	9 1/2	F-3	13/13/13	RR	570	570	5	381	35	65	1100	12	41	

DAILY DRILLING SUMMARY

Date	Depth	Progress	Hrs. Drlg.	Wt.	Vis.	pH	W.L.	Activity
1/3	4280	348'	23 1/2	9.7	34	9.2	18.6	Drilling
1/4	4532	252'	19 1/4	9.7	34	9.2	18.6	Drilling/Trip Bit No. 7
1/5	4861	329'	23 3/4	9.6	34	9.6	20	Drilling
1/6	5058	197'	19 1/2	10.3	38	10	15	Drilling/Trip Bit no. 8
1/7	5221	163'	15 1/4	10.3	37	10	16	Drilling/Trip Bit no. 9
1/8	5323	102'	14	10.2	40	10	14.8	Coring
1/9	5383	60'	18 3/4	10.4	53	10.5	22.4	Pulling Core #1
1/10	5415	32'	7 1/2	10.5	40	10	10.8	Core #2, DST no. 1
1/11	5461	46'	12 1/4	11.3	43	9.0	16.2	Core #3
1/12	5469	8'	3 3/4	11.3	48	10.5	12.8	DST no. 2
1/13	5469	0'	0	12.2	45	10.5	12.8	Reaming
1/14	5525	55'	9 1/4	12.1	44	10	9.6	Reaming/Drilling
1/15	5630	105'	16 1/2	12.0	41	10.5	16.4	Core no. 4
1/16	5674	44'	11 1/4	12.0	39	11	14.8	DST no. 3
1/17	5690	16'	2 1/4	12.0	41	11	9.4	Reaming/Drilling
1/18	5700	10'	2 1/2	---	---	---	---	Logging

DRILL STEM TEST

WELL: Patterson Unit no. 6 DATE: 1/10/85

TEST: #1 FORMATION: Upper Ismay WITNESS: Johnson

REASON: Core break with associated formation gas and presence of hydrocarbons
in the core.

INTERVAL: 5380 - 5415 T.D. 5415

TESTING CO.: Lynes

TYPE TEST: Conventional Bottom Hole

CUSHION: none

I. FLOW: Tool opened with surface bubbles and remained stable through Initial
flow period of 30 min.

F. FLOW: Tool opened with 1/2" blow incr. to 1" @ 1 min., 3" @ 5 min., decr. to 1"
@ 10 min., surface blow @ 20 min. thru 110 min., dead @ 115 min. to 120 min.

GAUGES

I. FLOW OPEN 30 MIN.

F. FLOW OPEN 120 MIN.

GTS	<u>none</u>
_____	Mcf _____ min.

GTS	<u>none</u>	_____	Mcf _____ min.
_____	Mcf _____ min.	_____	Mcf _____ min.
_____	Mcf _____ min.	_____	Mcf _____ min.
_____	Mcf _____ min.	_____	Mcf _____ min.
_____	Mcf _____ min.	_____	Mcf _____ min.

RECOVERY: 125' drilling fluid & filtrate .6 bbls. slight gas cut.

SAMPLE CHAMBER: --- cfg and 700 cc's water 800 cc's mud @ 55 psi

	TOP CHART	TIME	BOTTOM CHART	
IH:	<u>2911</u>		<u>2998</u>	
IF:	<u>55-97</u>	<u>30</u>	<u>80-98</u>	
ISI:	<u>1717</u>	<u>120</u>	<u>1761</u>	
FF:	<u>111-125</u>	<u>120</u>	<u>113-148</u>	BHT <u>127°F</u>
FSI:	<u>2133</u>	<u>360</u>	<u>2198</u>	
FH:	<u>2856</u>		<u>2913</u>	

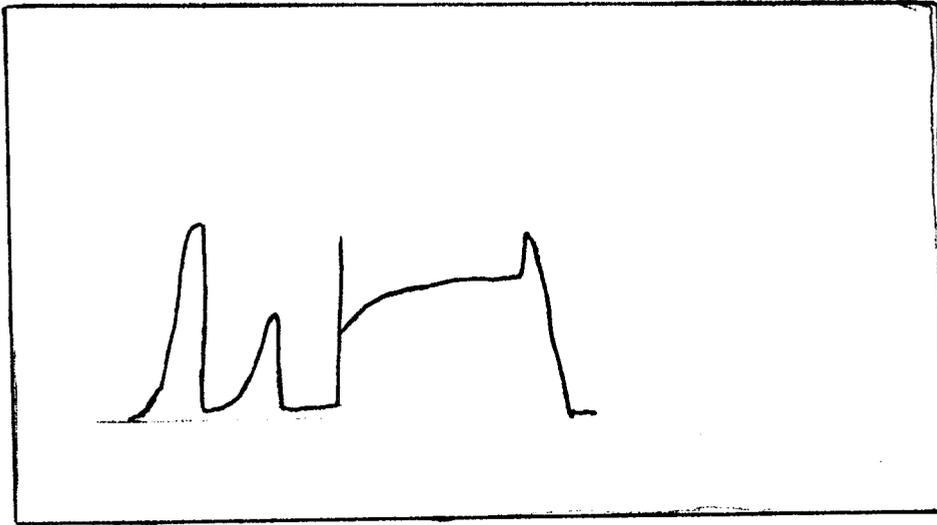
SAMPLES CAUGHT: Gas Oil Water Mud

WHERE CAUGHT: Drill pipe Flow Line Separator MFE Tool

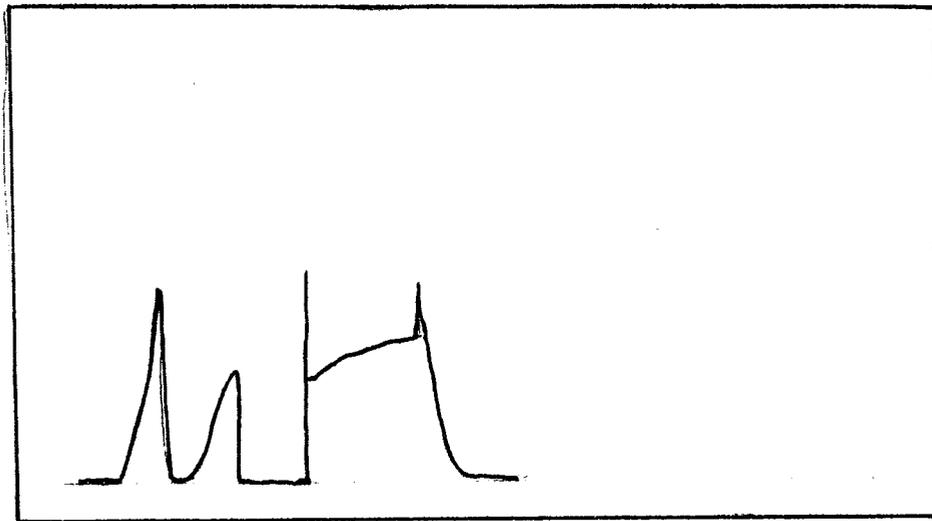
RESISTIVITIES @ 68° REMARKS: _____

10,000 ppm
PIT MUD: 45 FILTRATE: _____

4,500 ppm
REC. MUD: 12 REC. WTR: _____



TOP RECORDER 5350'



MIDDLE RECORDER 5395'

DRILL STEM TEST

WELL: Patterson Unit no. 6 DATE: 1/11/85
TEST: 2 FORMATION: Upper Ismay WITNESS: Johnson
REASON: To evaluate potential for water disposal zone.

INTERVAL: 5415 - 5469.5 T.D. 5469.5

TESTING CO.: Lynes

TYPE TEST: Conventional Bottom Hole

CUSHION: None

I. FLOW: Open tool w/ 1/2" blow, increased to 1" @ 5 min. and remained stable thru 30 min. period.

F. FLOW: Opened w/ 1/2" blow, increased to 1" @ 5 min. thru 20 min., decreased to surface blow @ 25 min. thru 50 min., dead at 55 min., thru 120 min.

GAUGES

I. FLOW OPEN 30 MIN.

F. FLOW OPEN 120 MIN.

GTS none
Mcf min.
Mcf min.
Mcf min.
Mcf min.

GTS none Mcf min.
Mcf min.
Mcf min.
Mcf min.
Mcf min.

RECOVERY: 450' 50' slight water cut drill mud 400' slight mud cut water.

SAMPLE CHAMBER: cfg and 600 cc's mud 950 cc's H2O @ 290 psi
Rw = .06 @ 68° 84,000 ppm

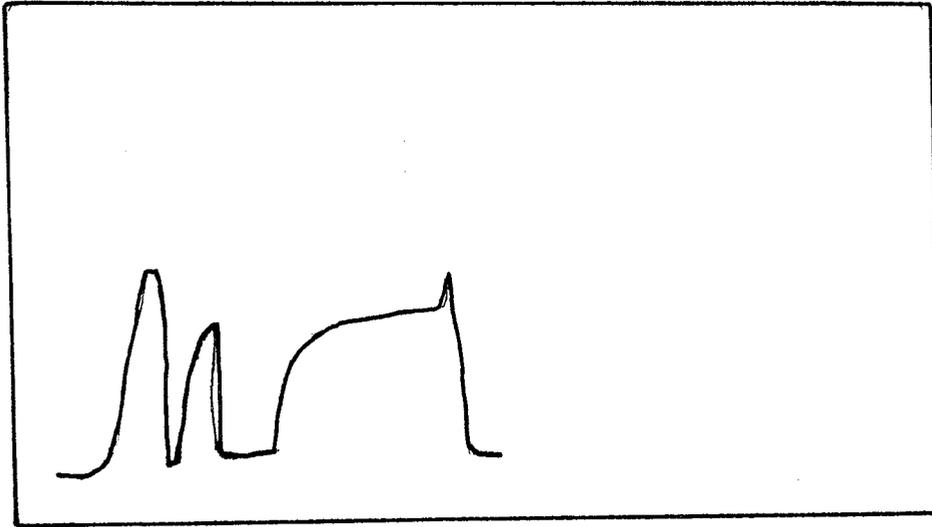
Table with 3 columns: TOP CHART - 5425', TIME, BOTTOM CHART - 5465'. Rows include IH, IF, ISI, FF, FSI, FH with corresponding values and BHT 128°F.

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

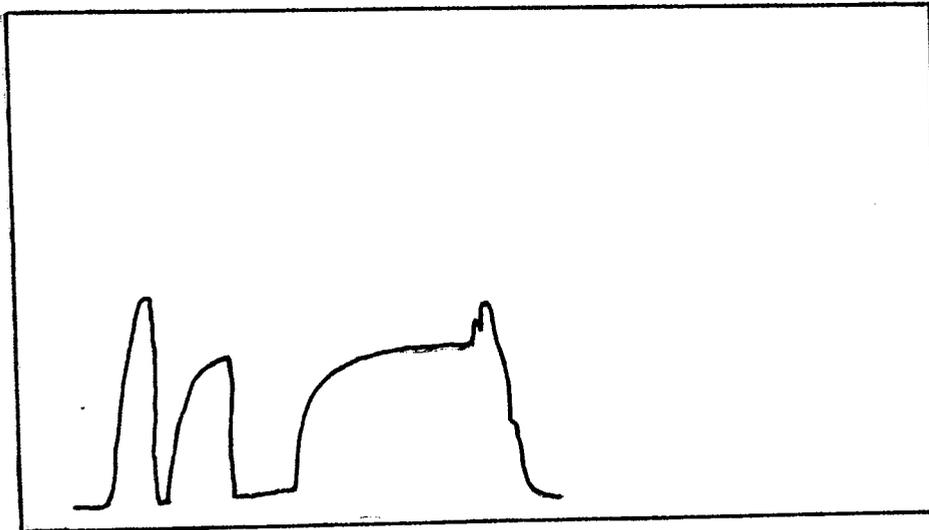
WHERE CAUGHT: Drill pipe (X) Flow Line () Separator () MFE Tool (X)

RESISTIVITIES @ 68° REMARKS:

15,000 ppm
PIT MUD: .42 FILTRATE: 54,000 ppm
REC. MUD: 1.8 REC. WTR: .8



TOP CHART 5425'



BOTTOM CHART 5465'

DRILL STEM TEST

WELL: Patterson Unit no. 6 DATE: 1/16/85

TEST: 3 FORMATION: Lower Desert Creek WITNESS: Johnson

REASON: Mud gas shows and sample shows in Core no. 4

INTERVAL: 5635 - 5674 T.D. 5674

TESTING CO.: Lynes

TYPE TEST: Conventional Bottom Hole

CUSHION: None

I. FLOW: Open w/ 1/2" blow, increased to 12" @ 2 min., 13" @ 5 min., 10" @ 10 min., 4" @ 20 min., 2" @ 30 min.

F. FLOW: Open w/ 12" blow, increased to 20" @ 1 min., decreased to 7" @ 10 min., 1" @ 20 min., SB 25 min., 1/2" @ 30 - 45 min., SB 50 - 190 min.

GAUGES

I. FLOW OPEN 30 MIN.

F. FLOW OPEN 190 MIN.

I. FLOW OPEN 30 MIN.		F. FLOW OPEN 190 MIN.	
GTS <u>none</u>		GTS <u>none</u>	Mcf <u> </u> min.
<u> </u> Mcf <u> </u> min.		<u> </u> Mcf <u> </u> min.	<u> </u> Mcf <u> </u> min.
<u> </u> Mcf <u> </u> min.		<u> </u> Mcf <u> </u> min.	<u> </u> Mcf <u> </u> min.
<u> </u> Mcf <u> </u> min.		<u> </u> Mcf <u> </u> min.	<u> </u> Mcf <u> </u> min.
<u> </u> Mcf <u> </u> min.		<u> </u> Mcf <u> </u> min.	<u> </u> Mcf <u> </u> min.

RECOVERY: 110' slight gas cut drilling mud

SAMPLE CHAMBER: cfg and 1800 cc's gas cut drill mud @ 48 psi
Rw = .31 @ 68° 15,000 ppm

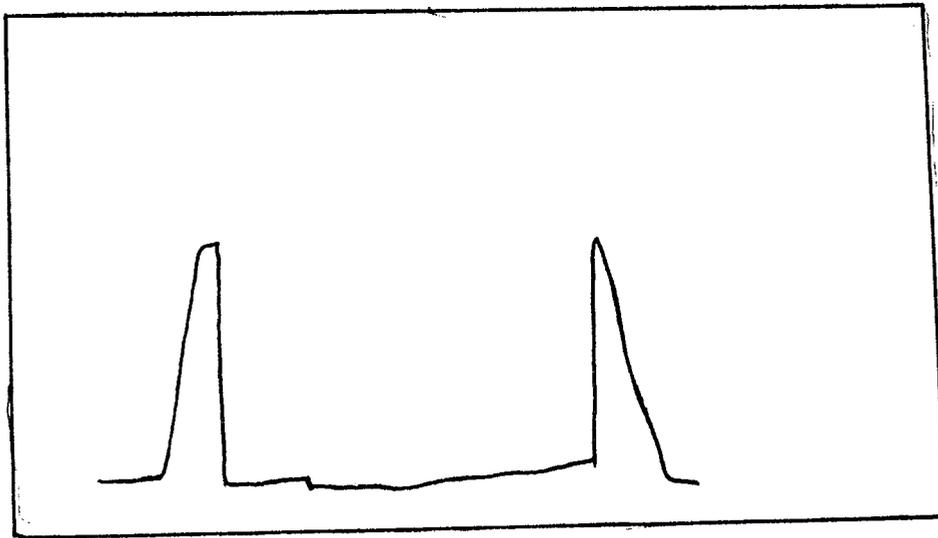
	TOP CHART - 5606	TIME	BOTTOM CHART	
IH:	<u>3533</u>		<u>3570</u>	
IF:	<u>110-124</u>	<u>30</u>	<u>106-110</u>	
ISI:	<u>386</u>	<u>120</u>	<u>306</u>	
FF:	<u>124-138</u>	<u>190</u>	<u>108-118</u>	BHT <u>131° F</u>
FSI:	<u>496</u>	<u>360</u>	<u>503</u>	
FH:	<u>3506</u>		<u>3526</u>	

SAMPLES CAUGHT: Gas Oil Water Mud

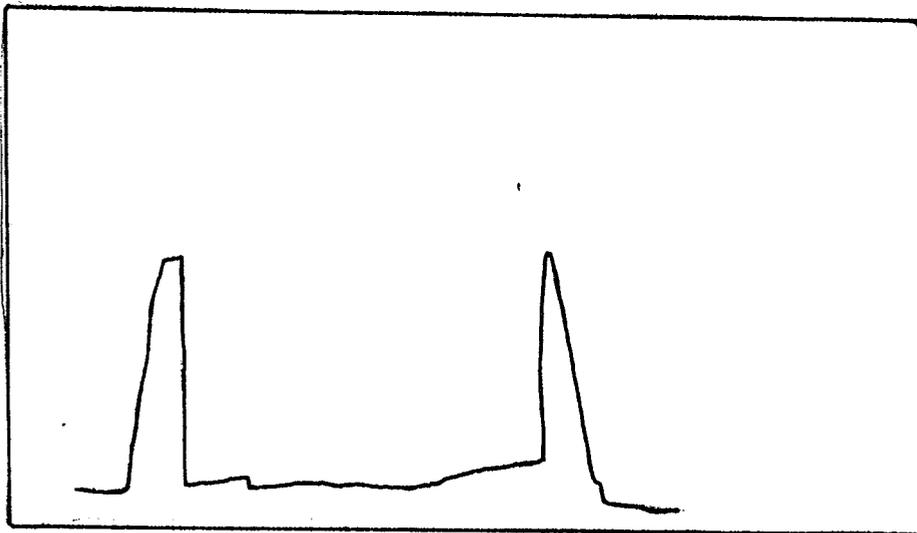
WHERE CAUGHT: Drill pipe Flow Line Separator MFE Tool

RESISTIVITIES @ 68° REMARKS: _____

PIT MUD: .60 = 10,000 ppm
BOTTOM: .23 = 23,000 ppm
REC. MUD: .27 = 16,000 ppm



TOP CHART 5606'



BOTTOM CHART 5645'

LOGGING REPORT

DATE: 1/17/85

Logging Co.: Wellex Logging Engineer: Bogrett Truck No.: 2892Depth (Driller): 5700' Depth (Strap): _____ Depth (Logger): 5718'Hole Size: 9 1/2 in. Casing (Driller): 1574' Int. Casing (Driller): _____MUD DETAILSMud Type: L.S.N.D. Wt.: 12 Vis.: 41 pH: 11 W.L. 9.4Salinity at time of logging: 10,000 (ppm-chlorides)Hole conditions prior to logging: Very goodOperations summary: Circ. time after T.D. (hrs.) 1 1/4, No. of "Dummy Trips" 0Description of "Dummy Trips": NoneHours logging: 13LOGGING SEQUENCE

<u>Type of Log</u>	<u>Time spent in hrs.</u>	<u>Remarks</u>
DIL w/GR	5	
Neutron/Density w/GR & Caliper	4	
Sonic	4	
No. of runs in hole: Total <u>3</u>	Succeeded <u>3</u>	Failed _____

Further Remarks: _____

CORE REPORTS

CORE 1

<u>5323 - 83</u>	<u>Upper Ismay</u>	<u>1/9/85</u>
Interval	Formation	Date

Christenson
Coring Company

Cut: 60 Recovered: 60

CORE TIMES: 48, 12, 16, 16, 16, 18, 21, 22, 29, 34, 28,
16, 20, 24, 49, 21, 23, 26, 25, 27, 27, 23, 26, 23, 27,
26, 21, 22, 19, 23, 18, 18, 16, 11, 13, 12, 13, 12, 11,
18, 13, 13, 13, 13, 17, 11, 15, 13, 12, 14, 14, 15, 13,
14, 12, 10, 11, 11, 11, 11

Description: 5323 - 23.5 Limestone - medium gray to brown, moderately indurated, cryptocrystalline, dense, argillaceous matrix, no visible intercrystalline porosity, scattered light green to yellow fluorescence, lazy milky cut, trace gilsonite, no stain or odor.

5323.5 - 24.5 Anhydrite - white to light gray, moderately indurated, crystalline, interbedded with Limestone; brown to gray, moderately indurated, cryptocrystalline, dense, argillaceous matrix, silty, tight, no fluorescence or cut.

5324.5 - 25.5 Anhydrite - white to light gray, moderately to well indurated, cryptocrystalline to microcrystalline.

5325.5 - 27.5 Anhydrite - white to light gray occasionally dark gray, well indurated, cryptocrystalline to microcrystalline, occasional interbeds of limestone, brown to gray, moderately indurated, cryptocrystalline to microcrystalline, very argillaceous matrix, grading to marlstone, tight, no fluorescence or cut.

5327.5 - 28 Anhydrite - white to light gray, moderately to well indurated, cryptocrystalline to microcrystalline, nodular with interbeds Limestone; brown, moderately indurated, cryptocrystalline to microcrystalline, argillaceous matrix, tight, no shows, grading to marlstone.

- 5328 - 5329 Limestone - medium brown, moderately to well indurated, predominantly cryptocrystalline, slightly to moderately argillaceous matrix, dense, tight, no fluorescence stain odor or cut, with Anhydrite; nodular, white to light gray, moderately to well indurated, cryptocrystalline, dense.
- 5329 - 30.5 Shale - medium to dark gray, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, earthy, micromicaceous, abundant trace bioclastic material, includes shell fragments, trace carbonaceous inclusions, slightly calcareous.
- 5330.5 - 31.5 Limestone - brown to gray, moderately indurated, cryptocrystalline to microcrystalline, dense, predominantly argillaceous matrix, no visible intercrystalline porosity, scattered bright green to yellow fluorescence with very lazy milky cut, no odor or stain.
- 5331.5 - 32.5 Limestone - medium to dark brown, moderately to well indurated, cryptocrystalline, dense, argillaceous matrix, no intercrystalline porosity, no fluorescence stain or cut.
- 5332.5 - 33.5 Note: Limestone and Anhydrite contact.
Anhydrite - white to light gray light brown, well indurated, cryptocrystalline to microcrystalline.
Limestone - medium to dark gray dark brown, moderately to well indurated, cryptocrystalline to microcrystalline, dense, very argillaceous matrix, tight, no shows, grading to marlstone.
- 5333.5 - 34.5 Anhydrite - white to light gray, well indurated, cryptocrystalline, nodular with interbedded Limestone; medium to dark brown gray, moderately to well indurated, microcrystalline, dense, argillaceous matrix, tight, no fluorescence or cut.
- 5334.5 - 35.5 Limestone - brown, moderately to well indurated, microcrystalline, dense, argillaceous matrix, microsucrosic texture, no visible intercrystalline porosity, occasional anhydrite infill, no fluorescence, stain, odor or cut.
- 5335.5 - 36.5 Limestone - gray to brown, moderately to well indurated, microcrystalline, slightly to moderately argillaceous matrix, tight, no shows.

- 5336.5 - 37.5 Limestone - brown to gray, moderately to well indurated, microcrystalline to very fine crystalline, slightly to argillaceous matrix, no visible intercrystalline porosity, no shows.
- 5337.5 - 38 Limestone - brown to gray, moderately to well indurated, cryptocrystalline to microcrystalline, dense, slightly to moderately argillaceous matrix, tight, no fluorescence, stain or cut, with thin laminae Shale; medium to dark gray, hard, platy, fissile, smooth to silty texture, earthy, slightly calcareous.
- 5338 - 39.5 Limestone - dark gray to brown, moderately to well indurated, microcrystalline, dense, argillaceous matrix, no visible intercrystalline porosity, no fluorescence, stain, odor or cut, with Shale; dark gray to brown, hard, blocky to splintery, smooth to silty texture, earthy, slightly calcareous, grading to marlstone in part.
- 5339.5 - 40.5 Limestone - brown, well indurated, microcrystalline, slightly to moderately argillaceous, tight, no shows, occasional gilsonite inclusions.
- 5340.5 - 41.5 Limestone - light to medium brown, well indurated, cryptocrystalline to microcrystalline, dense, clean to slightly argillaceous matrix, no visible intercrystalline porosity, no fluorescence or cut.
- 5341.5 - 42.5 Limestone - light to medium brown, moderately to well indurated, predominantly cryptocrystalline, clean to slightly argillaceous matrix, trace bioclastic material, tight, no fluorescence, stain, odor or cut.
- 5342.5 - 44 Shale - light to medium gray, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, waxy, slightly to moderately calcareous, grading to marlstone in part.
- 5344 - 45.5 Shale - medium to dark gray brown, moderately hard, blocky to splintery, smooth to slightly silty texture, earthy, slightly calcareous.
- 5345.5 - 47 Shale - medium brown, moderately hard, blocky to splintery, smooth texture, earthy, none to slightly calcareous, occasional anhydrite inclusions.

- 5347 - 48.5 Limestone - medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, dense, very argillaceous matrix, tight, no shows, grading to marlstone.
- 5348.5 - 5350 Shale - dark gray, firm to moderately hard, platy, fissile to subfissile, smooth to slightly silty texture, earthy, slightly to moderately calcareous, grading to marlstone in part.
- 5350 - 51 Limestone - dark gray to brown, moderately indurated, cryptocrystalline, dense, very argillaceous matrix in part, tight, no fluorescence or cut.
- 5351 - 52 Limestone - gray to brown, moderately indurated, cryptocrystalline to microcrystalline, very argillaceous matrix, subfissile in part, trace carbonaceous material, silty texture, grading to marlstone.
- 5352 - 53.5 Limestone - light to medium brown moderately to well indurated, microcrystalline, dense, slightly to moderately argillaceous matrix, no visible intercrystalline porosity, no fluorescence or cut with Anhydrite; white to light gray, well indurated, cryptocrystalline to microcrystalline, dense, nodular.
- 5353.5 - 55 Anhydrite - white to light gray, well indurated, cryptocrystalline to microcrystalline with shale lamination.
- 5355 - 56.5 Anhydrite - white to light brown, well indurated, predominantly cryptocrystalline, trace shale inclusion.
- 5356.5 - 59.5 Anhydrite - white, well indurated, cryptocrystalline, with light brown shale inclusion.
- 5359.5 - 63 Anhydrite - white to light gray light brown, well indurated, predominantly cryptocrystalline.
- 5363 - 68 Anhydrite - light to medium brown gray, well indurated, cryptocrystalline to microcrystalline, massive, dense.
- 5368 - 72 Anhydrite - light to medium brown yellow, well indurated, cryptocrystalline, dense, nodular.
- 5372 - 76 Anhydrite - as above.

- 5376 - 77 Shale - brown to dark gray, firm to moderately hard, blocky to splintery, silty texture, earthy, slightly calcareous, anhydrite, petroliferous.
- 5377 - 80.5 Anhydrite - white light gray to light brown, well indurated, cryptocrystalline, dense, nodular.
- 5380.5 - 83 Anhydrite - white gray, well indurated, cryptocrystalline, dense, nodular.

CORE REPORTS

CORE 25383 - 5415
IntervalUpper Ismay
Formation1/9/85
DateChristenson
Coring CompanyCut: 32 Recovered: 31.5CORE TIMES: 5, 11, 13, 13, 17, 14, 17, 18, 20, 14, 8,9, 15, 21, 20, 16, 15, 13, 10, 10, 8, 13, 17, 18, 20,14, 20, 16, 14, 13, 13, 11

- Description: 5383 - 86.5 Anhydrite - white light to medium gray, well indurated, cryptocrystalline, dense.
- 5386.5 - 88 Shale - dark gray to black, moderately hard, blocky to splintery, smooth to slightly silty, earthy, slightly carbonaceous, slightly calcareous.
- 5388 - 89.5 Limestone - light brown, moderately indurated, microcrystalline, slightly to moderately argillaceous matrix, trace bioclastic material inclusion brachiopod fragment, no visible intercrystalline porosity, no shows.
- 5389.5 - 91.5 Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, dense, slightly to moderately argillaceous matrix, silty, no visible intercrystalline porosity, no shows.
- 5391.5 - 93.5 Limestone - brown to gray, well indurated, cryptocrystalline to occasionally microcrystalline, slightly argillaceous matrix, tight, no shows.
- 5393.5 - 94.5 Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, argillaceous matrix, trace anhydrite nodules, large voids filled with gray mudstone, tight, no fluorescence, stain, odor, or cut.
- 5394.5 - 95.5 Limestone - light brown, moderately indurated, cryptocrystalline to microcrystalline, generally clean matrix, abundant bioclastic material, no visible intercrystalline porosity, no fluorescence stain, odor or cut.

- 5395.5 - 96.5 Limestone - medium brown, moderately indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous matrix, trace pinpoint porosity, heavily anhydrite filled, no fluorescence, stain or cut.
- 5396.5 - 98 Limestone - light brown gray, moderately to well indurated, cryptocrystalline to microcrystalline occasionally very fine crystalline, clean to slightly argillaceous matrix, trace bioclastic material, poor intercrystalline porosity, anhydrite fill, tight, no fluorescence or cut.
- 5398 - 5400 Limestone - generally as above, increased intercrystalline porosity.
- 5400 - 02.5 Limestone - light brown to light gray, moderately indurated, microcrystalline to very fine crystalline, predominantly clean matrix, slightly anhydritic, trace pinpoint porosity, some poor intercrystalline porosity, trace euhedral crystals, bright yellow fluorescence, lazy yellow solvent cut, moderate hydrocarbon odor.
- 5402.5 - 04 Limestone - light to medium brown, moderately indurated, microcrystalline, increased argillaceous matrix, heavy trace anhydrite infill, mud matrix in part, poor visible intercrystalline porosity in part, no fluorescence, stain or cut, no odor.
- 5404 - 05.5 Limestone - brown to gray, moderately indurated, microcrystalline, slightly to moderately argillaceous matrix, mottled with marlstone, trace anhydrite fill fracture, tight, no fluorescence, stain or cut.
- 5405.5 - 07 Limestone - brown, well indurated, predominantly cryptocrystalline, slightly argillaceous matrix, heavily anhydrite fill, tight, no shows.
- 5407 - 08.5 Limestone - light to medium brown gray, moderately to well indurated, cryptocrystalline, clean to slightly argillaceous matrix, decreased anhydrite infill, tight, no shows.
- 5408.5 - 09.5 Limestone - light brown to light gray, well indurated, cryptocrystalline to microcrystalline, slightly argillaceous matrix, heavy trace recrystallized calcite, tight, no fluorescence or cut.

- 5409.5 - 11.5 Limestone - brown to gray, moderately to well indurated, cryptocrystalline to microcrystalline, dense, slightly to moderately argillaceous matrix, heavily anhydrite filled, trace bioclastic material, ostracods, some poor intercrystalline porosity, no shows.
- 5411.5 - 14 Limestone - light to medium brown, moderately to well indurated, very fine to coarse crystalline, clean to slightly argillaceous matrix, trace anhydrite infill, good intercrystalline porosity 8 to 12% in part, recrystallized calcite in part, no fluorescence, stain, odor or cut.

CORE REPORTS

CORE 3

<u>5415 - 5469</u>	<u>Upper Ismay</u>	<u>1/11/85</u>
Interval	Formation	Date

Christenson
Coring Company

Cut: 54 1/2 Recovered: 54 1/2

CORE TIMES: 11, 12, 10, 10, 10, 9, 11, 10, 11, 10, 10,
9, 10, 12, 13, 10, 11, 10, 12, 10, 10, 9, 11, 8, 8, 7,
9, 10, 9, 10, 12, 10, 11, 9, 14, 24, 25, 29, 28, 33, 32,
27, 28, 31, 30, 35, 30, 27, 32, 27, 20, 28, 32, 32

- Description: 5415 - 16.5 Limestone - light to medium brown, moderately to well indurated, microcrystalline to coarse crystalline, clean to argillaceous matrix, trace bioclastic material inclusions shell fragment, good intercrystalline porosity in part, trace vuggy porosity, no fluorescence, stain, odor or cut.
- 5416.5 - 17.5 Limestone - light to medium brown gray, moderately to well indurated, microcrystalline to fine crystalline, clean to slightly argillaceous matrix, good intercrystalline porosity in part, 8 to 10%, trace vuggy with euhedral crystalline lining vugs, no shows.
- 5417.5 - 18.5 Limestone - brown to gray, well indurated, cryptocrystalline to coarse crystalline, generally clean matrix, occasionally slightly argillaceous, sucrosic texture, decreased intercrystalline porosity, vuggy porosity, trace stylolite, no shows.
- 5418.5 - 20 Limestone - brown, poor to moderately indurated, very fine to medium crystalline, predominantly clean matrix, good intercrystalline porosity 10 to 12%, vuggy porosity, trace stylolite, no fluorescence or cut.
- 5420 - 21 Limestone - gray to brown, poor to moderately indurated, cryptocrystalline to fine crystalline, generally clean matrix, intercrystalline porosity in part, tight in part, no shows.

- 5421 - 22.5 Limestone - brown to gray, moderately indurated, microcrystalline to very fine crystalline, clean to slightly argillaceous matrix, fair intercrystalline porosity in part, occasional vuggy porosity, trace anhydrite nodule inclusion.
- 5422.5 - 24.5 Limestone - gray light to medium brown, poor to moderately indurated, microcrystalline to coarse crystalline, clean to slightly argillaceous matrix, fair to good intercrystalline porosity in part, some vuggy porosity, no shows.
- 5424.5 - 26 Limestone - light to medium brown gray, poorly to moderately indurated, generally as above, decreased intercrystalline porosity, fair vuggy porosity.
- 5426 - 27 Limestone - gray light brown, poor to moderately indurated, increased argillaceous material, good vuggy porosity in part with fair intercrystalline porosity, no shows.
- 5427 - 28.5 Limestone - light to medium gray, moderately indurated, microcrystalline, slightly argillaceous matrix, tight, no shows.
- 5428.5 - 30 Limestone - light brown, moderately indurated, microcrystalline, very argillaceous matrix, trace stylolite, some anhydrite inclusions, grading to marlstone, no visible porosity,
- 5430 - 31.5 Shale - medium to dark brown, firm, blocky, smooth texture, earthy, slightly to moderately calcareous, grading to marlstone in part.
- 5431.5 - 33 Limestone - light brown to gray, poor to moderately indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous matrix, no visible porosity, no shows.
- 5433 - 35.5 Limestone - light brown, poor to moderately indurated, microcrystalline to occasionally very fine crystalline, clean to slightly argillaceous matrix, occasionally poor intercrystalline porosity, no fluorescence or cut.
- 5435.5 - 37 Limestone - light brown to light gray, poor to moderately indurated, microcrystalline to very fine crystalline, clean to slightly argillaceous matrix, poor intercrystalline porosity with trace pinpoint porosity.

- 5437 - 38.5 Limestone - light brown, poor indurated, microcrystalline occasionally very fine crystalline, increased argillaceous matrix, trace anhydrite nodules, tight, no shows.
- 5438.5 - 41.5 Limestone - light brown, poorly indurated, microcrystalline to very fine crystalline, generally clean matrix, poor intercrystalline porosity with fair pinpoint porosity, no fluorescence or cut.
- 5441.5 - 44 Limestone - gray to light brown, poor to moderately indurated, microcrystalline to very fine crystalline, clean to slightly argillaceous matrix, fair pinpoint and poor intercrystalline porosity, no shows.
- 5444 - 45 Limestone - light brown, poor to moderately indurated, microcrystalline to very fine crystalline, generally clean matrix, occasional anhydrite nodule, poor intercrystalline and pinpoint porosity, no shows.
- 5445 - 47 Limestone - light brown to gray, poor to moderately indurated, microcrystalline to very fine crystalline, increased argillaceous matrix, trace dendrites, fair intercrystalline porosity, no fluorescence or cut.
- 5447 - 48.5 Limestone - light brown, microcrystalline to very fine crystalline, very argillaceous matrix, occasional anhydrite nodule, fair intercrystalline porosity, occasional rip up clasts, no shows.
- 5448.5 - 49.5 Limestone - light brown, microcrystalline to very fine crystalline, dense argillaceous matrix, trace anhydrite infill, trace stylolite, trace carbonaceous material, fair intercrystalline porosity, no shows.
- 5449.5 - 50.5 Shale - medium to dark gray, moderately hard, blocky, earthy, calcareous, grading to marlstone.
- 5450.5 - 63.5 Shale - dark gray, hard, blocky to splintery, silty texture, earthy, trace carbonaceous material, calcareous, grading to marlstone.
- 5463.5 - 66.5 Shale - brown to gray, moderately hard, blocky to splintery, silty texture, trace bioclastic material, increasingly calcareous, grading to marlstone.

5466.5 - 69.5 Shale - brown to gray, hard, blocky, smooth to slightly silty texture, earthy, grading to marlstone.

CORE REPORTS

CORE 45623 - 5674Lower Desert Creek1/15/85

Interval

Formation

Date

ChristensonCoring CompanyCut: 51'Recovered: 51'CORE TIMES: 14, 12, 14, 14, 17, 16, 15, 12, 11, 11, 12,14, 11, 11, 12, 9, 9, 11, 11, 10, 11, 13, 17, 18, 15,20, 18, 23, 19, 20, 22, 22, 16, 19, 16, 15, 17, 18, 18,15, 17, 15, 17, 16, 17, 16, 18, 15, 14, 15, 14

Description: 5623 - 24.5

Dolomite - light brown, well indurated, very fine crystalline, slightly argillaceous matrix, tight to poor intercrystalline porosity, no shows.

5624.5 - 26

Dolomite - light brown to light gray, well indurated, predominantly very fine crystalline, slightly argillaceous matrix, sacrosic texture, tight, no fluorescence or cut.

5426 - 28

Dolomite - light to medium gray, well indurated, microcrystalline to very fine crystalline, increased argillaceous material, subfissile, no visible intercrystalline porosity, no shows.

TOP LOWER DESERT CREEK

5628 - 34

Anhydrite - light gray, well indurated, cryptocrystalline, dense, massive.

5634 - 35

Shale - dark gray to black, moderately hard, platy to flaky, fissile, slightly silty texture, earthy, dolomite.

5635 - 36

Dolomite - gray to brown, moderately to well indurated, microcrystalline to very fine crystalline, very argillaceous, tight, grading to marlstone.

5636 - 37.5

Dolomite - light to medium brown gray, moderately to well indurated, microcrystalline, very argillaceous matrix, tight, grading to marlstone.

DESERT CREEK POROSITY

- 5637.5 - 38.5 Dolomite - light brown, well indurated, very fine crystalline, generally clean matrix, trace anhydrite nodules, poor intercrystalline porosity, weak yellow fluorescence, lazy to streaming milky cut, light oil stain, moderate hydrocarbon odor.
- 5638.5 - 39.5 Dolomite - light brown, well indurated, microcrystalline to very fine crystalline, dense, increased argillaceous matrix, stylolitic, poor intercrystalline porosity, very weak fluorescence, occasional slight ring cut, no stain, slight hydrocarbon odor.
- 5639.5 - 41 Dolomite - light brown, well indurated, very fine crystalline to microcrystalline, slightly argillaceous matrix, trace anhydrite infill, poor intercrystalline porosity, spotty yellow fluorescence, lazy yellow cut, strong hydrocarbon odor.
- 5641 - 42.5 Dolomite - light brown, well indurated, very fine crystalline, generally clean matrix, trace bioclastic material, poor intercrystalline porosity, no fluorescence or cut, no stain, very slight hydrocarbon odor.
- 5642.5 - 44 Shale - dark gray to blocky, moderately hard, platy, subfissile, slightly silty texture, earthy, dolomite.
- 5644 - 45 Dolomite - gray to brown, well indurated, microcrystalline, dense, slightly argillaceous matrix, trace bioclastic material, tight, no fluorescence, slight ring cut, faint hydrocarbon odor.
- 5645 - 46.5 Dolomite - brown to gray, well indurated, microcrystalline, dense, slightly argillaceous matrix, tight, no fluorescence stain or cut, faint hydrocarbon odor.
- 5646.5 - 48 Dolomite - light brown, well indurated, microcrystalline to very fine crystalline, dense, slightly argillaceous matrix, abundant bioclastic material inclusion, pellets, spicules, shell fragments, possible fusulinid, tight, no fluorescence, odor, stain or cut.
- 5648 - 49 Dolomite - light brown, well indurated, microcrystalline to very fine crystalline, slightly argillaceous matrix, abundant bioclastic material, tight, no shows.

- 5649 - 51 Dolomite - brown to gray, well indurated, micro-crystalline to very fine crystalline, increased argillaceous material, abundant bioclastic material inclusion large brachiopod fragment, trace disseminated pyrite, tight, no fluorescence, stain, odor or cut.
- 5651 - 52.5 Dolomite - medium to dark gray, well indurated, microcrystalline, dense, very argillaceous matrix, grading to marlstone.
- TOP AKAH SHALE
- 5652.5 - 53.5 Shale - dark gray to black, moderately hard, platy, fissile, smooth to slightly silty texture, earthy, slightly calcareous.
- 5653.5 - 65 Shale - dark gray, moderately hard, platy, fissile, smooth to slightly silty texture, earthy, occasional calcite streak, slightly calcareous.
- 5665 - 74 Shale - dark gray to blocky, moderately hard to hard, platy to flaky, subfissile to fissile, smooth texture, earthy, slightly calcareous.

SHOW REPORT

29

WELL Patterson Unit no. 6 AREA Patterson CO. San Juan STATE Utah

SHOW NO. 1 from 5393 to 96 P.T.D. 5398

DRILLING BREAK - from 5393 to 96. GROSS 3 ft, NET 3 ft.

LITHOLOGY: Type - SS LS DOLO SH SLTSTN OTHER _____
 % () (X) () () ()
 Remarks brn, w ind, micxl, dns

POROSITY: (Matrix) Est. % 0-3
 (Fracture) Evidence for fracturing none

STAIN: Even, Patchy, Pin Point, none (Other)
 Light, Dark, "Live", "Dead"
 % in total cuttings none; % in prob. reservoir lithology none
 Stain on fracture faces none

FLUORESCENCE: Color none; % in total ctgs none

CUT (Chloroethene): 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	20	4		.1	.01	Tr					
During	9	10		.25	.03	.01					
After	20	6		.12	.01	Tr					

RECOGNIZED BY: Brian Johnson Time 1:20 A.M. Date 1/9/85

CALLED Jim Hornbeck Time 4:00 A.M. Date 1/9/85

REMARKS:

SHOW REPORT

WELL Patterson Unit no. 6 AREA Patterson CO. San Juan STATE Utah

SHOW NO. 2 from 5400 to 5405 P.T.D. 5407

DRILLING BREAK - from 5400 to 5405. GROSS 5 ft, NET 5 ft.

LITHOLOGY: Type - SS LS DOLO SH SLTSTN OTHER _____
 % () (X) () () ()
 Remarks brn, w ind, micxl-vf xl

POROSITY: (Matrix) Est. % 4-6
 (Fracture) Evidence for fracturing no

STAIN: Even, Patchy, Pin Point, light (Other)
 Light, Dark, "Live", "Dead"
 % in total cuttings 50; % in prob. reservoir lithology 40%
 Stain on fracture faces none

FLUORESCENCE: Color yellow; % in total ctgs 60

CUT (Chlorothene): v lzy yel-mlky cut

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	22	4		.1	.01	Tr						
During	10	13		.3	.035	.015						
After	16	6		.15	.02	.01						

RECOGNIZED BY: Brian Johnson Time 3:15 A.M. Date 1/9/85
P.M.

CALLED Jim Hornbeck Time 4:00 A.M. Date 1/9/85
P.M.

REMARKS:

SHOW REPORT

WELL Patterson Unit no. 6 AREA Patterson CO. San Juan STATE Utah

SHOW NO. 3 from 5588 to 90 P.T.D. 5597

DRILLING BREAK - from 5588 to 90. GROSS 2 ft, NET 2 ft

LITHOLOGY: Type - SS LS DOLO SH SLTSTN OTHER _____
 % (X) () () () ()
 Remarks lt brn-lt qy, vf-f qr, mica, glauc

POROSITY: (Matrix) Est. % 5-7
 (Fracture) Evidence for fracturing none

STAIN: Even, Patchy, Pin Point, none (Other)
 Light, Dark, "Live", "Dead"
 % in total cuttings none; % in prob. reservoir lithology _____
 Stain on fracture faces none

FLUORESCENCE: Color none; % in total ctgs _____

CUT (Chlorothene): none

PERIOD	DT	MUD GAS	CUTTINGS GAS	GAS CHROMATOGRAPH							
				C ₁	C ₂	C ₃	iC ₄	nC ₄	C ₆	CO ₂	Etc.
		UNITS	UNITS								
Before	6	20		.43	.06	.03	---	Tr			
During	3	120		3.3	.8	.38	.04	.1			
After	9	15		.35	.06	.03	---	Tr			

RECOGNIZED BY: Brian Johnson Time 5:30 A.M. P.M. Date 1/14/85

CALLED Jim Hornbeck Time 6:00 A.M. P.M. Date 1/14/85

REMARKS:

SHOW REPORT

32

WELL Patterson Unit #6 AREA Patterson CO. San Juan STATE Utah

SHOW NO. 4 from 4517 to 18 P.T.D. 5623

DRILLING BREAK - from 5617 to 18. GROSS 1 ft, NET 1 ft.

LITHOLOGY: Type - SS LS DOLO SH SLTSTN OTHER _____
 % (X) () () () ()
 Remarks wh-lt gy, f gr, mod srt, sbang, n-sl calc, glauc, mica

POROSITY: (Matrix) Est. % 6-8
 (Fracture) Evidence for fracturing none

STAIN: Even, Patchy, Pin Point, none (Other)
 Light, Dark, "Live", "Dead"
 % in total cuttings none; % in prob. reservoir lithology none
 Stain on fracture faces none

FLUORESCENCE: Color none; % in total ctgs _____

CUT (Chlorothene): none

PERIOD	DT	MUD GAS UNITS	CUTTINGS GAS UNITS	GAS CHROMATOGRAPH							
				C ₁	C ₂	C ₃	iC ₄	nC ₄	C ₆	CO ₂	Etc.
Before	7	22		.48	.06	.02	---	Tr			
During	3	82		1.8	.4	.13	Tr	.02			
After	7	30		.6	.08	.04	---	Tr			

RECOGNIZED BY: Russ Wallis Time 9:30 A.M. Date 1/14/85

CALLED Jim Hornbeck Time 8:30 A.M. Date 1/15/85

REMARKS:

SHOW REPORT

WELL Patterson Unit #6 AREA Patterson CO. San Juan STATE Utah

SHOW NO. 5 from 5639 to 43 P.T.D. 5648

DRILLING BREAK - from 5639 to 43 GROSS 4 ft, NET 4 f

LITHOLOGY: Type - SS LS DOLO SH SLTSTN OTHER _____
 % () () (X) () ()
 Remarks lt brn, w ind, vf xl, sl arg

POROSITY: (Matrix) Est. % 2-6
 (Fracture) Evidence for fracturing no

STAIN: Even, Patchy, Pin Point, patchy (Other)
 Light, Dark, "Live", "Dead"
 % in total cuttings 15; % in prob. reservoir lithology 20
 Stain on fracture faces no

FLUORESCENCE: Color weak yellow; % in total ctgs 25

CUT (Chloroethene): lzy-mlky yel cut

PERIOD	DT	MUD GAS UNITS	CUTTINGS GAS UNITS	GAS CHROMATOGRAPH							
				C ₁	C ₂	C ₃	iC ₄	nC ₄	C ₆	CO ₂	Etc.
Before	10	10		.25	.03	.015	---	---			
During	8	96		2.25	.34	.19	Tr	.06			
After	12	20		.42	.06	.025		Tr			

RECOGNIZED BY: Brian Johnson Time 9:00 A.M.
P.M. Date 1/15/85

CALLED Jim Hornbeck Time 11:00 A.M.
P.M. Date 1/15/85

REMARKS:

FORMATION
EVALUATION

LITHOLOGIC
DESCRIPTIONS

FORMATION EVALUATION

Wellsite responsibility for the Patterson Unit no. 6 well in the SW/NW Section 4, Township 28 South, Range 25 East, began on January 3rd, 1985. The logging of samples started at 4500' in the Honaker Trail Formation. At the logging depth we were lightly mudded up, so sample quality was good and remained of quality through the duration of the well.

Honaker Trail Formation 4325' (849') Pennsylvanian

The Honaker Trail is separated from the overlying Cutler by a gradational contact. No prominent lithology appears in the Honaker Trail. Altering sequences of shale, siltstone, limestone and an occasional sandstone stringer are perceptible through the section.

There is one sandstone break worthy of mention between 4598' and 4604'. Rate of penetration changed from 4 minutes per foot to .5 minutes per foot. The sample accompanied with this break is sandstone, which is: white, moderately hard, subangular, glauconitic, with traces of mica and K-spar. Optical porosities are poor and there is no evidence of fluorescence, stain or cut. No increase in background gas was recorded through this interval.

Conclusion: The Honaker Trail is of minor economic importance.

Paradox 4802' (372') Pennsylvanian

The first massive limestone marks the top of the Paradox. Samples grade rapidly from brown shale and siltstone to a cream color cryptocrystalline limestone.

The limestone throughout the Paradox zone alters from a clean to argillaceous matrix. Much of this limestone could be considered a marlstone.

A one foot break was noted at 5004'. An increase of 24 units of gas was registered on the hotwire, and small amounts of C₂, C₃, and C₄'s were recorded on the chromatograph. A dark gray to black shale appeared after this break, with trace amounts of gilsonite. Background gas fluctuated between 2 to 8 units. The second shale in the lower Paradox boosted the background gas up to 20 units. Upon recognizing this increase, drilling was halted to attempt Core #1.

Conclusion: The Paradox formation is of little significance.

Upper Ismay 5332' (-158') Pennsylvanian

The Upper Ismay is the prime objective in the Patterson Unit #6 and therefore 120' was the initial amount of core to be taken. The majority of the first core proved to be anhydrite so the decision was made to take the second core to the potential oil/water contact at 5415'. The most encouraging zone is between 5400 to 5402.5. This limestone is very fine crystalline with predominantly a clean matrix. There are traces of pinpoint porosity and some poor inter-crystalline porosity, coupled with bright yellow fluorescence and a lazy solvent cut. A strong hydrocarbon odor was also apparent in this part of

LITHOLOGIC
DESCRIPTIONS

SAMPLE DESCRIPTIONS

Lagged Samples.

Commenced sample observation in the Honaker Trail at 4500'. Proceeded to catch 10' samples.

- | | | |
|-------------|-----|---|
| 4500 - 4510 | 40% | <u>Shale</u> - red orange brown, firm to moderately hard, blocky, splintery in part, smooth to slightly silty texture, earthy, calcareous in part, grading to siltstone in part. |
| | 30% | <u>Sandstone</u> - white, moderately hard, very fine to fine grained, moderately to well sorted, subangular, very micaceous in part, slightly glauconitic, slightly to moderately calcareous, poor intergranular porosity, no fluorescence or cut, trace dead oil stain, grading to arenaceous siltstone in part. |
| | 20% | <u>Siltstone</u> - white to light brown, moderately to well indurated, generally very arenaceous, some fine grained arenaceous inclusions, slightly calcareous, trace glauconite, micaceous in part. |
| | 10% | <u>Limestone</u> - brown, moderately to well indurated, cryptocrystalline, dense, slightly argillaceous matrix, tight, no shows. |
| 4510 - 4520 | 40% | <u>Limestone</u> - light to medium brown, well indurated, cryptocrystalline to microcrystalline, predominantly argillaceous matrix, microsugrosic texture, slightly micaceous, no visible intercrystalline porosity, no fluorescence or cut, trace bioclastic material. |
| | 20% | <u>Shale</u> - red orange brown pink, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, earthy, slightly to moderately calcareous. |
| | 20% | <u>Sandstone</u> - white, friable to moderately hard, very fine to fine grained occasionally medium to coarse grained, poor to moderately sorted, subangular to subround, glauconitic in part, heavy trace mica in part, slightly calcareous, tight, no fluorescence or cut. |
| | 20% | <u>Siltstone</u> - white to light brown, moderately to well indurated, increased argillaceous material, micromicaceous in part, slightly to moderately calcareous. |
| 4520 - 4530 | 80% | <u>Limestone</u> - cream colored to light brown, moderately to well indurated, cryptocrystalline to occasionally microcrystalline, predominantly clean matrix, lithographic in part, tight, no fluorescence or cut. |
| | 20% | <u>Shale</u> - red orange medium to dark gray brown, firm to moderately hard, blocky to splintery occasionally platy, smooth texture, earthy, micromicaceous, slightly to moderately calcareous. |

- 4530 - 4550 60% Shale - red orange gray light to medium brown, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, earthy, slightly to moderately calcareous, grading to siltstone in part.
- 30% Limestone - cream colored light to medium brown, moderately to well indurated, cryptocrystalline to occasionally microcrystalline, clean to argillaceous matrix, trace bioclastic material, tight, no fluorescence or cut, occasional trace dead oil stain.
- 10% Siltstone - light to medium brown, moderately to well indurated, predominantly argillaceous matrix, slightly micaceous, limy matrix.
- 4550 - 4560 60% Shale - red orange to red brown gray to gray green, firm to moderately hard, blocky to platy, subfissile in part, smooth to silty texture, waxy in part, occasional carbonaceous band, slightly calcareous in part, some grading to argillaceous siltstone.
- 30% Siltstone - light to medium brown light gray, moderately to well indurated, very argillaceous in part, occasionally fine grained arenaceous inclusions, limy matrix.
- 10% Limestone - brown, well indurated, cryptocrystalline, dense, clean to slightly argillaceous matrix, tight, no shows.
- 4560 - 4570 80% Shale - brown, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, earthy, slightly to moderately calcareous, grading to siltstone in part.
- 20% Sandstone - translucent green, moderately hard, fine to very coarse grained, poorly sorted, angular to subangular, very glauconitic, siliceous, tight, no fluorescence or cut.
- 4570 - 4580 60% Shale - light to medium brown, firm to moderately hard, blocky to splintery, smooth to silty texture, earthy, micromicaceous, slightly to moderately calcareous, grading to siltstone.
- 30% Siltstone - brown, moderately to well indurated, generally very argillaceous, micromicaceous, limy matrix.
- 10% Limestone - light to medium brown, moderately indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous matrix, limy matrix.
- 4580 - 4590 70% Shale - brown, firm to moderately hard, blocky, silty texture, earthy, micromicaceous, slightly to moderately calcareous, grading to siltstone in part.
- 30% Siltstone - light gray to light brown, moderately to well indurated, very arenaceous matrix in part, slightly micaceous, limy matrix.
- 4590 - 4600 70% Sandstone - white, friable to moderately hard, fine to medium grained, moderately sorted, subangular to subround, glauconitic, trace mica, calcareous cement, trace K-spar,

- poor visible intergranular porosity, no fluorescence, stain or cut.
- 20% Shale - brown lavender orange, firm to moderately hard, blocky, smooth to silty texture, earthy, slightly to moderately calcareous.
- 10% Siltstone - white to light brown, well indurated, locally very arenaceous, trace mica, limy matrix.
- 4600 - 4610 90% Shale - light to medium brown gray, firm to moderately hard, blocky to splintery, smooth to waxy texture, occasionally slightly silty, turbidite in part, slightly calcareous in part.
- 10% Sandstone - translucent to white, moderately hard, medium to coarse grained, poorly sorted, subangular, siliceous cement in part, calcareous, tight, no shows.
- 4610 - 4620 80% Shale - light to medium gray brown, moderately hard to hard, blocky, smooth to slightly silty texture, waxy in part, turbidite in part, calcareous in part, some grading to siltstone.
- 20% Limestone - light brown to light gray, moderately indurated, cryptocrystalline to microcrystalline, argillaceous matrix, microsucrosic texture in part, arenaceous matrix in part, no visible intercrystalline porosity, no fluorescence or cut.
- 4620 - 4630 90% Limestone - cream colored, moderately to well indurated, cryptocrystalline, predominantly clean matrix, trace bioclastic material, tight, dull mineral fluorescence no cut.
- 10% Shale - generally as above.
- 4630 - 4640 50% Limestone - cream colored to light brown, moderately to well indurated, cryptocrystalline to microcrystalline, predominantly clean matrix, lithographic in part, tight, no shows.
- 30% Siltstone - white, moderately to well indurated, generally very arenaceous, trace mica, limy matrix.
- 20% Shale - light to medium gray brown, firm to moderately hard, blocky to platy, subfissile in part, smooth to silty texture, waxy in part, slightly calcareous in part.
- 4640 - 4650 60% Shale - light to medium brown light gray, firm to moderately hard, blocky, earthy, smooth to silty texture, calcareous in part, grading to siltstone.
- 30% Siltstone - light to medium brown white, moderately indurated, increased argillaceous material, slightly micaceous, calcareous.
- 10% Limestone - generally as above.

- 4650 - 4660 80% Shale - brown light to medium gray, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, turbidite in part, calcareous in part, some grading to siltstone.
- 10% Siltstone - light brown, moderately indurated, generally very argillaceous, slightly micaceous, slightly to moderately calcareous.
- 10% Limestone - cream colored to light brown, moderately indurated, cryptocrystalline, clean matrix in part, no visible intercrystalline porosity, no shows.
- 4660 - 4670 70% Shale - light to medium brown gray, firm to moderately hard, blocky to platy occasionally splintery, smooth to slightly silty texture, earthy to waxy, trace bioclastic material, non to slightly calcareous, some grading to siltstone.
- 20% Siltstone - light gray to light brown, moderately to well indurated locally very arenaceous, heavy trace mica in part, slightly calcareous.
- 10% Sandstone - white to light gray salt and peppered, very fine to fine grained, moderately sorted, subangular to angular, trace K-spar, slightly glauconitic, no visible intergranular porosity, no fluorescence or cut.
- 4670 - 4680 70% Shale - light to medium brown gray, firm to moderately hard, blocky, smooth to silty texture, earthy to waxy, micaceous in part, turbidite in part, slightly to moderately calcareous, some grading to siltstone.
- 20% Siltstone - light brown, moderately indurated, generally very argillaceous, heavy trace mica (phlogopite), slightly to moderately calcareous.
- 10% Sandstone - white to light gray, moderately hard, very fine grained, subangular, mica, trace glauconite, calcareous cement, tight, no fluorescence or cut, grading to siltstone.
- 4680 - 4690 70% Shale - light to medium brown gray to gray green, firm to moderately hard, blocky, smooth to silty texture, earthy to waxy, non to slightly calcareous, grading to siltstone in part.
- 30% Siltstone - light gray to light brown, moderately indurated, increased arenaceous material, very micaceous, calcareous cement.
- 4690 - 4700 70% Limestone - cream colored to light brown, moderately to well indurated, predominantly cryptocrystalline, clean to slightly argillaceous matrix, occasional trace mica, tight, no fluorescence or cut.
- 20% Shale - brown gray, moderately hard, blocky, smooth to slightly silty, earthy to waxy, non to slightly calcareous.
- 10% Siltstone - generally as above.

- 4650 - 4660 80% Shale - brown light to medium gray, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, turbidite in part, calcareous in part, some grading to siltstone.
- 10% Siltstone - light brown, moderately indurated, generally very argillaceous, slightly micaceous, slightly to moderately calcareous.
- 10% Limestone - cream colored to light brown, moderately indurated, cryptocrystalline, clean matrix in part, no visible intercrystalline porosity, no shows.
- 4660 - 4670 70% Shale - light to medium brown gray, firm to moderately hard, blocky to platy occasionally splintery, smooth to slightly silty texture, earthy to waxy, trace bioclastic material, non to slightly calcareous, some grading to siltstone.
- 20% Siltstone - light gray to light brown, moderately to well indurated locally very arenaceous, heavy trace mica in part, slightly calcareous.
- 10% Sandstone - white to light gray salt and peppered, very fine to fine grained, moderately sorted, subangular to angular, trace K-spar, slightly glauconitic, no visible intergranular porosity, no fluorescence or cut.
- 4670 - 4680 70% Shale - light to medium brown gray, firm to moderately hard, blocky, smooth to silty texture, earthy to waxy, micaceous in part, turbidite in part, slightly to moderately calcareous, some grading to siltstone.
- 20% Siltstone - light brown, moderately indurated, generally very argillaceous, heavy trace mica (phlogopite), slightly to moderately calcareous.
- 10% Sandstone - white to light gray, moderately hard, very fine grained, subangular, mica, trace glauconite, calcareous cement, tight, no fluorescence or cut, grading to siltstone.
- 4680 - 4690 70% Shale - light to medium brown gray to gray green, firm to moderately hard, blocky, smooth to silty texture, earthy to waxy, non to slightly calcareous, grading to siltstone in part.
- 30% Siltstone - light gray to light brown, moderately indurated, increased arenaceous material, very micaceous, calcareous cement.
- 4690 - 4700 70% Limestone - cream colored to light brown, moderately to well indurated, predominantly cryptocrystalline, clean to slightly argillaceous matrix, occasional trace mica, tight, no fluorescence or cut.
- 20% Shale - brown gray, moderately hard, blocky, smooth to slightly silty, earthy to waxy, non to slightly calcareous.
- 10% Siltstone - generally as above.

- 4700 - 4710 60% Shale - light brown light to medium gray, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, trace carbonaceous streaks, grading to marlstone in part.
- 40% Limestone - light brown to light gray, moderately indurated, cryptocrystalline to microcrystalline, slightly argillaceous matrix, trace arenaceous material, tight, no fluorescence or cut.
- 4710 - 4720 90% Shale - light to medium gray to light brown, moderately hard, blocky to splintery, smooth to slightly silty, earthy, micromicaceous, calcareous, grading to siltstone in part.
- 10% Limestone - light brown, moderately indurated, cryptocrystalline, clean to slightly argillaceous matrix, no visible intercrystalline porosity, no shows.
- 4720 - 4730 100% Shale - light to medium gray, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, waxy to earthy, micromicaceous, slightly to moderately calcareous.
- 4730 - 4740 80% Limestone - cream colored light to medium brown, moderately indurated, cryptocrystalline, clean to slightly argillaceous matrix, lithographic in part, trace bioclastic material occasional shell fragment, some argillaceous streaks, tight, no fluorescence or cut.
- 20% Shale - gray, firm to moderately hard, blocky, smooth texture, earthy to waxy, micromicaceous, slightly to moderately calcareous, some mottled with limestone.
- 4740 - 4750 70% Shale - light to medium brown gray, firm to moderately hard, blocky to platy splintery in part, smooth to slightly silty texture, earthy, micromicaceous to micaceous, non to slightly calcareous, grading to siltstone in part.
- 30% Siltstone - light to medium gray brown, moderately indurated, generally very argillaceous, heavy trace mica, slightly to moderately calcareous.
- 4750 - 4760 80% Shale - light to medium brown gray, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, micromicaceous, earthy, calcareous.
- 10% Limestone - light brown, moderately indurated, cryptocrystalline, clean to slightly argillaceous matrix, no visible intercrystalline porosity, no shows.
- 10% Sandstone - white to light brown salt and peppered, hard, very fine to fine grained, moderately sorted, angular to subangular, glauconitic, trace K-spar, calcareous cement, tight, no fluorescence or cut, grading to siltstone in part.

- 4760 - 4770 80% Shale - light to medium gray brown, firm to moderately hard, blocky to platy, smooth to slightly silty, earthy, micromicaceous to micaceous, calcareous, grading to siltstone in part.
20% Siltstone - white to light brown, moderately to well indurated, locally very arenaceous, trace mica, limy matrix.
- 4770 - 4780 70% Shale - light to medium gray light to medium brown, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, earthy, slightly to moderately calcareous.
20% Siltstone - light gray to light brown, moderately to well indurated, generally very arenaceous, limy matrix.
10% Sandstone - white, salt and peppered, moderately hard, very fine to fine grained, moderately sorted, subangular, glauconitic, calcareous cement, tight, no shows.
- 4780 - 4790 80% Shale - light to medium brown occasionally gray, firm to moderately hard, blocky to platy, smooth to silty texture, micaceous, earthy, calcareous, grading to siltstone in part.
20% Siltstone - light to medium gray, poorly to moderately indurated, generally very argillaceous, micaceous, slightly to moderately calcareous.
- 4790 - 4800 80% Limestone - cream colored light to medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, clean to slightly argillaceous matrix, trace bioclastic material, lithographic in part, no visible intercrystalline porosity, no fluorescence or cut.
10% Shale - generally as above.
10% Siltstone - white light to medium gray, moderately indurated, increased arenaceous material, slightly micaceous, calcareous.
- 4800 - 4810 80% Limestone - cream colored light to medium brown, well indurated, predominantly cryptocrystalline, clean to slightly argillaceous matrix, lithographic in part, no visible intercrystalline porosity, no shows.
20% Shale - brown to gray, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, waxy in part, calcareous.
- 4810 - 4820 50% Limestone - light to medium brown gray, moderately to well indurated, cryptocrystalline to microcrystalline, clean to argillaceous matrix, tight, no fluorescence or cut.
30% Siltstone - white to light gray light brown, moderately to well indurated, locally very arenaceous, micaceous, calcareous.
20% Shale - light to medium gray light brown, firm to moderately hard, blocky, micaceous, earthy, slightly to moderately calcareous.

4820 - 4830 60% Shale - light to medium gray brown, moderately hard, blocky, smooth texture, calcareous, grading to siltstone.
 20% Limestone - light to medium brown, well indurated, cryptocrystalline, argillaceous matrix, tight, no shows.
 20% Siltstone - light gray, moderately to well indurated, generally very argillaceous, slightly micaceous, calcareous.

4830 - 4840 60% Shale - light brown to light gray, moderately hard, blocky, silty texture, earthy to waxy, slightly to moderately calcareous, grading to siltstone.
 30% Siltstone - light gray to light brown, well indurated, generally very argillaceous, slightly micaceous, calcareous.
 10% Limestone - light to medium brown, moderately to well indurated, predominantly cryptocrystalline, slightly argillaceous matrix, tight, no shows.

SAMPLE TOP PARADOX

4840 - 4850 60% Limestone - cream colored to light brown, moderately to well indurated, cryptocrystalline to microcrystalline, predominantly clean matrix, occasional trace arenaceous material, trace bioclastic debris, no visible intercrystalline porosity, no shows.
 20% Shale - generally as above.
 20% Siltstone - light brown to light gray, moderately to well indurated, increased arenaceous material, limy matrix.

4850 - 4860 90% Limestone - cream colored to light brown, moderately to well indurated, cryptocrystalline occasionally microcrystalline to very fine crystalline, predominantly clean matrix, trace arenaceous material, tight, no fluorescence or cut.
 10% Shale - gray to brown, moderately hard, blocky, earthy, slightly to moderately calcareous, grading to siltstone in part.

4860 - 4870 40% Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, slightly argillaceous matrix, lithographic in part, trace mica, tight, no shows.
 40% Shale - light to medium brown gray, moderately hard, blocky to splintery, smooth to slightly silty, grading to marlstone in part.
 20% Siltstone - white, well indurated, very arenaceous in part, trace mica, limy matrix.

4870 - 4880 80% Limestone - brown, well indurated, cryptocrystalline, very argillaceous matrix, tight, no fluorescence or cut, grading to marlstone.
 20% Shale - light to medium brown, hard, blocky to splintery, smooth to slightly silty texture, earthy, grading to marlstone.

- 4880 - 4890 90% Limestone - brown to gray, moderately to well indurated, cryptocrystalline, very argillaceous matrix, no visible intercrystalline porosity, no fluorescence or cut, grading to marlstone.
- 10% Shale - gray, hard, blocky, smooth to slightly silty texture, earthy, grading to marlstone.
- 4890 - 4900 80% Limestone - cream colored to light brown medium brown, moderately to well indurated, cryptocrystalline to occasional microcrystalline, increased clean matrix, no visible intercrystalline porosity, trace bioclastic material, grading to marlstone in part.
- 10% Shale - gray, firm to moderately hard, blocky, smooth to silty, earthy, slightly micaceous, grading to marlstone in part.
- 10% Siltstone - light brown, poor to moderately indurated, generally very argillaceous, slightly micaceous, limy matrix.
- 4900 - 4910 70% Limestone - light to medium brown gray, moderately to well indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous matrix, lithographic in part, tight, no fluorescence or cut.
- 20% Shale - light to medium gray, firm to moderately hard, blocky to platy, subfissile, smooth to slightly silty texture, slightly micaceous, earthy, grading to marlstone in part.
- 10% Siltstone - light to medium gray, moderately to well indurated, generally very argillaceous, micaceous, limy matrix.
- 4910 - 4920 70% Limestone - light to medium brown gray, moderately indurated, cryptocrystalline to microcrystalline, argillaceous matrix, lithographic in part, no visible intercrystalline porosity, no fluorescence or cut.
- 20% Shale - gray to brown, moderately hard, blocky, smooth to silty texture, earthy, slightly micaceous, calcareous, grading to siltstone in part, grading to marlstone in part.
- 10% Siltstone - white to light gray, moderately indurated, increased arenaceous material, trace mica, occasional disseminated pyrite, calcareous cement.
- 4920 - 4930 70% Shale - gray to gray green brown, firm to moderately hard, blocky to splintery, smooth to slightly silty texture, earthy to waxy, calcareous in part, some grading to siltstone.
- 20% Siltstone - white light gray to gray green, moderately indurated, locally very arenaceous, trace glauconite, trace disseminated pyrite, micromicaceous, calcareous cement, grading to argillaceous very fine grained sandstone in part.
- 10% Limestone - generally as above.

- 4930 - 4940 60% Shale - light to medium gray occasionally dark gray brown, moderately hard, blocky to platy, smooth to slightly silty, earthy, micromicaceous, calcareous, grading to siltstone in part.
- 20% Siltstone - white to light gray, moderately indurated, locally very arenaceous, micaceous, trace glauconite, occasional trace K-spar, calcareous cement, grading to argillaceous very fine grained sandstone in part.
- 20% Limestone - cream colored to light brown, moderately to well indurated, cryptocrystalline, clean to slightly argillaceous matrix, tight, no shows.

- 4940 - 4950 50% Shale - light to medium gray gray green light brown, firm to moderately hard, blocky, smooth to silty texture, earthy, calcareous, grading to siltstone in part, grading to marlstone in part.
- 30% Limestone - light to medium brown gray, moderately to well indurated, cryptocrystalline, dense, argillaceous matrix, tight, no fluorescence or cut.
- 20% Siltstone - white to light gray light brown, moderately indurated, increased argillaceous material, slightly micaceous, calcareous.

- 4950 - 4960 70% Limestone - cream colored light brown to light gray, moderately to well indurated, cryptocrystalline to microcrystalline, predominantly clean matrix, trace bioclastic material, no visible intercrystalline porosity, no fluorescence or cut.
- 20% Shale - gray, moderately hard, blocky to splintery, smooth to silty texture, waxy in part, slightly to moderately calcareous, grading to siltstone in part.
- 10% Siltstone - light gray to gray green, moderately to well indurated, locally very arenaceous, micromicaceous, limy matrix.

- 4960 - 4970 90% Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to occasionally microcrystalline, clean to slightly argillaceous matrix, tight, no fluorescence stain or cut, trace bioclastic material.
- 10% Shale - generally as above.

- 4970 - 4980 80% Limestone - cream colored light to medium brown increased dark brown, moderately to well indurated, cryptocrystalline to microcrystalline, increased argillaceous material, no visible intercrystalline porosity, no shows.
- 20% Siltstone - white to light gray, moderately indurated, generally very argillaceous, trace mica, some mottled with limestone, limy matrix.

- 4980 - 4990 40% Shale - medium to dark gray, firm to moderately hard, blocky to platy, subfissile, smooth to slightly silty texture, waxy in part, grading to marlstone.
- 40% Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to occasionally microcrystalline, dense, argillaceous matrix, tight, no shows, grading to marlstone.
- 20% Siltstone - white to light gray, moderately indurated, generally very argillaceous, micromicaceous, calcareous.

- 4990 - 5000 80% Shale - medium to dark gray, moderately hard, blocky to platy, subfissile, smooth to slightly silty texture, waxy in part, slightly micaceous, grading to marlstone in part.
- 20% Limestone - medium to dark brown, moderately indurated, cryptocrystalline, dense, very argillaceous matrix, grading to marlstone.

- 5000 - 5010 70% Shale - medium gray, moderately hard to hard, blocky, smooth to slightly silty texture, earthy, calcareous, grading to marlstone.
- 30% Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, dense, predominantly argillaceous matrix, tight, no fluorescence or cut, grading to marlstone.

- 5010 - 5020 40% Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, clean to argillaceous matrix, silty in part, no visible intercrystalline porosity, no shows.
- 30% Siltstone - light gray to light brown, moderately to well indurated, generally very arenaceous, trace mica, limy matrix.
- 30% Shale - medium to dark gray black brown, moderately hard, blocky, smooth to slightly silty texture, calcareous in part, petroliferous in part, trace glauconite.

- 5020 - 5030 90% Limestone - cream colored to light brown, moderately to well indurated, predominantly cryptocrystalline, generally clean matrix, no intercrystalline porosity, no fluorescence or cut.
- 10% Shale - medium to dark gray, firm to moderately hard, blocky to platy, splintery in part, micromicaceous, slightly calcareous.

- 5030 - 5040 80% Limestone - cream colored to light brown, moderately to well indurated, cryptocrystalline to microcrystalline, predominantly clean matrix with increased argillaceous matrix, chalky in part, tight, no shows.
- 10% Shale - generally as above.
- 10% Siltstone - light brown to light gray, moderately indurated, generally very argillaceous, micaceous, slightly to moderately calcareous.

- 5040 - 5050 50% Limestone - light to medium brown gray, moderately to well indurated, cryptocrystalline to microcrystalline, dense, predominantly argillaceous matrix, grading to marlstone, trace stylolite.
- 40% Shale - medium to dark gray, moderately hard to hard, blocky to platy, smooth to slightly silty texture, earthy, slightly to moderately calcareous, grading to marlstone in part.
- 10% Siltstone - light gray, poor to moderately indurated, generally very argillaceous, slightly micaceous, calcareous.
- 5050 - 5060 90% Shale - medium gray, moderately hard to hard, blocky to platy, subfissile in part, smooth to silty texture, waxy in part, grading to marlstone in part.
- 10% Limestone - cream colored, moderately indurated, cryptocrystalline, generally clean matrix, no visible intercrystalline porosity, no shows.
- 5060 - 5070 100% Shale - medium to dark gray, moderately hard to hard, blocky to platy, subfissile, smooth to slightly silty texture, waxy, grading to marlstone.
- 5070 - 5080 100% Shale - medium gray to brown, firm to moderately hard, blocky, smooth to silty texture, some limestone clasts, earthy to waxy, calcareous, grading to siltstone in part, some grading to marlstone.
- 5080 - 5090 80% Shale - medium to dark gray brown, moderately hard, blocky, smooth to silty texture, trace mica, calcareous in part, grading to marlstone.
- 20% Limestone - cream colored to light brown, moderately to well indurated, cryptocrystalline to occasionally microcrystalline, predominantly clean matrix, no visible intercrystalline porosity, no shows.
- 5090 - 5100 80% Limestone - cream colored to light brown, moderately to well indurated, cryptocrystalline to microcrystalline, chalky in part, predominantly clean matrix, microsugrosic texture in part, tight, no fluorescence or cut.
- 20% Shale - brown to gray, moderately hard, blocky, smooth to slightly silty, calcareous.
- 5100 - 5110 80% Limestone - light to medium brown gray, well indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous matrix, chalky in part, tight, no fluorescence or cut.
- 20% Shale - brown to gray, moderately hard, blocky, smooth to silty texture, waxy in part, calcareous, grading to marlstone.

- 5110 - 5120 50% Limestone - brown to gray, moderately to well indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous matrix, silty in part, tight, no shows.
- 30% Shale - gray to brown, moderately hard, blocky, smooth to silty, waxy in part, greasy, calcareous, grading to marlstone, trace dead oil.
- 20% Siltstone - light brown, moderately to well indurated, generally very argillaceous, limy matrix.
- 5120 - 5130 80% Limestone - cream colored to light brown occasionally dark brown, moderately to well indurated, predominantly cryptocrystalline, generally clean matrix, lithographic in part, no visible intercrystalline porosity, no fluorescence or cut.
- 20% Shale - gray, moderately hard, blocky, smooth to silty texture, earthy to waxy, calcareous, grading to marlstone.
- 5130 - 5140 60% Limestone - cream colored light to medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, clean to argillaceous matrix, trace stylolite, tight, no shows.
- 20% Shale - medium to occasionally dark gray brown, moderately hard, blocky, smooth to silty texture, earthy to waxy, calcareous, grading to marlstone in part.
- 20% Siltstone - light brown, well indurated, generally very arenaceous, slightly micaceous, limy matrix.
- 5140 - 5150 70% Limestone - light to medium brown gray, well indurated, cryptocrystalline to microcrystalline, dense, slightly to moderately argillaceous, silty in part, no visible intercrystalline porosity, no fluorescence stain or cut.
- 20% Shale - light to medium gray, firm to moderately hard, blocky, smooth to silty, earthy, calcareous.
- 10% Siltstone - white to light gray, moderately indurated, very argillaceous in part, trace mica, limy matrix.
- 5150 - 5160 80% Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous, silty in part, no visible intercrystalline porosity, no fluorescence or cut.
- 20% Shale - brown to gray, moderately hard, blocky, smooth to silty texture, waxy, calcareous, grading to marlstone.
- 5160 - 5170 70% Limestone - brown to gray, moderately to well indurated, cryptocrystalline to microcrystalline, dense, slightly to moderately argillaceous matrix, silty in part, slightly micaceous, tight, no shows.
- 30% Shale - light to medium gray brown, firm to moderately hard, blocky, smooth to slightly silty texture, earthy, calcareous, grading to marlstone in part.

- 5170 - 5180 70% Limestone - cream colored to light brown occasionally brown, moderately to well indurated, cryptocrystalline to microcrystalline, increased clean matrix, lithographic in part, no visible intercrystalline porosity, no shows.
- 30% Shale - light to medium gray brown, moderately hard, blocky to splintery, smooth to slightly silty texture, waxy in part, grading to marlstone in part.
- 5180 - 5190 90% Limestone - cream colored to light brown, moderately to well indurated, predominantly cryptocrystalline, generally clean matrix, lithographic in part, trace stylolite, tight, no shows.
- 10% Shale - generally as above.
- 5190 - 5200 90% Limestone - cream colored to light brown occasionally medium brown, moderately to well indurated, cryptocrystalline occasionally microcrystalline, predominantly clean matrix, trace anhydrite infill, tight, no fluorescence or cut.
- 10% Shale - medium to dark gray, firm to moderately hard, blocky to platy, subfissile in part, smooth to slightly silty, waxy, non to slightly calcareous.
- 5200 - 5210 80% Limestone - light to medium brown occasionally cream colored, moderately to well indurated, cryptocrystalline to microcrystalline, clean to slightly argillaceous matrix, trace mica, tight, no fluorescence or cut.
- 20% Shale - gray, moderately hard, blocky to platy, subfissile in part, smooth to silty texture, earthy to waxy, non to slightly calcareous.
- 5210 - 5220 60% Shale - medium gray to brown, moderately hard to hard, brittle, blocky occasionally platy, smooth texture, waxy to greasy, non to slightly calcareous.
- 40% Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, increased argillaceous matrix, tight, no fluorescence or cut, trace dead oil stain.
- 5220 - 5230 70% Shale - medium to dark gray brown, moderately to very hard, blocky to platy, subfissile in part, smooth to slightly silty texture, waxy, none to slightly calcareous occasionally grading to marlstone.
- 30% Limestone - light brown, moderately to well indurated, cryptocrystalline to microcrystalline, slightly argillaceous matrix, trace stylolite, no visible intercrystalline porosity, no shows.
- 5230 - 5240 60% Limestone - light to medium brown occasionally cream colored, moderately to well indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous matrix, chalky in part, no visible intercrystalline porosity, no fluorescence or cut, trace dead oil.

- 40% Shale - medium to dark gray brown, moderately hard, brittle, blocky, smooth to slightly silty texture, earthy to waxy, slightly to moderately calcareous, grading to marlstone in part.
- 5240 - 5250 80% Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to occasionally microcrystalline, clean to slightly argillaceous matrix, no visible intercrystalline porosity, no shows.
- 20% Shale - medium to dark gray, firm to moderately hard, platy to blocky occasionally flaky, smooth to slightly silty, waxy, non to slightly calcareous.
- 5250 - 5260 100% Limestone - cream colored to light brown, moderately indurated, predominantly cryptocrystalline, generally clean matrix, lithographic in part, occasionally slightly silty, no visible intercrystalline porosity, no fluorescence or cut.
- 5260 - 5270 100% Limestone - cream colored to light brown, moderately to well indurated, cryptocrystalline, generally clean matrix, chalky in part, trace stylolite, tight, no shows.
- 5270 - 5280 90% Limestone - cream colored light brown, moderately to well indurated, cryptocrystalline occasionally microcrystalline, generally clean matrix, trace bioclastic material, chalky, no visible intercrystalline porosity, no fluorescence or cut.
- 10% Shale - medium to dark gray, firm to moderately hard, platy, fissile to subfissile, smooth texture, slightly to moderately calcareous.
- 5280 - 5290 100% Limestone - cream colored to light brown occasionally dark brown, moderately indurated, cryptocrystalline to microcrystalline, clean to slightly argillaceous matrix, slightly silty in part, chalky in part, tight, no shows.
- Tr Chert - translucent light brown.
- 5290 - 5300 100% Limestone - light to medium brown, moderately indurated to well indurated, microcrystalline occasionally very fine crystalline, clean to slightly argillaceous matrix, sucrosic texture, no visible intercrystalline porosity, no fluorescence or cut, trace dead oil.
- 5300 - 5310 90% Limestone - light to medium brown occasionally cream colored, moderately to well indurated, microcrystalline to very fine crystalline, slightly to moderately argillaceous matrix, silty in part, chalky in part, no visible intercrystalline porosity, no shows.
- 10% Shale - medium to dark gray brown, firm to moderately hard, blocky, smooth to slightly silty texture, earthy, slightly to moderately calcareous.

- 5310 - 5320 70% Limestone - light to medium brown, moderately to well indurated, cryptocrystalline to microcrystalline, increased argillaceous matrix, no visible intercrystalline porosity, no fluorescence or cut.
- 30% Shale - medium to dark gray medium to dark brown, firm to moderately hard, blocky to splintery, subfissile, smooth texture, waxy, slightly calcareous.
- 5323 - 5470 See Core Reports no. 1, 2, and 3.
- 5470 - 5480 70% Shale - brown medium to dark gray, firm to moderately hard, blocky to splintery, smooth texture, waxy, slightly calcareous, petroliferous.
- 30% Limestone - light to medium brown mottled in part, moderately indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous matrix, chalky in part, tight, no fluorescence or cut.
- 5480 - 5500 100% Shale - dark gray to black, moderately hard to hard, blocky to splintery, smooth to slightly silty texture, earthy, slightly calcareous, petroliferous, occasionally slight yellow ring cut, no fluorescence.
- 5500 - 5510 100% Shale - dark gray to dark brown black, moderately hard, blocky to platy, smooth to slightly silty texture, earthy, slightly calcareous, petroliferous.

SAMPLE TOP LOWER ISMAY

- 5510 - 5520 40% Siltstone - light brown, well indurated, generally very arenaceous, limy matrix, grading to arenaceous limestone.
- 40% Shale - dark gray to black, firm, blocky, earthy, slightly calcareous, generally as above.
- 20% Limestone - light brown, poor to moderately indurated, microcrystalline, slightly to moderately argillaceous matrix, chalky in part, tight, no shows.
- Tr Anhydrite - white, poorly indurated, chalky.
- 5520 - 5530 50% Siltstone - light brown to light gray, well indurated, generally very arenaceous, trace glauconite, slightly micaceous, limy matrix.
- 30% Shale - generally as above.
- 10% Limestone - light to medium brown gray, moderately to well indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous matrix, tight, no shows.
- 10% Anhydrite - white, firm, chalky, trace argillaceous material.
- 5530 - 5540 60% Anhydrite - white, firm to soft, amorphous.
- 20% Siltstone - light gray to light brown, well indurated, very arenaceous, limy matrix.

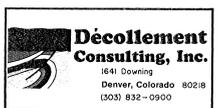
- 20% Shale - dark gray to dark brown, moderately hard, blocky to splintery, smooth to slightly silty texture, earthy, slightly calcareous.
- 5540 - 5550 30% Anhydrite - white, soft, gummy, amorphous.
- 30% Limestone - brown, well indurated, microcrystalline, very argillaceous matrix, microauecrosic texture, earthy, tight, no shows.
- 20% Siltstone - light to medium brown light gray, well indurated, increased argillaceous material, limy matrix.
- 20% Shale - dark gray to dark brown, firm to hard, blocky to splintery, smooth to slightly silty texture, earthy, slightly calcareous.

SAMPLE TOP "B" SHALE

- 5550 - 5560 50% Shale - dark gray to black brown, moderately hard, blocky to platy, subfissile, smooth to slightly silty texture, earthy, calcareous, petroliferous.
- 50% Siltstone - light brown, moderately to well indurated, generally argillaceous matrix, limy matrix in part.
- 5560 - 5570 90% Shale - dark brown to dark gray black, firm to moderately hard, blocky, smooth to slightly silty texture, earthy, calcareous petroliferous.
- 10% Siltstone - light to medium brown, well indurated, generally very argillaceous, slightly to moderately calcareous.
- 5570 - 5580 90% Shale - dark brown to dark gray, moderately hard, blocky to splintery, smooth to slightly silty, earthy, calcareous.
- 10% Siltstone - light brown, well indurated, decreased argillaceous material, slightly to moderately calcareous.
- 5580 - 5590 50% Siltstone - light to medium brown light gray, well indurated, generally very arenaceous, limy matrix, grading to arenaceous limestone in part.
- 30% Shale - dark gray to dark brown black, firm to moderately hard, blocky to splintery, smooth texture, earthy, slightly calcareous.
- 10% Limestone - light brown, moderately to well indurated, cryptocrystalline to microcrystalline, clean to slightly argillaceous matrix, tight, no shows.
- 10% Anhydrite - white, soft to firm, crystalline in part, amorphous.
- 5590 - 5600 40% Shale - medium to dark gray brown, firm to moderately hard, platy to blocky, subfissile, smooth texture, earthy to greasy, slightly calcareous.
- 30% Siltstone - light brown, well indurated, increased argillaceous material, limy matrix.
- 20% Anhydrite - white, soft to firm amorphous.

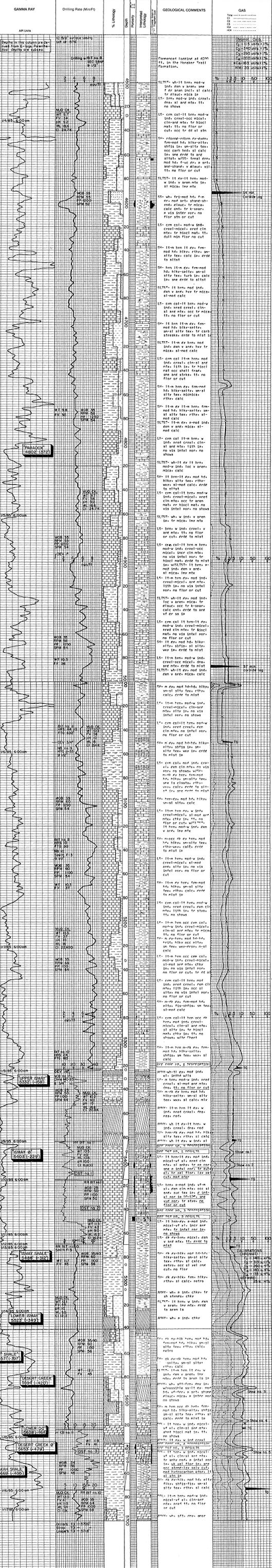
- 10% Limestone - light to medium brown, well indurated, cryptocrystalline, clean to slightly argillaceous matrix, tight, no shows.
- 5600 - 5610 60% Anhydrite - white, soft to firm, gummy in part.
20% Shale - dark gray to black, firm to moderately hard, blocky to platy, smooth texture, earthy to greasy appearance, slightly calcareous.
10% Siltstone - light brown to white, moderately to well indurated, very arenaceous in part, calcareous.
10% Limestone - light to medium brown mottled in part, moderately to well indurated, cryptocrystalline to microcrystalline, clean to slightly argillaceous matrix, trace anhydrite infill, tight, no shows.
- 5610 - 5620 70% Shale - medium brown occasionally dark brown, firm to moderately hard, blocky to platy, subfissile, smooth to slightly silty texture, earthy, slightly calcareous, grading to marlstone in part.
10% Siltstone - generally as above.
10% Limestone - light brown, well indurated, cryptocrystalline to microcrystalline, slightly to moderately argillaceous, tight, no shows.
10% Anhydrite - white, soft, gummy, amorphous.
- 5623 - 5674 Please see Core #4 description.
- 5674 - 5680 Trip
- 5680 - 5690 90% Shale - dark gray to black, moderately hard, blocky to platy, subfissile, smooth to slightly silty texture, earthy, slightly calcareous.
10% Dolomite - light brown, moderately to well indurated, microcrystalline to very fine crystalline, clean to argillaceous matrix, predominantly tight, no fluorescence or cut.
- 5690 - 5700 50% Shale - medium to dark gray, moderately hard, blocky to platy splintery in part, smooth to slightly silty texture, earthy, slightly calcareous.
40% Dolomite - light to medium brown, moderately to well indurated, microcrystalline to very fine crystalline, clean to argillaceous matrix, predominantly tight, no fluorescence or cut.
10% Anhydrite - white, soft, gummy, amorphous.

TD - 5700



COMPANY: WEXPRO COMPANY
 WELL: PATTERSON UNIT no. 6
 Location: SW NW Sec 4 T35S R25E
 State: San Juan County, UTAH
 Depth Logged From: 4500' To: 5700'
 Date Logged From: 1/4/85 To: 1/12/85
 Geologist: BRAY C. JOHNSON
 Mudlogger: ROSS WALLIS
 Drilling Fluid: GEL CHEM L.S.M.D.
 Elevation: 3830' G.S.M.
 Drilling Contractor: ARAPAHO DRILLING RIG no. 6
 Drilling Foreman: LEO LEWIS

DRILLING LEGEND	ENGINEERING LEGEND	LOG SHOWS - Stratigraphic	LEGEND
100' = 100' (Scale) 100' = 100' (Scale) 100' = 100' (Scale) 100' = 100' (Scale)	100' = 100' (Scale) 100' = 100' (Scale) 100' = 100' (Scale) 100' = 100' (Scale)	100' = 100' (Scale) 100' = 100' (Scale) 100' = 100' (Scale) 100' = 100' (Scale)	100' = 100' (Scale) 100' = 100' (Scale) 100' = 100' (Scale) 100' = 100' (Scale)



C 3500-3600' UPPER SHALE (3500-3600')

D 3600-3700' LOWER SHALE (3600-3700')

E 3700-3800' DESERT CREEK (3700-3800')

F 3800-3900' ...

G 3900-4000' ...

H 4000-4100' ...

I 4100-4200' ...

J 4200-4300' ...

K 4300-4400' ...

L 4400-4500' ...

M 4500-4600' ...

N 4600-4700' ...

O 4700-4800' ...

P 4800-4900' ...

Q 4900-5000' ...

R 5000-5100' ...

S 5100-5200' ...

T 5200-5300' ...

U 5300-5400' ...

V 5400-5500' ...

W 5500-5600' ...

X 5600-5700' ...

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. U-11668 2
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 NW, 2470' FNL, 700' FWL		8. FARM OR LEASE NAME Unit
14. PERMIT NO. 43-037-31108	15. ELEVATIONS (Show whether DF, RT, GR, etc.) GG 5160'	9. WELL NO. 6
		10. FIELD AND POOL, OR WILDCAT Patterson Unit
		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

18. 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 checked="" type="checkbox"/>
(Other) Spud <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 4:00 A.M. 12-21-84, depth 50', waiting on conductor casing.

RECEIVED
DEC 24 1984
DIVISION OF
OIL, GAS & MINING

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

SIGNED A. J. Maser TITLE Drilling Superintendent DATE 12-21-84

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

LYNES

TECHNICAL SERVICES, Security Life Bldg. • Suite 1350 • 1616 Glenarm • Denver, Colorado 80202 • Phone. (303) 573-8027

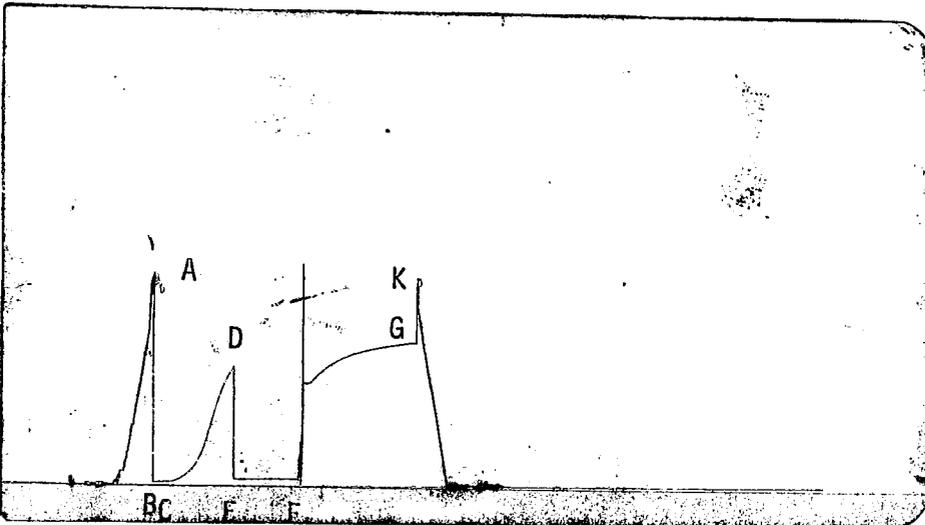
Contractor <u>Arapahoe</u>	Top Choke <u>1/4"</u>	Flow No. 1 <u>26</u> Min.
Rig No. <u>10</u>	Bottom Choke <u>3/4"</u>	Shut-in No. 1 <u>123</u> Min.
Spot <u>--</u>	Size Hole <u>8 3/4"</u>	Flow No. 2 <u>116</u> Min.
Sec. <u>4</u>	Size Rat Hole <u>--</u>	Shut-in No. 2 <u>360</u> Min.
Twp. <u>39 S</u>	Size & Wt. D. P. <u>4 1/2" XH 16.60#</u>	Flow No. 3 <u>--</u> Min.
Rng. <u>25 E</u>	Size Wt. Pipe <u>--</u>	Shut-in No. 3 <u>--</u> Min.
Field <u>Patterson</u>	I. D. of D. C. <u>2 1/4"</u>	Bottom Hole Temp. <u>127⁰F</u>
County <u>San Juan</u>	Length of D. C. <u>372 Ft.</u>	Mud Weight <u>10.4</u>
State <u>Utah</u>	Total Depth <u>5415 Ft.</u>	Gravity <u>--</u>
Elevation <u>--</u>	Interval Tested <u>5380-5415 Ft.</u>	Viscosity <u>53</u>
Formation <u>Ismay</u>	Type of Test <u>Bottom Hole</u>	Tool opened @ <u>00:41</u>
	<u>Conventional</u>	

Operator Wexpro
 Address P.O. Box 458
Rock Springs, WY. 82901
 Well Name and No. Patterson #6
 Ticket No. 21280
 Date 1/10/85
 No. Final Copies 17

Inside Recorder

PRD Make Kuster K-3
 No. 24521 Cap. 6625 @ 5395'

	Press	Corrected
Initial Hydrostatic	A	2911
Final Hydrostatic	K	2861
Initial Flow	B	47
Final Initial Flow	C	52
Initial Shut-in	D	1684
Second Initial Flow	E	88
Second Final Flow	F	94
Second Shut-in	G	2053
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--



Lynes Dist.: Rock Springs, Wy.
 Our Tester: Bryan Scott
 Witnessed By: --

Did Well Flow - Gas NO Oil NO Water NO
 RECOVERY IN PIPE: 125 ft. Drilling mud and filtrate = .6 bbls.

Blow Description:
 1st Flow: Tool opened with a surface blow throughout the flow.
 2nd Flow: Tool opened with a 1/2" underwater blow, increasing to a 3" underwater blow in 5 minutes, decreasing to nil in 115 minutes through the end of the flow.
 Comments: A slight hydrostatic leak from the annulus into the interval occurred at the beginning of the final shutin. This did not seriously affect the final shutin.
 The flow and shutin curves suggest low permeability within the zone tested.

EXPRO CO
 TEST#: 1
 PATTERSON #6
 5380 - 5415ft.

Location: 4-39S-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5410 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	PRESSURE SQUARED psi ² /10 ⁶
A	INITIAL HYDROSTATIC	0.00		2983.0	
B	START OF 1st FLOW	0.00		80.0	
	1st FLOW PERIOD	5.00	8.0	88.0	
		10.00	10.0	90.0	
		16.00	15.0	95.0	
		20.00	19.0	99.0	
		25.00	21.0	101.0	
C	END OF 1st FLOW	26.00	18.0	98.0	
	1st SHUTIN PERIOD	0.00	0.0	98.0	0.0000
		1.00	2.0	100.0	27.0000
		2.00	3.0	101.0	14.0000
		3.00	6.0	104.0	9.6667
		4.00	8.0	106.0	7.5000
		6.00	13.0	111.0	5.3333
		7.00	16.0	114.0	4.7143
		8.00	18.0	116.0	4.2500
		9.00	21.0	119.0	3.8889
		10.00	26.0	124.0	3.6000
		15.00	41.0	139.0	2.7333
		20.00	57.0	155.0	2.3000
		25.00	77.0	175.0	2.0400
		30.00	98.0	196.0	1.8667
		35.00	126.0	224.0	1.7429
		40.00	157.0	255.0	1.6500
		46.00	202.0	300.0	1.5652
		50.00	238.0	336.0	1.5200
		55.00	293.0	391.0	1.4727
		60.00	361.0	459.0	1.4333
		65.00	443.0	541.0	1.4000
		70.00	542.0	640.0	1.3714
		75.00	661.0	759.0	1.3467
		80.00	796.0	894.0	1.3250
		86.00	967.0	1065.0	1.3023
		90.00	1078.0	1176.0	1.2889
		95.00	1207.0	1305.0	1.2737
		100.00	1321.0	1419.0	1.2600

WEXPRO CO
 DST#: 1
 PATTERSON #6
 5380 - 5415ft.

Location: 4-39S-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5410 ft.

 TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
		105.00	1418.0	1516.0	1.2476	
		110.00	1501.0	1599.0	1.2364	
		115.00	1572.0	1670.0	1.2261	
		120.00	1631.0	1729.0	1.2167	
D	END OF 1st SHUTIN	123.00	1663.0	1761.0	1.2114	
E	START OF 2nd FLOW	0.00		114.0		
	2nd FLOW PERIOD	5.00	7.0	121.0		
		10.00	10.0	124.0		
		16.00	12.0	126.0		
		20.00	12.0	126.0		
		25.00	14.0	128.0		
		30.00	15.0	129.0		
		35.00	16.0	130.0		
		40.00	17.0	131.0		
		45.00	17.0	131.0		
		50.00	20.0	134.0		
		56.00	21.0	135.0		
		60.00	22.0	136.0		
		65.00	24.0	138.0		
		70.00	25.0	139.0		
		75.00	25.0	139.0		
		80.00	26.0	140.0		
		85.00	27.0	141.0		
		90.00	29.0	143.0		
		96.00	30.0	144.0		
		100.00	31.0	145.0		
		105.00	32.0	146.0		
		110.00	32.0	146.0		
F	END OF 2nd FLOW	116.00	35.0	149.0		
	2nd SHUTIN PERIOD	0.00	0.0	149.0	0.0000	
		10.00	1335.0	1484.0	15.2000	
		15.00	1344.0	1493.0	10.4667	
		20.00	1380.0	1529.0	8.1000	
		25.00	1422.0	1571.0	6.6800	
		30.00	1466.0	1615.0	5.7333	
		36.00	1515.0	1664.0	4.9444	

WEXPRO CO
 DST#: 1
 PATTERSON #6
 5380 - 5415ft.

Location: 4-39S-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5410 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
		40.00	1542.0	1691.0	4.5500	
		45.00	1576.0	1725.0	4.1556	
		50.00	1606.0	1755.0	3.8400	
		55.00	1635.0	1784.0	3.5818	
		60.00	1660.0	1809.0	3.3667	
		65.00	1682.0	1831.0	3.1846	
		70.00	1704.0	1853.0	3.0286	
		76.00	1726.0	1875.0	2.8684	
		80.00	1740.0	1889.0	2.7750	
		85.00	1757.0	1906.0	2.6706	
		90.00	1772.0	1921.0	2.5778	
		95.00	1787.0	1936.0	2.4947	
		100.00	1800.0	1949.0	2.4200	
		105.00	1812.0	1961.0	2.3524	
		110.00	1825.0	1974.0	2.2909	
		116.00	1837.0	1986.0	2.2241	
		120.00	1845.0	1994.0	2.1833	
		130.00	1864.0	2013.0	2.0923	
		140.00	1880.0	2029.0	2.0143	
		150.00	1896.0	2045.0	1.9467	
		160.00	1909.0	2058.0	1.8875	
		170.00	1921.0	2070.0	1.8353	
		180.00	1934.0	2083.0	1.7889	
		190.00	1944.0	2093.0	1.7474	
		200.00	1954.0	2103.0	1.7100	
		220.00	1972.0	2121.0	1.6455	
		240.00	1987.0	2136.0	1.5917	
		260.00	2001.0	2150.0	1.5462	
		280.00	2012.0	2161.0	1.5071*	
		300.00	2024.0	2173.0	1.4733*	
		320.00	2034.0	2183.0	1.4438*	
		340.00	2042.0	2191.0	1.4176*	
G	END OF 2nd SHUTIN	360.00	2050.0	2199.0	1.3944*	
Q	FINAL HYDROSTATIC	0.00		2910.0		

* VALUES USED FOR EXTRAPOLATIONS

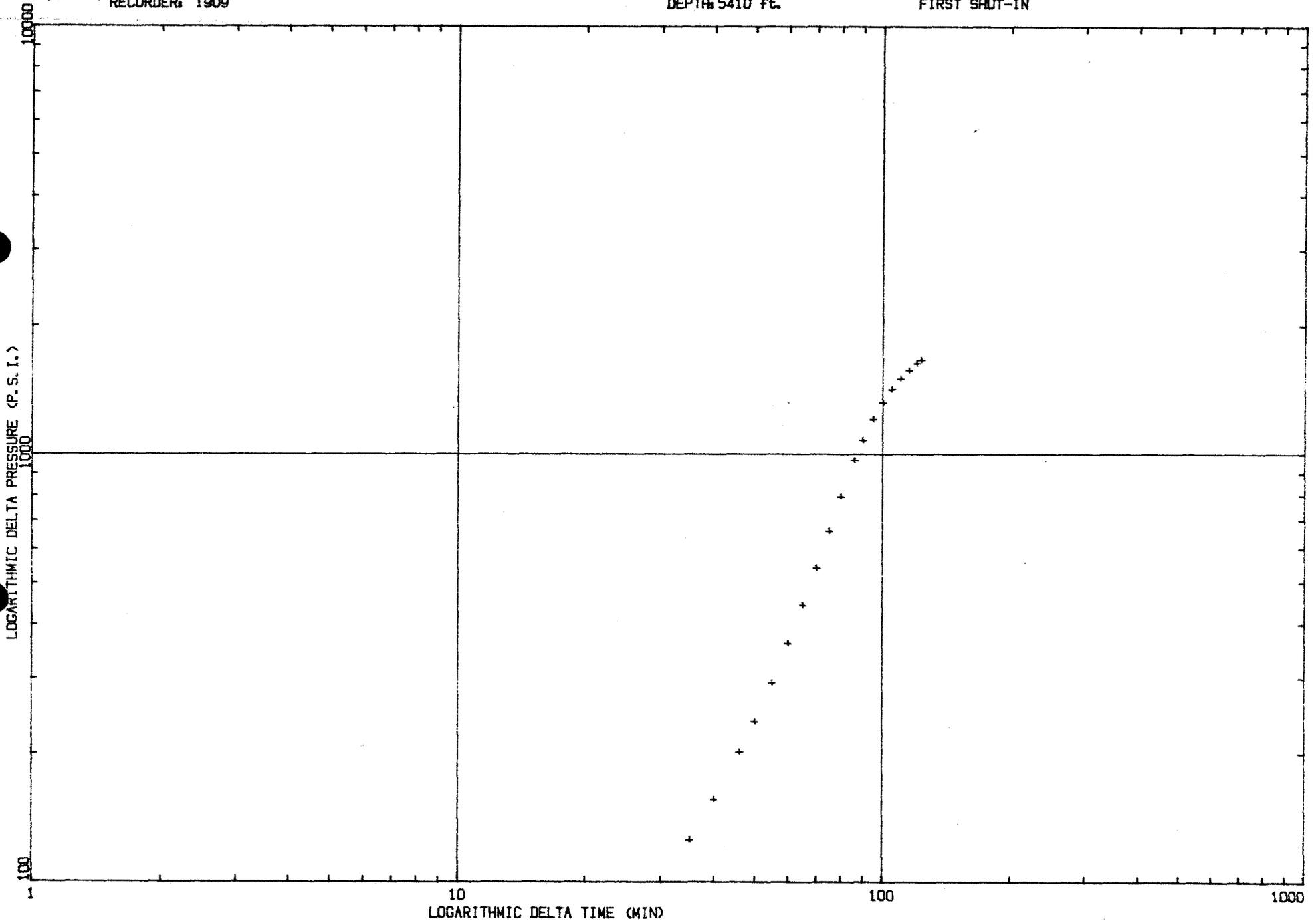
2nd SHUT-IN
 HORNER EXTRAPOLATION 2360.73 PSI

HORNER SLOPE 1118.19 psi/cycle

OPERATOR: WEXPRO CO
LOCATION: 4-39S-25E
RECORDER: 1909

WELL NAME: PATTERSON #6
DST #: 1
DEPTH: 5410 ft.

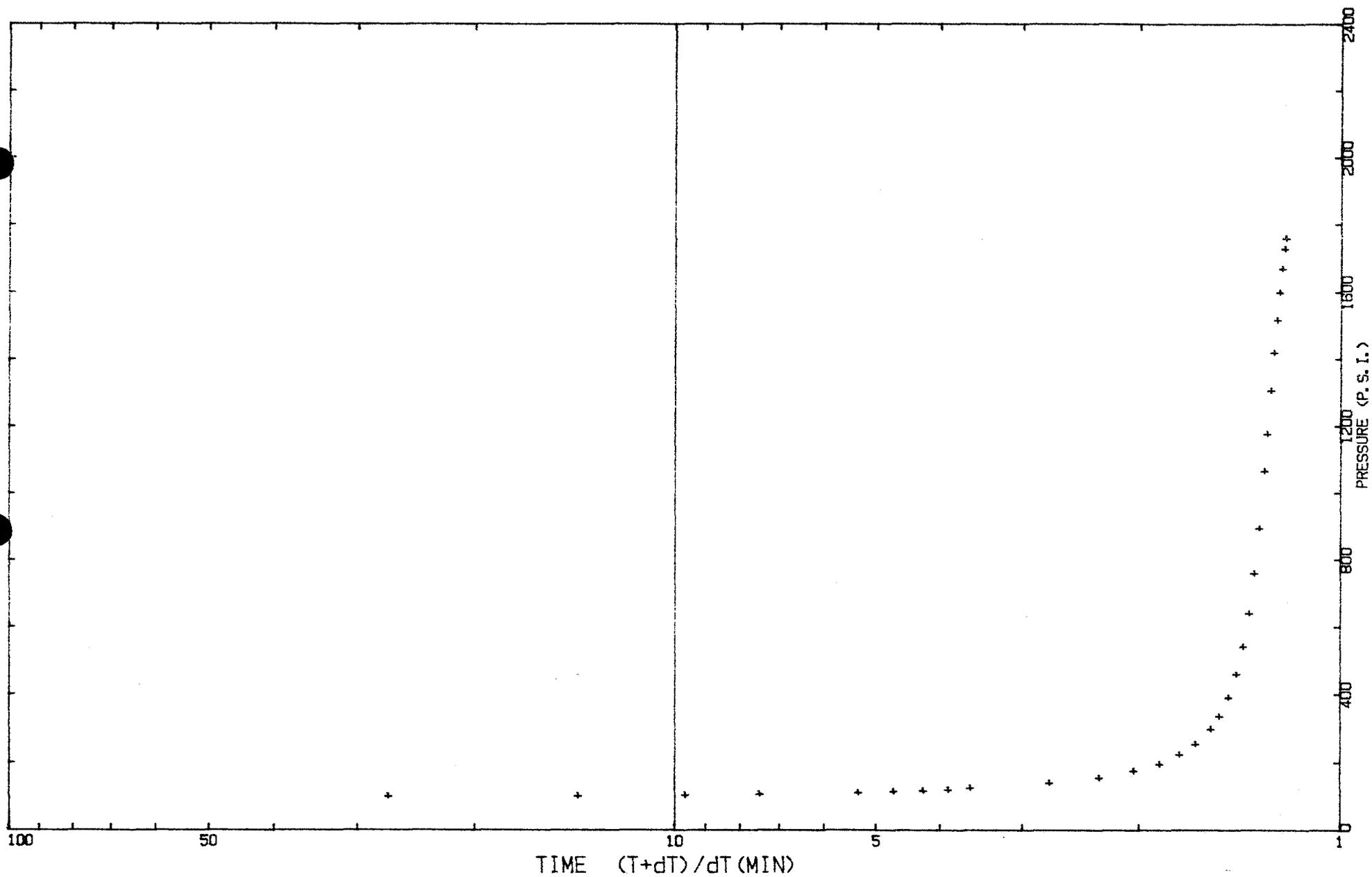
FIRST SHUT-IN



OPERATOR: WEXPRO CO
WELL NAME: PATTERSON #6
LOCATION: 4-39S-25E
FIRST SHUT-IN
RECORDER: 1909

DST #: 1

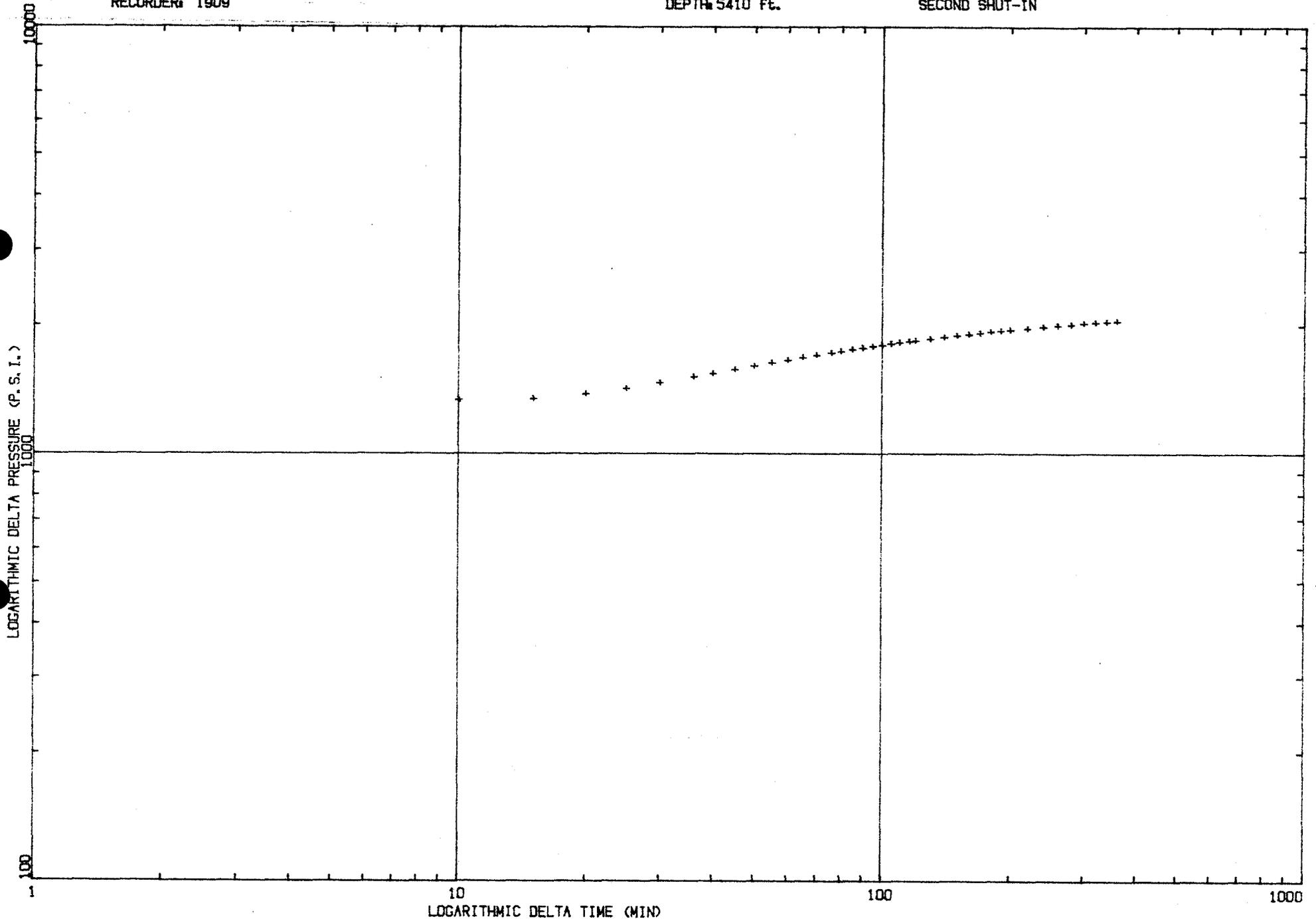
DEPTH: 5410 ft.



OPERATOR: WEXPRO CO
LOCATION: 4-99S-25E
RECORDER: 1909

WELL NAME: PATTERSON #6
DST #: 1
DEPTH: 5410 ft.

SECOND SHUT-IN

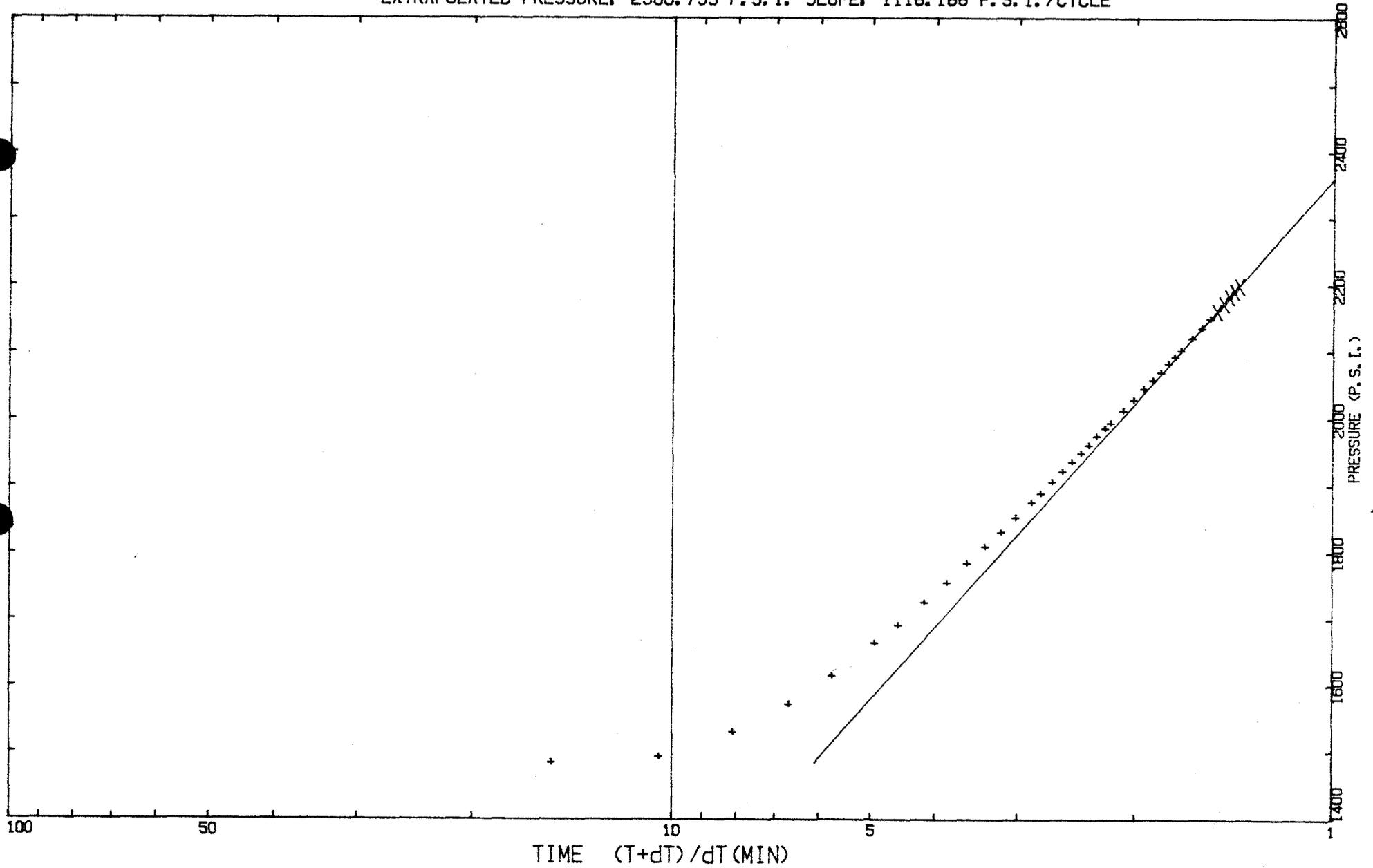


OPERATOR: WEXPRO CO
WELL NAME: PATTERSON #6
LOCATION: 4-39S-25E
SECOND SHUT-IN
RECORDER: 1909

DST #: 1

DEPTH: 5410 ft.

EXTRAPOLATED PRESSURE: 2360.733 P. S. I. SLOPE: 1118.188 P. S. I. /CYCLE



WEXPRO CO.
DST#: 1
PATTERSON #6
5380 - 5415ft.

Location: SEC. 4 T39S R25E
Test Type: BOTTOM HOLE CONVENTIONAL
Formation: ISMAY

Recorder Number: 1909
Recorder Depth: 5410

SAMPLE DATA

SAMPLE CHAMBER:

Capacity of sample chamber	2150	cc
Volume of sample.....	1500	cc
Pressure in sampler.....	55	psig
Where sampler was drained...	on location	

Sampler contained:

Water	700	cc
Mud	800	cc

RESISTIVITY DATA:

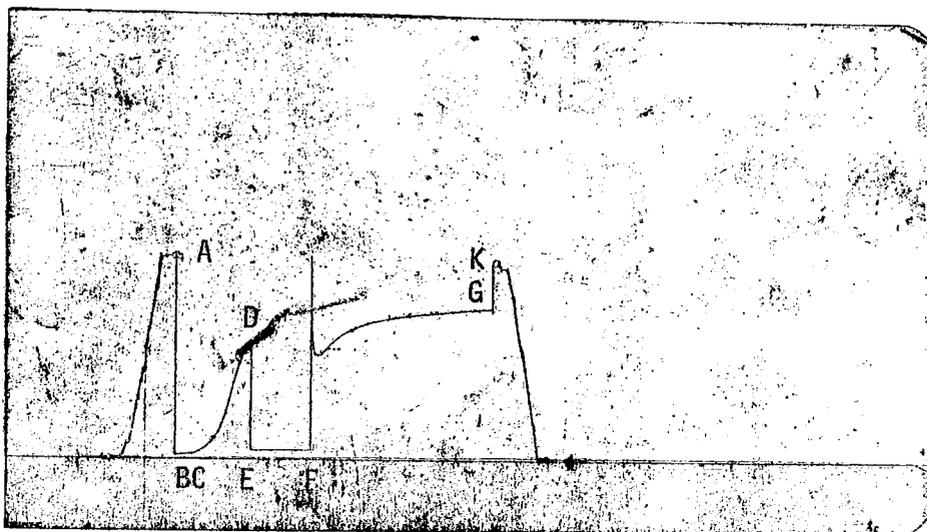
Top.....	79 000 PPM NACL
Middle.....	
Bottom.....	60 000 PPM NACL
Sampler.....	50 000 PPM NACL
Mud pit.....	14 500 PPM NACL
Make-up Water..	

PRESSURE RECORDER NUMBER : 24623

DEPTH : 5350.00ft. LOCATION : INSIDE
TYPE : K-3 CAPACITY : 6650.00psi

PRESSURE
psi

A)Initial Hydro : 2914.0
B)1st Flow Start: 47.0
C)1st Flow End : 69.0
D)END 1st Shutin: 1704.0
E)2nd Flow Start: 114.0
F)2nd Flow End : 119.0
G)END 2nd Shutin: 2153.0
Q)Final Hydro. : 2867.0



TEST TIMES(MIN)
1st FLOW : 26
SHUTIN: 123
2nd FLOW : 116
SHUTIN: 360

PRESSURE RECORDER NUMBER : 1909

DEPTH : 5410.00ft. LOCATION : OUTSIDE
TYPE : DMR CAPACITY : 5000.00psi

PRESSURE
psi

A)Initial Hydro : 2983.0
B)1st Flow Start: 80.0
C)1st Flow End : 98.0
D)END 1st Shutin: 1761.0
E)2nd Flow Start: 114.0
F)2nd Flow End : 149.0
G)END 2nd Shutin: 2199.0
Q)Final Hydro. : 2910.0

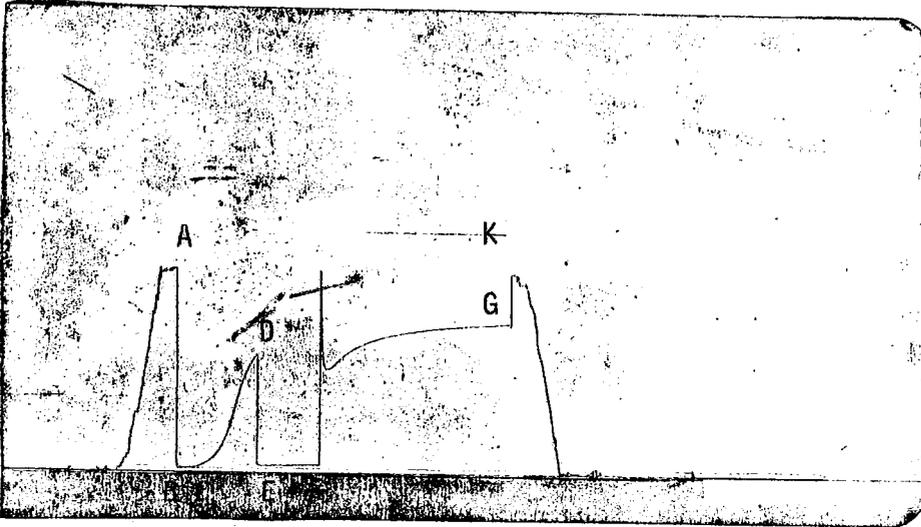
WEXPRO CO.
DST#: 1
PATTERSON #6
5380 - 5415ft.

PRESSURE RECORDER NUMBER : 24552

DEPTH : 5400.00ft. LOCATION : OUTSIDE
TYPE : K-3 CAPACITY : 6625.00psi

PRESSURE
psi

A)Initial Hydro : 2881.0
B)1st Flow Start: 60.0
C)1st Flow End : 63.0
D)END 1st Shutin: 1678.0
E)2nd Flow Start: 93.0
F)2nd Flow End : 99.0
G)END 2nd Shutin: 2125.0
Q)Final Hydro. : 2839.0



TEST TIMES(MIN)
1st FLOW : 26
SHUTIN: 123
2nd FLOW : 116
SHUTIN: 360

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 5000 AT 5410

OPERATOR	Wexpro Co.	WELL NAME	Patterson #6	TICKET NO.	21280	DST. NO.	1		
DMR TYPE #2	01:29:30	119.875	01:41:30	122.437	01:53:30	123.437	01:05:30	124.500	
SKIP = 16.0000		162.500		1280.00		131.250		147.500	
SIAS = 22:17:00		166.250		1305.00		131.250		146.250	
CHP. IN DEG. F		170.000		1330.00		131.250		147.500	
APES. IN P.S.I.		175.000		1352.50		131.250		147.500	
		178.750		1376.25		131.250		147.500	
		183.750		1397.50		131.250	End 2nd flow	148.750	
		187.500		1418.75		131.250		2990.00	
01:25:30	112.187					132.500		2311.25	
	2966.25	01:37:30	120.250	01:49:30	122.625	01:01:30	123.625	01:13:30	124.875
	2967.50		196.250		1460.00		132.500		1690.00
	2966.25		202.500		1478.75		133.750		1608.75
	2965.00		207.500		1498.75		133.750		1556.25
	2965.00		212.500		1516.25		133.750		1522.50
	2963.75		218.750		1533.75		133.750		1501.25
	2963.75		223.750		1551.25		133.750		1488.75
01:33:30	114.375		228.750		1567.50		133.750		1483.75
	2977.50	01:45:30	120.625	01:57:30	122.812	01:09:30	123.687	01:21:30	125.000
	2983.75		241.250		1598.75		135.000		1481.25
Initial Hydro.	2982.50		248.750		1613.75		135.000		1483.75
	2982.50		255.000		1628.75		135.000		1487.50
	2981.25		261.250		1643.75		136.250		1492.50
	2990.75		268.750		1656.25		136.250		1498.75
	3012.50		276.250		1670.00		136.250		1506.25
01:41:30	115.750		283.750		1682.50		136.250		1513.75
Start 1st flow	80.0000	01:53:30	120.937	01:05:30	123.000	01:17:30	123.812	01:29:30	125.062
	81.2500		300.000		1706.25		136.250		1528.75
	83.7500		308.750		1718.75		137.500		1537.50
	85.0000		317.500		1728.75		137.500		1546.25
	86.2500		327.500		1740.00		137.500		1555.00
	87.5000		336.250		1750.00		137.500		1563.75
	87.5000		347.500	End 1st shut-in	1761.25		138.750		1571.25
01:49:30	116.250		356.250		158.750		138.750		1581.25
	88.7500	01:01:30	121.187	01:13:30	123.062	01:25:30	123.937	01:37:30	125.187
	90.0000		378.750	Start 2nd flow	113.750		138.750		1597.50
	90.0000		391.250		116.250		138.750		1606.25
	91.2500		403.750		118.750		138.750		1615.00
	92.5000		416.250		121.250		138.750		1623.75
	93.7500		430.000		121.250		138.750		1631.25
	93.7500		443.750		121.250		140.000		1638.75
01:57:30	117.312		458.750		122.500		140.000		1647.50
	95.0000	01:09:30	121.437	01:21:30	122.875	01:33:30	124.062	01:45:30	125.250
	96.2500		488.750		123.750		140.000		1663.75
	96.2500		506.250		123.750		141.250		1670.00
	97.5000		523.750		123.750		141.250		1677.50
	98.7500		541.250		123.750		141.250		1683.75
	98.7500		558.750		125.000		141.250		1691.25
	98.7500		578.750		125.000		141.250		1698.75
01:05:30	118.187		598.750		126.250		141.250		1706.25
	101.250	01:17:30	121.687	01:29:30	123.062	01:41:30	124.187	01:53:30	125.312
	101.250		640.000		126.250		142.500		1718.75
End 1st flow	97.5000		663.750		126.250		142.500		1725.00
	100.000		686.250		126.250		142.500		1731.25
	101.250		710.000		126.250		143.750		1737.50
	103.750		735.000		126.250		143.750		1743.75
	106.250		758.750		127.500		143.750		1750.00
01:13:30	118.875		786.250		127.500		143.750		1755.00
	111.250	01:25:30	121.937	01:37:30	123.187	01:49:30	124.312	01:01:30	125.375
	113.750		838.750		127.500		143.750		1766.25
	116.250		866.250		127.500		143.750		1772.50
	118.750		893.750		127.500		143.750		1777.50
	123.750		921.250		127.500		145.000		1783.75
	126.250		950.000		127.500		145.000		1788.75
	128.750		978.750		128.750		145.000		1793.75
01:21:30	119.437		1007.50		128.750		145.000		1798.75
	133.750	01:33:30	122.187	01:45:30	123.312	01:57:30	124.375	01:09:30	125.437
	137.500		1065.00		128.750		146.250		1808.75
	141.250		1093.75		128.750		146.250		1813.75
	145.000		1121.25		128.750		146.250		1817.50
	147.500		1148.75		130.000		146.250		1822.50
	151.250		1176.25		130.000		146.250		1826.25
	155.000		1203.75		130.000		146.250		1831.25
			1228.75		130.000		146.250		1835.00

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 5000 AT 5410

OPERATOR	Mexpro Co.	WELL NAME	Patterson #	TICKET NO. 21280	DST. NO. 1
00:17:30	125.500	00:29:30	126.000	00:41:30	126.432
	1843.75		2028.75	00:53:30	126.750
	1848.75		2031.25		2163.75
	1852.50		2032.50		2163.75
	1856.25		2033.75		2165.00
	1860.00		2035.00		2166.25
	1863.75		2036.25		2166.25
	1866.75		2036.75		2167.50
	1868.25		2038.75		2167.50
00:25:30	125.562	00:37:30	126.062	00:49:30	126.432
	1875.00		2041.25	00:01:30	126.750
	1879.75		2042.50		2168.75
	1882.50		2045.00		2168.75
	1886.25		2046.25		2168.75
	1888.75		2047.50		2170.00
	1892.50		2048.75		2170.00
	1896.25		2050.00		2171.25
00:33:30	125.687	00:45:30	126.125	00:57:30	126.500
	1902.50		2052.50	00:09:30	126.812
	1906.25		2053.75		2172.50
	1908.75		2055.00		2172.50
	1911.25		2056.25		2173.75
	1915.00		2057.50		2173.75
	1917.50		2058.75		2173.75
	1921.25		2061.25		2175.00
00:41:30	125.687	00:53:30	126.125	00:05:30	126.500
	1927.50		2063.75	00:17:30	126.812
	1930.00		2065.00		2176.25
	1933.75		2066.25		2176.25
	1936.25		2067.50		2177.50
	1938.75		2068.75		2178.75
	1941.25		2068.75		2178.75
	1943.75		2070.00		2178.75
00:49:30	125.750	00:01:30	126.187	00:13:30	126.562
	1948.75		2072.50	00:25:30	126.875
	1951.25		2073.75		2180.00
	1953.75		2075.00		2181.25
	1956.25		2076.25		2181.25
	1958.75		2077.50		2182.50
	1961.25		2078.75		2182.50
00:57:30	125.812	00:09:30	126.250	00:21:30	126.562
	1966.75		2082.50	00:33:30	126.875
	1970.00		2083.75		2183.75
	1973.75		2085.00		2185.00
	1975.00		2086.25		2185.00
	1977.50		2086.25		2186.25
	1978.75		2087.50		2186.25
	1981.25		2088.75		2186.25
00:05:30	125.875	00:17:30	126.312	00:29:30	126.625
	1986.25		2091.25	00:41:30	126.937
	1988.75		2091.25		2188.75
	1990.00		2092.50		2188.75
	1991.25		2093.75		2188.75
	1993.75		2095.00		2188.75
	1996.25		2096.25		2190.00
	1998.75		2096.25		2190.00
00:13:30	125.937	00:25:30	126.312	00:37:30	126.687
	2001.25		2098.75	00:49:30	126.937
	2003.75		2100.00		2191.25
	2005.00		2101.25		2191.25
	2007.50		2101.25		2192.50
	2008.75		2102.50		2192.50
	2010.00		2103.75		2193.75
	2012.50		2105.00		2193.75
00:21:30	125.937	00:33:30	126.375	00:45:30	126.687
	2016.25		2106.25	00:57:30	127.000
	2017.50		2107.50		2195.00
	2018.75		2108.75		2195.00
	2021.25		2108.75		2196.25
	2022.50		2110.00		2196.25
	2025.00		2111.25		2196.25
	2026.25		2111.25		2196.25

End 2nd shut-in

Final Hydro.

LYNES, INC.

Wexpro Co.

Operator

Patterson #6

Well Name and No.

2

DST No.

Comments relative to DST #2 run on Patterson #6 in San Juan County, Utah,
4-38S-25E for Wexpro. Co.

The enclosed calculations were performed by plotting the time pressure data on a semi-log scale and using the resultant slope and extrapolated pressures in the appropriate fluid calculations. The final shut-in was extrapolated to 2349.9 psi with a slope of 757.45 psi/cycle. The initial shut-in could not be accurately extrapolated due to insufficient curve development.

The calculations indicate a zone of low permeability with no damage indicated on this test. If you should have any questions concerning this test or data, please call.



T.H. Adams, C.E.T.
Manager Technical Services

THA/bss

Contractor Arapahoe
 Rig No. 10
 Spot --
 Sec. 4
 Twp. 38S
 Rng. 25E
 Field Patterson
 County San Juan
 State Utah
 Elevation --
 Formation Ismay

Top Choke 1/4"
 Bottom Choke 3/4"
 Size Hole 8 3/4"
 Size Rat Hole --
 Size & Wt. D. P. 4 1/2" XH 16.60#
 Size Wt. Pipe --
 I. D. of D. C. 2 1/2" 4 1/2" XH
 Length of D. C. 372 ft.
 Total Depth 5469 ft.
 Interval Tested 5414-5469 ft.
 Type of Test Bottom Hole
Conventional

Flow No. 1 28 Min.
 Shut-in No. 1 120 Min.
 Flow No. 2 117 Min.
 Shut-in No. 2 364 Min.
 Flow No. 3 -- Min.
 Shut-in No. 3 -- Min.

Bottom Hole Temp. 128° F
 Mud Weight 11.4#
 Gravity --
 Viscosity 43

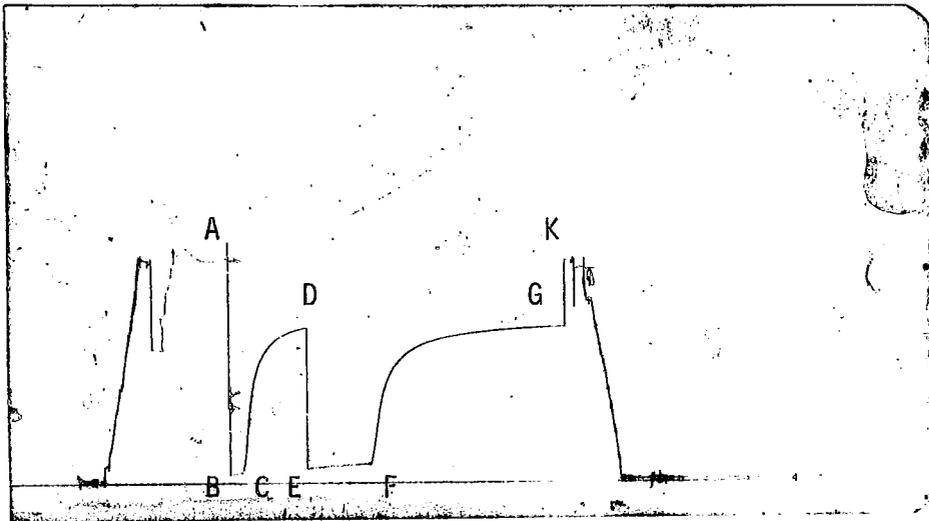
Tool opened @ 3:20 p.m.

Inside Recorder

PRD Make Kuster K-3
 No. 24552 Cap. 6625 @ 5424'

	Press	Corrected
Initial Hydrostatic	A	3141
Final Hydrostatic	K	3116
Initial Flow	B	69
Final Initial Flow	C	96
Initial Shut-in	D	2169
Second Initial Flow	E	159
Second Final Flow	F	225
Second Shut-in	G	2175
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist. Rock Springs, WY
 Our Tester: Byron Scott
 Witnessed By: Howard Leeper



Did Well Flow - Gas No Oil No Water No

RECOVERY IN PIPE:

450 ft. Total Recovery = 2.92 Bbls
 50 ft. Slightly water-cut drilling mud = .71 Bbls
 400 ft. Slightly mud-cut water = 2.21 Bbls

Blow Description:

1st Flow: Tool opened with a 1/2" blow, increasing to a 1" blow at the end of the flow.

2nd Flow: Tool opened with a 1/2" blow, increasing gradually to a 1" blow in 5 minutes for 20 minutes, then decreasing until dead at 55 minutes. Remained dead for duration of flow.

Comments:

The test results indicate a mechanically successful test. Reservoir calculations are enclosed. DMR pressures are recorded in PSIA.

Operator Mexpro Co.
 Address P.O. Box 458
Rock Springs, WY 82901
 Well Name and No. Patterson #6
 Ticket No. 21281
 Date 1-11-85
 No. Final Copies 17
 DST No. 2

Operator.....: WEXPRO CO
 Well ID.....: PATTERSON #6
 Location.....: 4-38S-25E
 DST Number.....: 2
 Formation.....: ISMAY
 Type of test....: BOTTOM HOLE CONVENTIONAL
 Test interval....: 5414 - 5469ft.
 Recorder number : 1909
 Recorder depth : 5465

RESERVOIR CALCULATIONS: Fluid calculations based on 2nd shut-in

RESERVOIR PARAMATERS USED:

Net Pay.....:	10.00	ft
Porosity.....:	10.00	%
Bottom Hole Temp.....:	128.00	F
Specific Gravity.....:	1.000	
API Gravity.....:	10.00	
Compressibility.....:	.3000E-006	/psi
Viscosity.....:	.64	cp
Total Recovery.....:	450.00	ft
Total flowing time.....:	145.00	minutes
Flow rate.....:	30.00	bbl/d
Final flowing pressure:	304.00	psi
Slope.....:	757.451	psi/cycle
Extrapolation.....:	2349.99	psi
Formation vol. factor :	1.01	Reservoir/Surface
Wellbore radius.....:	4.38	in

RESULTS:

Effective Permeability...(k)....:	.42	mD
Transmissibility.....(kh/u)....:	6.50	mD.ft/cp
Flow capacity.....(kh)....:	4.16	mD.ft
Skin.....(s)....:	-3.07	
Pressure drop across skin.....:	-2020.61	psi
Radius of investigation.....:	209.92	ft
Damage ratio.....:	.50	
Productivity index.....:	.015	bbl/psi.d
Productivity index W/O damage :	.015	bbl/psi.d

WEXPRO CO
 DST#: 2
 PATTERSON #6
 5414 - 5469ft.

Location: 4-389-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5465 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	PRESSURE SQUARED psi ² /10 ⁶
A	INITIAL HYDROSTATIC	0.00		3178.0	
B	START OF 1st FLOW	0.00		108.0	
	1st FLOW PERIOD	6.00	22.0	130.0	
		10.00	35.0	143.0	
		15.00	47.0	155.0	
		20.00	58.0	166.0	
		25.00	68.0	176.0	
C	END OF 1st FLOW	30.00	76.0	184.0	
	1st SHUTIN PERIOD	0.00	0.0	184.0	0.0000
		2.00	46.0	230.0	15.0000
		3.00	76.0	260.0	10.3333
		4.00	112.0	296.0	8.0000
		5.00	160.0	344.0	6.6000
		6.00	216.0	400.0	5.6667
		7.00	286.0	470.0	5.0000
		8.00	369.0	553.0	4.5000
		10.00	566.0	750.0	3.8000
		15.00	1016.0	1200.0	2.8667
		20.00	1287.0	1471.0	2.4000
		26.00	1485.0	1669.0	2.0769
		30.00	1575.0	1759.0	1.9333
		35.00	1662.0	1846.0	1.8000
		40.00	1730.0	1914.0	1.7000
		45.00	1785.0	1969.0	1.6222
		50.00	1830.0	2014.0	1.5600
		55.00	1867.0	2051.0	1.5091
		60.00	1900.0	2084.0	1.4667
		66.00	1932.0	2116.0	1.4242
		70.00	1950.0	2134.0	1.4000
		75.00	1970.0	2154.0	1.3733
		80.00	1989.0	2173.0	1.3500
		85.00	2004.0	2188.0	1.3294
		90.00	2017.0	2201.0	1.3111
		95.00	2029.0	2213.0	1.2947
		100.00	2040.0	2224.0	1.2800
		106.00	2050.0	2234.0	1.2642

Location: 4-388-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5465 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	PRESSURE SQUARED psi ² /10 ⁶
		110.00	2057.0	2241.0	1.2545
		115.00	2065.0	2249.0	1.2435
D	END OF 1st SHUTIN	120.00	2071.0	2255.0	1.2333
E	START OF 2nd FLOW	0.00		213.0	
	2nd FLOW PERIOD	5.00	11.0	224.0	
		10.00	18.0	231.0	
		15.00	27.0	240.0	
		20.00	33.0	246.0	
		25.00	41.0	254.0	
		30.00	48.0	261.0	
		35.00	55.0	268.0	
		40.00	61.0	274.0	
		45.00	63.0	276.0	
		50.00	66.0	279.0	
		56.00	67.0	280.0	
		60.00	70.0	283.0	
		65.00	72.0	285.0	
		70.00	75.0	288.0	
		75.00	76.0	289.0	
		80.00	77.0	290.0	
		85.00	78.0	291.0	
		90.00	81.0	294.0	
		96.00	83.0	296.0	
		100.00	86.0	299.0	
		105.00	87.0	300.0	
		110.00	88.0	301.0	
F	END OF 2nd FLOW	117.00	91.0	304.0	
	2nd SHUTIN PERIOD	0.00	0.0	304.0	0.0000
		1.00	14.0	318.0	146.0000
		3.00	65.0	369.0	49.3333
		4.00	95.0	399.0	37.2500
		5.00	127.0	431.0	30.0000
		6.00	165.0	469.0	25.1667
		7.00	205.0	509.0	21.7143
		8.00	250.0	554.0	19.1250
		9.00	297.0	601.0	17.1111

EXPRO CO
 DST#: 2
 PATTERSON #6
 5414 - 5469ft.

Location: 4-389-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5465 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
		15.00	626.0	930.0	10.6667	
		20.00	862.0	1166.0	8.2500	
		25.00	1032.0	1336.0	6.8000	
		30.00	1156.0	1460.0	5.8333	
		35.00	1251.0	1555.0	5.1429	
		40.00	1326.0	1630.0	4.6250	
		45.00	1387.0	1691.0	4.2222	
		51.00	1449.0	1753.0	3.8431	
		55.00	1484.0	1788.0	3.6364	
		60.00	1521.0	1825.0	3.4167	
		65.00	1555.0	1859.0	3.2308	
		70.00	1584.0	1888.0	3.0714	
		75.00	1610.0	1914.0	2.9333	
		80.00	1634.0	1938.0	2.8125	
		85.00	1655.0	1959.0	2.7059	
		91.00	1677.0	1981.0	2.5934	
		95.00	1690.0	1994.0	2.5263	
		100.00	1706.0	2010.0	2.4500	
		105.00	1720.0	2024.0	2.3810	
		110.00	1732.0	2036.0	2.3182	
		115.00	1745.0	2049.0	2.2609	
		120.00	1756.0	2060.0	2.2083	
		125.00	1766.0	2070.0	2.1600	
		131.00	1779.0	2083.0	2.1069	
		140.00	1794.0	2098.0	2.0357	
		150.00	1809.0	2113.0	1.9667	
		160.00	1822.0	2126.0	1.9063	
		171.00	1835.0	2139.0	1.8480	
		180.00	1845.0	2149.0	1.8056	
		190.00	1852.0	2156.0	1.7632	
		200.00	1861.0	2165.0	1.7250	
		211.00	1870.0	2174.0	1.6872	
		220.00	1877.0	2181.0	1.6591	
		230.00	1882.0	2186.0	1.6304	
		240.00	1889.0	2193.0	1.6042	
		250.00	1895.0	2199.0	1.5800	
		260.00	1900.0	2204.0	1.5577	
		270.00	1905.0	2209.0	1.5370	
		280.00	1909.0	2213.0	1.5179*	

WEXPRO CO
 DST#: 2
 PATTERSON #6
 5414 - 5469ft.

Location: 4-388-25E
 Test Type: BOTTOM HOLE CONVENTIONAL
 Formation: ISMAY

Recorder Number: 1909
 Recorder Depth: 5465 ft.

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P psi	PRESSURE (T+dt)/dt psi	ABSCISSA	PRESSURE SQUARED psi ² /10 ⁶
		290.00	1912.0	2216.0	1.5000*	
		300.00	1916.0	2220.0	1.4833*	
		310.00	1920.0	2224.0	1.4677*	
		320.00	1924.0	2228.0	1.4531*	
		330.00	1926.0	2230.0	1.4394*	
		340.00	1929.0	2233.0	1.4265*	
		350.00	1932.0	2236.0	1.4143*	
		360.00	1935.0	2239.0	1.4028*	
G	END OF 2nd SHUTIN	364.00	1935.0	2239.0	1.3984*	
Q	FINAL HYDROSTATIC	0.00		3154.0		

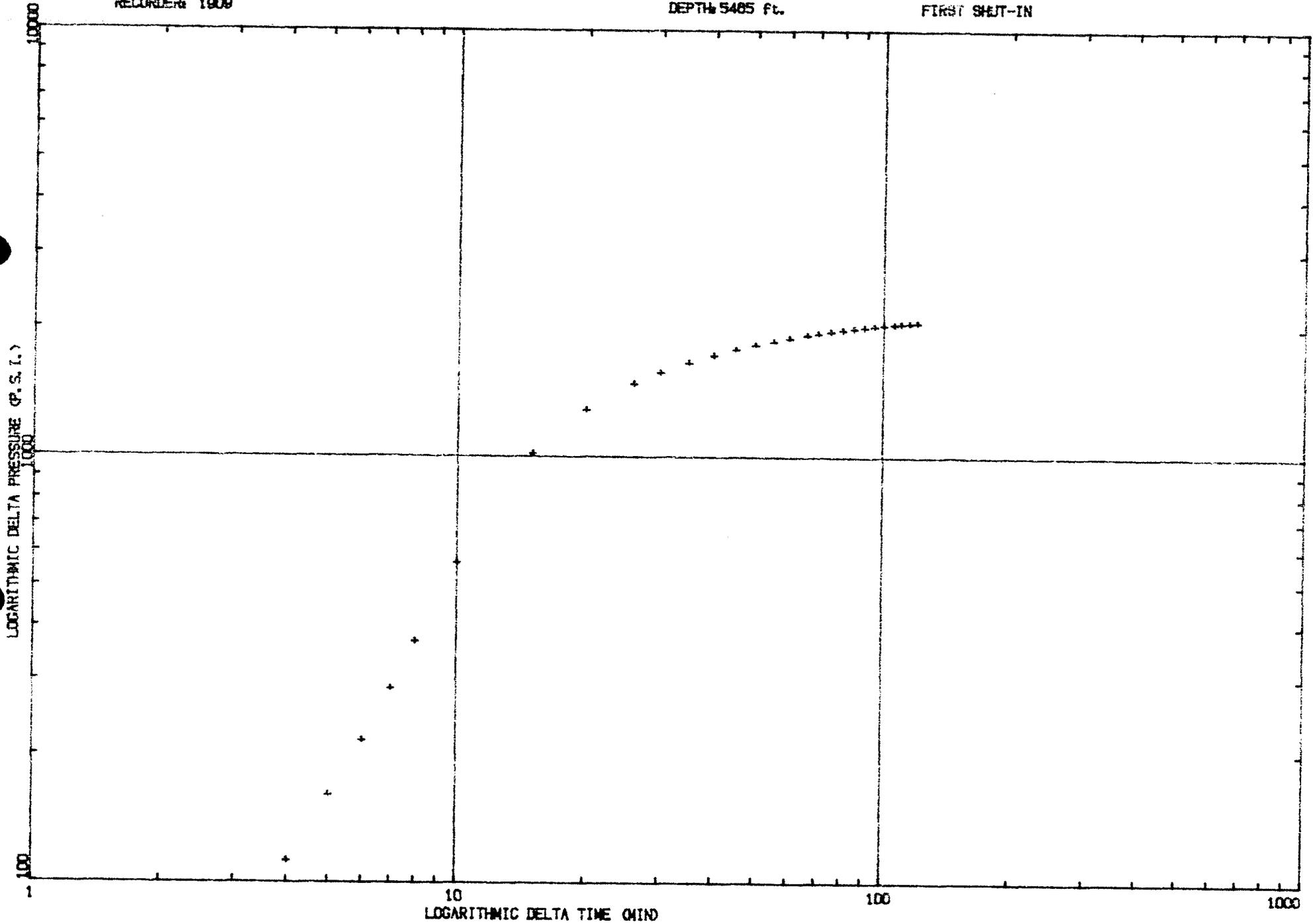
* VALUES USED FOR EXTRAPOLATIONS

2nd SHUT-IN
 HORNER EXTRAPOLATION 2349.99 PSI
 HORNER SLOPE 757.45 psi/cycle

OPERATOR: WEXPRO CO
LOCATION: 4-98S-25E
RECORDER: 1909

WELL NAME: PATTERSON #8
DST #: 2
DEPTH: 5485 ft.

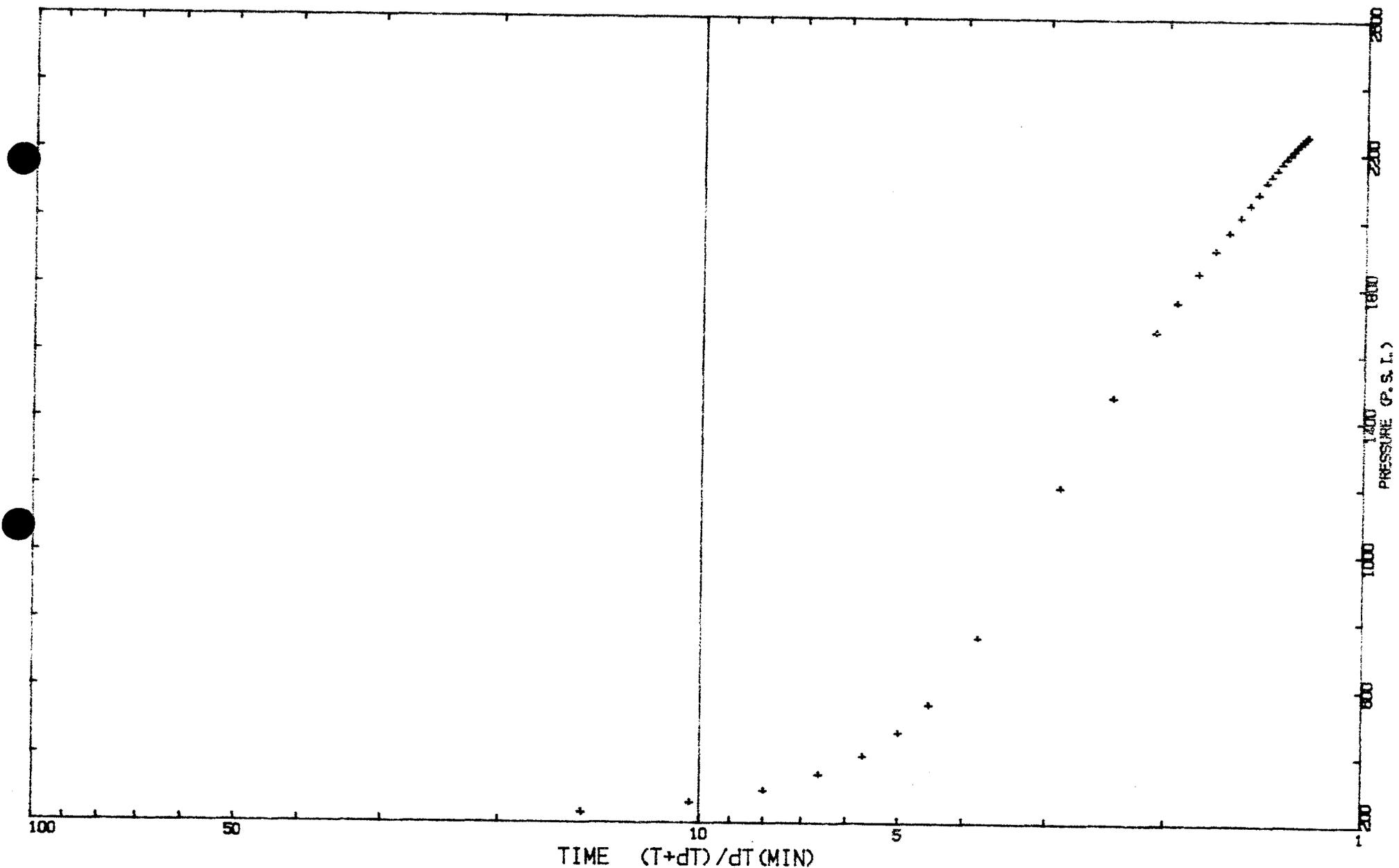
FIRST SHUT-IN



OPERATOR: WEXPRO CO
WELL NAME: PATTERSON #6
LOCATION: 4-38S-25E
FIRST SHUT-IN
RECORDER: 1909

DST #: 2

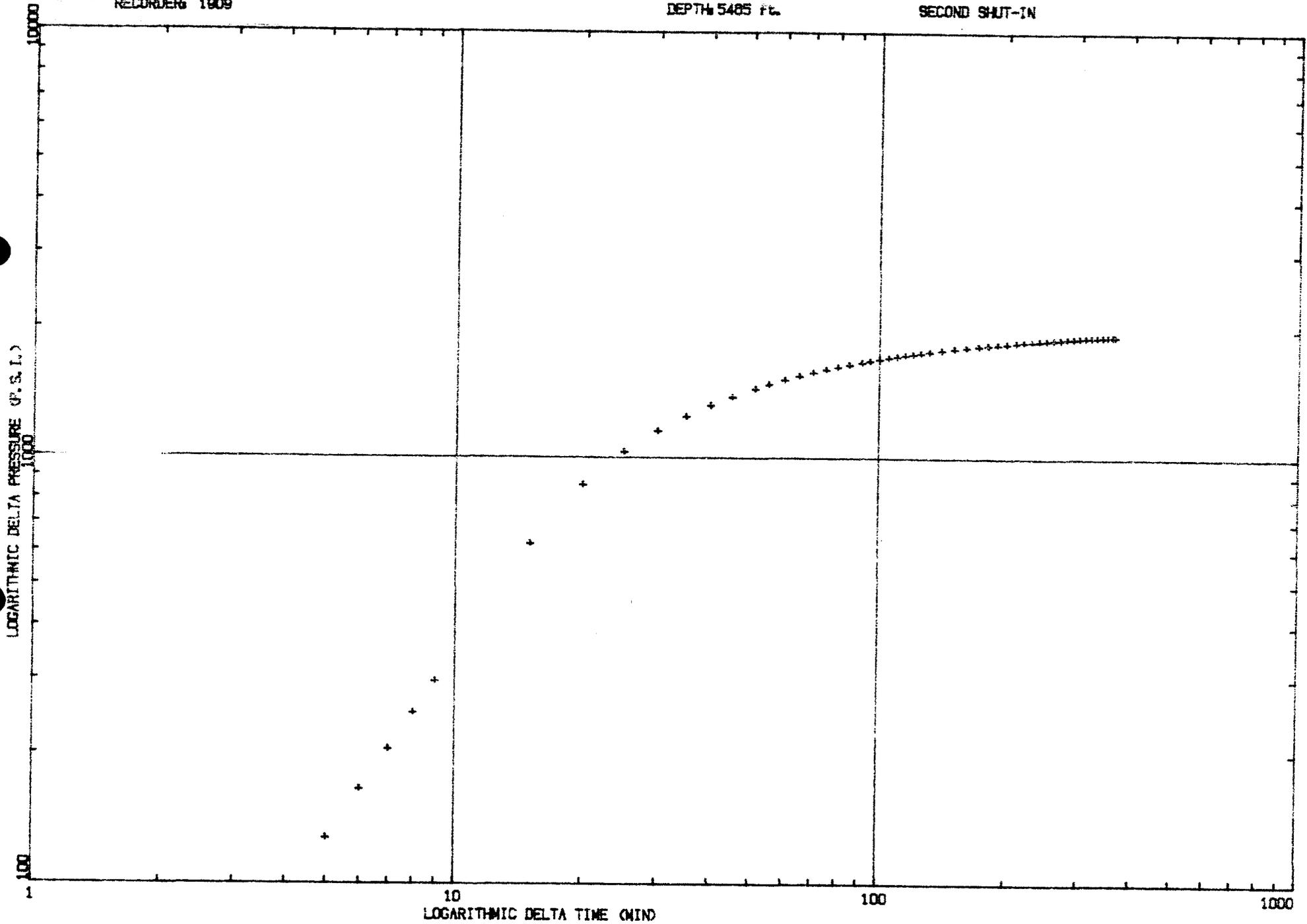
DEPTH: 5465 ft.



OPERATOR: WEXPRO CO
LOCATION: 4-989-25E
RECORDER: 1909

WELL NAME: PATTERSON #8
DST # 2
DEPTH: 5485 Ft.

SECOND SHUT-IN

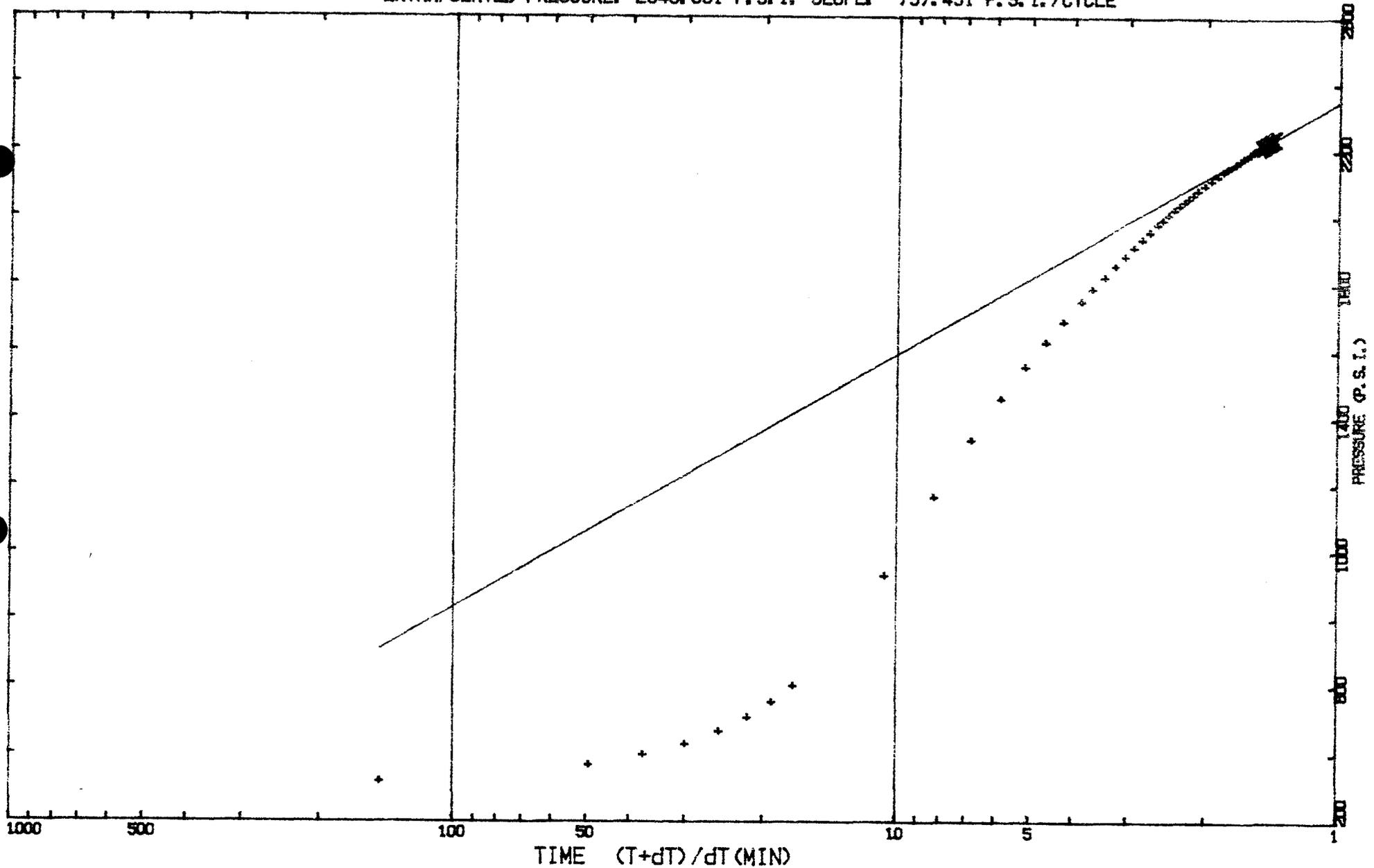


OPERATOR: WEXPRO CO
WELL NAME: PATTERSON #6
LOCATION: 4-385-25E
SECOND SHUT-IN
RECORDER: 1909

DST #: 2

DEPTH: 5465 ft.

EXTRAPOLATED PRESSURE: 2349.991 P. S. I. SLOPE: 757.451 P. S. I. /CYCLE



XPRO CO
DST#1 2
PATTERSON #6
5414 - 5469ft.

Location: 4-38S-25E
Test Type: BOTTOM HOLE CONVENTIONAL
Formation: ISMAY

Recorder Number: 1909
Recorder Depth: 5465

SAMPLE DATA

SAMPLE CHAMBER:

Capacity of sample chamber 2150 cc
Volume of sample..... 1650 cc
Pressure in sampler..... 290 psig
Where sampler was drained... on location

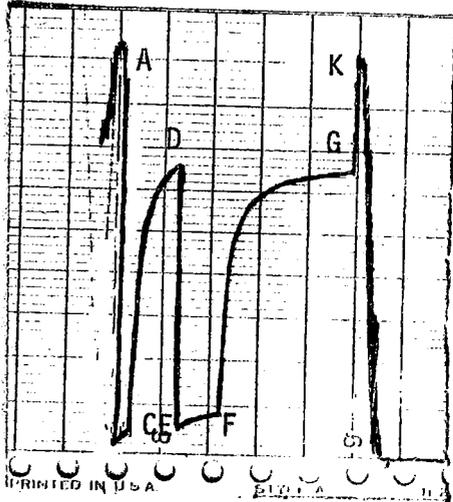
Sampler contained:
Water 950 cc
Mud 600 cc

RESISTIVITY DATA:

Top.....: 3800 PPM NACL
Middle.....: 6500 PPM NACL
Bottom.....: 7500 PPM NACL
Sampler.....: 120 000 PPM NACL
Mud pit.....: 15 000 PPM NACL
Make-up Water...:

PRESSURE RECORDER NUMBER : 1909

DEPTH : 5465.00ft. LOCATION : OUTSIDE
TYPE : DMR CAPACITY : 5000.00psi

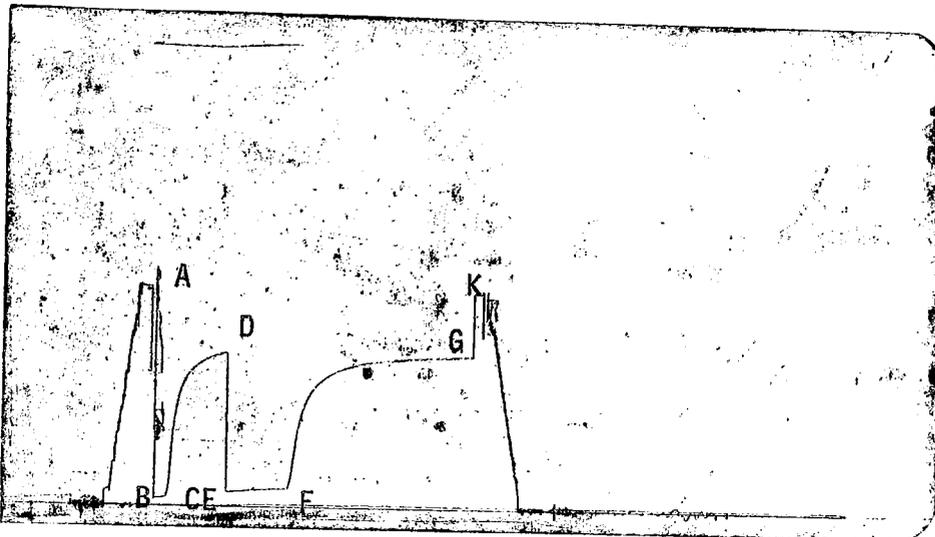


PRESSURE
psi
A)Initial Hydro : 3178.0
B)1st Flow Start: 108.0
C)1st Flow End : 184.0
D)END 1st Shutin: 2255.0
E)2nd Flow Start: 213.0
F)2nd Flow End : 304.0
G)END 2nd Shutin: 2239.0
Q)Final Hydro. : 3154.0

TEST TIMES(MIN)
1st FLOW : 28
SHUTIN: 120
2nd FLOW : 117
SHUTIN: 364

PRESSURE RECORDER NUMBER : 24523

DEPTH : 5427.00ft. LOCATION : INSIDE
TYPE : K-3 CAPACITY : 6650.00psi



PRESSURE
psi
A)Initial Hydro : 3148.0
B)1st Flow Start: 78.0
C)1st Flow End : 94.0
D)END 1st Shutin: 2181.0
E)2nd Flow Start: 180.0
F)2nd Flow End : 233.0
G)END 2nd Shutin: 2181.0
Q)Final Hydro. : 3106.0

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 5000 AT 5465

2

OPERATOR	Hexpro Co.	WELL NAME	Patterson #6	TICKET NO.	21281	DST. NO. 2
DMR TYPE #2						
TIME = 14.2000						
TIME = 13417.00						
TEMP IN DEG. F						
TEMP IN P.S.I.						
114.687						
3190.00						
3188.75						
3186.25						
3182.50						
3181.25						
3180.00						
Initial Hydro. -8177.50						
115.907						
3247.50						
3231.25						
Start 1st flow -107.500						
115.000						
118.750						
121.250						
123.750						
117.907						
130.000						
133.750						
138.750						
142.500						
145.000						
147.500						
148.750						
153.750						
155.000						
157.500						
160.000						
163.750						
165.000						
166.250						
119.312						
171.250						
172.500						
175.000						
176.250						
178.750						
180.000						
End 1st flow -183.750						
120.000						
230.000						
260.000						
296.250						
343.750						
400.000						
470.000						
552.500						
120.687						
750.000						
852.500						
951.250						
1043.75						
1126.25						
1200.00						
1266.25						
121.25						
1378.75						
1426.25						
1471.25						
1510.00						
1547.50						
1581.25						
1612.50						
121.907						
1608.75						
1693.75						
1716.25						
1738.75						
1758.75						
1778.75						
1796.25						
1831.25						
1846.25						
1861.25						
1875.00						
1888.75						
1901.25						
1913.75						
1937.50						
1948.75						
1958.75						
1968.75						
1978.75						
1988.75						
1996.25						
2013.75						
2022.50						
2023.75						
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2052.50						
2053.75						

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 5000 AT 5465

OPERATOR	Hexpro Co.	WELL NAME	Patterson #6	TICKET NO. 21281	DST. NO. 2
930000 T	125.812	1100 T	126.812	1100 T	127.812
	368.750		1913.75		2178.75
	398.750		1913.75		2180.00
	431.250		1925.75		2181.25
	468.750		1938.75		2181.25
	508.750		1932.50		2182.50
	553.750		1937.50		2182.50
	601.250		1941.25		2183.75
110000 T	125.947	11000 T	126.947	11000 T	127.947
	707.500		1950.00		2183.75
	763.750		1953.75		2185.00
	820.000		1958.75		2186.25
	875.000		1963.50		2186.25
	930.000		1966.25		2186.25
	982.500		1970.00		2187.50
	1032.50		1973.75		2188.75
1100000 T	126.187	110000 T	126.187	110000 T	127.687
	1123.75		1981.25		2188.75
	1166.25		1983.75		2190.00
	1203.75		1987.50		2190.00
	1241.25		1991.25		2191.25
	1273.75		1993.75		2191.25
	1306.25		1997.50		2192.50
	1336.25		2000.00		2192.50
1100000 T	126.312	110000 T	126.312	110000 T	127.687
	1390.00		2006.25		2193.75
	1415.00		2010.00		2193.75
	1430.75		2012.50		2195.00
	1460.00		2015.25		2195.00
	1481.25		2018.75		2196.25
	1501.25		2021.25		2196.25
	1520.00		2023.75		2196.25
1100000 T	126.437	1100000 T	126.437	1100000 T	127.750
	1555.00		2028.75		2198.75
	1571.25		2031.25		2198.75
	1587.50		2033.75		2198.75
	1602.50		2036.25		2200.00
	1616.25		2039.75		2200.00
	1630.00		2042.50		2201.25
	1643.75		2045.75		2201.25
1100000 T	126.500	1100000 T	127.062	1100000 T	127.812
	1668.75		2048.75		2202.50
	1681.25		2051.25		2203.75
	1691.25		2053.75		2203.75
	1703.75		2056.25		2203.75
	1713.75		2058.75		2203.75
	1723.75		2060.00		2205.00
	1733.75		2062.50		2205.00
1100000 T	126.562	1100000 T	127.125	1100000 T	127.812
	1752.50		2066.25		2206.25
	1762.50		2068.75		2206.25
	1771.25		2070.00		2207.50
	1778.75		2072.50		2207.50
	1787.50		2075.00		2208.75
	1796.25		2076.25		2208.75
	1803.75		2078.75		2208.75
1100000 T	126.687	1100000 T	127.187	1100000 T	127.812
	1818.75		2082.50		2210.00
	1825.00		2085.75		2210.00
	1832.50		2088.25		2210.00
	1838.75		2090.75		2211.25
	1846.25		2093.75		2211.25
	1851.25		2091.25		2211.25
	1858.75		2092.50		2212.50
1100000 T	126.687	1100000 T	127.187	1100000 T	127.812
	1870.00		2096.25		2213.75
	1876.25		2097.50		2213.75
	1882.50		2098.75		2213.75
	1887.50		2101.25		2213.75
	1892.50		2102.50		2215.00
	1898.75		2103.75		2215.00
	1903.75		2105.00		2215.00

POOR COPY

LYNES INC.

DMR--312 DIGITAL MEMORY RECORDER NO 1909 CAP 5000 AT 5465

OPERATOR Hexpro Co. WELL NAME Patterson #6 TICKET NO. 21281 DST. NO. 2

0000 130 T	2215.00	0000 130 T	2281.00
	2216.25		2282.25
	2216.75		2283.75
	2217.25	End 2nd shut-in	2284.75
	2217.50		2285.00
	2218.50		2286.75
	2219.75		2288.50
	2219.75		2289.75
0001 130 T	2219.90	0001 130 T	2290.25
	2219.75		2291.25
	2220.00	Final Hydro.	2292.75
	2220.00		2293.75
	2221.25		2294.75
	2221.25		2295.50
	2221.75		2296.50
0002 130 T	2222.00	0002 130 T	2297.00
	2222.50		2298.25
	2222.50		2299.75
	2223.75		2300.75
	2223.75		2301.75
	2223.75		2302.75
0003 130 T	2224.00		2303.75
	2225.00		2304.75
	2226.25		2306.25
	2226.25		2307.25
	2226.25		2308.25
	2227.50		2309.50
0004 130 T	2227.50		2310.00
	2228.75		2311.25
	2229.75		2312.25
	2229.75		2313.25
	2229.75		2314.25
	2230.00		2315.00
0005 130 T	2230.00		2316.25
	2230.25		2317.00
	2230.00		2318.00
	2231.25		2319.25
	2231.25		2320.25
	2231.25		2321.25
0006 130 T	2231.25		2322.50
	2232.50		2323.50
	2232.50		2324.50
	2233.75		2325.75
	2233.75		2326.75
	2233.75		2327.75
0007 130 T	2234.75		2328.75
	2235.00		2329.00
	2235.00		2329.00
	2235.00		2329.00
	2236.25		2330.25
	2236.25		2331.25
0008 130 T	2236.25		2332.25
	2236.25		2333.25
	2237.50		2334.50
	2237.50		2335.50
	2237.50		2336.75
	2238.75		2337.75
	2238.75		2338.75
	2238.75		2339.75

POOR COPY

WEXPRO CO.
DST#: 3
PATTERSON #6
5635 - 5674ft.

Location: SEC. 4 T39S R25E
Test Type: BOTTOM HOLE CONVENTIONAL
Formation: DESERT CREEK

Recorder Number: 1909
Recorder Depth: 5670

SAMPLE DATA

SAMPLE CHAMBER:

Capacity of sample chamber 2150 cc
Volume of sample..... 1800 cc
Pressure in sampler..... 48 psig
Where sampler was drained... on location

Sampler contained:
Mud 1800 cc

RESISTIVITY DATA:

Top.....: 26 000 PPM NACL
Middle.....: 30 000 PPM NACL
Bottom.....: 20 000 PPM NACL
Sampler.....: 20 000 PPM NACL
Mud pit.....: 10 000 PPM NACL
Make-up Water...:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Form 1001-3 (Rev. 10-11-83)
Expires August 31, 1985

6. LEASE DESIGNATION AND SERIAL NO.

U-11668

7. IF INDIAN, ALLOTTEE OR TRIBE NAME

--

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <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 Well
3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, WY 82902	9. WELL NO. 6
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface SW NW, 2470' FNL, 700' FWL	10. FIELD AND POOL, OR WILDCAT Patterson
14. PERMIT NO. 43-037-31108	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 4-38S-25E
15. ELEVATIONS (Show whether DF, RT, OR, etc.) GG 5160' KB 5174.00'	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.)*

Depth 5383', coring.

Landed Armco 10-3/4-inch O.D., 40.5-pound, K-55, 8 round thread, ST&C casing at 1574.00 feet KBM or 14.00 feet below KB. Cemented casing with 600 sacks of Halliburton Light treated with 10 pounds gilsonite per sack, 2% calcium chloride and 1/4-pound flocele per sack. Tailed in with 250 sacks Regular cement treated with 3% CaCl and 1/4-pound flocele per sack. Ran 60 feet one-inch alongside 10-3/4-inch casing and cemented through one-inch with 75 sacks Regular cement treated with 3% calcium chloride. Good returns throughout. Cement in place at 1:50 A.M., 12-27-84.

RECEIVED
JAN 11 1985

DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct
SIGNED A. J. Maser TITLE Drilling Superintendent DATE 1-9-85

(This space for Federal or State office use)

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

*See Instructions on Reverse Side



CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

COMPANY WEXPRO COMPANY FILE NO. 3803-003373
 WELL PATTERSON UNIT # 6 DATE 13-JAN-1985 ENGRS. DS;EV
 FIELD PATTERSON FORMATION PARADOX ELEV. 5174 KB
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES _____

CoRes Log

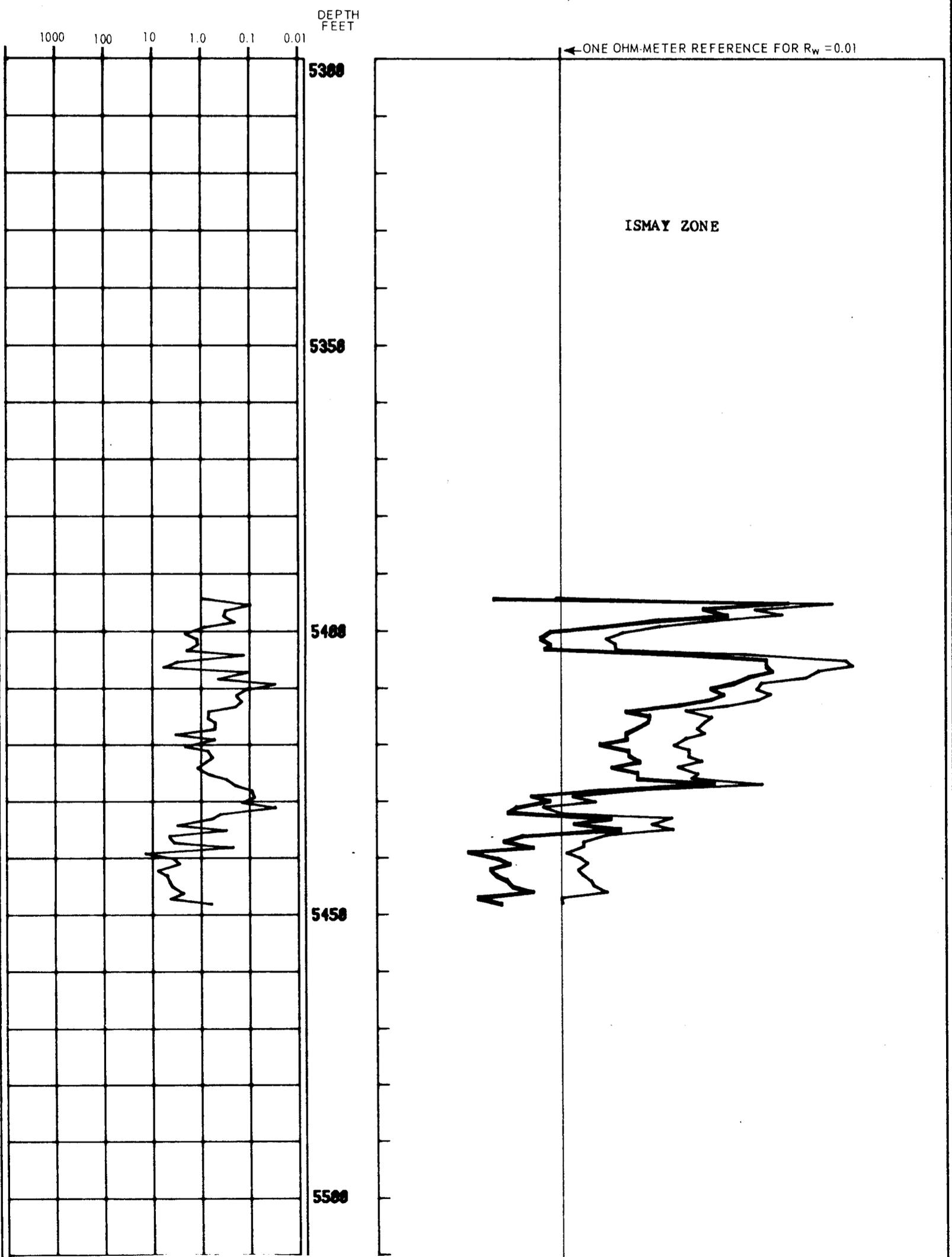
CORE and RESISTIVITY EVALUATION

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 representation as to the productivity, proven operation or profitability of any oil, gas or other minerals which said instruments with which such reports are used or related upon.

RESISTIVITY PARAMETERS: $a = 1.0$ $m = 2.0$ $n = 2.0$ Depths 5394 to 5449
 $a =$ _____ $m =$ _____ $n =$ _____ 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 WEXPRO COMPANY FILE NO. 3803-003373
 WELL PATTERSON UNIT # 6 DATE 13-JAN-1985 ENGRS. DS;EV
 FIELD PATTERSON FORMATION PARADOX ELEV. 5174 KB
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES _____

CoRes Log

CORE and RESISTIVITY EVALUATION

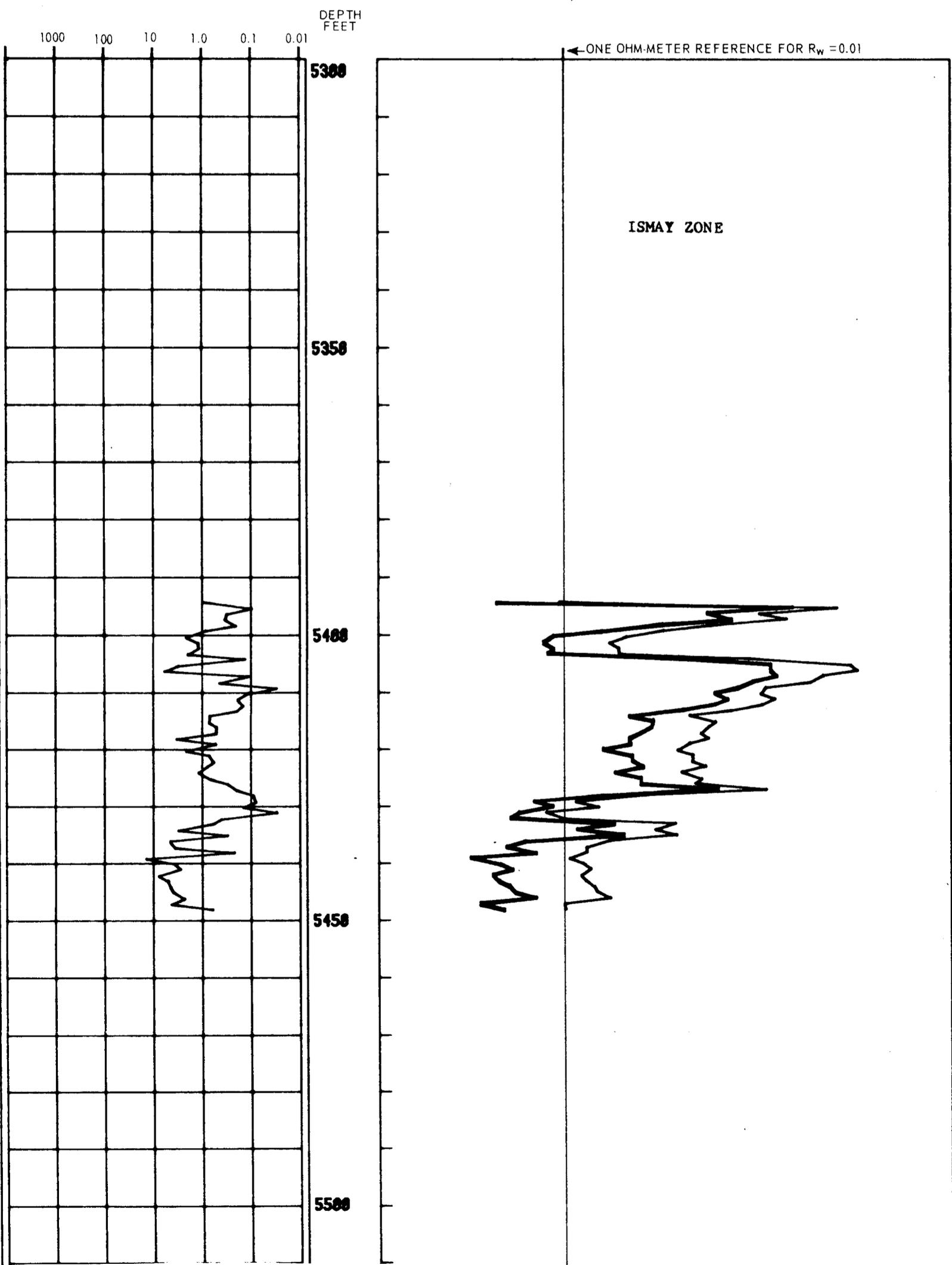
These analyses, opinions or interpretations are based on observations and material supplied by the client to whom and for whose exclusive and confidential use this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. All errors and omissions, excepted but not limited to, shall be the responsibility of the client. Core Laboratories, Inc. and its officers and employees assume no responsibility or liability for representations as to the productivity, proven operation or profitability of any oil, gas or other minerals which said instruments with which such reports are used or related upon.

RESISTIVITY PARAMETERS: $a = 1.0$ $m = 2.0$ $n = 2.0$ Depths 5394 to 5449
 $a =$ _____ $m =$ _____ $n =$ _____ Depths _____ to _____

PERMEABILITY
MILLIDARCIES

CORE ANALYSIS CALCULATED RESISTIVITY

$R_0 =$ OHM-METERS AT 100% S_w _____
 $R_{mp} =$ OHM-METERS AT CRITICAL S_w _____



Gamma Ray

RADIATION INCREASE →

Permeability $\times 0.1$

MILLIDARCIES

Porosity

PERCENT

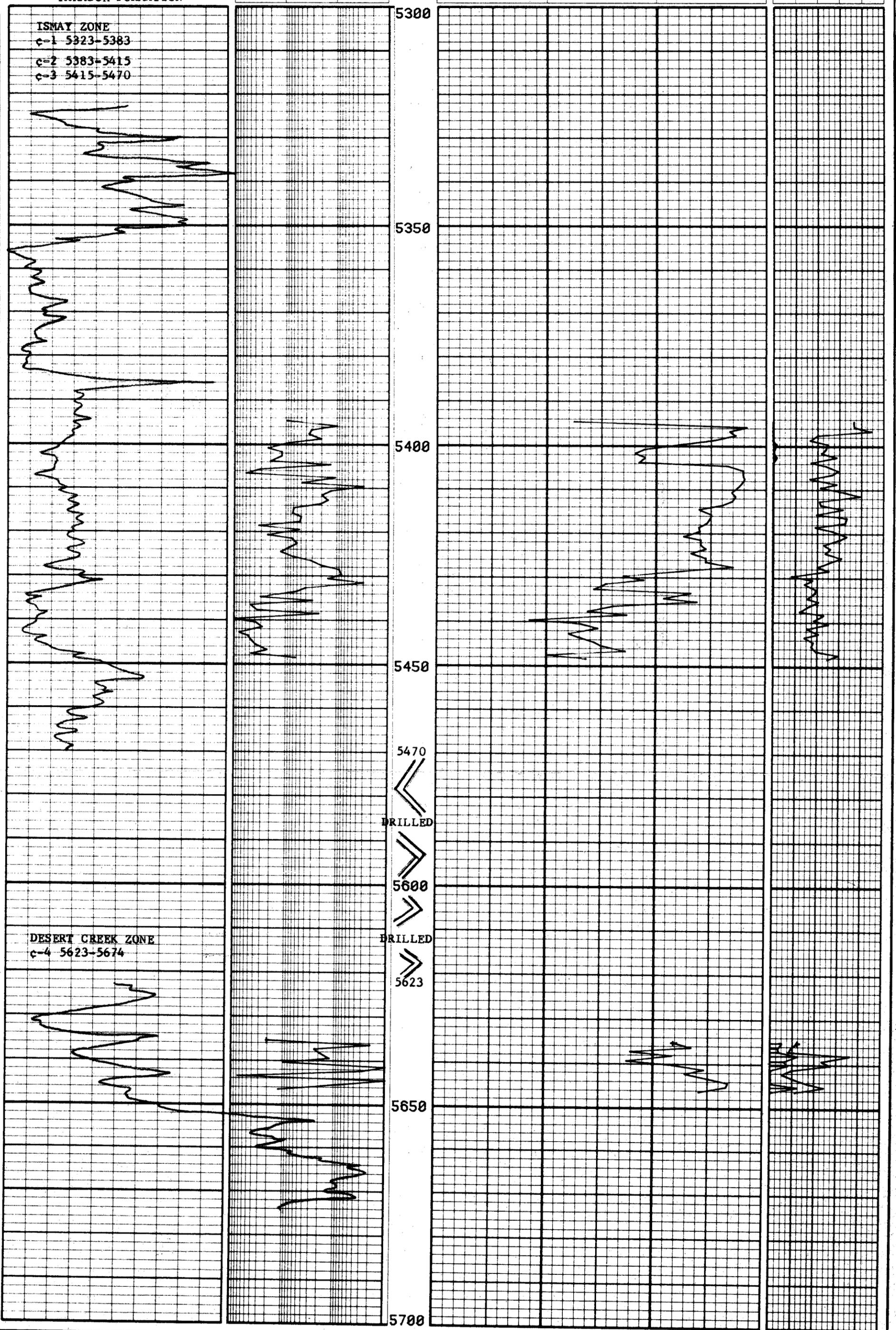
Oil Saturation

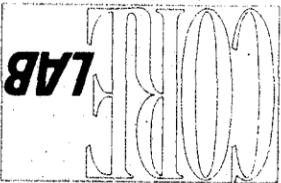
PERCENT PORE SPACE

PARADOX FORMATION

ISMAY ZONE
c-1 5323-5383
c-2 5383-5415
c-3 5415-5470

Depth Feet
100 10 1.0 1
30 20 10
5300
5350
5400
5450
5470
5500
5550
5600
5623
5650
5700





COMPANY WEXPRO COMPANY

WELL PATTERSON UNIT # 6

FIELD PATTERSON

COUNTY SAN JUAN

STATE UTAH

LOCATION 3M, NW SEC. 4-1389-R25E

FILE NO. 3803-003373

DATE 13-JAN-1985

ELEV. 5174 KB

CORES

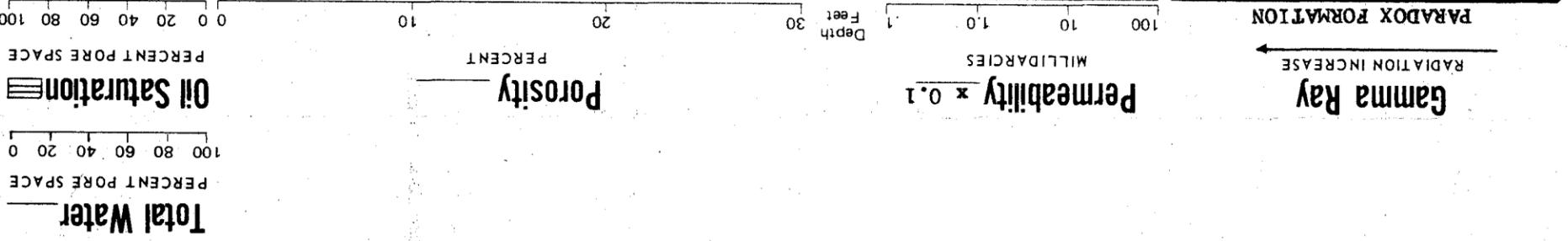
FORMATION PARADOX

DRLG. FLD. WBM

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., 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'



ISMAY ZONE
 C-1 5323-5383
 C-2 5383-5415
 C-3 5415-5470

DESERT CREEK ZONE
 C-4 5623-5674

5300 5350 5400 5450 5600 5670
 DRILLED DRILLED

LYNES

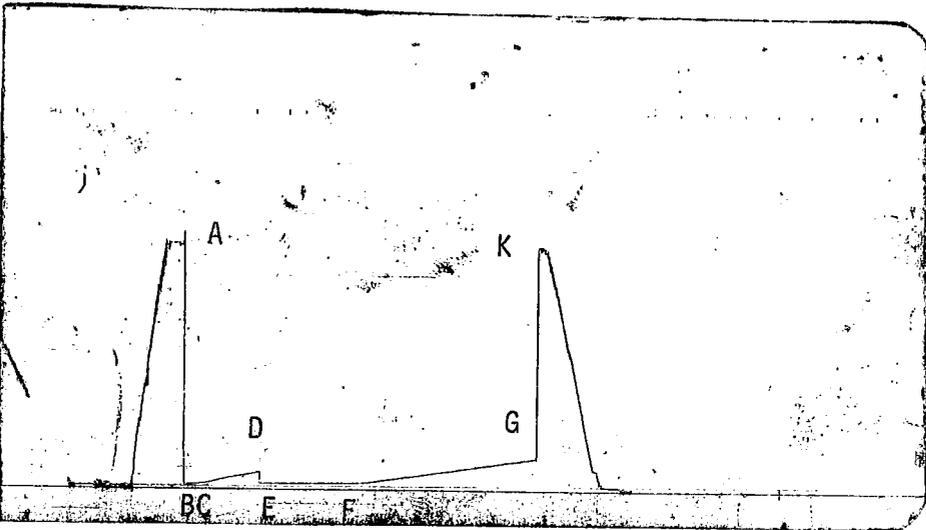
TECHNICAL SERVICES, Security Life Bldg. • Suite 1350 • 1616 Glenarm • Denver, Colorado 80202 • Phone: (303) 573-8027

Contractor <u>Arapahoe</u>	Top Choke <u>1/4"</u>	Flow No. 1 <u>28</u> Min.
Rig No. <u>10</u>	Bottom Choke <u>3/4"</u>	Shut-in No. 1 <u>120</u> Min.
Spot <u>--</u>	Size Hole <u>8 3/4"</u>	Flow No. 2 <u>190</u> Min.
Sec. <u>4</u>	Size Rat Hole <u>--</u>	Shut-in No. 2 <u>360</u> Min.
Twp. <u>39 S</u>	Size & Wt. D. P. <u>4 1/2" XH 16.60#</u>	Flow No. 3 <u>--</u> Min.
Rng. <u>25 E</u>	Size Wt. Pipe <u>--</u>	Shut-in No. 3 <u>--</u> Min.
Field <u>Patterson</u>	I. D. of D. C. <u>2 1/4"</u>	Bottom Hole Temp. <u>131⁰F</u>
County <u>San Juan</u>	Length of D. C. <u>372 Ft.</u>	Mud Weight <u>12.1</u>
State <u>Utah</u>	Total Depth <u>5674 Ft.</u>	Gravity <u>--</u>
Elevation <u>5174 Ft.</u>	Interval Tested <u>5635-5674 Ft.</u>	Viscosity <u>41</u>
Formation <u>Desert Creek</u>	Type of Test <u>Bottom Hole Conventional</u>	Tool opened @ <u>1:50</u>

Operator Wexpro
 Address P.O. Box 458
Rock Springs, WY. 82901

Well Name and No. Patterson #6
 Ticket No. 21282

Date 1/16/85
 No. Final Copies 17
DST No. 3



Inside Recorder	
PRD Make <u>Kuster K-3</u>	
No. <u>24552</u> Cap. <u>6625</u> @ <u>5645'</u>	
Press	Corrected
Initial Hydrostatic A	3485
Final Hydrostatic K	3485
Initial Flow B	28
Final Initial Flow C	36
Initial Shut-in D	200
Second Initial Flow E	42
Second Final Flow F	72
Second Shut-in G	433
Third Initial Flow H	--
Third Final Flow I	--
Third Shut-in J	--

Lynes Dist.: Rock Springs, WY.
 Our Tester: Bryan Scott
 Witnessed By: Howard Leeper

Did Well Flow - Gas NO Oil NO Water NO
 RECOVERY IN PIPE:

110 ft. Slight gas cut drilling mud = 5.39 bbls.

Blow Description:

1st Flow: Tool opened with a 1/2" underwater blow, increasing to 13" in 5 minutes, slowly decreasing to a 2" underwater blow at the end of the flow.

2nd Flow: Tool opened with a 12" underwater blow, increasing to a 20" blow in 1 minute, slowly decreasing to a surface blow in 50 minutes through the end of the flow.

Comments: The test results indicate a mechanically successful test. The flow and shut-in curves suggest virtually no permeability within the zone tested.

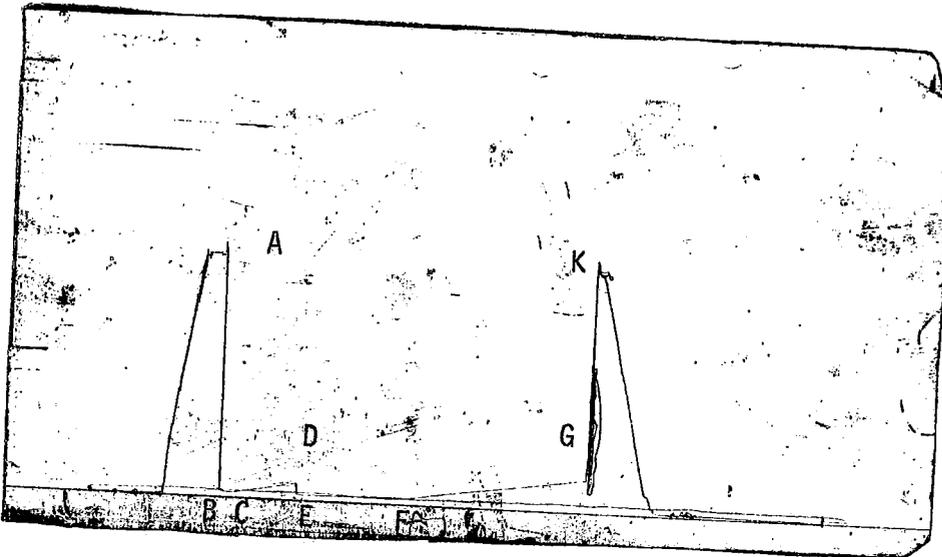
DMR Pressures recorded in PSIA.

PRESSURE RECORDER NUMBER : 24521

DEPTH : 5606.00ft. LOCATION : INSIDE
 TYPE : K-3 CAPACITY : 6625.00psi

PRESSURE

psi
 A)Initial Hydro : 3511.0
 B)1st Flow Start: 94.0
 C)1st Flow End : 96.0
 D)END 1st Shutin: 226.0
 E)2nd Flow Start: 96.0
 F)2nd Flow End : 69.0
 G)END 2nd Shutin: 419.0
 Q)Final Hydro. : 3459.0



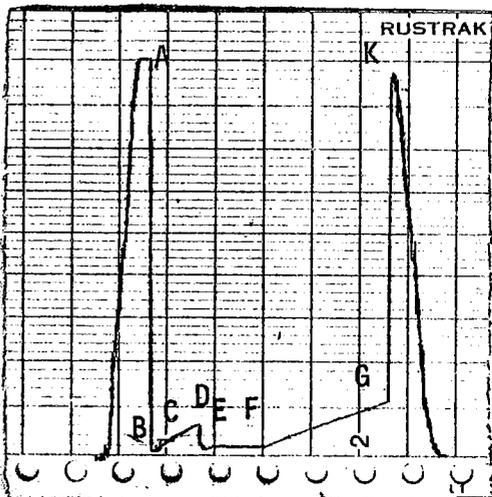
TEST TIMES(MIN)
 1st FLOW : 28
 SHUTIN: 120
 2nd FLOW : 190
 SHUTIN: 360

PRESSURE RECORDER NUMBER : 1909

DEPTH : 5670.00ft. LOCATION : OUTSIDE
 TYPE : DMR CAPACITY : 6625.00psi

PRESSURE

psi
 A)Initial Hydro : 3571.0
 B)1st Flow Start: 106.0
 C)1st Flow End : 110.0
 D)END 1st Shutin: 306.0
 E)2nd Flow Start: 99.0
 F)2nd Flow End : 118.0
 G)END 2nd Shutin: 503.0
 Q)Final Hydro. : 3526.0



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

PHUE 1

WEXPRO COMPANY
 PATTERSON UNIT # 6
 PATTERSON
 SAN JUAN, UTAH

DATE : 13-JAN-1985
 FORMATION : PARADOX
 DRLG. FLUID: WBM
 LOCATION : SW,NW SEC. 4-T38S-R25E

FILE NO : 3803-003373
 ANALYSTS : DS;EV
 ELEVATION: 5174 KB

FULL DIAMETER ANALYSIS-B.L. POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO AIR (MD)		POR. He	FLUID SATS.		GRAIN DEN	DESCRIPTION
		MAXIMUM	90 DEG		OIL	WTR		
PARADOX FORMATION - CORE # 1 5323-5383								
	5323.0-83.0							ANHYDRITE & SHALE -- NO ANALYSIS
ISMAY ZONE CORE # 2 5383-5415								
	5383.0-86.0							ANHYDRITE -- NO ANALYSIS
	5386.0-94.0							LM-DOL SL/SHY -- NO ANALYSIS
1	5394.0-95.0	0.97	0.74	17.5	0.0	25.9	2.79	DOL LTBRN VFXLN SL/CALC
2	5395.0-96.0	0.10	0.08	1.6	0.0	25.2	2.80	LM GRY VFXLN SL/ANHY
3	5396.0-97.0	0.33	0.22	3.2	0.0	10.1	2.80	LM GRY VFXLN SL/ANHY
4	5397.0-98.0	0.37	0.24	2.6	0.0	58.4	2.79	LM GRY VFXLN SL/ANHY
5	5398.0-99.0	0.21	0.20	4.6	0.0	65.8	2.82	LM GRY-BRN VFXLN SL/DOL SL/ANHY
6	5399.0-00.0	0.90	0.86	7.5	3.6	49.9	2.83	DOL BRN-GRY VFXLN SL/CALC SL/ANHY
7	5400.0-01.0	2.33	2.33	11.1	1.2	51.1	2.85	DOL BRN VFXLN SL/ANHY
8	5401.0-02.0	1.24	1.18	11.9	1.3	55.2	2.86	DOL BRN VFXLN SL/ANHY
9	5402.0-03.0	1.23	1.13	11.0	4.0	41.5	2.87	DOL BRN VFXLN SL/ANHY
10	5403.0-04.0	2.12	2.08	11.6	0.0	64.3	2.84	DOL BRN VFXLN SL/ANHY
11	5404.0-05.0	0.14	0.12	3.3	0.0	51.0	2.80	LM GRY VFXLN SL/ANHY SL/DOL
12	5405.0-06.0	3.36	0.87	1.9	0.0	39.5	2.76	LM GRY VFXLN SL/ANHY **
13	5406.0-07.0	6.34	0.16	1.9	0.0	46.2	2.77	LM GRY VFXLN SL/ANHY **
14	5407.0-08.0	0.11	0.10	1.8	0.0	65.6	2.77	LM GRY VFXLN SL/ANHY
15	5408.0-09.0	0.48	0.16	2.2	0.0	41.2	2.77	LM GRY VFXLN SL/ANHY
16	5409.0-10.0	0.03	*	2.5	0.0	56.0	2.78	LM GRY VFXLN SL/ANHY
17	5410.0-11.0	0.14	0.13	3.0	0.0	34.7	2.77	LM GRY VFXLN SL/ANHY
18	5411.0-12.0	0.20	0.18	2.7	0.0	20.4	2.78	LM GRY VFXLN SL/ANHY
19	5412.0-13.0	0.15	0.10	3.0	0.0	57.7	2.76	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

PAGE 2

WEXPRO COMPANY
 PATTERSON UNIT # 6

DATE : 13-JAN-1985
 FORMATION : PARADOX

FILE NO : 3803-003373
 ANALYSTS : DS/EV

FULL DIAMETER ANALYSIS-B.L. POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
20	5413.0-14.0	0.22	0.20	3.9	0.0	55.7	2.75	LM GRY VFXLN SL/ANHY
21	5414.0-15.0	0.74	*	6.0	0.0	35.7	2.73	LM GRY VFXLN SL/ANHY
ISMAY ZONE CORE # 3 5415-5470								
22	5415.0-16.0	0.78	0.57	4.9	0.0	60.1	2.74	LM GRY VFXLN SL/ANHY
23	5416.0-17.0	0.52	0.51	5.0	0.0	32.4	2.75	LM GRY VFXLN SL/ANHY
24	5417.0-18.0	0.56	0.49	5.4	0.0	33.7	2.74	LM GRY VFXLN SL/ANHY
25	5418.0-19.0	3.54	2.76	6.0	0.0	60.6	2.74	LM GRY VFXLN SL/ANHY
26	5419.0-20.0	0.56	0.45	5.9	0.0	44.5	2.74	LM GRY VFXLN SL/ANHY
27	5420.0-21.0	2.33	1.55	7.4	0.0	32.3	2.73	LM GRY VFXLN SL/ANHY
28	5421.0-22.0	0.76	0.66	5.8	0.0	39.3	2.74	LM GRY VFXLN SL/ANHY
29	5422.0-23.0	0.60	0.59	5.8	0.0	53.2	2.74	LM GRY VFXLN SL/ANHY
30	5423.0-24.0	0.86	0.56	5.3	0.0	47.0	2.75	LM GRY VFXLN SL/ANHY
31	5424.0-25.0	1.28	0.94	6.7	0.0	51.4	2.74	LM GRY VFXLN SL/ANHY
32	5425.0-26.0	0.72	0.59	5.4	0.0	36.3	2.74	LM GRY VFXLN SL/ANHY
33	5426.0-27.0	0.32	0.29	5.4	0.0	46.8	2.75	LM GRY VFXLN SL/ANHY
34	5427.0-28.0	0.20	0.16	2.9	0.0	58.3	2.76	LM GRY VFXLN SL/ANHY
35	5428.0-29.0	0.09	0.08	7.4	0.0	47.8	2.84	DOL LTBRN-GRY VFXLN SL/CALC SL/ANHY
36	5429.0-30.0	0.08	0.05	12.9	0.0	82.1	2.82	DOL LTBRN VFXLN SL/ANHY
37	5430.0-31.0	0.15	0.13	11.1	0.0	63.5	2.82	DOL BRN VFXLN SL/ANHY SL/CALC
38	5431.0-32.0	0.03	*	14.6	0.0	70.1	2.82	DOL BRN VFXLN SL/ANHY SL/CALC
39	5432.0-33.0	0.43	0.31	15.7	0.0	59.7	2.82	DOL BRN VFXLN SL/ANHY SL/CALC
40	5433.0-34.0	0.66	0.60	6.7	0.0	60.8	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
41	5434.0-35.0	3.30	2.83	9.2	0.0	68.1	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
42	5435.0-36.0	0.31	*	6.2	0.0	57.8	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
43	5436.0-37.0	4.85	3.25	13.9	0.0	66.8	2.86	DOL BRN VFXLN SL/ANHY SL/CALC
44	5437.0-38.0	3.72	3.43	16.2	0.0	74.5	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
45	5438.0-39.0	0.23	*	12.6	0.0	52.3	2.83	DOL BRN VFXLN SL/ANHY SL/CALC
46	5439.0-40.0	15.	11.	21.5	0.0	61.7	2.83	DOL BRN VFXLN SL/ANHY SL/CALC

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

WEXPRO COMPANY
 PATTERSON UNIT # 6

DATE : 13-JAN-1985
 FORMATION : PARADOX

FILE NO : 3803-003373
 ANALYSTS : DS;EV

FULL DIAMETER ANALYSIS-B.L. POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO AIR (MD) MAXIMUM	90 DEG	POR, He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
47	5440.0-41.0	3.90	3.50	16.8	0.0	48.6	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
48	5441.0-42.0	2.89	2.57	15.3	0.0	68.4	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
49	5442.0-43.0	8.24	7.47	18.0	0.0	57.8	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
50	5443.0-44.0	5.43	4.28	17.0	0.0	70.1	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
51	5444.0-45.0	4.73	3.93	15.6	0.0	62.6	2.86	DOL BRN VFXLN SL/ANHY SL/CALC
52	5445.0-46.0	3.96	3.91	14.9	0.0	64.7	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
53	5446.0-47.0	2.38	2.06	12.7	0.0	59.5	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
54	5447.0-48.0	4.79	3.49	20.0	0.0	40.4	2.85	DOL BRN VFXLN SL/ANHY SL/CALC
55	5448.0-49.0	0.66	*	16.3	0.0	49.7	2.84	DOL BRN VFXLN SL/ANHY SL/CALC
	5449.0-70.0							LM-DOL SL/SHY -- NO ANALYSIS
	5470.0-23.0							DRILLED TO DESERT CREEK
DESERT CREEK ZONE CORE # 4 5623-5674								
	5623.0-30.0							LM/DOL SL/ANHY SL/SHY -- NO ANALYSIS
	5630.0-35.0							ANHYDRITE -- NO ANALYSIS
56	5635.0-36.0	2.20	0.15	8.1	10.5	74.8	2.75	DOL LTBRN VFXLN SL/CALC SL/SHY **
57	5636.0-37.0	0.02	*	6.5	7.7	80.2	2.76	DOL LTBRN VFXLN SL/CALC SL/SHY
58	5637.0-38.0	0.25	0.09	12.1	8.3	83.5	2.77	DOL BRN VFXLN SL/CALC
59	5638.0-39.0	0.19	0.13	8.3	25.3	27.1	2.78	DOL BRN VFXLN SL/CALC
60	5639.0-40.0	0.13	0.13	12.5	12.9	53.3	2.77	DOL BRN VFXLN SL/CALC
61	5640.0-41.0	1.03	0.90	8.3	16.5	44.9	2.78	DOL BRN VFXLN SL/CALC SL/ANHY **
62	5641.0-42.0	0.01	0.01	5.3	0.0	79.3	2.74	LM LTBRN VFXLN SL/DOL
63	5642.0-43.0	0.03	0.02	7.1	0.0	88.9	2.75	LM LTBRN VFXLN SL/DOL
64	5643.0-44.0	8.27	0.39	5.0	0.0	77.9	2.71	LM GRY VFXLN SL/SHY **
65	5644.0-45.0	0.01	0.01	3.1	0.0	66.2	2.70	LM GRY VFXLN SL/SHY
66	5645.0-46.0	0.08	0.04	3.3	25.5	51.0	2.71	LM GRY VFXLN SL/SHY
67	5646.0-47.0	1.31	0.04	5.8	0.0	77.4	2.74	LM GRY VFXLN SL/DOL SL/SHY **
	5647.0-74.0							SHALE SL/CALC -- NO ANALYSIS

** DENOTES FRACTURE PERMEABILITY

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

DALLAS, TEXAS

WEXPRO COMPANY
PATTERSON UNIT # 6

DATE : 13-JAN-1985
FORMATION : PARADOX

FILE NO. : 3803-003373
ANALYSTS : DS;EV

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

DEPTH INTERVAL: 5394.0 TO 5449.0

FEET OF CORE ANALYZED : 55.0 FEET OF CORE INCLUDED IN AVERAGES: 55.0

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

PERMEABILITY MAXIMUM RANGE (MD.)	:	0.01 TO 25.	(UNCORRECTED FOR SLIPPAGE)
HELIUM POROSITY RANGE (%)	:	0.0 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: 5394.0 TO 5449.0

AVERAGE PERMEABILITY (MILLIDARCIES)		PRODUCTIVE CAPACITY (MILLIDARCY-FEET)	
ARITHMETIC PERMEABILITY	: 1.8	ARITHMETIC CAPACITY	: 101.
GEOMETRIC PERMEABILITY	: 0.74	GEOMETRIC CAPACITY	: 41.
HARMONIC PERMEABILITY	: 0.27	HARMONIC CAPACITY	: 15.
GEOMETRIC MAXIMUM & 90 DEG PERM.	: 0.49	GEOMETRIC MAXIMUM & 90 DEG CAPACITY:	27.
AVERAGE POROSITY (PERCENT)	: 8.8	AVERAGE TOTAL WATER SATURATION	: 55.0
		(PERCENT OF PORE SPACE)	
AVERAGE RESIDUAL OIL SATURATION	: 0.2	AVERAGE CONNATE WATER SATURATION **	: 53.4
(PERCENT OF PORE SPACE)		(PERCENT OF PORE SPACE)	

** ESTIMATED FROM TOTAL
WATER SAUTRATION.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

PERMEABILITY VS POROSITY

COMPANY: WEXPRO COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT # 6
 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
5394.0 - 5449.0	1 (+)	0.010	25.0	0.0	46.0	8.8	1.8	0.27	0.74

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 6625 AT 5670

OPERATOR Wexpro Co. WELL NAME Patterson #6 TICKET NO. 21282 DST. NO 3

Time	Pressure	Time	Pressure	Time	Pressure	Time	Pressure
00:00:30 T	110.437	00:01:30 T	125.500	00:02:30 T	126.125	00:03:30 T	126.812
	3570.00		180.000		285.000		113.750
	3568.75		181.250		286.250		113.750
	3570.00		183.750		287.500		113.750
	3571.25		186.250		288.750		113.750
Initial Hydro.	3571.25		187.500		290.000		113.750
	3570.00		188.750		291.250		113.750
	3570.00		190.000		292.500		113.500
00:04:30 T	119.062	00:05:30 T	125.500	00:06:30 T	126.187	00:07:30 T	126.937
	3568.75		193.750		295.000		113.750
	3616.25		195.000		296.250		113.750
	3608.75		197.500		297.500		113.750
Start 1st flow	211.250		198.750		298.750		113.750
	106.250		201.250		300.000		113.750
	106.250		202.500		301.250		113.750
	108.750		203.750		302.500		113.750
00:08:30 T	118.937	00:09:30 T	125.687	00:10:30 T	126.312	00:11:30 T	126.937
	108.750		207.500		305.000		113.750
	108.750		208.750	End 1st shut-in	306.250		113.750
	108.750		210.000	Start 2nd flow	308.750		113.750
	108.750		211.250		309.250		113.750
	108.750		213.750		310.250		113.750
	108.750		215.000		311.250		113.750
	108.750		216.250		312.500		113.750
00:12:30 T	120.187	00:13:30 T	125.750	00:14:30 T	126.312	00:15:30 T	127.062
	108.750		218.750		313.750		113.750
	108.750		221.250		314.750		113.750
	108.750		223.750		315.000		113.750
	108.750		223.750		316.250		113.750
	108.750		226.250		317.250		113.750
	108.750		227.500		318.000		113.750
	108.750		228.750		319.000		113.750
00:16:30 T	122.125	00:17:30 T	125.812	00:18:30 T	126.375	00:19:30 T	127.125
	110.000		231.250		319.250		113.750
	110.000		233.750		320.000		115.000
	110.000		233.750		321.250		113.750
	110.000		236.250		322.500		113.750
	110.000		237.500		323.500		115.000
	110.000		238.750		324.250		115.000
	110.000		240.000		325.000		115.000
00:20:30 T	123.562	00:21:30 T	125.937	00:22:30 T	126.500	00:23:30 T	127.187
End 1st flow	110.000		243.750		326.250		113.750
	111.250		243.750		327.250		113.750
	113.750		246.250		328.250		115.000
	116.250		247.500		329.250		115.000
	118.750		248.750		330.250		115.000
	121.250		250.000		331.250		115.000
	123.750		251.250		332.500		115.000
00:24:30 T	124.437	00:25:30 T	125.937	00:26:30 T	126.562	00:27:30 T	127.250
	130.000		253.750		333.500		115.000
	131.250		255.000		334.250		115.000
	133.750		256.250		335.250		115.000
	136.250		258.750		336.250		115.000
	138.750		260.000		337.250		116.250
	141.250		261.250		338.500		115.000
	143.750		262.500		339.250		116.250
00:28:30 T	125.000	00:29:30 T	126.000	00:30:30 T	126.625	00:31:30 T	127.312
	148.750		265.000		340.250		115.000
	150.000		266.250		341.250		116.250
	152.500		267.500		342.500		115.000
	155.000		268.750		343.250		115.000
	156.250		270.000		344.250		116.250
	158.750		271.250		345.250		116.250
	161.250		272.500		346.250		115.000
00:32:30 T	125.312	00:33:30 T	126.062	00:34:30 T	126.687	00:35:30 T	127.437
	165.000		275.000		347.500		115.000
	167.500		276.250		348.250		116.250
	168.750		277.500		349.250		116.250
	171.250		278.750		350.250		116.250
	172.500		280.000		351.250		116.250
	175.000		281.250		352.250		116.250
	176.250		282.500		353.250		116.250

POOR COPY

LYNES INC.

DMR-312 DIGITAL MEMORY RECORDER NO. 1909 CAP 6625 AT 5670

OPERATOR Wexpro Co.

WELL NAME Patterson #6

TICKET NO. 21282

DST NO. 3

001:00:30 T	128.187	001:00:30 T	128.750	001:00:30 T	129.312	001:00:30 T	129.875	001:00:30 T	130.437
	130.000		213.750		291.250		366.250		440.000
	131.250		215.000		292.500		367.500		442.500
	131.250		216.250		293.750		368.750		443.750
	133.750		217.500		293.750		368.750		443.750
	135.000		218.750		295.000		370.000		445.000
	136.250		220.000		296.250		371.250		446.250
	136.250		221.250		297.500		372.500		446.250
001:01:30 T	128.250	001:01:30 T	128.812	001:01:30 T	129.375	001:01:30 T	129.937	001:01:30 T	130.500
	138.750		223.750		298.750		373.750		448.750
	141.250		223.750		301.250		376.250		448.750
	142.500		226.250		301.250		376.250		450.000
	143.750		226.250		302.500		377.500		451.250
	145.000		227.500		303.750		378.750		452.500
	146.250		228.750		305.000		378.750		453.750
	147.500		228.750		306.250		381.250		453.750
001:02:30 T	128.312	001:02:30 T	128.937	001:02:30 T	129.437	001:02:30 T	129.937	001:02:30 T	130.437
	148.750		231.250		307.500		382.500		456.250
	151.250		232.500		308.750		383.750		457.500
	151.250		233.750		310.000		385.000		457.500
	153.750		235.000		311.250		386.250		458.750
	153.750		236.250		311.250		386.250		458.750
	155.000		237.500		312.500		387.500		461.250
	156.250		238.750		313.750		388.750		461.250
001:03:30 T	128.375	001:03:30 T	129.037	001:03:30 T	129.500	001:03:30 T	129.937	001:03:30 T	130.437
	158.750		240.000		314.250		391.250		465.000
	161.250		241.250		316.250		391.250		466.250
	161.250		242.500		317.500		393.750		466.250
	163.750		243.750		318.750		393.750		468.750
	163.750		245.000		320.000		393.750		468.750
	163.750		246.250		321.250		396.250		468.750
	165.000		246.250		322.500		396.250		470.000
	166.250		246.250		323.750		397.500		470.000
001:04:30 T	128.437	001:04:30 T	129.000	001:04:30 T	129.500	001:04:30 T	129.937	001:04:30 T	130.437
	168.750		248.750		325.000		398.750		473.750
	170.000		250.000		325.000		400.000		473.750
	171.250		251.250		326.250		401.250		475.000
	172.500		252.500		327.500		402.500		475.000
	173.750		253.750		328.750		403.750		476.250
	175.000		253.750		328.750		403.750		476.250
	176.250		255.000		328.750		403.750		478.750
001:05:30 T	128.500	001:05:30 T	129.125	001:05:30 T	129.625	001:05:30 T	130.000	001:05:30 T	130.437
	178.750		257.500		332.500		407.500		478.750
	178.750		258.750		333.750		408.750		478.750
	181.250		258.750		335.000		410.000		481.250
	182.500		261.250		335.000		410.000		482.500
	183.750		261.250		336.250		411.250		483.750
	183.750		262.500		336.250		411.250		485.000
	185.000		263.750		337.500		412.500		486.250
001:06:30 T	128.562	001:06:30 T	129.187	001:06:30 T	129.625	001:06:30 T	130.062	001:06:30 T	130.437
	187.500		266.250		341.250		415.000		490.000
	188.750		266.250		342.500		416.250		490.000
	190.000		268.750		343.750		417.500		491.250
	191.250		268.750		345.000		418.750		492.500
	231.250		270.000		346.250		418.750		493.750
	192.500		271.250		346.250		421.250		493.750
	193.750		272.500		347.500		421.250		495.000
001:07:30 T	128.625	001:07:30 T	129.250	001:07:30 T	129.687	001:07:30 T	130.125	001:07:30 T	130.437
	196.250		273.750		350.000		423.750		497.500
	197.500		275.000		351.250		425.000		498.750
	198.750		276.250		351.250		426.250		498.750
	200.000		277.500		353.750		426.250		501.250
	201.250		278.750		353.750		428.750		501.250
	202.500		280.000		355.000		428.750		503.750
	203.750		281.250		356.250		430.000		503.750
001:08:30 T	128.687	001:08:30 T	129.250	001:08:30 T	129.750	001:08:30 T	130.187	001:08:30 T	130.437
	206.250		283.750		357.500		431.250		1533.75
	206.250		283.750		358.750		433.750		3526.25
	207.500		285.000		360.000		433.750		3526.25
	208.750		286.250		361.250		435.000		3525.00
	210.000		287.500		361.250		436.250		3525.00
	211.250		288.750		362.500		436.250		3525.75
	212.500		288.750		363.750		437.500		3526.75

POOR COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355

5

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

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.
6
10. FIELD AND POOL, OR WILDCAT
Patterson Undesignated
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
4-38S-25E

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 NW, 2470' FNL, 700' FWL
At top prod. interval reported below
At total depth

14. PERMIT NO. 43-037-31108 DATE ISSUED 11-27-84

12. COUNTY OR PARISH San Juan 13. STATE Utah

15. DATE SPUDDED 12-21-84 16. DATE T.D. REACHED 1-18-85 17. DATE COMPL. (Ready to prod.) -- 1-19-85 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* GG 5160' KB 5174.00' 19. ELEV. CASINGHEAD 5160'

20. TOTAL DEPTH, MD & TVD 5714' 21. PLUG, BACK T.D., MD & TVD Surface 22. IF MULTIPLE COMPL., HOW MANY* -- 23. INTERVALS DRILLED BY ROTARY TOOLS X CABLE TOOLS --

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

26. TYPE ELECTRIC AND OTHER LOGS RUN (DIL, GNL, EDC, BHC) 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
10-3/4	40.5	1574'	14-3/4	600 Sx Halco Lite & 250 Sx Regular	N/A

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

DATE FIRST PRODUCTION N/A	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) N/A	WELL STATUS (Producing or shut-in) P & A - 1-19-85					
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	

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

35. LIST OF ATTACHMENTS
DST 1-3

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
SIGNED Thomas M. ... TITLE Director, Petroleum Eng DATE January 21, 1985

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

INSTRUCTIONS

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

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 33.

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

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

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

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

37. SUMMARY OF POROUS ZONES:

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Upper Ismay	5371	5415'	DST #1: TD 5415', Pkrs 5371' & 5380', IO 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened very weak, continued throughout no gas, reopened weak, dead in 2 hours, no gas, rec 125' gas cut mud, top 9.7 ppg, Res 1.2, 4500 ppm, bottom 9.7 ppg, Res 1.13, 4800 ppm, sample chamber rec 700 cc wtr, 800 cc mud, 55 psig, wtr Res 1.5, 5500 ppm, mud Res 1.2, 4500 ppm, pit mud 10.3 ppg, Res 1.45, 10,000 ppm, IHHP 2911, IOFP's 55-97, ISIP 1717, FOFP's 111-125, FSIP 2133, FHHP 2856, BHT 127°F.
Lower Ismay	5406	5470	DST #2: TD 5470', Pkrs 5406' & 5414', IO 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened weak, increased slightly no gas, reopened weak, remained throughout no gas, dead in 55 mins, rec 450' wtr cut mud, top 10.2 ppg, Res 0.18, bottom 9.1, Res 0.08, sample chamber rec 1650 cc, 290 psig, Res 0.6, 96 ppg, pit mud 11.3 ppg, Res .16, IHHP 3170, IOFP's 110-137, ISIP 2202, FOFP's 165-247, FSIP 2202, FHHP 3143. See attached sheet for DST #3.

38.

GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Morrison	Surface	
Entrada	530	
Carmel	690	
Navajo	720	
Chinle	1,500	
Shinarump	2,238	
Cutler	2,332	
Honaker Trail	4,310	
Paradox	4,800	
Ismay Base		
2nd Shale	5,338	
Ismay Porosity	5,380	
Lower Shale	5,490	
Lower Ismay	5,520	
B Zone Shale	5,560	
Desert Creek	5,594	
Lower Bench	5,620	
Desert Ck Por.	5,640	
Salt	5,730	

INSTRUCTIONS

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

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

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

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

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

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

37. SUMMARY OF POROUS ZONES:

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Desert Creek	5626'	5674'	DST #3: TD 5674', Pkrs 5635' & 5626' IO 30 mins, ISI 120 mins, FO 190 mins, FSI 260 mins, opened weak, inc to med, dec to weak in 30 mins, NGTS, opened med, inc to strong, dec to weak in 50 mins, NGTS, rec 110' slightly gas cut mud, 9.8 ppg, Res .310, 15,000 ppm, sample chamber recovery 1800 cc mud, 48 psig, 9.8 ppg, Res .31, 15,000 ppm, pit mud 12 ppg, Res .60, 10,000 ppm, IHHP 3533, IOFP's 110-124, ISIP 386, FOFP's 124-138, FSIP 496, FHHP 3506, BHT 131°F.

38.

GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

**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"/>		5. LEASE DESIGNATION AND SERIAL NO. U-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 NW, 2470' FNL, 700' FWL		8. FARM OR LEASE NAME Unit Well
14. PERMIT NO. 43-037-31108		9. WELL NO. 6
15. ELEVATIONS (Show whether DE, RL, CR, etc.) GG 5160' KB 5174.00'		10. FIELD AND POOL, OR WILDCAT Patterson
		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) <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.)*

Drill Stem Test No. 1
Total Depth 5415', Packers 5371' and 5380'
Testing Upper Ismay, Limestone, 5393-5396, 10 unit increase
5400 to 5405, 13 unit gas increase
IO 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened very weak, continued throughout no gas, reopened weak, dead in 2 hours, no gas, recovered 125 feet gas cut mud, top 9.7 ppg, Res 1.2, 4500 ppm, bottom 9.7 ppg, Res 1.13, 4800 ppm, sample chamber recovered 700 cc water, 800 cc mud, 55 psig, water Res 1.5, 5500 ppm, mud Res 1.2, 4500 ppm, pit mud 10.3 ppg, Res 1.45, 10,000 ppm, IHHP 2911, IOFP's 55-97, ISIP 1717, FOFP's 111-125, FSIP 2133, FHHP 2856, BHT 127°F.

Drill Stem Test No. 2
Total Depth 5470', Packers 5406' and 5414'
Testing Lower Ismay, Water Zone
IO 30 mins, ISI 120 mins, FO 120 mins, FSI 360 mins, opened weak, increased slightly no gas, reopened weak, remained throughout, no gas, dead in 55 minutes, recovered 450 feet water cut mud, top 10.2 ppg, Res 0.18, bottom 9.1, Res .08, sample chamber recovery 1650 cc, 290 psig, Res 0.6, 96 pp, pit mud 11.3 ppg, Res .16, IHHP 3170, IOFP's 110-137, ISIP 2202, FOFP's 165-247, FSIP 2202, FHHP 3143.

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

SIGNED [Signature] TITLE Asst. Dirg. Superintendent DATE 1-21-85

(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 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.)
SW¹/₄ NW, 2470' FNL, 700' FWL

14. PERMIT NO.: 43-037-31108

15. ELEVATIONS (Show whether DE, RL, GR, etc.)
GG 5160' KB 5174.00'

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 Well

9. WELL NO.
6

10. FIELD AND POOL, OR WILDCAT
Patterson

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) <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.)*

Drill Stem Test No. 3
Total Depth 5674', Packers 5635' and 5626'
Testing Desert Creek

10 30 mins, ISI 120 mins, FO 190 mins, FSI 260 mins, opened weak, increased to medium, decreased to weak in 30 minutes, NGTS, opened medium, increased to strong, decreased to weak in 50 minutes, NGTS, recovered 110' slightly gas cut mud, 9.8 ppg, Res .310, 15,000 ppm, sample chamber recovery 1800 cc mud, 48 psig, 9.8, ppg, .31, 15,000 ppm, pit mud 12 ppg, Res .60, 10,000 ppm, IHHP 3533, IOFP's 110-124, ISIP 386, FOFP's 124-138, FSIP 496, FHHP 3506, BHT 131°F.

Well plugged as follows: Plug #1 with 30 sacks from 5600 feet to 5700 feet; Plug #2 with 40 sacks from 5360 feet to 5500 feet; Plug #3 with 60 sacks from 2000 feet to 2200 feet; Plug #4 with 30 sacks from 1525 feet to 1625 feet; Plug #5 with 30 sacks at surface. Cut off casing and installed dry hole marker. RIG RELEASED 3:00 P.M. 1-19-85.

Verbal permission to plug and abandon the well received from Greg Noble, BLM (801-259-6111) by Robert Rasmussen on 1-18-85.

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

SIGNED: [Signature] TITLE: Asst. Drlg. Superintendent DATE: 1-21-85

(This space for Federal or State office use)

APPROVED BY: _____ TITLE: _____

CONDITIONS OF APPROVAL, IF ANY:

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

DATE: 1/23/85
BY: [Signature]

*See Instructions on Reverse Side

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

RECEIVED

FEB 17 1965

DIVISION OF OIL
GAS & MINING

CORE ANALYSIS REPORT

FOR

WEXPRO COMPANY

PATTERSON UNIT # 6
PATTERSON
SAN JUAN, UTAH

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

PAGE 4

WEXPRO COMPANY
PATTERSON UNIT # 6

DATE : 13-JAN-1985
FORMATION : PARADOX

FILE NO : 3803-003373
ANALYSTS : DS/EV

FULL DIAMETER ANALYSIS-B.L. POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO AIR (MD) MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID SATS. OIL	WTR	GRAIN DEN	DESCRIPTION
------------------	-------	------------------------------	--------------------	------------	--------------------	-----	--------------	-------------

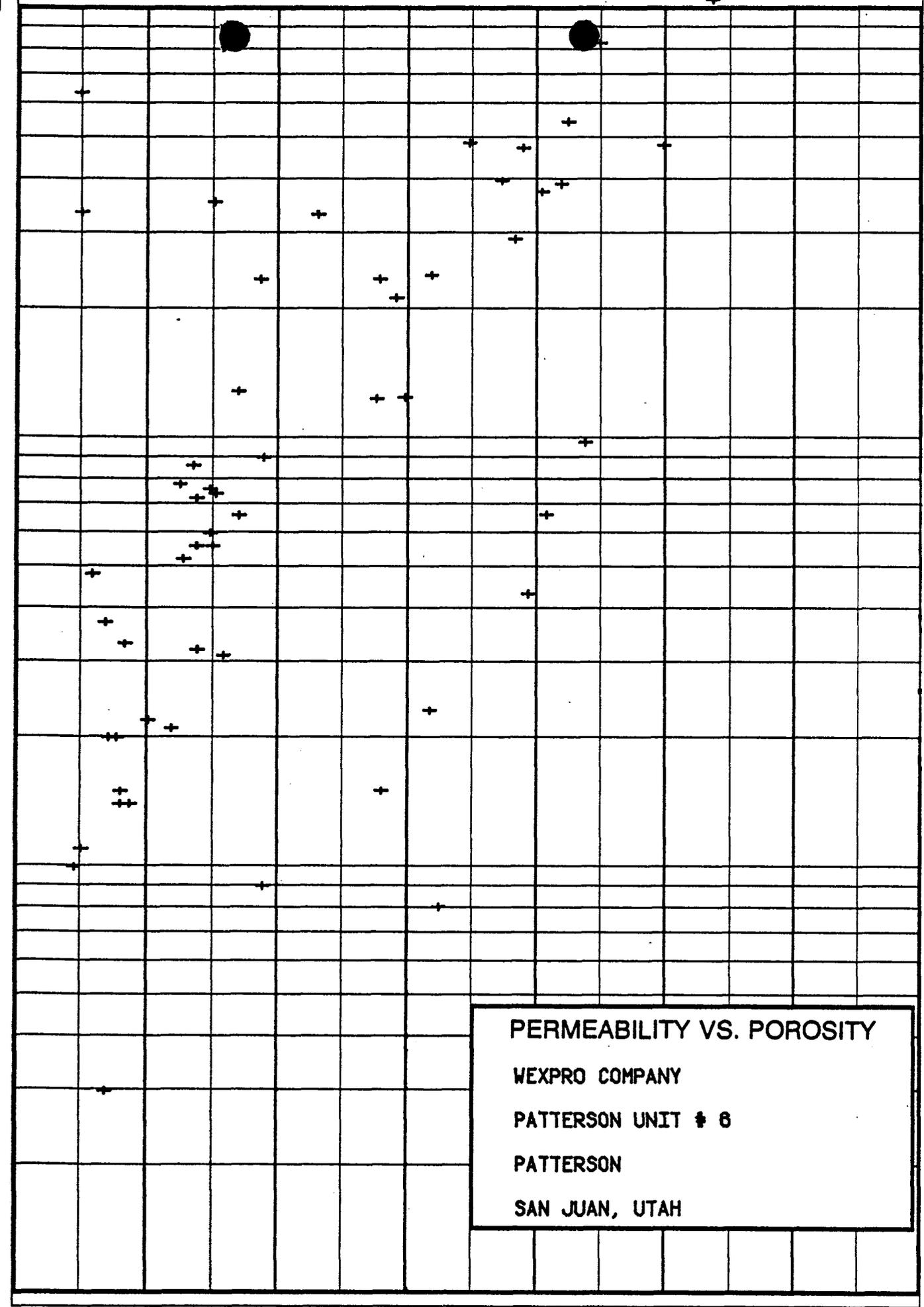
++ ADD 14 FEET TO ALL CORE DEPTHS TO MATCH LOGS

* SAMPLE NOT SUITABLE FOR FULL DIAMETER ANALYSIS

PERMEABILITY: MILLIDARCIES

0.1

0.01



PERMEABILITY VS. POROSITY
 WEXPRO COMPANY
 PATTERSON UNIT # 6
 PATTERSON
 SAN JUAN, UTAH

0.0 4.0 8.0 12.0 16.0 20.0 24.0

POROSITY: PERCENT

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: WEXPRO COMPANY
FIELD : PATTERSON

WELL : PATTERSON UNIT # 6
COUNTY, STATE: SAN JUAN, UTAH

AIR PERMEABILITY : MD. (HORIZONTAL) RANGE USED 0.010 TO 25.
POROSITY : PERCENT (HELIUM) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS : 5394.0 - 5449.0 INTERVAL LENGTH : 55.0
FEET ANALYZED IN ZONE : 55.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

POROSITY AVERAGE	PERMEABILITY AVERAGES		
	ARITHMETIC	HARMONIC	GEOMETRIC
8.8	1.8	0.27	0.74

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: WEXPRO COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT # 6
 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	4.0	1.8	0.696	2.5	7.3	7.3
2.0 - 4.0	10.0	2.9	0.184	0.226	18.2	25.5
4.0 - 6.0	10.0	5.3	0.547	0.589	18.2	43.6
6.0 - 8.0	8.0	6.7	0.775	1.2	14.5	58.2
8.0 - 10.0	1.0	9.2	3.3	3.3	1.8	60.0
10.0 - 12.0	5.0	11.3	1.0	1.4	9.1	69.1
12.0 - 14.0	4.0	13.0	0.679	1.9	7.3	76.4
14.0 - 16.0	5.0	15.2	0.931	2.4	9.1	85.5
16.0 - 18.0	5.0	16.8	2.2	2.9	9.1	94.5
18.0 - 20.0	1.0	18.0	8.2	8.2	1.8	96.4
20.0 - 22.0	2.0	20.8	8.5	9.9	3.6	100.0

TOTAL NUMBER OF FEET = 55.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: WEXPRO COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT # 6
 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 (%)
0.020 - 0.039	2.0	0.030	0.030	8.6	3.6	3.6
0.078 - 0.156	8.0	0.117	0.120	5.5	14.5	18.2
0.156 - 0.312	6.0	0.226	0.228	5.5	10.9	29.1
0.312 - 0.625	9.0	0.452	0.463	5.7	16.4	45.5
0.625 - 1.250	11.0	0.845	0.865	8.9	20.0	65.5
1.250 - 2.500	5.0	2.0	2.1	9.9	9.1	74.5
2.500 - 5.000	10.0	3.9	3.9	13.0	18.2	92.7
5.- 10.	3.0	6.6	6.7	12.3	5.5	98.2
10.- 20.	1.0	15.	15.	21.5	1.8	100.0

TOTAL NUMBER OF FEET = 55.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: WEXPRO COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT # 6
 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	55.0	100.0	8.8	6.9
2.0	4.0	1.5	51.0	98.5	9.3	7.4
4.0	14.0	7.6	41.0	92.4	10.8	10.6
6.0	24.0	18.7	31.0	81.3	12.6	12.8
8.0	32.0	29.9	23.0	70.1	14.7	14.6
10.0	33.0	31.8	22.0	68.2	14.9	14.8
12.0	38.0	43.6	17.0	56.4	16.0	15.8
14.0	42.0	54.4	13.0	45.6	16.9	16.6
16.0	47.0	70.2	8.0	29.8	17.9	
18.0	52.0	87.6	3.0	12.4	19.8	20.5
20.0	53.0	91.4	2.0	8.6	20.8	
22.0	55.0	100.0	0.0	0.0		

TOTAL STORAGE CAPACITY IN POROSITY-FEET = 481.3

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

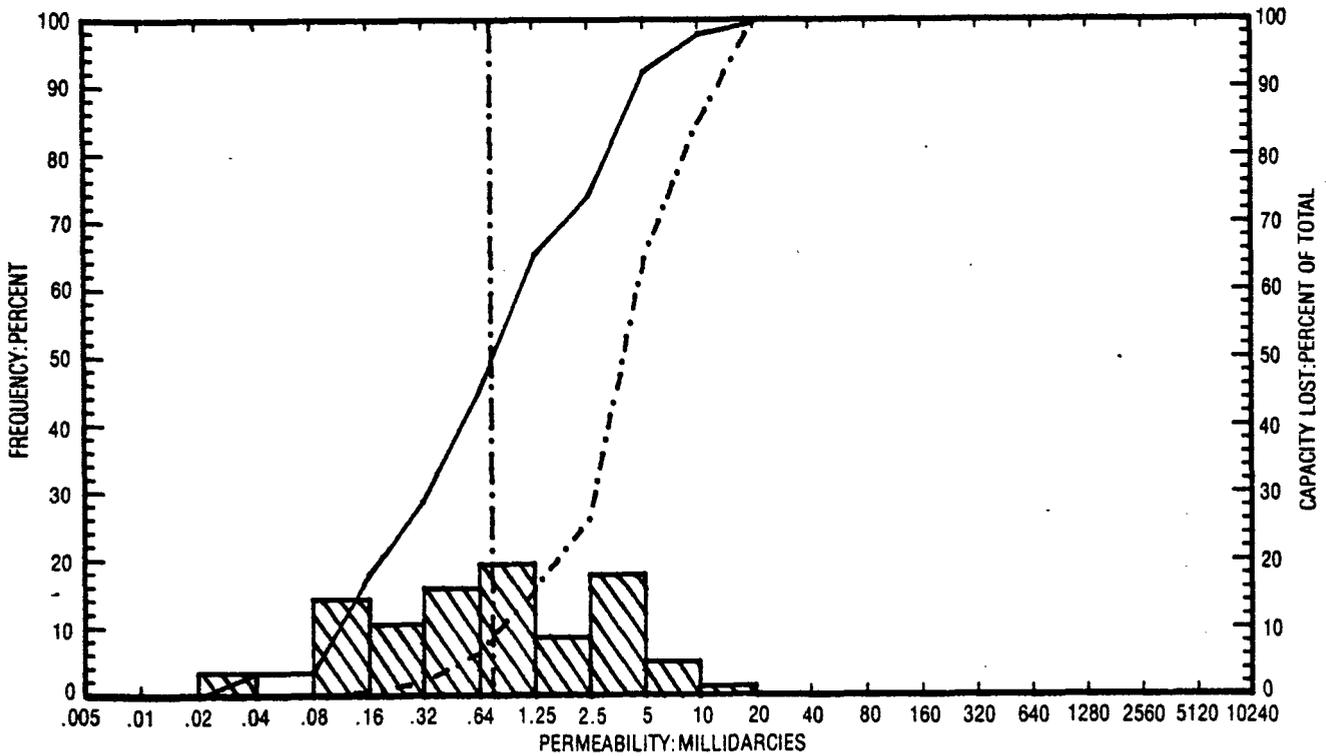
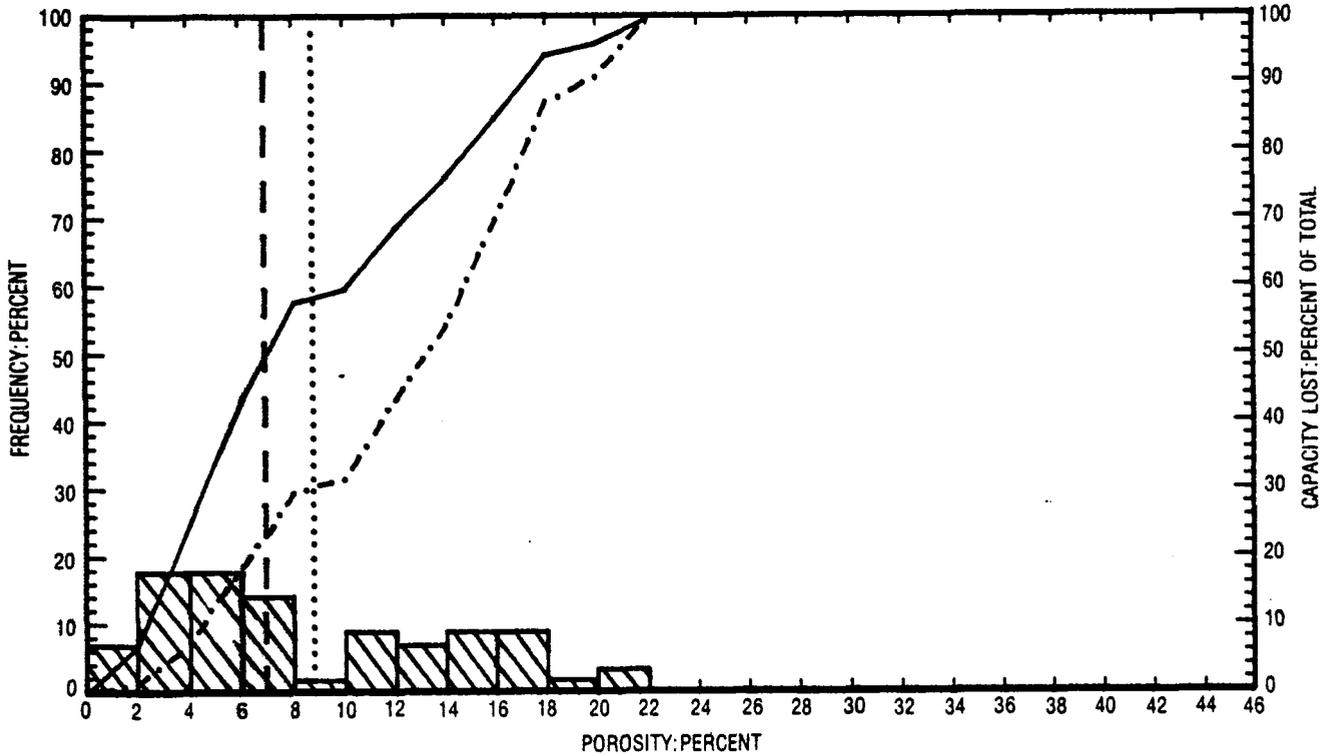
COMPANY: WEXPRO COMPANY
 FIELD : PATTERSON

WELL : PATTERSON UNIT # 6
 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	55.0	100.0	0.74	0.73
0.010	0.0	0.0	55.0	100.0	0.76	0.73
0.020	0.0	0.0	55.0	100.0	0.74	0.73
0.039	2.0	0.1	53.0	99.9	0.83	0.78
0.078	2.0	0.1	53.0	99.9	0.83	0.78
0.156	10.0	1.0	45.0	99.0	1.18	1.00
0.312	16.0	2.4	39.0	97.6	1.52	1.21
0.625	25.0	6.5	30.0	93.5	2.19	2.18
1.250	36.0	16.0	19.0	84.0	3.81	3.42
2.500	41.0	26.4	14.0	73.6	4.76	
5.	51.0	65.2	4.0	34.8	8.08	
10.	54.0	85.1	1.0	14.9	15.00	
20.	55.0	100.0	0.0	0.0		

TOTAL FLOW CAPACITY IN MILLIDARCY-FEET (ARITHMETIC) = 100.57



PERMEABILITY AND POROSITY HISTOGRAMS

**WEXPRO COMPANY
 PATTERSON UNIT # 6
 PATTERSON
 SAN JUAN, UTAH**

LEGEND

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



CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

COMPANY WEXPRO COMPANY FILE NO. 3803-003373
 WELL PATTERSON UNIT # 6 DATE 13-JAN-1985 ENGRS. DS;EV
 FIELD PATTERSON FORMATION PARADOX ELEV. 5174 KB
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES _____

CoRes Log

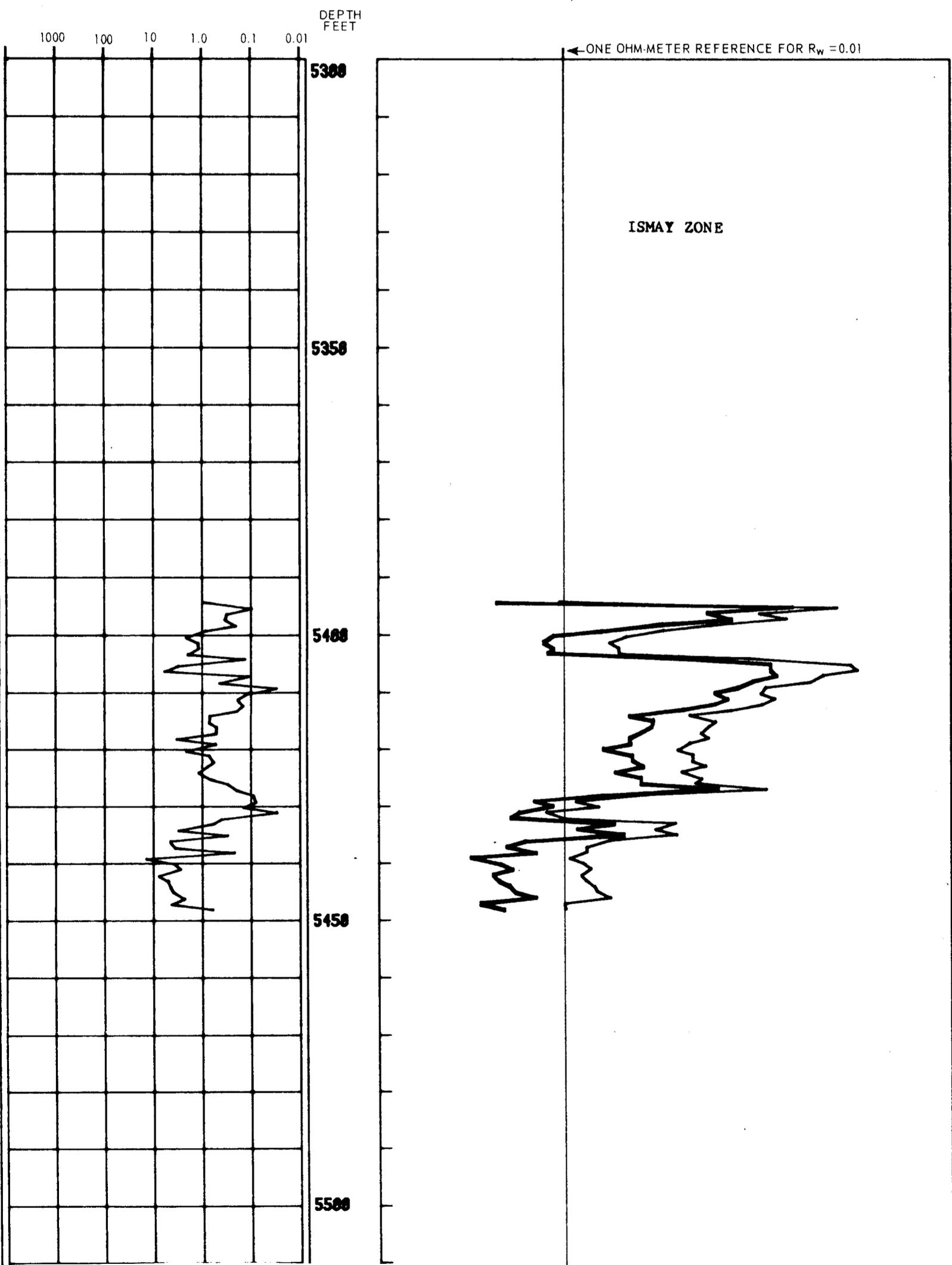
CORE and RESISTIVITY EVALUATION

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RESISTIVITY PARAMETERS: a = 1.0 m = 2.0 n = 2.0 Depths 5394 to 5449
 a = _____ m = _____ n = _____ Depths _____ to _____

PERMEABILITY
MILLIDARCIES

CORE ANALYSIS CALCULATED RESISTIVITY
 R₁₀₀ = OHM-METERS AT 100% S_w _____
 R_{mp} = OHM-METERS AT CRITICAL S_w _____



COMPANY WEXPRO COMPANY FILE NO. 3803-003373
 WELL PATTERSON UNIT # 6 DATE 13-JAN-1985
 FIELD PATTERSON FORMATION PARADOX ELEV. 5174 KB
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES _____
 LOCATION SW, NW SEC. 4-T389-R25E

CORRELATION COREGRAPH

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VERTICAL SCALE: 5" = 100'

Total Water _____
 PERCENT PORE SPACE
 100 80 60 40 20 0

