FILE NOTATIONS

Entered in N I D File ✓
Entered On S R Sheet
Location Map Pinned
Card Indexed ✓
I W R for State or Fee Land

Checked by Chief
Copy N I D to Field Office
Approval Letter
Disapproval Letter

COMPLETION DATA:

Date Well Completed 2-28-78

OW WW TA
GW OS PA ✓

Location Inspected
Bond released
State of Fee Land

LOGS FILED

Driller's Log ✓
Electric Logs (No.) ✓
E I E-I GR GR-N Micro
Lat Mi-L Sonic Others

Form OGC-1a

SUBMIT IN [illegible]PLICATE*
(Other instructions on reverse side)

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

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. Type of Well
Oil Well [ ] Gas Well [X] Other Single Zone [ ] Multiple Zone [X]

2. Name of Operator
American Quasar Petroleum Co. of New Mexico

3. Address of Operator
707 United Bank Tower, 1700 Broadway, Denver, CO 80290

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface
3300" FNL & 1962' FEL, Sec. 28-T13N-R7E
At proposed prod. zone
Same

5. Lease Designation and Serial No.
FEE

6. If Indian, Allottee or Tribe Name

7. Unit Agreement Name

8. Farm or Lease Name
Hogback Ridge

9. Well No.
28-1

10. Field and Pool, or Wildcat
Wildcat

11. Sec., T., R., M., or Blk. and Survey or Area
NW SE 28-13N-7E

12. County or Parrish 13. State
Rich Utah

14. Distance in miles and direction from nearest town or post office*
15 miles west of Cokeville, Wyoming

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 660'

16. No. of acres in lease 4084

17. No. of acres assigned to this well 640

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft. ---

19. Proposed depth 14,500'

20. Rotary or cable tools Rotary

21. Elevations (Show whether DF, RT, GR, etc.)
6708' (U.S.G.S. Topographic Map)

22. Approx. date work will start*

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
17½"	13 3/8"	48#	750'	Ready Mix
12¼"	9 5/8"	36 & 40#	4500'	Circ.
8 3/4"	7"	29, 32 & 35#	14500'	600 sx

This test is programmed to test the Dinwoody, Phosphoria, Weber, Lodgepole, and Devonian formations and to penetrate the thrust fault at approximately 14,500'. BOP stack on the 9 5/8" casing will be 500 psi WP, H_2S trim and will be pressure tested before drilling out below the 9 5/8" casing and every 30 days thereafter. All necessary precautions will be taken to detect and control any H_2S encountered.

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 [signature] Title Division Operations Manager Date 7-5-77

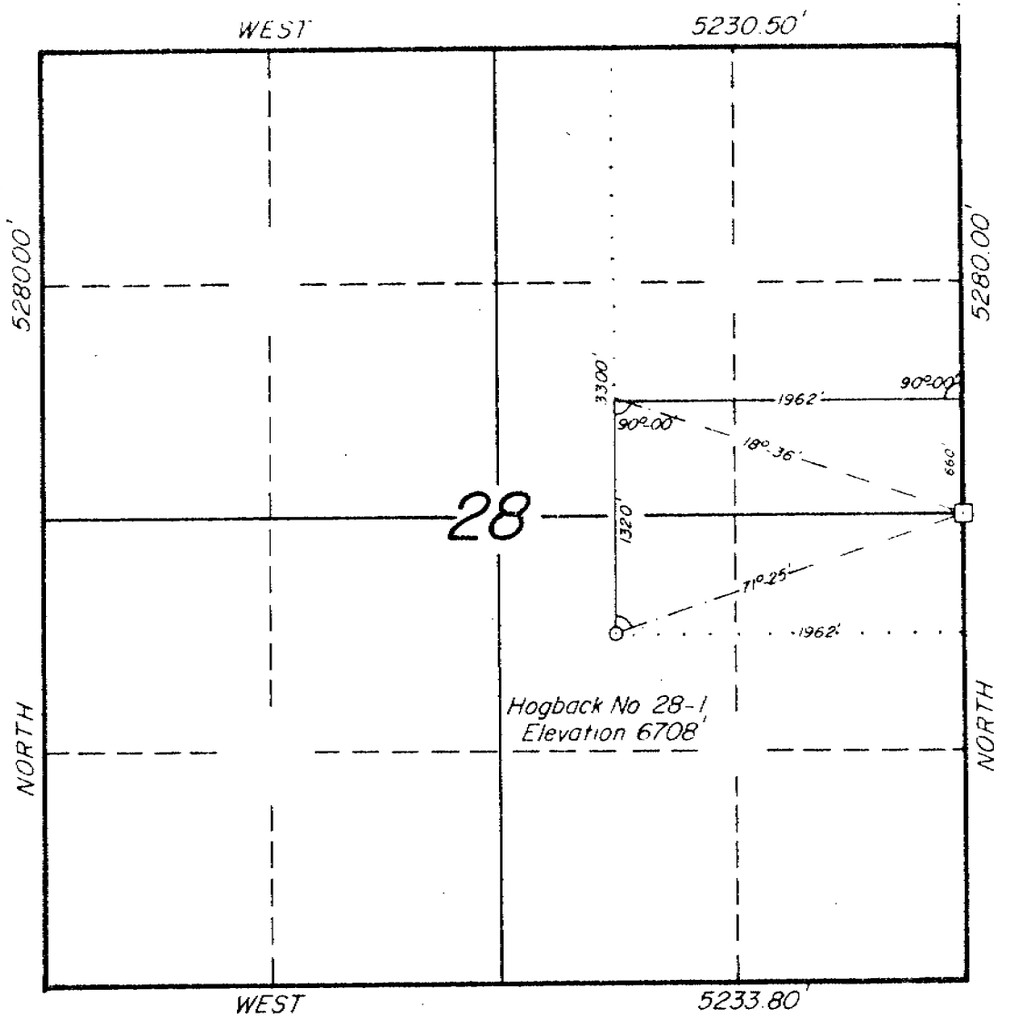
(This space for Federal or State office use)

Permit No. Approval Date

Approved by Title Date
Conditions of approval, if any:

*See Instructions On Reverse Side

T13N R7E



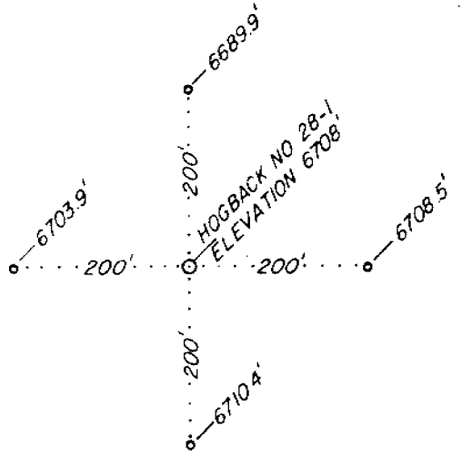
CERTIFICATE OF SURVEYOR

State of Utah)
County of Rich) ss.

I, Paul N. Scherbel of Big Piney, Wyoming hereby certify that this map was made from notes taken during an actual survey made by me on 30 June 1977 and that it correctly represents the location described thereon with section dimensions of record on the official original survey plat of T13N, R7E.

Paul N. Scherbel

Land Surveyor – – Registration No. 1670



☐ indicates a Certified Land Corner Recordation Certificate filed.

Elevation is based upon the east one—quarter corner of Section 28 T13N, R7E = 6698' from the USGS SAGE CREEK QUADRANGLE MAP.

AMERICAN QUASAR
PETROLEUM COMPANY

HOGBACK NO. 28-1

NW1/4SE1/4 SECTION 28 T13N. R7E.

Form OGC-1a

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. Type of Well
Oil Well [ ] Gas Well [X] Other Single Zone [ ] Multiple Zone [X]

2. Name of Operator
American Quasar Petroleum Co. of New Mexico

3. Address of Operator
707 United Bank Tower, 1700 Broadway, Denver, CO 80290

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface
3300" FNL & 1962' FEL, Sec. 28-T13N-R7E
At proposed prod. zone
Same

5. Lease Designation and Serial No.
FEE

6. If Indian, Allottee or Tribe Name

7. Unit Agreement Name

8. Farm or Lease Name
Hogback Ridge

9. Well No.
28-1

10. Field and Pool, or Wildcat
Wildcat

11. Sec., T., R., M., or Blk. and Survey or Area
NW SE 28-13N-7E

12. County or Parrish
Rich

13. State
Utah

14. Distance in miles and direction from nearest town or post office*
15 miles west of Cokeville, Wyoming

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)
660'

16. No. of acres in lease
4084

17. No. of acres assigned to this well
640

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.
---

19. Proposed depth
14,500'

20. Rotary or cable tools
Rotary

21. Elevations (Show whether DF, RT, GR, etc.)
6708' (U.S.G.S. Topographic Map)

22. Approx. date work will start*

23.

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
17½"	13 3/8"	48#	750'	Ready Mix
12¼"	9 5/8"	36 & 40#	4500'	Circ.
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This test is programmed to test the Dinwoody, Phosphoria, Weber, Lodgepole, and Devonian formations and to penetrate the thrust fault at approximately 14,500'. BOP stack on the 9 5/8" casing will be 500 psi WP, H_2S trim and will be pressure tested before drilling out below the 9 5/8" casing and every 30 days thereafter. All necessary precautions will be taken to detect and control any H_2S encountered.

RECEIVED
JUL 7 1977
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 [signature] Title Division Operations Manager Date 7-5-77

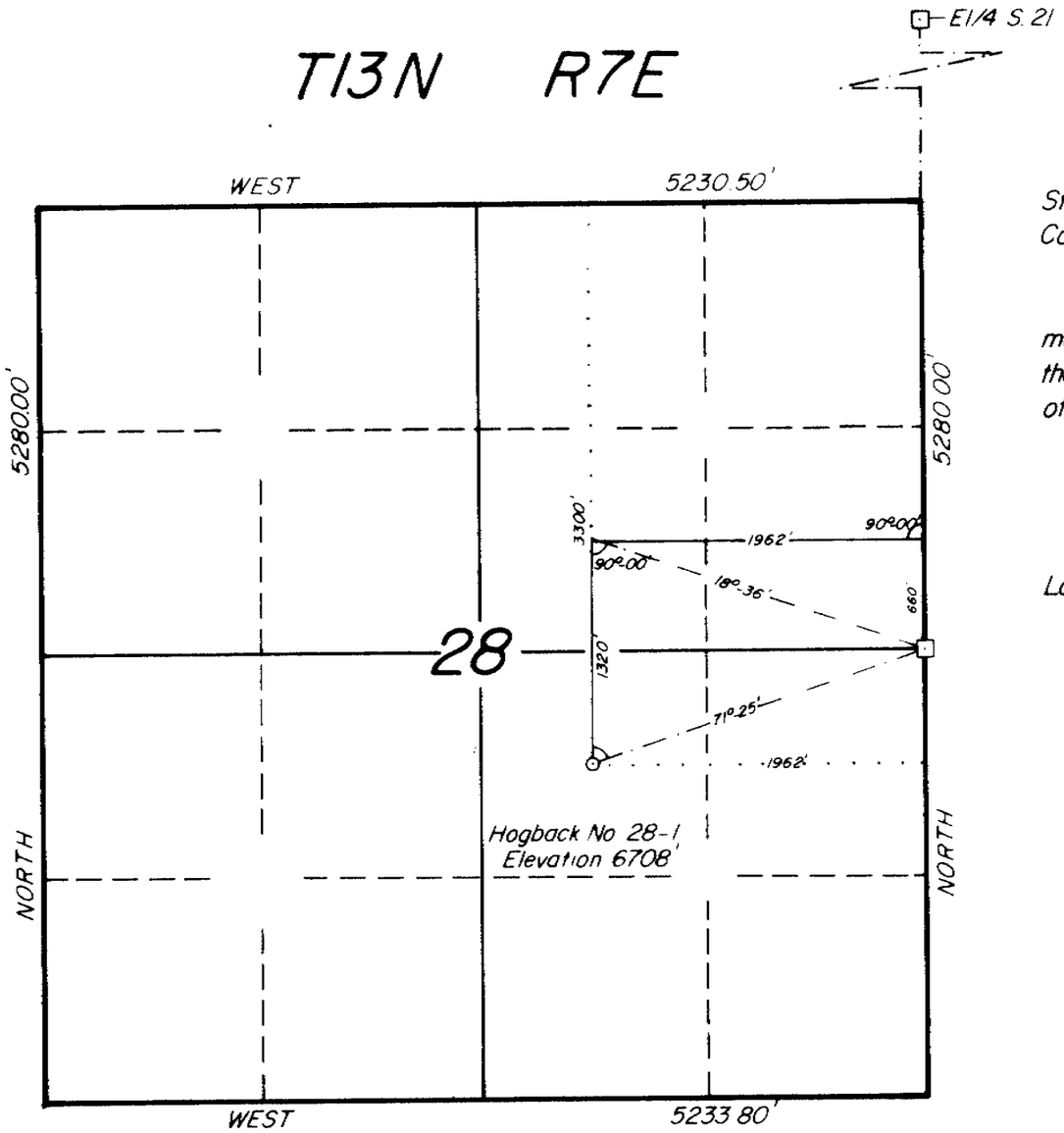
(This space for Federal or State office use)

Permit No. 43-033-30010 Approval Date

Approved by Title Date

Conditions of approval, if any:

*See Instructions On Reverse Side



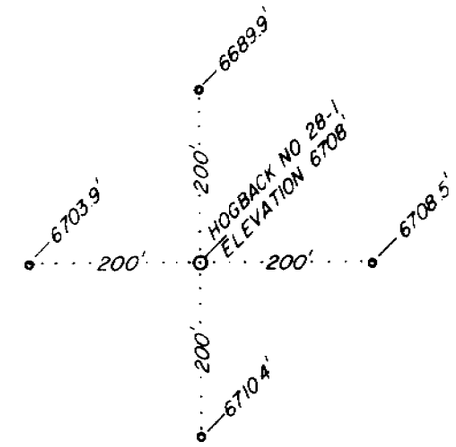
=CERTIFICATE OF SURVEYOR=

State of Utah)
County of Rich) ss.

I, Paul N. Scherbel of Big Piney, Wyoming hereby certify that this map was made from notes taken during an actual survey made by me on 30 June 1977 and that it correctly represents the location described thereon with section dimensions of record on the official original survey plat of T13N, R7E.

Paul N. Scherbel

Land Surveyor -- Registration No. 1670



⊡ indicates a Certified Land Corner Recordation Certificate filed.

Elevation is based upon the east one—quarter corner of Section 28 T13N, R7E =6698' from the USGS SAGE CREEK QUADRANGLE MAP.

AMERICAN QUASAR PETROLEUM COMPANY

HOGBACK NO. 28-1

NW1/4SE1/4 SECTION 28 T13N, R7E

RICH COUNTY, UTAH

Scale 1" = 1000'

ZU10 1,2
K M -- SURVEYOR SCHERBEL, LTD - Big Piney, Wyo

STATE OF UTAH
DIVISION OF OIL, GAS, AND MINING

** FILE NOTATIONS **

Date: July 8 -

Operator: American Quasar Pet. Co.

Well No: Hogback Ridge 28-1

Location: Sec. 28 T. 13N R. 7E County: Rich

API # ✓

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

CHECKED BY:

Administrative Assistant

Remarks:

Petroleum Engineer

Remarks:

Director

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required ~~Filed~~

Order No. ____

Survey Plat Required

Surface Casing Change to ____

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

O.K. Rule C-3 ✓

O.K. In ____ Unit

Other:

✓ Letter Written/~~Approved~~

July 8, 1977

American Quasar Petroleum Co.
707 United Bank Tower
1700 Broadway
Denver, Colorado 80290

Re: Well No. Hogback Ridge 28-1
Sec. 28, T. 13 N, R. 7 E,
Rich County, Utah

Gentlemen:

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

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

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

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

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-033-30010.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

CLEON B. FEIGHT
Director

Form DOGC-4

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS CONSERVATION

1588 WEST NORTH TEMPLE
SALT LAKE CITY, UTAH 84116
328-5771

State Lease No.
Federal Lease No.
Indian Lease No.
Fee & Pat. FEE

REPORT OF OPERATIONS AND WELL STATUS REPORT

STATE Utah COUNTY Rich FIELD/LEASE Wildcat

The following is a correct report of operations and production (including drilling and producing wells) for the month of: July, 19 77.

Agent's Address 707 United Bank Tower
1700 Broadway
Denver, Colorado 80290
Phone No. 303/861-8437

Company American Quasar Petroleum Co.
Signed A. H. Hurley, Jr.
Title Division Operations Manager

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (in thousands)	Gallons of Gasoline Recovered	Barrels of Water (if none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
HOGBACK RIDGE										
Sec. 28 NW SE	13N	7E	28-1							Drlg. @ 62'. Spudded 7-28-77 Ran 20" cond. pipe @ 52'.

Gas Sold
Flared/Vented
Used on/off Lease

NOTE: There were _____ runs or sales of oil; _____ M. cu. ft. of gas sold; _____ runs or sales of gasoline during the month.

DRILLING/PRODUCING WELLS: This report must be filed on or before the sixteenth day of the succeeding month following production for each well. Where a well is temporarily shut-in, a negative report must be filed. *THIS REPORT MUST BE FILED IN DUPLICATE.*

Form DOGC-4

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS CONSERVATION

1588 WEST NORTH TEMPLE
SALT LAKE CITY, UTAH 84116
328-5771

State Lease No.
Federal Lease No.
Indian Lease No.
Fee & Pat. FEE

REPORT OF OPERATIONS AND WELL STATUS REPORT

STATE Utah COUNTY Rich FIELD/~~LEASE~~ Wildcat

The following is a correct report of operations and production (including drilling and producing wells) for the month of: August, 19 77.

Agent's Address 707 United Bank Tower
1700 Broadway
Denver, Colorado 80290
Phone No. 303/861-8437

Company American Quasar Petroleum Co.
Signed R. H. Hurley, Jr. (Ad)
Title Division Operations Manager

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (if none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
HOGBACK RIDGE										
Sec. 28 NW SE	13N	7E	28-1							Drlg. @ 3727' Ran & cmtd 16" csg. CS-520' Began drlg new hole @ 550' DST #1 2000/2078' (Twin Creek)

Gas Sold
Flared/Vented
Used on/off Lease

NOTE: There were _____ runs or sales of oil; _____ M. cu. ft. of gas sold; _____ runs or sales of gasoline during the month.

DRILLING/PRODUCING WELLS: This report must be filed on or before the sixteenth day of the succeeding month following production for each well. Where a well is temporarily shut-in, a negative report must be filed. *THIS REPORT MUST BE FILED IN DUPLICATE.*

Phone
522-1206 Area 303

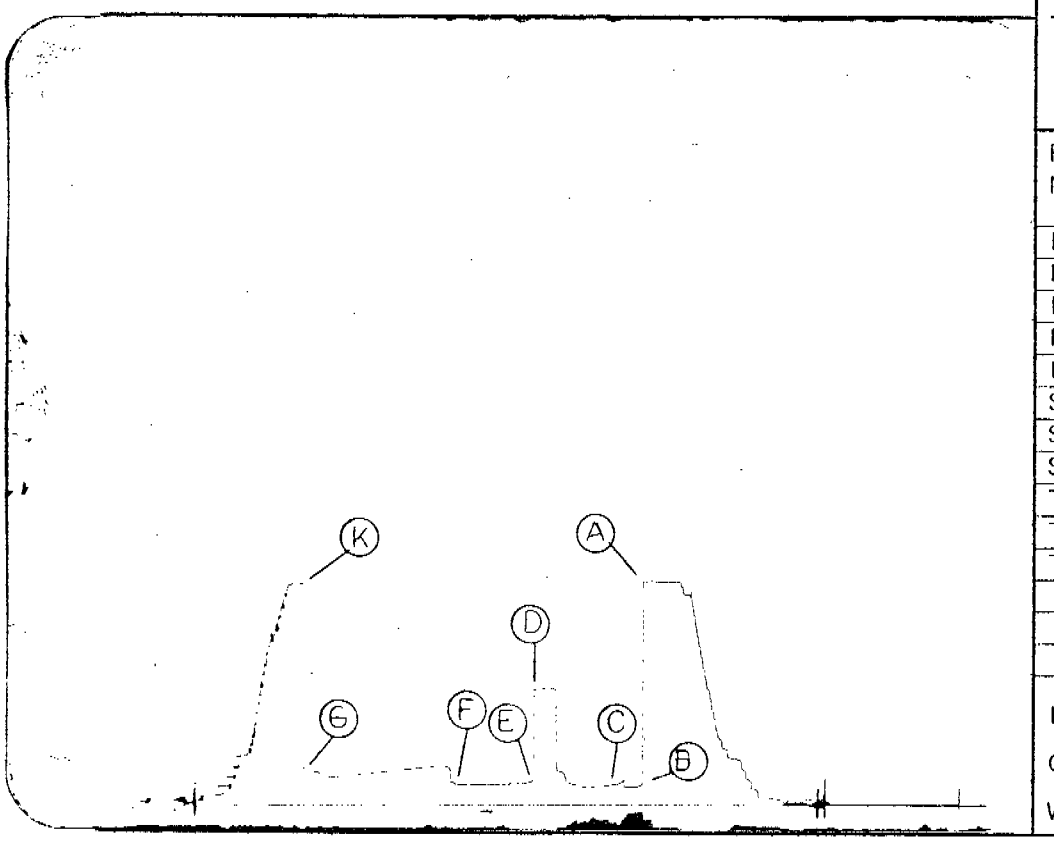
LYNES, INC

Box 712
Sterling, Colo. 80751

Operator American Quasar Petroleum Co.
Address See Distribution
Well Name and No. Hogback Ridge #28-1
Ticket No. 5374
Date 8-21-77
DST No. 1
No. Final Copies 29

Contractor	Vierson-Cochran	Top Choke	1"	Flow No. 1	24 Min.
Rig No.	7	Bottom Choke	9/16"	Shut-in No. 1	60 Min.
Spot	NW-SE	Size Hole	12 1/4"	Flow No. 2	60 Min.
Sec.	28	Size Rat Hole	--	Shut-in No. 2	120 Min.
Twp.	13 N	Size & Wt. D. P.	4 1/2" 16.60	Flow No. 3	-- Min.
Rng.	7 E	Size Wt. Pipe	--	Shut-in No. 3	-- Min.
Field	Wildcat	I. D. of D. C.	2 1/4"		
County	Rich	Length of D. C.	330'	Bottom Hole Temp.	98°F
State	Utah	Total Depth	2078'	Mud Weight	9.3
Elevation	--	Interval Tested	2002-2078'	Gravity	--
Formation	Twin Creeks	Type of Test	Bottom Hole Conventional	Viscosity	45

Tool opened @ 12:26 PM.



Outside Recorder

PRD Make Kuster AK-1
No. 1050 Cap. 3400 @ 2032'

Press		Corrected
Initial Hydrostatic	A	988
Final Hydrostatic	K	976
Initial Flow	B	72
Final Initial Flow	C	86
Initial Shut-in	D	501 *
Second Initial Flow	E	88
Second Final Flow	F	83
Second Shut-in	G	148 *
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Casper, Wy.
Our Tester: Steve Moehr
Witnessed By: Paul Waid

Did Well Flow – Gas No Oil No Water No

RECOVERY IN PIPE: 95' Mud = 0.47 bbl.
Top Sample: R.W. 1.3 @ 80°F = 4000 ppm. chl.
Middle " : R.W. 1.3 @ 82°F = 3900 ppm. chl.
Bottom " : R.W. 1.3 @ 80°F = 4000 ppm. chl.

REMARKS:

1st Flow- Tool opened with 6" underwater blow, decreased slowly to 4" underwater blow in 8 minutes and remained thru flow period.

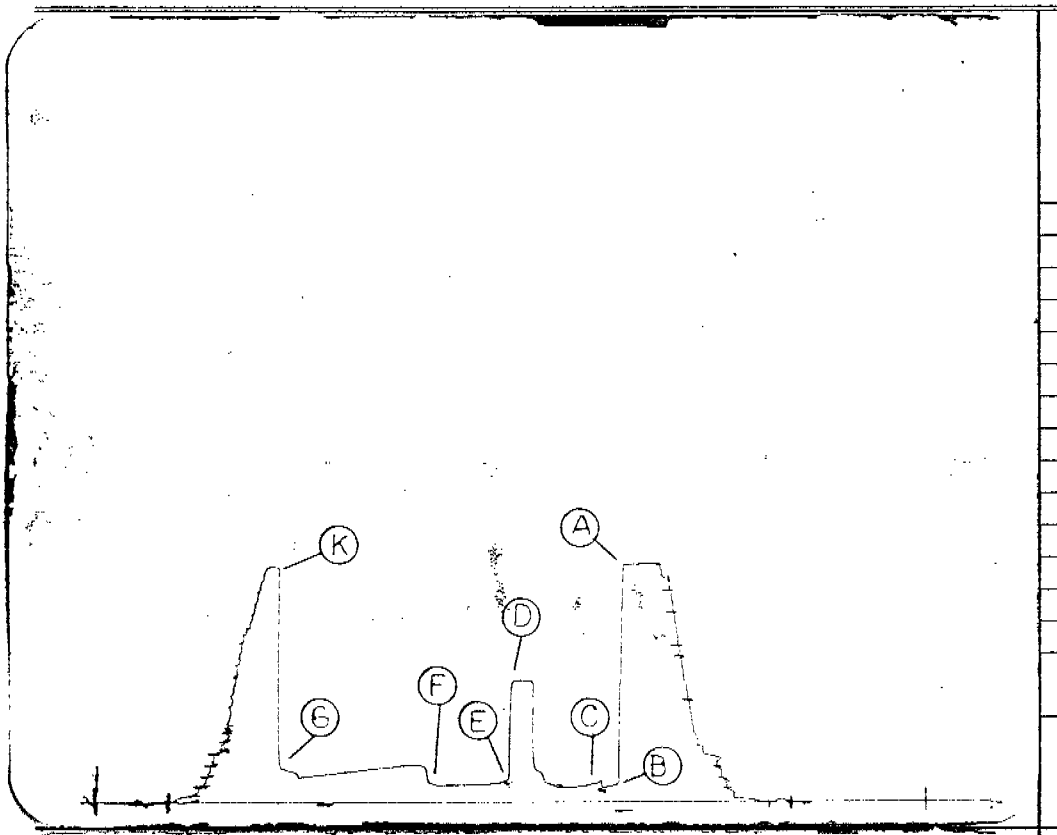
2nd Flow- Tool opened with 1/4" underwater blow, died in 8 minutes and remained thru flow period.

* Charts indicate tool possibly slid 34.5 minutes into initial shut-in and again at 41 minutes into initial shut-in. Tool possibly slid at the beginning of the final shut-in and at 106 minutes into final shut-in. Therefore the initial and final shut-in pressures are considered questionable. Breakdown of shut-in pressures not practical for Horner Extrapolations.

Form 1

LYNES, INC.

Operator American Quasar Petr. Co. Lease & No. Hogback Ridge #28-1 DST No. 1

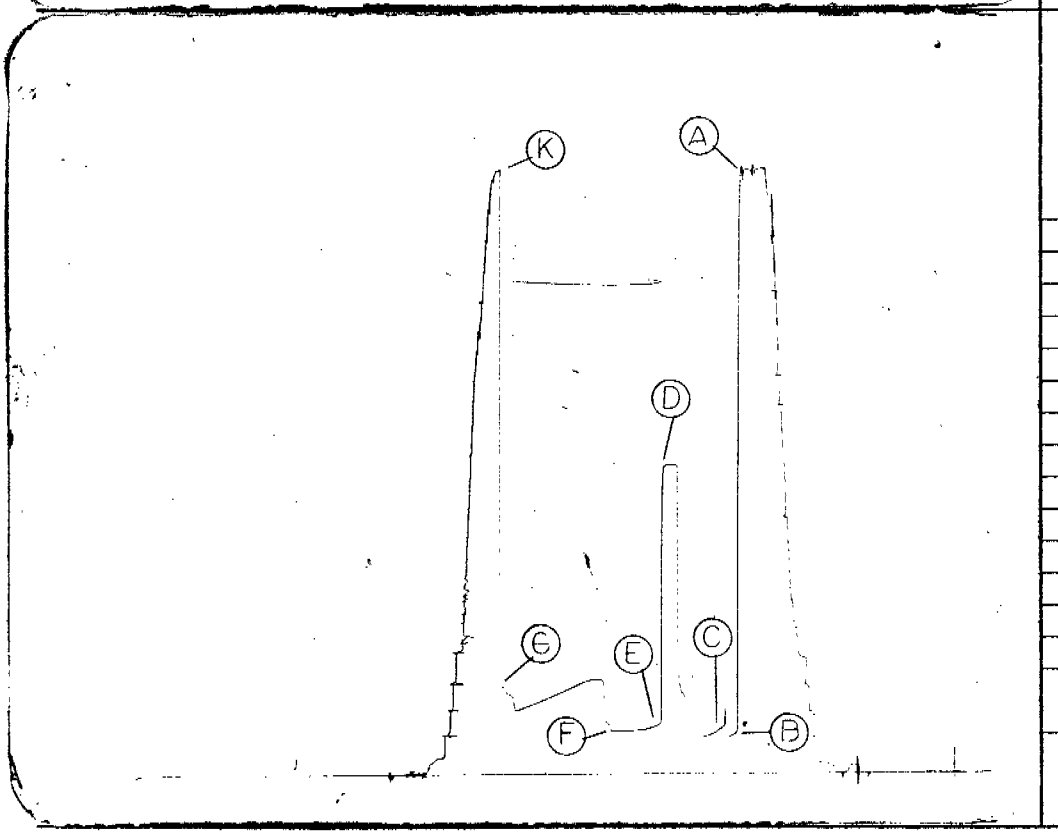


Outside Recorder

PRD Make Kuster AK-1

No. 1389 Cap. 3100 @ 2027'

Press		Corrected
Initial Hydrostatic	A	983
Final Hydrostatic	K	973
Initial Flow	B	69
Final Initial Flow	C	81
Initial Shut-in	D	496 *
Second Initial Flow	E	84
Second Final Flow	F	78
Second Shut-in	G	145 *
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		



Outside Recorder

PRD Make Kuster AK-1

No. 5978 Cap. 1200 @ 2022'

Press		Corrected
Initial Hydrostatic	A	979
Final Hydrostatic	K	971
Initial Flow	B	66
Final Initial Flow	C	78
Initial Shut-in	D	499 *
Second Initial Flow	E	76
Second Final Flow	F	72
Second Shut-in	G	142 *
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		

Form 3

LYNES, INC.

Fluid Sample Report

Date 8-21-77 Ticket No. 5375

Company American Quasar Petroleum Co.

Well Name & No. Hogback Ridge #28-1 DST No. 1

County Rich State Utah

Sampler No. -- Test Interval 2002-2078'

Pressure in Sampler 0 PSIG BHT 98 °F

Total Volume of Sampler: 3000 cc.

Total Volume of Sample: 2600 cc.

Oil: None cc.

Water: None cc.

Mud: 2600 cc.

Gas: None cu. ft.

Other: None

Sampler: R.W. 1.4 @ 80°F = 3800 ppm. chl.

Resistivity

Water: @ of Chloride Content ppm.

Mud Pit Sample 1.6 @ 76°F of Chloride Content 3500 ppm.

Gas/Oil Ratio Gravity °API @ °F

Where was sample drained On Location

Remarks:

Form 5

LYNES, INC.

Distribution of Final Reports

Operator American Quasar Petroleum Co. Well Name and No. Hogback Ridge #28-1

Original:	American Quasar Petr. Co., Attn: C. Gregg, 707 United Bank Tower, Denver, Colorado, 80290.
1 copy:	American Quasar Petr. Co., Attn: J. Sindelar, 332 Pacific Western Life Bldg., Casper, Wyoming, 82601.
3 copies:	American Quasar Petroleum Co., Attn: B. Bogert, 2500 Ft. Worth Nat'l Bank Bldg., Forth Worth, Texas, 76102.
1 copy:	American Quasar 'etr. Co., Attn: H. Ware, 1000 Midland Nat'l Bank Tower, Midland, Texas, 79701.
2 copies:	Energy Reserves Group, Inc., Attn: R. Sandlin, Box 1407, Denver, Colo., 80201.
2 copies:	Gulf Energy & Minerals Co., USA., Attn: D. Mathews, Box 2619, Casper, Wyoming, 82602.
2 copies:	Louisiana Land & Exploration Co., Attn: J. Anderson, 1500 Denver Club Bldg., Denver, Colorado, 80202.
3 copies:	W.R. Grace & Co., Attn: L. Boice, 2925 L.B.J. Freeway, Dallas, Texas, 75234.
1 copy:	Patrick Petr. Corp. of Michigan, Attn: J. Orr, 744 W. Michigan Ave., Jackson, Michigan, 49204.
3 copies:	Patrick Petr. Corp., of Michigan, Attn: G. Hill, 1655 Colo. Nat'l Bank Bldg., Denver, Colorado, 80202.
3 copies:	Cities Service Oil Co., Attn: R.L. Colby, 900 Colo. State Bank Bldg., Denver, Colorado, 80202.
3 copies:	Ram Petroleums, Inc., Attn: R.G. Opekar, Box 90, Toronto, Ontario, M5H-2Y4.
2 copies:	Utah Oil & Gas Comm., 1588 W. N. Temple, Salt Lake City, Utah, 84116.
2 copies:	U.S. Geological Survey, 8426 Federal Bldg., Salt Lake City, Utah, 84138.

Form 6

Form DOGC-4

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS CONSERVATION

1588 WEST NORTH TEMPLE
SALT LAKE CITY, UTAH 84116
328-5771

State Lease No.
Federal Lease No.
Indian Lease No.
Fee & Pat. FEE

REPORT OF OPERATIONS AND WELL STATUS REPORT

STATE Utah COUNTY Rich FIELD/~~LEASE~~ Wildcat

The following is a correct report of operations and production (including drilling and producing wells) for the month of: September, 19 77.

Agent's Address 707 United Bank Tower
1700 Broadway
Denver, Colorado 80290
Phone No. 303/861-8437

Company American Quasar Petroleum Co.
Signed [illegible]
Title Division Operations Manager

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (if none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
HOGBACK RIDGE										
Sec. 28 NW SE	13N	7E	28-1							5470' TD 5469' PBTD Ran logs Ran & cmtd 10 3/4" csg CS-5469' Installing larger substructure & derrick

OCT 27 1977

Gas Sold
Flared/Vented
Used on/off Lease

NOTE: There were _____ runs or sales of oil; _____ M. cu. ft. of gas sold; _____ runs or sales of gasoline during the month.

DRILLING/PRODUCING WELLS: This report must be filed on or before the sixteenth day of the succeeding month following production for each well. Where a well is temporarily shut-in, a negative report must be filed. *THIS REPORT MUST BE FILED IN DUPLICATE.*

Form DOGC-4

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS CONSERVATION

1588 WEST NORTH TEMPLE
SALT LAKE CITY, UTAH 84116
328-5771

State Lease No.
Federal Lease No.
Indian Lease No.
Fee & Pat. FEE

D

REPORT OF OPERATIONS AND WELL STATUS REPORT

PA

STATE Utah COUNTY Rich FIELD/LEASE Wildcat

The following is a correct report of operations and production (including drilling and producing wells) for the month of: October, 19 77.

Agent's Address 707 United Bank Tower
1700 Broadway
Denver, Colorado 80290
Phone No. 303/861-8437

Company American Quasar Petroleum Co.
Signed A. H. Hurley, Jr.
Title Division Operations Manager

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (in thousands)	Gallons of Gasoline Recovered	Barrels of Water (if none, so state)	REMARKS (If drilling, depth; if shut down, cause, date and result of test for gasoline content of gas)
HOGBACK RIDGE										
Sec. 28 NW SE	13N	7E	28-1							Drlg @ 6159'

RECEIVED Nov 23 1977 GAS, & MINING

Gas Sold
Flared/Vented
Used on/off Lease

NOTE: There were ____ runs or sales of oil; ____ M. cu. ft. of gas sold; ____ runs or sales of gasoline during the month.

DRILLING/PRODUCING WELLS: This report must be filed on or before the sixteenth day of the succeeding month following production for each well. Where a well is temporarily shut-in, a negative report must be filed. *THIS REPORT MUST BE FILED IN DUPLICATE.*

Form DOGC-4

RECEIVED DEC 29 1977 DIVISION OF OIL, GAS, & MINING

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS CONSERVATION

1588 WEST NORTH TEMPLE
SALT LAKE CITY, UTAH 84116
328-5771

State Lease No.
Federal Lease No.
Indian Lease No.
Fee & Pat. FEE

REPORT OF OPERATIONS AND WELL STATUS REPORT

STATE Utah COUNTY Rich FIELD/LEASE Wildcat

The following is a correct report of operations and production (including drilling and producing wells) for the month of: November, 19 77.

Agent's Address 707 United Bank Tower
1700 Broadway
Denver, Colorado 80290
Phone No. 303/861-8437

Company American Quasar Petroleum Co.
Signed A. H. Hurley
Title Division Operations Manager

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (in thousands)	Gallons of Gasoline Recovered	Barrels of Water (if none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
HOGBACK RIDGE										
Sec. 28 NW SE	13N	7E	28-1							Drlg @ 8807'

Gas Sold
Flared/Vented
Used on/off Lease

NOTE: There were ____ runs or sales of oil; ____ M. cu. ft. of gas sold; ____ runs or sales of gasoline during the month.

DRILLING/PRODUCING WELLS: This report must be filed on or before the sixteenth day of the succeeding month following production for each well. Where a well is temporarily shut-in, a negative report must be filed. *THIS REPORT MUST BE FILED IN DUPLICATE.*

DYC

JOHNSTON

P.O. BOX 36369 • HOUSTON, TEXAS

CONFIRMATION OF TECHNICAL REPORT DISTRIBUTION

CUSTOMER AMERICAN QUASAR PETROLEUM COMPANY **FIELD REPORT NO.** 09584 D **DATE** 12-29-77

COMPANY SAME AS ABOVE **LEASE** HOG BACK RIDGE **WELL NO** 28-1

COUNTY RICH **STATE** UTAH **FIELD** WILD CAT

JOHNSTON TESTERS HAS BEEN REQUESTED TO FURNISH THE FOLLOWING COMPANIES WITH TECHNICAL REPORTS. THIS DISTRIBUTION OF TECHNICAL REPORTS WILL BE USED FOR: ☑ ALL TESTS ON THIS WELL, ☐ THIS ONE TEST ONLY, UNLESS OTHERWISE NOTIFIED.

1 TECHNICAL REPORT (S)
AMERICAN QUASAR PETROLEUM COMPANY OF NEW MEXICO: 707 UNITED BANK TOWER
1700 BROADWAY
DENVER, COLORADO 82090
ATTN: CLARE GREGG

1 TECHNICAL REPORT (S)
AMERICAN QUASAR PETROLEUM COMPANY
332 PACIFIC WESTERN LIFE BUILDING
CASPER, WYOMING 82601
ATTN: JOHN SINDELAR

3 TECHNICAL REPORT (S)
AMERICAN QUASAR PETROLEUM COMPANY
2500 FORT WORTH NATIONAL BANK TOWER
FORT WORTH, TEXAS 76102
ATTN: BILL BOGERT

1 TECHNICAL REPORT (S)
AMERICAN QUASAR PETROLEUM COMPANY OF NEW MEXICO
1000 MIDLAND NATIONAL BANK TOWER
MIDLAND, TEXAS 79701
ATTN: HERB WARE

2 TECHNICAL REPORT (S)
ENERGY RESERVES GROUP, INC.
P.O. BOX 1407
DENVER, COLORADO 80201
ATTN: RICH SANDLIN & BOB WILLIAMS

2 TECHNICAL REPORT (S)
GULF ENERGY & MINERALS COMPANY-U.S.
P.O. BOX 2619
CASPER, WYOMING 82602
ATTN: DICK MATHEWS & ERIC ERICSON

2 TECHNICAL REPORT (S)
LOUISIANA LAND & EXPLORATION COMPANY
WESTERN DIVISION
1500 DENVER CLUB BUILDING
DENVER, COLORADO 80202
ATTN: JIM ANDERSON

3 TECHNICAL REPORT (S)
W.R. GRACE & COMPANY
2925 L.B.J. FREEWAY
DALLAS, TEXAS 75234
ATTN: LEE BOICE & R. WILLIAMS

1 TECHNICAL REPORT (S)
PATRICK PETROLEUM CORPORATION OF MICHIGAN
744 W. MICHIGAN AVENUE
JACKSON, MICHIGAN 49204
ATTN: JOHN ORR

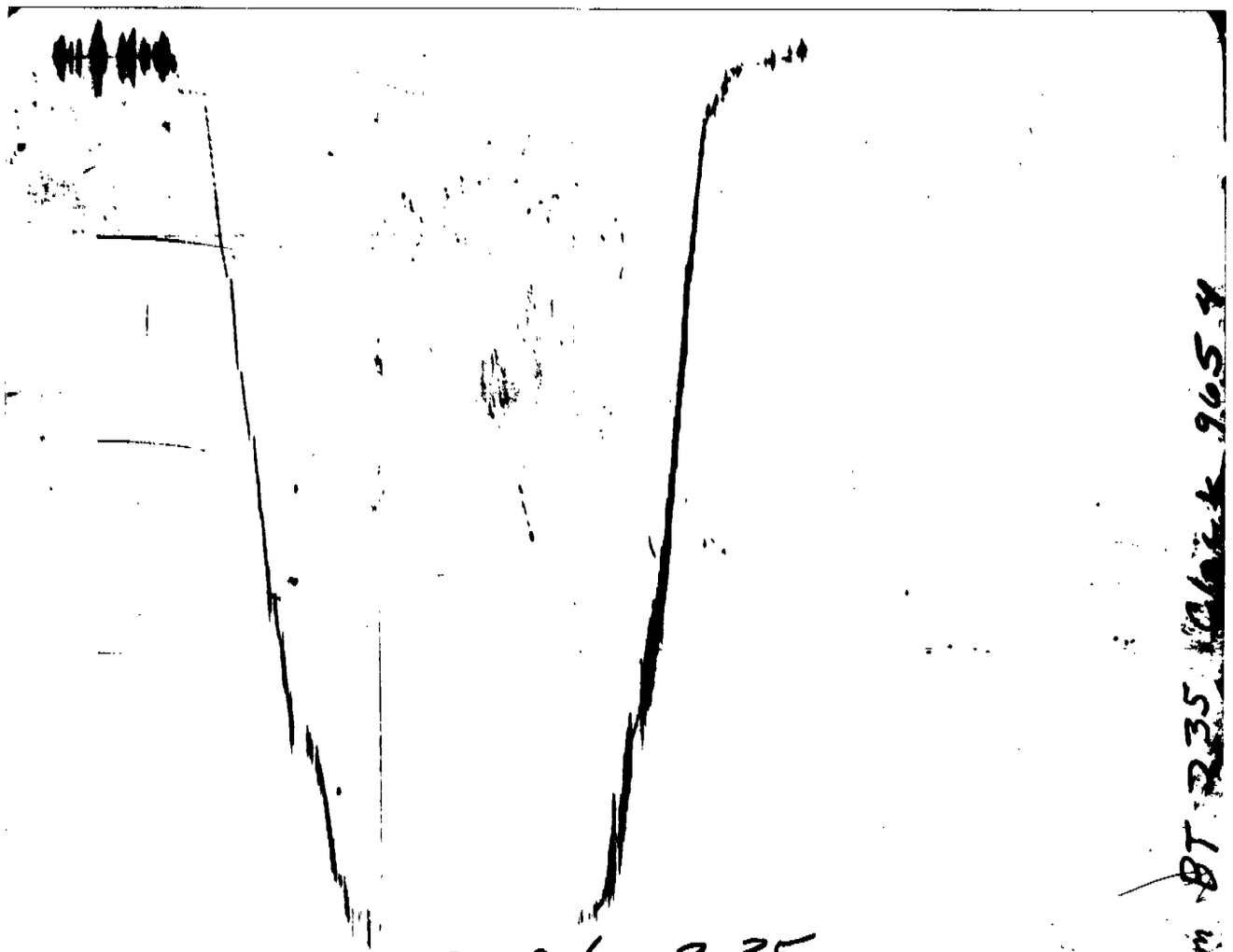
3 TECHNICAL REPORT (S)
PATRICK PETROLEUM CORPORATION OF MICHIGAN
SUITE 1655; COLORADO NATIONAL BANK BUILDIN
DENVER, COLORADO 80202
ATTN: JILL HILL & R. LINDER MANIS

It is our pleasure to be of service.

JOHNSTON

PRESSURE

TIME



319084--235

Each Horizontal Line Equal to 1000 p.s.i.

FLUID SAMPLE DATA

Sampler Pressure 25 P.S.I.G. at Surface

Recovery: Cu. Ft. Gas

cc. Oil

cc. Water

cc. Mud 1400

Tot. Liquid cc. 1400

Gravity ° API @ °F.

Gas/Oil Ratio cu. ft./bbl.

	RESISTIVITY			CHLORIDE CONTENT
Recovery Water		@	°F.	ppm
Recovery Mud	1.6	@ 68	°F.	3800 ppm
Recovery Mud Filtrate	1.2	@ 68	°F.	4800 ppm
Mud Pit Sample	2.06	@ 68	°F.	2800 ppm
Mud Pit Sample Filtrate	1.8	@ 68	°F.	3400 ppm

Mud Weight 9 vis 41 sec

Date 12-12-77 Ticket Number 319084

Kind of Job OPEN HOLE TEST Halliburton District ROCK SPRINGS

Tester ZIMMER Witness

Drilling Contractor VIERSEN - COCHRAN #7 PW

EQUIPMENT & HOLE DATA

Formation Tested Woodsite

Elevation Ft.

Net Productive Interval 9460' - 9599' Ft.

All Depths Measured From Kelly Bushing

Total Depth 9599' Ft.

Main Hole/Casing Size 9 7/8"

Drill Collar Length 365' I.D. 3"

Drill Pipe Length 9060' I.D. 3.826"

Packer Depth(s) 9452' - 9460' Ft.

Depth Tester Valve 9437' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve Surface Choke 3/4" Bottom Choke .75"

Recovered 190 Feet of mud.

Recovered Feet of

Recovered Feet of

Recovered Feet of

Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET.....

Meas. From Tester Valve

TEMPERATURE	Gauge No. 1767 Depth: 9438 Ft.	Gauge No. 235 Depth: 9596 Ft.	Gauge No. Depth: Ft.	TIME
	24 Hour Clock	24 Hour Clock	Hour Clock	Tool Opened 1109 A.M. P.M.
Est. 170 °F.	Blanked Off no	Blanked Off yes	Blanked Off	
Actual 161 °F.	Pressures	Pressures	Pressures	Opened A.M. Bypass 319 P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		4442	4454	4499	4523				
First Period	Flow Initial	90	92	175	168			—	—
	Flow Final	105	98	175	169			10	
	Closed in	150	158	233	226			50	
Second Period	Flow Initial	120	108	190	185			—	—
	Flow Final	135	116	190	185			20	
	Closed in	135	140	204	206			120	
Third Period	Flow Initial							—	—
	Flow Final								
	Closed in								
Final Hydrostatic		4442	4454	4513	4523			—	—

Legal Location Sec. - Twp. - Rng. 28 - 13 N - 7 E

Lease Name HOGBACK RIDGE

Well No. 28-1

Test No. 2

Tested Interval 9460' - 9599'

Field Area WILDCAT

County RICH

State UTAH

Lease Owner/Company Name AMERICAN QUASAR PETROLEUM COMPANY

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

31

Casing perfs. _____ Bottom choke .75" Surf. temp. _____ °F Ticket No. 319084

Gas gravity _____ Oil gravity _____ GOR _____

Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED LT-20 Manifold

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
12-11-77 730 PM					On location.
12-12-77 330 AM					Picked up tools.
400					Started clocks.
550					Started in hole.
1106					Set packer.
1109	3/4"				Opened tester with a weak blow in
					2" of water through 1/4" bubble
					hose.
1119					Closed tool.
1209					Reopened tool with a very weak blow
					throughout flow period.
1309					Closed tool.
1519					Opened bypass. Came out of hole.
					Out of hole - break down tools.
2100					Released from test.

FORM 162-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 94672 5M 8/74

TICKET NO. 319084

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	8"	2 7/8"	1.05'	
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	9060'	
Drill Collars	8"	3"	365'	
~~Handling Sub & Choke Assembly~~ 6 5/8" R x H-90	8.75"	2.75"	1.02'	
~~Dual CIP Valve~~ Sub H-90 x4½ FH	6.5"	2.75"	.81'	
Dual CIP Sampler	5.75"	.87"	6.75'	9433'
Hydro-Spring Tester	5"	.75"	5.03'	9437'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2.25"	4.12'	9438'
Hydraulic Jar	5"	1.75"	5.00'	
VR Safety Joint	5"	1.00"	2.62'	
Pressure Equalizing Crossover				
Packer Assembly	9"	2.5"	5.00'	9452'
Distributor	5.0"	1.68"	2.00'	
Packer Assembly	9"	2.5"	5.00'	9460'
~~Flush Joint Anchor~~ Sub 4½ FH x 3½ FH	6.0"	2.25"	.79'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint	5"	1.50"	4.30'	
Packer Assembly				
~~Distributor~~ Sub 3½ FH x 4½ FH	5.75"	2.375"	1.0'	
~~Packer Assembly~~ Sub 4½ FH x 4½ IF	6.75"	3.00"	1.02'	
~~Anchor Pipe Safety Joint~~ Drill Collars	7"	2.5"	93'	
~~Side Wall Anchor~~ Sub 4½ IF x 4½ FH	6.125"	3.00"	1.02'	
~~Drill Collars~~ Sub 4½ FH x 3½ FH	5.5"	2.375"	.77'	
Flush Joint Anchor	5"	2.37"	31'	
Blanked-Off B.T. Running Case	5"	2.37"	4.07'	9596'
Total Depth				9599'

EQUIPMENT DATA

Form DOGC-4

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS CONSERVATION

1588 WEST NORTH TEMPLE
SALT LAKE CITY, UTAH 84116
328-5771

State Lease No.
Federal Lease No.
Indian Lease No.
Fee & Pat. FEE

REPORT OF OPERATIONS AND WELL STATUS REPORT

STATE Utah COUNTY Rich FIELD/~~LEASE~~ Wildcat

The following is a correct report of operations and production (including drilling and producing wells) for the month of: December, 19 77.

Agent's Address 707 United Bank Tower
1700 Broadway
Denver, Colorado 80290
Phone No. 303/861-8437

Company American Quasar Petroleum Co.
Signed [illegible]
Title Division Operations Manager

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (if none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
HOGBACK RIDGE										
Sec. 28 NW SE	13N	7E	28-1							DST #2 9460/9599' (Woodside) DST #3 10485/570' DST #4 10575/666' (Dinwoody) Drlg @ 10752'

Gas Sold
Flared/Vented
Used on/off Lease

NOTE: There were ____ runs or sales of oil; ____ M. cu. ft. of gas sold; ____ runs or sales of gasoline during the month.

DRILLING/PRODUCING WELLS: This report must be filed on or before the sixteenth day of the succeeding month following production for each well. Where a well is temporarily shut-in, a negative report must be filed. *THIS REPORT MUST BE FILED IN DUPLICATE.*

Phone
522-1206 Area 303

LYNES, INC.

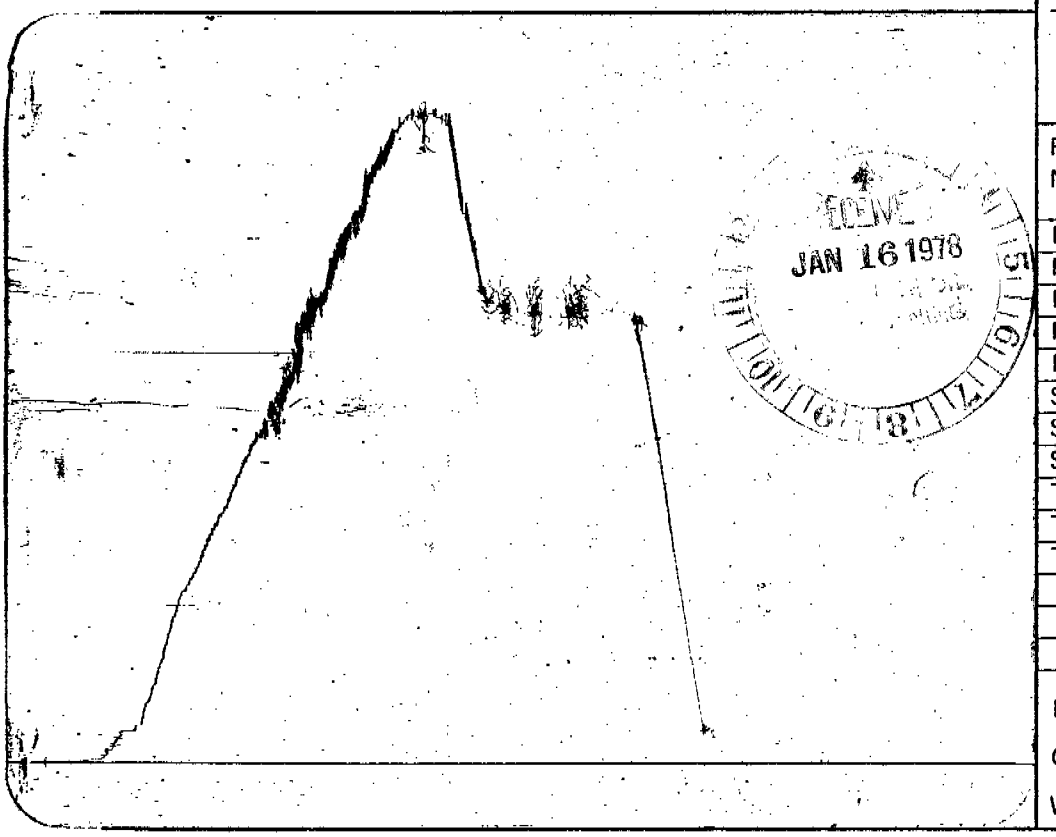
Box 712
Sterling, Colo. 80751

Contractor	Viersen & Cochran	Top Choke	3/4"
Rig No.	7	Bottom Choke	3/4"
Spot	NW-SE	Size Hole	7 3/4"
Sec.	28	Size Rat Hole	--
Twp.	13 N	Size & Wt. D. P.	4 1/2" 16.60
Rng.	7 E	Size Wt. Pipe	--
Field	Wildcat	I. D. of D. C.	2 3/8"
County	Rich	Length of D. C.	547'
State	Utah	Total Depth	11010'
Elevation	6730'. "K.B."	Interval Tested	10940'-11010'
Formation	Dinwoody	Type of Test	Bottom Hole Conventional

Flow No. 1	--	Min.
Shut-in No. 1	--	Min.
Flow No. 2	--	Min.
Shut-in No. 2	--	Min.
Flow No. 3	--	Min.
Shut-in No. 3	--	Min.

Bottom Hole Temp. 160°F
Mud Weight 9.0
Gravity --
Viscosity 40

Tool opened @ 8:00 AM.



Inside Recorder

PRD Make Kuster AK-1
No. 5563 Cap. 6100 @ 10945'

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

Lynes Dist.: Rock Springs, Wy.
Our Tester: Bill Alford
Witnessed By: C.V. Floyd

Did Well Flow -- Gas No Oil No Water No

RECOVERY IN PIPE: 1450' Drilling mud

MISRUN - No packer seats.

REMARKS:

Operator: American Quasar Petroleum Co.
Address: See Distribution
Well Name and No.: Hogback Ridge #28-1
Ticket No.: 10162
Date: 1-9-78
DST No.: 5
No. Final Copies: 26

Form 1

LYNES, INC.

Distribution of Final Reports

Operator American Quasar Petroleum Co. Well Name and No. Hogback Ridge #28-1

Original: American Quasar Pet. Co., 204 Superior Bldg., 201 Wolcott St., Casper, Wy.82601

1 copy: American Quasar Pet. Co. of New Mexico, 707 United Bank Tower, 1700 Broadway, Denver, Colo. 80290

3 copies: American Quasar Pet. Co., 2500 Ft. Worth National Bank Building, Ft. Worth Texas 76102

1 copy: American Quasar Pet. Co. of New Mexico, 1000 Midland National Bank Tower, Midland Tx. 79701

2 copies: Energy Resource Group, Inc., Box 1407, Denver, Colo. 80201

2 copies: Gulf Energy & Minerals Co. U.S., P.O. Box 2619, Casper, Wy. 82602

2 copies: U.S. Geological Survey, 309 Federal Bldg., 800 Truxtun Ave., Bakersfield, Ca. 93301

1 copy: Patrict Pet. Corp. of Michican, Suite 1665, Colo. National Bank Building, Denver, Co. 80201

3 copies: City Service Oil Co., 900 Colo. St. Bank Building, Denver, Colo. 80202

3 copies: Ram Petroleum, Inc., 90 Toronto, Ontario, Canada M582Y4

2 copies: Utah Oil & Gas Conservation Commission, 1588 W.N. Temple, Salt Lake City, Utah 84116

1 copy: Louisiana Land & Exploration, Western Division, 1500 Denver Club Building, Denver, Co. 80201

3 copies: W.R. Grace, 2225 L.B.J. Freeway, Dallas, Texas 75234

1 copy: Patrick Petroleum Corp. of Michican, 744 W. Michican Ave., Jackson, Mich. 49204

Form 6

COMPANY AMERICAN QUASAR PETROLEUM COMPANY WELL HOG BACK RIDGE #28-1 TEST NO. 4 COUNTY RICH STATE UTAH

JOHNSTON

Schlumberger

computerized data analysis

F.R. # 09584 D

JOHNSTON
Schlumberger

COMPUTERIZED DATA ANALYSIS

JANUARY 9, 1978

GENTLEMEN:

THE ENCLOSED TEST APPEARS TO BE A GOOD MECHANICAL DRILL STEM TEST DURING WHICH THE TOOLS DID FUNCTION PROPERLY. THE FORMATION PRODUCED ENOUGH RESERVOIR FLUID FOR PROPER IDENTIFICATION. RESERVOIR PRESSURE DRAWDOWN WAS SUFFICIENT AND ADEQUATE SHUT-IN BUILD-UPS DID OCCUR FOR RELIABLE QUANTITATIVE ANALYSIS. RESERVOIR PARAMETERS WERE CALCULATED BY THE HORNER METHOD.

1. FLOW RATE: A TOTAL LIQUID RATE OF 190 BBL/DAY WAS NOTED DURING THIS TEST.

2. RESERVOIR PRESSURE: EXTRAPOLATION OF THE INITIAL AND FINAL SHUT-IN PRESSURE BUILD-UPS INDICATES A MAXIMUM RESERVOIR PRESSURE OF 4345 P.S.I.G. AT RECORDER DEPTH.

3. PERMEABILITY: THE CALCULATED TRANSMISSIBILITY FACTOR OF 78.41 MD.-FT./CP. INDICATES AN AVERAGE EFFECTIVE PERMEABILITY TO LIQUID OF 4.90 MD. FOR THE REPORTED 16 FOOT NET INTERVAL. THE CALCULATIONS WERE BASED ON A SLOPE OF 394 P.S.I./LOG CYCLE OBTAINED FROM THE FINAL SHUT-IN BUILD-UP PLOT. IT WAS ASSUMED FOR THESE CALCULATIONS THE PRODUCT OF THE LIQUIDS VISCOSITY AND FORMATION VOLUME FACTOR TO BE 1.0.

4. WELL BORE DAMAGE: THE CALCULATED DAMAGE RATIO OF 2.01 INDICATES THAT WELL BORE DAMAGE IS PRESENT AT THE TIME AND CONDITIONS OF THIS TEST. THIS VALUE INFERS THAT THE RATE OF PRODUCTION OBSERVED AT THE FORMATION FACE DURING THIS TEST MAY BE INCREASED 2.01 TIMES IF THE WELL BORE DAMAGE ALONE WERE REMOVED.

5. RADIUS OF INVESTIGATION: THE CALCULATED RADIUS OF INVESTIGATION OF THIS TEST IS 120 FEET BASED ON AN ASSUMED POROSITY OF 10%, COMPRESSIBILITY OF 4.0×10^{-6}, AND OTHER ASSUMPTIONS MADE IN NUMBER 3 ABOVE.

6. GENERAL COMMENTS: THE FORMATION EXHIBITS THE CHARACTERISTICS OF RELATIVELY LOW PERMEABILITY EFFECTIVE TO THE RESERVOIR FLUID AND INDICATES THE PRESENCE OF WELL BORE DAMAGE. SOME GAS WAS RECOVERED ON THIS TEST. BECAUSE OF THE DOMINANCE OF SALT WATER, ALL CALCULATIONS ARE BASED ON THE LIQUID STATE AND SHOULD BE USED AS INDICATORS.

Kent Arceneaux
KENT ARCENEAUX
RESERVOIR EVALUATION
DEPARTMENT

AMERICAN QUASAR PETROLEUM COMPANY
HOG BACK RIDGE #23-1; RICH COUNTY, UTAH
TEST # 4; 10575' TO 10665'
LOCATION: SEC. 28-3N-7E

FIELD REPORT # 09584 D

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

JOHNSTON

Reservoir Engineering Data

Recorder No. J-443 Field Report No. 09584 D

Damage Ratio	DR	2.01		Effective Transmissibility LIQUID	$\frac{Kh}{\mu B}$	78.41	$\frac{Md\text{-}ft.}{Cp.}$
Maximum Reservoir Pressure INITIAL SHUT-IN	P_o	4345	P.S.I.G.	Effective Transmissability	$\frac{Kh}{\mu B}$		$\frac{Md\text{-}ft.}{Cp.}$
Slope of Shut-in Curve FINAL SHUT-IN	M	394	PSI/log cycle	Flow Rate (FINAL FLOW) LIQUID	Q	190	Bbl./day
Potentiometric Surface (Datum Plane, Sea Level)	PS	6178	ft.	Pressure Gradient		0.410	PSI/ft.
Productivity Index	PI	0.05	Bbl./day/PSI	Gas Oil Ratio	GOR		CF/Bbl.
Radius of Investigation		120	ft.	K (Effective to LIQUID)		4.90	Md.

SLOPE M = 4345 − 3951 = 394

Assumptions made for Calculations for Liquid Recoveries

1. Q is averaged at a constant rate.
2. P_f is formation flowing pressure at a constant rate.
3. Formation flow is taken as single phase flow.
   If gas is produced at surface, phase separation is assumed to have occurred in drill pipe.
4. Radial flow is assumed.
5. For the purpose of calculating EDR where specific reservoir parameters are not available it is assumed that:

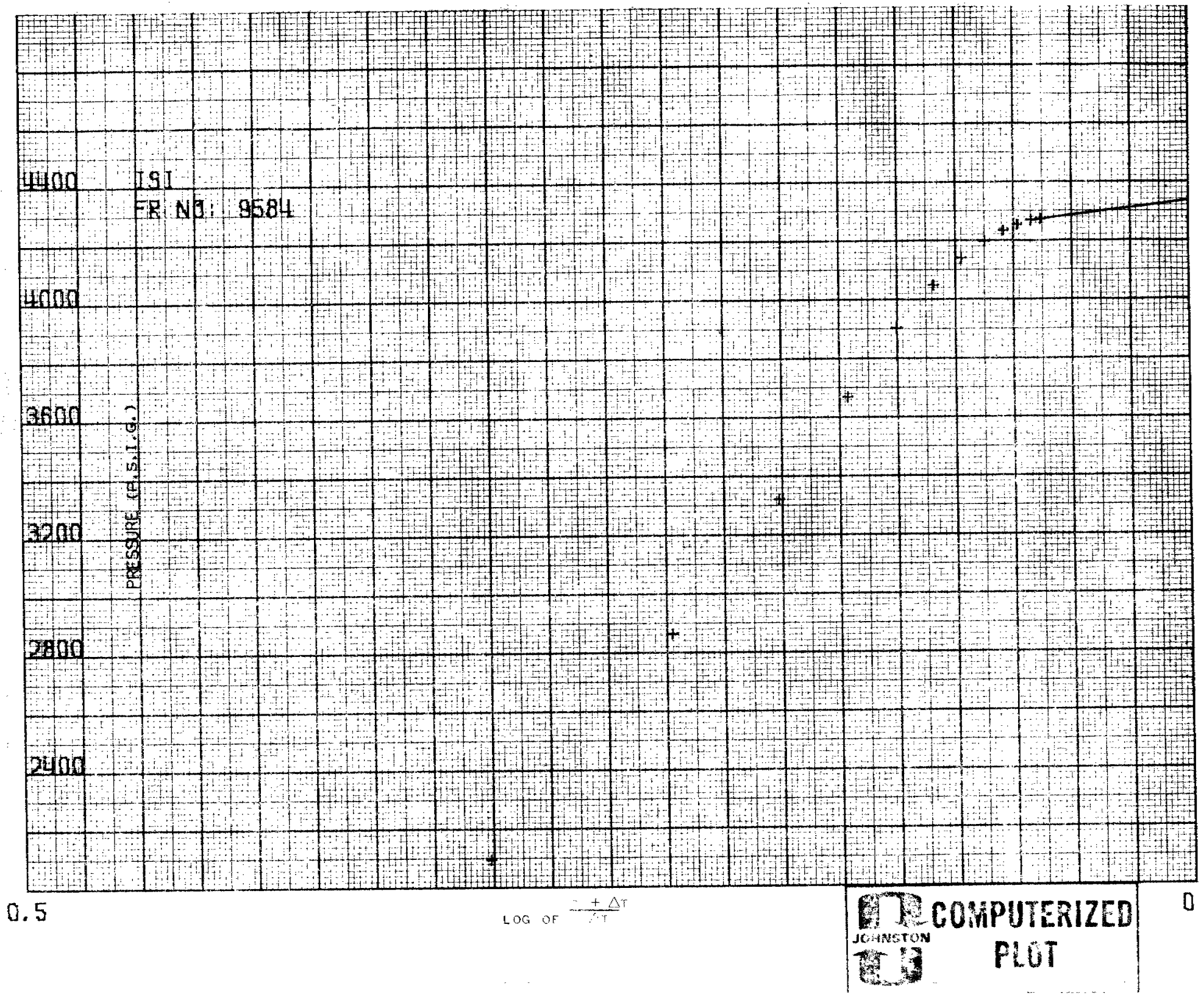
Effective permeability, K, will fall between	1 to 200 md
Formation porosity, ϕ, will fall between	0.1 to 0.3
Fluid compressibility, c, will fall between	10^{-6} to 10^{-4}
Fluid viscosity, μ, will fall between	0.05 to 50 cp.
Well bore radius, r_w, will fall between	$3\frac{7}{8}$" to $4\frac{3}{8}$"
Which gives an average value for the function log $\frac{K}{\phi\mu c r_w^2}$ of	5.5

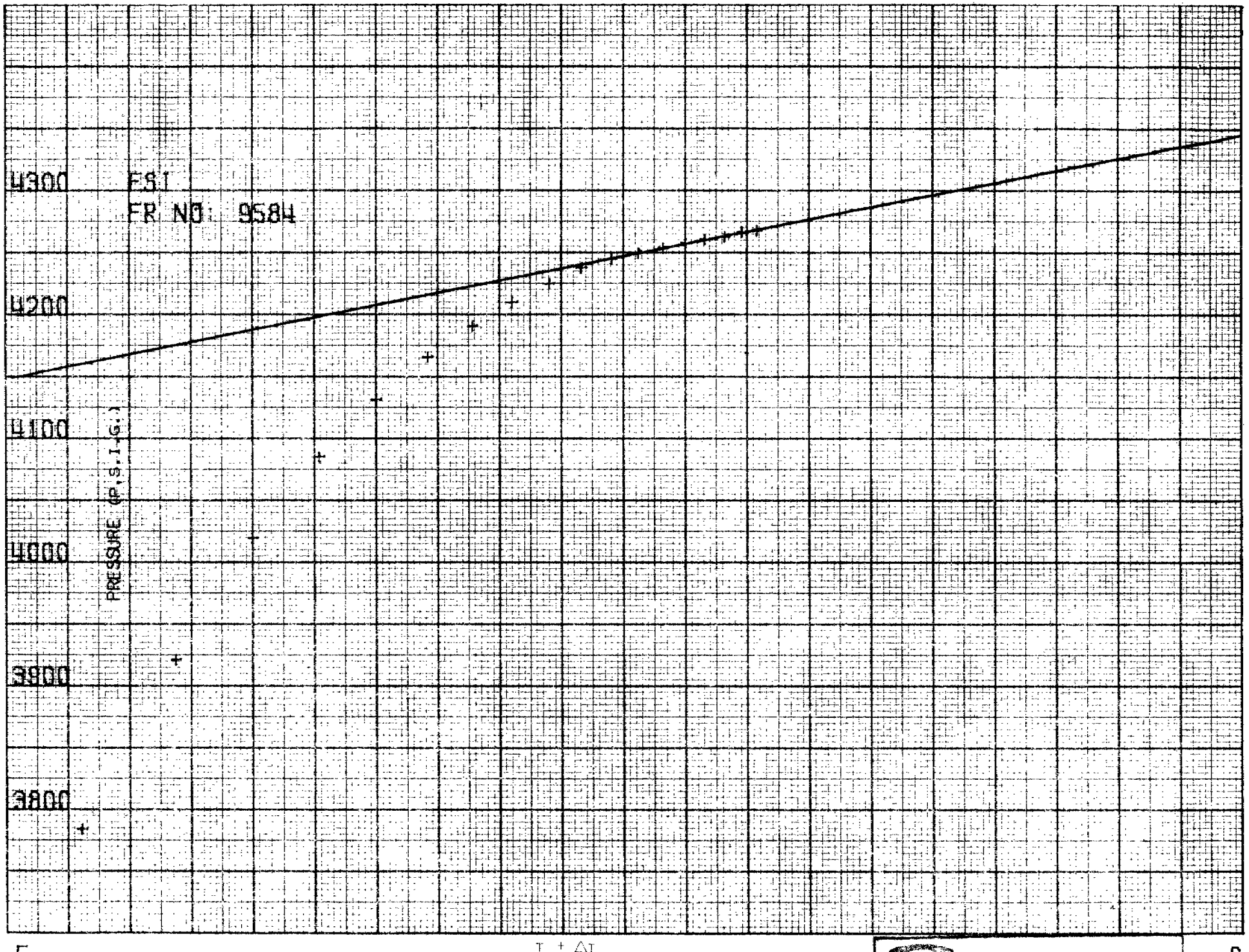
6. Other standard radial flow, equilibrium assumptions.

Empirical Equations:

1. $EDR = \frac{P_o - P_f}{M(\log T + 2.65)}$ where $M = \frac{P_i - P_{10}}{\text{Log Cycle}}$
2. Transmissibility $\frac{Kh}{\mu\beta} = \frac{162.6\ Q}{M}$
3. DST $J = \frac{Q}{P_o - P_f}$ Theoretical $J = \frac{7.08 \times 10^{-3}\ Kh}{\mu\beta \ln (r_e/r_w)}$ Assumed $\ln (r_e/r_w) = 7.60$
4. P.S. = $\left[P_o \times 2.309\ \text{ft./PSI}\right] - \left[\text{Recorder depth to sea level.}\right]$
5. Radius of investigation, $r_i = \sqrt{\frac{Kt}{40\phi\mu c}}$ where t = time in days

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not guarantee the accuracy or correctness 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.


4400
4000
3600
3200
2800
2400
PRESSURE (P.S.I.G.)
ISI
FR NO: 9584
0.5
LOG OF $\frac{t + \Delta T}{\Delta T}$
0
JOHNSTON
COMPUTERIZED
PLOT



JOHNSTON
COMPUTERIZED PLOT

JOHNSTON
Schlumberger

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	1508	–	1/8''
BLOW 3'' IN WATER			
BLOW OFF BOTTOM OF BUCKET	1509	–	''
CLOSED FOR INITIAL SHUT-IN	1518	6 3/4	''
FINISHED SHUT-IN	1618	–	''
RE-OPENED TOOL	1620	–	''
BLOW 2'' IN WATER			
BLOW OFF BOTTOM OF BUCKET	1622	–	''
GAS TO SURFACE	1625	3	''
OPENED TO PIT			
3 TO 4' FLARE	1630	3	1/4''
GAS TOO SMALL TO MEASURE	1640	2 1/2	''
	1650	2 1/2	''
	1700	2 1/2	''
	1710	2 1/2	''
CLOSED FOR FINAL SHUT-IN	1720	2 1/2	''
FINISHED SHUT-IN	1920	–	'
PULLED PACKER LOOSE	1921	–	–

Cushion Type	Amount	Pressure	Bottom Choke
	–		Size 5/8''

MUD DATA

Mud Type DISPERSED Wt. 9.0
Viscosity 40 Water Loss 5.6 C.C.
Resist: of Mud 1.1 @ 42 °F; of Filtrate .94 @ 42 °F
Chloride Content 300 PPM

EQUIPMENT & HOLE DATA

Type Test M.F.E. OPEN HOLE
Formation Tested DINWOODY
Elevation 6730 K.B. Ft.
Net Productive Interval 16 Ft.
Estimated Porosity 10 %
All Depths Measured From KELLY BUSHING
Total Depth 10665 Ft.
Main Hole/Casing Size 9 7/8
Rat Hole/Liner Size –
Drill Collar Length 512' I.D. 2.5''
Drill Pipe Length 10005' I.D. 3.5''
Packer Depth(s) 10569 & 10575 Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure 80 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas .08
cc. Oil –
cc. Water 1825
cc. Mud –
Tot. Liquid cc. 1825
Gravity – °API @ – °F.
Gas/Oil Ratio – cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	.22 @ 45 °F.	64,000 ppm
Recovery Mud	– @ – °F.	
Recovery Mud Filtrate	– @ – °F.	– ppm
Mud Pit Sample	1.1 @ 42 °F.	
Mud Pit Sample Filtrate	.94 @ 42 °F.	300 ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL. PPM
GAS OUT DRILLING MUD	180	2.14				@ °F.	@ °F.	
GAS CUT, SLIGHTLY MUD	1245	11.74				@ °F.	@ °F.	
CUT SALTY WATER						@ °F.	@ °F.	
TOP SAMPLE						@ °F.	.55 @45 °F.	500
MIDDLE SAMPLE						@ °F.	.31 @45 °F.	60,000
BOTTOM SAMPLE						@ °F.	.30 @45 °F.	62,000
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks:

Address 332 PACIFIC WESTERN LIFE BUILDING; CASPER, WYOMING 82601

Company AMERICAN QUASAR PETROLEUM COMPANY Field WILD CAT
Well HOG BACK RIDGE #28-1 Location SEC. 28-3N-7E
Test Interval 10575' TO 10665' Test # 4 Date 12-29-77

County RICH State UTAH
Technician WHEELER (ROCK SPRINGS) Test Approved By MR. WALT BOWEN

Field Report No. 09584 D
No. Reports Requested 30 (14X)

JOHNSTON
Schlumberger

BOTTOM HOLE PRESSURE AND TIME DATA

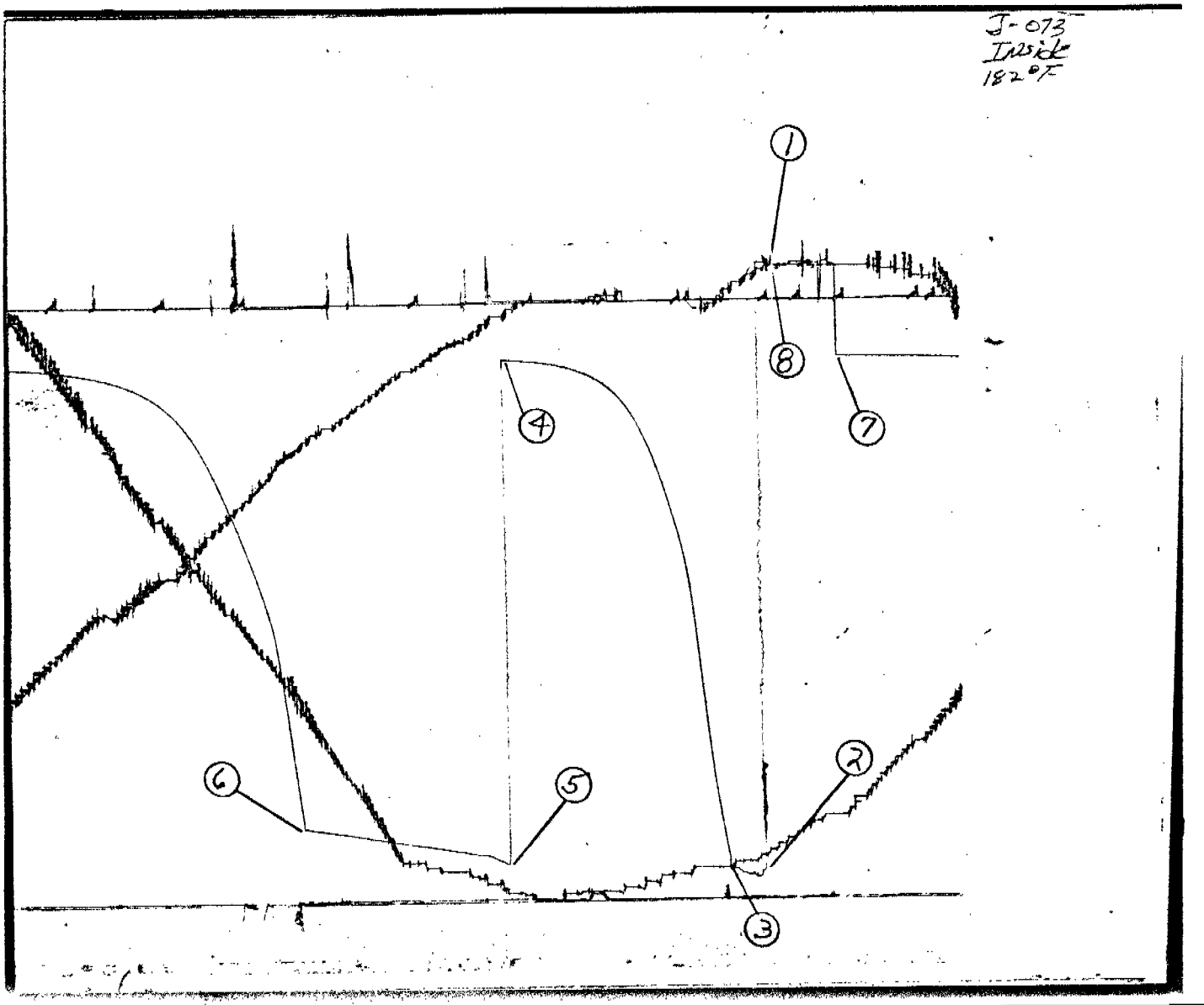
INSTRUMENT NO.: J-073 CAPACITY (P.S.I.): 6400# DEPTH 10581 FT.

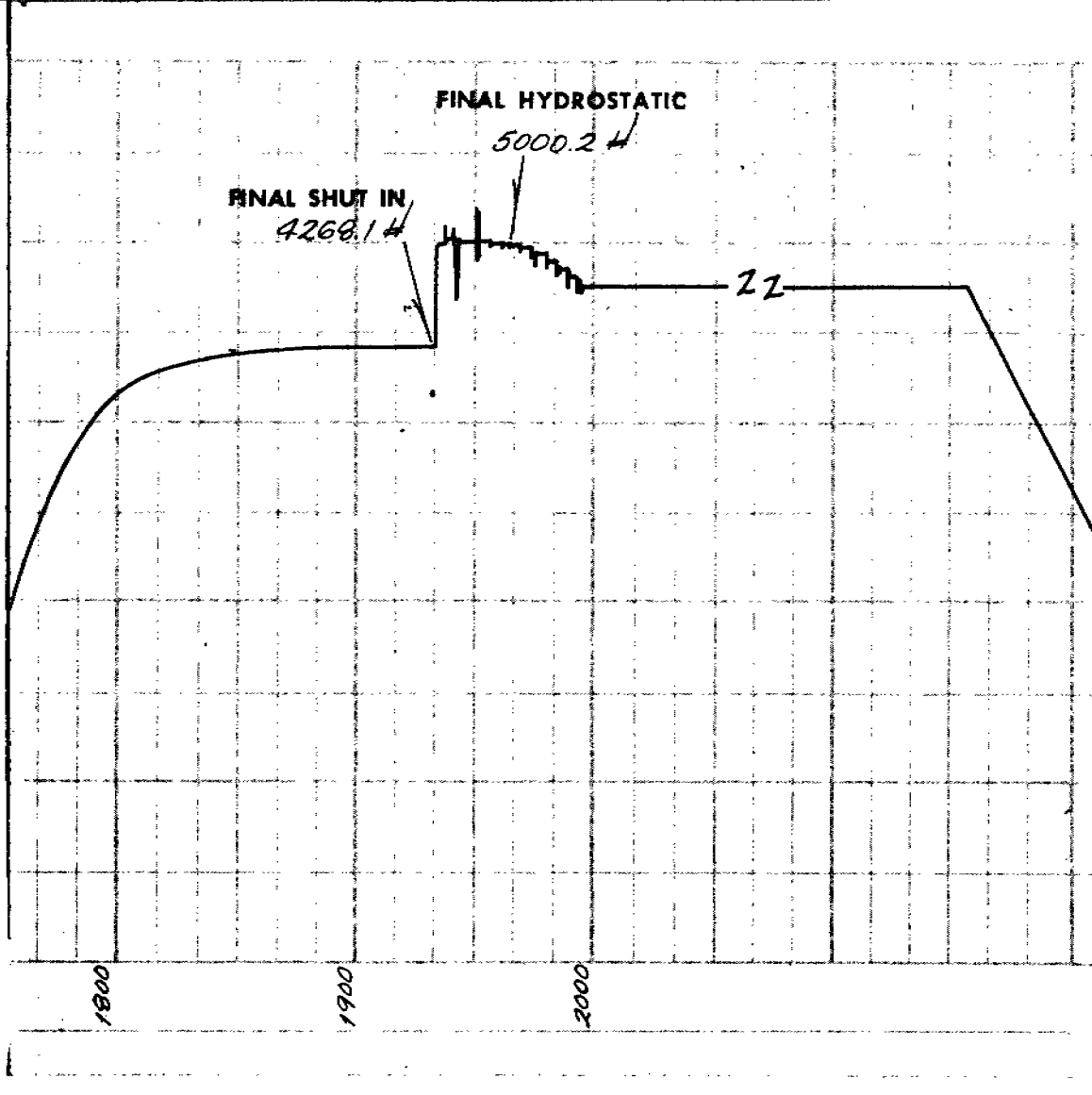
PORT OPENING: INSIDE BOTTOM HOLE TEMP.: 182°F. FIELD REPORT NO. 09584 D

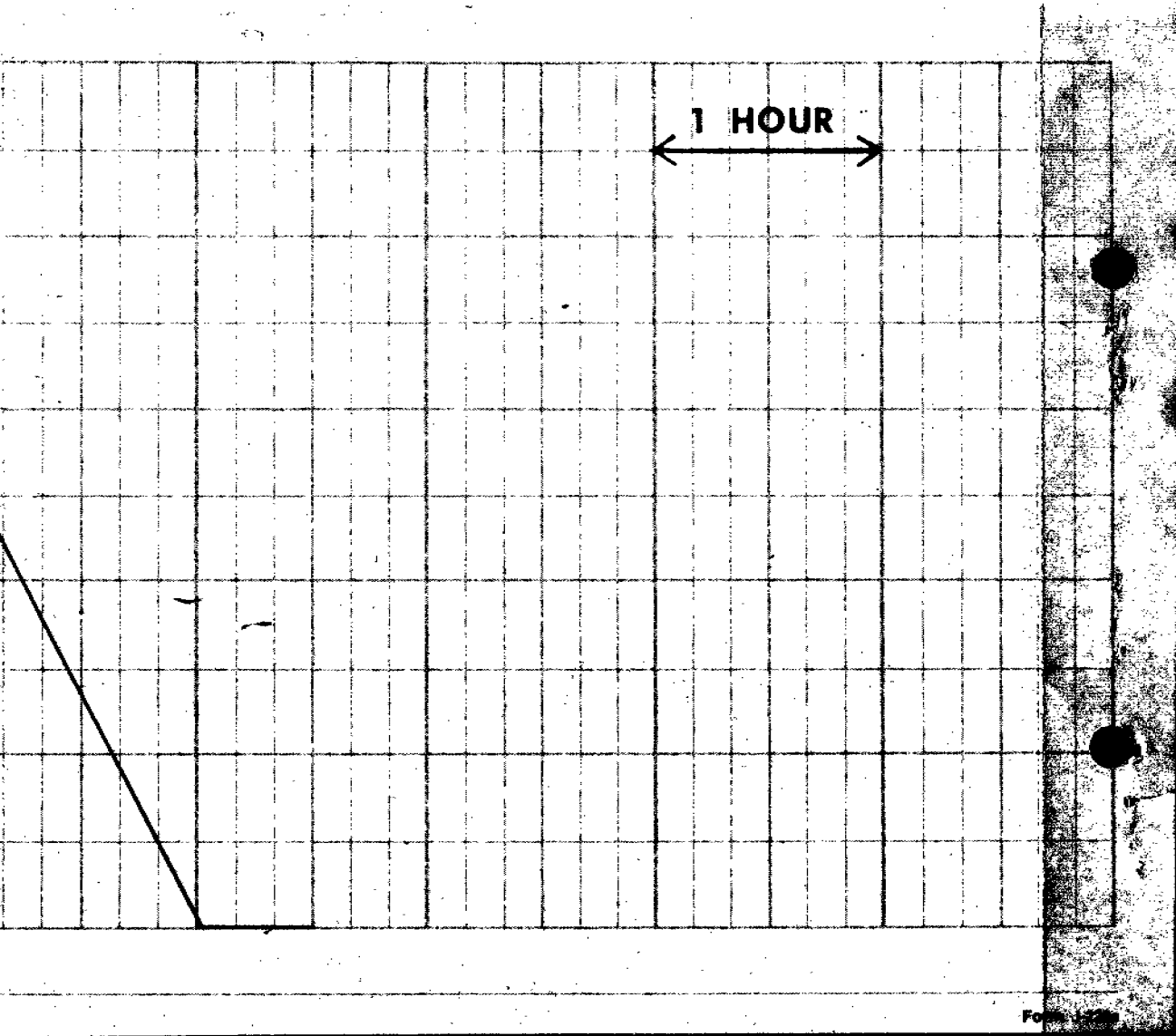
DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	4961.5		
INITIAL FLOW (1)	2	253.9		
INITIAL FLOW (2)	3	256.5	10	10
INITIAL SHUT-IN	4	4242.1	60	64
SECOND FLOW (1)				
SECOND FLOW (2)				
SECOND SHUT-IN				
FINAL FLOW (1)	5	310.9		
FINAL FLOW (2)	6	602.2	60	58
FINAL SHUT-IN	7	4245.9	120	119
FINAL HYDROSTATIC MUD	8	4964.0		

REMARKS:

30+




FINAL HYDROSTATIC
5000.2 #
FINAL SHUT IN
4268.1 #
22
1800
1900
2000


1 HOUR

JOHNSTON

PRESSURE LOG*

Field Report No. 09584 D

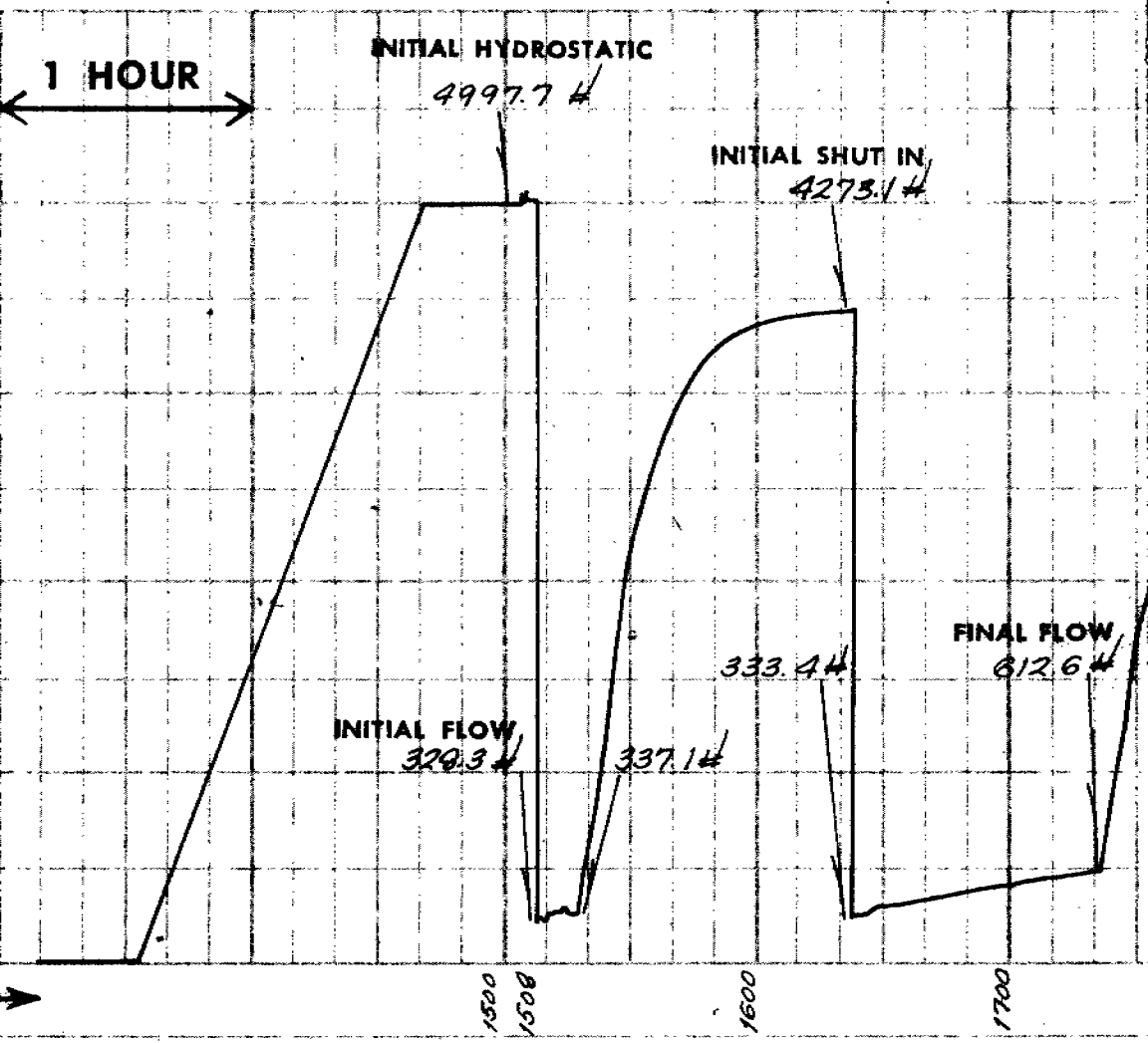
Instrument:
Number J- 443

Capacity 6400 p.s.i.

Depth 10587 ft.

*a continuous tracing of the original chart

TIME


1 HOUR
INITIAL HYDROSTATIC
4997.7 #
INITIAL SHUT IN
4273.1 #
FINAL FLOW
612.6 #
333.4 #
INITIAL FLOW
329.3 #
337.1 #
1500
1508
1600
1700

JOHNSTON
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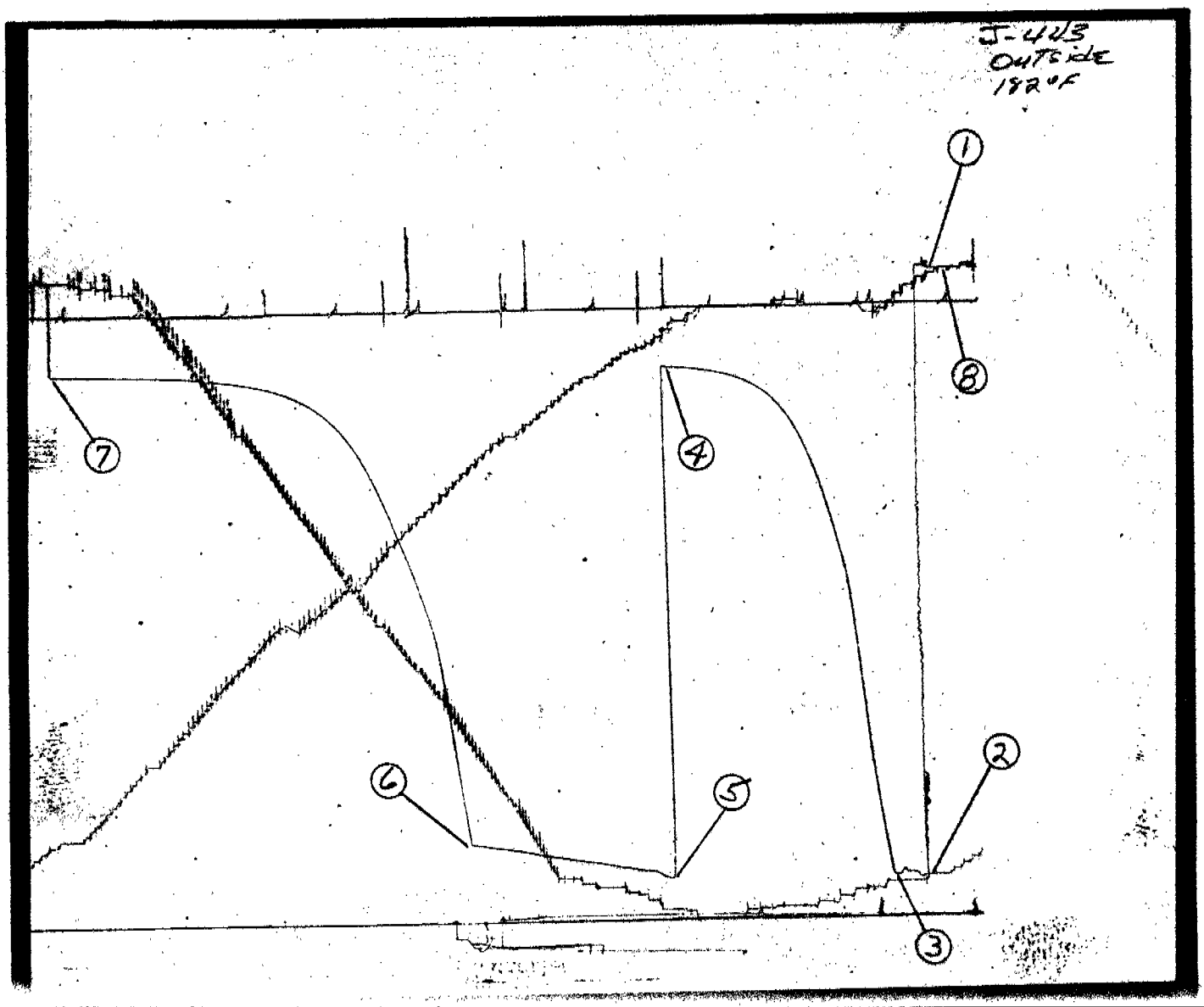
FIELD REPORT NO.: 09584 D

INSTRUMENT NO.: J-443

CAPACITY: 6400

NO. OF REPORTS: 30+

PRESSURE DATA FROM THIS CHART IS PRESENTED ON NEXT PAGE



BOTTOM HOLE PRESSURE AND TIME DATA

JOHNSTON Schlumberger

INSTRUMENT NO.: J-443 CAPACITY(P.S.I.): 6400 DEPTH: 10587 FT.

PORT OPENING: OUTSIDE BOTTOM HOLE TEMP.: 182

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	4997.7		
INITIAL FLOW(1)	2	328.3		
INITIAL FLOW(2)	3	337.1	10	10
INITIAL SHUT-IN	4	4273.1	60	64
FINAL FLOW(1)	5	333.4		
FINAL FLOW(2)	6	612.6	60	58
FINAL SHUT-IN	7	4268.1	120	119
FINAL HYDROSTATIC MUD	8	5000.2		

INCREMENTAL READINGS

LABEL POINT	DELTA TIME	PRESSURE (P.S.I.)	T + DT/DT	LOG	PW - PF (P.S.I.)	COMMENTS
1		4997.7				HYDROSTATIC MUD
2	0	328.3				INITIAL FLOW(1)
	5	356.0				
3	10	337.1				INITIAL FLOW(2)
3	0	337.1				STARTED SHUT-IN
	5	1047.9	3.000	0.477	710.7	
	10	2091.9	2.000	0.301	1754.8	
	15	2859.2	1.667	0.222	2522.1	
	20	3320.9	1.500	0.176	2983.7	
	25	3666.8	1.400	0.146	3329.7	
	30	3903.3	1.333	0.125	3566.1	
	35	4049.2	1.286	0.109	3712.1	
	40	4138.5	1.250	0.097	3801.4	
	45	4196.4	1.222	0.087	3859.2	
	50	4230.3	1.200	0.079	3893.2	
	55	4253.0	1.182	0.073	3915.8	
	60	4266.8	1.167	0.067	3929.7	
4	64	4273.1	1.156	0.063	3936.0	INITIAL SHUT-IN
5	0	333.4				FINAL FLOW(1)
	5	381.2				
	10	401.3				
	15	425.2				
	20	449.1				
	25	469.2				
	30	489.4				
	35	509.5				
	40	532.1				
	45	557.3				
	50	578.7				
	55	600.0				
6	58	612.6				FINAL FLOW(2)
6	0	612.6				STARTED SHUT-IN
	1	776.2	69.000	1.839	163.5	
	2	942.2	35.000	1.544	329.6	
	3	1107.0	23.667	1.374	494.4	

FIELD REPORT NO. 09584D

LABEL POINT	DELTA TIME	PRESSURE (P.S.I.)	T + DT/DT	LOG	PW - PF (P.S.I.)	COMMENTS
	4	1290.6	18.000	1.255	678.0	
	5	1471.8	14.600	1.164	859.1	
	6	1644.1	12.333	1.091	1031.5	
	7	1820.2	10.714	1.030	1207.6	
	8	1990.0	9.500	0.978	1377.4	
	9	2141.0	8.556	0.932	1528.3	
	10	2252.9	7.800	0.892	1640.3	
	12	2424.0	6.667	0.824	1811.4	
	14	2578.7	5.857	0.768	1966.1	
	16	2724.6	5.250	0.720	2112.0	
	18	2865.5	4.778	0.679	2252.9	
	20	2998.9	4.400	0.643	2386.2	
	22	3132.2	4.091	0.612	2519.6	
	24	3259.3	3.833	0.584	2646.6	
	26	3378.8	3.615	0.558	2766.1	
	28	3486.9	3.429	0.535	2874.3	
	30	3583.8	3.267	0.514	2971.2	
	35	3783.8	2.943	0.469	3171.2	
	40	3919.6	2.700	0.431	3307.0	
	45	4017.8	2.511	0.400	3405.1	
	50	4084.4	2.360	0.373	3471.8	
	55	4131.0	2.236	0.350	3518.3	
	60	4166.2	2.133	0.329	3553.6	
	65	4191.4	2.046	0.311	3578.7	
	70	4210.2	1.971	0.295	3597.6	
	75	4225.3	1.907	0.280	3612.7	
	80	4237.9	1.850	0.267	3625.3	
	85	4245.4	1.800	0.255	3632.8	
	90	4250.5	1.756	0.244	3637.8	
	95	4254.2	1.716	0.234	3641.6	
	100	4258.0	1.680	0.225	3645.4	
	105	4260.5	1.648	0.217	3647.9	
	110	4263.1	1.618	0.209	3650.4	
	115	4266.8	1.591	0.202	3654.2	
7	119	4268.1	1.571	0.196	3655.5	FINAL SHUT-IN
8		5000.2				HYDROSTATIC MUD

Drlg

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technical report

COMPANY AMERICAN QUASAR PETROLEUM COMPANY WELL HOG BACK RIDGE #28-1 TEST NO. 7 COUNTY RICH STATE UTAH

F. R. #09586 D

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Schlumberger

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	1220	–	1/8''
PACKER SEAT FAILED			
RE-OPENED TOOL	1233	–	''
PACKER SEAT FAILED	1233	–	''
PULLED PACKER LOOSE	1235	–	–

Cushion Type	Amount	Pressure	Bottom Choke
	–		Size 5/8''

MUD DATA

Mud Type: DISPERSED Wt.: 9.0
Viscosity: 40 Water Loss: 5.4 C.C.
Resist: of Mud 1.4 @ 45 °F; of Filtrate .97 @ 45 °F
Chloride Content: 1000 PPM

EQUIPMENT & HOLE DATA

Type Test: M. F. E. OPEN HOLE
Formation Tested: DINWOODY
Elevation: 6730 K.B. Ft.
Net Productive Interval: 12 Ft.
Estimated Porosity: 10 %
All Depths Measured From: KELLY BUSHING
Total Depth: 11010 Ft.
Main Hole/Casing Size: 9 7/8''
Rat Hole/Liner Size: –
Drill Collar Length: 270' & 180' I.D. 2.4''/2.3''
Drill Pipe Length: 10434' I.D. 3.5''
Packer Depth(s): 10924 & 10930 Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure: 40 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas: .03
cc. Oil: –
cc. Water: –
cc. Mud: 1400
Tot. Liquid cc.: 1400
Gravity: – °API @ – °F.
Gas/Oil Ratio: – cu. ft./bbl.

	Resistivity				Chloride Content
Recovery Water	–	@	–	°F.	– ppm
Recovery Mud	.81	@	60	°F.	
Recovery Mud Filtrate	.72	@	60	°F.	7000 ppm
Mud Pit Sample	1.4	@	45	°F.	
Mud Pit Sample Filtrate	.97	@	45	°F.	1000 ppm

Recovery Description	Feet	Barrels	% Oil	% Water	% Others	API Gravity	Resistivity	Chl. PPM
DRILLING MUD	775	6.37				@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks: UNSUCCESSFUL TEST; PACKER SEAT FAILURE.

Address: 332 PACIFIC WESTERN LIFE BUILDING; CASPER, WYOMING 82601

Company: AMERICAN QUASAR PETROLEUM COMPANY Field: WILD CAT
Well: HOG BACK RIDGE #28-1 Location: SEC. 28 - 13N - 7E
Test Interval: 10930' TO 11010' (UNSUCCESSFUL) Test #: 7 Date: 1-11-78

County: RICH State: UTAH
Technician: WHEELER(ROCK SPRINGS) Test Approved By: MR. WALT BOWEN

Field Report No.: 09586 D
No. Reports Requested: 30(14X'S)

JOHNSTON Schlumberger

BOTTOM HOLE PRESSURE AND TIME DATA

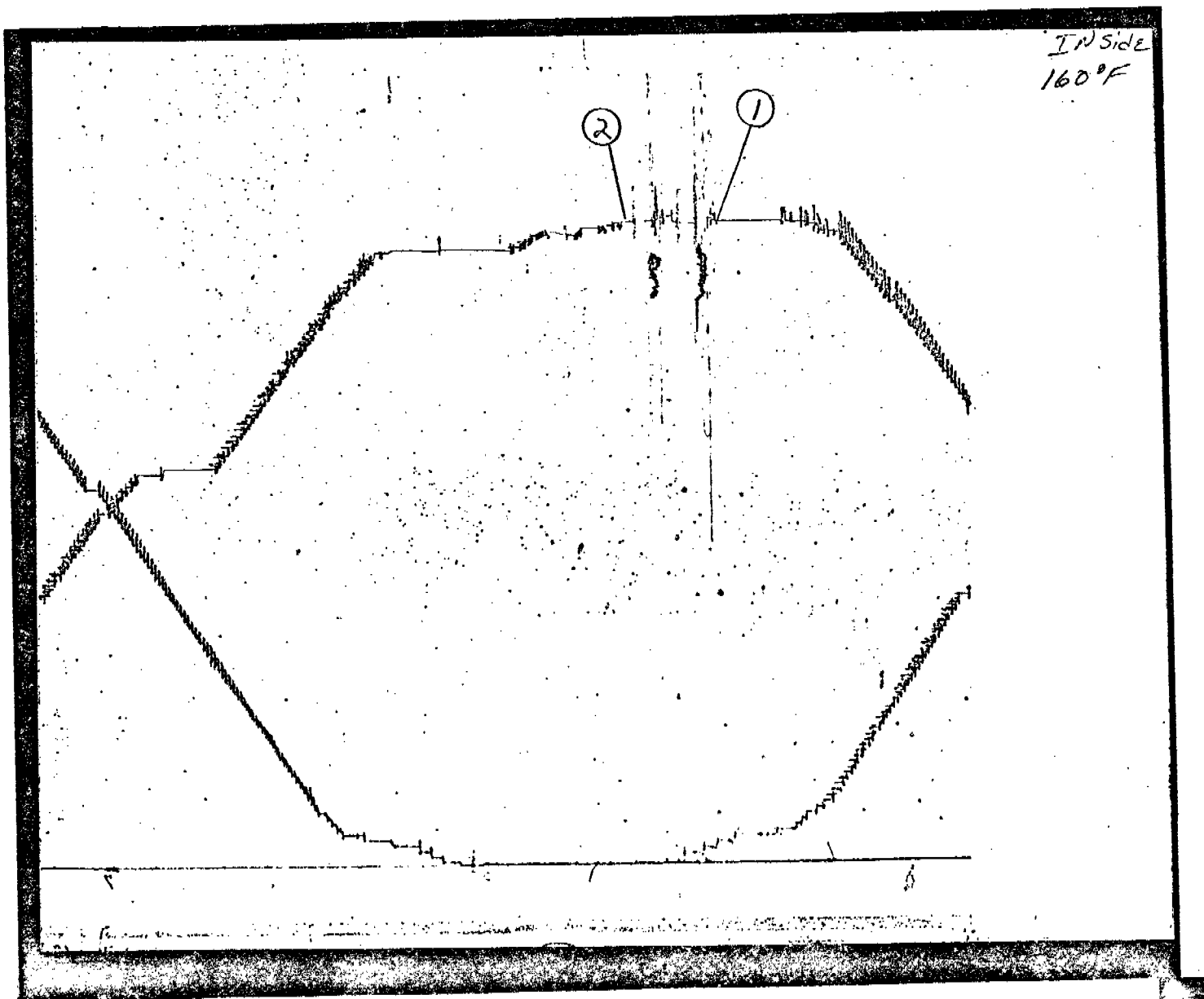
INSTRUMENT NO.: J-073 CAPACITY (P.S.I.): 6400# DEPTH 10907 FT.

PORT OPENING: INSIDE BOTTOM HOLE TEMP.: 160°F. FIELD REPORT NO. 09586 D

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	5150.8		
INITIAL FLOW (1)				
INITIAL FLOW (2)				
INITIAL SHUT-IN				
SECOND FLOW (1)				
SECOND FLOW (2)				
SECOND SHUT-IN				
FINAL FLOW (1)				
FINAL FLOW (2)				
FINAL SHUT-IN				
FINAL HYDROSTATIC MUD	2	5150.8		

REMARKS: UNSUCCESSFUL TEST.

30+



JOHNSTON Schlumberger

BOTTOM HOLE PRESSURE AND TIME DATA

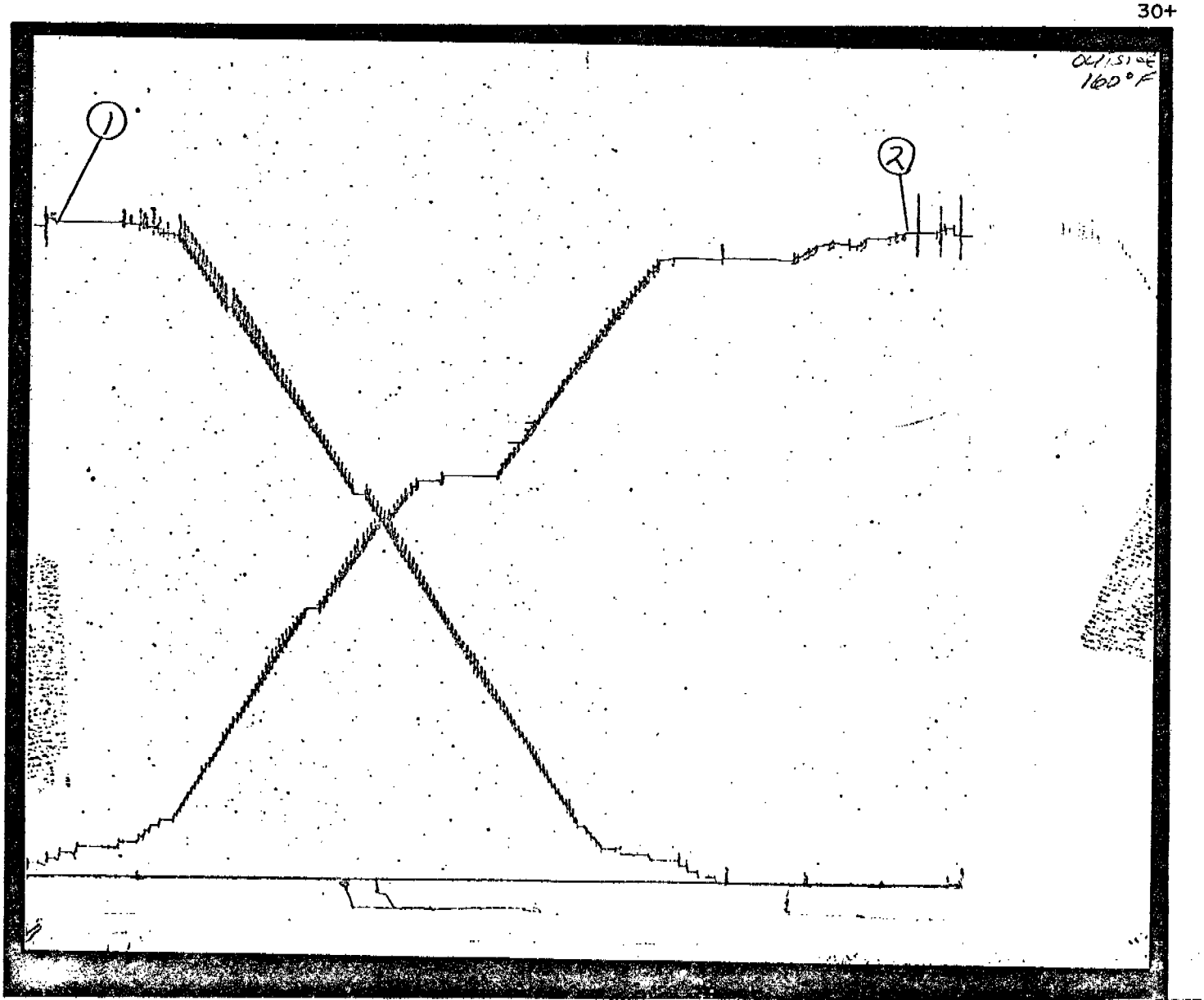
INSTRUMENT NO.: J-443 CAPACITY (P.S.I.): 6400# DEPTH 10935 FT.

PORT OPENING: OUTSIDE BOTTOM HOLE TEMP.: 160 °F. FIELD REPORT NO. 09586 D

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	5195.0		
INITIAL FLOW (1)				
INITIAL FLOW (2)				
INITIAL SHUT-IN				
SECOND FLOW (1)				
SECOND FLOW (2)				
SECOND SHUT-IN				
FINAL FLOW (1)				
FINAL FLOW (2)				
FINAL SHUT-IN				
FINAL HYDROSTATIC MUD	2	5191.2		

REMARKS: UNSUCCESSFUL TEST.

30+



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computerized data analysis

COMPANY AMERICAN QUASAR PETROLEUM COMPANY WELL HOG BACK RIDGE #28-1 TEST NO. 9 COUNTY RICH STATE UTAH

F. R. #09701 D

JOHNSTON
Schlumberger

COMPUTERIZED DATA ANALYSIS

FEBRUARY 1, 1978

GENTLEMEN:

THE ENCLOSED TEST APPEARS TO BE A GOOD MECHANICAL DRILL STEM TEST DURING WHICH THE TOOLS DID FUNCTION PROPERLY. THE FORMATION PRODUCED ENOUGH RESERVOIR FLUID FOR PROPER IDENTIFICATION. RESERVOIR PRESSURE DRAWDOWN WAS SUFFICIENT BUT ADEQUATE SHUT-IN BUILD-UPS DID NOT OCCUR FOR RELIABLE QUANTITATIVE ANALYSIS. AFTERFLOW WAS STILL IN EFFECT ON THE INITIAL AND FINAL SHUT-IN BUILD-UPS TO THE EXTENT THAT THE PLOTS ARE CONSIDERED UNRELIABLE FOR ANALYSIS. THE TOTAL FLOW RATE IS LESS THAN 5 BBLS/DAY OF TOTAL FLUID WITH NO HYDROCARBON SHOW EITHER IN THE DRILL PIPE OR CHAMBER SAMPLES. ANY ATTEMPT AT WELL PARAMETERS WOULD BE USELESS AS THEY WOULD BE BASED ON NON-HYDROCARBON PRODUCTION.

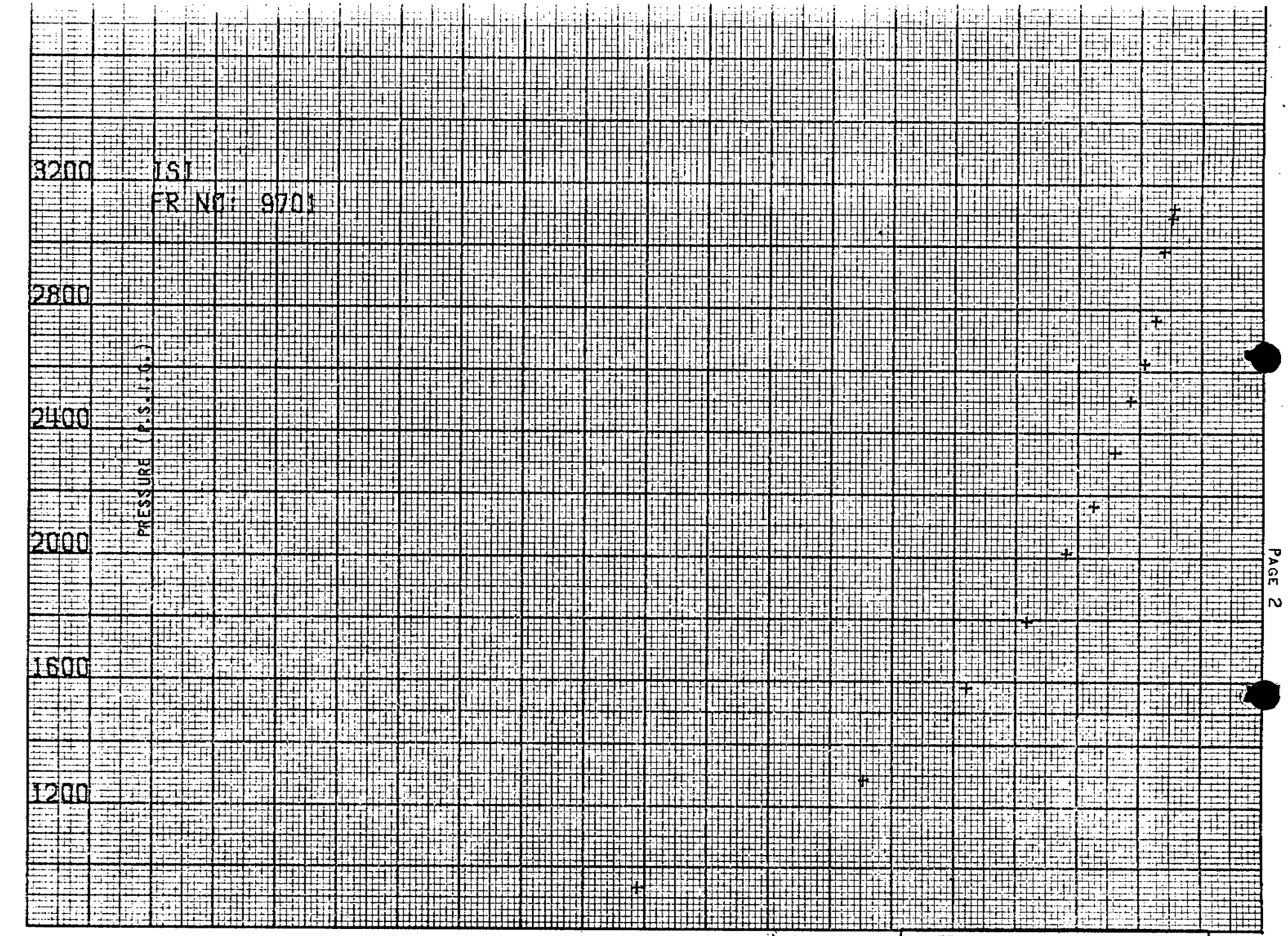
W. N. Lumpkin

W. N. LUMPKIN
RESERVOIR EVALUATION
DEPARTMENT

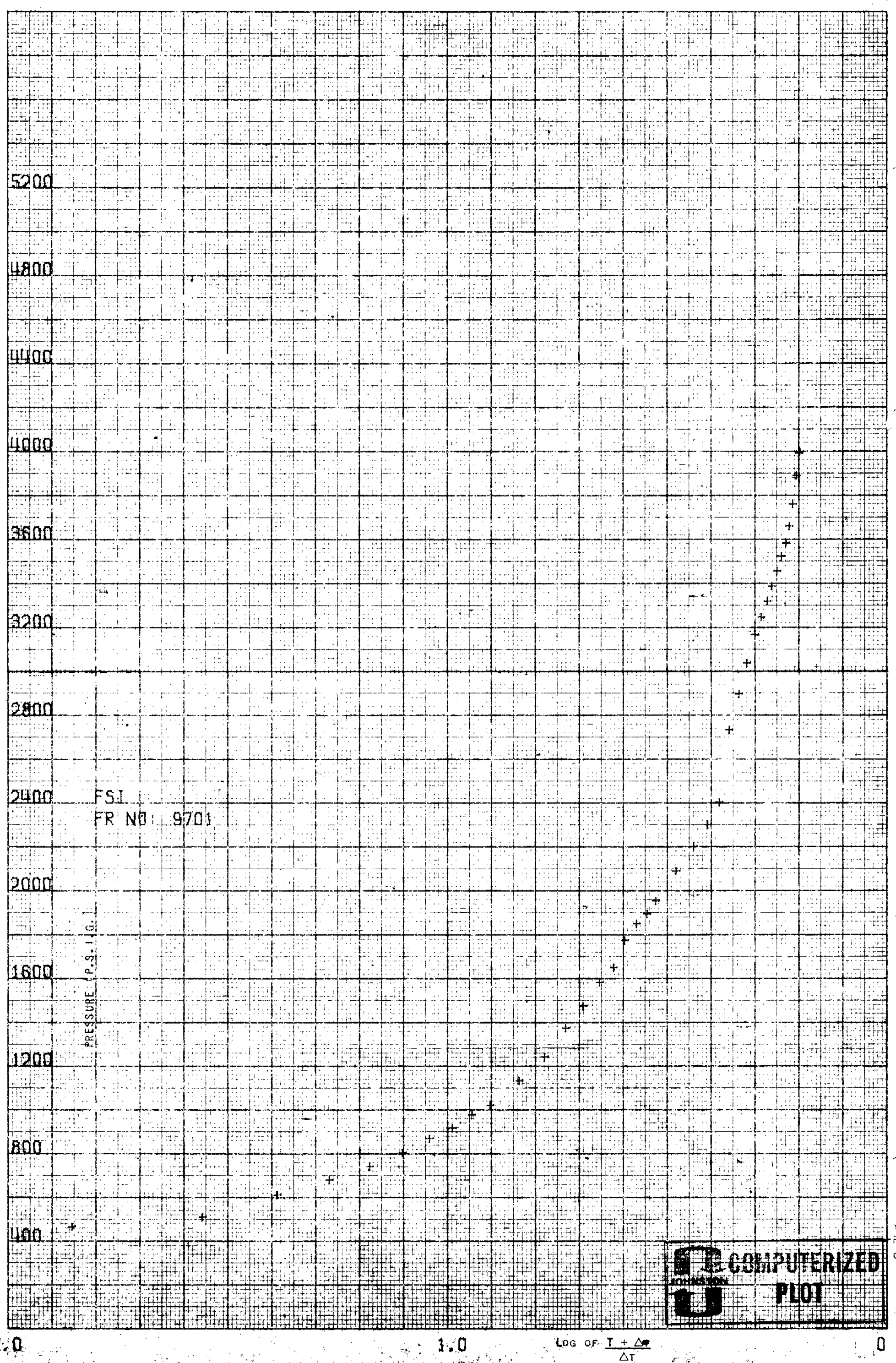
FIELD REPORT #09701 D

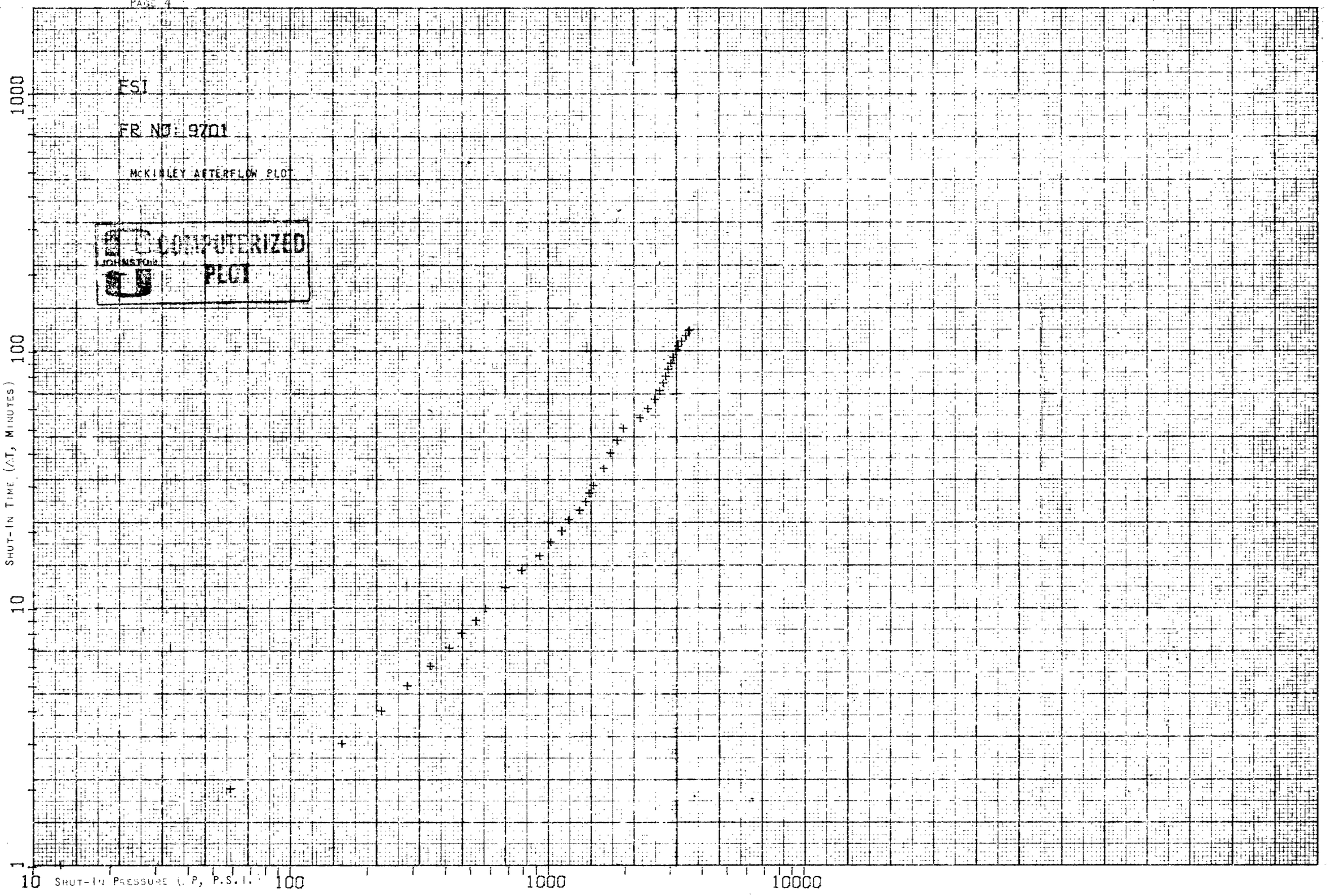
AMERICAN QUASAR PETROLEUM COMPANY
HOG BACK RIDGE #28-1; RICH COUNTY, UTAH
TEST #9; 11,530' TO 11,705'
LOCATION: SEC. 28,T-13N, R-7E

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.



JOHNSTON COMPUTERIZED PLOT


5200
4800
4400
4000
3600
3200
2800
2400
2000
1600
1200
800
400
PRESSURE (P.S.I.G.)
FSI
FR NO: 9701
COMPUTERIZED PLOT
2.0
1.0
0
LOG OF $\frac{T + \Delta T}{\Delta T}$


ESI
FR NO: 9701
McKINLEY AFTERFLOW PLOT
COMPUTERIZED
PLOT
SHUT-IN TIME (ΔT, MINUTES)
1000
100
10
1
10
SHUT-IN PRESSURE (P, P.S.I.)
100
1000
10000

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SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	0705	-	1/8"
BLOW, 1½" IN WATER			
INCREASED TO BLOW, 3½" IN	0715	-	"
WATER			
CLOSED FOR INITIAL SHUT-IN	0715	-	"
FINISHED SHUT-IN	0815	-	"
RE-OPENED TOOL	0818	-	"
BLOW, 3/4" IN WATER			
DECREASED TO BLOW, ½" IN	0918	-	"
WATER			
CLOSED FOR FINAL SHUT-IN	0918	-	"
FINISHED SHUT-IN	1118	-	"
PULLED PACKER LOOSE	1119	-	-

Cushion Type	Amount	Pressure	Bottom Choke
WATER	1000'	-	Size 5/8"
AMMONIA	55 GAL.	-	

MUD DATA

Mud Type: DISPERSED Wt.: 8.8
Viscosity: 40 Water Loss: 4.8 C.C.
Resist: of Mud: .9 @ 60 °F; of Filtrate: .8 @ 60 °F
Chloride Content: 1,050 PPM

EQUIPMENT & HOLE DATA

Type Test: M.F.E. OPEN HOLE
Formation Tested: PHOSPHORIA
Elevation: 6730 K.B. Ft.
Net Productive Interval: 175 Ft.
Estimated Porosity: 10 %
All Depths Measured From: KELLY BUSHING
Total Depth: 11,705 Ft.
Main Hole/Casing Size: 9 7/8"
Rat Hole/Liner Size: -
Drill Collar Length: 486' I.D. 2.4"
Drill Pipe Length: 10,999' I.D. 3.5"
Packer Depth(s): 11,520 & 11,530 Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure: 0 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas: -
cc. Oil: -
cc. Water: -
cc. Mud: 2500
Tot. Liquid cc.: 2500
Gravity: - °API @ - °F.
Gas/Oil Ratio: - cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	- @ - °F.	- ppm
Recovery Mud	1.0 @ 45 °F.	
Recovery Mud Filtrate	0.9 @ 45 °F.	1,100 ppm
Mud Pit Sample	0.9 @ 60 °F.	
Mud Pit Sample Filtrate	0.8 @ 60 °F.	1,050 ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL. PPM
DRILLING MUD	90	1.07				@ °F.	1 @ 45 °F.	1,100
WATER & AMONIA	1000	8.93				@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks:

Address: 332 PACIFIC WESTERN LIFE BUILDING; CASPER, WYOMING 82601

Company: AMERICAN QUASAR PETROLEUM COMPANY Field: WILD CAT
Well: HOG BACK RIDGE #28-1 Location: SEC. 28, T-13N, R-7E
Test Interval: 11,530' TO 11,705' Test #: 9 Date: 1-23-78

County: RICH State: UTAH Field Report No.: 09701 D
Technician: RICHARDS (VERNAL) Test Approved By: MR. WALT BOWEN No. Reports Requested: 30 (14x)

JOHNSTON Schlumberger

BOTTOM HOLE PRESSURE AND TIME DATA

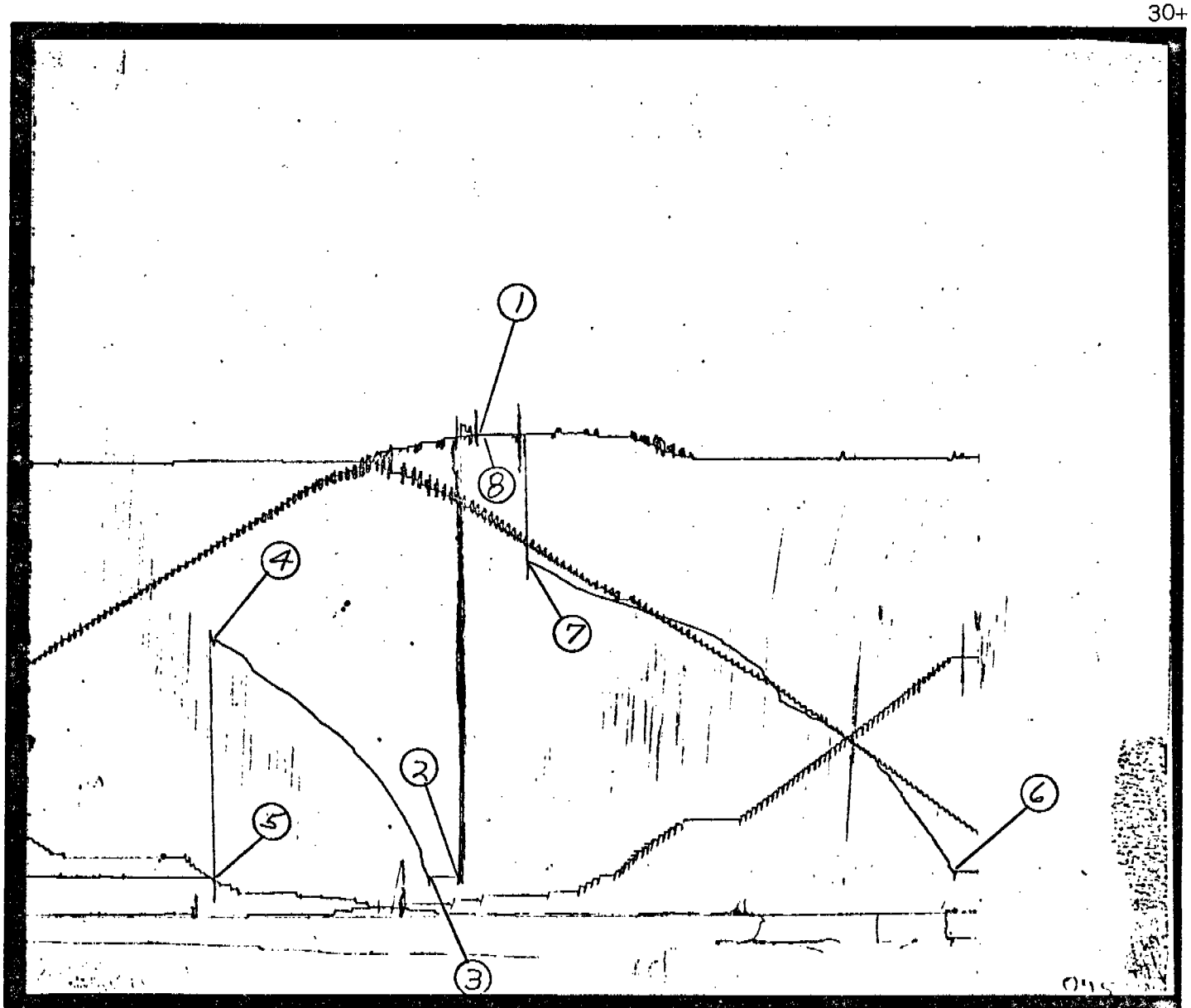
INSTRUMENT NO.: J-045 CAPACITY (P.S.I.): 9000# DEPTH 11,522 FT.

PORT OPENING: INSIDE BOTTOM HOLE TEMP.: 186°F. FIELD REPORT NO. 09701 D

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	5429.8		
INITIAL FLOW (1)	2	433.6		
INITIAL FLOW (2)	3	433.6	10	11
INITIAL SHUT-IN	4	3121.3	60	61
SECOND FLOW (1)				
SECOND FLOW (2)				
SECOND SHUT-IN				
FINAL FLOW (1)	5	440.9		
FINAL FLOW (2)	6	459.3	60	59
FINAL SHUT-IN	7	3980.6	120	121
FINAL HYDROSTATIC MUD	8	5420.6		

REMARKS:

30+



JOHNSTON

PRESSURE LOG*

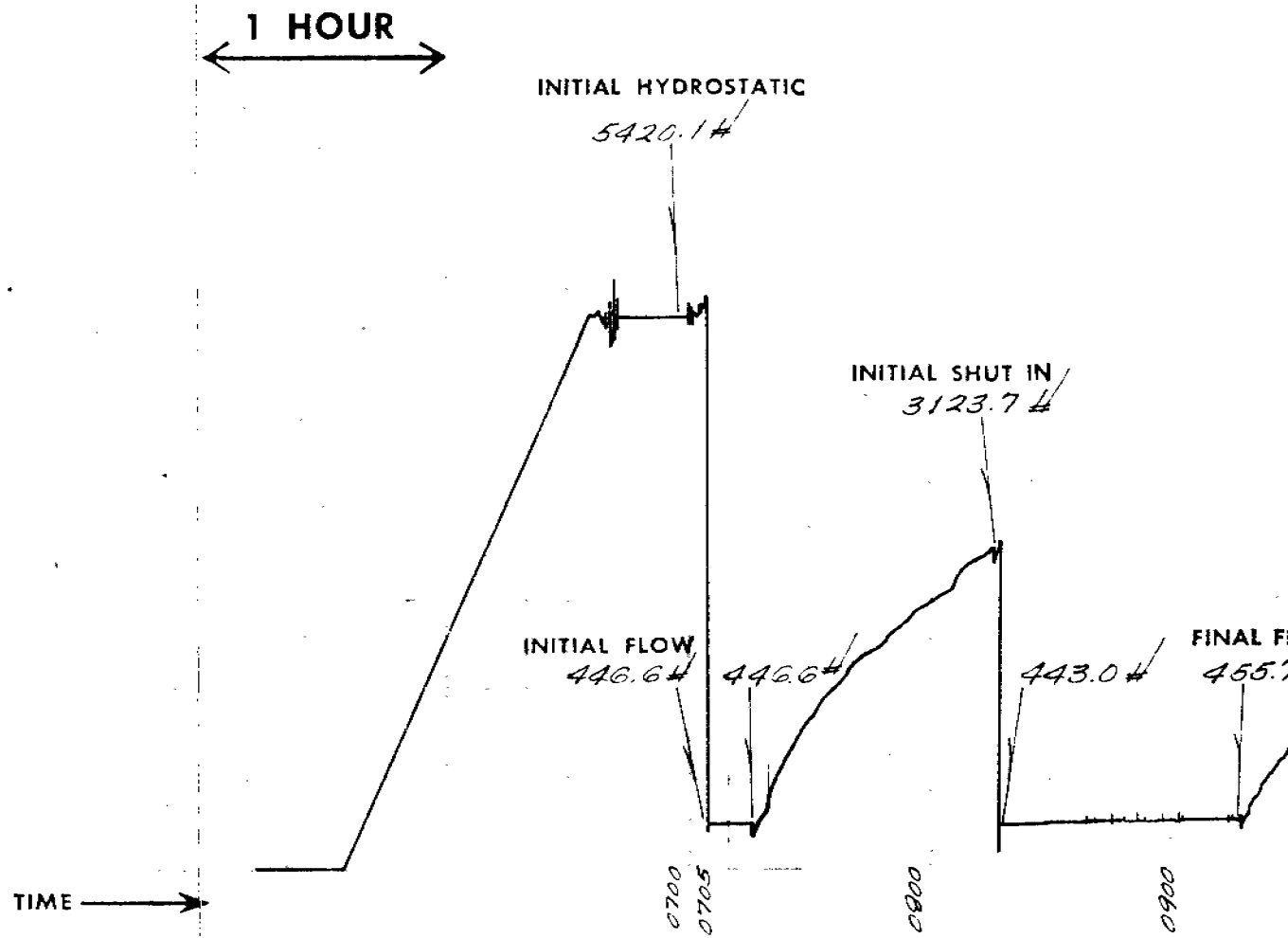
Field Report No. 09701 D

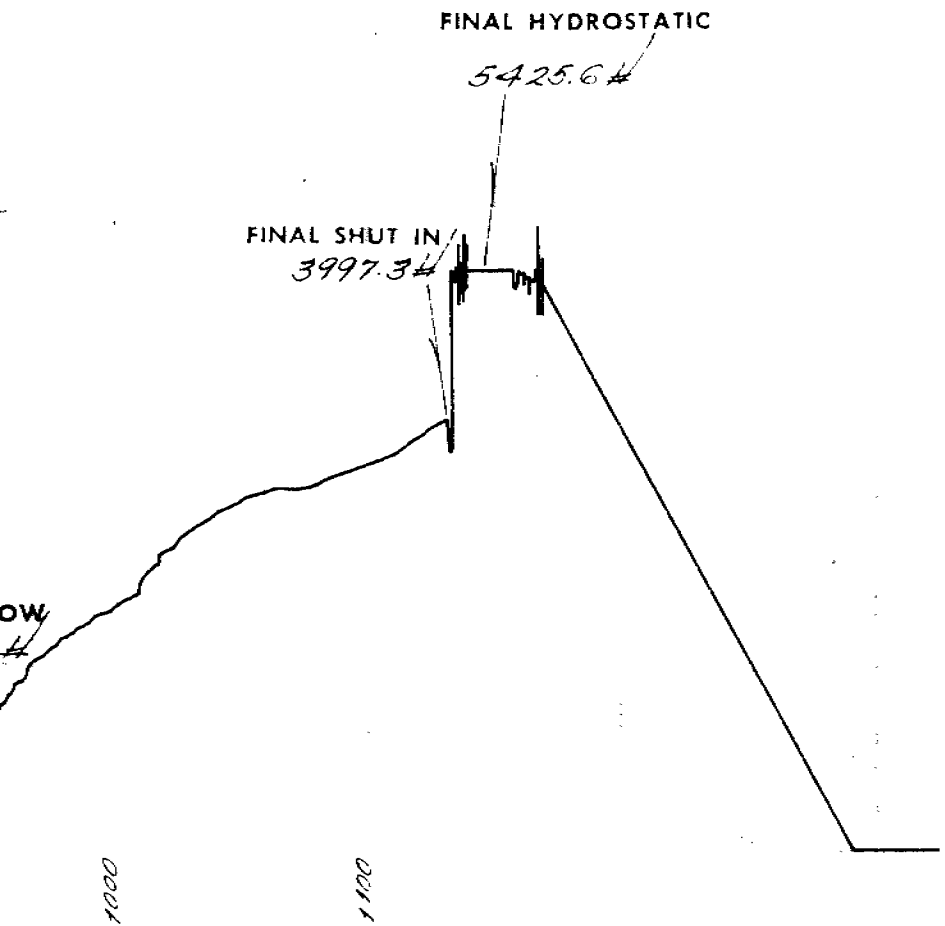
Instrument: Number J-533

Capacity 9000 p.s.i.

Depth 11532 ft.

*a continuous tracing of the original chart





1 HOUR

Form J-228a

JOHNSTON
Schlumberger

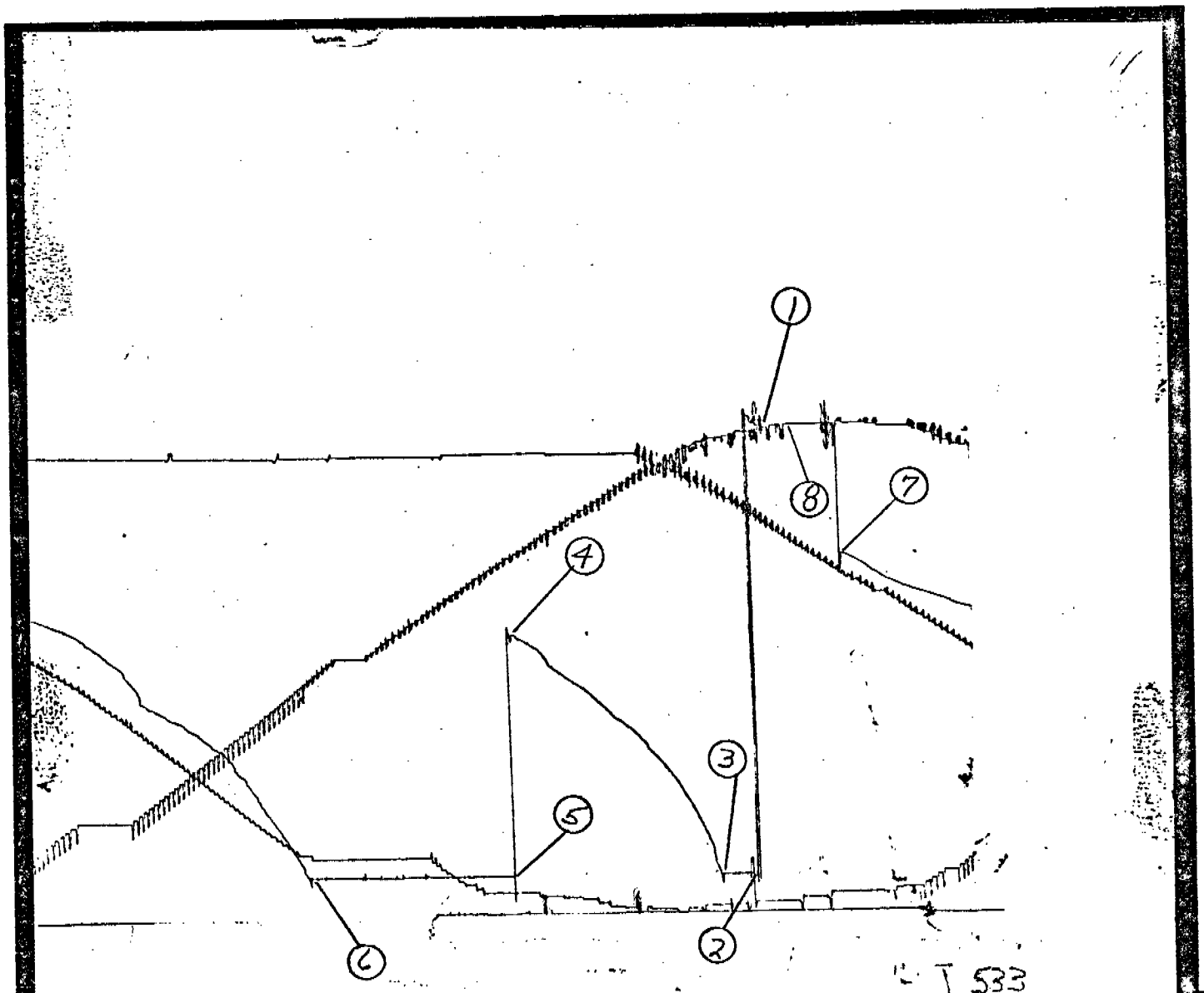
FIELD REPORT NO.: 09701 D

INSTRUMENT NO.: J-533

CAPACITY: 9000#

NO. OF REPORTS: 30+

PRESSURE DATA FROM THIS CHART IS PRESENTED ON NEXT PAGE



BOTTOM HOLE PRESSURE AND TIME DATA

JOHNSTON Schlumberger

INSTRUMENT NO.: J-533 CAPACITY(P.S.I.): 9000 DEPTH: 11532 FT.

PORT OPENING: OUTSIDE BOTTOM HOLE TEMP.: 186

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	5420.1		
INITIAL FLOW(1)	2	446.6		
INITIAL FLOW(2)	3	446.6	10	11
INITIAL SHUT-IN	4	3123.7	60	61
FINAL FLOW(1)	5	443.0		
FINAL FLOW(2)	6	455.7	60	59
FINAL SHUT-IN	7	3997.3	120	121
FINAL HYDROSTATIC MUD	8	5425.6		

INCREMENTAL READINGS

LABEL POINT	DELTA TIME	PRESSURE (P.S.I.)	T + DT/DT	LOG	PW - PF (P.S.I.)	COMMENTS
1		5420.1				HYDROSTATIC MUD
2	0	446.6				INITIAL FLOW(1)
	5	446.6				
	10	446.6				
3	11	446.6				INITIAL FLOW(2)
3	0	446.6				STARTED SHUT-IN
	5	930.6	3.200	0.505	483.9	
	10	1284.0	2.100	0.322	837.4	
	15	1577.6	1.733	0.239	1131.0	
	20	1787.9	1.550	0.190	1341.2	
	25	2009.0	1.440	0.158	1562.4	
	30	2159.4	1.367	0.136	1712.8	
	35	2331.6	1.314	0.119	1885.0	
	40	2498.4	1.275	0.106	2051.7	
	45	2619.8	1.244	0.095	2173.2	
	50	2761.2	1.220	0.086	2314.6	
	55	2982.3	1.200	0.079	2535.7	
	60	3092.9	1.183	0.073	2646.2	
4	61	3123.7	1.180	0.072	2677.1	INITIAL SHUT-IN
5	0	443.0				FINAL FLOW(1)
	5	443.0				
	10	444.8				
	15	444.8				
	20	446.6				
	25	453.9				
	30	448.4				
	35	443.0				
	40	444.8				
	45	453.9				
	50	455.7				
	55	455.7				
6	59	455.7				FINAL FLOW(2)
6	0	455.7				STARTED SHUT-IN
	1	468.4	71.000	1.851	12.7	
	2	513.7	36.000	1.556	58.0	

LABEL POINT	DELTA TIME	PRESSURE (P.S.I.)	T + DT/DT	LOG	PW - PF (P.S.I.)	COMMENTS
	3	613.4	24.333	1.386	157.7	
	4	680.4	18.500	1.267	224.7	
	5	738.4	15.000	1.176	282.7	
	6	803.7	12.667	1.103	348.0	
	7	867.1	11.000	1.041	411.4	
	8	914.2	9.750	0.989	458.6	
	9	975.9	8.778	0.943	520.2	
	10	1021.2	8.000	0.903	565.5	
	12	1133.6	6.833	0.835	677.9	
	14	1240.5	6.000	0.778	784.8	
	16	1372.8	5.375	0.730	917.1	
	18	1470.7	4.889	0.689	1015.0	
	20	1579.4	4.500	0.653	1123.7	
	22	1646.5	4.182	0.621	1190.8	
	24	1773.4	3.917	0.593	1317.7	
	26	1849.5	3.692	0.567	1393.8	
	28	1891.2	3.500	0.544	1435.5	
	30	1951.0	3.333	0.523	1495.3	
	35	2086.9	3.000	0.477	1631.2	
	40	2199.3	2.750	0.439	1743.6	
	45	2299.0	2.556	0.407	1843.3	
	50	2402.3	2.400	0.380	1946.6	
	55	2737.6	2.273	0.357	2281.9	
	60	2900.7	2.167	0.336	2445.1	
	65	3040.3	2.077	0.317	2584.6	
	70	3169.0	2.000	0.301	2713.3	
	75	3248.7	1.933	0.286	2793.1	
	80	3319.4	1.875	0.273	2863.7	
	85	3386.5	1.824	0.261	2930.8	
	90	3457.2	1.778	0.250	3001.5	
	95	3522.4	1.737	0.240	3066.7	
	100	3585.9	1.700	0.230	3130.2	
	105	3660.2	1.667	0.222	3204.5	
	110	3761.7	1.636	0.214	3306.0	
	115	3888.6	1.609	0.206	3432.9	
	120	3988.2	1.583	0.200	3532.6	
7	121	3997.3	1.579	0.198	3541.6	FINAL SHUT-IN
8		5425.6				HYDROSTATIC MUD

RECEIVED
FEB 3 1978
DIVISION OF OIL
GAS, & MINING

JOHNSTON

Schlumberger

technical report

COMPANY AMERICAN QUASAR PETROLEUM COMPANY

WELL HOG BACK RIDGE #28-1

TEST NO. 8

COUNTY RICH

STATE UTAH

F. R. #09700 D

JOHNSTON
Schlumberger

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	0840	-	1/8"
BLOW, 1" IN WATER IN 5 GALLON BUCKET			
BLOW, 1½" IN WATER IN 5 GALLON BUCKET	0845	-	"
PACKER SEAT FAILED	0920	-	"
PULLED PACKER LOOSE	0955	-	-

Cushion Type	Amount	Pressure	Bottom Choke
WATER	1000'	-	Size 15/16"
AMMONIA	55 GAL.	-	

MUD DATA

Mud Type DISPERSED Wt. 8.8
Viscosity 40 Water Loss 4.6 C.C.
Resist: of Mud .9 @ 60 °F; of Filtrate .8 @ 60 °F
Chloride Content 1,050 PPM

EQUIPMENT & HOLE DATA

Type Test M.F.E. OPEN HOLE
Formation Tested PHOSPHORIA
Elevation 6730 K.B. Ft.
Net Productive Interval 195 Ft.
Estimated Porosity 10 %
All Depths Measured From KELLY BUSHING
Total Depth 11,705 Ft.
Main Hole/Casing Size 9 7/8"
Rat Hole/Liner Size -
Drill Collar Length 279' I.D. 2.4"
Drill Pipe Length 11,194' I.D. 3.5"
Packer Depth(s) 11,506 & 11,510 Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure - P.S.I.G. at Surface
Recovery: Cu. Ft. Gas -
cc. Oil -
cc. Water -
cc. Mud 2500
Tot. Liquid cc. 2500
Gravity - °API @ - °F.
Gas/Oil Ratio - cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	- @ - °F.	- ppm
Recovery Mud	1.0 @ 70 °F.	
Recovery Mud Filtrate	1.0 @ 68 °F.	1025 ppm
Mud Pit Sample	0.9 @ 60 °F.	
Mud Pit Sample Filtrate	0.8 @ 60 °F.	1050 ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL. PPM
DRILLING MUD	10486	124.78				@ °F.	.9 @ 62 °F.	1,050
WATER CUSHION	1000	10.20				@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks: UNSUCCESSFUL TEST; PACKER SEAT FAILURE.

Address 332 PACIFIC WESTERN LIFE BUILDING; CASPER, WYOMING 82601

Company AMERICAN QUASAR PETROLEUM COMPANY Field WILD CAT
Well HOG BACK RIDGE #28-1 Location SEC. 28, T-13N, R-7E
Test Interval 11,510' TO 11,705' (UNSUCCESSFUL) Test # 8 Date 1-22-78

County RICH State UTAH
Technician RICHARDS (VERNAL) Test Approved By MR. WALT BOWEN

Field Report No. 09700 D
No. Reports Requested 30 (14x)

JOHNSTON Schlumberger

BOTTOM HOLE PRESSURE AND TIME DATA

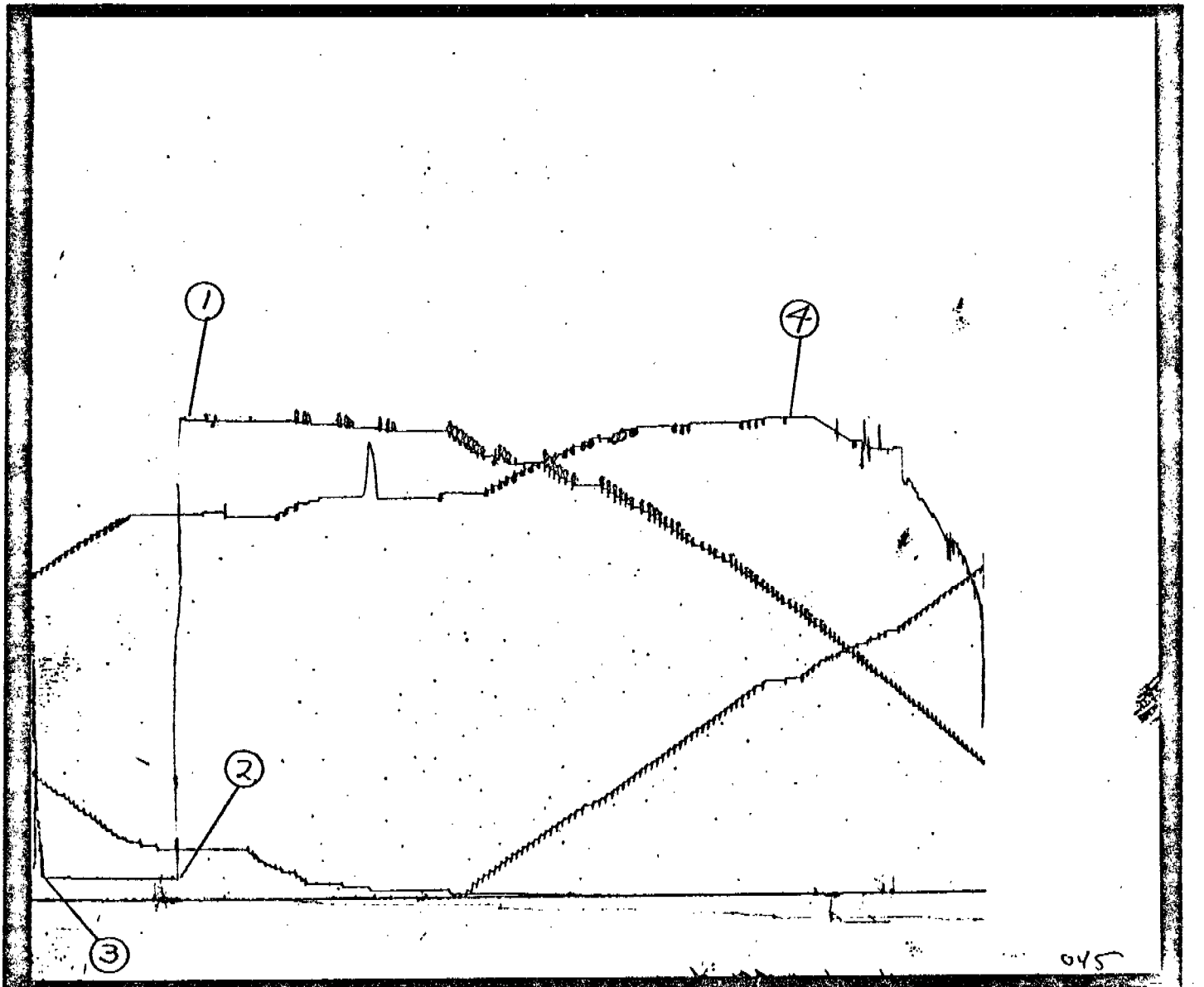
INSTRUMENT NO.: J-045 CAPACITY (P.S.I.): 9000# DEPTH 11,512 FT.

PORT OPENING: INSIDE BOTTOM HOLE TEMP.: 178°F. FIELD REPORT NO. 09700 D

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	5442.3		
INITIAL FLOW (1)	2	252.6		
INITIAL FLOW (2)	3	269.1	40	
INITIAL SHUT-IN				
SECOND FLOW (1)				
SECOND FLOW (2)				
SECOND SHUT-IN				
FINAL FLOW (1)				
FINAL FLOW (2)				
FINAL SHUT-IN				
FINAL HYDROSTATIC MUD	4	5401.9		

REMARKS: UNSUCCESSFUL TEST.

30+



JOHNSTON Schlumberger

BOTTOM HOLE PRESSURE AND TIME DATA

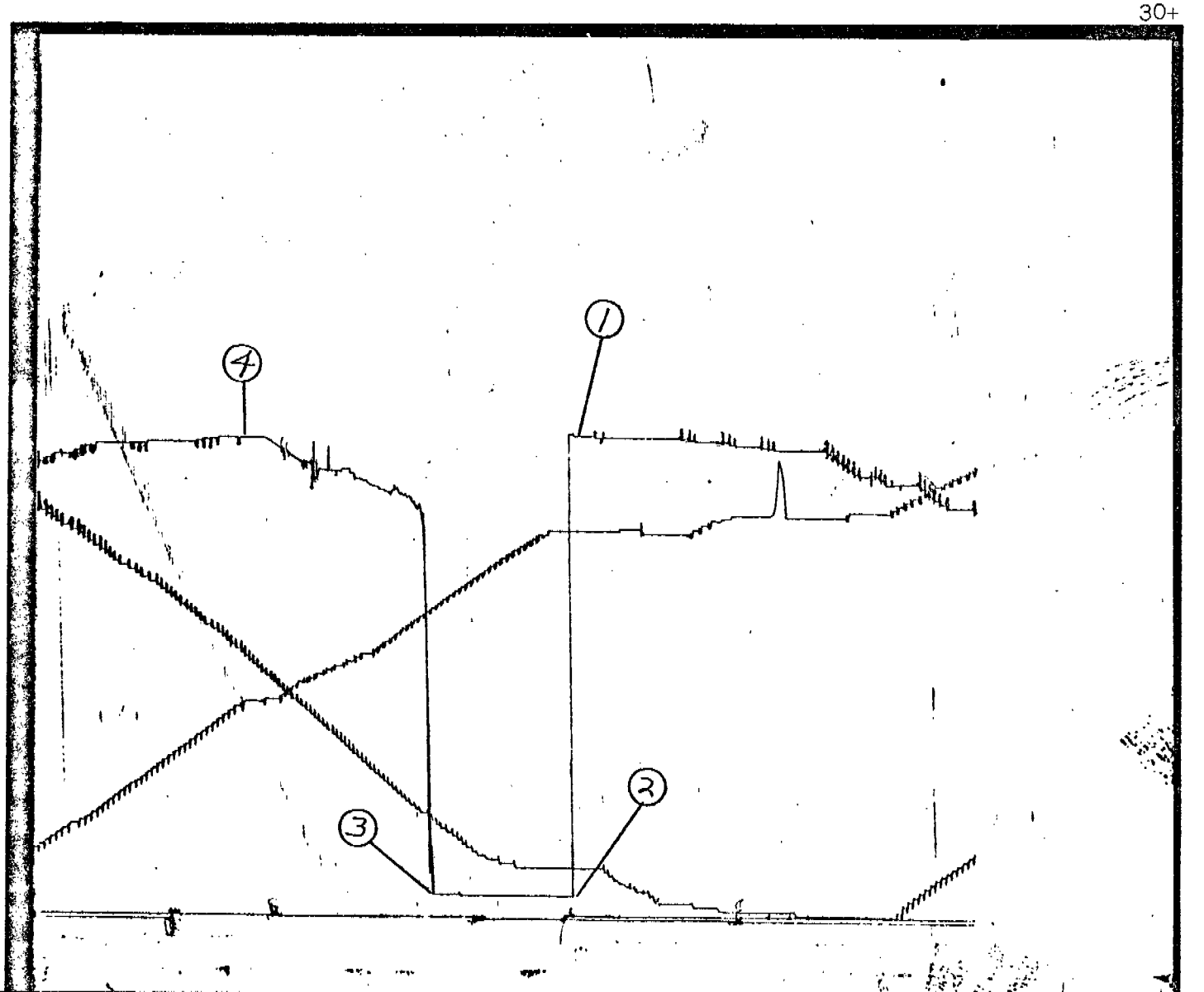
INSTRUMENT NO.: J-533 CAPACITY (P.S.I.): 9000# DEPTH 11,518 FT.

PORT OPENING: OUTSIDE BOTTOM HOLE TEMP.: 178°F. FIELD REPORT NO. 09700 D

DESCRIPTION	LABELED POINTS	PRESSURE (P.S.I.)	GIVEN TIME	COMPUTED TIME
INITIAL HYDROSTATIC MUD	1	5435.0		
INITIAL FLOW (1)	2	263.9		
INITIAL FLOW (2)	3	273.0	40	
INITIAL SHUT-IN				
SECOND FLOW (1)				
SECOND FLOW (2)				
SECOND SHUT-IN				
FINAL FLOW (1)				
FINAL FLOW (2)				
FINAL SHUT-IN				
FINAL HYDROSTATIC MUD	4	5400.9		

REMARKS: UNSUCCESSFUL TEST.

30+



CIRCULATE TO:
[illegible] ☐
[illegible] ☐
[illegible] ☐
[illegible] ASSISTANT ☑
ALL ☐
RETURN TO Kathy D.
FOR FILING

FEBRUARY 26, 1978

MEMO TO FILE:

Re: American Quasar
Well No. Hogback Ridge #28-1
NW SE Sec. 28 T. 13N., R. 7E.
Rich County, Utah

Tentative approval was given the evening of February 26, 1978 to plug and abandon this well. Logs have not yet been run, so the preliminary approval concerned only isolation of zones.

100'	across top Phosphoria and bottom of Thaymes
100'	across top Thaymes and bottom of Woodside
100'	top of Woodside and bottom of Ankareh

300 Sacks underneath cement retainer set at 5,300'

100'	Balancing plug at 2,500'
10'	10' - surface

This program may be modified if warranted upon log examination.

PATRICK L. DRISCOLL
CHIEF PETROLEUM ENGINEER

[illegible] UTAH
[illegible] URAL RESOURCES
[illegible] AND MINING
[illegible] TEMPLE
[illegible] UTAH 84116

PLD/ksw

Phone
522-1206 Area 303

LYNES, INC

Box 712
Sterling, Colo. 80751

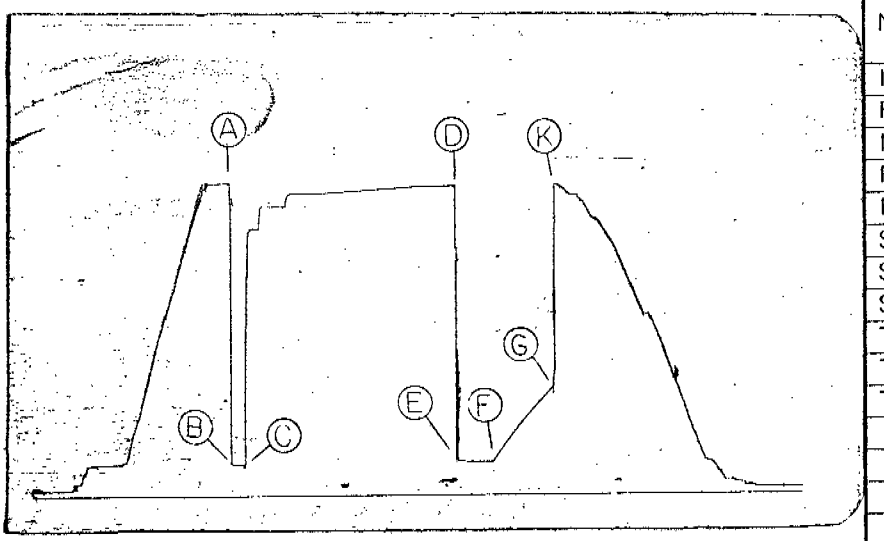
Contractor	Viersen & Cochran	Top Choke	1/4"	Flow No. 1	20 Min.
Rig No.	7	Bottom Choke	3/4"	Shut-in No. 1	400 Min.
Spot	NW-SE	Size Hole	9 7/8"	Flow No. 2	60 Min.
Sec.	28	Size Rat Hole	--	Shut-in No. 2	120 Min.
Twp.	13 N	Size & Wt. D. P.	4 1/2" 16.60	Flow No. 3	-- Min.
Rng.	7 E	Size Wt. Pipe	--	Shut-in No. 3	-- Min.
Field	Wildcat	I. D. of D. C.	2 1/4"		
County	Rich	Length of D. C.	208'		
State	Utah	Total Depth	12200'	Bottom Hole Temp.	175°F
Elevation	6730' "K.B."	Interval Tested	11684-11772'	Mud Weight	8.9
Formation	--	Type of Test	Conventional Straddle	Gravity	--
				Viscosity	52

Tool opened @ 11:05 PM.

Inside Recorder

PRD Make Kuster K-3
No. 4868 Cap. 8200 @ 11715'

Press		Corrected
Initial Hydrostatic	A	5442
Final Hydrostatic	K	5380
Initial Flow	B	472
Final Initial Flow	C	448
Initial Shut-in	D	5373*
Second Initial Flow	E	497
Second Final Flow	F	472
Second Shut-in	G	1794
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--



Lynes Dist.: Rock Springs, Wy.
Our Tester: Herman Coomer
Witnessed By: Walt Bowen

Did Well Flow – Gas No Oil No Water No

RECOVERY IN PIPE: 1000' Total Fluid
790' Water = 11.22 bbl.
210' Drilling mud = 1.05 bbl.

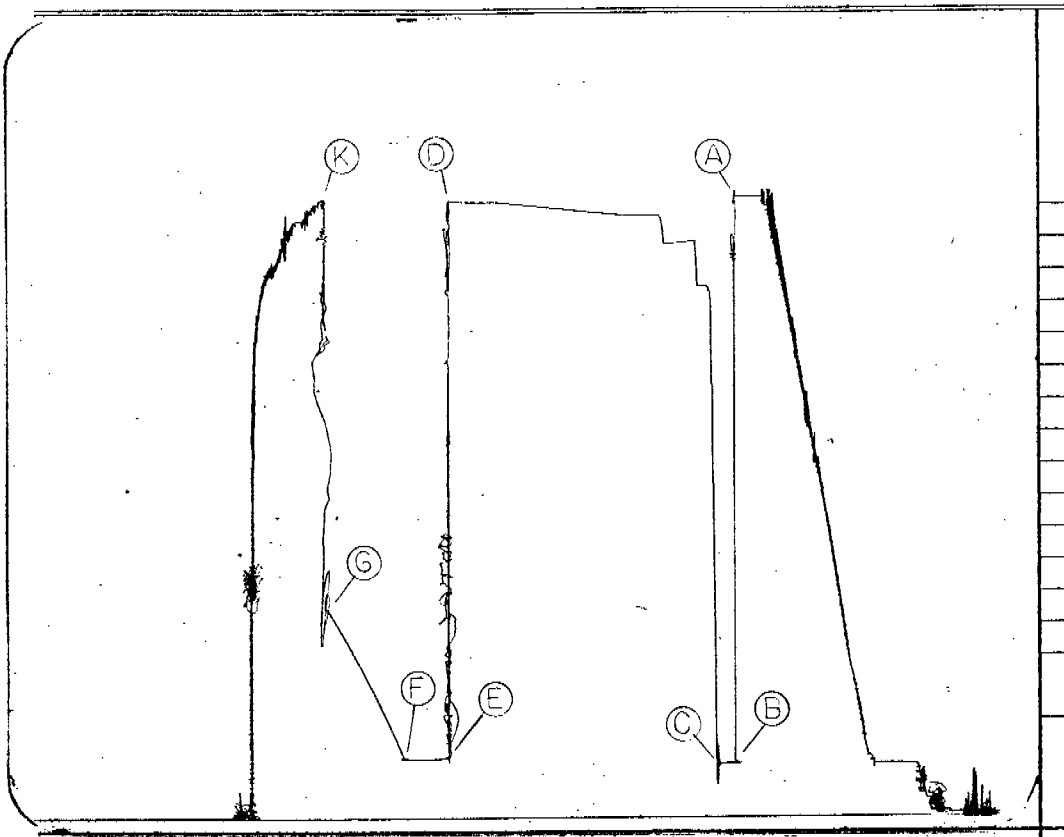
REMARKS:
1st Flow - Tool opened with a weak blow and remained thru flow period.
2nd Flow - Tool opened with a weak blow and remained thru flow period.
---
* Charts indicate tool possibly slid during the first shut-in period, therefore that pressure is considered false.

Operator: American Quasar Petroleum Co.
Address: See Distribution
Well Name and No.: Hogback Ridge #28-1
Ticket No.: 10217
Date: 2-25-78
DST No.: 13
No. Final Copies: 26

Form 1

LYNES, INC.

Operator American Quasar Petroleum Co. Lease & No. Hogback Ridge #28-1 DST No. 13

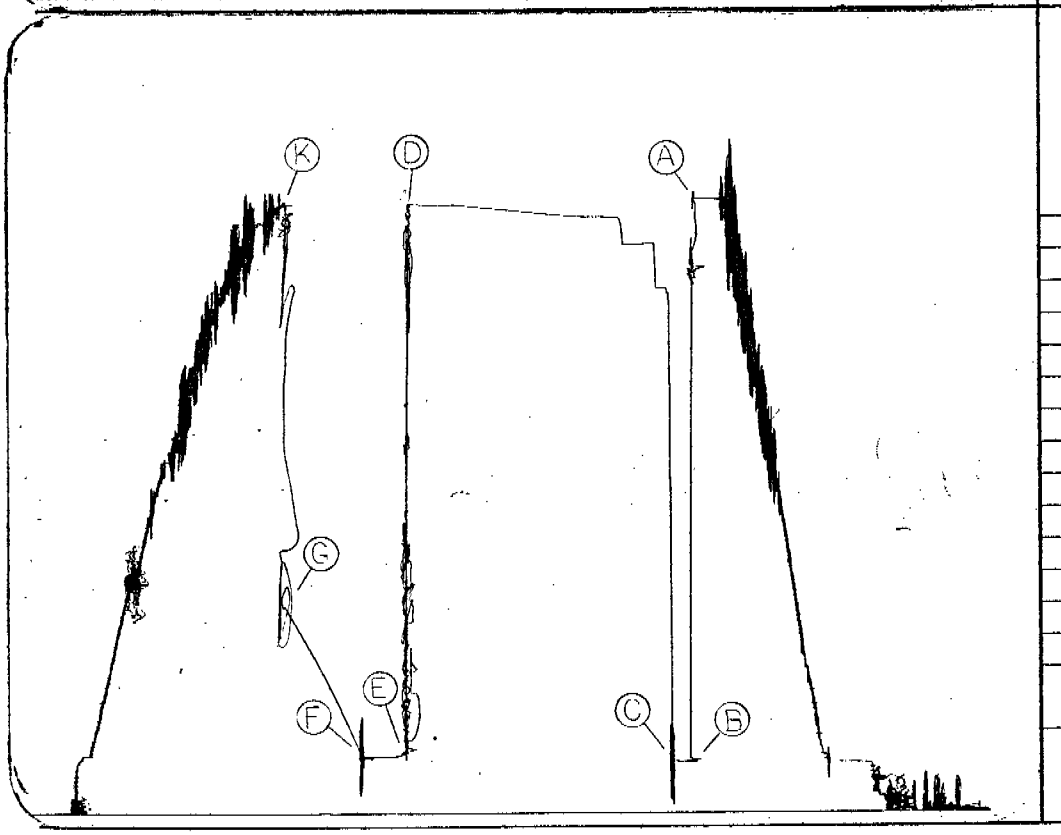


Inside Recorder

PRD Make Kuster AK-1

No. 7424 Cap. 6750 @ 11705'

Press		Corrected
Initial Hydrostatic	A	5448
Final Hydrostatic	K	5383
Initial Flow	B	446
Final Initial Flow	C	444
Initial Shut-in	D	5381
Second Initial Flow	E	515
Second Final Flow	F	496
Second Shut-in	G	1820
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		



Inside Recorder

PRD Make Kuster AK-1

No. 7425 Cap. 6750 @ 11710'

Press		Corrected
Initial Hydrostatic	A	5451
Final Hydrostatic	K	5390
Initial Flow	B	441
Final Initial Flow	C	436
Initial Shut-in	D	5363
Second Initial Flow	E	481
Second Final Flow	F	467
Second Shut-in	G	1789
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		

Form 3

LYNES, INC.

Operator American Quasar Petroleum Co. Lease & No. Hogback Ridge #28-1 DST No. 13

Recorder No. 4868 @ 11715'

Initial Shut-In

0	min.	448	psig.
40	"	5027	"
80	"	5027	"
120	"	5253	"
160	"	5264	"
200	"	5288	"
240	"	5308	"
280	"	5332	"
320	"	5356	"
360	"	5366	"
400	"	5373	"

Final Shut-In

0	min.	472	psig.
12	"	628	"
24	"	783	"
36	"	924	"
48	"	1062	"
60	"	1196	"
72	"	1323	"
84	"	1447	"
96	"	1567	"
108	"	1680	"
120	"	1794	"

Form 2

LYNES, INC.

Fluid Sample Report

Date 2-25-78 Ticket No. 10217

Company American Quasar Petroleum Co DST No. 13

Well Name & No. Hogback Ridge #28-1 State Utah

County Rich Test Interval 11684-11772'

Pressure in Sampler Could not obtain pressure. PSIG BHT 175 °F

Total Volume of Sampler: 2100 cc.

Total Volume of Sample: 1800 cc.

Oil: None cc.

Water: None cc.

Mud: 1800 cc.

Gas: None cu. ft.

Other: None

R.W. 1.0 @ 68°F = 6500 ppm. chl.

Resistivity

Make Up Water 10.0 @ 110°F of Chloride Content 350 ppm.

Mud Pit Sample 1.4 @ 66°F of Chloride Content 4500 ppm.

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

Where was sample drained On location.

Remarks: Recovery - Top Sample - R.W. 10.0 @ 78°F = 475 ppm. chl.

Middle Sample - R.W. 10.0 @ 78°F = 475 ppm. chl.

Bottom Sample - R.W. 1.0 @ 72°F = 5800 ppm. chl.

Form 5

LYNES, INC.

Distribution of Final Reports

Operator American Quasar Petroleum Co. Well Name and No. Hogback Ridge #28-1

Original: American Quasar Pet. Co., 707 United Bank Bldg., Denver, Colorado 80202

1 copy: American Quasar Pet. Co. of New Mexico, 332 Pacific Western Life Bldg., Casper, Wyoming 82601

3 copies: American Quasar Pet. Co., 2500 Ft. Worth National Bank Building, Ft. Worth Texas 76102

1 copy: American Quasar Pet. Co. of New Mexico, 1000 Midland National Bank Tower, Midland Tx. 79701

2 copies: Energy Resource Group, Inc., Box 1407, Denver, Colo. 80201

2 copies: Gulf Energy & Minerals Co. U.S., P.O. Box 2619, Casper, Wy. 82602

2 copies: U.S. Geological Survey, 309 Federal Bldg., 800 Truxtun Ave., Bakersfield, Ca. 93301

1 copy: Patrick Pet. Corp. of Michican, Suite 1665, Colo. National Bank Building, Denver, Co. 80201

3 copies: City Service Oil Co., 900 Colo. St. Bank Building, Denver, Colo. 80202

3 copies: Ram Petroleum, Inc., 90 Toronto, Ontario, Canada M582Y4

2 copies: Utah Oil & Gas Conservation Commission, 1588 W.N. Temple, Salt Lake City, Utah 84116

1 copy: Louisiana Land & Exploration, Western Division, 1500 Denver Club Building, Denver, Co. 80201

3 copies: W.R. Grace, 2225 L.B.J. Freeway, Dallas, Texas 75234

1 copy: Patrick Petroleum Corp. of Michican, 744 W. Michican Ave., Jackson, Mich. 49204

Form 6

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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

5. LEASE DESIGNATION AND SERIAL NO.: Fee

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.)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL ☐ GAS WELL ☐ OTHER Dry

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: American Quasar Petroleum Co. of New Mexico

8. FARM OR LEASE NAME: Hogback Ridge

3. ADDRESS OF OPERATOR: 204 Superior Bldg., Casper, Wyoming 82601

9. WELL NO.: 28-1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 3300' FNL & 1962' FEL, Sec. 28 (NW¼ SE¼)

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 28-13N-7E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6708'

12. COUNTY OR PARISH: Rich

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	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☒	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
(Other)	☐						

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

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

Pursuant to verbal approval from Pat Driscoll on February 26, 1978, this well will be plugged as follows: 52' of 20" csg. - cement to surface; 520' of 16" csg. - cement to surface; 5420' of 10-3/4" csg. - cement to 1695'. Plugs set as follows -

11600-11500' - 50 sx Class G
9750- 9650' - 50 sx Class G
6250- 6150' - 50 sx Class G
5500- 5342' - 80 sx Class G
5342' - EZ-Drill Packer
5340- 5300' - 20 sx Class G
10 sx Class G @ surf.
100 sx Class G in annulus - squeezed between 10-3/4" & 16" csg.

Electric Log Tops:

Twin Creek	980'
Nugget	3440'
Ankareh	4650'
Thaynes	6224'
Woodside	9692'
Dinwoody	10468'
Phosphoria	11598'
Weber	12075'

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
DATE: March 3, 1978
BY: P. L. Driscoll

RECEIVED MAR 2 1978 DIVISION OF OIL, GAS, & MINING

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

SIGNED John F. Sindelar — TITLE Div. Drlg. Supt. — DATE 2/28/78

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL ☐ GAS WELL ☐ OTHER: Dry

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: American Quasar Petroleum Co. of New Mexico

8. FARM OR LEASE NAME: Hogback Ridge

3. ADDRESS OF OPERATOR: 204 Superior Bldg., Casper, Wyoming 82601

9. WELL NO.: 28-1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 3300' FNL & 1962' FEL, Sec. 28 (NW¼ SE¼)

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 28-13N-7E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6708'

12. COUNTY OR PARISH: Rich

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	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	X
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
(Other)	☐						

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

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

RECEIVED MAR 13 1978 DIVISION OF OIL, GAS, & MINING

This well was plugged as follows:

52' of 20" csg. - cement to surface
520' of 16" csg. - cement to surface
5420' of 10-3/4" csg. - cement to 1695'

Class "G" plugs as follows:

11600-11500' -	50 sx
9750-9650'-	50 sx
6250-6150'-	50 sx
5500-5342'-	80 sx
5342' -	EZ Drill Packer
5340-5300'-	20 sx
Surface -	10 sx

100 sx in annulus - squeezed between 10-3/4" & 16" csg.

APPROVED BY DIVISION OF OIL, GAS, AND MINING
DATE: Feb 14, 1978
BY: P. L. Arnold

Job complete February 28, 1978.

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

SIGNED: John F. Sindelar TITLE: Div. Drlg. Supt. DATE: 3/9/78

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGC-3

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

10

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

RECEIVED MAR 28 1978 DIVISION OF OIL, GAS, & MINING

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: American Quasar Petroleum Co. of New Mexico

3. ADDRESS OF OPERATOR: 707 United Bank Tower, 1700 Broadway, Denver, Colo. 80290

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements.*)
At surface: 3300' FNL, 1962' FEL (NW SE)
At top prod. interval reported below
At total depth: 3186' FNL & 3128' FEL

5. LEASE DESIGNATION AND SERIAL NO.: P

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Fee

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Hogback Ridge

9. WELL NO.: 28-1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: 28-13N-7E

12. COUNTY OR PARISH: Rich

13. STATE: Utah

14. PERMIT NO.: 43-033-30010 DATE ISSUED: 7-8-77

15. DATE SPUDDED: 7-28-77

16. DATE T.D. REACHED: 2-22-78

17. DATE COMPL. (*Ready to prod.*): P&A 2-28-78

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*: 6706' GR

19. ELEV. CASINGHEAD: -----

20. TOTAL DEPTH, MD & TVD: 12,200

21. PLUG, BACK T.D., MD & TVD: -----

22. IF MULTIPLE COMPL., HOW MANY*: -----

23. INTERVALS DRILLED BY: → ROTARY TOOLS: 0-TD CABLE TOOLS: ----

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: None

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Dual Laterolog, BHC Sonic-GR, Dipmeter, Caliper, CN-FD

27. WAS WELL CORED: No

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
16"	75#	542	20"	452 sx	None
10 3/4"	45.5#	5469	12¼"	400 sx	None

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*): ----

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

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

DATE OF TEST	HOURS TESTED	CHOKE SIZE	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 [signature] TITLE Division Operations Manager DATE 3-23-78

*(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.)

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.
	SEE	ATTACHMENT	

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Twin Creek	957	
Nugget	3441	
Ankareh	4650	
Thaynes	6224	
Woodside	9692	
Dinwoody	10468	
Phosphoria	11598	
Wells	12035	
TD	12200	

ATTACHMENT
COMPLETION REPORT

HOGBACK RIDGE
28-1

37. DST #1 2000/2078' (Twin Creek) TO 24" w/fair blow decr to dead in 8", SI 60"; TO 60" dead thruout period; SI 120"; rec 95' drlg mud v/sli trace gas. IHP-997, IFP-78/78, ISIP-517, FFP-95/86, FSIP-103, FHP-988

DST #2 9460/9599' (Woodside) w/no WC. TO 10" w/v/wk blow thruout; SI 50", TO 70" w/v wk blow; SI 120"; rec 190' drlg mud no gas, NS's. IHP-4442, IFP-90/105, ISIP-150, FFP-120/135, FSIP-135, FHP-4442

DST #3 10485/10570' (Dinwoody) TO 10" w/strong blow thruout, SI 60", TO 60" w/strong blow thruout, no GTS, SI 120"; rec 370' drlg mud. IHP-4893, IFP-88/131, ISIP-919, FFP-88/109, FSIP-591, FHP-4893

DST #4 10575/10666' (Dinwoody) w/no WC, TO 10" w/strong blow, SI 60", TO 60" w/strong blow, GTS in 5" into 2nd open, 3 psi on ¼" ck, SI 120"; rec 1245' G/C/W + 180' G/C/M, IHP-4943, IFP-327/377, ISIP-4249, FFP-302/605, FSIP-4224, FHP-4943

DST #5 10940/10010' (Dinwoody) Misrun

DST #6 10920/11010' (Dinwoody) Misrun

DST #7 10930/11010' (Dinwoody) Misrun

DST #8 11510/11705' (Phosphoria) Misrun

DST #9 11530/11705 (Phosphoria) w/1000' ammonia WC, TO 10" w/wk blow, SI 60", TO 60" w/wk blow, SI 120'; rec 90' drlg mud, NS's. IHP-5472, IFP-449/449, ISIP-3134, FFP-449/449, FSIP-3986, FHP-5436

DST #10 11715/11915' (Phosphoria) Pkrs failed

DST #11 11730/11915' (Phosphoria) Prks failed

DST #12 11685/11915' (Phosphoria) Pkrs failed

DST #13 11690/11772' (Phosphoria) TO 20" w/wk blow, SI 6 hrs, TO 60" w/ wk blow throut open period, SI 120"; rec 210' drlg mud, NS's. IHP-5444, IFP-449/449, ISIP-5394, FFP-518/501, FSIP-1887, FHP-5394

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL ☐ GAS WELL ☐ OTHER (Dry)

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: American Quasar Petroleum Co.

8. FARM OR LEASE NAME: Hogback Ridge

3. ADDRESS OF OPERATOR: 204 Superior Bldg., Casper, Wyo. 82601

9. WELL NO.: 28-1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 3300' FNL & 1962' FEL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 28-18N-7E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6708' GR

12. COUNTY OR PARISH: Rich

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	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	X
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
(Other)	☐						

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

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

This location has been rehabilitated, reseeded according to landowner's specifications, and is ready for inspection.

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 11/9/78

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side