FILE NOTATIONS

Entered in NID File .....✓.....
Location Map Pinned .....
Card Indexed .....✓.....

Checked by Chief .....
Approval Letter .....
Disapproval Letter .....

COMPLETION DATA:

[illegible] Completed .....
..... TA.....
GW..... OS..... PA.....

Location Inspected .....
Bond released
State or Fee Land .....

LOGS FILED

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

AMERICAN QUASAR PETROLEUM CO.
330 PACIFIC WESTERN LIFE BUILDING / CASPER / WYOMING 82601 U.S.A. / TELEPHONE (307) 265-3362

OUR NEW ADDRESS:
204 SUPERIOR BLDG.
201 NO. WOLCOTT

September 29, 1978

Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, Utah 84116

Attention: Patrick Driscoll

Re: Minnow Hill Unit #29-1
NE¼ Section 29-9N-8E
Rich County, Utah

Gentlemen:

Attached is the Application for Permit to Drill with surveyor's plat for the captioned well. Prompt approval of the APD would be greatly appreciated as we plan to start operations very soon.

If you have any questions, please contact me.

Thank you.

Very truly yours,

Kary J. Kaltenbacher

Kary J. Kaltenbacher
Division Drilling Engineer

KJK:bh
Enc's

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

5. Lease Designation and Serial No.: Fee

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Farm or Lease Name: Minnow Hill Unit

9. Well No.: 29-1

10. ~~Field and Pool, or~~ Wildcat: Wildcat

11. ~~Sec., T.,~~ R., M., or Blk. and Survey or Area: 29-9N-8E

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: American Quasar Petroleum Co.

3. Address of Operator: 204 Superior Bldg., Casper, Wyoming 82601

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface: 658.8' FEL & 573.3' FNL NE NE
At proposed prod. zone: Same

14. Distance in miles and direction from nearest town or post office*: 5 miles southeast of Woodruff, Utah

12. County: Rich 13. State: Utah

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any): 573.3'

16. No. of acres in lease: 3673.44

17. No. of acres assigned to this well: --

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.: None

19. Proposed depth: 17,700'

20. Rotary or cable tools: Rotary

21. Elevations (Show whether DF, RT, GR, etc.): 6685' GR

22. Approx. date work will start*: 10/3/78

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
17½"	13-3/8"	54.5#	1,000'	1000 sx (to surface)
12¼"	9-5/8"	40&43.5#	9,800'	600 sx
8½"	7"	23,26&29#	17,700'	500 sx

Drill 17½" hole to 1000'±, using native mud.
Run & cement 13-3/8" surface casing.
Nipple up 13-5/8", 5000 psi WP doublegate hydraulic BOP & Hydril. Pressure-test stack.
Drill 12¼" hole to 9800'± w/low solids, dispersed mud.
Run D.L.L., Int. Sonic-GR-Caliper, & C.N.L. Logs.
Run & cement 9-5/8" casing. Re-nipple up BOP stack. Pressure-test stack.
Drill 8½" hole to 17,700'± w/low solids, dispersed mud.
Run D.L.L., Int. Sonic-GR-Caliper, & C.N.L. Logs.
Run production casing, if required.

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.

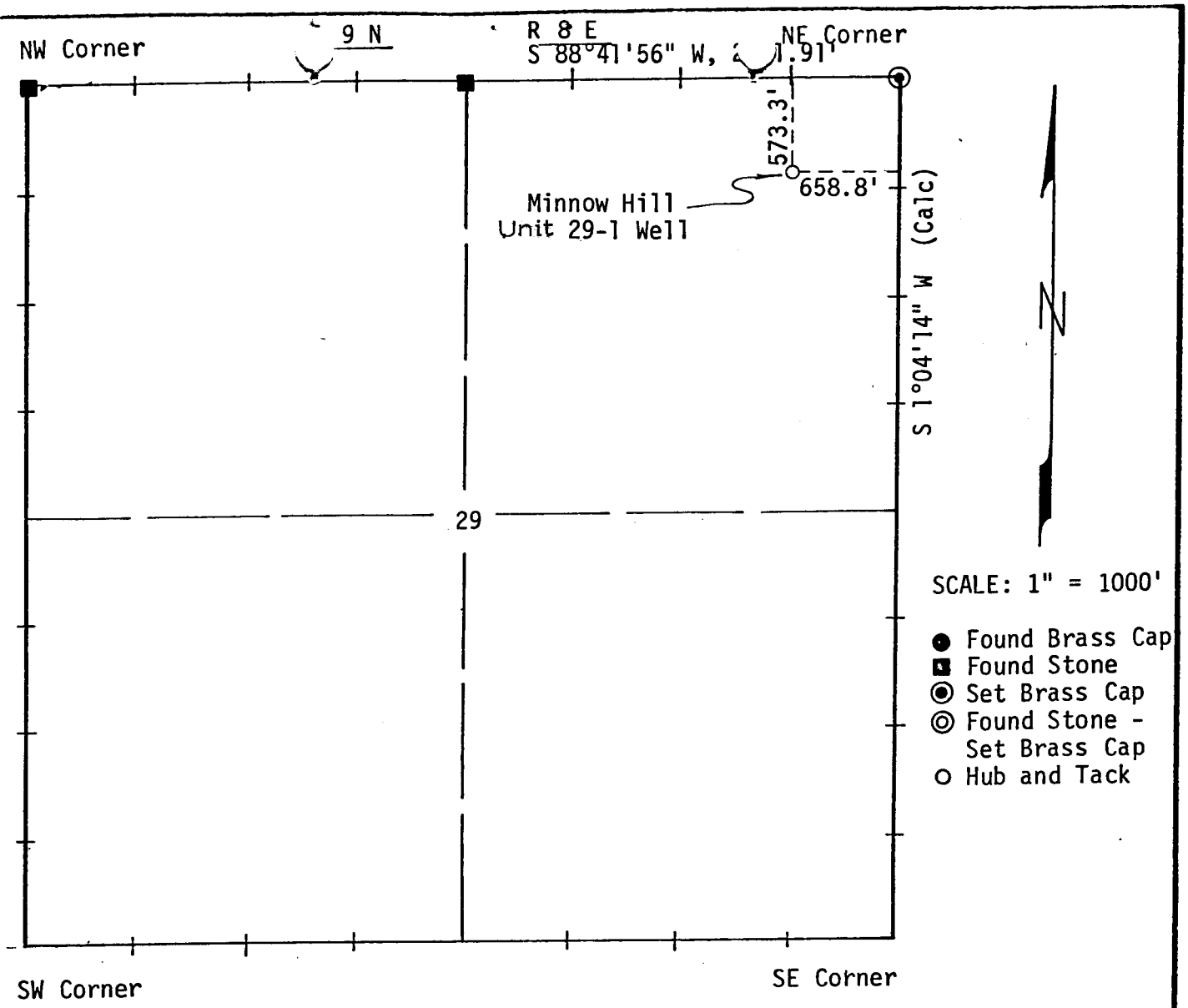
Signed: Kary J. Kaltenbacher Title: Division Drilling Engr. Date: 9/29/78
Kary J. Kaltenbacher

(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



I, John A. Proffit of Evanston, Wyoming certify that in accordance with a request from Kary Kaltenbacher of Casper, Wyoming for American Quasar Petroleum I made a survey on the 25, 26, 27, day of September, 19 78 for Location and Elevation of the Minnow Hill Unit 29-1 Well as shown on the above map, the wellsite is in the NE¼NE¼ of Section 29, Township 9 North, Range 8 East of the Salt Lake Base Meridian, Rich County, State of Utah, Elevation is 6685 Feet top of hub Datum U.S.G.S. Quadrangle - Neponset Reservoir NE, Utah-Wyoming Spot Elev. 6661 NE¼NW¼, Sec. 29, T9N, R8E

Reference point	East 200'	Elev. top of pin	6674.4'
Reference point	East 300'	"	6676.2'
Reference point	South 200'	"	6657.7'
Reference point	South 300'	"	6647.4'

John A. Proffit 9/28/78

JOHN A. PROFFIT UTAH R.L.S. NO. 2860

UINTA ENGINEERING & SURVEYING, INC.
808 MAIN STREET, EVANSTON, WYOMING

DATE: 9-28-78
JOB NO.: 78-14-32

STATE OF UTAH
DIVISION OF OIL, GAS, AND MINING

** FILE NOTATIONS **

Date: Oct. 3.

Operator: American Quasar

Well No: Minnow Hill 29-1

Location: Sec. 29 T. 9N R. 8E County: Rich

File Prepared: / / Entered on N.I.D.: / /

Card Indexed: / / Completion Sheet: / /

API Number: 43-033-30018

CHECKED BY:

Administrative Assistant: AW

Remarks: OK

Petroleum Engineer: ok PB

Remarks:

Director: 7

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required: / OK / Survey Plat Required: / /

Order No. _____ Surface Casing Change to _____ / /

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

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

Other:

/ ✓ / Letter Written/~~Approved~~

SCOTT M. MATHESON
Governor

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

CLEON B. FEIGHT
Director

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

OIL, GAS, AND MINING BOARD

I. DANIEL STEWART
Chairman

CHARLES R. HENDERSON
JOHN L. BELL
THADIS W. BOX
C. RAY JUVELIN

October 3, 1978

American Quasar Petroleum Company
204 Superior Building
Casper, Wyoming 82601

Re: Well No's:
Minnow Hill 29-1,
Sec. 29, T. 9 N, R. 8 E,
Federal 18-1,
Sec. 18, T. 9 N, R. 6 E,
Rich County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to wells is hereby granted in accordance with Rule C-3 and Rule C-3(c) respectively.

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

PATRICK L. DRISCOLL	or	CLEON B. FEIGHT
HOME: 582-7247		HOME: 466-4455
OFFICE: 533-5771		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 numbers assigned to these wells are:

#29-1: 43-033-30018 #18-1: 43-033-30019

Very truly yours,

CLEON B. FEIGHT
Director

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.)

1. OIL WELL ☐ GAS WELL ☐ OTHER (Drilling)

2. NAME OF OPERATOR: American Quasar Petroleum Co.

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: —

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Minnow Hill Unit

9. WELL NO.: 29-1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

12. COUNTY OR PARISH: Rich

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' GR

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) Monthly Report of Operations			X
(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 is a Monthly Report of Operations for period 10/6-31/78 (see attached chronological report).

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 11/14/78

(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 (Drilling)

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: American Quasar Petroleum Co.

8. FARM OR LEASE NAME: Minnow Hill Unit

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

9. WELL NO.: 29-1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' 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:

TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐
REPAIR WELL	☐	CHANGE PLANS	☐
(Other)			☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
(Other) Monthly Report of Operations			☒

(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 is a Monthly Report of Operations for period 11/1-30/78 (see attached chronological report).

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 12/8/78

(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.)

1. OIL WELL ☐ GAS WELL ☐ OTHER (Drilling)

2. NAME OF OPERATOR: American Quasar Petroleum Co.

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Minnow Hill Unit

9. WELL NO.: 29-1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

12. COUNTY OR PARISH: Rich

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' GR

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.)*

This is a Monthly Report of Operations for period 12/1-31/78 (see attached chronological report).

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 1/10/79

(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.)

1. OIL WELL ☐ GAS WELL ☐ OTHER (Drilling)

2. NAME OF OPERATOR: American Quasar Petroleum Co.

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Minnow Hill Unit

9. WELL NO.: 29-1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

12. COUNTY OR PARISH: Rich

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' GR

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) Monthly Report of Operations			X
(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 is a Monthly Report of Operations for period 1/1-31/79 (see attached chronological report).

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 1/31/79

(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.)

RECEIVED MAR 2 1979 DIVISION OF OIL, GAS, & MINING

1. OIL WELL ☐ GAS WELL ☐ OTHER (Drilling)

2. NAME OF OPERATOR: American Quasar Petroleum Co.

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Minnow Hill Unit

9. WELL NO.: 29-1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' 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*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) Monthly Report of Operations			☒
(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 is a Monthly Report of Operations for period 2/1-28/79 (see attached chronological report).

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 2/28/79

(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 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: Drilling

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: American Quasar Petroleum Co.

8. FARM OR LEASE NAME: Minnow Hill Unit

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

9. WELL NO.: 29-1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' 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:

TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐
REPAIR WELL	☐	CHANGE PLANS	☐
(Other)			☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
(Other) Monthly Report of Operations			X

(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 is a Monthly Report of Operations for period 3/1-31/79 (see attached chronological report).

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 4/2/79

(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 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 Drilling

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: American Quasar Petroleum Co.

8. FARM OR LEASE NAME: Minnow Hill Unit

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

9. WELL NO.: 29-1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' 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*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) Monthly Report of Operations			X
(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 is a Monthly Report of Operations for period 4/1-30/79 (see attached chronological report).

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 5/7/79

(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.)

1. OIL WELL ☐ GAS WELL ☐ OTHER Drilling

2. NAME OF OPERATOR: American Quasar Petroleum Co.

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Minnow Hill Unit

9. WELL NO.: 29-1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' 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*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) Monthly Report of Operations			☒
(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 is a Monthly Report of Operations for period 5/1-31/79 (see attached chronological report).

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 5/31/79

(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

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: Drilling

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: American Quasar Petroleum Co.

8. FARM OR LEASE NAME: Minnow Hill Unit

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

9. WELL NO.: 29-1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' 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*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) Monthly Report of Operations			X
(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 is a Monthly Report of Operations for period 6/1-30/79 (see attached chronological report).

RECEIVED JUL 13 1979 DIVISION OF OIL, GAS, & MINING

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 7/10/79

John F. Sindelar

(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

SUB[illegible] IN TRIPLICATE*
(O[illegible] 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.)

1. OIL WELL ☐ GAS WELL ☐ OTHER Dry

2. NAME OF OPERATOR: American Quasar Petroleum Co.

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Minnow Hill Unit

9. WELL NO.: 29-1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' GR

12. COUNTY: 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*	X	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.)*

Per verbal approval on July 17, 1979 from Mr. Mike Minder, Class "G" plugs will be set as follows:

14,400-14,500' -	50 sx	
13,300-13,400' -	50 sx	
12,350-12,450' -	50 sx	
9,950-10,050' -	50 sx	
8,900- 9,000' -	50 sx	
7,700- 7,800' -	50 sx	(half in & half out of 9-5/8" csg.)
6,900- 7,000' -	50 sx	
Surface -	20 sx	

9.2 ppg mud

(See reverse side.)

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
DATE: 7-23-79
BY: M. J. Minder

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

SIGNED Karl J. Kaltenbacher TITLE Division Drlg. Engr. DATE 7/17/79

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law 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.

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 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

Set 20" conductor csg. @ 60' - cmt. to surface.
Set 13-3/8" csg. @ 986' KB - cmt. to surface.
Set 9-5/8" csg. @ 7745' KB - cmt. w/2575 sx.
Drld. 8½" hole to 15,201'.

Electric Log Tops:

Twin Creek	7073'
Nugget	8960'
Ankareh	10012'
Thaynes	11068'
Woodside	12388'
Phosphoria	13378'
Wells	13794'
Amsden	14445'
Madison	14850'
T.D.	15201'

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.)

RECEIVED JUL 25 1979 DIVISION OF OIL, GAS, & MINING

1. OIL WELL ☐ GAS WELL ☐ OTHER Dry

2. NAME OF OPERATOR: American Quasar Petroleum Co.

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Minnow Hill Unit

9. WELL NO.: 29-1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' GR

12. COUNTY: 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.)*

Per verbal approval on July 17, 1979 from Mr. Mike Minder, Class "G" plugs were set as follows:

14,400-14,500' -	50 sx	
13,300-13,400' -	50 sx	
12,350-12,450' -	50 sx	
9,950-10,050' -	50 sx	
8,900- 9,000' -	50 sx	
EZ-Drill BP @ -	7693'	
7,693- 7,793' -	50 sx	- half in & half out of 9-5/8" csg.
6,900- 7,000' -	50 sx	
Surface -	20 sx	- w/dry hole marker

9.2 ppg mud between plugs.

Job complete 7/21/79.

(Also, see reverse side.)

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 7/23/79

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law 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.

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 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

Set 20" conductor csg. @ 60' - cmt. to surface.
Set 13-3/8" csg. @ 986' KB - cmt. to surface.
Set 9-5/8" csg. @ 7745' KB - cmt. w/2575 sx.
Drld. 8½" hole to 15,201'.

Electric Log Tops:

Twin Creek	7073'
Nugget	8960'
Ankareh	10012'
Thaynes	11068'
Woodside	12388'
Phosphoria	13378'
Wells	13794'
Amsden	14445'
Madison	14850'
T.D.	15201'

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.)

RECEIVED AUG 13 1979 DIVISION OF OIL, GAS, & MINING

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: Minnow Hill Unit

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

9. WELL NO.: 29-1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 658.8' FEL & 573.3' FNL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 29-9N-8E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6685' 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*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) Monthly Report of Operations			X
(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 is a Monthly Report of Operations for period 7/1-22/79 (see attached chronological report).

This well P&A 7/21/79.

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

SIGNED John F. Sindelar TITLE Division Drlg. Supt. DATE 8/10/79

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-3

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

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other

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

2. NAME OF OPERATOR: American Quasar Petroleum Co.

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

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

At surface: 658.8' FEL & 573.3' FNL

At top prod. interval reported below

At total depth

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME: Minnow Hill Unit

9. WELL NO.: 29-1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: 29-9N-8E

12. COUNTY OR PARISH: Rich

13. STATE: Utah

14. PERMIT NO.: 43-033-30018 DATE ISSUED: 10/3/78

15. DATE SPUDDED: 10/27/78

16. DATE T.D. REACHED: 7/13/79

17. DATE COMPL. (*Ready to prod.*): P&A 7/21/79

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*: 6685' GR

19. ELEV. CASINGHEAD: --

20. TOTAL DEPTH, MD & TVD: 15,201'

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: DIL, DLL, CNFD, BHC-Sonic, Frac.Ident.,Dipmeter,Computer Processed.

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
20"	94#	60'	30"	To surf	
13-3/8"	48#	986'	17½"	870 sx	None
9-5/8"	40,43.5& 47#	7745'	12¼"	2575 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*): None

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
None	

RECEIVED SEP 21 1979

33.* PRODUCTION

DATE FIRST PRODUCTION: | PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*): | WELL STATUS (*Producing or shut-in*): P&A 7/21/79

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: John F. Sindelar TITLE: Division Drlg. Supt. DATE: 9/18/79

*(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	7073'	
Nugget	8960'	
Ankareh	10012'	
Thaynes	11068'	
Woodside	12388'	
Phosphoria	13378'	
Wells	13794'	
Amsden	14445'	
Madison	14850'	
T.D.	15201'	

ATTACHMENT

COMPLETION REPORT - MINNOW HILL UNIT 29-1
Rich County, Utah

37. DST #1 - 924-1000' (Wasatch) - tool plugged--misrun.

DST #2 - 940-1000' (Wasatch) - w/no WC. Rec. 240' muddy wtr.- n.s. IHP 434; IFP 50/157; FSIP 312; FHP 428.

DST #3 - 7975-8119' (Twin Crk) . Pkr failed--misrun.

DST #4 - 7935-8119' (Twin Crk) - w/no WC. Rec. 1800' fluid consisting of 200' WCM + 1600' highly GC muddy wtr. IHP 3729; IFP 1188/1239; ISIP 3282; FFP 2180/2340; FSIP 3300; FHP 3772.

DST #5 - 8995-9041' (Nugget). Misrun--tools stuck after test & not recovered.

DST #6 - 10,400-10,498' (Ankareh) - w/200' WC. Rec. 200' amm.WC + 1557' SW + 185' drlg. mud. IHP 4689; IFP 350/482; ISIP 3941; FFP 657/919; FSIP 3153; FHP 4645.

DST #7 - 13,400-13,626' (Phosphoria) - w/3400' WC. Rec. 3400' WC + 540' drlg. fluid. IHP 6495; IFP 1655; FFP 1837; FSIP 5554; FHP 6349.

DST #8 - 14,950-15,201' (Amsden) - w/5000' WC. Rec. 5000' WC + 8128' sl. GC sulphur wtr. IHP 7024; FP 2810/5717; FSIP 6655; FHP 6986.

MINNOW HILL
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co., Utah
Minnow Hill Prosp.

11/1/78 5 days - TD 1000'. Drld. 47' of Wasatch in 3½ hrs. TIH w/DST tools. MW 9.0; vis 54; WL 12.0; pH 10.5. Pulled bit #3 @ 1000' for elec. logs. Bit drld. 164' in 12¼ hrs. Dull grade 4-3-I. Ran DIL, Sonic & dipmeter 0-1000'. Now prep to run DST #1 - 924-1000'. Test truck rolled on way to rig--had to retrieve test tools from frog pond.

MINNOW HILL
UNIT #29-1
(17,700' Camb.-WC)
Rich Co., Utah
Minnow Hill Prosp.

11/2/78 6 days - Reaming 12¼" hole to 17½" @ 228'. Reamed 148' in 3 hrs. MW 9.0; vis 43; WL 12.8; pH 10.5. Ran DST #1 - 924-1000'--tool plugged. Ran DST #2 - 940-1000' (Wasatch) w/no WC. TO 60 min--w/med. blow, remaining constant thruout; SI 120 min. Pulled DST #2 to rec. 240' muddy wtr--n.s. Bomb depth 930'. IHP 434; IFP 50/157; FSIP 312; FHP 428. Ran HO #1 (17½" Sec.) @ 80'. HO has reamed 148' in 3 hrs. Rmg. wt 5000#; RPM 90.

MINNOW HILL
UNIT #29-1
(17,700' Camb.-WC)
Rich Co., Utah
Minnow Hill Prosp.

11/3/78 7 days - Reaming 12¼" hole to 17½" @ 830'. Reamed 602' in 19½ hrs. MW 9.1; vis 43; WL 15.2; pH 10.0. Pulled HO #1 @ 802'. HO reamed 722' in 20¼ hrs. Dull grade 5-2-I. Ran HO #2 (17½" Sec.). HO has reamed 28' in 2¼ hrs. Rmg wt 20,000#; RPM 100.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

11/4/78 8 days - TD 1000'. Reamed 148' of 12¼" hole to 17½" in 8¼ hrs. WOC 13-3/8" csg. MW 9.4; vis 43; WL 12.8; pH 10.5. Pulled HO #2 @ 987'. HO reamed 185' in 10½ hrs. Dull grade 4-2-I. Ran 25 jts 13-3/8" 48# H-40 ST&C Rge 3 csg., total of 987.96', landed at 985.96'. Cemented w/570 sx Howco Light w/12.5# gilsonite, ¼# flocele & 3% CaCl, followed by 300 sx Class "G" w/¼# flocele & 2% CaCl. Bumped plug w/1000 psi. PD 1:15 AM 11/4/78. Float held--cmt. circ. Now WOC.

11/5 9 days - TD 1000'. NU BOPE. Finished WOC. Installed 13-3/8" Rector wellhead. Now NU BOPE.

11/6 10 days - TD 1000'. PU bit & stabilizer. Finished NU BOPE. Tested BOPE to 3000 psi; Hydril to 1500. Now PU bit & stabilizer prep to drill.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

11/7/78 11 days - Drlg. in Wasatch @ 1192'. Drld. 192' in 12½ hrs. MW 8.9; vis 40; WL 13.4; pH 7.0. Survey: 1¼° @ 1168'. Ran bit #4 (12¼" Sec. S4T - SN 825083) @ 1000'. Bit has drld. 192' in 12½ hrs. TIH w/bit. Found top of cmt. @ 940'. Drld. cmt. & shoe. Drlg. wt 20,000#; RPM 85.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

11/8/78 12 days - Tripping for bit @ 1371'. Drld. 179' of Wasatch in 17½ hrs. MW 8.8; vis 40; WL 12.8; pH 11.4. Survey: 1° @ 1371'. Pulled bit #4 @ 1201'. Bit drld. 201' in 14-3/4 hrs. Dull grade 4-2-I. Ran bit #5 (12¼" Hughes OSC1GJ - SN LS088). Pulled bit #5 @ 1371'. Bit drld. 170' in 15 hrs Dull grade 4-3-I.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

11/9/78 13 days - Drlg. in Wasatch @ 1536'. Drld. 165' in 18 hrs. MW 8.9; vis 42; WL 11.8; pH 10.5. Survey: 1° @ 1432'. Ran bit #6 (12¼" Smith DTJ - SN 412SL) @ 1371'. Bit has drld. 165' in 18 hrs. Drlg. wt 20,000#; RPM 100.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

11/10/78 14 days - Drlg. in Wasatch @ 1701'. Drld. 165' in 18 hrs. MW 9.0; vis 38; WL 8.0; pH 9.5. Survey: 1-3/4° @ 1700'. Pulled bit #6 @ 1585'. Bit drld. 214' in 23-3/4 hrs. Dull grade 4-2-I. Ran bit #7 (12¼" Smith F2 - SN 667SH). Bit has drld. 116' in 11½ hrs. Drlg.wt 10,000#; RPM 90.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

11/11/78 15 days - Drlg. in Wasatch cglt @ 1912'. Drld. 211' in 20½ hrs. MW 8.9; vis 40; WL 10.4; pH 8.5. Survey: 1-3/4° @ 1890'. Bit #7 has drld. 327' in 31½ hrs. (Corrected SN on bit #7: 667SR.) Drlg. wt 20,000#; RPM 90.

11/12 16 days - Drlg. in Wasatch cglt @ 2107'. Drld. 195' in 22½ hrs. MW 9.0; vis 41; WL 12.9; pH 8.5. Survey: 1-3/4° @ 2076'. Bit #7 has drld. 522' in 54½ hrs. Drlg. wt 20,000#; RPM 90.

11/13 17 days - Drlg. in Wasatch cglt @ 2222'. Drld. 115' in 16-3/4 hrs. MW 8.9; vis 38; WL 13.8; pH 8.8. Survey: 1½° @ 2187'. Pulled bit #7 @ 2187'. Bit drld. 602' in 67-3/4 hrs. Dull grade 4-2-I. Ran bit #9 (12¼" Hughes J22 - SN JA129). Bit has drld. 35' in 3½ hrs. Drlg. wt 20,000#; RPM 70.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

11/14/78 18 days - Drlg. in Aspen sh @ 2439'. Drld. 217' in 21½ hrs. MW 8.8; vis 40; WL 12.6; pH 9.0. Survey: 2¼° @ 2424'. Bit #8 has drld. 252' in 25 hrs. Drlg. wt 15,000#; RPM 65.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

11/15/78 19 days - Drlg. in Wasatch @ 2696'. Drld. 257' in 21-3/4 hrs. MW 8.8; vis 40; WL 12.4; pH 9.5. Survey: 1¼° @ 2674'. Bit #8 has drld. 509' in 46-3/4 hrs. Drlg. wt 25,000#; RPM 65.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

11/16/78 20 days - Drlg. in Aspen sh @ 2925'. Drld. 229' in 21-3/4 hrs. MW 8.8; vis 38; WL 11.6; pH 9.8. Survey: 2° @ 2918'. Bit #8 has drld. 738' in 68½ hrs. Aspen sample top: 2480'. Drlg. wt 20,000#; RPM 65.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

11/17/78 21 days - Drlg. in Aspen sh @ 3102'. Drld. 177' in 22 hrs. MW 8.8; vis 38; WL 12.0; pH 9.7. Survey: 3° @ 3100'. Bit #8 has drld. 915' in 90½ hrs. Drlg. wt 5000#; RPM 65.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

11/18/78 22 days - TD 3192'. Drld. 90' of Aspen sh in 16½ hrs. Circ. & repairing crown. MW 8.8; vis 40; WL 14.4; pH 9.5. Survey: 3° @ 3160'. Pulled bit #8 @ 3182'. Bit drld. 995' in 105 hrs. Dull grade 4-2-I. Ran bit #9 (12¼" Reed FP52 - SN 434101). Bit has drld. 10' in 2 hrs. PU to make conn. & fast sheave in crown block locked up. Now circ., WO repairs.

MINNOW HILL
UNIT #29-1 (cont)
Rich Co., Utah

11/19 23 days - TD 3192'. Circ. & repairing crown.
11/20 24 days - TD 3192'. Circ. & repairing crown.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

11/21/78 25 days - Drlg. in Aspen sh @ 3233'. Drld. 41' in 7½ hrs. MW 8.8; vis 38; WL 14.0; pH 10.0. Survey: 3° @ 3222'. Pulled bit #9 @ 3222'. Bit drld. 40' in 8 hrs. Dull grade 2-2-I. Will rerun. Ran bit #10 (12¼" Smith V2HJ - SN 950TA). Bit has drld. 11' in 1½ hr. Fin. repairing crown. POH. Crown appears in good condition. Drlg. wt 15,000#; RPM 65.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

11/22/78 26 days - Drlg. in Aspen sh @ 3311'. Drld. 78' in 14¼ hrs. MW 8.8; vis 38; WL 13.2; pH 9.5. Survey: 2½° @ 3253'. Pulled bit #10 @ 3307'. Bit drld. 85' in 14-3/4 hrs. Dull grade 6-3-I. Ran bit #11 (12¼" Smith DGJ - SN 915SX). Bit has drld. 4' in 1 hr. Drlg. wt 15,000#; RPM 65.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

11/23/78 27 days - Drlg. in Aspen sh @ 3411'. Drld. 100' in 13 hrs. MW 8.7; vis 40; WL 12.2; pH 10.2. Survey: 2-1/2° @ 3373'. Pulled bit #11 @ 3399'. Bit drld. 92' in 12 hrs. Dull grade 5-3-I. LD pendulum. PU stiff assy. Ran bit #RR9 (12-1/4" Reed FP52 - SN 434101) @ 3399'. Bit has drld. 12' in 2 hrs. Drlg. wt 25,000#; RPM 60.

11/24 28 days - Drlg. in Kelvin @ 3583'. Drld. 172' in 21-3/4 hrs. MW 8.8; vis 37; WL 10.5; pH 10.2. Survey: 2-1/2° @ 3572'. Bit #RR9 has drld. 184' in 23-3/4 hrs. Kelvin sample top: 3400'. Drlg. wt 25,000#; RPM 75.

11/25 29 days - Drlg. in Kelvin @ 3727'. Drld. 144' in 22-1/4 hrs. MW 8.8; vis 39; WL 9.8; pH 10.2. Survey: 2-3/4° @ 3725'. Bit #RR9 has drld. 328' in 46 hrs. Drlg. wt 15,000#; RPM 70.

11/26 30 days - Drlg. in Kelvin @ 3882'. Drld. 155' in 22-3/4 hrs. MW 8.8; vis 45; WL 10.8; pH 9.8. Survey: 2-3/4° @ 3850'. Bit #RR9 has drld. 483' in 68-3/4 hrs. Drlg. wt 20,000#; RPM 70.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

12/1/78 35 days - Drlg Kelvin sh @ 4541'. Drld 104' in 17 3/4 hrs. MW 9.0, vis 37, WL 13.3, pH 9.8. Survey: 2 3/4° @ 4486'. Bit #8RR17 has drld 481' in 69½ hrs. POH looking for hole in DP. Found hole in slip area of DP 186' above collars. TIH. ow drlg. Drlg wt-15,000#; RPM-70.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/2/78 36 days - Drlg. in Kelvin sh @ 4675'. Drld. 134' in 22 hrs. MW 8.9; vis 39; WL 11.8; pH 10.2. Survey: 3° @ 4670'. Bit #12 has drld. 619' in 89-3/4 hrs. Drlg. wt 15,000#; RPM 60.

12/3 37 days - Drlg. in Kelvin @ 4814'. Drld. 139' in 22-3/4 hrs. MW 8.9; vis 37; WL 10.4; pH 10.2. Survey: 2-3/4° @ 4732'. Bit #12 has drld. 756' in 114 hrs. Drlg.wt 15,000#; RPM 60.

12/4 38 days - Drlg. in Kelvin sh @ 4948'. Drld. 134' in 22½ hrs. MW 8.8; vis 38; WL 11.3; pH 10.4. Survey: 2-3/4° @ 4889'. Bit #12 has drld. 890' in 136-3/4 hrs. Drlg. wt 20,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/5/78 39 days - Drlg. in Kelvin sh @ 5033'. Drld. 85' in 14½ hrs. MW 8.8; vis 37; WL 10.6; pH 10.3. Survey: 2-3/4° @ 5011'. Pulled bit #12 @ 5015'. Bit drld. 957' in 148½ hrs. Dull grade 4-4-1/16". Ran bit #13 (12¼" Hughes J22 - SN TK478). Bit has drld. 18' in 3 hrs. Drlg. wt 15,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/6/78 40 days - Drlg. in Kelvin sh @ 5208'. Drld. 175' in 22-3/4 hrs. MW 8.8; vis 38; WL 12.6; pH 10.7. Survey: 2-3/4°+ @ 5146'. Bit #13 has drld. 193' in 25-3/4 hrs. Drlg. wt 20,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/7/78 41 days - Drlg. in Kelvin sh @ 5349'. Drld. 141' in 21-3/4 hrs. MW 8.9; vis 38; WL 10.8; pH 10.4. Survey: -3° @ 5330'. Bit #13 has drld. 334' in 47½ hrs. Drlg. wt 20,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/8/78 42 days - Drlg. in Kelvin @ 5481'. Drld. 132' in 22½ hrs. MW 9.0; vis 40; WL 10.8; pH 10.4. Survey: 3° @ 5452'. Bit #13 has drld. 466' in 70 hrs. Drlg. wt 10,000#; RPM 60. (Temp -28°)

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/9/78 43 days - TIH w/bit #14 @ 5499'. Drld. 18' of Kelvin in 3½ hrs. MW 9.0; vis 39; WL 10.8; pH 10.5. Pulled bit #13 @ 5499'. Bit drld. 484' in 73½ hrs. Dull grade 6-8-I. Tested BOP's & changed rams while out of hole. Now running bit #14 (12¼" Sec. S86F - SN 813304) @ 5499'.

12/10 44 days - Drlg. in Kelvin sh @ 5579'. Drld. 80' in 18-3/4 hrs. MW 8.9; vis 38; WL 11.0; pH 10.0. Survey: 3° @ 5546'. Fin. running bit #14 @ 5499'. Bit has drld. 80' in 18-3/4 hrs. Drlg.wt 15,000#; RPM 60.

12/11 45 days - Drlg. in Stump @ 5700'. Drld. 121' in 22½ hrs. MW 8.9; vis 42; WL 11.2; pH 10.0. Survey: 3° @ 5667'. Bit #14 has drld. 201' in 41¼ hrs. Stump sample top: 5640'. Drlg. wt 15,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/12/78 46 days - Drlg. in Stump @ 5841'. Drld. 141' in 22-3/4 hrs. MW 8.9; vis 37; WL 11.9; pH 10.0. Survey: 3¼° @ 5793'. Bit #14 has drld. 342' in 64 hrs. Drlg. wt 20,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/13/78 47 days - Drlg. in Stump @ 5903'. Drld. 62' in 16¼ hrs. MW 8.9; vis 38; WL 10.0; pH 10.0. Survey: 4° @ 5852'; 3-3/4° @ 5882'. Pulled bit #14 @ 5461'. Bit drld. 362' in 67-3/4 hrs. Dull grade 6-3-¼". Ran bit #15 (12¼" Smith F3 - SN 223SR). Bit has drld. 42' in 12½ hrs. Drlg. wt 10-15,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/14/78 48 days - Drlg. in sh @ 5979'. Drld. 76' in 22-3/4 hrs. MW 8.9; vis 39; WL 10.6; pH 9.4. Survey: 3½° @ 5945'. Bit #15 has drld. 118' in 35¼ hrs. Drlg. wt 15,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/15/78 49 days - Drlg. in dolomite & sh @ 6032'. Drld. 53' in 15 hrs. MW 8.9; vis 37; WL 9.9; pH 9.2. Survey: 3-3/4° @ 6007'. Pulled bit #15 @ 6023'. Bit drld. 162' in 48-3/4 hrs. Dull grade 5-3-¼". Ran bit #16 (12¼" Hughes J33 - SN PK234). Bit has drld. 9' in 1½ hr. Drlg. wt 10,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

12/16/78 50 days - Drlg. in Preuss @ 6118'. Drld. 86' in 23 hrs. MW 8.9; vis 37; WL 9.8; pH 9.9. Survey: 3-3/4° @ 6069'. Bit #16 has drld. 95' in 24½ hrs. Drlg. wt 10,000#; RPM 65.

12/17 51 days - Drlg. in sh @ 6164'. Drld. 46' in 15-3/4 hrs. MW 8.9; vis 38; WL 9.0; pH 9.7. Surveys: 3½° @ 6126'; 4° @ 6161'. Pulled bit #16 @ 6126'. Bit drld. 103' in 28½ hrs. Dull grade 4-2-I. Ran bit #17 (12¼" Sec. S84F - SN 819508). Bit has drld. 38' in 11-3/4 hrs. Drlg. wt 10,000#; RPM 75.

12/18 52 days - Drlg. in sh @ 6183'. Drld. 19' in 10½ hrs. MW 8.9; vis 37; WL 11.0; pH 9.4. Survey: 4° @ 6176'. Pulled bit #17 @ 6164'. Bit drld. 38' in 11-3/4 hrs. Dull grade 6-8-I. Ran bit #18 (12¼" Hughes OSC1GJ - SN NP035). Pulled bit #18 @ 6176'. Bit drld. 12' in 7½ hrs. Dull grade 8-5-1/8". Ran bit #19 (12¼" Smith V2HJ - SN 287TB). Bit has drld. 7' in 3 hrs. Drlg. wt 23,000#; RPM 59.

MINNOW HILL
UNIT #29-1
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12/19/78 53 days - Drlg. in sh @ 6228'. Drld. 45' in 16½ hrs. MW 8.9; vis 37; WL 11.0; pH 10.2. Survey: 3° @ 6227'. Pulled bit #19 @ 6191'. Bit drld. 15' in 8 hrs. Dull grade 8-5-I. Ran bit #20 (12¼" Smith F4 - SN 094TA). Bit has drld. 37' in 11½ hrs. Drlg. wt 25,000#; RPM 41.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
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12/20/78 54 days - Drlg. in ss & sh @ 6282'. Drld. 54' in 22½ hrs. MW 8.9; vis 39; WL 10.6; pH 9.5. Bit #20 has drld. 91' in 35 hrs. Drlg. wt 30,000#; RPM 41.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
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12/21/78 55 days - Drlg ss & sh @ 6323'. Drld 41' in 16½ hrs. MW 8.9, vis 40, WL 10.7, pH 9.7. Survey: 3½° @ 6318'. Pulled bit #20 @ 6318'. Bit drld 127' in 50 hrs. Dull grade 4-2-1/8. Ran bit #21 (12¼" Hughes J33 - SN JP045) @ 6318'. Bit has drld 5' in 1½ hrs. Drlg wt-30,000#; RPM-43.

MINNOW HILL UNIT 29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

12/22/78 56 days - Drlg Preuss formation @ 6397'. Drld 74' in 23½ hrs. MW 8.9, vis 42, WL 11.0, pH 9.8. Survey: 3½° @ 6375'. Bit #21 has drld 79' in 24 3/4 hrs. Drlg wt-30,000#; RPM-43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

12/23/78 57 days - Drlg. in Preuss @ 6467'. Drld. 70' in 23 hrs. MW 8.8; vis 45; WL 12.8; pH 10.3. Survey: 3-1/4° @ 6436'. Bit #21 has drld. 149' in 47-3/4 hrs. Drlg. wt 20-25,000#; RPM 43.

MINNOW HILL
UNIT #29-1 (cont)
Rich Co., Utah

12/24/78 58 days - Drlg. in Preuss @ 6532'. Drld. 65' in 23-1/4 hrs. MW 8.9; vis 42; WL 13.6; pH 9.8. Survey: 4° @ 6498'. Bit #21 has drld. 214' in 71 hrs. Drlg. wt 25-28,000#; RPM 43.

12/25 59 days - Drlg. in Preuss @ 6583'. Drld. 51' in 15-1/4 hrs. MW 8.8; vis 39; WL 18.0; pH 9.5. Survey: 4° @ 6552'. Pulled bit #21 @ 6552'. Bit drld. 234' in 78-1/4 hrs. Dull grade 4-3-I. Ran bit #22 (12-1/4" Smith F3 - SN 985SL). Bit has drld. 31' in 8 hrs. Drlg. wt 20-25,000#; RPM 43.

12/26 60 days - Drlg. in Preuss @ 6655'. Drld. 72' in 22-3/4 hrs. MW 8.8; vis 39; WL 14.2; pH 9.3. Surveys: 4° @ 6618' & 6648'. Bit #22 has drld. 103' in 30-3/4 hrs. Drlg. wt 20-25,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

12/27/78 61 days - TD 6712'. Drlg. 57' of Preuss ss in 18 hrs. Magnafluxing DC's. MW 8.8; vis 40; WL 18.6; pH 10.3. Survey: 4-3/4° @ 6711'. Pulled bit #22 @ 6712'. Bit drld. 160' in 48-3/4 hrs. Dull grade 4-4-I. Now magnafluxing DC's; will PU 60' pendulum & TIH.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

12/28/78 62 days - Drlg. in sltstn @ 6743'. Drld. 31' in 12-3/4 hrs. MW 8.8; vis 39; WL 15.8; pH 9.8. Survey: 4¼° @ 6733'. Ran bit #23 (12¼" Hughes J33 - SN WK252) @ 6712'. Bit has drld. 31' in 12-3/4 hrs. Running 60' pendulum. Drlg. wt 18,000#; RPM 45.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

12/29/78 63 days - Drlg. in ss & sh @ 6799'. Drld. 56' in 22½ hrs. MW 8.8; vis 37; WL 15.4; pH 10.0. Survey: 4-3/4° @ 6796'. Bit #23 has drld. 87' in 35¼ hrs. Drlg. wt 18,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

12/30/78 64 days - Drlg. in Preuss @ 6855'. Drld. 56' in 13½ hrs. MW 8.7; vis 38; WL 10.0; pH 10.0. Survey: 4½° @ 6826'. Pulled bit #23 @ 6822'. Bit drld. 110' in 42¼ hrs. Dull grade 4-2-I. Ran bit #24 (12¼" Smith F3 - SN 961TB). Bit has drld. 33' in 6½ hrs. Drlg. wt 35,000#; RPM 43.

12/31 65 days - Drlg. in Preuss @ 6964'. Drld. 109' in 20¼ hrs. MW 8.8; vis 38; WL 16.4; pH 10.0. Surveys: 4° @ 6855'; 3½° @ 6946'. Bit #24 has drld. 142' in 26-3/4 hrs. Carrying 1 unit bgg. Drlg. wt 35,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/20/79 85 days - TD 8[illegible]9'. Washing over @ 7977'. MW 9.0; vis 46; WL 9.2; pH 10.2. Pulled washover shoe #7 @ 7977'. Shoe cut 3' in 16 hrs. Ran washover shoe #8 @ 7977'. Shoe has cut less than 1' in 6 hrs. Now washing over @ 7977'.

1/21 86 days - TD 8119'. Washing over @ 7977'. MW 9.0; vis 53; WL 9.6; pH 10.3. Pulled shoe #8 @ 7977'. Shoe cut -1'. Shoe completely worn out. Ran shoe #9 @ 7977'. Now washing over @ 7977'.

1/22 87 days - TD 8119'. Tripping in w/shoe #11. MW 9.0; vis 46; WL 7.0; pH 10.2. Pulled shoe #9 @ 7978'. Shoe cut 1' in 15¼ hrs. Ran shoe #10 @ 7978'. Pulled shoe #10 @ 7978'. Shoe cut -1' in 9 hrs--shoe completely worn out. Now washing to bottom w/shoe #11 @ 7978'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/23/79 88 days - TD 8119'. Tripping out w/wash pipe. MW 9.0; vis 45; WL 5.4; pH 10.2. Fin. washing to bottom w/shoe #11. Twisted off while washing @ 7978'. POH. PU overshot. TIH. Engaged #2 fish. Now POH w/overshot & wash pipe.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/24/79 89 days - TD 8119'. Fishing. MW 9.0; vis 44; WL 8.0; pH 10.0. Fin. POH w/#2 fish. LD washpipe. PU DC's, long-stroke bumper sub & jars. TIH. Lacked 13 stands of being to top of fish. DP pin parted 1 jt below rotary table. Dropped fishing string to top of fish. PU overshot. TIH. Engaged fish. Now POH LD DP, prep to tuboscope.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/25/79 90 days - TD 8119'. WO DP straightener. MW 9.0; vis 42; WL 8.4; pH 9.5. TOH w/top fish. Broke down overshot. LD crooked DP. Will magnaflux & straighten DP before continuing fishing job. Left 3 - 9" DC's & bumper sub in hole. Now WO DP straightener.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/26/79 91 days - TD 8119'. PU DP. Pressure-tested BOP stack while straightening DP. Ran bit #27 (12¼" Smith VTHJ - SN 512TD). Now TIH straightening & magnafluxing DP.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/27/79 92 days - TD 8119'. PU DP & washing to btm @ 7582'. MW 9.0; vis 60; WL 10.0; pH 10.0. Straightening & magnafluxing DP while washing to btm. w/bit #27 @ 7582'.

1/28 93 days - TD 8119'. Repairing engines. Washed to 7700'. Began having engine trouble. Pulled drill string back into csg. Now shut down repairing engines.

1/29 94 days - TD 8119'. Shut down repairing engines

MINNOW HILL UNIT #29-1 (17,700' Camb-WC) Rich Co.,Utah Minnow Hill Prosp.	1/30/79 95 days - TD 8119'. Repairing rig. MW 8.8; vis 48; WL 7.0; pH 11.5. Now repairing rig engines.
MINNOW HILL UNIT #29-1 (17,700' Camb-WC) Rich Co.,Utah Minnow Hill Prosp.	1/31/79 96 days - TD 8119'. WO rig repairs.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/12/79 77 days - TD 8119'. Tripping out to PU wash pipe. MW 9.0; vis 48; WL 8.8; pH 10.0. Backed off @ top of jars. Top of fish: 7836'. Length of fish: 258.95'. Circ. & cond. mud. Now tripping out to PU wash pipe.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/13/79 78 days - TD 8119'. POH w/wash pipe. MW 9.0; vis 46; WL 8.0; pH 10.0. PU & TIH w/10-3/4" shoe, 10-3/4" wash pipe, bumper sub, jars & 4 - 8" DC's. Washed over 102' of fish to top of IBS. Shoe stopped. Now TOH to PU shoe #2.

1/14 79 days - TD 8119'. TOH w/wash pipe. MW 9.0; vis 47; WL 8.1; pH 10.7. TIH w/shoe #2 & wash pipe. Washed over addtl. 47' of fish. Milled on 2nd IBS--made no progress. Now TOH w/wash pipe.

1/15 80 days - TD 8119'. TOH w/part of fish. MW 9.0; vis 45; WL 7.8; pH 10.7. Fin. POH w/wash pipe. TIH open-ended. Circ. above fish. Screwed into fish. Jarred on fish & moved up hole 17'. Fish stopped. Ran freepoint. Backed off @ top of shock tool. Fish now in hole: Bit, bit sub, 3 - 9" DC's, 6-pt, IBS & shock sub, total of 124.59'. New top of fish: 7953'. Now POH w/part of fish.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/16/79 81 days - TD 8119'. Tripping for washover shoe #4. MW 9.0; vis 46; WL 8.8; pH 10.6. Fin. POH. LD Dailey jars, 3 - 9" DC's, IBS & x-over sub. PU 4 jts wash pipe & shoe #3. TIH. Washed over IBS 7966-67'. Now prep to run shoe #4.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/17/79 82 days - TD 8119'. Tripping for washover shoe. MW 9.0; vis 45; WL 8.0; pH 10.2. Ran shoe #4. Washed over 6-pt 7967-69'. Now POH w/shoe #4.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/18/79 83 days - TD 8119'. TIH w/washover shoe #6 MW 9.0; vis 44; WL 8.6; pH 10.1. Fin. POH w/shoe #4. Shoe worn out. Ran shoe #5 (11-3/8" Dotco cut-rite) @ 7969'. Pulled shoe #5 @ 7972'. Cut 3' in 7 hrs. Shoe worn out. Now washing to bottom w/shoe #6 (11-3/8" Dotco cut-rite).

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

1/19/79 84 days - TD 8119'. Washing over fish w/shoe #7 @ 7976'. MW 8.9; vis 47; WL 8.4; pH 10.6. Fin. running shoe #6 @ 7972'. Pulled @ 7974'. Shoe cut 2' in 9½ hrs. Ran shoe #7 @ 7974'. Shoe cut 2' in 4 hrs. Now washing over @ 7976'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/24/79 120 days - Drlg. in Gyp Springs @ 8900'. Drld. 81' in 22 hrs. MW 9.1; vis 44; WL 10.4; pH 10.5. Survey: 4° @ 8878'. Bit #29 (shown in error 2/23/79 as bit #27) has drld. 128' in 35 hrs. Gyp Sprgs sample top: 8820'. Drlg. wt 32,000#; RPM 45.

2/25 121 days - Drlg. in Gyp Springs @ 8974'. Drld. 74' in 20-3/4 hrs. MW 9.1; vis 42; WL 8.4; pH 10.5. Surveys: 4° @ 8909' & 8970'. Bit #29 has drld. 202' in 55-3/4 hrs. Drlg. wt 33,000#; RPM 45.

2/26 122 days - Drlg. in Nugget ss @ 9003'. Drld. 29' in 14½ hrs. MW 9.1; vis 42; WL 8.0; pH 10.0. Surveys: 3-3/4° @ 8984' & 9002'. Pulled bit #29 @ 8984'. Bit drld. 212' in 60¼ hrs. Dull grade 6-2-¼". Ran bit #30 (12¼" Smith F7 - SN 714TS). Bit has drld. 19' in 10 hrs. Nugget smpl top: 8985'. Carrying 1 unit BGG. Drlg. wt 33,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/27/79 123 days - TD 9041'. Drld. 38' of Nugget ss in 10¼ hrs. TIH w/DST #5. MW 9.1; vis 46; WL 10.0; pH 10.5. Survey: 3-3/4° @ 9032'. Pulled bit #30 @ 9041' for DST. Bit has drld. 57' in 20¼ hrs. Will rerun. Now TIH w/DST #5 to test 8995-9041'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/28/79 124 days - TD 9041'. Jarring on test tool. MW 9.1; vis 45; WL 8.6; pH 10.0. Fin. TIH w/DST #5. Set pkrs. @ 8995'. TO 10 min--w/wk blow increasing to strong in 4 min; SI 60 min; TO 120 min--w/wk blow increasing to strong in 4 min; stabilized @ 8# on ¼" chk in 60 min & remained constant thruout open period; SI 240 min. Attempted to pull test tool. Could not release pkrs. Jarred on test tool, w/o results. Reversed approx. 5000' salt wtr out of hole. Have now moved test tool 5' in 2 hrs. Now jarring on test tool.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

2/1/79 97 days - TD 8119'. Repairing engines.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

2/2/79 98 days - TD 8119'. Repairing engines.
Should have 1 engine running today.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

2/3/79 99 days - TD 8119'. Repairing engines.
2/4 100 days - TD 8119'. " "
2/5 101 days - TD 8119'. Have 2 engines repaired; will TIH & condition.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

2/6/79 102 days - TD 8119'. TIH w/overshot.
MW 8.9; vis 48; WL 9.2; pH 9.0. TIH w/bit #27 (12¼" Smith VTHJ - SN 512TD). Washed to 7844'. Circ. & cond. hole. POH w/bit #27. Dull grade 4-2-I. PU 11-3/4" overshot w/9" grapples & mill guide, bumper sub & oil jars. Now TIH to engage fish.

MINNOW HILL UNIT 29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

2/7/79 103 days - TD 8119'. Fishing. MW 8.9, vis 44, WL 9.0, pH 10.0. Fin TIH w/overshot. Washed to fish; washed over fish; could not latch on; POH; found grapples flattened. Redressed overshot w/9" grapples. TIH. Worked over fish. Now trying to latch onto fish w/o success.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

2/8/79 104 days - TD 8119'. TOH w/top fish.
MW 8.9; vis 47; WL 8.8; pH 10.0. POH w/overshot. LD overshot. PU & TIH w/washover pipe. Washed over 129' of fish. POH & LD washpipe. PU & TIH w/ 11-3/4" overshot w/9" grapples & 13.24' extension. Latched on to fish. Now POH w/fish.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/9/79 105 days - TD 81[illegible]. Working over btm fish. MW 8.9; vis 45; WL 8.8; pH 10.0. Fin. POH w/top fish. Rec. all of fish. TIH w/bit #RR27 (12¼" Smith V2HJ - SN 512TD). Washed to top of btm fish @ 7949'. POH. PU & TIH w/11-3/4" overshot w/9" grapples & 12' extension. Now working over top of fish.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/10/79 106 days - TD 8119'. Attempting to engage fish w/overshot. MW 9.0; vis 44; WL 9.8; pH 8.0. Engaged fish. Began jarring--could not move fish. Ran Petro-Log. Attempted to get inside fish. Lost sinker bars & jars. Began jarring. Jarred fish 24' uphole. Jars quit. Released overshot. POH. PU new jars & bumper sub. Redressed overshot w/9" grapples. TIH. Engaged fish. Torqued jars. Grapple slipped. Now attempting to re-engage fish.

2/11 107 days - TD 8119'. TOH w/fish. MW 9.0; vis 41; WL 9.6; pH 9.0. Unable to engage fish w/9" grapples. POH. LD jars & bumper sub. PU Bowen accelerator sub, Bowen jars & Bowen bumper sub. Redressed overshot w/8-7/8" grapples. TIH. Engaged fish. Jarred fish uphole 150'. Fish came loose. Now POH.

2/12 108 days - TD 8119'. Washing & reaming to btm. @ 8109'. MW 9.0; vis 45; WL 9.8; pH 8.5. POH w/fish. Rec. entire fish. Ran bit #28 (12¼" Hughes OSC1GJ - SN MT 189). Began washing to btm. @ 7950'. Now washing & reaming @ 8109'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/13/79 109 days - TD 8119'. TIH w/DST #3. MW 9.0; vis 52; WL 9.2; pH 9.5. Fin. washing to btm w/bit #28. Circ. & cond. hole. Made 10-stand short trip. Circ. btms up. POH. PU Lynes test tools. Now TIH prep to test interval 7975-8119'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/14/79 110 days - TD 8119'. Circ. & cond. hole for DST #3. MW 9.0; vis 53; WL 9.4; pH 9.5. TIH w/test tools. Pkr failed immediately. POH. RU Schlumberger. Ran Sonic-Caliper Log. TIH & cond. for test. Now prep to POH.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/15/79 111 days - TD 8119'. Running DST #4. MW 9.0; vis 53; WL 9.4; pH 9.5. Circ. & cond. hole. POH. PU Lynes test tools. Ran DST #4 - 7935-8119' w/no WC. TO 10 min--w/good blow; SI 60 min; TO 60 min--w/fair-good blow, remaining constant thruout; Now running 120-min. FSI.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/16/79 112 days - Drlg. in TC ls @ 8137'. Drld. 18' in 3-3/4 hrs. MW 9.0; vis 53; WL 9.8; pH 9.0. Pulled DST #4 to rec. 1800' fluid consisting of 200' WCM + 1600' highly GC muddy wtr. Bomb depth 7940'. IHP 3729; IFP 1188/1239; ISIP 3283; FFP 2180/2340; FSIP 3300; FHP 3772; BHT 125° F. Smplr cap: 2100 cc's; rec. @ 35 psi, 1500 cc's wtr + 300 cc's WCM. Rstv: .14 @ 60°. Mud filtrate smpl: 170 ppm nit's, 37,000 ppm chl's. Smplr: 170 ppm nit's, 80,000 ppm chl's. Reran bit #26 (12¼" Smith F3 - SN 311TJ) @ 8119'. Bit has drld. 18' in 3-3/4 hrs. Drlg. wt 30,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/17/79 113 days - Drlg. in TC ls @ 8209'. Drld. 72' in 13¼ hrs. MW 9.0; vis 47; WL 9.8; pH 9.5. Survey: 2-3/4° @ 8165'. Bit #RR26 has drld. 90' in 17 hrs. Drlg. wt 32,000#; RPM 43.

2/18 114 days - Drlg. in TC ls @ 8314'. Drld. 105' in 21¼ hrs. MW 9.0; vis 44; WL 9.8; pH 9.5. Survey: 2-3/4° @ 8260'. Bit #RR26 has drld. 195' in 38¼ hrs. Drlg. wt 32,000#; RPM 43.

2/19 115 days - Drlg. in TC ls @ 8421'. Drld. 107' in 21 hrs. MW 9.0; vis 45; WL 10.4; pH 9.0. Survey: 2-3/4° @ 8412'. Bit #RR26 has drld. 302' in 59¼ hrs. Carrying 1 unit BGG. Drlg. wt 35,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/20/79 116 days - Drlg. in Twin Crk @ 8546'. Drld. 125' in 20-3/4 hrs. MW 9.0; vis 43; WL 10.4; pH 9.5. Survey: 3° @ 8506'. Bit #RR26 has drld. 427' in 80 hrs. Carrying 1 unit BGG. Drlg. wt 32,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/21/79 117 days - Drlg. in TC ls @ 8663'. Drld. 117' in 20-3/4 hrs. MW 9.0; vis 43; WL 10.0; pH 10.0. Survey: 3¼° @ 8639'. Bit #RR26 has drld. 544' in 100-3/4 hrs. Carrying 1 unit BGG. Drlg. wt 33,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/22/79 118 days - Drlg. in TC ls @ 8769'. Drld. 106' in 20¼ hrs. MW 9.0; vis 49; WL 10.0; pH 10.5. Survey: 3¼° @ 8725'. Bit #RR26 has drld. 650' in 121 hrs. Carrying 1 unit BGG. Drlg. wt 32,000#; RPM 43.

MINNOW HILL #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

2/23/79 119 days - Drlg. Twin Crk ls at 8819'. Drld 50' in 13 3/4 hrs. MW 9.0; vis 46; WL 10.4; pH 10. Survey: 3½° at 8772', 3° at 8819'. Pulled bit #RR26 at 8772'. Bit drld. 653' in 121 3/4 hrs. Dull grade: 6-8-1/8. Ran bit #27 (12¼ STC-F3, SN-687TK) in at 8772'. Bit has drld. 47' in 13 hrs. Drlg wt 32,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/10/79 134 days - TD 9041'. PU 1¼" DP. MW 9.0; vis 40; WL 8.5; pH 10.5. Jarred on #2 fish w/o success. Ran Petro-Log & backed off @ 7488'. PU 1 single. Screwed back into fish. PU 1-7/8" mill & bit sub. Now PU 1¼" DP.

3/11 135 days - TD 9041'. LD 1¼" DP. MW 9.1; vis 42; WL 9.6; pH 10.0. Fin. PU 1¼" DP. Started taking wt @ 7583'. Washed & rotated to 8335'--72' below btm of #2 fish. Now POH LD 1¼" DP.

3/12 136 days - TD 9041'. Jarring on #2 fish. MW 9.0; vis 47; WL 9.6; pH 9.5. Fin. LD 1¼" DP. RU Halliburton. Pressured up to 4000 psi & broke circ. Worked & jarred on fish. Pulled 9 jts DP--no movement. Ran collar locator. Found btm of #2 fish @ 7938'. Ran freepoint. Found pipe stuck @ 7850'. Spotted 67 bbls. 28% HCl acid around fish. Acid spotted 3:30 AM 3/12/79. Now jarring on fish.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/13/79 137 days - TD 9041'. TIH w/flanged screw-in sub to engage #1 fish. MW 8.8; vis 46; WL 11.6; pH 6.0. Jarred on #2 fish. Displaced acid. Ran freepoint. Backed off #2 fish @ 7819'. Rec. 20 jts DP. LD fish. Cut drlg. line. PU flanged screw-in sub. Now TIH to attempt to screw into #1 fish.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/14/79 138 days - TD 9041'. Cond. mud @ 7700'. MW 8.7; vis 39; WL 17.6; pH 12.7. Fin. TIH w/skirted sub. Tagged fish; engaged fish. Could not circ. or rotate. Jarred; moved fish uphole 30'. Stuck solid. RU Petro-Log. Ran freepoint. Backed off @ 7700'. Now circ. & cond. mud prep to PB & whipstock.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/15/79 139 days - TD 9041'. WOC on PB. MW 9.0; vis 48; WL 9.8; pH 11.3. Circ. & cond. hole. Made short trip. TIH open-ended. Set 350-sk Class "G" plug 7700-7350'. Job complete 1:30 AM 3/15/79. Now WOC.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/16/79 140 days - PBTD 7495'. Circ. & cond. hole. MW 9.0; vis 51; WL 10.2; pH 10.7. Fin. WOC. TIH w/12¼" bit. Tagged (very soft) cmt @ 7360'. Found competent cmt @ 7490'. Drld. to 7495'. Now circ. & cond. hole prep to run Dyna-Drill & bent sub. Equip. lost in hole: 37 jts DP; 5 - 8" DC's; 6 - 9" DC's; 3 x-over subs; & 1 Lynes DST tool.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/17/79 141 days - Drlg. ment w/Dyna-Drill @ 7500'. Drld. 5' in 4 hrs. MW 9.0; vis 51; WL 10.2; pH 10.7. Survey: 4-3/4° N 65° E @ 7490'. Ran Dyna-Drill, 2° bent sub & bit #31 (8½" Hycalog ST2JM - SN 18237) @ 7495'. Bit has drld. 5' in 4 hrs. Drlg.wt 5000#; RPM 400.

MINNOW HILL
UNIT #29-1 (cont)
Rich Co., Utah

3/18/79 142 days - Drlg. in TC ls @ 7527'. Drld. 32' in 9½ hrs. MW 9.0; vis 50; WL 9.8; pH 10.7. Pulled bit #31 @ 7527'. Bit drld. 32' in 10¼ hrs. Bit in very good condition. LD Dyna-Drill & bent sub. Ran bit #32 (8½" Smith F3 - SN 681SN) @ 7527'. Now on btm.

3/19 143 days - Drlg. in TC ls @ 7660'. Drld. 133' in 21 hrs. MW 8.9; vis 54; WL 10.2; pH 10.8. Surveys: 7¼° N 47° E @ 7585'; 7½° N 47° E @ 7633'. Bit #32 has drld. 133' in 21 hrs. Carrying 1 unit BGG. Drlg. wt 30,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/20/79 144 days - Drlg. in TC ls @ 7765'. Drld. 105' in 21 hrs. MW 9.1; vis 52; WL 9.8; pH 10.6. Surveys: 8° N 50° E @ 7664'; 8° N 70° E @ 7756'. Bit #32 has drld. 238' in 42 hrs. Carrying 1 unit BGG. Drlg. wt 34,000#; RPM 53.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/21/79 145 days - Drlg. in TC ls @ 7878'. Drld. 113' in 22½ hrs. MW 9.1; vis 49; WL 9.4; pH 10.5. Survey: 8° N 52° E @ 7818'. Bit #32 has drld. 361' in 64½ hrs. Drlg. wt 34,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/22/79 146 days - Drlg. in TC ls @ 7990'. Drld. 112' in 22½ hrs. MW 9.1; vis 49; WL 10.4; pH 10.4. Survey: 8¼° N 51° E @ 7937'. Bit #32 has drld. 463' in 87 hrs. Carrying 1 unit BGG. Drlg. wt 30,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/23/79 147 days - Drlg. in TC ls @ 8110'. Drld. 120' in 21-3/4 hrs. MW 9.1; vis 47; WL 9.6; pH 10.3. Survey: 7-3/4° N 65° E @ 8059'. Bit #32 has drld. 583' in 108-3/4 hrs. Carrying 2 units BGG. Drlg. wt 30,000#; RPM 43.

MINNOW HILL UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

3/24/79 148 days - POH to PU HO @ 8204'. Drld 94' of lm & sltstn in 15 3/4 hrs. MW 9.1, vis 45, WL 11.8, pH 10.1. Survey: 7 3/4° N, 50° E @ 8183'. Pulled bit #32 @ 8204'. Bit drld 677' in 123½ hrs. Dull grade 4-5-1. Now prep to run 8½" x 12¼" HO.

3/25/79 149 days - TD 8204'. Reaming 8½" hole to 12¼" @ 7575'. Reamed 84' in 16 hrs. MW 8.9, vis 45, WL 10.9, pH 10.2. Ran HO #1 (12¼" Sec. - SN ?) @ 7491'. HO has reamed 84' in 16 hrs. Reaming wt-10,000#; RPM-60.

3/26/79 150 days - TD 8204'. Reaming 8½" hole to 12¼" @ 7690'. Reamed 115' in 18 hrs. MW 9.1, vis 48, WL 10.0, pH 10.2. Pulled HO #1 @ 7633'. HO reamed 142' in 28 hrs. Lost bull nose guide & 3 cutters. Ran bit #33 (12¼" Smith F3 - SN 735TK) @ 7633'. Bit has reamed 57' in 6 hrs. Reaming wt-25,000#; RPM-45.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/27/79 151 days - TD 8204'. Reamed depth 7705'. Reamed 15' in 1-3/4 hrs. TIH w/globe basket. MW 9.0; vis 48; WL 10.4; pH 9.9. Reamed to 7705'. Bit stopped making hole @ 7705'. POH. Had iron marks in center of bit. PU taper tap & TIH. Could not engage reamer guide. POH. PU globe basket. Now TIH.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/28/79 152 days - TD 8204'. Reamed depth 7750'. Reamed 45' in 6 hrs. Circ. & cond. mud. MW 8.9; vis 52; WL 9.6; pH 9.7. Washed & reamed to 7705' w/globe basket. Milled over 7705-13'. POH. Did not rec. junk. Rec. numerous lge rocks. TIH w/bit #RR 33 (12¼" Smith F3 - SN 735TK) @ 7705'. Encountered junk @ 7750'. Now circ. & cond. hole prep to POH.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/29/79 153 days - TD 8204'. Reamed depth 7750'. POH w/reverse junk basket. MW 9.1; vis 48; WL 9.8; pH 9.6. Pulled bit #RR33 @ 7750'. Bit reamed 45' in 6 hrs. Dull grade 6-3-I. Ran HO #4 (12¼" Sec - SN C12J7226) @ 7750'. Pulled HO #4 @ 7750'. Installed 8½" mill on btm of HO. Attempted to mill junk & open hole. POH. Junk pattern on btm of mill. Ran Bowen reverse circ. junk basket. Washed 1½'. Plugged DP. Now POH.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/30/79 154 days - TD 8204'. Milling depth 7760'. Milled 10' w/8½" mill in 4 hrs. Now milling. MW 9.0; vis 50; WL 7.4; pH 9.7. Pulled junk basket. Rec. sev. pieces of rock. PU & ran 11" OD basket w/9¼" tooth mill. Cut 5' of fill above fish. Milled 3 hrs--w/o success. POH. PU & TIH w/8½" FB mill. Had tite hole @ 7450'. Worked free. Started milling @ 7750'. Now milling w/8½" FB mill @ 7760'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/31/79 155 days - TD 8204'. Milling depth 7765'. Milled 5' in 10½ hrs. TIH w/mill #5. MW 9.1; vis 63; WL 10.2; pH 9.5. Pulled mill #3 @ 7763'. Milled 13' in 8 hrs.--worn smooth. Ran mill #4 (8½" Acme FB) @ 7763'. Pulled mill #4 @ 7765'. Milled 2' in 6 hrs.--worn smooth. Now TIH w/mill #5 (8½" Acme FB) @ 7765'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/10/79 165 days - TD 8204'. Prep to POH @ 7765.5'. Milled ½' in 15½ hrs. MW 9.0; vis 51; WL 8.8; pH 12.4. Pulled mill #6 @ 7765'. Mill worn out. Ran 6" junk shot w/Petro-Log while out of hole. Ran mill #7 (8½" Acme FB) @ 7765'. Pulled mill #7 @ 7765.5'. Cut ½' in 14-3/4 hrs. Now prep to POH.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/11/79 166 days - TD 8204'. TIH w/mill #8 @ 7765.5'. Milled 0' in 8½ hrs. MW 9.0; vis 50; WL 8.4; pH 11.5. Fin. pulling mill #7. Mill completely worn out. Ran 8" globe basket @ 7765.5'. Pulled @ 7765.5'. No recovery. Shoe totally wiped out. Now TIH w/mill #8.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/12/79 167 days - TD 8204'. Milling on junk @ 7767.5'. Milled 2' in 14 hrs. MW 9.0; vis 52; WL 8.4; pH 11.4. Pulled mill #8 @ 7766.5'. Mill cut 1' in 7½ hrs. Ran mill #9 (8" Acme FB). Mill has cut 1' in 6½ hrs. Now milling @ 7767.5'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/13/79 168 days - TD 8204'. POH w/mill #10 @ 7774'. Milled 6½' in 14 hrs. MW 8.9; vis 53; WL 8.9; pH 11.3. Pulled mill #9 @ 7767.5'. Mill cut 1' in 7½ hrs. Ran mill #10 (8½" Acme concave) @ 7767.5'. Now pulling mill #10 @ 7774'. Mill cut 6½' in 6½ hrs.

4/14 169 days - TD 8204'. Milling w/mill #12 @ 7780'. Milled 6' in 11½ hrs. MW 8.8; vis 65; WL 8.8; pH 10.8. Fin. pulling mill #10 @ 7774'. Mill completely worn out. Ran mill #11 (8½" Acme FB). Pulled mill #11 @ 7776'. Mill cut 2' in 9-3/4 hrs. Mill completely worn out. Ran mill #12 (8½" Acme FB) @ 7776'. Mill has cut 4' in 1-3/4 hrs. Now milling @ 7780'.

4/15 170 days - TIH w/bit #34 @ 8204'. Washed & reamed 424' in 9-3/4 hrs. MW 9.0; vis 49; WL 9.2; pH 10.5. Pulled mill #12 @ 8204'. Mill cut, washed & reamed 428' in 9-3/4 hrs. Rec. numerous pieces of junk in junk bskt. Now TIH w/dbl junk bskt & bit #34 (8½" Hughes JD8 - SN TX067) @ 8204'.

MINNOW HILL
UNIT #29-1 (cont)
Rich Co., Utah

4/16/79 171 days - TIH w/magnet @ 8206'. Drld. 2' in 9¼ hrs. MW 9.0; vis 55; WL 9.2; pH 10.3. Fin. TIH w/bit #34 @ 8204'. Bit drld. 2' in 5¼ hrs. Bit locked up. POH @ 8206'. Dull grade 6-7-I. Had metal wedged in bit. Dbl junk bskt full of junk. Ran bit #35 (8½" Smith W4H - SN 847KR) @ 8206'. Pulled bit #35 @ 8206'. Dull grade 5-5-I. Cones had skidded; junk wedged in bit. Rec. dbl junk sub full of junk. Now TIH w/junk sub & 8½" Bowen magnet.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

4/17/79 172 days - Drlg. in TC ls @ 8214'. Drld. 8' in 2½ hrs. MW 9.0; vis 50; WL 8.4; pH 10.3. Fin. TIH w/Bowen magnet. POH. Rec. junk sub full of junk & 2 lge pieces of iron on magnet. Ran globe bskt @ 8206'. Pulled @ 8206'. Rec. 6" of core & sev. pieces of iron. Ran bit #36 (8½" Smith W4H - SN 192KS) @ 8206'. Bit has drld. 8' in 2½ hrs. Hole apparently cleaned up. Drlg. wt 20,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

4/18/79 173 days - TIH w/bit #37 @ 8237'. Drld. 23' of TC ls in 11½ hrs. MW 9.0; vis 60; WL 8.2; pH 10.0. Pulled bit #36 @ 8237'. Bit drld. 31' in 15 hrs. Dull grade 3-4-I. Now running bit #37 (8½" Smith F3 - SN ACG415) @ 8237'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

4/19/79 174 days - TD 8237'. Rmg. to btm. w/stiff assy. MW 8.9; vis 57; WL 6.8; pH 9.5. Fin. TIH w/bit #37. Began rmg. @ 7760'. Now rmg. @ 8137'.

MINNOW HILL UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

4/20/79 175 days - Drlg sd & sh @ 8250'. Drld 13' in 2¼ hrs. MW 8.9, vis 59, WL 6.2, pH 9.3. Fin washing to btm w/bit #37 @ 8237'. Bit has drld 13' in 2¼ hrs. Now drlg w/stiff ass'y. Drlg wt-30,000#; RPM-43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

4/21/79 176 days - Drlg. in lm & sh @ 8452'. Drld. 202' in 23 hrs. MW 9.0; vis 58; WL 6.2; pH 9.5. Survey: 8° N 51° E @ 8433'. Bit #37 has drld. 215' in 25¼ hrs. Carrying 1 unit BGG. Drlg.wt 45,000#; RPM 43.

4/22 177 days - Drlg. in TC ls @ 8684'. Drld. 232' in 23¼ hrs. MW 8.9; vis 58; WL 7.0; pH 9.2. Survey: 8-3/4° N 49° E @ 8684'. Bit #37 has drld. 447' in 48½ hrs. Drlg. wt 45,000#; RPM 43.

4/23 178 days - Drlg. in Gyp Sprgs @ 8807'. Drld. 123' in 14-3/4 hrs. MW 8.8; vis 46; WL 7.2; pH 9.0. Survey: 8½° N 47° E @ 8790'. Pulled bit #37 @ 8747'. Bit drld. 510' in 55 hrs. Dull grade 4-7-I. Ran bit #38 (8½" Hughes J33 - SN RR984). Bit has drld. 60' in 8¼ hrs. Carrying 1 unit BGG. Gyp Sprgs smpl top: 8770'. Drlg. wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

4/24/79 179 days - Drlg. in Gyp Springs @ 8956'. Drld. 149' in 23¼ hrs. MW 8.7; vis 50; WL 8.0; pH 9.0. Survey: 8½° N 46° E @ 8947'. Bit #38 has drld. 209' in 31-3/4 hrs. Carrying 1 unit BGG. Drlg. wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/25/79 180 days - POH w/bit #39 @ 9016'. Drld. 60' of Nugget ss in 11-3/4 hrs. MW 8.7; vis 46; WL 8.4; pH 9.1. Survey: 8° N 43° E @ 9009'. Pulled bit #38 @ 8971'. Bit drld. 224' in 33½ hrs. Dull grade 7-4-1/8". Ran bit #39 (8½" Smith F7 - SN AC7750). Nugget smpl top: 8960'. Carrying 1 unit BGG. Now pulling bit #39 @ 9016'. Bit drld. 45' in 9-3/4 hrs.

MINNOW HILL UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

4/26/79 181 days - Drlg Nugget ss @ 9074'. Drld 58' in 16½ hrs. MW 8.9, vis 52, WL 8.0, pH 9.0. Fin pulling bit #39 @ 9016'. Dull grade 7-6-1/8'. Ran bit #40 (8½" Hughes J99 - SN NX458) @ 9016'. Bit has drld 58' in 16½ hrs. Carrying trace BGG. Drlg wt-45,000#; RPM-43.

MINNOW HILL UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

4/27/79 182 days - TOH w/bit @ 9147'. Drld 73' of Nugget ss in 19½ hrs. MW 8.7, vis 56, WL 7.4, pH 8.8. Bit #40 has drld 131' in 36 hrs. Now POH.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/28/79 183 days - Washing to btm. w/bit #41 @ 9147'. MW 8.9; vis 62; WL 8.0; pH 10.0. Fin. pulling bit #40 @ 9147'. Dull grade 6-6-¼". Ran bit #41 (8½" Sec H100F - SN 841983). Now rmg. @ 9139'. Bit #41 has rmd 210'.

4/29 184 days - POH w/bit #41 @ 9206'. Drld. 59' of Nugget ss in 18½ hrs. MW 8.9; vis 63; WL 8.0; pH 10.0. Fin. rmg. to btm. w/bit #41. Now pulling bit #41 @ 9206'. Bit drld. 59' in 18½ hrs.

4/30 185 days - POH w/bit #42 @ 9279'. Drld. 73' of Nugget ss in 17½ hrs. MW 8.9; vis 65; WL 8.0; pH 10.2. Survey: 7° @ 9252'. Fin. pulling bit #41 @ 9206'. Dull grade 7-5-1/8". Ran bit #42 (8½" Sec H100F - SN 854357). Now pulling bit #42 @ 9279'. Bit has drld. 73' in 17½ hrs.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/3/79 158 days - TD 8204'. Rmg depth 7765'. RU to cmt 9-5/8" csg. MW 9.1; vis 60; WL 12.4; pH 9.3. Fin. TIH w/bit #RR33. Short-tripped. Circ. & cond. hole. POH. Ran 9-5/8" csg., landed @ 7745'. Now RU to cmt.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/4/79 159 days - TD 8204'. Rmg depth 7765'. WOC 9-5/8" csg. MW 9.1; vis 60; WL 12.4; pH 9.3. Ran 9-5/8" csg. as follows from btm up:

11 jts 43.5# CYS-95 LT&C	436.28'
29 jts 47# SS-95 LT&C	1113.42'
72 jts 40# SS-95 LT&C	3171.23'
67 jts 47# L-80 LT&C	3018.40'
Total	7739.33'
Float shoe	3.00'
Differential fill collar	3.00'
Total	7745.33'

Cemented as follows: 900 sx 50-50 Pozmix, 2% gel, 8% salt, 3/4 of 1% CFR_2 & ¼#/sk flocele, followed by 1675 sx Class "G", ¼#/sk flocele, 10% salt & 3/4 of 1% CFR_2. Displaced w/580 bbls. mud. Float did not hold. Held 700 psi. Backpressured for 3 hrs. Job complete 11:30 AM 4/3/79. String wt 300,000#. Set 290,000# on slips. Installed packoff. Now WOC & NU BOPE.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/5/79 160 days - TD 8204'. Csg. depth 7745'. Drlg. cmt @ 7173'. MW 9.1; vis 44; WL 13.0; pH 11.8. Fin. NU BOPE. Pressure-tested BOP to 5000 psi, Hydril to 2500. Ran bit #34 (8½" Smith DTHJ - SN 172SK). Found top of cmt @ 6751'. Have now drld. 422' of cmt. in 11½ hrs. Drlg. wt 5000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/6/79 161 days - TD 8204'. Drld TD 7765'. Running Reed profile gauge on all DP. Drld. 595' of cmt in 13¾ hrs. Circ. & cond. hole. Now pulling bit #34 @ 7765'. Bit drld. 1014' in 24-3/4 hrs. Now POH running profile gauge on 4½" DP.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

4/7/79 162 days - TD 8204'. Drld. TD 7765'. Attempting to run CBL. Fin. POH running profile gauge on Reed tool jts. LD 195 jts. RU McCullough. Ran Csg. Inspection Log. Now attempting to run CBL.

4/8 163 days - TD 8204'. Drld. TD 7765'. PU DP. RD McCullough. Could not make CBL work. RU Petro-Log. Ran Bond Log. Ran Petro-Log junk shot @ 7765'. POH. RD Petro-Log. PU globe basket. Now TIH PU DP.

4/9 164 days - TD 8204'. Drld. TD 7765'. Milling on junk. MW 9.0; vis 48; WL 10.0; pH 12.2. Fin. TIH. PU DP. Milled on junk w/globe junk basket. POH. Shoe worn out. Rec. nothing. PU 8½" Acme FB mill. TIH @ 7765'. Have milled ½' in 9½ hrs. Milling wt 5000#; RPM 50.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

5/3/79 188 days - Drlg. in Nugget ss @ 9462'. Drld. 64' in 12-3/4 hrs. MW 8.8; vis 52; WL 6.8; pH 10.6. Dull grade bit #43: 6-5-I. Pulled bit #44 @ 9410'. Bit drld. 96' in 22 hrs. Dull grade 8-6-I. Ran bit #45 (8½" Smith F9 - SN AB6889). Bit has drld. 52' in 10¼ hrs. Carrying 1-2 units BGG. Occas. losing small amts. of mud in fractures. Drlg. wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

5/4/79 189 days - Drlg. in Nugget ss @ 9538'. Drld. 76' in 15 hrs. MW 8.8; vis 52; WL 8.4; pH 9.0. Pulled bit #45 @ 9533'. Bit drld. 123' in 23½ hrs. Dull grade 7-6-½". Ran bit #46 (8½" Reed FP83 - SN 123543). Bit has drld. 5' in 3/4 hr. Carrying 1 unit BGG. Drlg. wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

5/5/79 190 days - Drlg. in Nugget ss @ 9621'. Drld. 83' in 11-3/4 hrs. MW 8.9; vis 60; WL 7.2; pH 9.8. Survey: 5½° @ 9550'. Pulled bit #46 @ 9613'. Bit drld. 80' in 10¼ hrs. Dull grade 8-8-1¼". Ran bit #47 (8½" Hughes J99 - SN NF492). Bit has drld. 8' in 2¼ hrs. Carrying 1 unit BGG. Drlg. wt 45,000#; RPM 43.

5/6 191 days - Drlg. in Nugget ss @ 9689'. Drld. 68' in 15 hrs. MW 8.6; vis 80; WL 8.8; pH 9.8. Survey: 5° @ 9687'. Pulled bit #47 @ 9687'. Bit drld. 74' in 16½ hrs. Dull grade 6-5-¼". Ran bit #48 (8½" Hughes J99 - SN ZX740). Bit has drld. 2' in 3/4 hr. Carrying 1 unit BGG. Drlg. wt 45,000#; RPM 43.

5/7 192 days - Drlg. in Nugget ss @ 9810'. Drld. 121' in 23¼ hrs. MW 8.8; vis 50; WL 8.0; pH 9.5. Bit #48 has drld. 123' in 24 hrs. Carrying 1 unit BGG. Lost 100 bbls. mud @ 9687' & @ 9740'. Drlg. wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

5/8/79 193 days - Drlg. in Nugget ss @ 9863'. Drld. 53' in 12¼ hrs. MW 8.8; vis 45; WL 8.6; pH 9.5. Survey: 4½° @ 9830'. Pulled bit #48 @ 9830'. Bit drld. 143' in 29-3/4 hrs. Dull grade 6-5-¼". Ran bit #49 (8½" Hughes J99 - SN VC127). Bit has drld. 33' in 6½ hrs. Carrying 1 unit BGG. Drlg. wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

5/9/79 194 days - Drlg. in Nugget ss @ 10,006'. Drld. 143' in 23-3/4 hrs. MW 8.8; vis 54; WL 7.6; pH 9.6. Bit #49 has drld. 176' in 30¼ hrs. Carrying 1 unit BGG. Drlg. wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/10/79 195 days - TD 10,012'. Drld. 6' of Nugget ss in 1¼ hrs. LD fishing tools. MW 8.8; vis 54; WL 8.0; pH 9.4. Twisted off while ø @ 10,012'. POH. PU overshot. TIH. Engaged fish. Backed off top 2 jts of fish. POH. TIH. Engaged & screwed into fish. Broke circ. Drill string stuck. Worked loose. POH. Now LD fishing tools.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/11/79 196 days - Drlg. in Ankareh sh @ 10,052'. Drld. 40' in 13 hrs. MW 8.8; vis 57; WL 8.0; pH 9.0. Fin. LD fishing tools. Dull grade bit #49: 6-5-¼". Ran bit #50 (8½" Hughes J99 - SN TR265) @ 10,012'. Bit has drld. 40' in 13 hrs. Carrying 1 unit BGG. Ankareh smpl top: 10,010'. Drlg.wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/12/79 197 days - Drlg. in sltstn @ 10,093'. Drld. 41' in 13 hrs. MW 8.8; vis 55; WL 8.8; pH 10.0. Survey: 4¼° @ 10,087'. Pulled bit #50 @ 10,087'. Bit drld. 75' in 25 hrs. Dull grade 4-4-I. Ran bit #51 (8½" Smith F4 - SN AE4438). Bit has drld. 6' in 1-3/4 hrs. Drlg. wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1 (cont)
Rich Co., Utah

5/13/79 198 days - TD 10,207'. Drld. 114' of sltstn in 13-3/4 hrs. Changing bits. MW 8.8; vis 50; WL 9.0; pH 10.7. Pulled bit #51 @ 10,207'. Bit drld. 120' in 15½ hrs. Dull grade 7-5-I. Now changing bits.

5/14 199 days - TD 10,207'. Washing & rmg @ 9600'. MW 8.8; vis 56; WL 5.6; pH 10.5. PU new IBS in BHA. Ran bit #52 (8½" Smith F57 - SN AB9639). Began washing & rmg @ 9400'. Now washing & rmg. @ 9600'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/15/79 200 days - Drlg. in sltstn & sh @ 10,268'. Drld. 61' in 15½ hrs. MW 8.8; vis 64; WL 5.6; pH 10.2. Fin. washing & rmg to btm w/bit #52. Bit has drld. 61' in 15½ hrs. Drlg. wt 40,000#; RPM 42.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/16/79 201 days - Drlg. in Ankareh sltstn @ 10,406'. Drld. 138' in 24 hrs. MW 8.9; vis 59; WL 5.4; pH 10.6. Bit #52 has drld. 199' in 39½ hrs. Carrying 1 unit BGG. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/17/79 202 days - Drlg. in Ankareh @ 10,462'. Drld. 56' in 13 hrs. MW 8.7; vis 63; WL 5.8; pH 11.1. Survey: 4° @ 10,458'. Pulled bit #52 @ 10,458'. Bit drld. 251' in 49½ hrs. Dull grade 4-4-¼". Ran bit #53 (8½" Hughes X55R - SN KF405). Bit has drld. 4' in 3 hrs. Had fractures 10,455-61'. BGG increased from 3 units to 56 units. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/18/79 203 days - TD 10,498'. Drld. 36' of Ankareh in 9 hrs. Running DST #6. MW 8.7; vis 47; WL 5.2; pH 10.4. Pulled bit #53 @ 10,498' for DST. Bit drld. 40' in 12 hrs. Dull grade 2-4-½". Ran DST #6 - 10,400-10,498' (Ankareh). TO 10 min--w/fair blow, increased to good blow immed. Now running ISI.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/19/79 204 days - Drlg. in Ankareh sh @ 10,536'. Drld. 38' in 10½ hrs. MW 8.7; vis 49; WL 5.6; pH 9.8. Fin. running DST #6. ISI 60 min; TO 60 min--w/good blow; FSI 60 min. Pulled DST #6 to rec. 200' amm. WC + 1557' SW + 185' ø mud. Mud filtrate: 130 ppm nit's, 8000 ppm chl's. DST recovery: 25 ppm nit's, 13,000 ppm chl's. Bomb depth 10,494'. IHP 4689; IFP 350/482; ISIP 3941; FFP 657/919; FSIP 3153; FHP 4645; BHT 180° F. Smplr cap: 2400 cc's; rec. @ 150 psi, 2150 cc's wtr. Rstv: 3.2 @ 70°. Ran bit #54 (8½" Hughes J55 - SN TS665) @ 10,498'. Bit has drld. 38' in 7½ hrs. Carrying 2-3 units BGG. Drlg. wt 40,000#; RPM 43.

5/20 205 days - Drlg. in Ankareh sh & sltstn @ 10,650'. Drld. 114' in 24 hrs. MW 8.8; vis 46; WL 6.0; pH 9.3. Bit #54 has drld. 152' in 34½ hrs. Carrying 2 units BGG. Drlg. wt 45,000#; RPM 43.

5/21 206 days - Drlg. in Ankareh sh & sltstn @ 10,763'. Drld. 113' in 24 hrs. MW 8.8; vis 46; WL 7.2; pH 9.2. Bit #54 has drld. 265' in 58½ hrs. Carrying 2 units BGG. Drlg. wt 45,000#; RPM 53.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/22/79 207 days - Drlg. in Ankareh sh @ 10,852'. Drld. 89' in 22½ hrs. MW 8.8; vis 46; WL 8.2; pH 10.0. Survey: 4½° @ 10,830'. Bit #54 has drld. 354' in 81 hrs. Carrying 2 units BGG. Drlg. wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/23/79 208 days - TIH w/bit @ 10,893'. Drld. 41' of brn sltstn in 9 hrs. MW 8.8; vis 45; WL 8.0; pH 10.0. Survey: 5° @ 10,880'. Pulled bit #54 @ 10,893'. Bit drld. 395' in 90 hrs. Dull grade 4-3-I. Magnafluxed DC's & BHA. Now running bit #55 (8½" Smith F4 - SN PB3919) @ 10,893'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

5/24/79 209 days - Drlg. in Ankareh sltstn @ 10,911'. Drld. 18' in 3½ hrs. MW 8.8; vis 44; WL 8.0; pH 9.7. Fin. washing & rmg w/bit #55 to 10,893'. Bit has drld. 18' in 3½ hrs. Began TIH w/bit #55. Encountered tite hole. POH. Gauged stabilizer 1/32 over gauge. LD stabilizer. PU gauge stabilizer. TIH w/o problems. Drlg. wt 35,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

5/25/79 210 days - Drlg. in Ankareh sh @ 11,018'. Drld. 107' in 21¼ hrs. MW 8.7; vis 43; WL 9.2; pH 9.8. Survey: 5¼° @ 10,955'. Bit #55 has drld. 125' in 25 hrs. Carrying 2 units BGG. Drlg. wt 35,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

5/26/79 211 days - TIH w/bit #56 @ 11,065'. Drld. 47' of lt brn sltstn in 15½ hrs. MW 8.8; vis 56; WL 8.8; pH 9.6. Survey: 6° @ 11,050'. Pulled bit #55 @ 11,065'. Bit drld. 172' in 40¼ hrs. Dull grade 8-3-I. Now running bit #56 (8½" Sec M89TF - SN 782240) @ 11,065'.

5/27 212 days - Drlg. in sltstn @ 11,125'. Drld. 60' in 16½ hrs. MW 8.8; vis 49; WL 9.2; pH 10.1. Fin. running bit #56 @ 11,065'. Bit has drld. 60' in 16½ hrs. Carrying 2 units BGG. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1 (cont)
Rich Co.,Utah

5/28/79 213 days - Drlg. in lt gry-brn sltstn @ 11,236'. Drld. 111' in 22¼ hrs. MW 8.7; vis 43; WL 9.8; pH 9.7. Survey: 6° @ 11,130'. Bit #56 has drld. 171' in 38-3/4 hrs. Drlg. wt 40,000#; RPM 43.

5/29 214 days - Drlg. in gry, tan & red sltstn & sh @ 11,300'. Drld. 64' in 14½ hrs. MW 8.7; vis 46; WL 8.2; pH 9.8. Survey: 6-3/4° @ 11,269'. Pulled bit #56 @ 11,256'. Bit drld. 181' in 43½ hrs. Dull grade 8-4-I. Ran bit #57 (8½" Smith F57 - SN AA2941). Bit has drld. 44' in 9-3/4 hrs. Carrying 2 units BGG. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

5/30/79 215 days - Drlg. in Thaynes dolomite & sltstn @ 11,417'. Drld. 117' in 21¼ hrs. MW 8.7; vis 44; WL 8.0; pH 9.5. Survey: 8° @ 11,363'. Bit #57 has drld. 161' in 31 hrs. Thaynes smpl top: 11,380'. Carrying 2 units BGG. Drlg. wt 35,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

5/31/79 216 days - Drlg. in sltstn & dolomite @ 11,559'. Drld. 142' in 21 hrs. MW 8.8; vis 48; WL 8.6; pH 9.7. Survey: 8¼° @ 11,456' & 11,517'. Bit #57 has drld. 303' in 32 hrs. Carrying 1-2 units BGG. Drlg. wt 35,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/1/79 186 days - Tripping out for bit @ 9314'. Drld. 35' of Nugget in 11½ hrs. MW 8.9; vis 65; WL 8.2; pH 10.0. Fin. pulling bit #42 @ 9279'. Dull grade 8-6-½". Ran bit #43 (8½" Hughes J99 - SN NV136). Now pulling bit #43 @ 9314'. Bit drld. 35' in 11½ hrs.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

5/2/79 187 days - Drlg. in Nugget ss @ 9398'. Drld. 84' in 18½ hrs. MW 8.9; vis 76; WL 8.8; pH 10.1. Fin. pulling bit #43 @ 9314'. Ran bit #44 (8½" Smith F9 - SN 138SX). Bit has drld. 84' in 18½ hrs. Drlg. wt 45,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/16/79 232 days - Drlg. in Dinwoody @ 13,158'. Drld. 118' in 22 hrs. MW 8.8; vis 46; WL 10.0; pH 11.1. Survey: 10° @ 13,038'. Bit #63 has drld. 339' in 63 hrs. Dinwoody smpl top: 13,088'. Drlg. wt 40,000#; RPM 43.

6/17 233 days - Drlg. in sh, sltstn & dolomite @ 13,214'. Drld. 56' in 12-3/4 hrs. MW 8.7; vis 44; WL 9.2; pH 11.5. Survey: 10° @ 13,173'. Pulled bit #63 @ 13,173'. Bit drld. 354' in 67 hrs. Dull grade 7-5-I. Ran bit #64 (8½" Smith F4 - SN AA5302). Bit has drld. 41' in 8-3/4 hrs. Carrying 2 units BGG. Drlg. wt 40,000#; RPM 43.

6/18 234 days - Drlg. in silt & dolomite @ 13,275'. Drld. 61' in 14½ hrs. MW 8.7; vis 57; WL 9.8; pH 11.5. Pulled bit #64 @ 13,264'. Bit drld. 91' in 20½ hrs. Dull grade 6-5-I. Ran bit #65 (8½" Smith F57J - SN 5439J ?). Bit has drld. 11' in 3-3/4 hrs. Carrying 2 units BGG. Drlg. wt 40,000#; RPM 42.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/19/79 235 days - Drlg. in Dinwoody @ 13,384'. Drld. 109' in 24 hrs. MW 9.0; vis 44; WL 9.0; pH 11.6. Bit # 65 has drld. 120' in 26-3/4 hrs. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/20/79 236 days - TD 13,498'. Drld. 114' of brn dolomite in 21 hrs. Tripping for bit. MW 9.0; vis 43; WL 9.0; pH 11.8. Now pulling bit #65 @ 13,498'. Bit drld. 234' in 47-3/4 hrs. Phosphoria smpl top: 13,360'--no shows.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/21/79 237 days - Drlg. in buff, gry dolomite @ 13,578'. Drld. 80' in 14½ hrs. MW 9.1; vis 40; WL 9.0; pH 11.8. Survey: 9-3/4° @ 13,498'. Fin. pulling bit #65 @ 13,498'. Ran bit #66 (8½" Smith F57 - SN AA8066). Bit has drld. 80' in 14½ hrs. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/22/79 238 days - TD 13,626'. Drld. 48' of Phosphoria in 8 hrs. TIH w/DST #7. MW 9.1; vis 46; WL 9.6; pH 11.8. Survey: 9-3/4° @ 13,626'. Pulled bit #66 @ 13,626'. Bit drld. 128' in 22½ hrs. Dull grade 6-5-I. PU test tools & now running tools for DST #7 - 13,400-13,626' (Phosphoria).

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

6/23/79 239 days-Drlg. Phosphoria at 13,628'. Drld. 2' in ½ hr. MW 9.1; vis 47; WL 9.0; pH 11.8. Finished TIH w/DST #7 (13,400'-13,626'). 60 min. open w/strong blow, beginning to decline in 33 min. Declined to weak blow in 60 min. SI 60 min. Pulled DST #7 to recover 3400' WC + 540' drlg. fluid. Bomb depth: 13,406'. BHT-210°. IHP 6495; IFP 1655'; FFP 1837; FSIP 5554; FHP 6349. Sampler cap. 2400cc. Rec. 2400cc GC drlg. md. at 90psi. Rstv. .25 at 78°. Mud Filtrate .38 at 86°. Ran bit #67(8½" Smith F57, S/N 615SX) Bit has drld. 2' in ½ hr. Drlg.wt 40,000#; RPM 43.

6/24/79 240 days-Drlg. Phosphoria at 13,756'. Drld. 128' in 23-3/4 hrs. MW 9.1; vis 44; WL 9.4; pH 11.8 Bit #67 has drld 130' in 24½ hrs. Lost 10bbls mud from 13,746' to 13,749'. Drlg.wt. 40,000#; RPM 43.

6/25/79 241 days-Drlg. Weber ss at 13,868'. Drld. 112' in 23-3/4 hrs. MW 9.1; vis 45; WL 9.6; pH 11.9 Bit #67 has drld. 242' in 48 hrs. Sample top of Weber: 13,794'. Drlg.wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/26/79 242 days - Drlg. in Wells ss @ 13,906'. Drld. 38' in 9¼ hrs. MW 9.1; vis 42; WL 10.0; pH 11.7. Survey: 9½° @ 13,872'. Pulled bit #67 @ 13,872'. Bit drld. 246' in 49 hrs. Dull grade 7-5-I. Ran bit #68 (8½" Hughes J77 - SN PZ581). Bit has drld. 34' in 6¼ hrs. SLM @ 13,872'--no corr. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/27/79 243 days - Out of hole w/bit #68 @ 14,002'. Drld. 96' of Wells ss in 18-3/4 hrs. MW 9.1; vis 42; WL 8.8; pH 11.9. Survey: 8-3/4° @ 14,002'. Pulled bit #68 @ 14,002'. Bit drld. 130' in 27 hrs. Dull grade 8-6-2".

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/28/79 244 days - Drlg. in Wells ss @ 14,053'. Drld. 51' in 13 hrs. MW 9.1; vis 46; WL 8.6; pH 11.9. Ran bit #69 (8½" Hughes J99 - SN CD581) @ 14,002'. Bit has drld. 51' in 13 hrs. Carrying 1 unit BGG. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/29/79 245 days - POH w/bit #69 @ 14,130'. Drld. 77' of Wells ss in 18-3/4 hrs. MW 9.1; vis 46; WL 8.6; pH 11.9. Now pulling bit #69 @ 14,130'. Bit drld. 128' in 31-3/4 hrs.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/30/79 246 days - Drlg. in Wells ss @ 14,181'. Drld. 51' in 13½ hrs. MW 9.1; vis 48; WL 8.0; pH 11.8. Survey: 8¼° @ 14,130'. Fin. pulling bit #69 @ 14,130'. Dull grade 8-8-¼". Ran bit #70 (8½" Smith F9 - SN AD5393). Bit has drld. 51' in 13½ hrs. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

6/9/79 225 days - Drlg. red & brn silt at 12,481'. Drld. 45' in 13½hrs. MW 8.9; vis 40; WL 9.8; pH 10.6 Survey:10°at 12,470'. Pulled bit #60 at 12,470'. Bit had drld. 126' in 24-3/4hrs. Dull grade 6-5-I. Ran Bit #61 (8½" HTC J55-SN PM520) in at 12,470'. Bit has drld. 11' in 4-3/4hrs. Drlg.wt. 35,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(Continued)

6/10/79 226 days - Drlg. red & brn siltstone at 12,536'. Drld. 55' in 15½hrs. MW 8.9; vis 42; WL 9.1; pH 10.5 Survey: 10° at 12,520'. Pulled bit #61 at 12,520' Bit had drld. 50' in 15½hrs. Dull grade 4-4-I. Ran Bit #62 (8½" STC F4 - SN AD6285) in at 12,520'.

6/11/79 227 days - Drlg. red & brn sh at 12,638'. Drld. 102' in 22½hrs. MW 8.9; vis 48; WL 9.7; pH 10.8 Survey: 10¼° at 12,602'. Bit #62 has drld. 118' in 26½hrs. Drlg.wt. 34,000#; RPM 43. Have drld 230' of red-brn silt & sh.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/12/79 228 days - Drlg. in red-brn sltstn & sh @ 12,755'. Drld. 117' in 22-3/4 hrs. MW 8.7; vis 47; WL 9.6; pH 10.7. Survey: 10° @ 12,695'. Bit #62 has drld. 235' in 49¾ hrs. Carrying 2 units BGG. Drlg. wt 34,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/13/79 229 days - Tripping out @ 12,819'. Drld. 64' of red & brn sltstn in 15½ hrs. MW 8.7; vis 49; WL 9.8; pH 10.8. Survey: 10° @ 12,805'. Now pulling bit #62 @ 12,819'. Bit drld. 299' in 64-3/4 hrs.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/14/79 230 days - Drlg. in Woodside sh @ 12,914'. Drld. 95' in 18 hrs. MW 8.6; vis 47; WL 10.0; pH 10.2. Survey: 10° @ 12,881'. Fin. pulling bit #62 @ 12,819'. Dull grade 8-2-I. Ran bit #63 (8½" Smith F4 - SN AD6270). Bit has drld. 95' in 18 hrs. Carrying 2 units BGG. Woodside smpl top: 12,400'. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/15/79 231 days - Drlg. in Woodside sh w/sltstn stringers @ 13,040'. Drld. 126' in 23 hrs. MW 8.8; vis 47; WL 9.8; pH 11.0. Bit #63 has drld. 221' in 41 hrs. Carrying 2 units BGG. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/1/79 217 days - Drlg. @ 11,734'. Drld. 175' of sltstn & ls in 23 hrs. MW 8.7; vis 48; WL 9.8; pH 10.1. Survey: 7-3/4° @ 11,610'. Bit #57 has drld. 478' in 75 hrs. Drlg. wt 40,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/2/79 218 days - Drlg. in ls & interbedded sh @ 11,876'. Drld. 142' in 21-3/4 hrs. MW 8.7; vis 52; WL 9.8; pH 9.6. Surveys: 8° @ 11,720' & 11,800'. Bit #57 has drld. 620' in 96-3/4 hrs. Drlg. wt 35,000#; RPM 60.

6/3 219 days - Drlg. in ls & silt @ 11,914'. Drld. 38' in 9 hrs. MW 8.7; vis 48; WL 10.2; pH 10.4. Pulled bit #57 @ 11,899'. Bit drld. 643' in 101¼ hrs. Dull grade 7-4-1/8". Ran bit #58 (8½" Reed FP63 - SN 839160). Bit has drld. 15' in 4½ hrs. Pressure-tested BOPE to 5000 psi; Hydril to 1500. Drlg. wt 35,000#; RPM 60.

6/4 220 days - TIH w/bit @ 11,977'. Drld. 63' of sltstn & sh in 16-3/4 hrs. MW 8.8; vis 49; WL 10.1; pH 10.2. Surveys: 8½° @ 11,890' & 11,970'. Pulled bit #58 @ 11,977'. Bit drld. 78' in 21¼ hrs. Dull grade 2-2-I. Now running bit #59 (8½" Smith F4 - SN AA5293) @ 11,977'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/5/79 221 days - Drlg. in Thaynes lm & sltstn @ 12,097'. Drld. 120' in 19-3/4 hrs. MW 8.7; vis 43; WL 10.1; pH 9.8. Fin. running bit #59 @ 11,977'. Bit has drld. 120' in 19-3/4 hrs. Drlg. wt 35,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/6/79 222 days - Drlg. in blk sh w/interbedded ls @ 12,230'. Drld. 133' in 21¼ hrs. MW 8.7; vis 44; WL 9.8; pH 9.8. Surveys: 9½° @ 12,076' & 12,137'. Bit #59 has drld. 253' in 41 hrs. Drlg. wt 30,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/7/79 223 days - Tripping out @ 12,344'. Drld. 114' of Thaynes ls in 18-3/4 hrs. MW 8.8; vis 45; WL 9.7; pH 10.4. Survey: 9½° @ 12,229'. Now pulling bit #59 @ 12,344'. Bit drld. 367' in 59-3/4 hrs.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

6/8/79 224 days - Drlg. in red-brn ss & sh @ 12,436'. Drld. 92' in 14¼ hrs. MW 8.8; vis 43; WL 9.8; pH 10.0. Survey: 9-3/4° @ 12,310'. Fin. pulling bit #59 @ 12,344'. Dull grade 5-4-I. Ran bit #60 (8½" Smith F4 - SN AA5286). Bit has drld. 92' in 14¼ hrs. Carrying 1 unit BGG. Drlg. wt 30,000#; RPM 60.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

7/19/79 265 days - TD 15,201'. Combatting lost circ. MW 9.2; vis 43; WL 8.4; pH 11.7. Ran Class "G" plugs as follows: 10,050-9,950' - 50 sx
9,000-8,900' - 50 sx
Lost circ. Now trying to regain.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

7/20/79 266 days - TD 15,201'. Combatting lost circ. MW 9.2; vis 43; WL 8.4; pH 11.7.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

7/21/79 267 days - TD 15,201'. RD BOP & clng pits. Regained circ. Set EZ-Drill BP @ 7693'. Set 50-sk Class "G" plugs @ 7693-7793' & 7000-6900'. Now clng pits & RD BOPE.
7/22 268 days - TD 15,201'. RDRT. Rig released 6:00 PM 7/21/79. Will install dry hole marker upon arrival. (DROP FROM REPORT.)

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

6/30/79 246 days - Drlg. in Wells ss @ 14,181'. Drld. 51' in 13½ hrs. MW 9.1; vis 48; WL 8.0; pH 11.8. Survey: 8¼° @ 14,130'. Fin. pulling bit #69 @ 14,130'. Dull grade 8-8-¼". Ran bit #70 (8½" Smith F9 - SN AD5393). Bit has drld. 51' in 13½ hrs. Drlg. wt 40,000#; RPM 43.

7/1 247 days - TIH w/bit #71 @ 14,237'. Drld. 56' of Wells ss in 17 hrs. MW 9.2; vis 47; WL 7.4; pH 11.6. Survey: 8¼° @ 14,200'. Pulled bit #70 @ 14,237'. Bit drld. 107' in 30-3/4 hrs. Dull grade 6-5-3/16". Now running bit #71 (8½" Hughes J99 - SN AA064) @ 14,237'.

7/2 248 days - Drlg. in Wells ss w/sh streaks @ 14,313'. Drld. 76' in 18¼ hrs. MW 9.2; vis 47; WL 7.2; pH 11.7. Fin. running bit #71 @ 14,237'. Bit has drld. 76' in 18¼ hrs. Carrying 1 unit BGG. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

7/3/79 249 days - Drlg. in dolomite, sh, anhydrite & ss @ 14,364'. Drld. 51' in 11-3/4 hrs. MW 9.2; vis 44; WL 7.6; pH 11.9. Survey: 7-3/4° @ 14,337'. Pulled bit #71 @ 14,337'. Bit drld. 100' in 25 hrs. Dull grade 5-5-I. Ran bit #72 (8½" Smith F7 - SN AC7758). Bit has drld. 27' in 5 hrs. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

7/4/79 250 days - POH w/bit #72 @ 14,467'. Drld. 103' of Amsden in 20¼ hrs. MW 9.2; vis 43; WL 7.4; pH 11.8. Now pulling bit #72 @ 14,467'. Bit drld. 130' in 25¾ hrs. Amsden smpl top: 14,445'.

7/5 251 days - Drlg. in Amsden @ 14,509'. Drld. 42' in 10½ hrs. MW 9.2; vis 43; WL 7.4; pH 11.9. Finished pulling bit #72 @ 14,467'. Dull grade 5-4-I. Ran bit #73 (8½" Smith F5 - SN AD7374). Bit has drld. 42' in 10½ hrs. Carrying tr of BGG. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

7/6/79 252 days - POH w/bit #73 @ 14,608'. Drld. 99' of dolomite & sandy anhydrite in 18-3/4 hrs. MW 9.2; vis 43; WL 7.6; pH 11.5. Now pulling bit #73 @ 14,608'. Bit drld. 141' in 29¾ hrs.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

7/7/79 253 days - Drlg. in Amsden @ 14,667'. Drld. 59' in 16 hrs. MW 9.0; vis 45; WL 7.6; pH 11.5. Survey: 6½° @ 14,608'. Fin. pulling bit #73 @ 14,608'. Dull grade 8-8-¼". Ran bit #74 (8½" Hughes J55 - SN TC874). Bit has drld. 59' in 16 hrs. Drlg. wt 40,000#; RPM 43.

7/8 254 days - Drlg. in Amsden @ 14,721'. Drld. 54' in 12 hrs. MW 9.2; vis 43; WL 7.2; pH 11.5. Survey: 6-3/4° @ 14,681'. Pulled bit #74 @ 14,681'. Bit drld. 73' in 21 hrs. Dull grade 8-5-I. Ran bit #75 (8½" Smith F7 - SN AC7774). Bit has drld. 40' in 7 hrs. Drlg. wt 40,000#; RPM 40.

7/9 255 days - Washing & rotating to btm @ 14,763'. Drld. 42' of Amsden in 11 hrs. MW 9.2; vis 45; WL 7.6; pH 11.5. Survey: 6¼° @ 14,763'. Pulled bit #75 @ 14,763'. Bit drld. 82' in 18 hrs. Dull grade 4-5-I. Ran bit #76 (8½" Smith F5 - SN AC9646). Now washing to btm.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

7/10/79 256 days - TIH w/bit @ 14,811'. Drld. 48' of Amsden in 10 hrs. MW 9.2; vis 43; WL 7.6; pH 11.5. Survey: 6¼° @ 14,811'. Pulled bit #76 @ 14,811'. Bit drld. 48' in 10 hrs. Dull grade 8-8-1¼". Now running bit #77 (8½" Hughes J77 - SN PV169) @ 14,811'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

7/11/79 257 days - Drlg. in Amsden @ 14,965'. Drld. 154' in 21¼ hrs. MW 9.2; vis 43; WL 7.6; pH 11.5. Fin. running bit #77 @ 14,811'. Bit has drld. 154' in 21¼ hrs. Drlg. wt 40,000#; RPM 30.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

7/12/79 258 days - Drlg. @ 15,178'. Drld. 213' in 24 hrs. MW 9.1; vis 43; WL 8.6; pH 11.5. Bit #77 has drld. 367' in 45¼ hrs. Drlg. wt 40,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

7/13/79 259 days - TD 15,201'. Drld. 23' in 3½ hrs. MW 9.1; vis 42; WL 8.0; pH 11.5. Survey: 6° @ 15,201'. Now running DST #8 - 14,950-15,201'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

7/14/79 260 days - TD 15,201'. Circ. for logs. MW 9.1; vis 45; WL 7.6; pH 11.7. Fin. running DST #8 - 14,950-15,201'. Reran bit #77 (8½" Hughes J77 - SN PV169) @ 15,201'. Now circ. & cond. hole for logs.

7/15 261 days - TD 15,201'. Logging. MW 9.2; vis 42; WL 7.8; pH 11.7. Pulled bit #77 @ 15,201' for logs. Bit drld. 390' in 48-3/4 hrs. Ran DLL to 15,213' (logger depth). Now running Sonic-GR.

7/16 262 days - TD 15,201'. Logging. MW 9.2; vis 42; WL 7.8; pH 7.5. Fin. running Sonic-GR. Ran CNFD & Dipmeter to 15,201'. Now running veloc. surv's.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

7/17/79 263 days - TD 15,201'. Circ., prep to plug. MW 9.2; vis 43; WL 8.0; pH 11.6. Fin. running veloc. survey. TIH. Now circ., prep to plug.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

7/18/79 264 days - TD 15,201'. LD DP & plugging. MW 9.2; vis 43; WL 8.4; pH 11.7. POH & LD DC's. PU DP & TIH. Circ. & prep to plug.

Set Class "G" plugs as follows:

14,400-14,500' -	50 sx
13,300-13,400' -	50 sx
12,350-12,450' -	50 sx

Now plugging.

MINNOW HILL UNIT #29-1 (17,700' Camb-WC) Rich Co.,Utah Minnow Hill Prosp.	11/27/78 31 days - Drlg. in Kelvin sh @ 4007'. Drld. 125' in 22-3/4 hrs. MW 8.8; vis 38; WL 11.6; pH 9.9. Survey: 2-3/4° @ 3973'. Bit #RR9 has drld. 608' in 91½ hrs. Drlg. wt 20,000#; RPM 70.
MINNOW HILL UNIT #29-1 (17,700' Camb-WC) Rich Co.,Utah Minnow Hill Prosp.	11/28/78 32 days - Drlg. in Kelvin sh @ 4144'. Drld. 137' in 16¼ hrs. MW 8.9; vis 38; WL 10.5; pH 10.3. Survey: 2½° @ 4097'. Pulled bit #RR9 @ 4058'. Bit drld. 659' in 97-3/4 hrs. Dull grade 4-2-1/16". Ran bit #12 (12¼" Smith F2 - SN 405TD). Bit has drld. 86' in 10 hrs. Drlg. wt 20,000#; RPM 70.
MINNOW HILL UNIT #29-1 (17,700' Camb-WC) Rich Co.,Utah Minnow Hill Prosp.	11/29/78 33 days - Drlg. in Kelvin sh @ 4287'. Drld. 143' in 22½ hrs. MW 8.9; vis 37; WL 11.8; pH 9.9. Survey: 2° @ 4281'. Bit #12 has drld. 229' in 32½ hrs. Drlg. wt 25,000#; RPM 70.
MINNOW HILL UNIT #29-1 (17,700' Camb-WC) Rich Co.,Utah Minnow Hill Prosp.	11/30/78 34 days - Tripping out looking for hole in DP @ 4437'. Drld. 150' Kelvin in 19¼ hrs. MW 9.0; vis 40; WL 12.8; pH 10.2. Survey: 2-3/4° @ 4405'. Bit #12 has drld. 379' in 51-3/4 hrs. Lost 500# pump pressure. Now POH looking for hole.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/31/79 155 days - TD 8204'. Milling depth 7765'. Milled 5' in 10½ hrs. TIH w/mill #5. MW 9.1; vis 63; WL 10.2; pH 9.5. Pulled mill #3 @ 7763'. Milled 13' in 8 hrs.--worn smooth. Ran mill #4 (8½" Acme FB) @ 7763'. Pulled mill #4 @ 7765'. Milled 2' in 6 hrs.--worn smooth. Now TIH w/mill #5 (8½" Acme FB) @ 7765'.

4/1 156 days - TD 8204'. Milling depth 7765'. Logging w/Schlumberger. MW 9.1; vis 80; WL 10.0; pH 9.3. Fin. TIH w/mill #5 @ 7765'. Pulled mill #5 @ 7765'. Milled 0' in 5½ hrs. Rec. numerous pieces of junk in junk basket. Ran DLL 7765-surf. Now running CNFD Log.

4/2 157 days - TD 8204'. Milling depth 7765'. TIH w/bit #RR33. MW 9.1; vis 80; WL 10.0; pH 9.3. Ran CNFD & Frac Finder 7765-5680' & Dipmeter 7765-1000'. Now TIH w/12¼" bit to cond. for 9-5/8" csg.

MINNOW HILL
UNIT #29-1
(17,700' Cambrian - WC)
Rich Co., Utah
Minnow Hill Prosp.

10/6/78 FIRST REPORT: Staked loc. in NE¼ NE¼ of Sec. 29-9N-8E. Elev: 6685' GR. Now bldg. road & loc. & MIRT (Brinkerhoff-Signal - Rig #15).

MINNOW HILL
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co., Utah
Minnow Hill Prosp.

10/7-8/78 Bldg. road & loc. & MIRT. (Have 3 loads of Brinkerhoff-Signal Rig #15 on loc.)
10/9 Bldg. road & loc., MIRT & drlg. conductor hole @ 60'.

MINNOW HILL
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co., Utah
Minnow Hill Prosp.

10/10/78 Bldg. road & loc.; drlg. conductor hole; MIRT.

MINNOW HILL
UNIT #29-1
(17,700' Cambrian -WC)
Rich Co., Utah
Minnow Hill Prosp.

10/11/78 Bldg. road & loc & MIRT. Set 60' of 20" conductor w/7 yds. ready mix.

MINNOW HILL
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co., Utah
Minnow Hill Prosp.

10/12/78 MIRT.

MINNOW HILL UNIT
#29-1
(17,700' Cambrian-WC)
Rich Co., Utah
Minnow Hill Prosp.

10/13/78 MIRT. Have 30 loads on location.

MINNOW HILL
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co., Utah
Minnow Hill Prosp.

10/14-16/78 RURT.

MINNOW HILL
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co., Utah
Minnow Hill Prosp.

10/17/78 RURT.

MINNOW HILL
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co., Utah
Minnow Hill Prosp.

10/18/78 RURT.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/1/79 125 days - TD 9041'. POH w/approx. 7000' DP. MW 9.0; vis 65; WL 8.8; pH 10.5. Jarred on test tools 10-3/4 hrs. Moved tool total of 5½'. RU Petro-Log. Attempted to back off top of test tool--DP parted @ approx. 7000'. Left 3000' of wireline & freepoint instrument in hole. Now POH w/DP.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/2/79 126 days - TD 9041'. TIH w/screw-in sub. MW 9.1; vis 50; WL 10.0; pH 10.5. Fin. POH. Rec. 5177' DP. PU screw-in sub. TIH to 6013'. Engaged fish. String backed off @ 7346'. POH. Ck'd & tightened all connections. Now TIH w/screw-in sub. Fishing depth: 7346'.

MINNOW HILL UNIT #29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp.

3/3/79 127 days - TD 9041'. Fishing. Fin TIH w/screw-in sub; attempted to engage fish; would not engage. POH. PU wl spear. TIH; rec approx 2000' wl. TIH w/screw-in sub; engaged fish @ 7346'. Now prep to back off.

3/4/79 128 days - TD 9041'. Circ & cond hole. Ran Petrolog w/sinker bars; could not get below 7346'. Ran wl spear. Could not rec any line. Attempted manual backoff. String backing off @ 5364'. TIH; attempted manual back off; backed off @ 6520 & 7044'. Now circ & cond hole.

3/5/79 129 days - TD 9041'. TIH to engage fish. Circ & cond hole @ 6950'. Screwed into fish. Ran Petrolog wl spear; did not rec any wl. Ran 1 3/4" down shot. Reran spear w/no results. Attempted to back off manually 7 times; deepest manual backoff was @ 7186'. POH. Cleaned & dried all tool jts. Now TIH to engage fish.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/6/79 130 days - TD 9041'. TIH w/DC's, jars & bumper sub. MW 9.0; vis 57; WL 10.4; pH 10.5. Fin. TIH cleaning tool jts. Engaged fish. Backed off manually apparently @ top of DC's. Pulled uphole 40'. Stuck string. PU kelly. Broke circ. Worked pipe--w/o results. RU Petro-Log. Found string stuck @ 7690'. Backed off @ 7656'. POH. Rec. 10 jts DP & screw-in sub. PU DC's, jars & bumper sub. Now TIH to jar on fish.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/7/79 131 days - TD 9041'. Jarring on #2 fish. MW 9.1; vis 46; WL 9.2; pH 10.0. Fin. TIH. Washed & circ. in attempt to locate fish--w/no success. POH. LD tools. PU bit #RR27 (12¼" Smith V2H - SN 5122D). Tagged #2 fish @ 7507'. Circ. btms up. Pulled bit #RR27. LD bit. PU screw-in sub w/guide, bumper sub & jars. TIH to top of fish. Circ. btms up. Screwed into #2 fish. Now jarring on #2 fish.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/8/79 132 days - TD 9041'. TIH w/bent jt. MW 9.0; vis 45; WL 8.6; pH 10.5. Jarred on #2 fish--w/no results. Backed off @ 7488'. Worked by top of fish. Attempted to engage #1 fish @ 7519'--w/no success. POH. LD screw-in sub. PU total of 9 - 8" DC's, jars, bumper sub, accelerator & 1 bent jt. Now TIH. Will attempt to screw into #1 fish & break circ.

MINNOW HILL
~~UNIT #29-1~~
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

3/9/79 133 days - TD 9041'. Jarring on fish #2. MW 9.0; vis 45; WL 8.6; pH 10.5. Fin. TIH w/bent jt. Worked by top of fish #2 @ 7488'. Attempted to engage #1 fish @ 7519'. Worked down to 7555' & took wt. Jars probably sitting down on top of #2 fish. TOH. PU 2 more jts DP below jars--total of 4 jts (123'). TIH. Worked by top of fish #2. Could not tag #1 fish. Started taking wt @ 7611'--123' below top of #2 fish. PU & screwed into #2 fish @ 7488'. Now jarring on #2 fish, w/o success.

1/1/79 66 days - Drlg. in Twin Crk ls @ 7101'. Drld. 137' in 21½ hrs. MW 8.8; vis 38; WL 18.0; pH 8.5. Survey: 3¼° @ 7006'. Bit #24 has drld. 279' in 48¼ hrs. Twin Crk sample top: 7060'. Drlg. wt 35,000#; RPM 43.

1/2 67 days - Drlg. in Twin Crk ls @ 7223'. Drld. 122' in 20¼ hrs. MW 8.8; vis 37; WL 12.0; pH 10.5. Surveys: 3¼° @ 7101' & 7223'. Bit #24 has drld. 401' in 68½ hrs. Drlg.wt 35,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

1/3/79 68 days - Drlg. in Twin Crk ls @ 7335'. Drld. 112' in 22 hrs. MW 8.8; vis 37; WL 14.4; pH 10.0. Survey: 4° @ 7316'. Bit #24 has drld. 513' in 90½ hrs. Drlg. wt 15,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

1/4/79 69 days - Drlg. in Twin Crk ls @ 7397'. Drld. 62' in 11¼ hrs. MW 8.9; vis 36; WL 14.0; pH 10.0. Surveys: 4½° @ 7342'; 4-3/4° - @ 7376'. Pulled bit #24 @ 7342'. Bit drld. 520' in 92½ hrs. Dull grade 4-2-1/8". Changed pendulum from 60' to 90'. Ran bit #25 (12¼" Hughes J33 - SN MX431). Bit has drld. 55' in 9¼ hrs. Carrying 1 unit bgg. Drlg. wt 33,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

1/5/79 70 days - Drlg. in Twin Crk ls @ 7531'. Drld. 134' in 21 hrs. MW 8.8; vis 37; WL 14.0; pH 10.3. Surveys: 4-3/4° @ 7406'; 4½° @ 7500'. Bit #25 has drld. 189' in 30¼ hrs. Carrying 1 unit bgg. Drlg.wt 32,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

1/6/79 71 days - Drlg. in Twin Crk ls @ 7655'. Drld. 124' in 20½ hrs. MW 8.8; vis 37; WL 14.5; pH 10.3. Surveys: 4¼° @ 7531'; 4-3/4° @ 7624'. Bit #25 has drld. 313' in 50-3/4 hrs. Carrying 1 unit bgg. Drlg. wt 40,000#; RPM 42.

1/7 72 days - Drlg. in Twin Crk ls @ 7772'. Drld. 117' in 19-3/4 hrs. MW 8.8; vis 38; WL 12.8; pH 10.5. Surveys: 4-3/4° @ 7655'; 4° @ 7748'. Bit #25 has drld. 430' in 70½ hrs.Drlg.wt 30,000#; RPM 43.

1/8 73 days - Drlg. in Twin Crk ls @ 7900'. Drld. 128' in 21 hrs. MW 8.9; vis 38; WL 12.5; pH 10.3. Survey: 3-3/4° @ 7900'. Bit #25 has drld. 558' in 91½ hrs. Carrying 1 unit bgg.Drlg.wt 33,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

1/9/79 74 days - POH w/bit #25 @ 8001'. Drld. 101' of Twin Crk ls in 16¼ hrs. MW 8.9; vis 38; WL 13.8; pH 10.5. Survey: 3° @ 7996'. Bit #25 drld. 659' in 107-3/4 hrs. Had 2-unit gas increase @ 8000'. Now pulling bit #25 @ 8001'.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

1/10/79 75 days - Drlg. in Twin Crk ls @ 8088'. Drld. 87' in 11½ hrs. MW 8.9; vis 37; WL 13.8; pH 10.3. Survey: 2°+ @ 8057'. Fin. pulling bit #25 @ 8001'. Dull grade 3-2-1/16". Ran bit #26 (12¼" Smith F3 - SN 311TJ). Bit has drld. 87' in 11½ hrs. Carrying tr of bgg. Drlg. wt 33,000#; RPM 43.

MINNOW HILL
UNIT #29-1
(17,700' Camb-WC)
Rich Co.,Utah
Minnow Hill Prosp.

1/11/79 76 days - TD 8119'. Drld. 31' of Twin Crk ls in 3½ hrs. Working stuck drill string. MW 8.8; vis 39; WL 13.8; pH 10.3. Surveys: 2°+ @ 8088'; 3° @ 8119'. Bit #26 has drld. 118' in 15 hrs. Stuck drill string while running survey. Ran survey. PU kelly. Could not move string; could not circ. Ran freepoint. Could not back off 9" DC's below jars. Had good jar action while working stuck drill string; could not jar loose. Now prep to back off above jars & circ. & cond. for wash pipe.

MINNOW HILL 10/19/78 RURT.
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co.,Utah
Minnow Hill Prosp.

MINNOW HILL 10/20/78 RURT.
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co.,Utah
Minnow Hill Prosp.

MINNOW HILL UNIT 10/21-22-23/78 RURT
29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

MINNOW HILL UNIT 10/24/78 RURT
#29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

MINNOW HILL UNIT 10/25/78 RURT
#29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

MINNOW HILL UNIT 10/26/78 RURT
#29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

MINNOW HILL UNIT 10/27/78 RURT
#29-1
(17,700' Camb-WC)
Rich Co., Utah
Minnow Hill Prosp

MINNOW HILL
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co.,Utah
Minnow Hill Prosp.

10/28/78 Day #1 - Drlg. in cglt @ 328'. Drld. 248' in 12½ hrs. MW 8.7; vis 37; WL 17.0; pH 11.0. Survey: ½° @ 328'. Ran bit #1 (12¼" Hughes OSC3AJ - SN JS800) @ 80'. Bit has drld. 248' in 12½ hrs. Spudded @ 5:00 PM 10/27/78. Drlg. wt 5000#; RPM 166.

10/29 2 days - Drlg. in cglt @ 559'. Drld. 231' in 18½ hrs. MW 8.7; vis 52; WL 17.0; pH 10.5. Survey: 1° @ 511'. Pulled bit #1 @ 553'. Bit drld. 473' in 30½ hrs. Dull grade 4-3-I. Ran bit #2 (12¼" Reed Y13J - SN 133192). Bit has drld. 6' in ½ hr. Drlg. wt 10,000#; RPM 166.

10/30 3 days - Drlg. in Wasatch @ 768'. Drld. 209' in 23½ hrs. MW 9.0; vis 40; WL 12.0; pH 10.1. Survey: 1° @ 760'. Bit #2 has drld. 215' in 29½ hrs. Drlg. wt 15,000#; RPM 166.

MINNOW HILL
UNIT #29-1
(17,700' Cambrian-WC)
Rich Co.,Utah
Minnow Hill Prosp.

10/31/78 4 days - Drlg. in Wasatch @ 953'. Drld. 185' in 18½ hrs. MW 8.9; vis 43; WL 12.4; pH 10.0. Survey: 1° @ 891'. Fulled bit #2 @ 836'. Bit drld. 283' in 33-3/4 hrs. Dull grade 4-8-I. Ran bit #3 (12¼" Sec. S3J - SN 827169). Bit has drld. 117' in 8-3/4 hrs. Drlg. wt 15,000#; RPM 90.

JOHNSTON
Schlumberger

COMPUTERIZED DATA ANALYSIS

JUNE 29, 1979

GENTLEMEN:

THE ENCLOSED TEST APPEARS TO BE A GOOD MECHANICAL DRILL STEM TEST DURING WHICH THE TOOLS DID FUNCTION PROPERLY. THE FORMATION DID NOT PRODUCE 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 180 BBLS/DAY WAS NOTED DURING THIS TEST.

2. RESERVOIR PRESSURE: EXTRAPOLATION OF THE SHUT-IN PRESSURE BUILD-UP INDICATES A MAXIMUM RESERVOIR PRESSURE OF 5955 P.S.I.G. AT RECORDER DEPTH.

3. PERMEABILITY: THE CALCULATED TRANSMISSIBILITY FACTOR OF 24.25 MD.-FT./CP. INDICATES AN AVERAGE EFFECTIVE PERMEABILITY TO TOTAL LIQUID OF .107 MD. FOR THE REPORTED 226 FOOT TEST INTERVAL. THE CALCULATIONS WERE BASED ON A SLOPE OF 1707 P.S.I./LOG CYCLE OBTAINED FROM THE SHUT-IN BUILD-UP PLOT. IT WAS ASSUMED FOR THESE CALCULATIONS THE PRODUCT OF THE TOTAL LIQUID'S VISCOSITY AND FORMATION VOLUME FACTOR TO BE 1.0.

4. WELL BORE DAMAGE: THE CALCULATED DAMAGE RATIO OF .75 INDICATES THAT NO WELL BORE DAMAGE IS PRESENT AT THE TIME AND CONDITIONS OF THIS TEST.

5. RADIUS OF INVESTIGATION: THE CALCULATED RADIUS OF INVESTIGATION OF THIS TEST IS 18.5 FEET BASED ON AN ASSUMED POROSITY OF 10%, COMPRESSIBILITY OF 3.3×10^{-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 ABSENCE OF WELL BORE DAMAGE.

Stephen Gardner

STEPHEN GARDNER
RESERVOIR EVALUATION
DEPARTMENT

AMERICAN QUASAR PETROLEUM COMPANY
MINNOW HILL #29-1; RICH COUNTY, UTAH
TEST #7; 13,400' TO 13,626'
LOCATION: SEC. 29 - T9N - R8E

F.R. #15477 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.

COMPANY AMERICAN QUASAR PETROLEUM COMPANY

WELL MINNOW HILL #29-1

TEST NO. 8

COUNTY RICH

STATE UTAH

JOHNSTON

Schlumberger

computerized data analysis

F.R. # 16176 D

JOHNSTON
Schlumberger

COMPUTERIZED DATA ANALYSIS

JULY 20, 1979

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 AN ADEQUATE SHUT-IN BUILD-UP DID OCCUR FOR RELIABLE QUANTITATIVE ANALYSIS. RESERVOIR PARAMETERS WERE CALCULATED BY THE HORNER METHOD.

1. FLOW RATE: A TOTAL LIQUID RATE OF 3710 BBLS/DAY WAS NOTED DURING THIS TEST.

2. RESERVOIR PRESSURE: EXTRAPOLATION OF THE SHUT-IN PRESSURE BUILD-UP INDICATES A MAXIMUM RESERVOIR PRESSURE OF 6647 P.S.I.G. AT RECORDER DEPTH.

3. PERMEABILITY: THE CALCULATED TRANSMISSIBILITY FACTOR OF 2986 MD.-FT./CP. INDICATES AN AVERAGE EFFECTIVE PERMEABILITY TO TOTAL LIQUID OF 14.9 MD. FOR THE REPORTED 200 FOOT NET INTERVAL. THE CALCULATIONS WERE BASED ON A SLOPE OF 202 P.S.I./LOG CYCLE OBTAINED FROM THE SHUT-IN BUILD-UP PLOT. IT WAS ASSUMED FOR THESE CALCULATIONS THE PRODUCT OF THE TOTAL LIQUID VISCOSITY AND FORMATION VOLUME FACTOR TO BE 1.0.

4. WELL BORE DAMAGE: THE CALCULATED DAMAGE RATIO OF .92 INDICATES THAT NO WELL BORE DAMAGE IS PRESENT AT THE TIME AND CONDITIONS OF THIS TEST.

5. RADIUS OF INVESTIGATION: THE CALCULATED RADIUS OF INVESTIGATION OF THIS TEST IS 196 FEET BASED ON AN ASSUMED POROSITY OF 10%, COMPRESSIBILITY OF 4 X 10^{-6}, AND OTHER ASSUMPTIONS MADE IN NUMBER 3 ABOVE.

6. GENERAL COMMENTS: THE FORMATION EXHIBITS THE CHARACTERISTICS OF RELATIVELY GOOD PERMEABILITY EFFECTIVE TO THE RESERVOIR FLUID AND INDICATES THE ABSENCE OF WELL BORE DAMAGE. A TRACE OF GAS WAS NOTED IN MFE SAMPLER.

Stephen Gardner
STEPHEN GARDNER
RESERVOIR EVALUATION
DEPARTMENT

AMERICAN QUASAR PETROLEUM COMPANY
MINNOW HILL #29-1; RICH COUNTY, UTAH
TEST #8; 14950' TO 15201'
LOCATION: SEC. 29 - 9N - 8E

FIELD REPORT # 16176 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.

Reservoir Engineering Data

JOHNSTON

Recorder No. J-1364

Field Report No. 16176 D

Damage Ratio	DR	.92		Effective Transmissibility TOTAL LIQUID	$\frac{Kh}{\mu B}$	2986	$\frac{Md\text{-}ft.}{Cp.}$
Maximum Reservoir Pressure	P_o	6647	P.S.I.G.	Effective Transmissability	$\frac{Kh}{\mu B}$	–	$\frac{Md\text{-}ft.}{Cp.}$
Slope of Shut-in Curve	M	202	PSI/log cycle	Flow Rate TOTAL LIQUID	Q	3710	Bbl./day
Potentiometric Surface (Datum Plane, Sea Level)	PS	–	ft.	Pressure Gradient		.444	PSI/ft.
Productivity Index	PI	3.801	Bbl./day/PSI	Gas Oil Ratio	GOR	–	CF/Bbl.
Radius of Investigation		196	ft.	K (Effective to TOTAL LIQUID)		14.9	Md.

SLOPE M = 6647 – 6445 = 202

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:

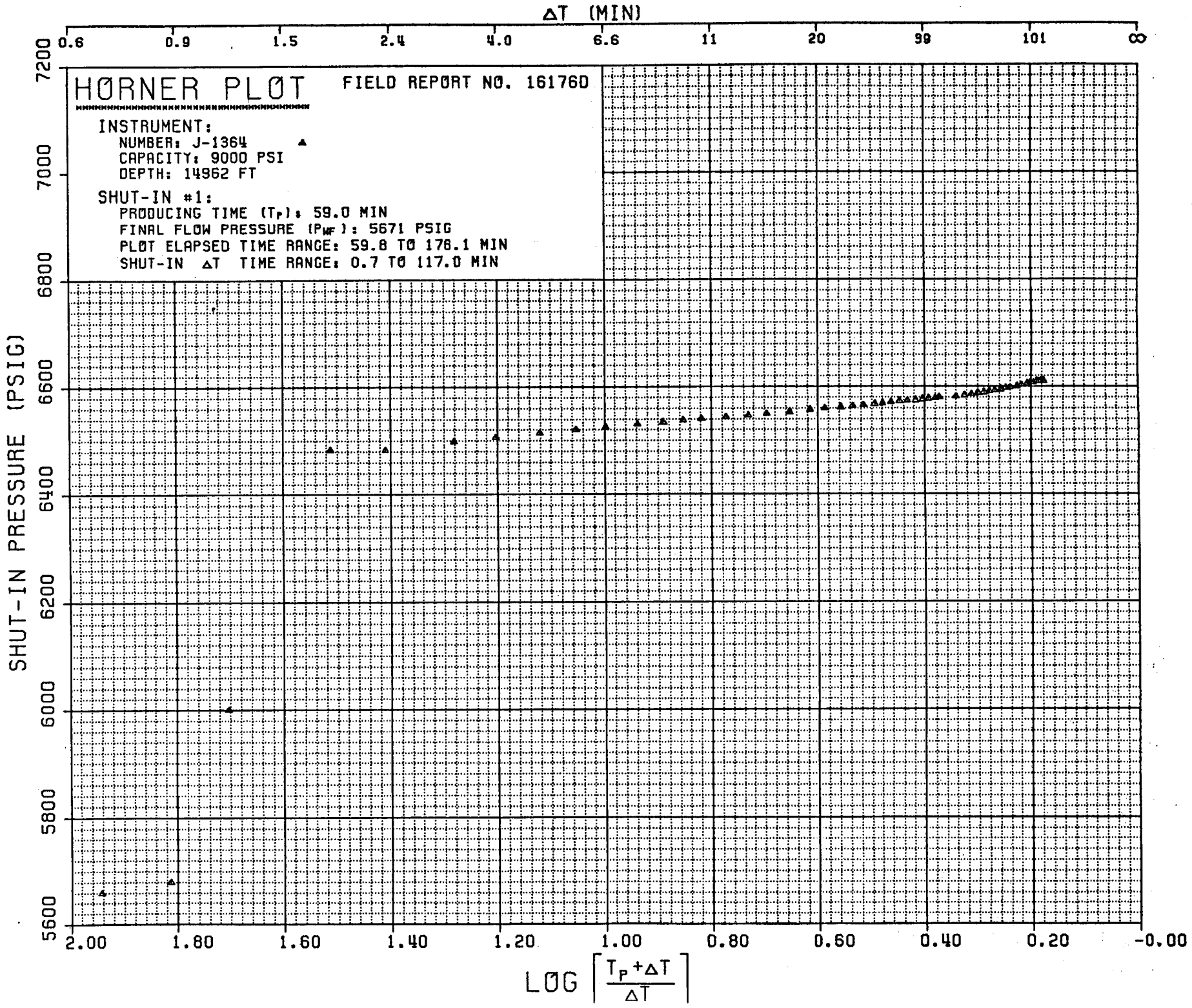
Effective permeability, K, will fall between	1 to 200 md
Formation porosity, ϕ, will fall between	0.1 to 0.3
Fluid compressibility, c, will fall between	10^{-6} to 10^{-4}
Fluid viscosity, μ, will fall between	0.05 to 50 cp.
Well bore radius, r_w, will fall between	$3\frac{7}{8}$" to $4\frac{3}{8}$"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

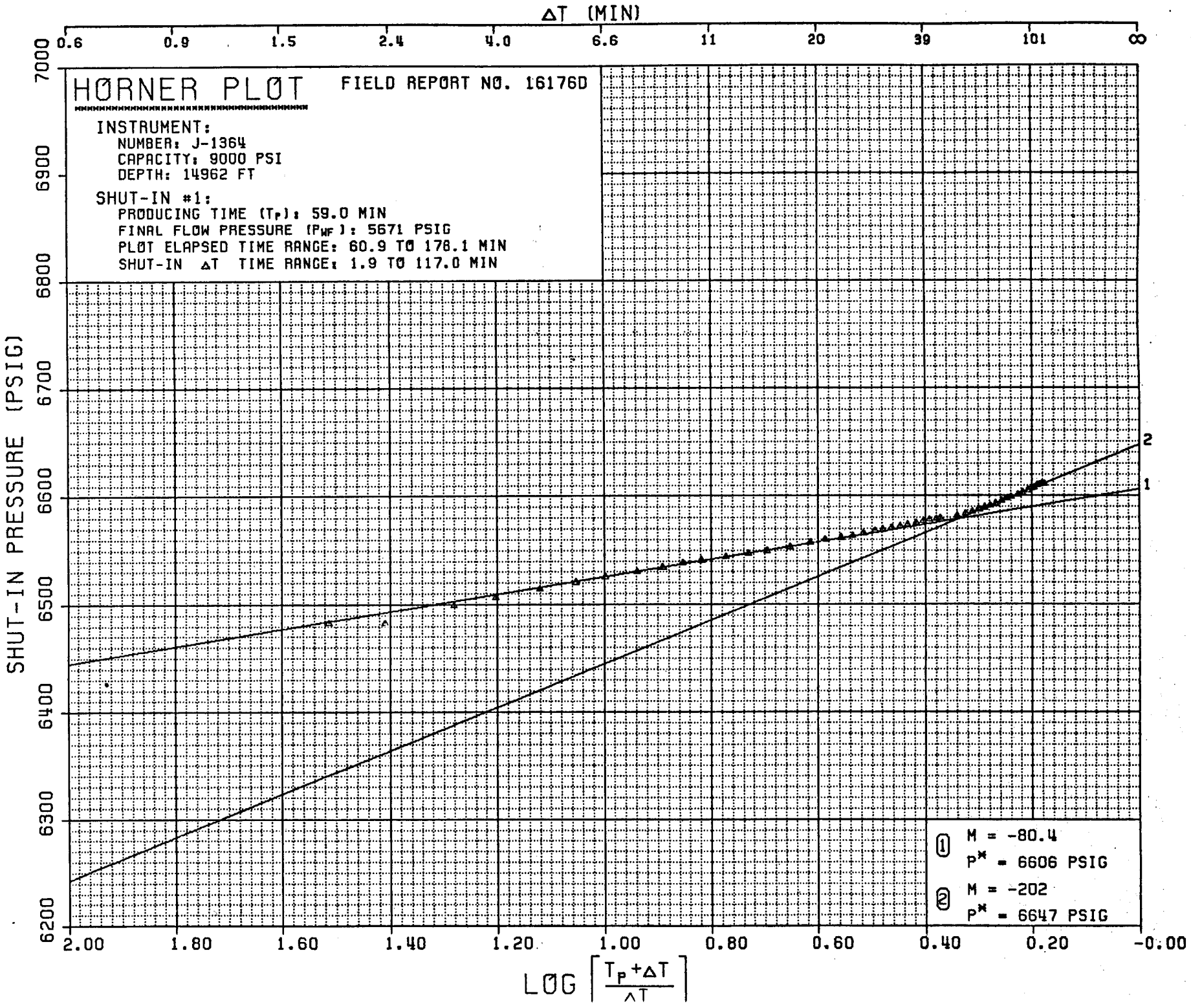
6. Other standard radial flow, equilibrium assumptions.

Empirical Equations:

1. $EDR = \frac{P_o - P_f}{M(\log T + 2.65)}$ where $M = \frac{P_1 - P_{10}}{\text{Log Cycle}}$
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.


HØRNER PLØT
FIELD REPØRT NØ. 161760
INSTRUMENT:
NUMBER: J-1364
CAPACITY: 9000 PSI
DEPTH: 14962 FT
SHUT-IN #1:
PRODUCING TIME (T_P): 59.0 MIN
FINAL FLOW PRESSURE (P_{WF}): 5671 PSIG
PLØT ELAPSED TIME RANGE: 59.8 TØ 176.1 MIN
SHUT-IN ΔT TIME RANGE: 0.7 TØ 117.0 MIN
ΔT (MIN)
0.6
0.9
1.5
2.4
4.0
6.6
11
20
99
101
∞
SHUT-IN PRESSURE (PSIG)
7200
7000
6800
6600
6400
6200
6000
5800
5600
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
-0.00
LØG $\left[\frac{T_P+\Delta T}{\Delta T}\right]$


HØRNER PLØT
FIELD REPØRT NØ. 16176D
INSTRUMENT:
NUMBER: J-1364
CAPACITY: 9000 PSI
DEPTH: 14962 FT
SHUT-IN #1:
PRODUCING TIME (Tp): 59.0 MIN
FINAL FLOW PRESSURE (PWF): 5671 PSIG
PLØT ELAPSED TIME RANGE: 60.9 TØ 178.1 MIN
SHUT-IN ΔT TIME RANGE: 1.9 TØ 117.0 MIN
ΔT (MIN)
0.6
0.9
1.5
2.4
4.0
6.6
11
20
39
101
∞
SHUT-IN PRESSURE (PSIG)
7000
6900
6800
6700
6600
6500
6400
6300
6200
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
-0.00
LØG [Tp+ΔT / ΔT]
1
2
① M = -80.4
P* = 6606 PSIG
② M = -202
P* = 6647 PSIG

FIELD REPORT NO. 16176D

INSTRUMENT:

NUMBER: J-1364

CAPACITY: 9000 PSI

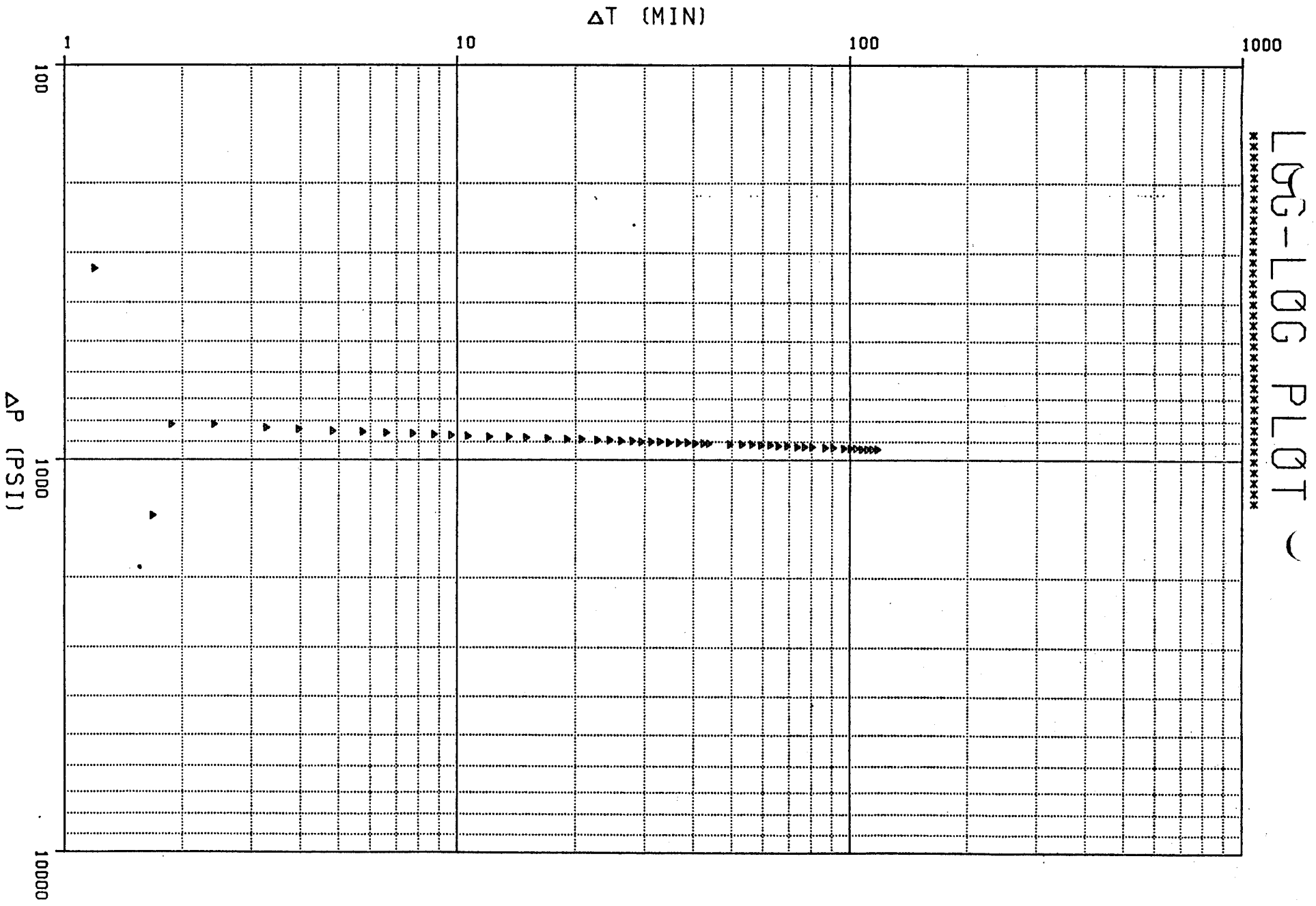
DEPTH: 14962 FT

SHUT-IN #1:

FINAL FLOW PRESSURE (P_{WF}): 5671 PSIG

PLOT ELAPSED TIME RANGE: 60.3 TO 176.1 MIN

SHUT-IN ΔT TIME RANGE: 1.2 TO 117.0 MIN



WELL IDENTIFICATION

COMPANY: AMERICAN QUASAR PETROLEUM COMPANY
204 SUPERIOR BLDG. 201 N. WOLCOTT
CASPER, WYOMING 82601

CUSTOMER: SAME

WELL: MINNOW HILL #29-1
TEST INTERVAL: 14950' TO 15201'
TEST NO: 8
COUNTY: RICH
TECHNICIAN: RAMIREZ (ROCK SPRINGS)

LOCATION: SEC. 29 - 9N - 8E
FIELD: WILD CAT
TEST DATE: 7-13-79
STATE: UTAH
TEST APPROVED BY: MR. JACK ROBISON

EQUIPMENT AND HOLE DATA

TEST TYPE: M.F.E. OPEN HOLE

ELEVATION:	-	FT.
TOTAL DEPTH:	15201	FT.
MAIN HOLE/CASING SIZE:	8 1/2	IN.
RAT HOLE/LINER SIZE:	-	IN.
FORMATION TESTED:	MADISON	
NET PROD. INTERVAL:	200	FT.
POROSITY:	-	%

DRILL PIPE LENGTH:	14632	FT.
DRILL PIPE I.D.:	3.3	IN.
DRILL COLLAR LENGTH:	281	FT.
DRILL COLLAR I.D.:	2.2	IN.
PACKER DEPTHS:	14944 & 14950	FT.
	&	FT.
	&	FT.
DEPTHS REF. TO:	KELLY BUSHING	

TEST TOOL CHAMBER DATA

SAMPLER PRESSURE:	110	PSIG
RECOVERED OIL GRAVITY:	- API @	- DEG. F.
RECOVERY GOR:	-	FT3/BBL.

SAMPLE CHAMBER CONTENTS

FLUID	VOLUME	RESIST. (OHM-M)	MEAS. TEMP. (DEG F.)	CHLOR. (PPM)
GAS:	.03 FT.3			
OIL:	- CC			
WATER:	-- CC	-	-	-
MUD: (GAS CUT H2S)	2350 CC	.3	75	
FILTRATE:		-	75	9900
TOTAL LIQUID:	2350 CC			

MUD DATA

TYPE:	LOW SOLIDS	
WEIGHT:	9.1	LB/GAL.
VISCOSITY:	42	SEC.
WATER LOSS:	8.0	CC

FLUID	RESIST (OHM-M)	TEMP (DEG F)	CHLOR (PPM)
MUD:	.38	75	
FILTRATE:	-	-	1200

REMARKS

NO. OF REPORTS REQUESTED: 31 (13X)

FIELD REPORT NO. 16176D

SURFACE INFORMATION

DESCRIPTION(RATE OF FLOW)	TIME	PRESSURE PSIG	SURFACE CHOKE
OPENED TOOL	Ø524	-	1/8"
BLOW OFF BOTTOM OF BUCKET	Ø529	2	"
	Ø534	4	"
	Ø539	5	"
	Ø544	7	"
	Ø549	9	"
	Ø554	11	"
8 MCF/DAY	Ø559	14	"
1Ø MCF/DAY	Ø6Ø4	16	"
11 MCF/DAY	Ø6Ø9	2Ø	"
12 MCF/DAY	Ø614	24	"
13 MCF/DAY	Ø619	28	"
14 MCF/DAY	Ø624	34	"
18 MCF/DAY	Ø626	-	"
CLOSED FOR FINAL SHUT-IN	Ø82Ø	-	"
FINISHED SHUT-IN	Ø85Ø	-	-
PULLED PACKER LOOSE	14ØØ	-	-
STARTED REVERSING	1615	-	-
FINISHED REVERSING			

CUSHION TYPE: WATER 5ØØØ FT - PSIG 3/4 IN. BOTTOM CHOKE

RECOVERY INFORMATION

RECOVERY	FEET	BARRELS	%OIL	%WATER	%OTHERS	API GRAV.	DEG.	RESIST	DEG.	CHLORIDES PPM
TOTAL RECOVERY	8128	86.Ø7						.3	75	15ØØØ
TOP RECOVERY, GAS CUT WATER (H2S)								.3	75	95ØØØ
BOTTOM RECOVERY, GAS CUT MUD (H2S)										

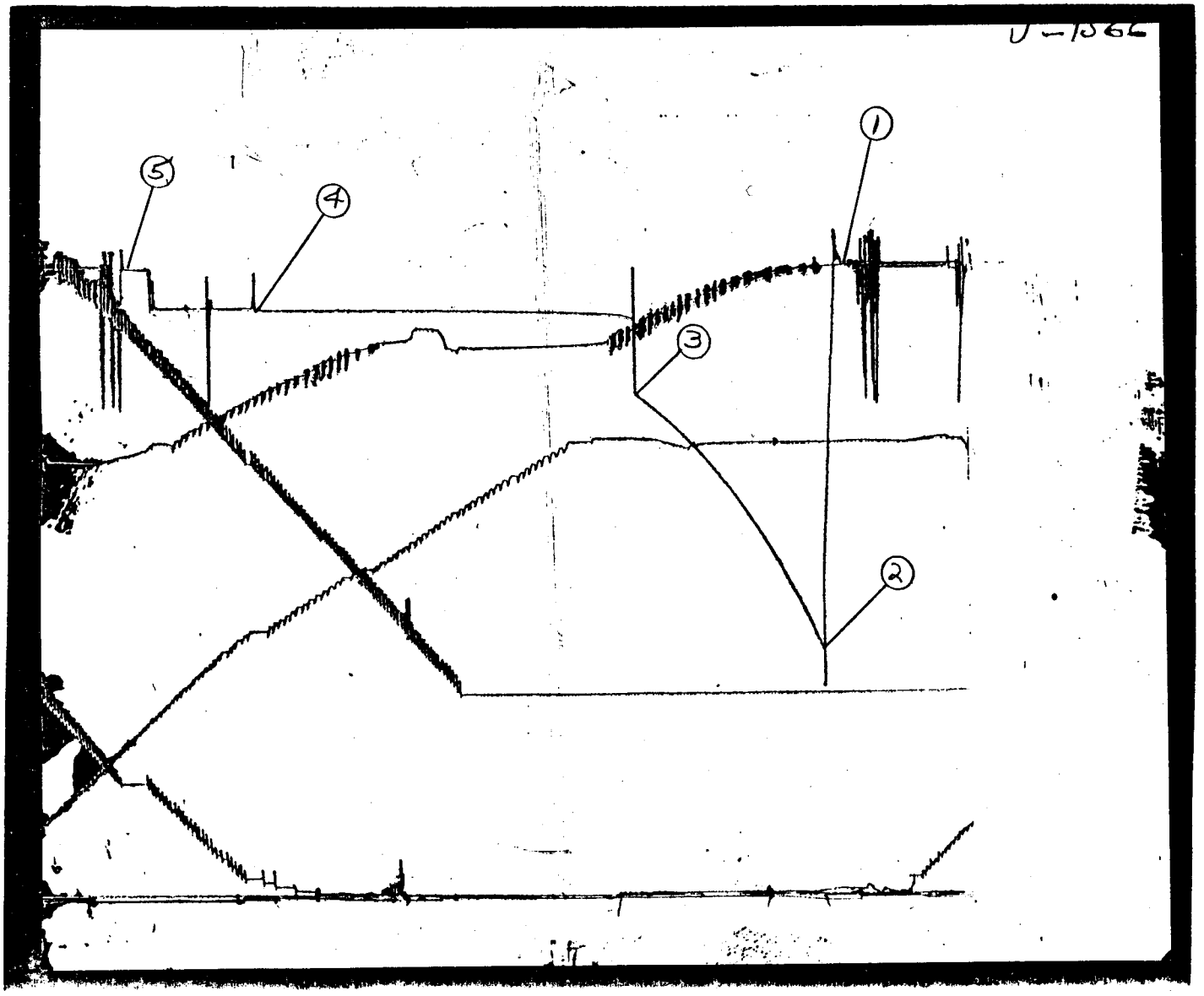
FIELD REPORT NO. 16176D

FIELD REPORT NO.: 16176 D

CAPACITY: 9000#

INSTRUMENT NO.: J-1366

NUMBER OF REPORTS: 31+



BOTTOM HOLE PRESSURE AND TIME DATA

INSTRUMENT NO.: J-1366 CAPACITY (PSI): 9000 DEPTH (FT): 14956
PORT OPENING: INSIDE BOTTOM HOLE TEMP (F): 238

EXPLANATION	LABELED POINT	PRESSURE (PSIG)	ELAPSED TIME (MIN)
HYDROSTATIC MUD	1	7099	-6.5
START FLOW	2	2750	0.0
END FLOW & START SHUT-IN	3	5656	58.8
END SHUT-IN	4	6611	176.0
HYDROSTATIC MUD	5	7080	216.1

SUMMARY OF FLOW PERIODS

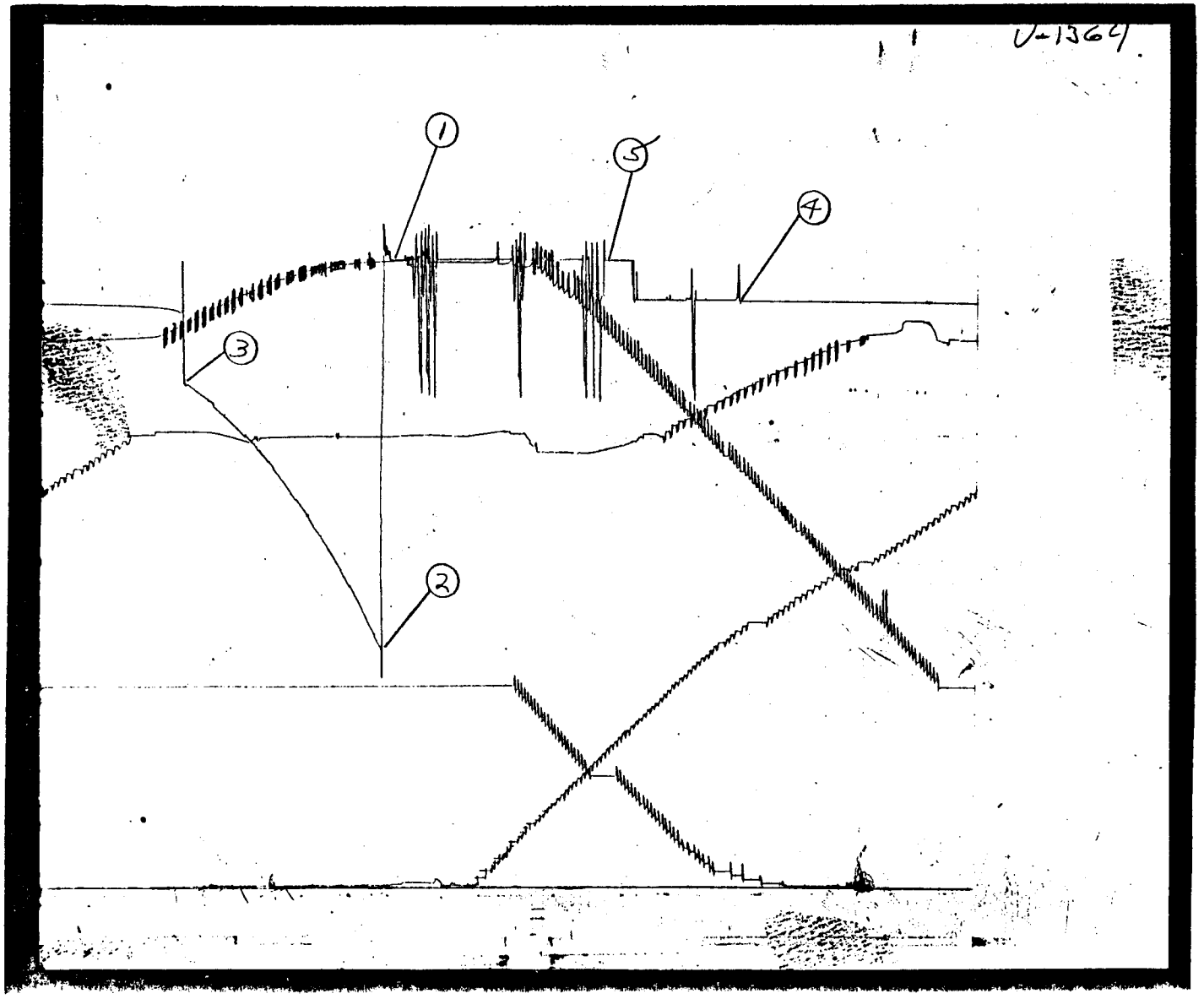
FLOW PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF FLOW (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)
1	0.0	58.8	58.8	2750	5656

SUMMARY OF SHUT-IN PERIODS

SHUT-IN PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF SHUT-IN (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)	FINAL FLOW PRESSURE (PSIG)	PRODUCING TIME (MIN)
1	58.8	176.0	117.2	5656	6611	5656	58.8

FIELD REPORT NO.: 16176 D CAPACITY: 9000#

INSTRUMENT NO.: J-1364 NUMBER OF REPORTS: 31+

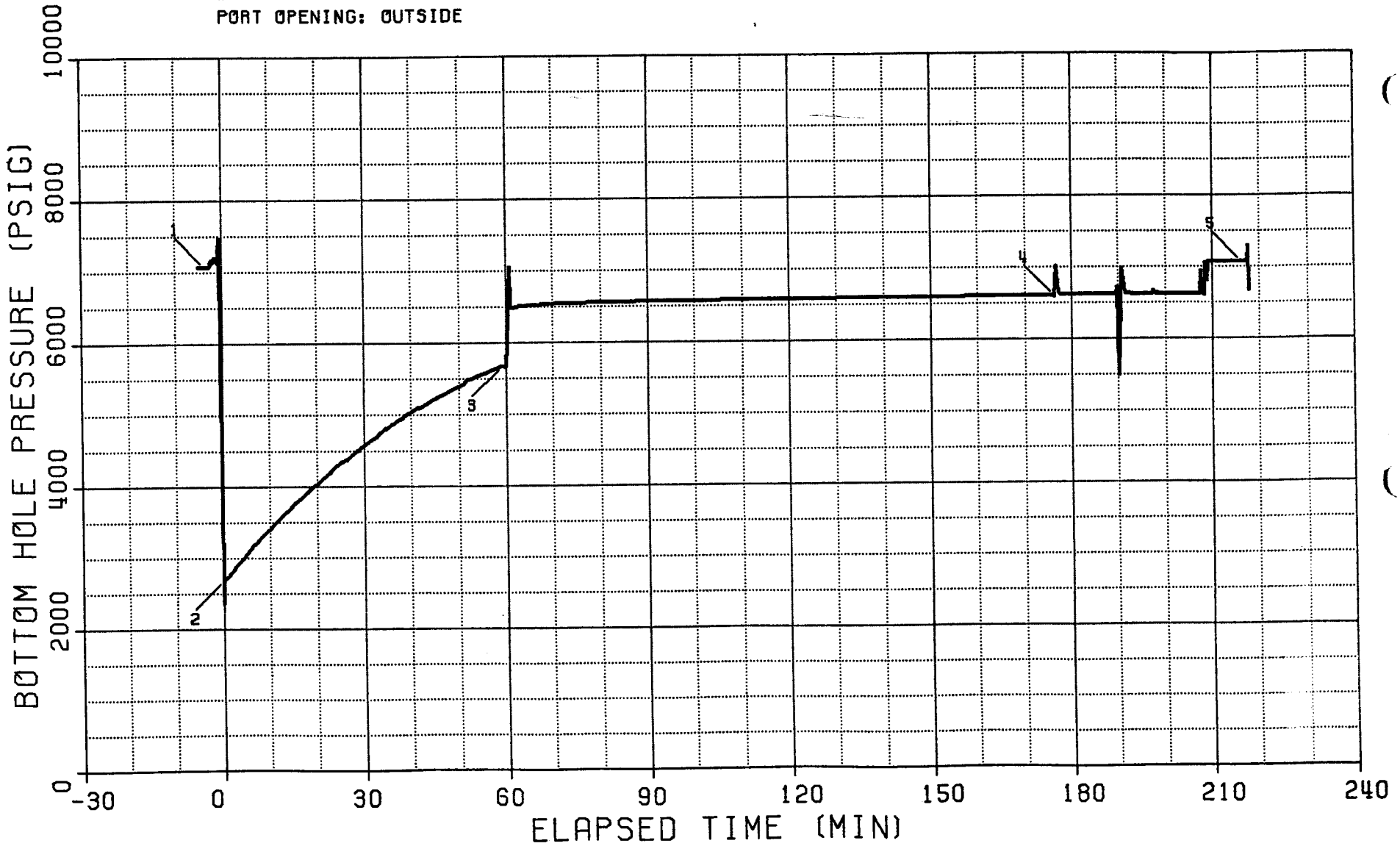


PRESSURE LOG

FIELD REPORT NO. 161760

INSTRUMENT:

NUMBER: J-1364
CAPACITY: 9000 PSI
DEPTH: 14962 FT
PORT OPENING: OUTSIDE



BOTTOM HOLE PRESSURE AND TIME DATA

INSTRUMENT NO.: J-1364 CAPACITY (PSI): 9000 DEPTH (FT): 14962
PORT OPENING: OUTSIDE BOTTOM HOLE TEMP (F): 238 PAGE 1

EXPLANATION	LABELED POINT	PRESSURE (PSIG)	ELAPSED TIME (MIN)
HYDROSTATIC MUD	1	7074	-3.6
START FLOW	2	2694	0.1
END FLOW & START SHUT-IN	3	5671	59.1
END SHUT-IN	4	6611	176.1
HYDROSTATIC MUD	5	7072	216.1

SUMMARY OF FLOW PERIODS

FLOW PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF FLOW (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)
1	0.1	59.1	59.0	2694	5671

SUMMARY OF SHUT-IN PERIODS

SHUT-IN PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF SHUT-IN (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)	FINAL FLOW PRESSURE (PSIG)	PRODUCING TIME (MIN)
1	59.1	176.1	117.0	5671	6611	5671	59.0

FIELD REPORT NO. 16176D
INSTRUMENT NO. J-1364

TEST PHASE : FLOW PERIOD # 1
****

ELAPSED TIME (MIN)	DELTA TIME (MIN)	FLOWING PRESSURE (PSIG)
Ø.1	Ø.Ø	2694
5.1	5.Ø	3Ø67
1Ø.1	1Ø.Ø	3412
15.1	15.Ø	3753
2Ø.1	2Ø.Ø	4Ø34
25.1	25.Ø	4328
3Ø.1	3Ø.Ø	4575
35.1	35.Ø	4822
4Ø.1	4Ø.Ø	5Ø45
45.1	45.Ø	5221
5Ø.1	5Ø.Ø	5389
55.1	55.Ø	5564
59.1	59.Ø	5671

TEST PHASE : SHUT-IN PERIOD # 1
****

1. FINAL FLOW PRESSURE ["P_{WF}"] = 5671 PSIG
2. PRODUCING TIME ["T_P"] = 59.Ø MIN

ELAPSED TIME (MIN)	DELTA TIME ["DT"] (MIN)	SHUT-IN PRESSURE ["P_{WS}"] (PSIG)	LOG [(T_P+DT)/DT]	DELTA PRESSURE [P_{WS} - P_{WF}]
59.1	Ø.Ø	5671		Ø
6Ø.1	1.Ø	5775	1.778	1Ø4
61.1	2.Ø	6483	1.484	812
62.1	3.Ø	6494	1.315	823
63.1	4.Ø	65Ø7	1.197	836
64.1	5.Ø	6516	1.1Ø7	845
65.1	6.Ø	6522	1.Ø35	851
66.1	7.Ø	6527	Ø.974	856
67.1	8.Ø	6531	Ø.923	861
68.1	9.Ø	6535	Ø.878	864
69.1	1Ø.Ø	6539	Ø.839	868
71.1	12.Ø	6544	Ø.772	873
73.1	14.Ø	6548	Ø.717	877
75.1	16.Ø	6551	Ø.671	88Ø
77.1	18.Ø	6555	Ø.631	884
79.1	2Ø.Ø	6559	Ø.597	888
81.1	22.Ø	6561	Ø.566	89Ø
83.1	24.Ø	6563	Ø.539	892
85.1	26.Ø	6566	Ø.514	895
87.1	28.Ø	6568	Ø.492	897
89.1	3Ø.Ø	657Ø	Ø.472	899

FIELD REPORT NO. 16176D
INSTRUMENT NO. J-1364

TEST PHASE : SHUT-IN PERIOD # 1
****

1. FINAL FLOW PRESSURE ["P_{WF}"] = 5671 PSIG
2. PRODUCING TIME ["T_P"] = 59.Ø MIN

ELAPSED TIME (MIN)	DELTA TIME ["DT"] (MIN)	SHUT-IN PRESSURE ["P_{WS}"] (PSIG)	LOG [(T_P+DT)/DT]	DELTA PRESSURE [P_{WS} - P_{WF}]
94.1	35.Ø	6574	Ø.429	9Ø3
99.1	4Ø.Ø	6577	Ø.394	9Ø7
1Ø4.1	45.Ø	658Ø	Ø.364	9Ø9
1Ø9.1	5Ø.Ø	6582	Ø.338	911
114.1	55.Ø	6585	Ø.317	914
119.1	6Ø.Ø	6588	Ø.297	917
124.1	65.Ø	6591	Ø.28Ø	92Ø
129.1	7Ø.Ø	6593	Ø.265	922
134.1	75.Ø	6596	Ø.252	925
139.1	8Ø.Ø	6599	Ø.24Ø	928
144.1	85.Ø	66ØØ	Ø.229	93Ø
149.1	9Ø.Ø	66Ø3	Ø.219	932
154.1	95.Ø	66Ø5	Ø.21Ø	934
159.1	1ØØ.Ø	66Ø7	Ø.2Ø1	936
164.1	1Ø5.Ø	66Ø9	Ø.194	938
169.1	11Ø.Ø	661Ø	Ø.186	939
174.1	115.Ø	6611	Ø.18Ø	94Ø
176.1	117.Ø	6611	Ø.177	94Ø

JOHNSTON

Schlumberger

computerized data analysis

F.R. #15477 D

COMPANY AMERICAN QUASAR PETROLEUM COMPANY WELL MINNOW HILL #29-1 TEST NO. 7 COUNTY RICH STATE UTAH

JOHNSTON

Reservoir Engineering Data

Recorder No. J-533

Field Report No. 15477 D

Damage Ratio	DR	.75		Effective Transmissibility	$\frac{Kh}{\mu B}$	24.25 $\frac{Md\text{-}ft.}{Cp.}$
Maximum Reservoir Pressure	P_o	5955	P.S.I.G.	Effective Transmissability	$\frac{Kh}{\mu B}$	– $\frac{Md\text{-}ft.}{Cp.}$
Slope of Shut-in Curve	M	1707	PSI/log cycle	Flow Rate TOTAL LIQUID	Q	180 Bbl./day
Potentiometric Surface (Datum Plane, Sea Level)	PS	7044	ft.	Pressure Gradient		.444 PSI/ft.
Productivity Index	PI	.044	Bbl./day/PSI	Gas Oil Ratio	GOR	– CF/Bbl.
Radius of Investigation		18.5	ft.	K (Effective to TOTAL LIQUID)		.107 Md.

SLOPE M = 5955 – 4248 = 1707

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 $4\frac{3}{8}$"

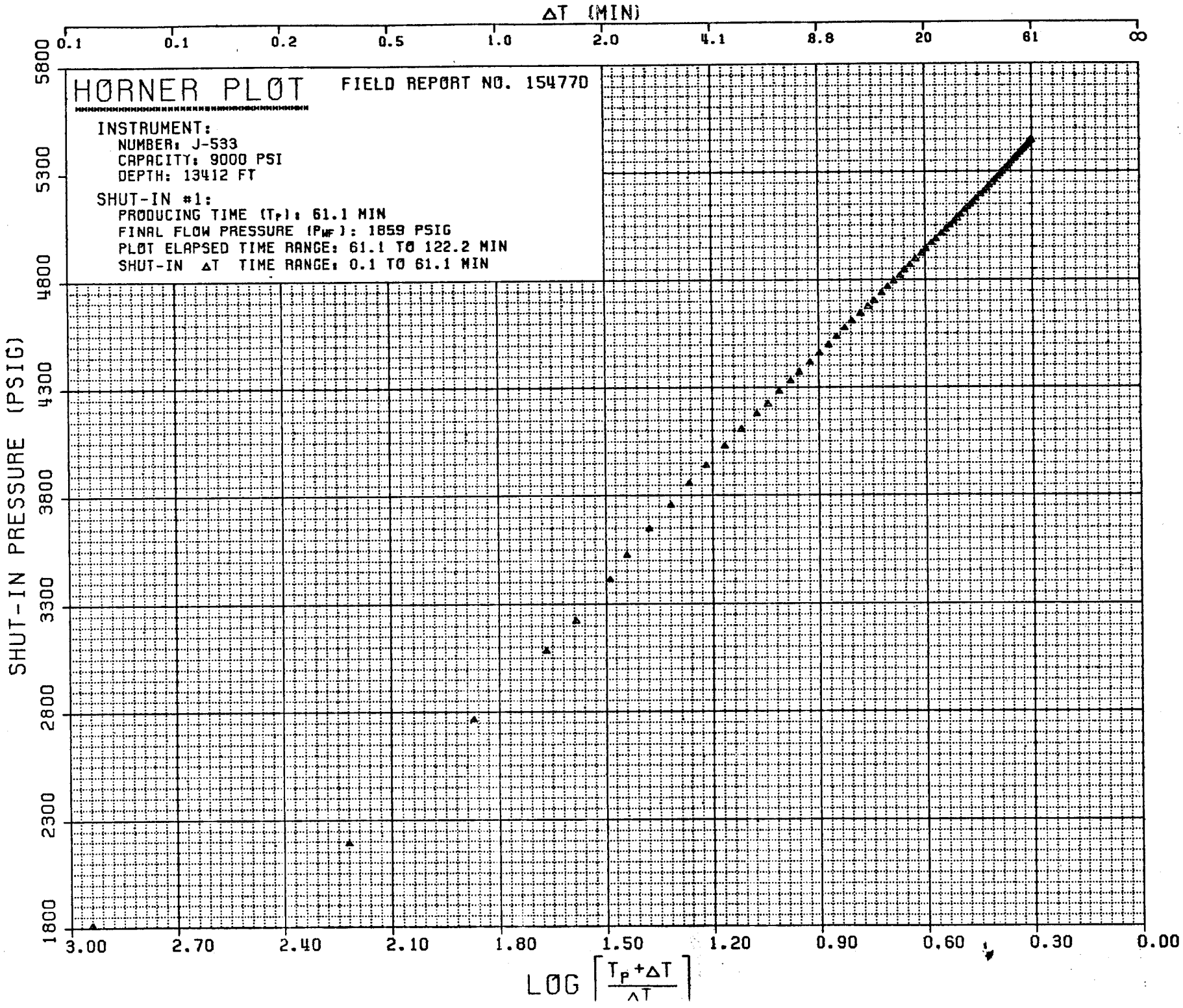
   Which gives an average value for the function log $\frac{K}{\phi\mu c r_w^2}$ of 5.5

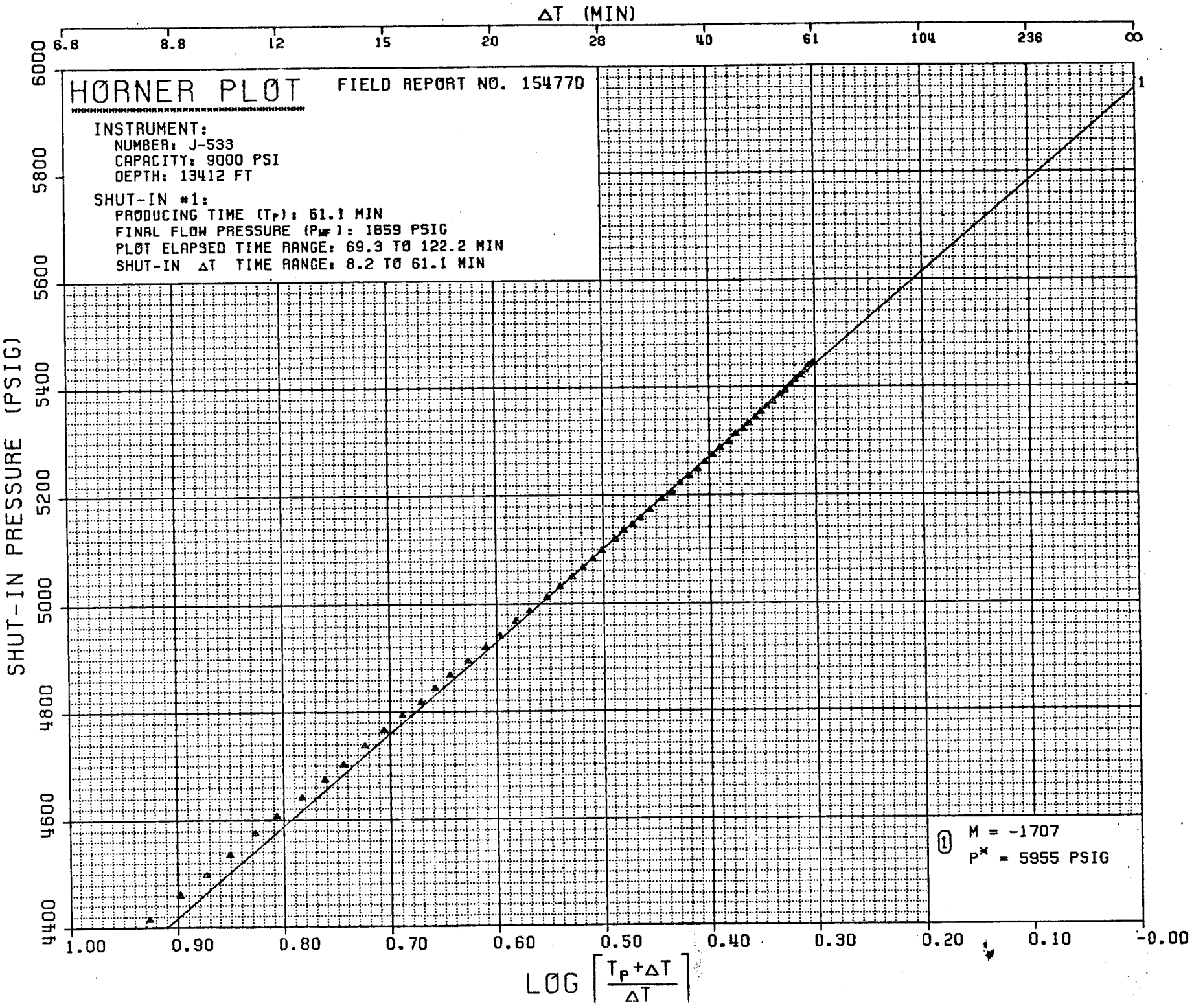
6. Other standard radial flow, equilibrium assumptions.

Empirical Equations:

1. $EDR = \frac{P_o - P_f}{M(\log T + 2.65)}$ where $M = \frac{P_1 - P_{10}}{\text{Log Cycle}}$
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.


HØRNER PLØT
FIELD REPØRT NØ. 154770
INSTRUMENT:
NUMBER: J-533
CAPACITY: 9000 PSI
DEPTH: 13412 FT
SHUT-IN #1:
PRODUCING TIME (T_P): 61.1 MIN
FINAL FLOW PRESSURE (P_{WF}): 1859 PSIG
PLØT ELAPSED TIME RANGE: 61.1 TØ 122.2 MIN
SHUT-IN ΔT TIME RANGE: 0.1 TØ 61.1 MIN
ΔT (MIN)
0.1
0.1
0.2
0.5
1.0
2.0
4.1
8.8
20
61
∞
SHUT-IN PRESSURE (PSIG)
5800
5300
4800
4300
3800
3300
2800
2300
1800
3.00
2.70
2.40
2.10
1.80
1.50
1.20
0.90
0.60
0.30
0.00
LØG $\left[\frac{T_P+\Delta T}{\Delta T}\right]$


ΔT (MIN)
6.8
8.8
12
15
20
28
40
61
104
236
∞
HØRNER PLØT
FIELD REPORT NO. 15477D
INSTRUMENT:
NUMBER: J-533
CAPACITY: 9000 PSI
DEPTH: 13412 FT
SHUT-IN #1:
PRODUCING TIME (Tp): 61.1 MIN
FINAL FLOW PRESSURE (PWF): 1859 PSIG
PLØT ELAPSED TIME RANGE: 69.3 TØ 122.2 MIN
SHUT-IN ΔT TIME RANGE: 8.2 TØ 61.1 MIN
1
M = -1707
P* = 5955 PSIG
SHUT-IN PRESSURE (PSIG)
6000
5800
5600
5400
5200
5000
4800
4600
4400
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
-0.00
LØG [Tp+ΔT / ΔT]

FIELD REPORT NO. 154770

INSTRUMENT:

NUMBER: J-533

CAPACITY: 9000 PSI

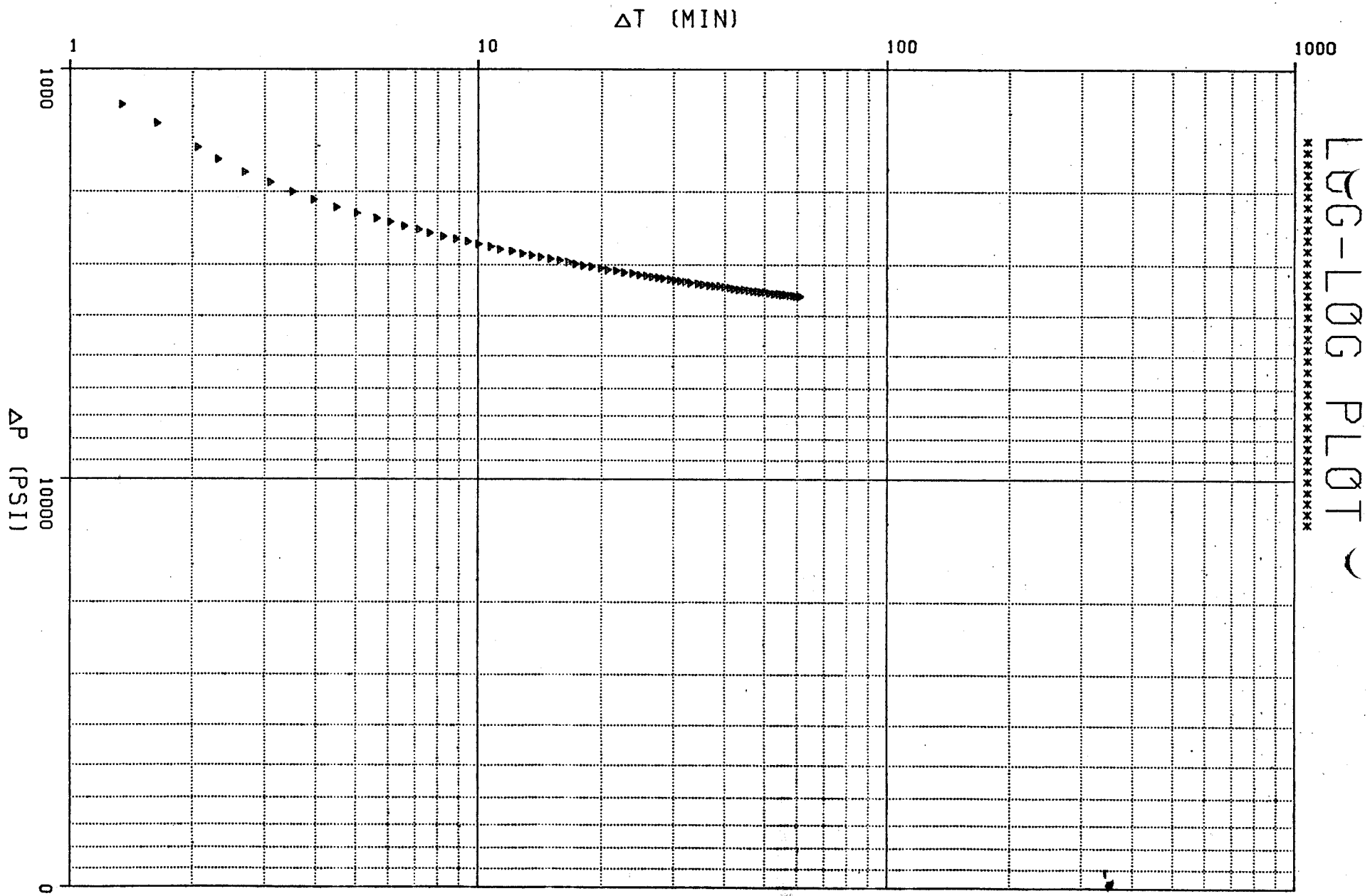
DEPTH: 13412 FT

SHUT-IN #1:

FINAL FLOW PRESSURE (P_{WF}): 1859 PSIG

PLOT ELAPSED TIME RANGE: 62.4 TO 122.2 MIN

SHUT-IN ΔT TIME RANGE: 1.3 TO 61.1 MIN



WELL IDENTIFICATION

COMPANY: AMERICAN QUASAR PETROLEUM COMPANY
204 SUPERIOR BLDG; 201 N. WOLCOTT
CASPER, WYOMING 82601

CUSTOMER: SAME

WELL: MINNOW HILL #29-1
TEST INTERVAL: 13,400' TO 13,626'
TEST NO: 7
COUNTY: RICH
TECHNICIAN: RICHARDS (VERNAL)

LOCATION: SEC. ~~29-9~~N-R8E
FIELD: WILD CAT
TEST DATE: 6-22-79
STATE: UTAH
TEST APPROVED BY: MR. WALT BOWEN

EQUIPMENT AND HOLE DATA

TEST TYPE: M.F.E. OPEN HOLE

ELEVATION:	6706	FT.
TOTAL DEPTH:	13626	FT.
MAIN HOLE/CASING SIZE:	8 1/2	IN.
RAT HOLE/LINER SIZE:	-	IN.
FORMATION TESTED:	PHOSPHORIA	
NET PROD. INTERVAL:	226	FT.
POROSITY:	-	%

DRILL PIPE LENGTH:	12,916	FT.
DRILL PIPE I.D.:	3.80	IN.
DRILL COLLAR LENGTH:	447	FT.
DRILL COLLAR I.D.:	2.75	IN.
PACKER DEPTHS:	13,396 & 13,400	FT.
	&	FT.
	&	FT.
DEPTHS REF. TO:	KELLY BUSHING	

TEST TOOL CHAMBER DATA

SAMPLER PRESSURE:	90	PSIG
RECOVERED OIL GRAVITY:	- API @	- DEG. F.
RECOVERY GOR:	-	FT3/BBL.

SAMPLE CHAMBER CONTENTS

FLUID	VOLUME	RESIST. (OHM-M)	MEAS. TEMP. (DEG F.)	CHLOR. (PPM)
GAS:	- FT.3			
OIL:	- CC			
WATER:	- CC	-	-	-
MUD: (GAS CUT)	2400 CC	.25	78	
FILTRATE:		.24	78	9000
TOTAL LIQUID:	2400 CC			

MUD DATA

TYPE:	LOW SOLIDS GEL	
WEIGHT:	9.1	LB/GAL.
VISCOSITY:	46	SEC.
WATER LOSS:	9.6	CC

FLUID	RESIST (OHM-M)	TEMP (DEG F)	CHLOR (PPM)
MUD:	.40	85	
FILTRATE:	.38	86	8500

REMARKS

NO. OF REPORTS REQUESTED: 32 (14X'S)

FIELD REPORT NO. 15477D

SURFACE INFORMATION

DESCRIPTION(RATE OF FLOW)	TIME	PRESSURE PSIG	SURFACE CHOKE
OPENED TOOL	1003	-	1/4
BLOW OFF BOTTOM OF BUCKET	1005	-	"
	1006	.5	"
BLOW DECREASING	1035	-	"
BLOW, 7" IN WATER	1043	-	"
BLOW, 6" IN WATER	1103	-	"
CLOSED FOR FINAL SHUT-IN	1105	-	"
FINISHED SHUT-IN	1205	-	
PULLED PACKER LOOSE	1206	-	-

CUSHION TYPE: WATER & AMMONIA 3400 FT - PSIG | 11/16 IN. BOTTOM CHOKE

RECOVERY INFORMATION

RECOVERY	FEET	BARRELS	%OIL	%WATER	%OTHERS	API GRAV.	DEG.	RESIST	DEG.	CHL PPM
WATER CUSHION	3400	45.19						.8	87	5500
SLIGHTLY WATER CUT DRILLING MUD	540	7.67						.3	85	8500

FIELD REPORT NO. 15477D

FIELD REPORT NO.: 15477 D

CAPACITY: 9000#

INSTRUMENT NO.: J-045

NUMBER OF REPORTS: 32+

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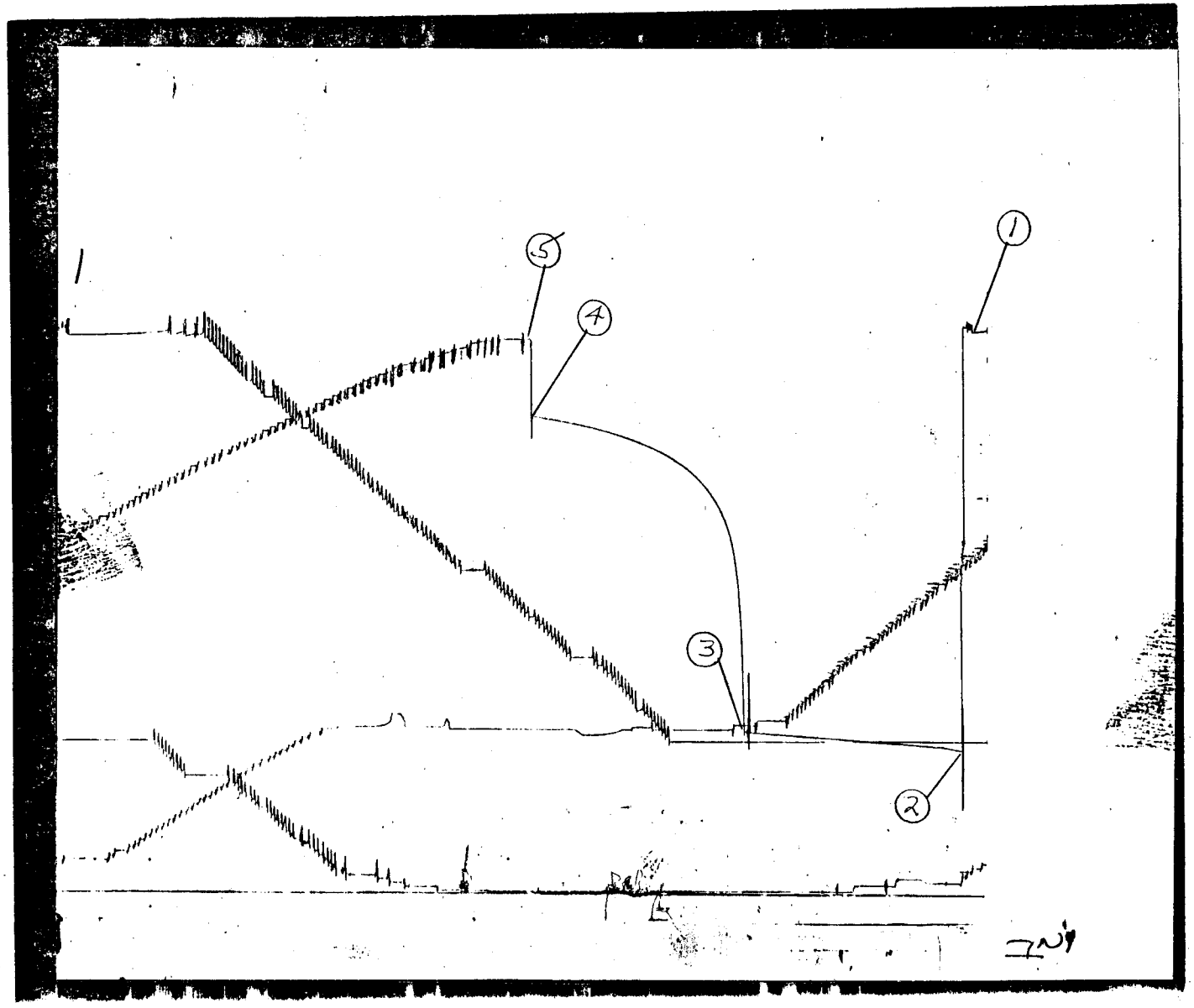


BOTTOM HOLE PRESSURE AND TIME DATA

INSTRUMENT NO.: J-Ø45
PORT OPENING: INSIDE

CAPACITY (PSI): 9ØØØ
BOTTOM HOLE TEMP (F): 21Ø

DEPTH (FT): 134Ø6

EXPLANATION	LABELED POINT	PRESSURE (PSIG)	ELAPSED TIME (MIN)
HYDROSTATIC MUD	1	6399	-2.9
START FLOW	2	164Ø	Ø.Ø
END FLOW & START SHUT-IN	3	1858	61.7
END SHUT-IN	4	5433	122.Ø
HYDROSTATIC MUD	5	6314	123.7

* SUMMARY OF FLOW PERIODS *

FLOW PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF FLOW (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)
1	Ø.Ø	61.7	61.7	164Ø	1858

* SUMMARY OF SHUT-IN PERIODS *

SHUT-IN PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF SHUT-IN (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)	FINAL FLOW PRESSURE (PSIG)	PRODUCING TIME (MIN)
1	61.7	122.Ø	6Ø.3	1858	5433	1858	61.7

FIELD REPORT NO. 15477D
INSTRUMENT NO. J-Ø45

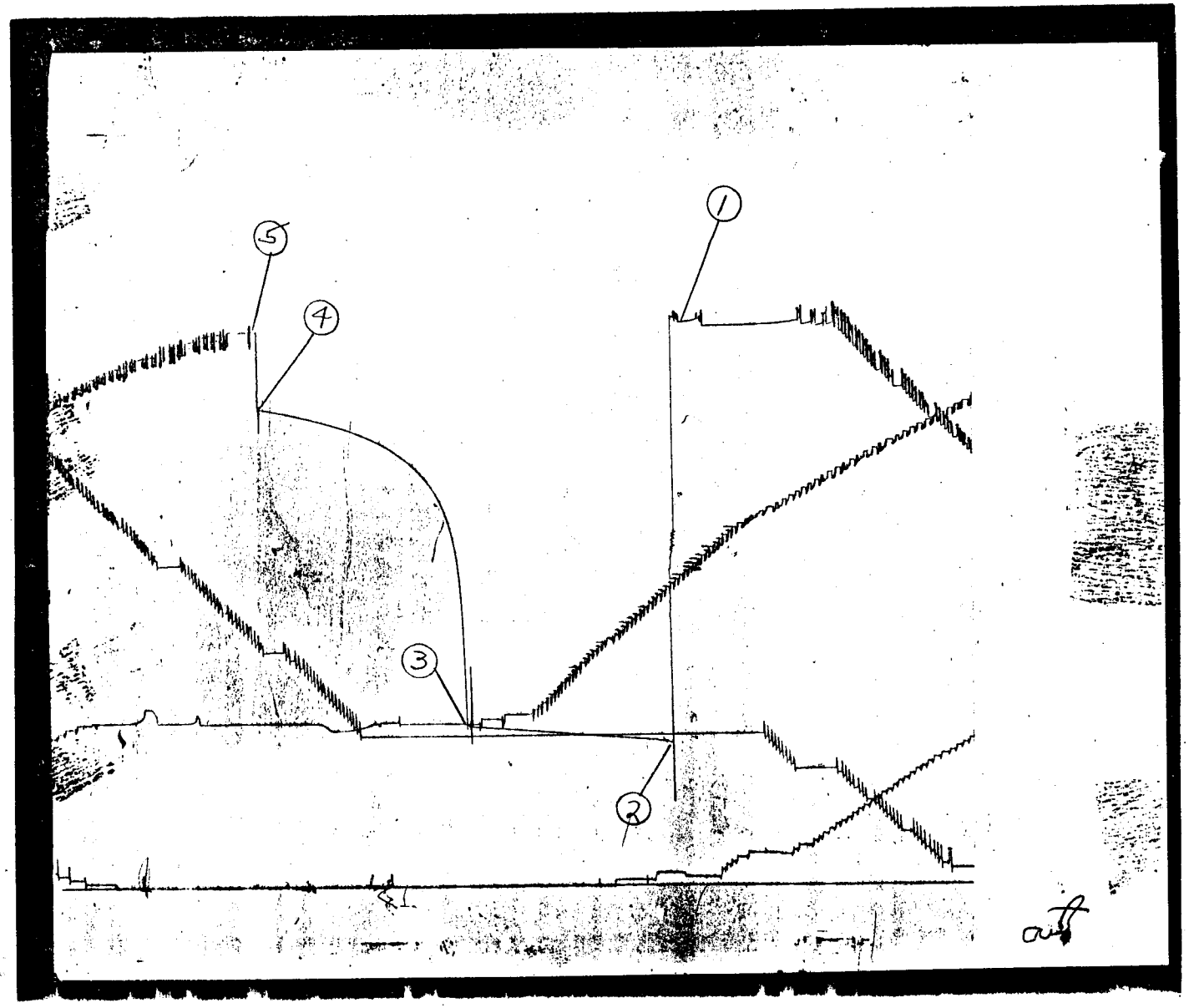
FIELD REPORT NO.: 15477 D

CAPACITY: 9000#

INSTRUMENT NO.: J-533

NUMBER OF REPORTS: 32+

JOHNSTON
Schlumberger

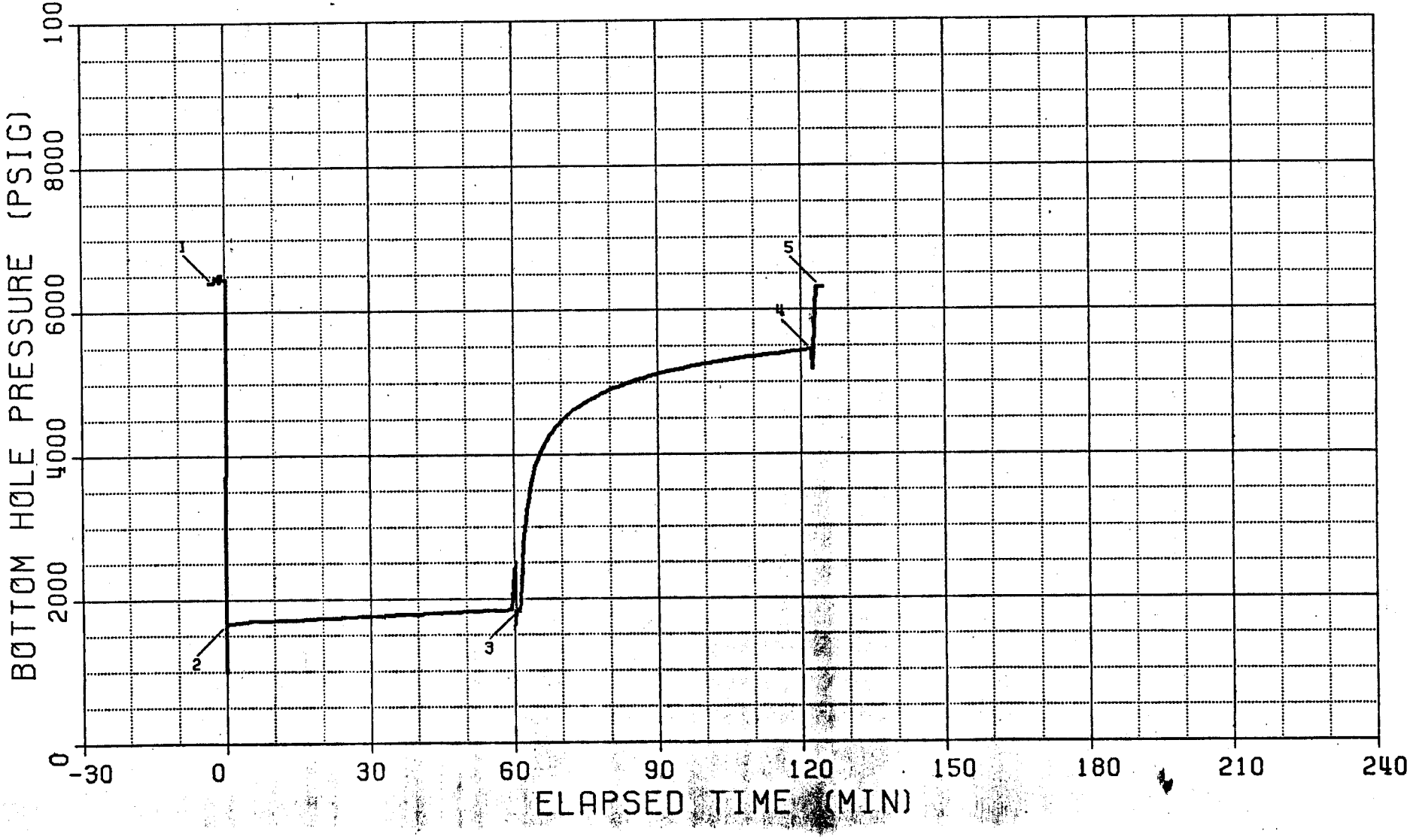


PRESSURE LOG

FIELD REPORT NO. 15477D

INSTRUMENT:

NUMBER: J-533
CAPACITY: 9000 PSI
DEPTH: 13412 FT
PORT OPENING: OUTSIDE



BOTTOM HOLE PRESSURE AND TIME DATA

INSTRUMENT NO.: J-533
PORT OPENING: OUTSIDE

CAPACITY (PSI): 9000
BOTTOM HOLE TEMP (F): 212

DEPTH (FT): 13412

EXPLANATION	LABELED POINT	PRESSURE (PSIG)	ELAPSED TIME (MIN)
HYDROSTATIC MUD	1	6396	-2.3
START FLOW	2	1653	0.0
END FLOW & START SHUT-IN	3	1859	61.1
END SHUT-IN	4	5444	122.2
HYDROSTATIC MUD	5	6317	124.0

SUMMARY OF FLOW PERIODS

FLOW PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF FLOW (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)
1	0.0	61.1	61.1	1653	1859

SUMMARY OF SHUT-IN PERIODS

SHUT-IN PERIOD	ELAPSED TIME AT START (MIN)	ELAPSED TIME AT END (MIN)	DURATION OF SHUT-IN (MIN)	PRESSURE AT START (PSIG)	PRESSURE AT END (PSIG)	FINAL FLOW PRESSURE (PSIG)	PRODUCING TIME (MIN)
1	61.1	122.2	61.1	1859	5444	1859	61.1

FIELD REPORT NO. 15477D
INSTRUMENT NO. J-533

TEST PHASE : FLOW PERIOD # 1
****

ELAPSED TIME (MIN)	DELTA TIME (MIN)	FLOWING PRESSURE (PSIG)
0.0	0.0	1653
5.0	5.0	1693
10.0	10.0	1706
15.0	15.0	1719
20.0	20.0	1733
25.0	25.0	1749
30.0	30.0	1763
35.0	35.0	1780
40.0	40.0	1794
45.0	45.0	1809
50.0	50.0	1821
55.0	55.0	1838
60.0	60.0	2347
61.1	61.1	1859

TEST PHASE : SHUT-IN PERIOD # 1
****

1. FINAL FLOW PRESSURE ["P_{WF}"] = 1859 PSIG
2. PRODUCING TIME ["T_P"] = 61.1 MIN

ELAPSED TIME (MIN)	DELTA TIME ["DT"] (MIN)	SHUT-IN PRESSURE ["P_{WS}"] (PSIG)	LOG [(T_P+DT)/DT]	DELTA PRESSURE [P_{WS} - P_{WF}]
61.1	0.0	1859		0
62.1	1.0	2871	1.793	1012
63.1	2.0	3388	1.499	1529
64.1	3.0	3731	1.330	1872
65.1	4.0	3949	1.211	2090
66.1	5.0	4103	1.121	2243
67.1	6.0	4215	1.048	2355
68.1	7.0	4315	0.988	2456
69.1	8.0	4399	0.936	2539
70.1	9.0	4470	0.891	2611
71.1	10.0	4533	0.852	2673
73.1	12.0	4639	0.785	2780
75.1	14.0	4727	0.729	2868
77.1	16.0	4801	0.683	2942
79.1	18.0	4869	0.643	3010
81.1	20.0	4924	0.608	3065
83.1	22.0	4975	0.577	3116
85.1	24.0	5017	0.550	3158
87.1	26.0	5057	0.525	3197
89.1	28.0	5096	0.503	3236

FIELD REPORT NO. 15477D
INSTRUMENT NO. J-533

TEST PHASE : SHUT-IN PERIOD # 1

1. FINAL FLOW PRESSURE ["P_{WF}"] = 1859 PSIG
2. PRODUCING TIME ["T_P"] = 61.1 MIN

ELAPSED TIME (MIN)	DELTA TIME ["DT"] (MIN)	SHUT-IN PRESSURE ["P_{WS}"] (PSIG)	LOG [(T_P+DT)/DT]	DELTA PRESSURE [P_{WS} - P_{WF}]
91.1	30.0	5131	0.482	3272
96.1	35.0	5202	0.439	3343
101.1	40.0	5264	0.403	3405
106.1	45.0	5317	0.372	3458
111.1	50.0	5363	0.347	3503
116.1	55.0	5402	0.324	3543
121.1	60.0	5441	0.305	3581
122.2	61.1	5444	0.301	3585

Phone
522-1206 Area 303

LYNES, INC

Box 3600
Sterling, Colo. 80751

Operator: American Quasar Petroleum Co.
Address: See Distribution
Well Name and No.: Minnow Hills #29-1
Ticket No.: 13673
Date: 2-27-79
DST No.: 5
No. Final Copies: 18

Contractor	Brinkerhoff-Signal	Top Choke	1/4"
Rig No.	15	Bottom Choke	9/16"
Spot	NE-NE	Size Hole	12 1/4"
Sec.	29	Size Rat Hole	--
Twp.	9 N	Size & Wt. D. P.	4 1/2" 16.60
Rng.	8 E	Size Wt. Pipe	--
Field	Wildcat	I. D. of D. C.	--
County	Rich	Length of D. C.	--
State	Utah	Total Depth	9040'
Elevation	6706' "K.B."	Interval Tested	8995-9040'
Formation	Nugget	Type of Test	Bottom Hole Conventional

Flow No. 1	10	Min.
Shut-in No. 1	60	Min.
Flow No. 2	120	Min.
Shut-in No. 2	240	Min.
Flow No. 3	--	Min.
Shut-in No. 3	--	Min.

Bottom Hole Temp.	--
Mud Weight	9.1
Gravity	--
Viscosity	43

Tool opened @ 8:05 AM.

PRD Make _____
No. _____ Cap. _____ @ _____

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

Lynes Dist.: Rock Springs, Wy.
Our Tester: Charles Tuzicka
Witnessed By: Bill Heins

Did Well Flow – Gas No Oil No Water No

RECOVERY IN PIPE: Estimated 4000' water recovered. (Test was reverse circulsted.)

Blow Description:

1st Flow: Tool opened with a weak blow, increased to bottom of bucket in 5 minutes and continued to increase to 1.0 psig at end of flow period.

2nd Flow: Tool opened with a weak blow, increased to bottom of bucket in 5 minutes and continued to increase to 8.0 psig in 60 minutes and remained thru flow period.

MISRUN: Tools were stuck after test and not recovered.

Rig Water: R.W. 10.0 @ 60°F = 600 ppm. chl.
Mud Pit: R.W. .3 @ 80°F = 19,000 ppm. chl.

Form 1

LYNES, INC.

Distribution of Final Reports

Operator American Quasar Petroleum Co. Well Name and No. Minnow Hill #29-1

Original: American Quasar Petroleum Company, 707 United Bank Tower, 1700 Broadway, Denver, Colorado 80290 Attn: Clare Gregg

1 Copy: American Quasar Petroleum Company, 204 Superior Building, 201 N. Wolcott, Casper, Wyoming 82601 Attn: John Sindelar

3 Copies: American Quasar Petroleum Company, 2500 Ft. Worth National Bank Building, Ft. Worth, Texas 76102 Attn: Bill Bogert

2 Copies: Gulf Oil Exploration & Production Company, Box 2619, Casper, Wyoming 82602 Attn: Chuck Eder

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

3 Copies: Cities Service Company, 1600 Broadway, #900, Denver, Colorado 80264 Attn: Teresa Gorman

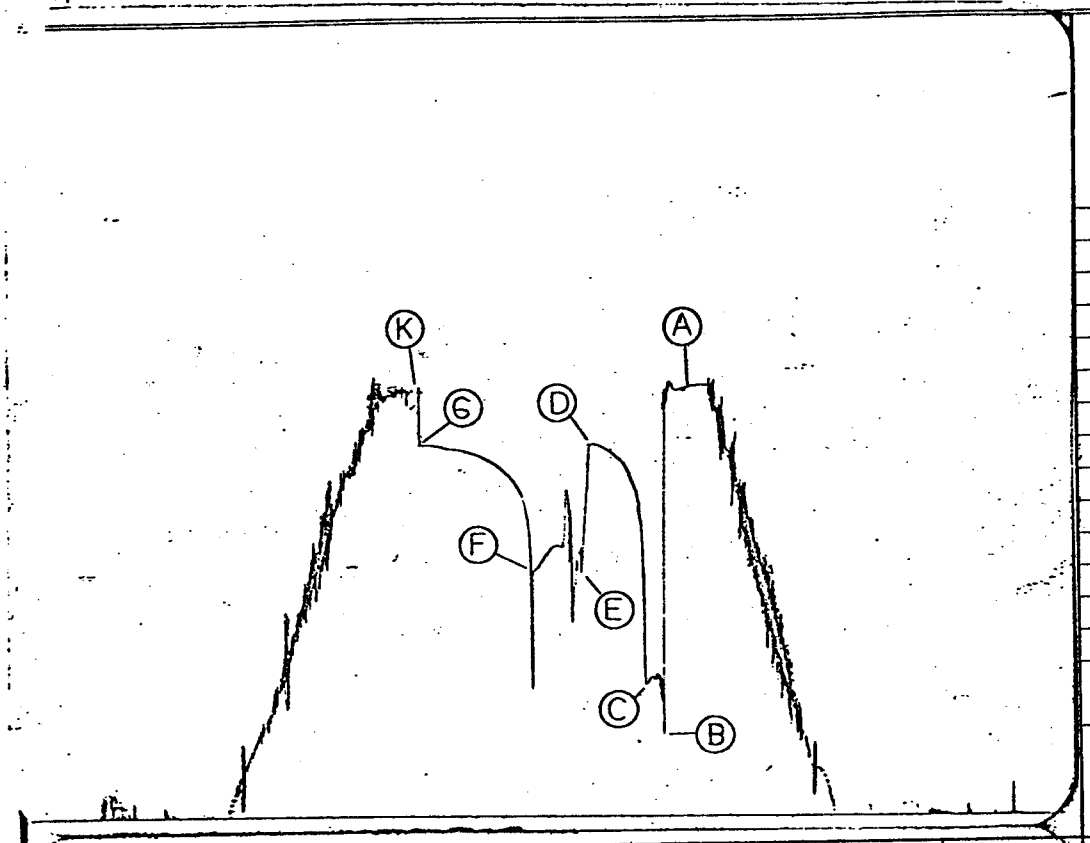
3 Copies: Ramoco, Inc., 210 Oxford Street East, London, Ontario, Canada N6A 1T6 Attn: John Cowen

3 Copies: Chevron-USA, Box 599, Denver, Colorado 80201 Attn: Bill Mansfield

Form 6

LYNES, INC.

Operator American Quasar Petroleum Co. Lease & No. Minnow-Hill #29-1 DST No. 4

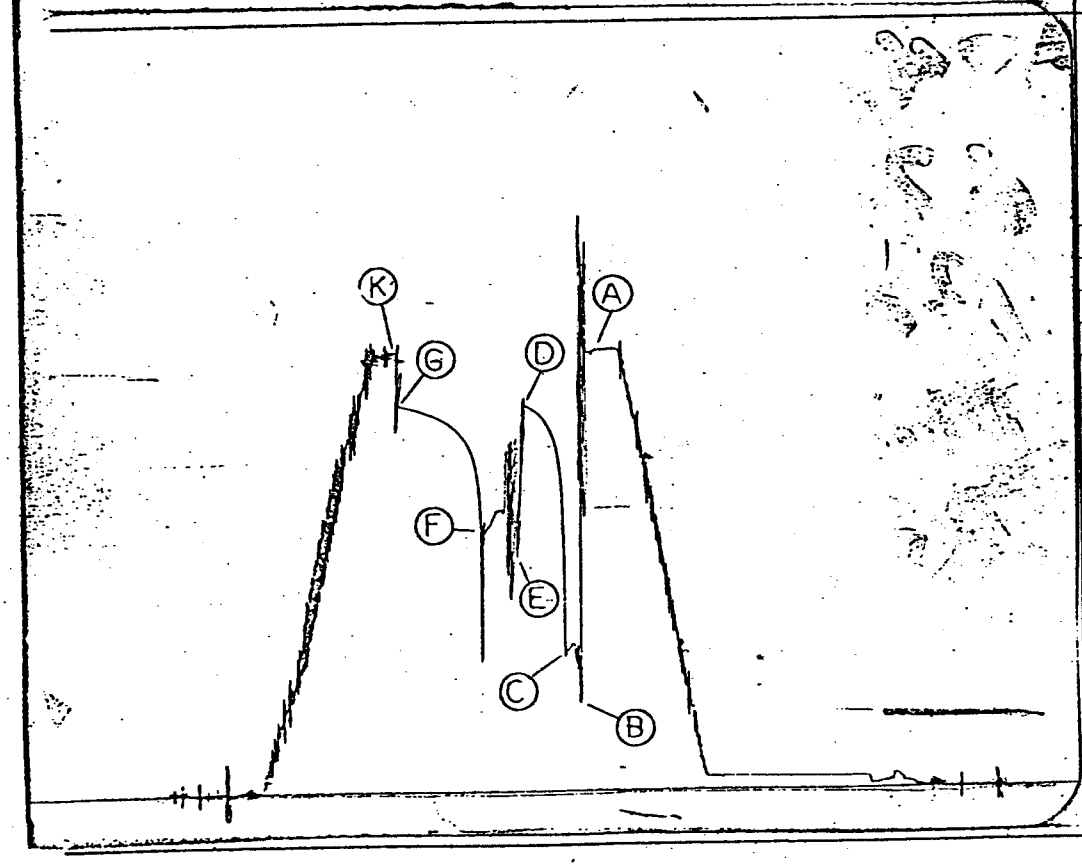


Inside Recorde

PRD Make Kuster AK-1

No. 7424 Cap. 6750 @ 7

Press		Corr
Initial Hydrostatic	A	3
Final Hydrostatic	K	3
Initial Flow	B	
Final Initial Flow	C	1
Initial Shut-in	D	3
Second Initial Flow	E	2
Second Final Flow	F	2
Second Shut-in	G	3
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-in	J	
Pressure Below Bottom Packer Bled To		



Inside Recc

PRD Make Kuster AK-

No. 10237 Cap. 6650 @

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

Form 3

LYNES, INC.

REPORT #1797

WELL NAME - MINNEN HILL #29-1

WELL OPERATOR - AMERICAN QUASAR PETROLEUM CO.

DST NUMBER - 4

RECORDER NUMBER - 10238

FIRST SHUT IN PRESSURE

TIME(MIN) PHI	(T+PHI) /PHI	PSIG
.0	.0000	1296
6.0	2.6667	2811
12.0	1.8333	3050
18.0	1.5556	3159
24.0	1.4167	3233
30.0	1.3333	3285
36.0	1.2778	3321
42.0	1.2381	3348
48.0	1.2083	3374
54.0	1.1852	3394
60.0	1.1667	3411

EXTRAPOLATION OF FIRST SHUT IN = 3574.73

LYNES, INC.

REPORT #1797

WELL NAME - MINNEN HILL #29-1

WELL OPERATOR - AMERICAN QUASAR PETROLEUM CO.

DST NUMBER - 4

RECORDER NUMBER - 10238

SECOND SHUT IN PRESSURE

TIME(MIN) PHI	(T+PHI) /PHI	PSIG
.0	.0000	1282
12.0	6.8333	2970
24.0	3.9167	3127
36.0	2.9444	3209
48.0	2.4583	3262
60.0	2.1667	3301
72.0	1.9722	3331
84.0	1.8333	3354
96.0	1.7292	3374
108.0	1.6481	3390
120.0	1.5833	3404

FITTED LINE: LOG((TO+PHI)/PHI) = -.00127 PSIG + 4.52182

EXTRAPOLATION OF SECOND SHUT IN = 3561.17 M = 787.55

LYNES, INC.

Sampler Report

Company: American Quasar Petroleum Company Date: 2-15-79

Well Name & No.: Minnow-Hill #29-1 Ticket No.: 13546

County: Rich State: Utah

Test Interval: 7935-8119' DST No.: 4

Total Volume of Sampler: 2100 cc.

Total Volume of Sample: 1800 cc.

Pressure in Sampler: 35 psig

Oil: None cc.

Water: 1500 saltwater cc.

Mud: 300 water cut cc.

Gas: None cu. ft.

Other: None

R.W. .14 @ 60°F = 60,000 ppm. chl.

Resistivity

Make Up Water 10.0 @ 65°F of Chloride Content 575 ppm.

Mud Pit Sample .23 @ 55°F of Chloride Content 37,000 ppm.

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

Where was sample drained On location.

Remarks:

Form 5

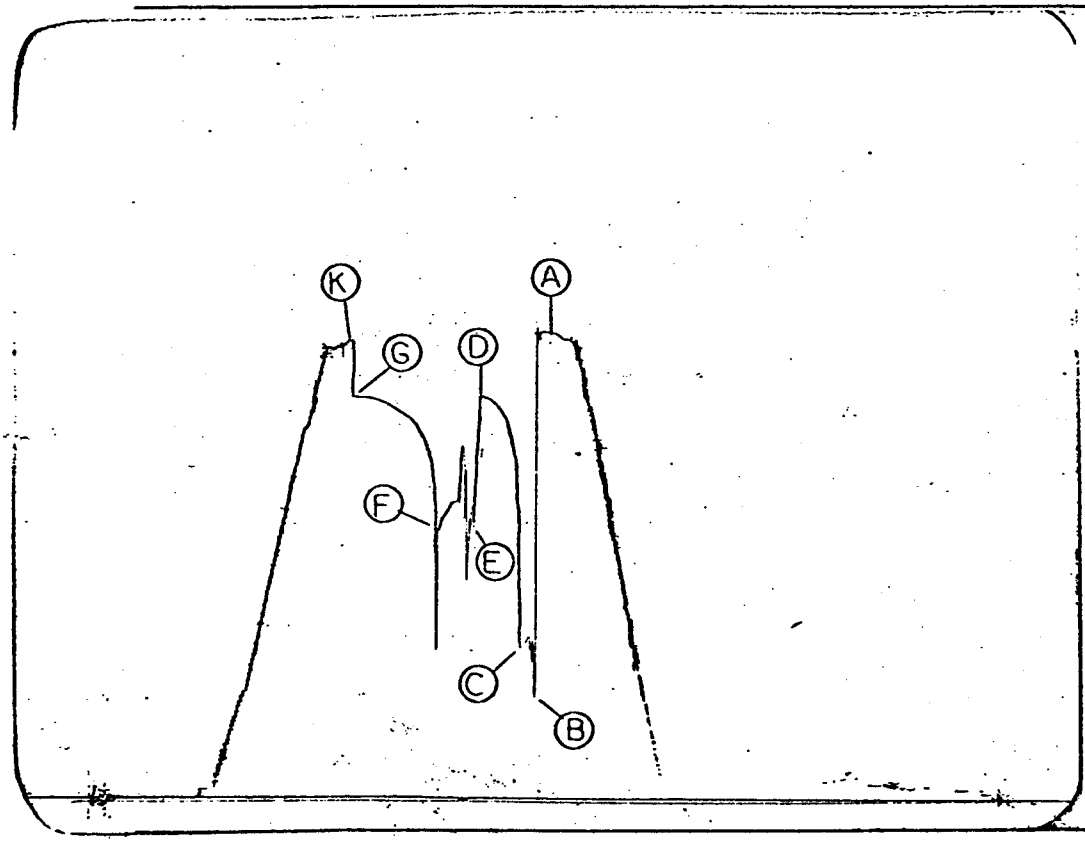
Phone
522-1206 Area 303

LYNES, INC.

Box 3600
Sterling, Colo. 80751

Contractor	Brinkerhoff Signal	Top Choke	1/4"	Flow No. 1	10 Min.
Rig No.	15	Bottom Choke	9/16"	Shut-in No. 1	60 Min.
Spot	NE-NE	Size Hole	12 1/4"	Flow No. 2	60 Min.
Sec.	29	Size Rat Hole	--	Shut-in No. 2	120 Min.
Twp.	9 N	Size & Wt. D. P.	4 1/2" 16.60	Flow No. 3	-- Min.
Rng.	8 E	Size Wt. Pipe	--	Shut-in No. 3	-- Min.
Field	Wildcat	I. D. of D. C.	2 3/4"		
County	Rich	Length of D. C.	186'		
State	Utah	Total Depth	8119'	Bottom Hole Temp.	125°F
Elevation	6706' "K.B."	Interval Tested	7935-8119'	Mud Weight	9.2
Formation	Twin Creek	Type of Test	Bottom Hole Conventional	Gravity	--
				Viscosity	53

Tool opened @ 3:10



Outside Recorder

PRD Make Kuster AK-1
No. 10238 Cap. 6600 @ 8115'

Press		Corrected
Initial Hydrostatic	A	3882
Final Hydrostatic	K	3871
Initial Flow	B	883
Final Initial Flow	C	1296
Initial Shut-in	D	3411
Second Initial Flow	E	2301
Second Final Flow	F	2301
Second Shut-in	G	3404
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs, WY
Our Tester: Herman Coomer
Witnessed By: Bob Reigan

Did Well Flow — Gas No Oil No Water No

RECOVERY IN PIPE: 1820' Total Fluid
200' Drilling mud = 2.84 bbl.
1620' Gas cut drilling mud & water = 21.72 bbl.
Top Sample: R.W. .16 @ 90°F = 35,000 ppm. chl.
Middle Sample: R.W. .12 @ 80°F = 55,000 ppm. chl.
Bottom Sample: R.W. .12 @ 75°F = 58,000 ppm. chl.

Blow Description:

1st Flow: Tool opened with a strong blow, increased to bottom of bucket and remained thru flow period.

2nd Flow: Tool opened with a weak blow, increased to bottom of bucket in 45 minutes and continued to increase slightly thru remainder of flow period.

Charts indicate moderate plugging throughout test.

Address See Distribution
Ticket No. 13546
Date 2-15-79
No. Final Copies 10

Form 1

Phone
522-1206 Area 303

LYNES, INC

Box 3600
Sterling, Colo. 80751

Contractor	Brinkerhoff - Signal	Top Choke	1/4"
Rig No.	15	Bottom Choke	3/4"
Spot	NE-NE	Size Hole	12 1/4"
Sec.	29	Size Rat Hole	--
Twp.	9 N	Size & Wt. D. P.	4 1/2" 16.60
Rng.	8 E	Size Wt. Pipe	--
Field	Wildcat	I. D. of D. C.	2 3/4"
County	Rich	Length of D. C.	155'
State	Utah	Total Depth	1000'
Elevation	6707' "K.B."	Interval Tested	940-1000'
Formation	Frontier	Type of Test	Bottom Hole Conventional

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

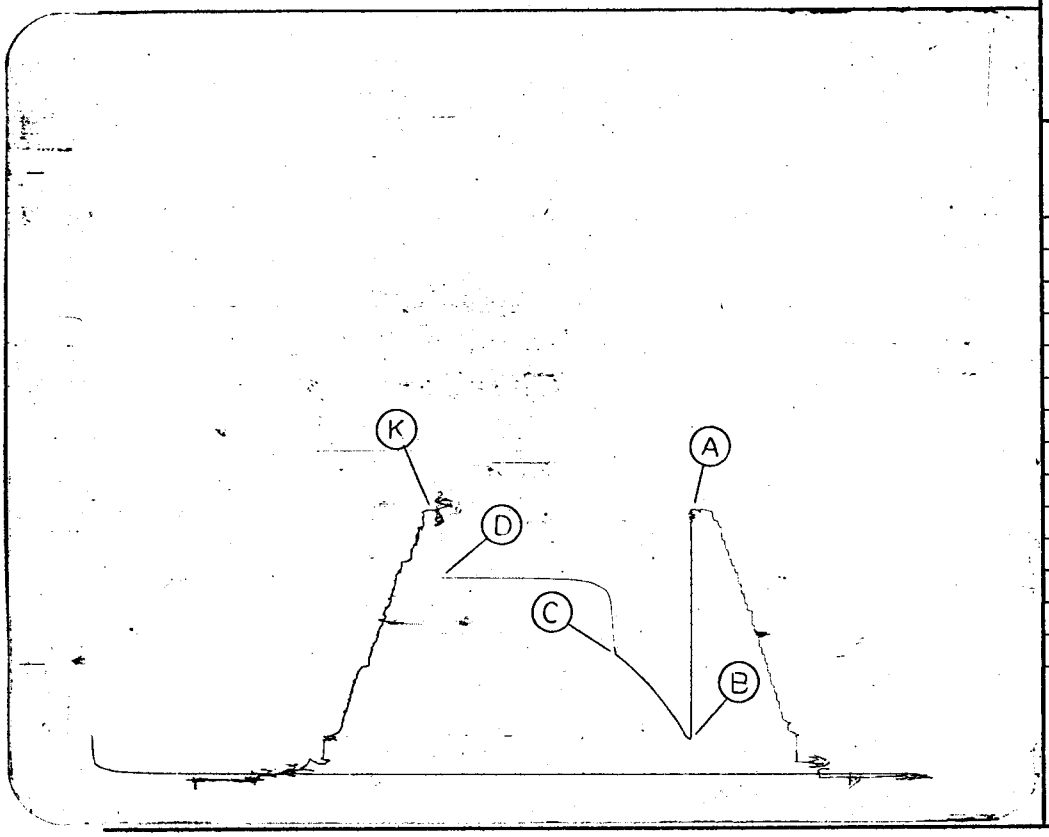
Bottom Hole Temp. 49°F
Mud Weight 8.8
Gravity --
Viscosity 54

Tool opened @ 6:20

Inside Recorder

PRD Make Kuster AK-1
No. 5974 Cap. 1200 @ 945'

Press		Corrected
Initial Hydrostatic	A	434
Final Hydrostatic	K	430
Initial Flow	B	63
Final Initial Flow	C	199
Initial Shut-in	D	324
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: Charles Tuzicka
Witnessed By: --

Did Well Flow — Gas No Oil No Water No

RECOVERY IN PIPE: 240' Muddy water = 1.97 bbl.

R.W. 4.0 @ 60°F = 1600 ppm. chl.

Flow - Tool opened with a strong blow and remained thru flow period.

REMARKS:

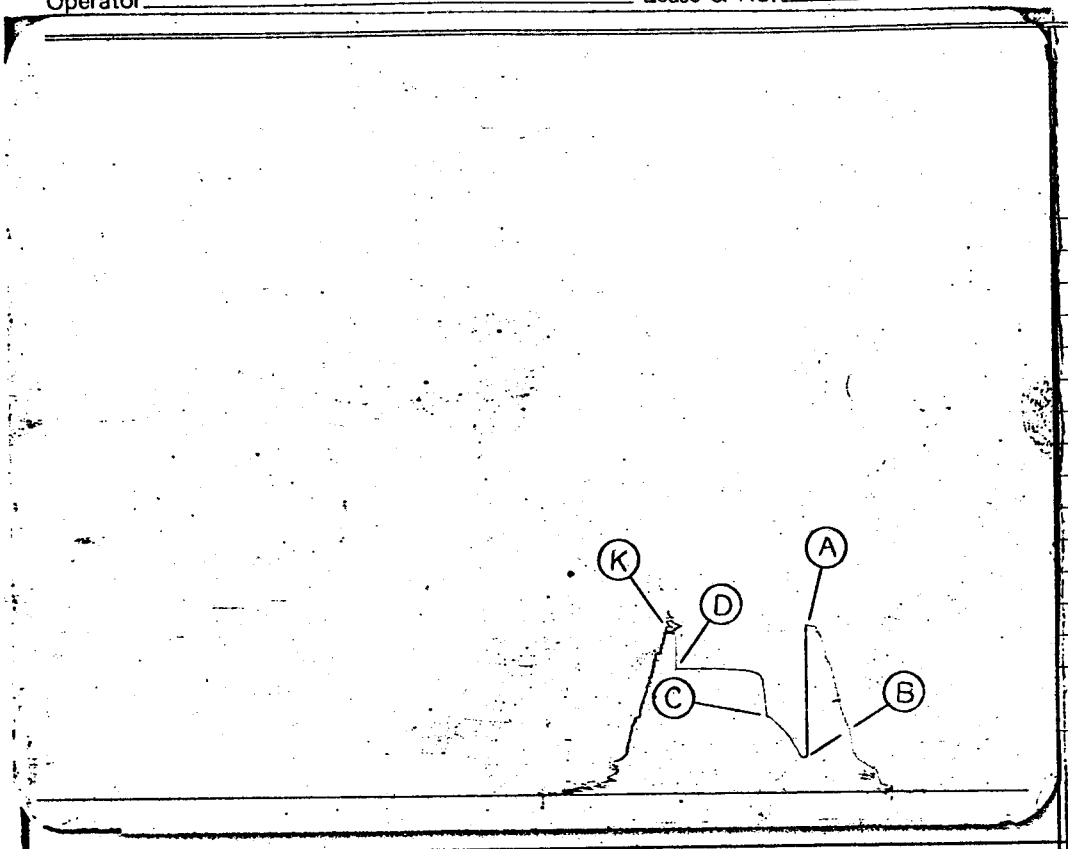
RECEIVED NOV 8 1978

Operator American Quasar Petroleum Co.
Address See Distribution
Well Name and No. Minnow Hill #29-1
Ticket No. 13619
Date 11-2-78
DST No. 2
No. Final Copies 15

Form 1

LYNES, INC.

Operator American Quasar Petroleum Co. Lease & No. Minnow Hill #29-1 DST No. 2



Outside Recorder

PRD Make Kuster AK-1

No. 4152 Cap. 2100 @ 995'

Press		Corrected
Initial Hydrostatic	A	444
Final Hydrostatic	K	439
Initial Flow	B	93
Final Initial Flow	C	205
Initial Shut-in	D	331
Second Initial Flow	E	--
Second Final Flow	F	--
Second Shut-in	G	--
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		

PRD Make

No. Cap. @

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

Form 3

REPORT #1313

WELL NAME - MINNOW HILL 29-1

WELL OPERATOR - AMERICAN QUASAR PETROLEUM CO.

DST NUMBER - 2

RECORDER NUMBER - 5978

FIRST SHUT IN PRESSURE

TIME(MIN) PHI	(T+PHI) /PHI	PSIG
.0	.0000	199
12.0	6.0000	311
24.0	3.5000	319
36.0	2.6667	321
48.0	2.2500	322
60.0	2.0000	323
72.0	1.8333	323
84.0	1.7143	323
96.0	1.6250	324
108.0	1.5556	324
120.0	1.5000	324

FITTED LINE: LOG((TO+PHI)/PHI) = -.10855 PSIG + 35.34568

EXTRAPOLATION OF FIRST SHUT IN = 325.62 M = 9.21

Phone
522-1206 Area 303

LYNES, INC.

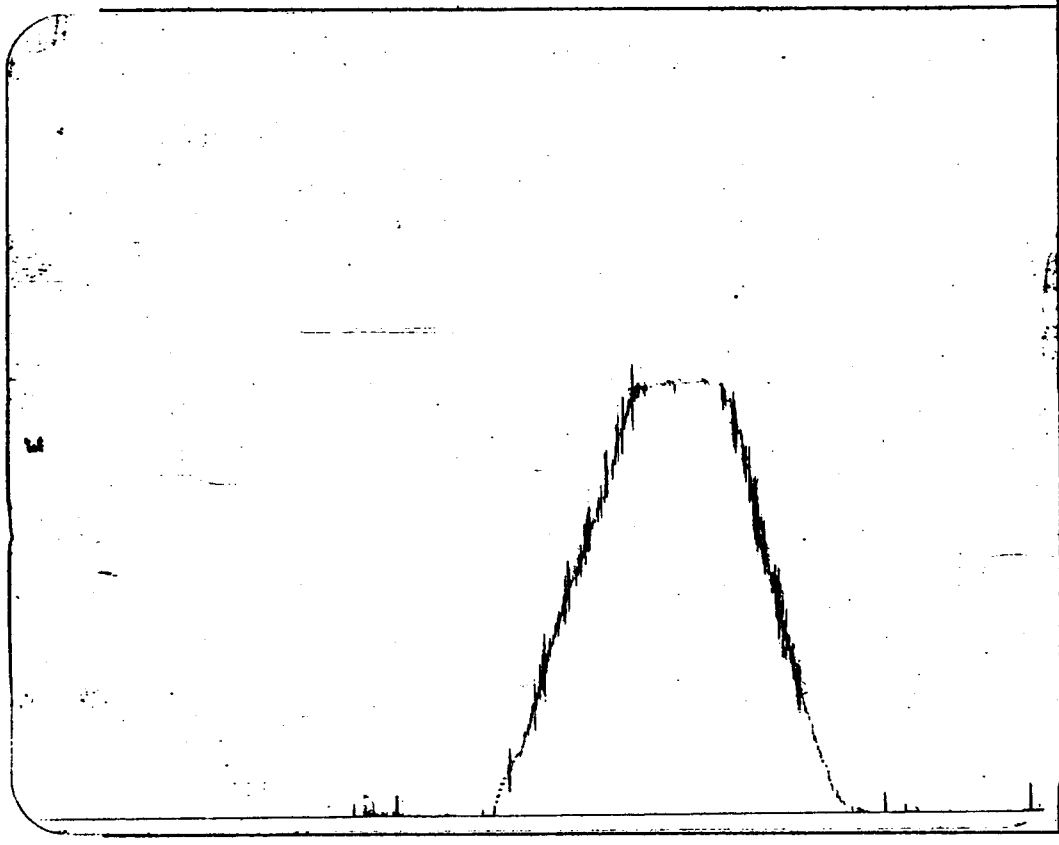
Box 3600
Sterling, Colo. 80751

Contractor	Brinkerhoff Drlg. Co.	Top Choke	1/4"
Rig No.	15	Bottom Choke	3/4"
Spot	NE-NE	Size Hole	12 1/4"
Sec.	29	Size Rat Hole	--
Twp.	9 N	Size & Wt. D. P.	4 1/2" 16.60
Rng.	8 E	Size Wt. Pipe	--
Field	Wildcat	I. D. of D. C.	2 3/4"
County	Rich	Length of D. C.	218'
State	Utah	Total Depth	8119'
Elevation	6706' "K.B."	Interval Tested	7975-8119'
Formation	Twin Creek	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. 128°F
Mud Weight 9.2
Gravity --
Viscosity 47

Tool opened @ 8:54 AM.



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

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: R.B. Christensen
Witnessed By: Bob Reigan

Did Well Flow – Gas No Oil No Water No
RECOVERY IN PIPE:

MISRUN: No packer seats.

Address See Distribution
Ticket No. 13726
Date 2-13-79
No. Final Copies 18

Form 1

LYNES, INC.

Distribution of Final Reports

Operator American Quasar Petroleum Co. Well Name and No. Minnow Hill #29-1

Original: American Quasar Petroleum Company, 707 United Bank Tower, 1700 Broadway, Denver, Colorado 80290 Attn: Clare Gregg

1 Copy: American Quasar Petroleum Company, 204 Superior Building, 201 N. Wolcott, Casper, Wyoming 82601 Attn: John Sindelar

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3 Copies: Cities Service Company, 1600 Broadway, #900, Denver, Colorado 80264 Attn: Teresa Gorman

3 Copies: Ramoco, Inc., 210 Oxford Street East, London, Ontario, Canada N6A 1T6 Attn: John Cowen

3 Copies: Chevron-USA, Box 599, Denver, Colorado 80201 Attn: Bill Mansfield

Form 6

Phone
522-1206 Area 303

LYNES, INC

Box 3600
Sterling, Colo. 80751

Contractor	Brinkerhoff - Signal	Top Choke	1/4"
Rig No.	15	Bottom Choke	3/4"
Spot	NE-NE	Size Hole	12 1/2"
Sec.	29	Size Rat Hole	--
Twp.	9 N	Size & Wt. D. P.	4 1/2" 16.60
Rng.	8 E	Size Wt. Pipe	--
Field	Wildcat	I. D. of D. C.	2 3/4"
County	Rich	Length of D. C.	155'
State	Utah	Total Depth	1000'
Elevation	6707' "K.B."	Interval Tested	924-1000'
Formation	Frontier	Type of Test	Bottom Hole Conventional

Flow No. 1	10	Min.
Shut-in No. 1	30	Min.
Flow No. 2	90	Min.
Shut-in No. 2	60	Min.
Flow No. 3	--	Min.
Shut-in No. 3	--	Min.

Bottom Hole Temp.	49°F
Mud Weight	8.8
Gravity	--
Viscosity	54

Tool opened @ 8:37 AM.

Inside Recorder

PRD Make Kuster AK-1
No. 5978 Cap. 1200 @ 930'

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: Charles Tuzicka
Witnessed By: Bob Reigan

Operator: American Quasar Petroleum Co.
Address: See Distribution
Well Name and No.: Minnow Hill #29-1
Ticket No.: 13618
Date: 11-1-78
DST No.: 1
No. Final Copies: 15

Did Well Flow – Gas No Oil No Water No

RECOVERY IN PIPE: 15' Mud = .11 bbl. (R.W. 0.9 @ 60°F = 7800 ppm. chl.)

1st Flow - Tool opened with a strong blow, began to decrease after 3 minutes.

2nd Flow - Tool opened with a weak blow, died in 8 minutes and remained thru flow period.

REMARKS:

MISRUN - Charts indicate tool was completely plugged.

RECEIVED
NOV 8 1978
DIVISION OF
OIL, GAS & MINING

Form 1

LYNES, INC.

Fluid Sample Report

Company: American Quasar Petroleum Co. Date: 11-1-78

Well Name & No.: Minnow Hill #29-1 Ticket No.: 13618

County: Rich State: Utah

Test Interval: 924-1000' DST No.: 1

Total Volume of Sampler: 2100 cc.

Total Volume of Sample: Trace cc.

Pressure in Sampler: None psig

Oil: None cc.

Water: None cc.

Mud: Trace cc.

Gas: None cu. ft.

Other: None

R.W. 2.0 @ 60°F = 3500 ppm. chl.

Resistivity

Make Up Water 10.0 @ 50°F of Chloride Content 725 ppm.

Mud Pit Sample 3.0 @ 60°F of Chloride Content 2300 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. Minnow Hill #29-1

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