

FILE NOTATIONS

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

Checked by Chief *P.W.B.*.....
Approval Letter *11-7-69*
Disapproval Letter

COMPLETION DATA:

Date Well Completed *12-4-69*.....
NW..... WW..... 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.....

November 6, 1969

Mr. F. A. Salwerowicz, Acting District Engineer
U. S. Geological Survey
8416 Federal Building
125 South State Street
Salt Lake City, Utah 84111

Re: Lease No. SLC - 071567 - Lot 3, Sec. 1
T. 17S, R.23E, SLB&M . . . Well No. M-8
Grand County, Utah

Dear Mr. Salwerowicz:

Enclosed, in triplicate, Form 9-331C dated November 6, 1969,
Application for Permit to Drill with attached "Survey of Well
Location" on subject well, for your approval.

Very truly yours,

OIL INCORPORATED.



M. C. Wissmar
Treasurer

MCW:vw
Enclosures (3)

Xcc: w//enclosures (2)
Mr. Cleon B. Feight, Executive Director
Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

5. LEASE DESIGNATION AND SERIAL NO.
SLC-071567

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.
M-8

10. FIELD AND POOL, OR WILDCAT
Westwater - Test

11. SEC., T., B., M., OR BLK. AND SURVEY OR AREA
**Lot 3 - Sec. 1
T. 17S, R. 23E, SLB&M**

12. COUNTY OR PARISH
Grand

13. STATE
Utah

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

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

2. NAME OF OPERATOR
Oil Incorporated, Operator

3. ADDRESS OF OPERATOR
72 East Fourth South, Suite 240, Salt Lake City, Utah 84111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface **1430 ft. S of N line - 1630 E of W line of Section 1**
 At proposed prod. zone **N 1/2 E NW**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

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

16. NO. OF ACRES IN LEASE

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.

19. PROPOSED DEPTH
5650'

20. ROTARY OR CABLE TOOLS

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
GR - 5,930.6 ft.

22. APPROX. DATE WORK WILL START*
Nov. 15, 1969

23. PROPOSED CASING AND CEMENTING PROGRAM

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

Drill 12 1/4" hole and set 9-5/8" surface casing to 150 ft. Cement 60 sax to surface

Drill 8-3/4" hole and set 7" intermediate casing to 1800 ft. Cement 50 sax

Drill 6 1/2" Hole to total depth of 5650 ft. through Dakota Sandstone. If productive run 4 1/2" casing to 5650 ft. Cement 100 sax.

Estimated Dakota Sandstone 5450 ft. - 5500 ft. - approximate.

APPROVED BY DIVISION OF
OIL & GAS CONSERVATION

DATE **11-7-69**
BY **Don B. Feight**

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data of 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 M. C. Wissman TITLE Treasurer DATE November 6, 1969

(This space for Federal or State office use)

PERMIT NO. 13-119-30046 APPROVAL DATE _____

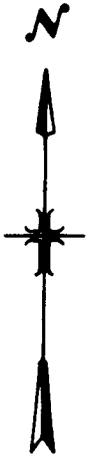
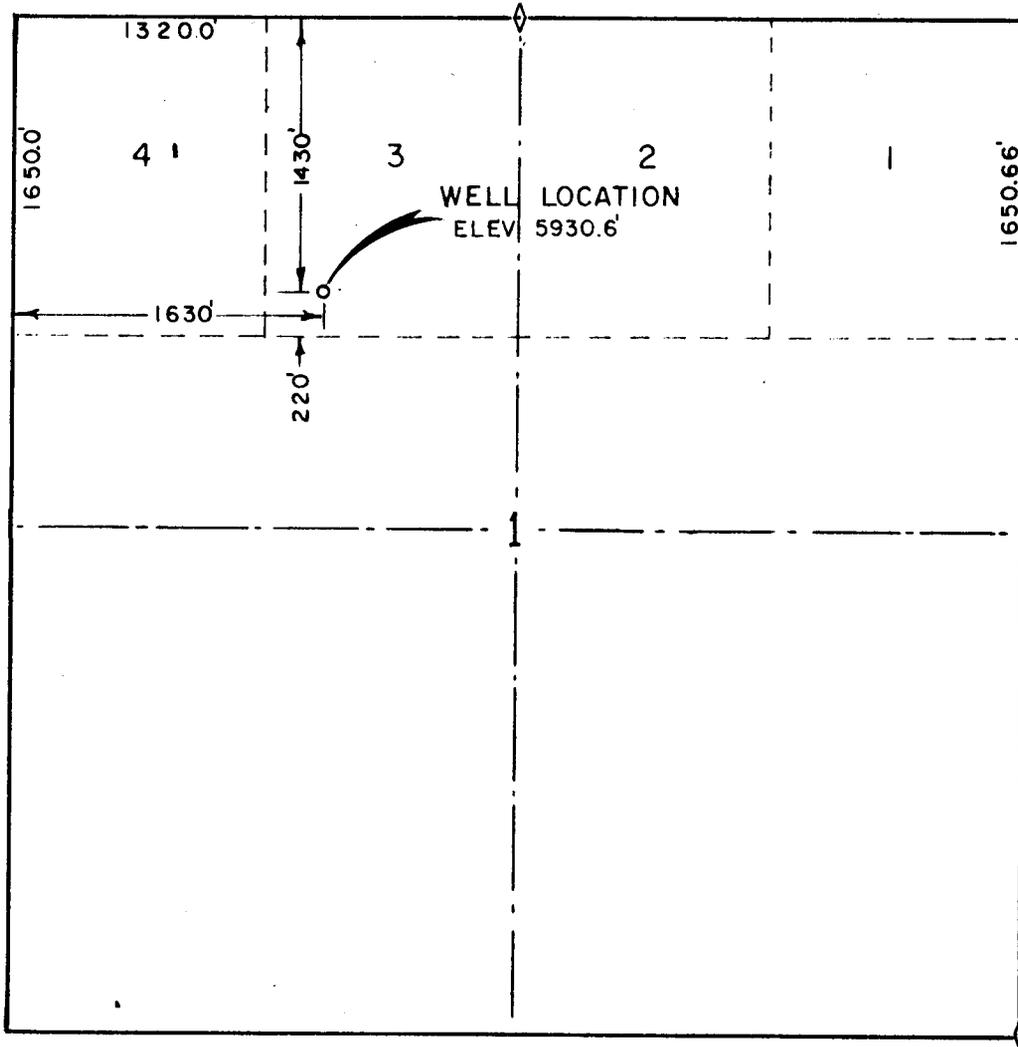
APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

WELL LOCATION

LOT 3 SECTION 1
T 17 S R 23 E SLB 8 M



Scale 1" = 1000'

Note: Elevation run from M-1, Elev. 5850.2'

I, William F. Quinn, do hereby certify that this plat was plotted from notes of a field survey made under my direct responsibility, supervision and checking on Nov. 4, 1969.

William F. Quinn
Registered Land Surveyor

WESTERN ENGINEERS, INC.
WELL LOCATION
OIL INCORPORATED
M-8
GRAND COUNTY, UTAH

SURVEYED W.F.Q. DRAWN F.B.F.

GRAND JUNCTION, COLO. 11/8/69

December 2, 1969

Salwerowicz

PI *W*

Mr. F. A. Salwerowicz, Acting District Engineer
U. S. Geological Survey
8416 Federal Building
125 South State Street
Salt Lake City, Utah 84111

Re: Lease No. SLC 071567 - Lot 3, Sec. 1
T.17S, R. weE, SLB&M . . . Well No. M-8
Grand County, Utah

Dear Mr. Salwerowicz:

Enclosed in triplicate, Form 9-331 dated December 2, 1969,
Sundry Notices and Reports on Wells, "Intermediate Casing"
on subject well together with three conformed copies for you to
approve and return to us.

Very truly yours,

OIL INCORPORATED

M. C. Wissmar
M. C. Wissmar
Treasurer

MCW:vw
Enclosures

cc: w/duplicate enclosed (one for approval and return)
Mr. Cleon B. Feight, Executive Director
Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

SLC - 071567

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

1.

OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

Oil Incorporated, Operator

3. ADDRESS OF OPERATOR

72 East Fourth South, Suite 240, Salt Lake City, Utah 84111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface

1430 ft. S of N Line - 1630 ft. E of W line of Section 1

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.

M-8

10. FIELD AND POOL, OR WILDCAT

Westwater

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

Lot 3 - Sec. 1

T. 17S R. 23E S1B&M

14. PERMIT NO.

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

Grand

Utah

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

Intermediate Casing

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

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

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.)*

November 29, 1969

Intermediate casing 7" - 20 lb. to depth 1,779 ft.

Set with 60 sax cement - 2% Calc. chloride

Plugged down 9:30 A. M. - November 30, 1969

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

SIGNED *M. C. Morrison*

TITLE **Treasurer**

DATE **Dec. 2, 1969**

(This space for Federal or State office use)

APPROVED BY _____

TITLE _____

DATE _____

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN PLICATE*
(Other inst. JNS on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

SLC - 071567

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

1.

OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

Oil Incorporated, Operator

3. ADDRESS OF OPERATOR

72 East Fourth South, Suite 240, Salt Lake City, Utah 84111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)

At surface

1430 ft. S of N Line - 1630 ft. E of W line of Section 1

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.

M-8

10. FIELD AND POOL, OR WILDCAT

Westwater- Test

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

Lot 3 - Sec. 1

T. 17S, R. 23E, SLB&M

14. PERMIT NO.

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

12. COUNTY OR PARISH

Grand

13. STATE

Utah

16.

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

NOTICE OF INTENTION TO :

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF :

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

Setting surface casing

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

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

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.)*

November 25, 1969

Surface casing set to depth of 162'

Casing 10-3/4" - 32 lbs.

Casing cement to surface with 85 sax cement.

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

SIGNED

M. C. Wassman

TITLE

Treasurer

DATE

Dec. 2, 1969

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

PE
12/10/69

December 8, 1969

~~Mr. Rudolph C. Baier, Jr., Acting District Engineer
U. S. Geological Survey
8416 Federal Building
125 South State Street
Salt Lake City, Utah 84111~~

Re: Lease No. SLC 071567 - Lot 3, Sec. 1
T.17S, R.23E, SLB&M. . . Well No. M-8
Grand County, Utah

Dear Mr. Baier:

Enclosed in triplicate, Form 9-331 dated December 8, 1969,
Sundry Notices and Reports on Wells, "Abandonment" on
subject well together with three conformed copies for you to
approve and return to us.

Very truly yours,

OIL INCORPORATED

M. C. Wissmar
Treasurer

MCW:vw
enclosures

✓ cc: w/duplicate enclosed (one for approval and return)
Mr. Cleon B. Feight, Executive Director
Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

SLC 071567

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.

M-8

10. FIELD AND POOL, OR WILDCAT

Westwater

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

Lot 3 - Sec. 1

T. 17S, R. 23E, SLB&M

12. COUNTY OR PARISH 13. STATE

Grand

Utah

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

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
Oil Incorporated, Operator

3. ADDRESS OF OPERATOR
72 East Fourth South, Suite 240, Salt Lake City, Utah

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface

1430 ft. S of N Line - 1630 ft. E of W line of Section 1

14. PERMIT NO.

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

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

NOTICE OF INTENTION TO:

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

SUBSEQUENT REPORT OF:

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

(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.) *

(Verbal approval received December 4, 1969)

25 sax cement 5250' - 5450'
25 sax cement 1740' - 1840'
10 sax cement at 170'
10 sax cement at surface with
Dry Hole Marker

Pulled 450 ft. 7" Intermediate casing.

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

SIGNED *M. C. Wiseman*

TITLE **Treasurer**

DATE **December 8, 1969**

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

January 12, 1970

~~Mr. John Finnegan, Acting District Engineer
U. S. Geological Survey
8416 Federal Building
125 South State Street
Salt Lake City, Utah 84111~~

Re: Lease No. SLC 071567 - Well M-8
Lot 3 - Section 1, T.17S, R.23E, SLM
Grand County, Utah

Dear Mr. Finnegan:

Enclosed, in triplicate, Form 9-330 "Well Completion or
Recompletion Report and Log, dated January 12, 1970 with
attached Schlumberger Gamma Ray-Neutron log on subject
well for your approval and return to us.

Very truly yours,

OIL INCORPORATED

M. C. Wissmar
Treasurer

MCW:vw
attachments

cc: w/enclosures (one copy for approval and return)
Mr. Cleon B. Feight, Executive Director
Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.0

5. LEASE DESIGNATION AND SERIAL NO.

SLC 071567

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.
M-8

10. FIELD AND POOL, OR WILDCAT
Wildcat

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

Lot 3, Sec. 1
T. 17S, R. 23E, SLM

12. COUNTY OR PARISH
Grand

13. STATE
Utah

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
Oil Incorporated

3. ADDRESS OF OPERATOR

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

At surface 1630' f West line; 1430' f North line

At top prod. interval reported below

At total depth

14. PERMIT NO. _____ DATE ISSUED _____

15. DATE SPUNDED 11/24/69 16. DATE T.D. REACHED 12/2/69 17. DATE COMPL. (Ready to prod.) dry hole ✓ 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* GR 5930.6 19. ELEV. CASINGHEAD 5940 KB

20. TOTAL DEPTH, MD & TVD 5524' 21. PLUG, BACK T.D., MD & TVD None 22. IF MULTIPLE COMPL., HOW MANY? None 23. INTERVALS DRILLED BY → 24. ROTARY TOOLS 0-5524 25. CABLE TOOLS None

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* None 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN Schlumberger Gamm Ray - Neutron 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
10-3/4"	32	174'	13-3/4	85 sk. reg cement	None
7"	20	1787'	8-3/4	65 sk. reg. cement	450'

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
None					None		

31. PERFORATION RECORD (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
None		DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
		None	

33.* PRODUCTION

DATE FIRST PRODUCTION None PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) WELL STATUS (Producing or shut-in)

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
			→				
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
		→					

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

35. LIST OF ATTACHMENTS

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

SIGNED M. C. Weisman TITLE Treasurer DATE January 14, 1970

*(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) for each 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.)

Operator

South, Suite 200, Salt Lake City, Utah

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 attached report			<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">D</div> <div style="margin-right: 10px;">X</div> </div>

38. GEOLOGIC MARKERS

NAME	MEAS. DEPTH	TOP
See attached report		TRUE VERT. DEPTH

JMS

L-

DRILLING REPORT

Westwater Area
Well #M-8

LEASE: UTAH SL-071567

OPERATOR: Willard Pease and Oil Incorporated

LOCATION: Grand County, Utah
Lot 3; Section 1 Twn 17 South Range 23 East
1630 ft. from West Line; 1430 ft. from North Line

ELEVATION: 5930 ft. (ungraded ground)
5940 ft. KB

CONTRACTOR: Willard Pease Drilling Company
Rig #1 Jim Long, Pusher

REPORT BY: Max Krey, Geologist

DRILLING HISTORY

11/23/69 Rigging up rotary tools.

11/24/69 Completed rigging up; drilled rat hole to 30', hit water; mudded up completed rat hole and commenced 8 3/4 surface hole.

11/25/69 Drilled 8 3/4 surface hole to 175'; reamed to 13 3/4 hole, mud drilling. Run 6 joints 32# 8 Rd 10 3/4 used casing, total of 189'. Set @ 173.81 ft. KB with 85 sx regular cement and 2% calcium chloride. Circulated cement to surface, plug down at 12:30 p.m. Hole dev. 1 degree.

11/26/69 Waiting on cement, nipping up and trying to blow hole dry. Commenced drilling 8 3/4 hole with soap injection at 12 noon. Drill to 883'. Survey 1 degree @ 680'.

11/27/69 Trip for Bit #2 (8 3/4 Reed YSIG-R) @ 883; 2 1/4 degree deviation @ 1120. Pipe tight on connection @ 1379. Trip for Bit #3 @ 1411. Stuck drill pipe at 1566, mudded up hole to circulate pipe free. 155' on Bit #3.

11/28/69 Waiting on water, mixing mud, working stuck drill pipe. Encountered Castlegate sandstone at 1656, no drilling break in drilling. Drill ahead to 1790'; 234' on Bit #4

11/29/69 Run 45 joints 8 Rd 20# 7" used casing (1788.96') set @ 1787 KB, cemented with 65 sx regular cement 2% calcium chloride. Plug down @ 10:30 a.m. Guide shoe on bottom, float insert on 1st joint up.

11/30/69 Drill ahead on air with Bit #5 (6 1/4 Reed YSI) to 3266. Tripped. Drilled 1631' in 24 hours.

- 12/1/69 Drill ahead on air with Bit #6 to 4847. Put on Bit #7 (6 1/8 HTC RG 7-Button bit). Drilled 1519' in 24 hrs.
- 12/2/69 Drill ahead on air, dusting well, to 5519, lost dust - drilled to 5524. Came out of hole, water on bottom part of drill pipe. Pipe on bank @ 9 p.m. Waiting on Schlumberger. Drilled 3710' in 60 total hours. Averaged 62'/hr.
- 12/3/69 Schlumberger start in hole @ 7:30 a.m. with 1 11/16 diameter Gamma Ray - Neutron Sonde, hit bridge @ 5151, logged out. Job completed @ noon. Fluid level in hole was @ 4716. Decision was made to plug and abandon hole.

RESUME LITHOLOGY LOG
corrected to Schlumberger log (K. B. Datum)

M-8
30' samples
Air-Mist-Soap

- 0-30 Surface fill and creek gravel.
- 30-50 Sandstone, medium grain, poorly sorted, poorly cemented.
- 50-80 Shale, light gray, silty
- 80-110 Sandstone, medium grain, brown
- 110-170 Siltstone, gray shaley
- 170-200 Siltstone, very light gray and gray silty shale
- 200-260 Interbedded fine grained light gray poorly sorted pyritic sandstones and gray hard silty shale
- 260-320 Shale, gray hard silty and vf to fine gray sandstone
- 320-470 All 5 samples a mixture of interbedded soft gray shale, gray silty shale to siltstone and some light gray, clear to s&p fine grained sandstone
- 470-620 All 5 samples as above, interbedded shale, silt and sandstone except the previous samples contained cuttings of bigger and more varied sizes. These cuttings are all very fine to medium grain size.
- 620-650 Sandstone, fine grained, clear to light gray, argillaceous all as loose sand grains and some soft gray shale.
- 650-770 Shale, gray soft, silty in part to siltstone and sandstone as above - minor coal seams from 750 to 710
- 770-920 Interbedded soft shale, silty shales and siltstones
- 920-1070 Shale, soft gray with interbedded gray silty shales and gray siltstones, minor coal seams from 1010 to 1040.
- 1070-1100 Shale, soft gray silty, minor coal seams

P. K.

1100-1130 Sandstone, light gray very fine grain silty, no stain some silty shale

1130-1190 Shale soft gray silty to siltstone

1190-1210 Sandstone, fine grain, lt gray sub-angular, silty, poorly sorted, poorly cemented, all as loose sand grains, looks wet.

1210-1280 Interbedded gray shale and siltstones

1280-1310 Sample missing

1310-1330 Sandstone, fine to medium grain, sub-angular, loos sand grains

1330-1370 Siltstone, gray with interbedded gray shale

1370-1400 Sandstone, very fine gray (darker than above) argillaceous

1400-90 Shale, dark gray

1490-1550 Shale, dark gray silty in part

1566 Stuck drill pipe. Mudded up to circulate pipe loose

1550-1570 No samples

1570-1590 Shale, dark gray, soft

1590-1600 Sample missing

1600-1610 Shale, dark gray, soft

1610-1660 Shale, dark gray

Castlegate sandstone - log top @ 1656 (+ 4284)

1660-1670 Sandstone - fine grained clear to lt gray no stain or fluorescence - only few pieces in sample

1670-1700 Sandstone - fine grained (as above) circulated 15 min. sample same as above. No stain, no fluorescence, no drilling break, no "clatter" on rotary table - sandstone looks wet.

1700-1750 Siltstone gray hard with interbedded gray shale

1750-1790 Shale gray with siltstone stringers. Ran 7" casing to 1789 ft. Air drilled ahead with 6 1/4" hole

1800-3150 Shale, gry silty to interbedded siltstones

3150-4660 Shale, gry silty in part

4660-90 Shale light gray bentonitic

4690-4720 Sample missing

4720-4840 Shale, light gray soft

4840-5060 Shale light gray soft.

5060-5090 Sample missing

5090-5100 Shale, medium gray, soft

5100-10 Shale, light gray bentonitic

5110-5180 Shale, dark gray soft

5180-5190 Shale light gray bentonitic

5190-5250 Shale, dark gray soft

5250-5325 Shale, light gray silty with siltstone ribs

5325-5390 Siltstone gray, slightly darker than above, argillaceous

5390-5410 Shale, light gray silty to siltstone

5410-5420 Sample missing

5420-5490 Shale, light gray silty with siltstone stringers

5490-5519 Shale, light gray silty to siltstone

5519 Lost dust, water encountered

5519-5524 Sandstone, fine to very fine gray to clear, No stain or
fluorescence. Only sample came off of the drill pipe on trip
out of hole.

12/3/5b Ran Schlumberger Gamma Ray - Newtron log to 5151 ft. Fluid
level at 4716 ft.