Don Quigley 4/12/72

Set Casing and WOC – Will try to test for Sands in Dakota and 4 Sands in Morrison (oil) MB

FILE NOTATIONS

Entered in NID File ....✓.... Checked by Chief ....✓....
Location Map Pinned ....✓.... Approval Letter 3-1-72
Card Indexed ....✓.... Disapproval Letter .....

COMPLETION DATA:

Date Well Completed 5-12-72 Location Inspected .

OW....✓.... WW..... TA..... Bond released

GW..... OS..... PA..... 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.....

Approved in Accordance with Rule C-3 // 3-1-72

4-29-75 Sub. Report of Abandonment.

Date

RES. PHONE 801-295-1870 BUS. PHONE 801-359-3575

W. DON QUIGLEY

OIL AND MINERALS CONSULTANT
803 PHILLIPS PETROLEUM BLDG. - SALT LAKE CITY, UTAH 84101

February 28, 1972

Oil & Gas Division
U.S. Geological Survey
Federal Bldg.
Salt Lake City, Utah 84111

✓ Dept. of Natural Resources
Oil & Gas Conservation Division
1588 West N. Temple
Salt Lake City. Utah 84116

Dear Sirs:

The enclosed application for a Permit to Drill a well, The Toledo Bull Canyon #2, in Section 9, T.20 S.,R.21 E.,S.L.M., Grand County, Utah is requesting a location which is less than the required distance from a sub-division line. The topography of the area is extremely rough and suitable locations for well sites are difficult to find. A copy of a portion of the topographic map of the area is attached. This shows the rugged nature of the area.

It is therefore requested that an exception be granted to the ruling controlling the distance of a well site from a sub-division line due to tppographic reasons. Toledo Mining Company controls all lands within 517 feet of the well site.

Sincerely yours,

W. Don Quigley

W. Don Quigley

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved
Budget Bureau

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL
OIL WELL [X] or GAS WELL [X] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Toledo Mining Company

3. ADDRESS OF OPERATOR
321 Newhouse Bldg., Salt Lake City, Utah 84111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
NE.NW.Sec.9, T.20 S.,R.21 E.,S.L.M.
At proposed prod. zone 2123' fr.W-line & 939' fr. N-line

5. LEASE DESIGNATION AND SERIAL NO.
U-15080

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Federal

9. WELL NO.
Toledo-Bull Canyon #2

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
NE.NW.Sec.9,T20S.R21E S.L.M.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
About 20 miles northwest of Cisco, Utah

12. COUNTY OR PARISH
Grand

13. STATE
Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
517'

16. NO. OF ACRES IN LEASE
1472.16

17. NO. OF ACRES ASSIGNED TO THIS WELL
80 acres

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

19. PROPOSED DEPTH
4100'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
Grd.: 5972'; K.B.:5983'

22. APPROX. DATE WORK WILL START*
Mar.1,1972

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8 5/8"	24#	250'	150 sks.

It is planned to drill a well at the above location to test the gas and/or oil potential of the Dakota, Cedar Mountain, Morrison, and Entrada formations, unless good commercial production is obtained before all the above listed formations are penetrated. It is anticipated that the top of Dakota will be encountered at about 3200';;the Morrison at 3400'; & the Entrada at about 4000'. The well will be drilled to about 50 ft. into the Entrada formation unless good commercial production is obtained at a lesser depth. The well will be drilled with mud and all hydrocarbon shows will be tested when drilled. About 250 ft. of surface casing will be set to insure good support for control equipment. This casing will be cemented with returns to the surface. A blow-out preventor will be installed on the surface casing to provide for control of any undue pressures.
If production is obtained 5½" casing will be run and cemented to a point above the top of the Dakota Formation.

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 W. Don Quigley TITLE Consulting Geologist DATE Feb. 28, 1972

(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

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL
OIL WELL ☒ or GAS WELL ☒ OTHER — SINGLE ZONE ☐ MULTIPLE ZONE ☐

2. NAME OF OPERATOR
Toledo Mining Company

3. ADDRESS OF OPERATOR
321 Newhouse Bldg., Salt Lake City, Utah 84111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
NE.NW.Sec.9, T.20 S.,R.21 E.,S.L.M.
At proposed prod. zone **2123' fr.W-line & 939' fr. N-line** SENE NW

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
About 20 miles northwest of Cisco, Utah

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
517'	1472.16	80 acres
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
	4100'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
Grd.: 5972'; K.B.:5983'

22. APPROX. DATE WORK WILL START*
Mar 1, 1972

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8 5/8"	24#	250'	150 sks.

It is planned to drill a well at the above location to test the gas and/or oil potential of the Dakota, Cedar Mountain, Morrison, and Entrada formations, unless good commercial production is obtained before all the above listed formations are penetrated. It is anticipated that the top of Dakota will be encountered at about 3200';;the Morrison at 3400' & the Entrada at about 4000'. The well will be drilled to about 50 ft. into the Entrada formation unless good commercial production is obtained at a lesser depth. The well will be drilled with mud and all hydrocarbon shows will be tested when drilled. About 250 ft. of surface casing will be set to insure good support for control equipment. This casing will be cemented with returns to the surface. A blow-out preventor will be installed on the surface casing to provide for control of any undue pressures. If production is obtained 5½" casing will be run and cemented to a point above the top of the Dakota Formation.

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 W. Don Quigley TITLE **Consulting Geologist** DATE **Feb. 28, 1972**

(This space for Federal or State office use)

PERMIT NO. 43-019-30083 APPROVAL DATE

APPROVED BY TITLE DATE

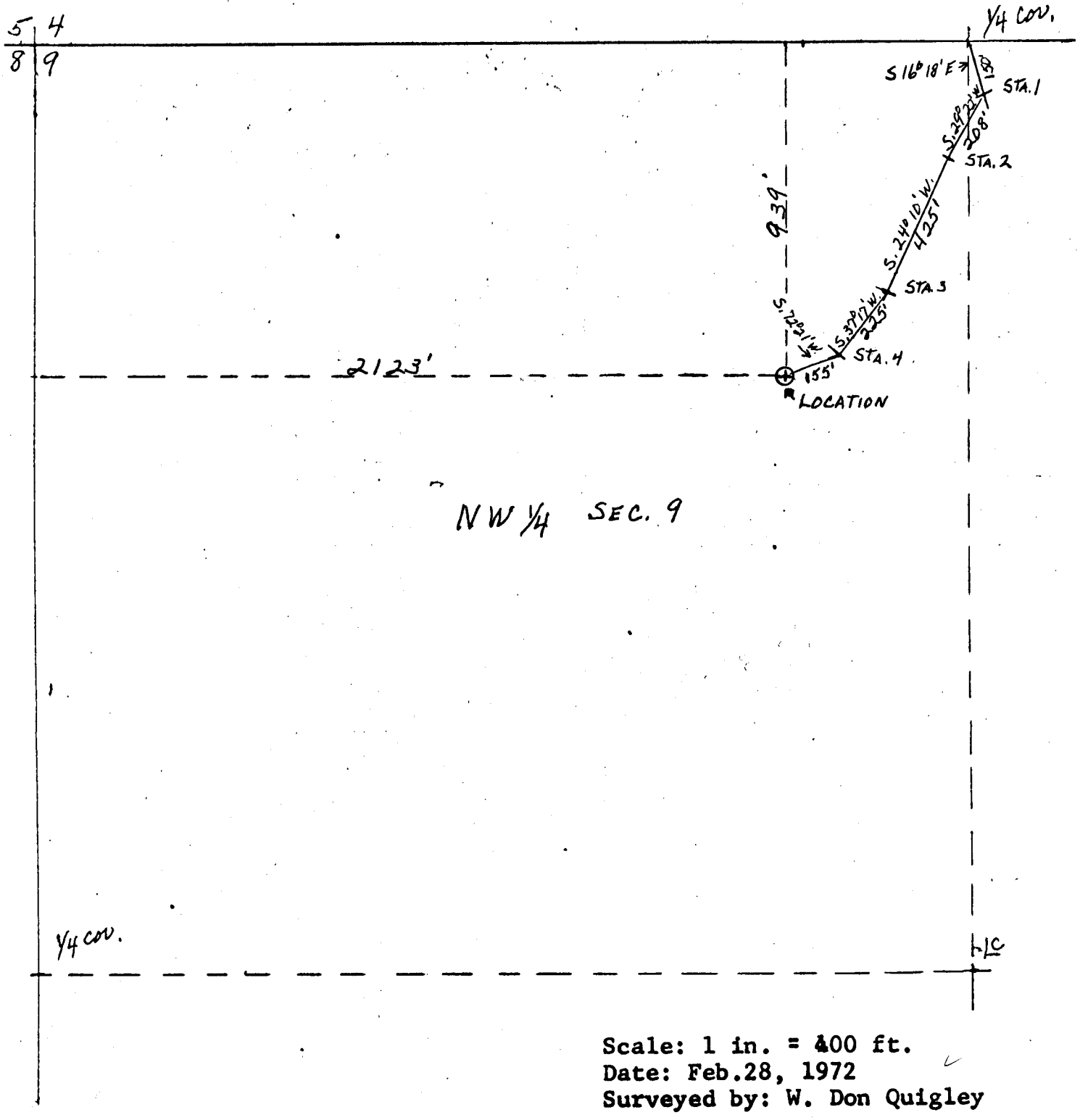
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

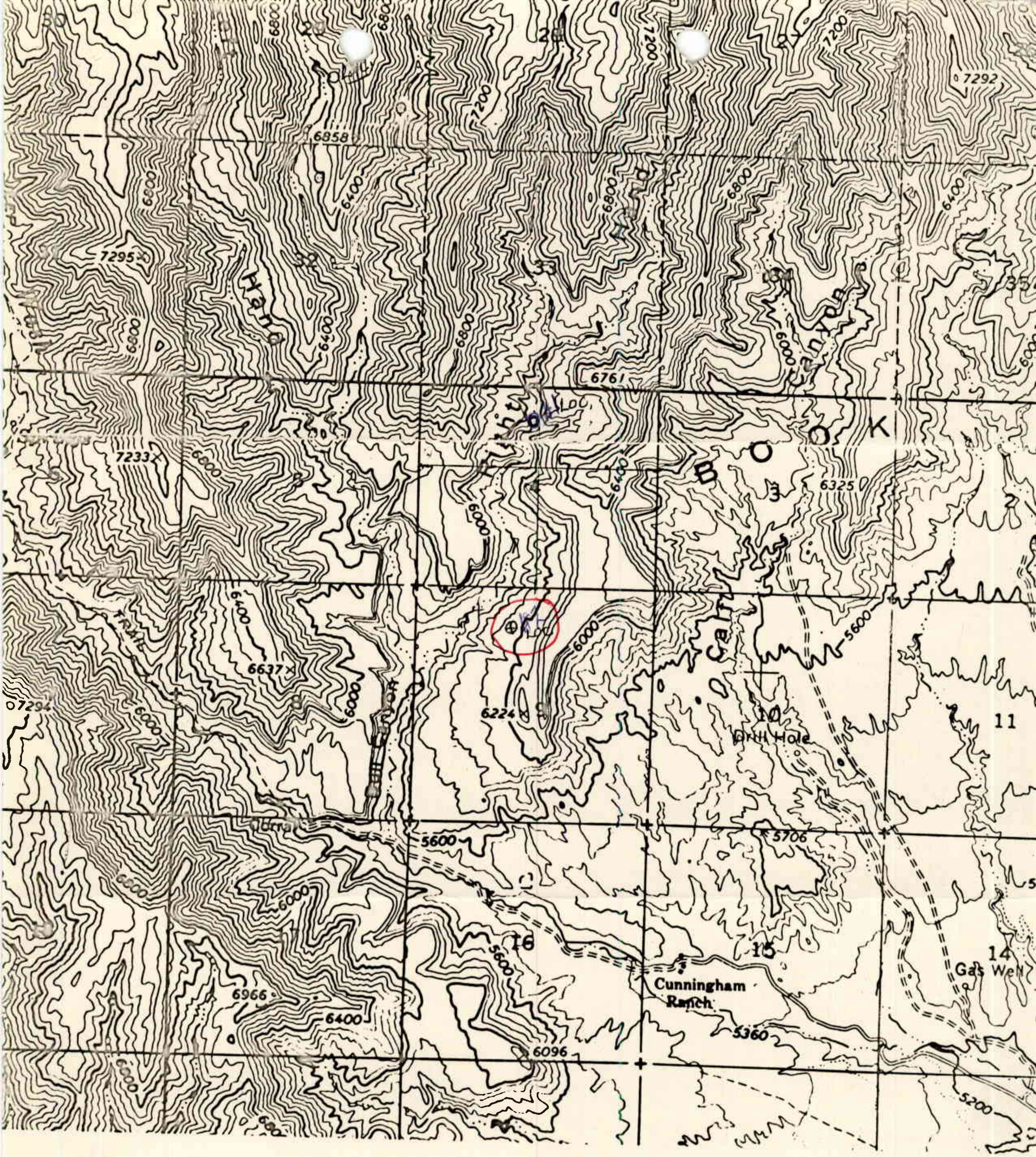
5. LEASE DESIGNATION AND SERIAL NO.
U-15080
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME
Federal
9. WELL NO.
Toledo-Bull Canyon #2
10. FIELD AND POOL, OR WILDCAT
Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
NE.NW.Sec.9,T20S.R21E Salt Lk.
12. COUNTY OR PARISH
Grand
STATE
Utah

LOCATION PLAT FOR

TOLEDO BULL CANYON #2
NE.NW.SEC.9,20S.,21E.
GRAND COUNTY, UTAH
ELEV.:~~5~~972' Grd.



Scale: 1 in. = 400 ft.
Date: Feb.28, 1972
Surveyed by: W. Don Quigley



R 21 E

Contour In

March 1, 1972

Toledo Mining Company
321 Newhouse Building
Salt Lake City, Utah 84111

Re: Bull Canyon Gov't. #2
Sec. 9, T. 20 S, R. 21 E,
Grand County, Utah

Gentlemen:

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

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

PAUL W. BURCHELL-Chief Petroleum Engineer
HOME: 277-2890
OFFICE: 328-5771

This approval terminates within 90 days if the well has not been spudded-in within said period.

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

The API number assigned to this well is 43-019-30083.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT
DIRECTOR

CBF:sd
cc: U.S. Geological Survey

ANTHONY G. HATSIS
PRESIDENT

TOLEDO MINING COMPANY

322 NEWHOUSE BLDG. · SALT LAKE CITY, UTAH 84111 · PHONE 801-322-0417

April 12, 1972

State of Utah
Department of Natural Resources
Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

Gentlemen:

With reference to your letter of March 20, 1972 we have now drilled two wells in the Left Hand Canyon and Bull Canyon area, Grand County, Utah.

We are advised by our geologist that no coal was encountered in either well.

Very truly yours,

H. John Nix
Comptroller

HJN/ls

DRILLING HISTORY

and

GEOLOGIC REPORT

on

TOLEDO-BULL CANYON #2 WELL
GRAND COUNTY, UTAH

June 15, 1972

by

W. Don Quigley
Consulting Geologist
Salt Lake City, Utah

DRILLING HISTORY
OF
TOLEDO BULL CANYON #2 WELL
GRAND COUNTY, UTAH

Operator: Toledo Mining Co., 321 Newhouse Bldg., Salt Lake City, Utah
Contractor: Willard Pease Drilling Co., P. O. Box 548, Grand Junction, Colorado
Location: NE NW Section 9, T. 20 S., R. 21 E., S. L. M., Grand County, Utah (2123' fr. W-line and 939' from N-line)
Elevations: Grd.: 5972'; K. B.: 5983'
Spudded in: March 12, 1972
Finished Drilling: April 2, 1972
Total Depth: 4115'
Pay Sections: Dakota-gas, 3354' to 3362'; Morrison-oil, 3654' to 3668'; 3674' to 3690'; 3716' to 3728'; 3758' to 3780'
Initial Production Rate: 200 bbls. of oil & 500 MCF of gas per day.
Completed: 5-12-1972

Mar. 10-11: Moving in rig and rigging up.

March 12: Finished rigging up. Drilled rat hole and mouse hole. Spudded in at 9 a. m. and began drilling 12 1/4" surface hole. Drilled 0' to 265' (265'). Ran 8 jts. of 8 5/8", 24#, J-55 casing and landed at 254' K. B. Cemented with 150 sks. of regular cement with 2% $CaCl_2$. Plug down at 10 p. m. Survey at 250' was 1/4°.

March 13: Drilled 265' to 549' (284'). Nippled up. Began drilling ahead with 7 7/8" bit at 4 p. m. (V. O. C. - 18 hours). Survey at 488' was 1/4°.

March 14: Drilled 549' to 1156' (607'). Made rd.-trip at 856' for Bit #2. Bit #1 (Reed-YTIA) made 591' (265' to 856') in 14 hours. Drilled at rate of 42 feet/hour in Mancos shale. Survey at 856' was 1°.

March 15: Drilled 1156' to 1803' (647'). Made rd.-trip at 1600' for Bit #3. Bit #2 (HTC-OSC-3) made 744' (856' to 1600') in 23 hours. Drilled at rate of 32 ft./hr. Survey at 1600' was 1 3/4°.

March 16: Drilled 1803' to 2084' (281'). Lost circulation at 2084' and started mixing mud with loss-circulation material. Lost 430 bbl. of mud. Pumped in one pit of mud (240 bbl.) without returns. Came out of hole and waited on L. C. M. (loss-circulation material).

March 17: Mixed another pit of mud and L. C. M. Went in hole open ended and pumped in 240 bbls. of mud. Got returns. Mixed more mud and L. C. M. and came out of hole for bit. (Lost a total of about 900 bbls. of mud.) Drilled ahead 2084' to 2170' (86'). Lost circulation again at 2170' and began mixing mud and L. C. M.

March 18: Pumped in mud and plugged bit. Made rd.-trip to unplug bit and drill collars. Pumped mud in hole and mixed more mud and L. C. M. Went in hole with Bit #5 and recovered circulation. Drilled ahead 2170' to 2471' (301'). Bit #4 (HTC-OSC-3) made 570 ft. (1600' to 2170') in 18 hours. Drilled at rate of 31 ft./hr. in Mancos shale.

March 19: Drilled 2471' to 2926' (455'). Made rd.-trip at 2605' for Bit #6. Bit #5 (Reed-YTIA) made 435' (2170' to 2605') in 21 3/4 hours. Drilled at rate of 20 ft./hr. in Mancos shale. Survey at 2605' was 1 3/4°.

March 20: Drilled 2926' to 3123' (197'). Made rd.-trip at 3105' for Bit #7. Bit #6 (Reed-YT3-R) made 500' (2605' to 3105') in 23 3/4 hrs. Drilled at rate of 20 ft./hr. in lower Mancos. Encountered Frontier member at about 3020' to 3060' which was a fine-grained, buff to gray calc. ss. with yellow fluorescence. Survey at 3105' was 1 1/4°.

March 21: Drilled 3123' to 3301' (178'). Made rd.-trip at 3293' for Bit #8. Bit #7 (Reed-YT3-R) made 188' (3105' to 3293') in 19 1/2 hours. Drilled at rate of 9 1/4 ft./hr. in lower Mancos and Dakota sediments. Encountered top of Dakota at about 3285'. Dakota was quite shaly, but had three, tight, thin and hard sandstone benches. The sand was fine-grained, quartzitic and glassy with some lt. blue fluorescence in lower sand.

March 22: Drilled 3301' to 3351' (50'). Decided to test Dakota sands so came out of hole at 3351' to pick up test tool. Went back in hole with test tool.

DST #1
Interval: 3280' to 3350' (70')
Tool open at 2:44 p. m.
Initial flow: 16 minutes
Initial shut-in: 30 minutes
Final flow: 1 hour
Final shut-in: 1 hour
Blow: Fair blow throughout test. No gas to surface
Rec.: 20 ft. of drilling mud
Pressures: I. H. P.: 1599# F. H. P.: 1637#
I. F. P.: 27# F. F. P.: 29#
I. S. I. P.: 171# F. S. I. P.: 620#
B. H. T.: 117°

Went back in hole with Bit #8 (button bit).

March 23: Drilled 3351' to 3460' (109'). Drilling in Dakota and Cedar Mountain sediments at rate of 4 to 5' ft./hr. Had drilling break at 3408' to 3422'. This was a c. g. congl. clear qts. ss. w/rd'd grns. and good blue fluorescence and cut. This sandy conglomerate is the Buckhorn member of the Cedar Mountain formation. The top of the Cedar Mountain was at about 3370'. Decided to test Buckhorn sand, so came out of hole to pick up test tool.

March 24: Raw DST #2

Interval: 3360' to 3460' (100')
Tool opened at 00:40 a.m.
Initial flow: 6 minutes
Initial shut-in: 30 minutes
Final flow: 2 hours
Final shut-in: 2 hours
Blow: Strong blow immediate; gas to surface in one minute
Rec.: Gas measured 121 MCF per day initially and decreased to 27 MCF in 30 minutes and remained steady at this rate on a 3/8" choke. Recovered 1100 ft. of fluid (100' of gas cut mud and 1000' of water with trace of distillate). Water tested 16,000 p.p.m. chlorides and had resistivity of .43 ohms at 60° F.

Pressures:		
	I.H.P.: 1660#	F.H.P.: 1654#
	I.F.P.: 87#-115#	F.F.P.: 120# - 477#
	I.S.I.P.: 910#	F.S.I.P.: 892#
	B.H.T.: 121°	

Laid down test tool and went back in hole with Bit #9. Bit #8 (Reed-FBCT rerun) made 167' (3293' to 3460') in 30 hours. Drilled at an average rate of 5 1/2 ft./hr. Encountered top of Morrison at about 3430'. Drilled 3460' to 3529' (69').

March 25: Drilled 3529' to 3601' (72'). Drilling real slow, 5 to 6 ft./hr., in Morrison shales and hard, tight, quartzitic sandstone beds. Made rd.-trip at 3584' for another bit. Bit #9 (Reed-FBCT-rerun) made 124 ft. (3460' to 3584') in 21 3/4 hrs. Drilled at an average rate of 5 1/2 ft./hr. Reran Bit #8.

March 26: Drilled 3601' to 3698' (97'). Encountered a sandstone at 3617' to 3627' which was fine-grained, tight, and arkosic; but had slight fluorescence. Encountered the top Salt Wash sand at 3658' to 3673' which was medium-grained, clear, quartz sandstone with rounded grains and good fluorescence and cut. Encountered second Salt Wash sand at 3677' to 3689', which was also medium grained, clear quartz. calc.. sandstone with rd'd grns. and good fluorescence and blk. oil resid. and stain. Made rd.-trip at 3639' for Bit #10. Bit #8 (Rerun-Reed-FBCT) made 45 feet (3584' to 3639') in 17 1/2 hours. Drilled this second time at an average rate of 2 1/2 ft./hr.

March 27: Drilled 3698' to 3739' (41'). Decided to test the first two Salt Wash sands; so drilled to 3705' and came out of hole for test tool.

Ran DST #3

Interval: 3640' to 3705' (65')
Tool opened at: 9:03 a.m.
Initial flow: 5 minutes
Initial shut-in: 32 minutes
Final flow: 1 hour
Final shut-in: 1 hour
Blow: Medium blow throughout test. No gas to surface

Rec.: 70 feet of mud with trace of oil
Pressures: I.H.P.: 1731# F.H.P.: 1745#
I.F.P.: 21# - 28# F.F.P.: 29# - 43#
I.S.I.P.: 311#+ F.S.I.P.: 321#+
B.H.T.: 124°
Remarks: The shut-in pressures were very slow to build and were still increasing at the end of each period. This indicates severe formation damage.

Went back in hole with Bit #11. Bit #10 (Smith-L-4) made 66' (3639' to 3705') in 12 1/2 hours. Drilled at an average rate of 5 ft./hr. Encountered a thin sand at 3720' to 3730', which was fine-grained, clear, slightly calc., with sub-rounded grains and good fluorescence and blk. oil residual.

March 28: Drilled 3739' to 3802' (63'). Encountered a sandstone at 3757' to 3782' which was clear, m.g. to f.g., calc., w/rd'd grns. and good fluorescence and cut, and black oil specks and stain. Decided to test these lower two Salt Wash sands; so came out of hole and picked up test tool.

Ran DST #4:
Interval: 3715' to 3802' (87')
Tool opened at 10:35 p.m.
Initial flow: 5 minutes
Initial Shut-in: 30 minutes
Final Flow: 1 hour
Final shut-in: 1 hour
Blow: Weak blow throughout test
Rec.: 30 ft. of drilling mud
Pressures: I.H.P.: 1811# F.H.P.: 1821#
I.F.P.: 30# - 36# F.F.P.: 33# - 45#
I.S.I.P.: 284# F.S.I.P.: 237#
B.H.T.: 122°
Remarks: Shut-in pressures were still increasing at end of periods and were very slow to build indicating severe formation damage.

March 29: Drilled 3802' to 3868' (66'). Drilled very slowly at rate of 3 ft./hr. in lower Morrison. Bit #11 (HTC-S-44) made 97' (3705' to 3802') in 23 1/2 hours. Drilled at average rate of 4 ft./hr.

March 30: Drilled 3868' to 3943' (75'). Made rd.-trip at 3882' for Bit #13. Bit #12 (Reed-YHG-J) made 80' (3802' to 3882') in 21 3/4 hours. Drilled at an average rate of 3 3/4 ft./hr.

March 31: Drilled 3943' to 4017' (74'). Made rd.-trip at 3967' for another bit. Went back in with Bit #11. Bit # 13 (Reed-YS4G) made 84 ft. (3882' to 3967') in 20 1/2 hrs.

Drilled at an average rate of 4 ft./hr. Encountered top of Summerville at about 3960'; which was a limestone and at the base of a c.g. congl. ss.

April 1: Drilled 4017' to 4088' (71'). Made rd.-trip at 4032' for Bit #14. Bit #11 (Rerun HTC-S44) made 65 ft. (3967' to 4032') in 17 1/2 hours. Drilled at an average rate of 3 1/2 ft./hr. Encountered top of Entrada at about 4060'. The Entrada was a medium-grained sandstone with rd'd grns. and loosely cemented. There were no shows or fluorescence. Decided to test the Entrada, however, so came out of hole to pick up test tool.

April 2: Drilled 4088' to 4115' (27').

Ran DST #5
Interval: 4050' to 4088' (38')
Tool opened at 2:27 a.m.
Initial flow: 5 minutes
Initial shut-in: 30 minutes
Final flow: 1 hour and 30 minutes
Final shut-in: 1 hour and 30 minutes
Blow: Strong blow immediate and continuing throughout test. No gas to surface
Rec.: 2400 ft. of water (fresh - 700 p.p.m. chlorides)

Pressures:	I.H.P.: 1988#	F.H.P.: 1995#
	I.F.P.: 40# - 126#	F.F.P.: 131# - 1050#
	I.S.I.P.: 1209#	F.S.I.P.: 1211#
	B.H.T.: 144°	

Came out of hole with test tool and went back in with bit to drill a few more feet of the Entrada and to condition hole for logging and running casing. Drilled to 4115' (total depth), circulated for 1 1/2 hours, and came out to run logs. Began logging hole.

April 3: Ran Dual-Induction, Gamma-Density, and Compensated-Sidewall Neutron logs. Finished logging at 6 a.m. Laid down the drill collars and then went in hole, open ended, with drill pipe. Placed a 25-sk.-cement plug at 4080' to 3980'--across the top of the Entrada formation. Laid down drill pipe. Ran 121 joints of 5 1/2", 14#, J-55 casing and landed at 3895' feet (K.B.). Cemented with 125 sks. of reg. cement w/2% $CaCl_2$. Preceded cement with 25 bbl. water and displaced with 96 bbl. water. Plug down at 8 p.m. Released rig.

April 4: Rigged down and moved rig. Well is now ready for perforating, fracture-treatment, and completion.

W. Don Quigley
Consulting Geologist
Salt Lake City, Utah

EWELL N. WALSH
PETROLEUM ENGINEER CONSULTANT
EXECUTIVE BLDG. - 413 W. MAIN
P. O. BOX 254
FARMINGTON, NEW MEXICO
87401
TELEPHONE BUS. 325-8203

Completion History Df.

TOLEDO MINING CO.
BULL CANYON NO. 2
NENW SECTION 9-T26S-R21E
GRAND COUNTY, UTAH

4-26-72 R & R Unit moved on location. Crew set dead men.

4-27-72 Unit rigged up. Nippled up tubing head and B. O. P. Ran 2-3/8" tubing to 3784'. Pressure test casing and wellhead to 3800 psig. Test O.K. Circulate water out of casing with lease crude. Pull tubing. Ran Cement Bond Log and Gamma Ray Correlation Log from 3848' to 3200'. COTD - 3858'. Good cement bond across interval to perforate. Estimated top of cement at 3270'. Perforate Salt Wash 3656'-3668' and 3675'-3686' with 4 Hyper Jets per foot.

4-28-72 Ran Halliburton RTTS packer and set at 3635'. Broke down formation with 3000 psig back to 1800 psig. Ran 8 sets of 10 rubber balls each with 10 barrels oil between sets. Injection Rate 7½ BPM at 3900 psig. Slight ball action on 2nd, 3rd, 5th and 7th set of balls. Pull tubing. Sandoil Frac perforations 3656'-3668' and 3675'-3686' with:

Sand - 17,000 lbs. 20/40 (into formation)
Oil - 17,600 gallons crude oil (into formatio
Additives - 30 lbs Adomite per 1000 gallons
Pump In - 1900 psig
Flush - 1200 gallons crude oil
Ave. Treatment Pressure - 1900 psig
Max Treatment Pressure - 3500 psig
Ave. Injection Rate - 31.5 BPM

Sanded out near end of job due to valve in one storage tank plugged off causing decrease in injection rate.
Hydraulic Horsepower - 1467 HHP

Shut in overnight for pressure to stabilize. Shut in pressure 500 psig. 740 barrels load oil to recover.

4-29-72 Well on slight vacumn. Ran tubing, tagged sand at 3620'. (Perforations 3656' to 3686'). Completion unit started to move to Bull Canyon No. 1 to pull pump and put gas anchor on pump. Air lines on unit were damaged and derrick could not be lowered.

TOLEDO MINING CO.
BULL CANYON NO. 2

4-30-72 Repaired air lines and unit moved to Bull Canyon No. 1.

5-1-72 Completion unit moved back on well. Pulled tubing. Cleaned out frac sand to 3664'. Sand flowing in from perforations.

5-2-72 Cleaned out frac sand to 3682'. Sand flowing in from perforation. Fluid level dropped to 2200'.

5-3-72 Cleaned out frac sand to 3720'. Fluid level rose to 250' when lower set of perforations (3675-3686') were uncovered.

5-4-72 Cleaned out frac sand to 3770'. Ran 40 joints of tubing.

5-5-72 Completed running tubing. Ran 117 joints, 2-3/8", EUE, 4.7#, J-55 tubing (3690.35') and accessories (5.20'), total (3695.55') landed at 3700.55'. Pump sealing nipple at 3664', tubing perforations 3665'-3668'. Swab 6 hours. Fluid level at start of swab at 750'. Swab fluid level to 2100'. Fluid level holding. Swabed 118 barrels load oil, no water. Casing had slight blow. 622 barrels load oil to recover.

5-6-72 Slight pressure on casing. First run with swab, fluid level at 1100'. Swab 9 hours, fluid level to 2100' and holding. Swab 167 barrels load oil, 455 barrels load oil to recover. Casing had slight blow of gas. No water.

5-7-72 Completion unit shut down.

5-8-72 Well shut in 38 hours. Slight pressure on casing. First run with swab, fluid level at 800'. Swab 8½ hours, fluid level to 3000' and holding. Well flowed one hour, approximately 3 barrels, when first start to swab. Recovered 134 barrels load oil. Casing pressure build up to 75 psig. 321 barrels load oil to recover.

5-9-72 Shut in 15 hours. Casing pressure - 200 psig. Tubing pressure - None. First run with swab, fluid level at 1250'. Well started flowing,

TOLEDO MINING CO.
BULL CANYON NO. 2

5-9-72 (cont'd)	flowed for one hour. Casing pressure dropped to 50 psig. Swabbed fluid level down to 3100' in 5½ hours. Fluid level held around 3100'. During last 2 hours of swabbing well would flow a short time after each swab run. Casing pressure build up to 225 psig. Recovered 114 barrels load oil in 8½ hours. Swabbing approximately 10 barrels per hour at end of swab period. Trace of water. 207 barrels load oil to recover.
5-10-72	Shut in 15 hours. Casing pressure - 300 psig. Tubing pressure - None. First run with swab, fluid level 1800'. Well flowed for 1½ hours after first run with swab. Swabbed fluid level down to 3100' in 2½ hours. Fluid level held around 3100'. After 10 hours casing pressure 275 psig. Well will flow small amount of gas after each swab run. Recovered 89 barrels in 7 hours actual swab time. 12.7 barrels per hour rate. Swabbing approximately 10 barrels of oil per hour at end of swab period. 118 barrels load oil to recover.
5-11-72	Shut in 15 hours. Casing 375 psig, Tubing 50 psig. First run with swab, fluid level at 1750'. Well flowed for 1 hour. Swab 7½ hours. Total oil recovery 95 barrels. 23 barrels load oil to recover. Swabbing 10 barrels oil per hour. Fluid level 3100 to 3300'. Ordered bottom hole pump and rods.
5-12-72	Shut in 18 hours. Swabbed 4 hours. Recovered remaining load oil plus 8 barrels of new oil. Rigged up and ran bottom hole pump and rods. Spaced out pump and hung rods on clamp.

GEOLOGIC REPORT
on
TOLEDO BULL CANYON #2.

GENERAL GEOLOGY

The Bull Canyon #2 well was located on the west flank of a southward trending subsurface anticlinal nose, the axis of which is approx. 1 mile east of the location. The nose is traversed by a northeast trending fault located south of the well site. The north side of the fault is downthrown. It is estimated that the fault has about 50 feet of displacement.

The surface structure, evident from exposed beds of the Mesaverde and Mancos formation, is a northwest plunging anticline whose axis is located a short distance to the east of the subject well location. The subsurface is much older than the surface structure and was probably distorted somewhat by the later folding. All parts of the older structure may actually be lower structurally at the present than the younger structure as seen from the attitude of the surface rocks; but this is not critical, since the oil and gas were probably accumulated prior to the more recent folding and have been retained in the old structure. Considerable adjustment and variation of structure and movement have undoubtedly been absorbed by the thick sequence of Mancos shale in the area plus the unconformity at the top of the Morrison formation and in the middle Cretaceous section. There is considerable lensing and overlap in the upper Mancos and lower Mesaverde beds which tend to erase underlying structure.

Regionally, the prospect area is located on the northwest plunging flank of the Uncompahgre plateau into the Uinta Basin. On the flanks of this nose and southern edge of the Basin a number of natural gas fields have been found and developed during the last twenty years. These natural gas accumulations have been primarily found in the Dakota, Cedar Mountain, Morrison and Entrada formations. The reservoirs in the first three formations have been lenticular sands of varying thickness and areal extent. To date, the fields developed in these formations have been confined to good structural positions; but this may or may not be essential to the gas accumulation. Production may eventually be established in structurally unfavorable positions and the lenticularity of the sands could be found to provide their own traping mechanism. The gas accumulations found in the Entrada formation to date have all been structurally controlled and have a water drive. The Entrada is a fairly consistant, blanket sand in the region and, visually has good porosity (15 to 20%), thus structural entrapment is necessary to contain the hydrocarbon accumulation. Generally the Entrada, where tested in the area, has contained water (usually saline) or natural gas having a low B. Y. U. content (480 to 720 B. T. U.). Thus the natural gas produced from the formation has had to be treated and/or mixed with better quality gas to permit marketing. No oil has been produced heretofore from the Entrada formation in the region prior to the completion of the Auschutz #1 Fed. 773 well in Section 29, T. 19S, R. 21 E.

The rocks exposed in the area around the subject well site belong to the lower Mesaverde and upper Mancos formations. The strata in the Mesaverde consist of a series of lenticular sandstone beds with interfingering layers of shale and siltstone. The upper Mancos strata are interbedded gray marine shales, siltstones and sandstones.

Considerable faulting and adjustment have taken place throughout the area due to the various rejuvenations of the Uncompahgre Uplift. In general, this faulting and movement is not apparent in the Mesaverde strata other than by stratigraphic irregularities. Through experience, it has been found that the faulting has not been essential to hydrocarbon accumulations, but has definitely effected the reservoir rocks adjacent to the fault plane. The natural porosity and permeability of the reservoir rock have been destroyed by the influx of clay minerals and gouge material, thus inhibiting production near the fault plane (nearer than 500 to 600 feet). This is particularly pertinent to the Dakota, Cedar Mountain, and Morrison reservoirs. It may not be so critical to the Entrada reservoirs, due to the greater porosity and permeability inherent with the sands of that formation. It is also possible that the faulting may have aided entrapment of hydrocarbons in the Entrada by the forming of fault traps. This has not been established to date.

Drilling History

A complete daily history of the drilling of the Toledo-Bull Canyon #2 Well is attached hereto. No unusual problems were encountered in the drilling of the well. Mud was used from the surface to total depth. The surface casing was set at 254 feet and cemented thoroughly. The well was spudded near the base of the Castlegate sandstone and all the near surface sands were sealed off behind the surface casing. Loss-circulation was encountered in the well at a depth of 2084 feet, necessitating mixing mud and loss-circulation material. Circulation was again lost at 2170 feet requiring mixing mud and treatment to regain circulation.

Since mud was used for the circulating medium, it was necessary to drill-stem-test all shows. Five drill-stem-tests were run. The details and results of these tests are given under the "Drilling History". The drill-stem-tests take about 12 to 18 hours to complete and thus add considerably to the overall drilling time; but they are invaluable and necessary for complete evaluation of the potential zones. They probably save time and money in the long run. The overall drilling time of the well was about 21 days.

Stratigraphy-Oil and Gas Shows

A detailed sample descriptive log is attached hereto. The stratigraphic section was nearly normal with a well developed Cedar Mountain section, and a thick Summerville section. (The Cedar Mountain section was absent in the Anschutz #1 well to the west and the Summerville was only 50 feet thick in the Anshutz #1 well as compared with 90 feet in subject well) The formation tops were encountered at the approximate predicted depths.

The sands in the Dakota formation were poorly developed; three sands were present but were thin and tight. The upper sand at 3328 to 3334 and the middle sand at 3344' to 3349' did not give up any gas or fluid when tested. The shut-in pressures were also low.

The third Dakota sand at 3355 to 3362 was very thin and tight but did give up some gas. This thin sand was tested together with the Cedar Mountain sand at 3406' to 3422'. The test resulted in gas to the surface immediately which gauged 121 MCF per day and 1100 ft of gas and distillate cut water were recovered in 2 hours. The water tested 16, 000 ppm

chlorides. It is believed that most of the gas came from the thin Dakota sand and most of the water came from the Cedar Mountain sand. The logs of the well also tend to confirm this conclusion.

The Morrison sands in the subject well were well developed and some had excellent shows. There were two sands in the Brushy Basin member of the Morrison which were very hard, quartzitic and tight and had little shows. The sand at 3616' to 3624' did have slight fluorescence but was so tight that it was not considered worthy of a test. The logs later showed this sand to have about 10% porosity.

The Salt Wash sands were very well developed in the subject well and had good porosity. The uppermost sands at 3654' to 3668' and 3674' to 3688' had about 14% porosity and had good fluorescence and cut. They were tested together and the results of the test were not good due to the severe formation damage. Only 70 feet of mud with a trace of oil were recovered on the test and the shut-in pressures were extremely slow to build. The final shut-in pressure only reached 321 lbs at the end of an hour, but was still building. The most significant thing of the test was that no water was recovered.

The next two sands in the Salt Wash at 3716' to 3728' and at 3758' to 3780' had fair porosity and good fluorescence and cut with black oil residual. These sands were tested together, and again the results were not good due to the severe formation damage. Only 30 ft. of drilling mud were recovered and the shut-in pressures were low but gradually increasing. The final shut-in pressure was 237 lbs. at the end of an hour. The logs of these zones showed fair porosity and since the test recovered no water, it is felt that these zones are definitely prospective and can probably be perforated and sand-treated with favorable results at some future date.

The Summerville formation was topped at 3966 ft. and was about 90-ft thick as in the Bull Canyon #1 well. The formation was composed of gray, sandy limestone; very fine-grained quartzitic sandstone; red-brown calcareous, silty shale and siltstone; and bentonitic, green, calcareous shale. The thickness of the formation suggests that it was deposited in a low spot during its deposition and that the underlying Entrada formation was structurally low in early Morrison time.

The Entrada formation was topped at 4056' and penetrated by about 60 feet to a total depth of 4115 feet. The sand was porous, had well rounded clear quartz grains, and appeared loosely consolidated. There were no shows in this sand, but the upper portion from 4056' to 4088' was tested and approx. 2400' of fresh water (700 ppm. chlorides) were recovered in 1 1/2 hours without any shows of oil or gas. The electric logs show that the porosity of the sand varies from 10% to 16%.

The formations with their tops, thicknesses, and datum points which were encountered in the subject well are as follows:

Formation	Depth to top	Thickness	Datum
Mancos	Surface	3290'	5983' K. B.
Dakota	3290'	74'	2693'

Cedar Mountain	3364'	80'	2619'
Morrison	3444'		2539'
Salt Wash	3646'		2337'
Summerville	3966'	90'	2017'
Entrada	4056'	59'	1927'
Total Depth	4115'		

Comparison with similar datum points of the Bull Canyon #1 well shows that the Dakota in the #2 well was slightly lower structurally than in the #1 well; but the Cedar Mountain, Morrison, and Morrison-Salt Wash tops were somewhat higher. The Summerville and Entrada tops were slightly lower. This indicates that there was differential uplift during these periods, thus making the overall structural attitude at any one period very difficult to decipher.

Completion of the Well

A detailed account of the completion work on the subject well is given above under "Completion History". Only the upper two Salt Wash sands at 3656' to 3668' and at 3675' to 3686' were perforated. These sands were fracture treated with 17,600 gallons of crude oil and 17,000 lbs. of 20/40 sand with 30 lbs. of Adomite per 1000 gallons of crude oil.

After the frac-sand was cleaned out of the casing and stopped flowing back from the perforations, the well was swabbed in and put on pump. All the frac-oil was returned and the well started pumping new oil at a rate of approximately 200 barrels daily. After two weeks of production the well is still producing at this rate plus 500 MCF of gas per day.

Conclusion

The successful completion of Bull Canyon No. 2 well has served the increase the interest and potential of the general area, as well as emphasizing the importances of completing all zones in the section which have shows and which have little or no recovery of water on tests. The drill-stem-tests are not conclusive, except as a measure of the water potential from a zone. The lack of recovery of oil or gas from a zone by a drill-stem-test does not necessarily indicate that hydrocarbons are not present. The zone may have severe formation damage due to drilling operations which prevents the emission of contained hydrocarbons.

Based on the successful completion of the upper two Salt Wash sands, there is every reason to suspect that the lower two sands at 3716' to 3728' and 3758 to 3780' can also be succesfully completed for a sizable quantity of oil and gas per day at some later date. This must be carefully noted and not forgotten.

The structural and stratigraphic information from the Bull Canyon #2 well tends to confirm the geophysical information and structural picture developed prior to the drilling of the

well; and tends to place a high degree of confidence in this interpretation for future locations and tests.

W. Don Quigley
Consulting Geologist
Cert. No. 1296

Toledo - Bull Canyon #2 NE NW-9-20S-21E

Elev. = 5972' grd = 5983 KB.
No samples taken 0 to 2700'. 20' samples 2700-3200', then 10'

BEST COPY AVAILABLE

2700
Sh, dk gy, V slty + Calc. marine
Sh, dk gy less slty, Calc. marine
gl Sh, dk gy, ptly slty, ptly glau
gl Sh, dk gy, ptly glau, V. calc., ptly slty
Sh, dk gy, ptly, sl mic. Calc.

2900
Sh, dk gy, Calc., ptly, ptly slty.
Sh., dk gy, V Calc., ptly, ptly slty.
Sh., Ditto
Sh., Ditto
Sh. Ditto w/ occ ls, tan, xlline

2900
Sh. Blk, Calc, ptly w/ pyrite
Sh, blk, Calc. ptly w/ Anhy.
Sh. Ditto w/ anhy + pyr.
Sh Ditto w/ anhy + pyr
Sh, Ditto w/ anhy + pyr.

3000
Sh., Ditto w/ anhy + pyr. w/ occ. SS, tan, F.g. calc.
* SS, buff to gy, calc. F.g. tite w/ Fluor
Sh. blk calc ptly w/ anhy + pyr.
SS. gy calc F.g. tite no Fluor.
DST Sh, blk, calc, slty, ptly ptly
* SS, gy calc F.g. tite yellow Fluor.
Sh. Blk calc pyr slty ptly
* SS. gy calc F.g. slty w/ spotty yellow Fluor.
* SS gy calc F.g. w/ good Fluor.

3100
Cavings of blk Sh. after being stuck.
SS., dk gy, slty, sl. Calc., F.g. tite, no Fluor.
Ss, dk gy, slty, sl calc. F.g. tite w/ occ. Ss, tan to wh. m.g. tite
b Ss, ditto w/ bent. mica
b Ss, ditto w/ pyr.

3200
Sltst, dk gy, sdy, sl calc w/ pyr.
b Sltst dk gy, sdy, sl calc. w/ pyr + bent. Some clear qtz grains
Sltst dk gy, calc
Sltst, dk gy calc w/ pyr. Some clear qtz grains
Sltst ditto w/ qtz gr + pyr.
Sltst. ditto w/ clear qtz sand clusters + pyr.
Kd Sltst ditto w/ pyr.
Ss, hd, wh. cherty tite, F.g.
Ss, clear rounded grains. No Fluor, w/ pyr + mica
Ss, clear hd tite, qtzte

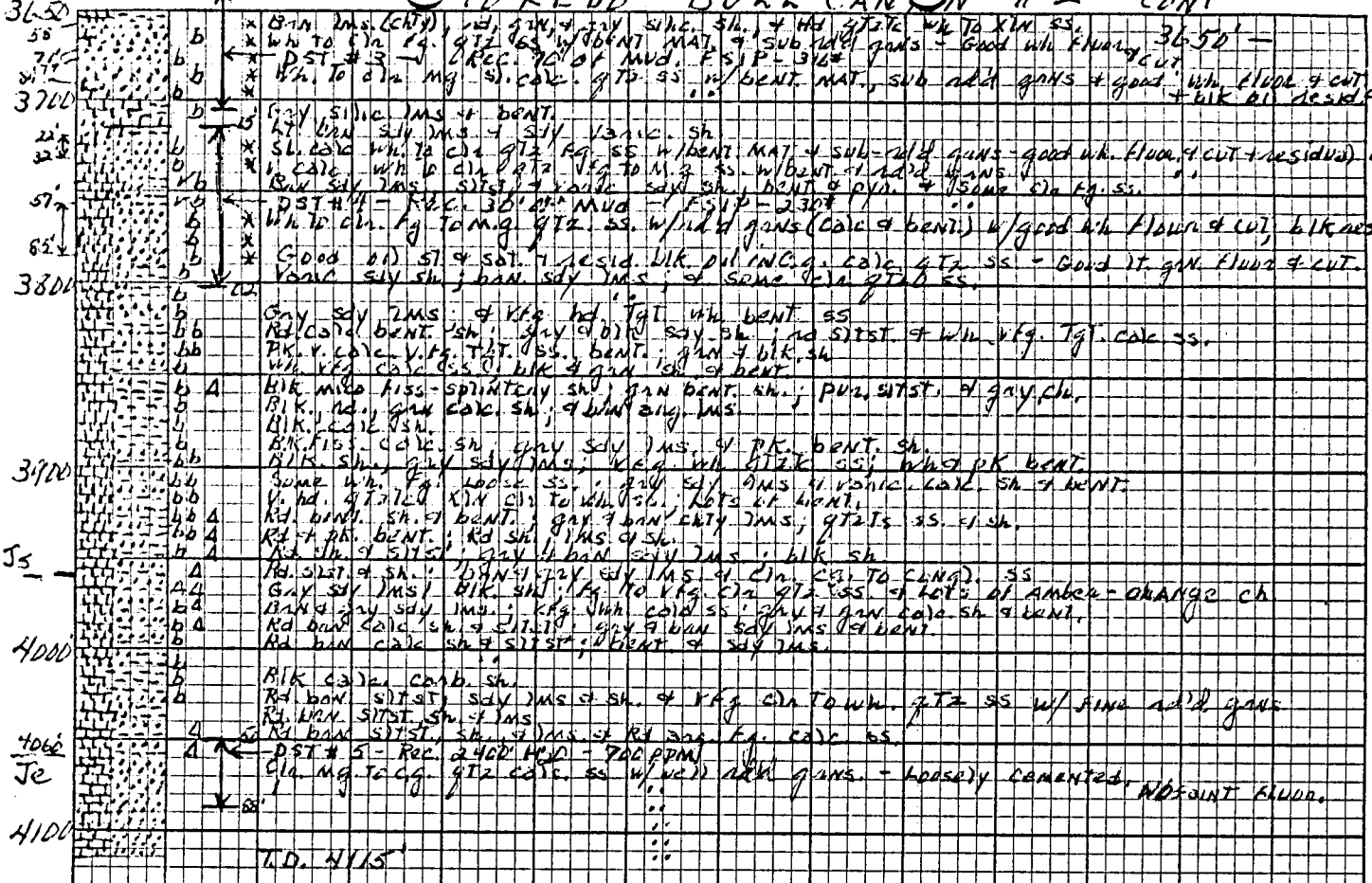
3300
Ss, wh. hd. tite qtzte w/ pyr — DST #1 3280-3350 Rec'd 20' drlg mud
#1 Ss, bl. wh. hd. glassy, qtzte
Sh, gy grn, glau, v. sil., cherty
* Ss, wh., friable, rdd gr., bent cement. Good blue Fluor
* Ss, bl gy hd translucent cherty + SS wh friable rdd gr Good Blue Fluor.
LS, dirty tan to gy, sil, cherty + Sh. gy grn + Ss, wh. Cherty transl. (Good Cut in CCl_4)
* Ss, clear ~~[struck]~~ wh. cr. gr. friable rdd gr., por. Good Stain + Fluor. Sh. gy grn, bent.
Sh, gy grn. glau, sil. + sl calc. smooth even fractures.
Sh, varig. grn + pur + red, waxy to slty.
Sltst + sdy, grn + rd varig. w/ qtz grains. Some Chert, tan to orange

3400
DST #2 - 3360-3460' (Gas to surf. immed. - 121 MCF) Rec 100' GCM + 1000' dist. cut H_2O (16,600 ppm)
* Ss, clear, friable, cr. gr., rdd, por. Fluor where sd clusters are tite
** Ss, clear, congl., varigated Chert, rdd frosted grains, coarse, por. Good blue Fluor + CCl_4 cut
Jm Sh, rd, slty to sdy mic.
b Ss, clear, rdd cr. lar. friable + Sh grn gy waxy bent w/ varigated Chert
Sh, rd + brn slty to sdy mic + SS wh to grn gy qtzte, hd F.g. transl.
Sh, varic sdy mica, SS, wh to milky, qtzte, F.g. + hd. + ch.
As Above.
Grn, gry, rd, + pur. silic. Sh. milky qtzte ss. + ch. + pyr.

3500
b Wh to milky hd. TgT qtzte ss w/ bent. + varic. silic sh. + sltst
"
"
Wh., milky, lt grn frosted qtzte ss. + varic silic sh. + sltst
"
Rd. brn + grn + pur. silic. sh.
+ lt. gry bent. + sh.
b As above + some grn to wh. milky qtzte ss w/ bent. part.
b Rd. brn silic sh. (waxy grn sh.; blk carb. sh. + sltst. + bent
b Rd brn sltst. + blk. sh.

3600
b Rd. vrg. bent. ark. ss; varic. silic sh. + sltst
"
"
* Brn. vrg. TgT ark. ss w/ sl. fluor.
* Cln qtz rd'd sd grns w/ sl. fluor. + brn chty lms, + gry grn silic sh.
*

TOLEDO - BULL CANYON #2 CONT'



Form 9-330
(Rev. 5-63)

State

Form approved.
Budget Bureau N

BEST COPY AVAILABLE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICA
(See other instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

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

2. NAME OF OPERATOR
Toledo Mining Company

3. ADDRESS OF OPERATOR
321 Newhouse Bldg., Salt Lake City, Utah 84111

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface
NE.NW.Sec.9,T.20 S.,R.21 E.,S.L.M.
At top prod. interval reported below 2123' fr.W-line & 939' fr.N-line
At total depth

5. LEASE DESIGNATION AND
U-15080

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Federal

9. WELL NO.
Bull Canyon #2

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
NE.NW.Sec.9,20S,21E SLM.

14. PERMIT NO. | DATE ISSUED

12. COUNTY OR PARISH: Grand | 13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
3-12-72	Apr.2-72	May 12-72	Grd: 5972'; K.B.: 5983'	5975'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
4115'		Two sands	→	0'-4115'	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
3656'-3668' & 3675'-3686'

25. WAS DIRECTIONAL SURVEY MADE
no

26. TYPE ELECTRIC AND OTHER LOGS RUN
Dual-induction; Gamma-density; & Compensated 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
8 5/8"	24#	254'	12¼"	150 sks	none
5½"	14#	3895'	7 7/8"	125 sks.	

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	3700'	none

31. PERFORATION RECORD (*Interval, size and number*)

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3656'-3686'	17,600 gals.crude oil 17,000 lbs sand (20/40) 510 lbs Adomite

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
5-15-72	Pumping	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
5-13-72	8 hrs	-----		80 bbls.	100		

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
50#	375#		200	500	?	42°

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

TEST WITNESSED BY
Red Walsh

35. LIST OF ATTACHMENTS
Well History & Geologic Report

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

SIGNED W. Don Quigley TITLE Consulting Geologist DATE June 19,1972

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

PW

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.
Mancos	Surface	3290'	
Dakota	3290'	3364'	
Cedar Mt.	3364'	3444'	
Morrison	3444'	3966'	
Summerville	3966'	4056'	
Entrada	4056'		
T.D.	4115'		

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH

JUN 22 1972

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683836
837-497

June 20, 1972

Toledo Mining Company
321 Newhouse Building
Salt Lake City, Utah

Re: Bull Canyon Gov't. #2
Sec. 9, T. 20 S, R. 21 E,
Grand County, Utah

Gentlemen:

Our records indicate that you have not filed a "Monthly Report of Operations" for the months of March, April, and May, 1972, on the subject well.

Rule C-22(1), General Rules and Regulations and Rules of Practice and Procedure, requires that said report be filed on or before the sixteenth (16) day of the succeeding month. This report may be filed on Form OGC-1b, (U.S. Geological Survey 9-331) "Sundry Notices and Reports on Wells", or on company forms containing substantially the same information. Enclosed are forms for your convenience.

Your cooperation with regard to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

SCHEREE DeROSE
SUPERVISING STENOGRAPHER

Returned

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. LEASE DESIGNATION AND SERIAL NO.: U-15080

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL [X] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Toledo Mining Company

8. FARM OR LEASE NAME: Federal

3. ADDRESS OF OPERATOR: 321 Newhouse Bldg., Salt Lake City, Utah 84111

9. WELL NO.: Bull Canyon #2

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: X NE.NW.Sec.9, T.20 S.,R.21 E., S.L.M. 2123' from W-line & 939' from N-line

10. FIELD AND POOL, OR WILDCAT: Bull Canyon

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: NE.NW.Sec.9-20S-21E SLM

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 5972' grd.; 5983' K.B.

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:				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.) *

The above well ceased to produce oil after the last fracture treatment, and it is therefore planned to abandon the well. The well will be abandoned in the following manner.

1. Place a cement plug from 3800' to 3600' with 25 sks of cement. This plug would seal off the perforations in the 5½" casing from 3656' to 3780'.
2. Shoot off the casing after free pointing. This should be at about 3000'.
3. Pull casing.
4. Place a cement plug with 30 sks across top of shot-off casing.
5. Place a cement plug with 25 sks. at 275' to 175' which is across bottom of surface casing.
6. Place a 5 sk. plug at top of surface casing with well marker.
7. Clean and level well site after the removal of all equipment.

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

SIGNED W. Don Quigley TITLE Cons. Geol. DATE Mar.7, 1975

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

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 [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: **Toledo Mining Company**

3. ADDRESS OF OPERATOR: **321 Newhouse Bldg., 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: **NE.NW.Sec.9,T.20 S.,R.21 E., S.L.M. 2123' from W-line & 939' from N-line**

5. LEASE DESIGNATION AND SERIAL NO.: **U-13080**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

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

9. WELL NO.: **Bull Canyon #2**

10. FIELD AND POOL, OR WILDCAT: **Bull Canyon**

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: **NE.NW.Sec.9-20S-21E S.L.M.**

12. COUNTY OR PARISH: **Grand**

13. STATE: **Utah**

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): **5972' grd.; 5983' K.B.**

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.) *

The above well has been plugged and abandoned as follows:
(The work was accomplished March 24 to March 27,1975)

1. Found bridge or plug in casing at 3300'. Placed a cement plug (25 sks) at 3300' to 3100'.
2. Ran free-point. Found casing free above 1950'. Shot-off casing at 1940' and pulled casing.
3. Placed cement plug (30 sks) at 1975' to 1875', across top of shot-off casing.
4. Placed cement plug (25 sks) at 275' to 175', across bottom of surface casing.
5. Placed cement plug (10 sks) in top of surface casing with well marker.
6. Folded-in and levelled reserve pit.

Location has not been levelled yet due to equipment still at the well site. This equipment will be removed in the near future and the location will be cleaned and levelled.

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

SIGNED W. Don Quigley TITLE **Cons. Geol.** DATE **Apr.29, 1975**

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side