

*JMB - 4/15/69*

FILE NOTATIONS

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

Checked by Chief *JMB*  
Approval Letter *8-12-68*  
Disapproval Letter .....

COMPLETION DATA:

Date Well Completed *7-2-69*  
OW..... WW..... TA. ✓  
GW..... OS..... PA. ✓

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

LOGS FILED

Driller's Log *8-6-69*  
Electric Logs (No.) *1*  
E..... I..... Dual I Lat..... GR-N..... Micro.....  
BHC Sonic GR..... Lat..... Mi-L..... Sonic.....  
CBLog..... CCLog..... Others.....

*Quadrant 110 & 111*

*Subsequent well logs to be filed*

BHC Sonic GR..... Lat..... Mi-L..... Sonic.....

CBLog..... CCLog..... Others.....

*Induction: Electric*

*Subsequent Rpt of Abandonment*

*Electric*

*Deepen*

*4-14-69*



**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  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
**Toledo Mines Company**

3. ADDRESS OF OPERATOR  
**Newhouse Building  
 P.O. Box 44, Salt Lake City, Utah 84111**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface **NE. SE. Sec.9, T.6 S., R.22 E., S.L.M.**  
 At proposed prod. zone **2033' from S-line & 660' from E-line of Sec.9**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
**About 10 miles SE. of Vernal, Utah**

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) **660'**

16. NO. OF ACRES IN LEASE **1440 acres**

17. NO. OF ACRES ASSIGNED TO THIS WELL **40 acres**

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. **none**

19. PROPOSED DEPTH **4600 ft.**

20. ROTARY OR CABLE TOOLS **Rotary tools**

21. ELEVATIONS (Show whether DF, RT, GR, etc.) **Grd. 4875' ; K.B.4887'**

22. APPROX. DATE WORK WILL START\* **August 12, 1968**

5. LEASE DESIGNATION AND SERIAL NO.  
**U-039145**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
**Allied Chemical**

9. WELL NO.  
**Napoleon # 2**

10. FIELD AND POOL OR WILDCAT  
**Wilcat**

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
**NE. SE. Sec.9, T.6 S., R.22 E., S.L.M.**

12. COUNTY OR PARISH **Uintah** 13. STATE **Utah**

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	8 5/8"	24#	150 ft.	50 ska.

It is planned to drill a test well at the above location to determine the potential for oil and/or gas production in the Green River formation. The well will be drilled to a depth of 4600 feet, to the base of the Green River formation or to commercial production, whichever is at the lesser depth. The well will be spudded in the Uinta formation and will penetrate the Green River formation below. The thickness of these formations is highly speculative since the area is one of rapid pinchouts and overlaps. There may be much less Green River sediments than anticipated. Mud will probably be used as a circulating medium because of the expected water zones in the first 1000 feet below the surface. All shows of hydrocarbons will be drill-stem-tested. A blow-out preventer will be mounted on top of the surface casing. In the event of production 5 1/2" casing will be run and cemented. ✓

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 *H. Don Quigley* TITLE Consulting Geologist DATE August 8, 1968  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

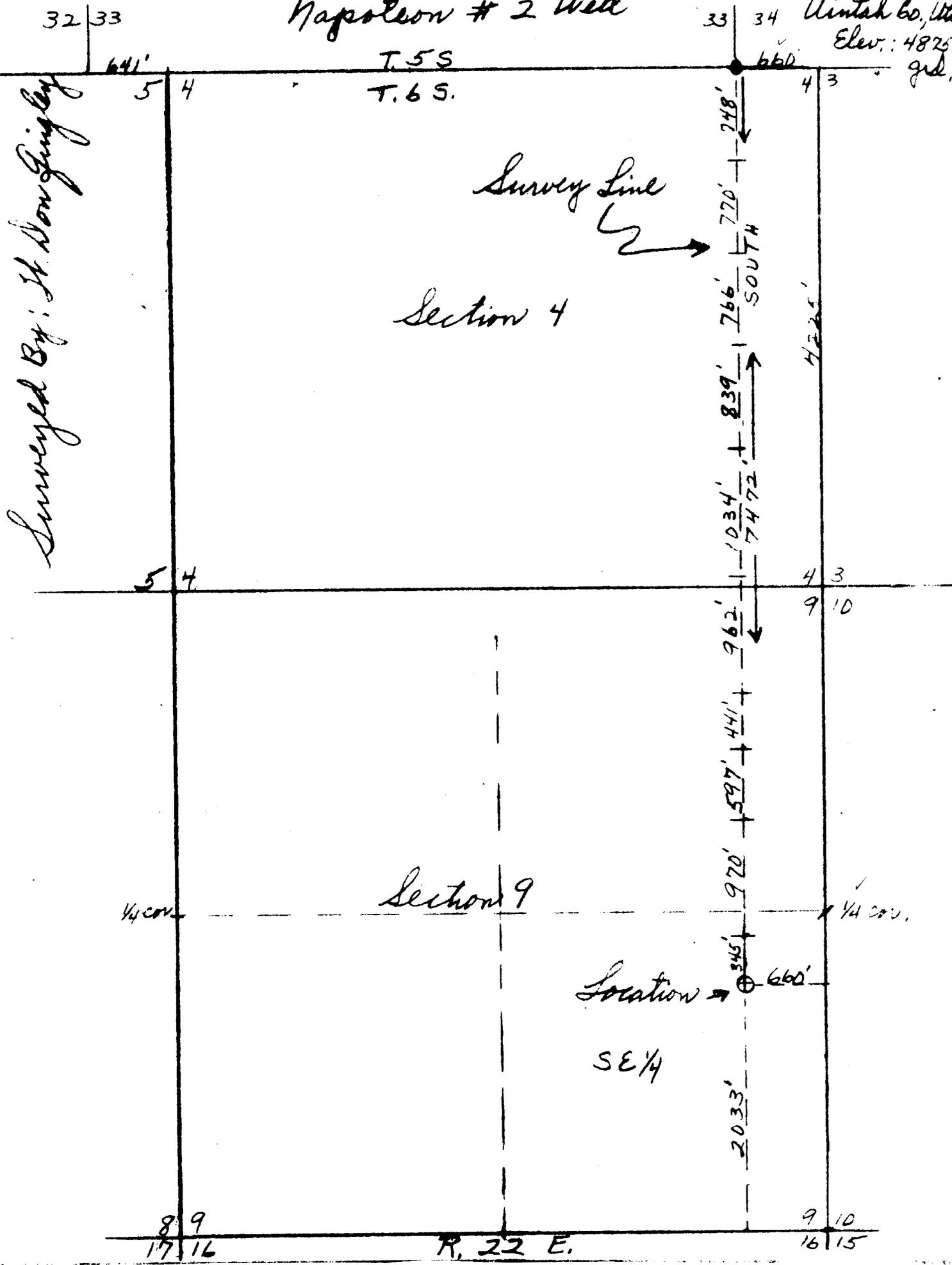
CONDITIONS OF APPROVAL, IF ANY :

\*See Instructions On Reverse Side

Date: Aug. 8, 1968  
Scale: 1" = 1000'

Location Plat  
for  
Napoleon # 2 Well

NE, SE, SEC. 9  
T. 6 S., R. 22 E., S. 1/4 M.  
United Co., Utah  
Elev.: 4825'  
grd.



Surveyed By: H. Don Gingles

Survey Line

Section 4

Section 9

Location

SE 1/4



Corporation

## UNION TEXAS PETROLEUM DIVISION

SUITE 1010 LINCOLN TOWER • 1860 LINCOLN STREET • DENVER, COLORADO 80203 • 534-8221

August 8, 1968

Mr. Don Quigley  
Suite 300, 65 South Main  
Salt Lake City, Utah

Re: Designation of Operator  
Uintah County, Utah

Dear Mr. Quigley:

Enclosed, please find Designation of Operator Form covering the N/2 SE/4 of Section 9, Township 6 South - Range 22 East, Uintah County, Utah.

Our blanket drilling bond for Allied Chemical Corporation is  
INA #M248231.

Yours very truly,

A handwritten signature in cursive script that reads "Frank Lovett".

FRANK LOVETT  
District Geologist

FL:dk  
Enclosure

August 12, 1968

Toledo Mines Company  
P. O. Box 44  
Salt Lake City, Utah 84111

Re: Well No. Napoleon #2,  
Sec. 9, T. 6 S., R. 22 E.,  
Uintah County, Utah.

Gentlemen:

Insofar as this office is concerned, approval to drill the above mentioned well is hereby granted.

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 - Salt Lake City, Utah  
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 while drilling. Your cooperation with respect to completing this form will be greatly appreciated.

Toledo Mines Company

August 12, 1968

-2-

The API number assigned to this well is 43-047-30031 (see Bulletin D 12 published by the American Petroleum Institute).

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT  
DIRECTOR

CBF:sc

cc: U. S. Geological Survey  
Rodney Smith, District Engineer  
8416 Federal Building  
Salt Lake City, Utah

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

**U-859145**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

**Allied-Chemical**

9. WELL NO.

**Napoleon #2**

10. FIELD AND POOL, OR WILDCAT

**Wildcat**

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

**Sec. 9, T. 6 S., R. 22 E. S.L.M.**

12. COUNTY OR PARISH

**Utah**

13. STATE

**Utah**

1.

OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR

**Toledo Mining Company**

3. ADDRESS OF OPERATOR

**303 Newhouse Building, 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. 5K. Sec. 9, T. 6 S., R. 22 E., S.L.M.  
2033 fr. S-line & 660' fr. E-line**

14. PERMIT NO.

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

**Grd. 4875'; K.B. 4887'**

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) **Temporarily Abandoned**

(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.)\*

The well was drilled to a total depth of 6194', which was about the limit of the rig. A fault was crossed at 5130', passing from Green River formation (lower) to lower Mancos thus eliminating 4000' or more of stratigraphic section. The Dakota formation was topped at 6087'. Because of the significance of the fault and the missing portion of the stratigraphic section, it is planned to temporarily abandon the well for the present with the possibility of drilling deeper (to the Weber formation) at a later date. The plan for temporary abandonment is as follows:

1. Install a 30 sk. cement plug at 6160'-6060' (across top of Dakota)
2. Install a 30 sk. cement plug at 5150'-5050' (across Mancos top)
3. Install a 60 sk. cement plug at 3100'-2900' (through sulphur water zone)
4. Install a 30 sk. cement plug at 300'-200' (across bottom of surface casing)
5. A well marker will be welded on top of surface casing.

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

SIGNED

*H. Don Gungley*

TITLE

**Consulting Geologist**

DATE

**September 16, 1968**

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

322-1234

1588 West North Temple  
Salt Lake City, Utah 84116  
328-5771  
March 13, 1969

Toledo Mining Company  
303 Newhouse Building  
Salt Lake City, Utah

Re: Well No. Napoleon #2  
Sec. 9, T. 6 S, R. 22 E,  
Uintah County, Utah

Gentlemen:

This letter is to advise you that the "Well Completion or Recompletion Report and Log" and electric and/or radioactivity logs for the above mentioned well are due and have not been filed with this office as required by our rules and regulations.

Please complete the enclosed Forms OGC-3, "Well Completion or Recompletion Report and Log", in duplicate and forward them to this office as soon as possible. If electric and/or radioactivity logs were not run, please make a statement to this effect in order for us to keep our records accurate and complete.

Your cooperation in this matter will be greatly appreciated.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

SHARON CAMERON  
RECORDS CLERK

sc

Enclosure: Forms OGC-3

PAID  
PF

*Schmitt*



ANTHONY G. HATSIS  
PRESIDENT

# TOLEDO MINING COMPANY

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

March 20, 1969

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

Re: Well No. Napoleon #2  
Sec. 9, T. 6 S, R. 22 E,  
Uintah County, Utah

Gentlemen:

With reference to your letter of March 13, 1969, we have to advise you that this has been forwarded to our geologist, Mr. Don Quigley, for his attention.

Mr. Quigley will be communicating with you directly in this matter.

Sincerely yours,

TOLEDO MINING COMPANY

H. John Rix  
Comptroller

SS

cc: Mr. Don Quigley  
65 South Main, Salt Lake City, Utah



ANTHONY G. HATSIS  
PRESIDENT

## TOLEDO MINING COMPANY

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

March 20, 1969

Mr. Don Quigley  
65 South Main  
Salt Lake City, Utah

Dear Mr. Quigley:

We attach copies of communication received from the  
State of Utah for your immediate attention.

Very truly yours,

TOLEDO MINING COMPANY

H. John Rix  
Comptroller

SS

cc: State of Utah  
Division of Oil & Gas Conservation  
1588 West North Temple  
Salt Lake City, Utah 84116

**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                       GAS WELL                       OTHER                       SINGLE ZONE                       MULTIPLE ZONE

2. NAME OF OPERATOR  
Toledo Mining Company

3. ADDRESS OF OPERATOR  
322 Newhouse Building, Salt Lake City, Utah 84111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
NE<sup>1/4</sup>SE<sup>1/4</sup> Sec. 9, T. 6 S., R. 22 E., S.L.M.  
 At proposed prod. zone 2033' fr. S-line and 660' fr. E-line

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
About 10 miles SE of Vernal

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660'

16. NO. OF ACRES IN LEASE 1440 acres

17. NO. OF ACRES ASSIGNED TO THIS WELL 40 acres

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. None

19. PROPOSED DEPTH 9250'

20. ROTARY OR CABLE TOOLS Rotary Tools

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
Grd. 4875'; K.B. 4887'

22. APPROX. DATE WORK WILL START\*  
April 12, 1969 ✓

5. LEASE DESIGNATION AND SERIAL NO.  
Utah 039145

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Allied Chemical

9. WELL NO.  
Napoleon #2

10. FIELD AND POOL, OR WILDCAT  
Wildcat

11. SEC., T., R., M., OR B.L.K. AND SURVEY OR AREA  
Sec. 9, T 6 S, R 22 E, SLM

12. COUNTY OR PARISH    13. STATE  
Uintah                      Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<u>12 1/2"</u>	<u>8 5/8" ✓</u>	<u>24# ✓</u>	<u>161' ✓</u>	<u>125 sacks ✓</u>
<u>7 7/8"</u>				

It is planned to deepen above well from the original depth 6194' drilled (August 14 to September 15, 1968) to a depth sufficient to test the Weber formation expected at about 9250'. Because of the fault crossed and the section eliminated in the first drilling, it is felt that the Weber should be much higher than originally anticipated. It is planned to drill ahead with rotary tools using mud as a circulating medium. All shows of hydrocarbons will be properly tested immediately if conditions permit. ✓

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 H. Don Gungley TITLE Consulting Geologist DATE April 11, 1969

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

April 15, 1969

Tolado Mining Company  
322 Newhouse Building  
Salt Lake City, Utah 84111

Re: Well No. Napoleon #2  
Sec. 9, T. 6 S, R. 22 E,  
Uintah County, Utah

Gentlemen:

Insofar as this office is concerned, approval to deepen the above mentioned well is hereby granted.

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, Salt Lake City,  
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 while drilling. Your co-operation with respect to completing this form will be greatly appreciated.

Toledo Mining Com  
April 15, 1969  
Page 2

The API number assigned to this well is 43-047-30031 (See Bulletin D-12 published by the American Petroleum Institute).

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT  
DIRECTOR

CBF:sd  
Enclosures

cc: U.S. Geological Survey  
Rod Smith, District Engineer  
8416 Federal Building  
Salt Lake City, Utah 84111

**W. DON QUIGLEY**CONSULTING GEOLOGIST  
PETROLEUM - MINING WORK328 ~~NEWSPAPER BLDG.~~ SALT LAKE CITY, UTAH 84111  
Suite 300, 65 South Main

April 28, 1969

Prognosis for Deepening of  
Napoleon No. 2 WellSection 9, T. 6 S., R. 22 E., S. L. M.  
Uintah County, Utah

It is planned to deepen the captioned well to a depth sufficient to penetrate the Weber formation by at least 100 feet, or to commercial production, which ever is at the lesser depth. The original well crossed a fault at 5,070 feet and 5,130 feet and eliminated the section between the Lower Green River and the Lower Mancos formations.

It is anticipated that the planned deepening of the well will encounter the following formations at the listed depths:

<u>Formation</u>	<u>Tops</u>	<u>Thickness</u>
Dakota formation	6090'	105'
Morrison	6195'	895'
Curtis	7080'	90'
Entrada	7170'	240'
Carmel	7410'	100'
Navajo	7510'	730'
Chinle	8240'	180'
Moenkopi	8420'	690'
Phosphoria	9110'	150'
Weber	9260'	

It is planned to test all shows of hydrocarbons at the time they are encountered. Drill-stem-tests will be taken over the interval of hydrocarbon showings. In the prior drilling, drill-stem-tests were attempted but were unsuccessful because of failure to obtain packer seats. It is anticipated, however, that as the well progresses away from the fault zone, tests will again become possible.

It is further planned to use a mud logging unit on the well from a depth of about 7,000 feet to total depth. This will cover the drilling through the top of the Entrada formation which is the next potential producing horizon.

In the event of indicated sizeable commercial production from any of the tests, the well will be completed at that point.

*W. Don Quigley*  
W. DON QUIGLEY

Toledo Mining Co. - Napoleon #2 Well  
 NE. SE. Sec. 9, T6S, R26E, Uintah County, Utah  
 Commenced Aug 12, 1968

700	AXV AXV AXV a	Hd. cherty silty ss. lt. gray silty soft bent. sh. - rd & pva. silty bent. sh. chert, opa. milky gtz, pva. - highly calc. sh & gray ang. ms. buff-colored silty calc sh. - rd. pva. & gray calc sh & kn. H2O ms
	b	Some wh. ang. calc. fg. ss
800	b	lt gray to wh. silty calc fg. gtz ss. lt. gray bent. & rd sh.
	b	
	b	
	bv	Varicolored silty calc. sh.
	AXV	Some cherty congl. ang. ss
900	X	
	Abv	
	A v	varic. calc silty sh
	b	
	b	
	bX	Varic. calc. silty sh & some gtz chands
	bX	
	X	
1000	X	
	b	
	AXV	Some wh. to lt. gray calc bent. fg. gtz ss.
	AXV	lots of pva.
	AV	
	v	
1100	b	lt. gray silty bent. (v. calc.)
	b	
	b	lt gray silty to sdv v. calc. bent sh
	b	
	b	
1200	AX	Pva. & gtz chands
	b	
	AX	lt gray to lt. tan mica sdv bent sh (calc.)
	AX	
	b	
	AX	Some rd silst. - chert & smoky gtz., buff calc sh & ang. calc. ss.
	AXV	
	A	
	AX	
	AX	
1300	AX	lots of pva.
	v	
	v	
	A	Varic. silty calc bent sh.
	A	
	A	Varic. silty calc bent sh
	X	
1400		Wh. v. fg. calc. bent ss
		Some wh. p. H2O ms.
		lt gray - tan mica bent calc. sh.
		Varic. bent calc. silty sh.
1500	AV	Ch. & smoky gtz
	VV	Some c.g. congl. ss.
	A	
	v	
	A	
	A	
1600		

5 X 5 TO 1/2 INCH 46 0862  
 7 X 10 INCHES  
 KEUFFEL & ESSER CO.

1600	✓	✓	VAR. calc. sily bent sh w pyri. ch. & gtz frag. Some c.g. cong. gny gtz ss.
	✓	✓	lt gny, lt. gny, & dk gny sily, v. calc, bent sh.
1700	✓	✓	lt gny bent calc v. g. ss, pur sily sh (lav.) Some wh to lt. gny bent calc ss (mica.)
	✓	✓	Lots of wa. sdy calc bent.
	✓	✓	Wh. v. g. calc bent ss.
1800	✓	✓	Con. mica sily calc soft sh.
	✓	✓	Wh. v. g. calc bent ss. Some mg. blk spec. gtz ss.
	✓	✓	LAV-PK sily bent sh.
	✓	✓	Varic. bent calc sily sh.
1900	✓	✓	Some blk spec mg. gtz ss. GILSONITE
	✓	✓	DK c.
	✓	✓	MISSED SAMPLES
2000	✓	✓	DK bnw. ang. fg. ss w/ carb debris - DK bnw. sdy carb sh. GILSONITE OR CARB?
	✓	✓	BNW gils. imp. mg. gtz ss.
	✓	✓	Mg. spec. gtz ss.
Tqm.	✓	✓	Varic. calc bent sily sh.
2100	✓	✓	
	✓	✓	gray bnw, ocher, sily calc sh or mudst.
	✓	✓	DK bnw carb & gils. imp. ss. & bnw carb sh & sily st.
2200	✓	✓	
	✓	✓	SOFT PK - bent calc sh.
	✓	✓	BNW carb sily. (s. calc.)
	✓	✓	BNW, gny, ocher, ad. & gny calc. sily sh. & gils.
2300	✓	✓	LOTS OF gils. & bnw gils. ss. & sh.
	✓	✓	BNW ss, gils. & pyri.
	✓	✓	Pyri. & varic. sily calc sh & gils.
	✓	✓	
2400	✓	✓	BNW to wh. fg. calc & carb ss.
	✓	✓	
	✓	✓	Wh. to bnw mg. gils. calc ss.
	✓	✓	Some pk sh.
	✓	✓	
2500	✓	✓	Some wh. to cin. bent. calc. gtz ss.
	✓	✓	Good mg. to c.g. gny spec. s) calc ss. (H2O?)
	✓	✓	Slightly finer ga. ss.
	✓	✓	
2600	✓	✓	BNW carb sh. & gny fg. spec. ss.

KE 5 X 5 TO 1/2 INCH 46 0862  
 MADE IN U.S.A.  
 KEUFFEL & ESSER CO.

2600

✓ Bwn. lg. g. f. ss. & bwn carb. petra. silt & sh. + pyr.  
 ✓ Bwn petro. (g. f. ss) m. g. g. f. ss - grad. st. & lots of pyr.  
 ✓ Varic. sily calc. sh. w/ pyr. & g. f.  
 ✓ BENT. gray & gan calc. sh. - Bwn petra. calc. sh. & silt.

2700

✓ LOTS of gils. & bwn petra. sh.  
 ✓ Lt. gray sily bent. v. calc. sh.  
 ✓ Rd sily calc. sh.

P.C.  
2800

✓ LOTS of gils.  
 ✓ Solid gilsonite  
 ✓ Bwn gils imp silt.

2900

✓ GILSONITE  
 ✓ Bwn gils. silt  
 ✓ GILSONITE & lt gray sily. bent. calc. sh.  
 ✓ some v. g. gils. calc. ss.

3000

✓ STUCK PIPE & WASHING OVER  
 ✓ Bwn-char. calc. sh. - gray & rd sh. - gils  
 ✓ Gray spec. c. g. calc. ss. w/ silt & st. Alon. + 20 units gas. - gils. & pyr.  
 ✓ DST. #1 2990-3130 - Rec. 3100' OF BIK. SURFAC. H<sub>2</sub>O - 450 ppm. chlorides.  
 ✓ AS ABOVE & gray bent calc. gray gan sh.  
 ✓ Gray c. g. to c. g. spec. STAINED calc. ss. w/ rd' gang. - 22 units gas.

3100

✓ Varic. calc. bent. sh.  
 ✓ Slight yellow Alon. - Fg. to c. g. gray ang. calc. ss. - 110 units of gas  
 ✓ Cold gray bent. sh. - & w/ int.  
 ✓ F. g. to m. g. calc. gray bent ss w/ sh. yel. Alon.

3200

✓ Gas reading fairly constant at 15 to 20 units  
 ✓ Gray to Bwn. m. g. dirty calc. ss. w/ bit st. & 1/4 blue Alon. (LPIDE DUPE?)  
 ✓ Gas reading 35 to 40 units  
 ✓ GILSONITE

3300

✓ GILSONITE & m. g. friable calc. ss. w/ rd' gang. - ch. & pyr.  
 ✓ Ang. calc. gray dirty ss w/ gils. gang. - could have N<sub>2</sub>O  
 } GAS readings 10-15 units.  
 ✓ Gray m. g. to c. g. calc. g. f. ss. (H<sub>2</sub>O?)  
 ✓ Gray f. g. highly bent. calc. & ss. & pyr.  
 ✓ Fg. to c. g. bent calc. gray ss. & lt gray bent sh. bent & bwn sh.  
 ✓ BENT. - gray-gan calc. bent, sily, chr. - v. g. dirty - ang. calc. ss. - gray & pyr.  
 ✓ BENT. - gray-gan calc. bent sh. - v. g. ang. calc. gray ss, pyr. & ch.

3400

✓ Varicolored calc. sily sh.  
 ✓ Rd. gan. ht. - ch. sily. dirt sh.  
 ✓ Bwn sily to sdy calc. sh. (dk Bwn)  
 } GAS readings about 10 units.  
 ✓ DK bwn calc. sily foss. sh. (TREE LEAVES)  
 ✓ DK gray to blk calc. sh. & some blk petra. sh. (Peanut oil sh.)  
 ✓ Some fin. f. g. g. f. ss.  
 ✓ Lt gray v. g. sdy calc. ss. - Gray to blk. TRAP beds & bent

3500

✓ Tuff beds  
 ✓ v. g. gray sdy calc. ss. - bwn carb. sh.  
 ✓ Blue gan. bent. calc. sh. & gray sily sh.  
 ✓ Varic. gray ang. malst.  
 ✓ Lt gray ang. malst. & bwn & dk gray malst.  
 } GAS readings - steady at 10-15 units  
 ✓ Malst.  
 ✓ Some blk oil sh. & bwn carb. sh.  
 ✓ Lt gray, gray, & bwn bent malst.

3600

KE 5 X 5 TO 1/2 INCH 46 0862  
 7 X 10 INCHES  
 MADE IN U.S.A.  
 KEUFFEL & ESSER CO.

Impression #2

3600

Tuff bed. oil sh. gray, lt. gray or brown malst.  
Gray argill. tuff beds & malst.  
x Gray to wh. block tuff, bent, oil sh., & malst.

Gas Readings - 10-15 units

3700

Gray argill. tuff bent, malst,  
Some lt. brown malst.  
lots of bent & tuff & some gray ms.

Bent, tuff, & malst  
Some blk oil sh.

Gas Readings - 10-15 units

GG.

Brown carb sh.  
Bent malst & tuff.

3800

Brown bent, & gray argill. tuff.  
F.g. gray argill. sep. calc. ss.

Gas Kick in ss at 650 units - but no wet gas on Eludon.

Bent, tuff, & malst.

3900

Gray ms, v.f.g. arg. calc. sep. ss, & sandy bent.  
Gray calc. silt - sandy bent. & gray malst.  
Some blk oil sh.  
Gray spec. tuff  
Gray arg. ms & tuff & bent.

Gas readings - 10 units

4000

x v.f.g. gray calc. bent sep. ss, silt, & bent.  
x Gray silt & oil sh. & ms.

Gas Readings 10 units.

x Gray calc. silt, malst, brown carb sh & argill. & gray v.f.g. arg. calc. ss.

Some rd. brown arg. calc. bent sh. (carings?)  
v.f.g. calc. sh. - lt. ph. bent, blk, & gray calc. & bent - some gray  
ms. bent, calc. & argill.  
x v.f.g. bent, calc. & argill.  
x Some blk bent calc sh.

x tan. calc. bent. sh.

x Rd. bent, argill. calc. bent calc sh & silt - brown carb sh & gils.

lt gray & dk gray bent sh. & lt. gray bent sh.

4100

Rd. brown calc. bent sh. - dk. brown to blk carb - petro sh. & brown spec. v.f.g. calc. ss.

Some brown ms.

blk oil sh.  
dk gray v. sh. calc. v.f.g. sep. ss.

Gas readings - 10-20 units.

4200

Some oil sh., gray-argill. calc. bent sh.

blk oil sh., argill., v.f.g. calc. bent ss.  
Some lt. brown (concreted) ms.

D.C.

lt gray. to wh. xrd. ms. - oil sh.

4300

x lt - brown, wh. & gray ms.

dk gray calc. silt sh & ms.

dk gray to blk v. sh. calc. oil sh.  
gray bent. silt calc. - mica sh. & blk oil sh., & some v.f.g. calc. sep. ss.

Some brown bent calc sh.  
dk gray to blk petro. sh & oil sh.  
lt. gray to blk argill. malst & ms & oil sh.  
lt. brown ms (thin) - blk malst. & oil sh.

4400

Some dk gray bent.  
lt. gray spec. calc. silt.  
blk oil sh.  
& blk malst.

Some gray ms.  
Some gray arg. bent. calc. ss.

4500

x blk oil sh.  
x Gils, calc, fg. ss  
x Gils - no carb sh. - oil sh., bent., & v.f.g. calc. petro. ss.  
x lt. gray calc. v.f.g. sep. ss.

Gas Readings 15-20 units

4600

blk oil sh.  
Some wh. xrd. ms. - lt. gray calc. v.f.g. sep. ss. w/ carb. debris.  
Some gray bent.  
x Gils.

5 X 5 TO 1/2 INCH 46 0862  
7 X 10 INCHES  
MADE IN U.S.A.  
KEUFFEL & ESSER CO.



5 X 5 TO 1/2 INCH 46 0862  
7 X 10 INCHES  
KEUFFEL & ESSER CO.  
MADE IN U.S.A.

5700  
5800  
Karf  
5900  
6000  
Kamm  
6100  
6200  
Kd  
6300  
Jm  
6400  
6500  
6600

V FKG. SS  
 V SAME: (SILIC) thin oil sat. in ss.  
 V VARNET d. gray calc. ss & sh.  
 V Some fr. inons. gray. debris GAS TINGS - 210 UNITS AFTER log.  
 V DK gray silty sh. & calc. sh. CONTINUED w/ gas readings -  
 V Some fish scales & fossils & ammonite  
 V Some gray lms. & paralydote foss. OPER - 1500 UNITS ON THERMAL SCALE.  
 V DK gray silty calc. sh. & gray glauc. ss. GAS VALUES TERRIFIC  
 V BK silty sh. calc. sh. & gray glauc. ss.  
 V DK gray silty calc. sh. & vfg glauc. gray calc. varved ss.  
 V Abundant foss. - fish scales & crustacea  
 V silty dk gray calc. sh. blk oil sh. & blk lms. Gas Readings - OFF SCALE  
 V Foss. & some minor thin bedded vfg sh. ss. ON ALL CIRCUITS - 3000+ TH  
 V OVER 250 UNITS & 3000+ TH.  
 V Some vfg calc. gray glauc. ss. w/ stain & blk. part. sh.  
 V Some dk gray mica. ss.  
 V Red silty calc. gray sh. High Gas Readings - OVER  
 V Some dk. Some dk. blk. vfg silty ss. with cut. 300 UNITS OF NET GAS & 3000 TH.  
 V Some dk. blk. vfg. silty calc. dirty ss. (drills rough)  
 V Foss.  
 V Some blk. mg. to fg. glauc. ss.; dk gray silty calc. sh. V. hi gas readings.  
 V DK gray calc. silty to silty sh. & fg. glauc. calc. gray. ss. Gas Readings - decreased  
 V SAME (SILTS OR COAL) TO 60-70 UNITS.  
 V BENT. & blk. spec. carb. calc. bent. ss - fg. to vfg. Gas Readings - decreased to  
 V some fg. to mg. bent. gray. to blk. calc. ss. 10-15 UNITS TOTAL & 5 UNITS NET.  
 V DK gray silty v. calc. sh. & gray ang. lms. GAS Readings - erratic -  
 V DK gray silty - ang. silty calc. sh. & blk. bent. VARY FROM 20-85 UNITS.  
 V DK gray silty calc. sh. & blk. bent. GAS READINGS VARY FROM  
 V SOME gray lms. 20 TO 100 UNITS.  
 V sh. is v. calc.  
 V DK gray - near hd. silty to silty silty calc. sh. - slow drilg  
 V Some vfg. hd. blk. sh. ss.  
 V Red hd. blk. vfg. blk. ss. to g. ss. & dk gray mica. ss. & gray vfg. hd. blk. ss. & pyr.  
 V Indurated silty dk. blk. hd. silty sh. & dk gray mica. pyr. sh. & gray hd. ss.  
 V Some hd. gray blk. & gray to blk. lms.  
 V Gray to vfg. sh. calc. mica. ss. - drills real slow GAS Readings - 20-40 UNITS.  
 V Red vfg. blk. blk. gray silty calc. ss.  
 V Red calc. dk gray silty bent. sh. bent. - Some gray, blk. buff. bent. sh. - blk. calc. fg. ss.  
 V Tan blk. oil resid. w/ good cut - blk. sat. sh. - Some stat. yellow blua.  
 V DK blk. & dk gray silty lms. - blk. to rd. sh. vfg. ss. dk gray silty sh.  
 V Hd. gray glauc. calc. ss. w/ st. blk. blua. & oil cut.  
 V Same  
 V blk. bent. & gray bent. sh.  
 V Some gray, dk gray calc. sh. & calc. sh. & bent.  
 V Some blk. carb. sh.  
 V Some hd. blk. calc. sh. gray & bent. blk. carb. sh.  
 V Lt. gray vfg. calc. bent. ss. & gray bent. sh.  
 V Lt. gray vfg. ss. - bent. sh. & gray sh. Pcs. of coal  
 V Red buff, blk, blk, gray, gray, & gray sh. Some bent. & gray vfg. ss. - all w. calc. & pyr.  
 V Hd. lt. gray vfg. mica. spec. calc. ss., blk. carb. sh. & bent.  
 V DK gray lms.  
 V Lt. gray vfg. calc. mica. ss., gray bent. sh. & buff. sh. & bent.  
 V Lt. gray fg. calc. bent. mica. ss.  
 V Some gray-gray bent. calc. sh., lt. blk. sh., & pyr.  
 V Some blk. carb. sh.  
 V Gray vfg. bent. calc. ss. & gray sh.  
 V Fg. dk. gray calc. bent. mica. ss., gray bent. sh., gray calc. sh. & pyr.  
 V Gray vfg. calc. ss., gray bent. sh. & blk.  
 V DK gray bent. calc. sh.  
 V Gray ang. lms.  
 V Gray ang. lms., gray vfg. calc. ss., gray silty carb. sh.  
 V Gray silty gray vfg. ss. & sh.  
 V Gray ang. lms., bent. gray sh. & ss.

Napoleon # 2

6600' - 7600'

6600

Some buff, calc. sh. coal & silty calc. ss. & pya.  
lt. gray silty ss, calc, sh & coal.

Gray rfg. calc. silty mica ss, gray mica sh - bent  
lt. gray rfg. sugary sst ss, calc, sh & pya. - bent sh. & pya.

6700

lt. gray rfg. calc. varved ss, sh - lms, gray sh & bent

lt. gray calc. rfg. spec. ss

6800

Some lt. silty sh, gray calc. sh, buff sh, ss & bent  
Gray rfg. calc. ang. ss & gray ang. lms & sh.

Gray silty calc. sh & lms  
Some rfg. calc. ss  
Bent. & silty gray calc. sh & ang. lms

Some dk bent. calc. sh - gray rfg. silty - gray dk sh & lms.  
lt. gray mica calc. ss, rfg.

Some gray bent. ss  
lt. gray calc. rfg. - rfg. ss w/ carb. spe.

Jan 6900

Some pya. & ch.  
Aols of iron (bearing)  
Gray dk. silty sh, gray rfg. calc. sh.  
lt. gray silty rfg. calc. sh

Gray rfg. calc. silty, ss, gray silty sh, gray lms - carb. sh  
some blk carb. mat & coal.

Fossil frag.  
Some gray glauc. congl. ss. & rfg. calc. spec. ss.

7000

Gray glauc. bent. sh.  
Glauc. congl. ss. - some grassy rfg. silic. sh. - gray ch.

rfg. lt. gray calc. irreg. ss - pcs of congl.  
Wh. to gray rfg. to rfg. ss

Wh. to gray rfg. calc. ss

Wh. glassy ss. - rfg, calc, congl.

7100

PK-bent - bent sh.  
Some shell frag.

Je

Wh. rfg. gray glassy - spec. ss.  
Gray ch.  
PK bent - gray - congl. ss  
Varved ss - dk ch & rfg. gray or some lg glassy ang to sub. rdd. grt. ss.

7200

Gray to wh. spec. - rfg. to irreg. - calc. ss - carb. mat.  
Carb. stalks in sh. & silt.

Gray to dk gray calc. silic. sh. - gray, gray, bent sh.  
Gray varved thin bedded ss & sh. & gray ang. lms  
Gray rfg. calc, sh - w/ carb. specs

Some calcite x. lms & lms.

7300

Gray rfg. calc. - carb. ss & gray silty sh - ch.  
Some thin. exhy. - gray, spec. calc. ss.

DK carb. sh. & ss  
Some lms

DK gray to lt. gray spec. calc. ss, carb. mat, carb. silty sh & pya. & lms  
Varved ss & carb. sh

SS in sugary & silty congl. ga. - lg. grt. ss, some congl. irreg. ss w/ rdd. frags.  
Soft to bent. silty bent sh. & gray bent sh. shell frag.  
SAFT & bent bent sh. (calc.)

DK gray silic. silty calc. sh. - gray & dk. soft silty sh.  
Some lt. gray smooth bent sh. & dk. gray silic. calc. ss.  
Some bent to lt. olive gray calc. soft sh. & purple sh.

Some buff, gray & blk sh. - carb. sh. - gray rfg. - lg. calc. ss.  
Y. c. bent. calc. sh, carb. sh. & ss.  
Thin - red brick silty silt, some ironstone; buff calc. sh.

Mg. wh. sil. irreg. grt. ss. w/ rdd. frags - some rose grt. gaus, blk spec. ss, non-calc.  
Amable to silic. and, mg. ss w/ rdd. frags & blk carb. sh. & coal particles.

7500

Some coal particles  
Some lt. gray bent sh. & wh. rdd. mg. ss.  
Gray & bent sh.  
Gray & bent colored bent. sh. & wh. mg. grt. ss w/ rdd. to sub. ang. frags.

Some bent silt - tan bent sh. & mg. grt. rdd. ss.

7600

Coal part pya, mg. ang. to rdd. ss w/ blk spec. & rose grt. frags & gray carb. sh.  
Some blue bent. sh.

5 X 5 TO 1/2 INCH 46 0862  
7 X 10 INCHES MADE IN U.S.A.  
KEUFFEL & ESSER CO.

# Napoleon #2

7600 - 8600'

7600'  
 7700'  
 7800'  
 Jan 7900'  
 8000'  
 Je 8100'  
 \*  
 \*  
 \*  
 8200'  
 Jca 8300'  
 8400'  
 Jan 8500'  
 8600'

V	Some waxy olive gray silt - gray carb. ss - mg. ang. gtz ss
Vxb	Lt. gray to lt. gray bent sh., olive silt, carb. sh., mg. to fg. gtz <sup>coal part. &amp; pyr</sup> subang. ss - pyx, gtz
Vxb	Olive to buff bent silt, lt. gray bent sh., md silt - dk gray spec carb. sh
Kob	Glossy vacic. bent. sh., mg. gtz - wh. ss, gray sh., + cong. mudst
Kob	Some coal incls.
Kob	Vanic - gray gray, pva, buff, & md bent sh. & mudst
V	Pva. & mudst. "
V	Vfg & mg. gray gtz spec ss w subang grains - vacic bent sh (nd, buff, pva, gtz)
V	Lt. gray bent sh
V	Lt. gray, buff & pva. bent sh
V	"
V	Md. nd-pva bent sh.
ob	Sh. cong. bent sh
V	Some blk. sintered carb. sh.
V	Some wh. amorph. waxy.
V	Vanic bent waxy sh.
V	Wh. gtz - blk. fg. bent. ss w/ rose col. grains
V	" vacic bent sh.
V	Wh. gtz md mg. bent & waxy ss. - ss has waxy silt.
V	ss has amber colored grains
V	"
V	Some blk. id sily sh.
V	Pva, buff, gray, pva & blk. bent sh
V	Gray bent sh
ob	Hd. do. gray bent sh - md-pva, do. grassy sh - olive mottled - cong. sh.
V	Some wh. fg. bent gtz w/ md grains
V	Do. md smooth pva & md mottled sh & ss
V	Vanic bent sh, & blk carb. sh
V	Dk gray vfg. sily - carb. carb. ss - staks - md sily sdy sh.
V	Dk gray to wh. vfg. sily carb. ss. w. gray - <sup>bent.</sup> gray sh
V	Dk gray sily carb. ss. & wh. gtz. md fg. ss w/ orange & rose grains.
V	Some buff bent sh. w/ rounded clv.
V	Wh. md gtz md ss - rose & amber grains - bent. matn.
V	Some glauc. & kaolinite. - kaolin in ss.
xx	Wh. ss. - glauc. - kaolin - mg. good pva. - low pva.
xx	Wh. cg. md gtz ss. w/ bent & kaolin matn.
V	Some blk. carb. sh. & buff glassy sh.
V	Lt. gray bent sh. & gray - gray bent sh. + wh. mg. to cg. gtz ss.
V	Some olive - gray bent sh.
V	Gray bent, glassy - sh w/ feldspar incls. & buff - gray bent sh & wh. mg. gtz md ss & pva.
V	Bent sh. & ss
V	Blk carb. sh. & pva. sily sh. & olive gray bent & gray bent sh.
V	Some wh. gray bent glassy sh. - some pink. to glass. ang. ss. - pva. sh
V	Some blk. md sily sh. & yell. sh.
V	Do. bent. sh. & dirty. fg. mag. gray ss.
V	Md. nd & md. bent sh.
V	Dk. gray vfg. ss. w/ carb. debris.
V	cong. wh. ang. bent ss - dk & md sily sh. (blk. carb. sh.)
V	Dk. gray vfg. ss. + lt. gray & olive sily sh.
V	Olive & lt. gray sily sh.
V	Olive, blk. vfg. & lt. gray sily sh. & pva. -
V	Lt. gray bent sh. - ss. is both gtz & orthoclase frag.
V	Some pva. gray & mottled sh. - gray bent. sh. - wh. ang. frag. mg. to fg. ss. - blk. sh. & ch.
V	Lt. gray ash bent sh. -
V	Wh. ang. cong. - mg. bent. ss. & gray - buff - blk sh. - blk. carb. sh. & lt. gray bent sh
V	As above w/ dk gray vfg. spec. ss.
V	Wh. cong. ang. fg. to mag. bent. ss w rose, grains & glauc. & vacic bent to sily sh.
V	"
V	Blk. nd & buff bent sh., lt. gray bent sh., wh. mg. large ang. ss w bent on kaolin mat.
V	Some dk gray vfg. spec. ss & as above
V	"
V	Some olive gray glassy sh. & as above. - Gypsum sh. gtz. sh.
V	Wh. mg. kaolin & gtz. sh. - olive & gray, blk carb. sh. & some calc. vfg. dk. gray. spec. ss.
V	Some blk. sintered ang. sh.
V	Some olive gray, do. sh. - ss - blk carb. sh. - wh. mg. glauc. gtz to pva.

KE 5 X 5 TO 1/2 INCH 46 0862  
 7 X 10 INCHES MADE IN U.S.A.  
 KEUFFEL & ESSER CO.



Schmitt

Form 9-331  
(May 1963)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIP. FEB\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.  
**U-039145**

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.)

7. UNIT AGREEMENT NAME

1. OIL WELL  GAS WELL  OTHER

8. FARM OR LEASE NAME

2. NAME OF OPERATOR

**Allied Chemical**

3. ADDRESS OF OPERATOR

9. WELL NO.

**322 Warehouse Building, Salt Lake City, Utah**

**Napoleon #2**

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

10. FIELD AND POOL, OR WILDCAT

**Wildcat**

**NE.SE., Sec. 9, T. 6 S., R. 22 E., S.L.M.  
2033' fr. S-line and 660' fr. E-line**

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

**Sec. 9, T. 6 S., R. 22 E.  
S.L.M.**

14. PERMIT NO.

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

12. COUNTY OR PARISH

**Uintah**

13. STATE

**Utah**

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON\*

SHOOTING OR ACIDIZING

ABANDONMENT\*

REPAIR WELL

CHANGE PLANS

(Other)

(Other)

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

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

The above well was drilled to 9350' total depth and bottomed in a coal zone at the base of Navajo formation. It is believed that the coal is Mesaverde and that another fault has been crossed. Since the Weber objective was not present at the anticipated 9250' projected depth, it is planned to abandon the well in the following manner:

- A. Install a 25-sk. cement plug at 8500-8400' (across top of Navajo).
- B. Install a 25-sk. cement plug at 8100-8000' (across top of Entrada).
- C. Install a 25-sk. cement plug at 6250-6150' (across top of Dakota).
- D. Install a 25-sk. cement plug at 5150-5050' (across Mancos and fault).
- E. Install a 50-sk. cement plug at 3100-2900' (through sulphur water zone).
- F. Install a 30-sk. cement plug at 300-200' (across bottom of surface casing).

A well marker will be installed in a cement plug at the surface and the location will be cleaned and levelled.

APPROVED BY DIVISION OF  
OIL & GAS CONSERVATION

DATE 7-7-69  
BY Clem B. Feight

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

SIGNED H. Now Gungley TITLE Consulting Geologist DATE July 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 REVERSE SIDE  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

**U-039145**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

**Allied Chemical**

9. WELL NO.

**Napoleon #2**

10. FIELD AND POOL, OR WILDCAT

**Wildcat**

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

**Sec. 9, T. 6 S., R. 22 E.**

12. COUNTY OR PARISH 13. STATE

**S.L.M.**

**Uintah**

**Utah**

1. OIL WELL  GAS WELL  OTHER

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

3. ADDRESS OF OPERATOR  
**322 Newhouse Building, 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

**NE.SE., Sec. 9, T. 6 S., R. 22 E., S.L.M.  
2033' fr. S-line and 660' from E-line**

14. PERMIT NO.

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

**4875' Grd.; 4887' K.B.**

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 COMPLETION

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

(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.)\*

**Above well has been abandoned (on July 2, 1969) in the manner set forth in Sundry Notice dated July 2 on subject well.**

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

SIGNED

*W. Don Gungler*

TITLE **Consulting Geologist**

DATE **July 29, 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 DUPLICATE

(See other instructions on reverse side)

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

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  
**Toledo Mining Company**

3. ADDRESS OF OPERATOR  
**322 Newhouse Building, Salt Lake City, Utah 84111**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface **NE.SE., Sec. 9, T. 6 S., R. 22 E., S.L.M.**  
**2033' fr S-line and 660' fr. E-line**

At top prod. interval reported below

At total depth

14. PERMIT NO. \_\_\_\_\_ DATE ISSUED \_\_\_\_\_

5. LEASE DESIGNATION AND SERIAL NO.  
**U 039145**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
**Allied Chemical**

9. WELL NO.  
**Napoleon #2**

10. FIELD AND POOL, OR WILDCAT  
**Wildcat**

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
**Sec. 9, T. 6 S., R. 22 E. S.L.M.**

12. COUNTY OR PARISH  
**Uintah**

13. STATE  
**Utah**

15. DATE SPUNDED **Aug. 12, 1968** 16. DATE T.D. REACHED **June 30, 1969** 17. DATE COMPL. (Ready to prod.) **Aban. July 2, 1969** 18. ELEVATIONS (DF, RKB, RT, GE, ETC.)\* **4875' Grd.; 4887' K.B.** 19. ELEV. CASINGHEAD **---**

20. TOTAL DEPTH, MD & TVD **9350'** 21. PLUG, BACK T.D., MD & TVD \_\_\_\_\_ 22. IF MULTIPLE COMPL., HOW MANY\* \_\_\_\_\_ 23. INTERVALS DRILLED BY **0-9350'** ROTARY TOOLS \_\_\_\_\_ CABLE TOOLS \_\_\_\_\_

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  
**I.E.S. - Dipmeter 5640' - 3000'; Sonic Gamma 200'-5640'**

27. WAS WELL CORRED  
**No**

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
<b>8 5/8"</b>	<b>24#</b>	<b>161'</b>	<b>12 1/4"</b>	<b>125 sks</b>	<b>None</b>

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

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

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

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

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

35. LIST OF ATTACHMENTS  
**Well report**

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records  
SIGNED **H. Roy Gungley** TITLE **Consulting Geologist** DATE **July 29, 1969**

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



Toledo Mining

Don Quigley

Napoleon #2

NE SE

9

65

22 E

Utah 039145

WC

9350'

7 7/8

full

10.4

8 5/8" @ 261' w/125.24

200 - 300

Duckhorn River surface

Uinta 830

Green River 2090

Por Ch 2785

Gal Gosh 3720

Doug Ch 4235

Fault Mancos 5130

Dakota 6210

Morrison 6320

Curtis 6880

Entrada 7105

Fault Morrison 7340

Curtis 7860

Entrada 8030

Cornel 8255

Navajo 8420

Coal 100' @ 9055

gas slow @ 2900 - 3100  
3000' - 3100

(DST 3000-3100 sec)  
3100' of blk sulphur  
water 650 ppm Cl - 5050 - 5150

6150 - 6250

8100 - 800

8400 - 850

Some questionable logs: extremely

complicated. No lost circulation. One DST (see above)

Don indicates that cost has been around \$200,000

They are at depth limits of rig. This was proposed Weber Test.

Rodney A. Smith

7/2/69

1:30

Paul Burchell, Don Quigley & R. Smith designed plugging program after looking at logs: review of drilling ops.

*Solera*

*PI*

DRILLING HISTORY  
OF  
TOLEDO MINING CO.<sup>4</sup>  
NAPOLEON #2 WELL

July 30, 1969

by

W. Don Quigley

Consulting Geologist  
Salt Lake City, Utah

DRILLING HISTORY  
OF  
TOLEDO MINING CO.  
NAPOLEON #2 WELL

Operator : Toledo Mining Company

Contractor: Willard Pease Drilling Company,  
Grand Junction, Colorado

Location : NE.SE., Sec. 9, T. 6 S., R. 22 E., Uintah County, Utah

Elevation : Grd. 4875; D. F. 4887

Commenced : August 12, 1968 & recommenced on April 17, 1969

Finished : September 16, 1968 & June 30, 1969

Total depth: 6194' and 9350'

Spudded in : Duchesne River Formation

Bottomed in: Dakota and possibly Mesaverde the second time.

August 12, 1968 - Rigging up.

August 13, 1968 - Rigging up. Drilled rat hole. Started surface hole.  
Drilled 8 7/8 hole 0'-40'.  
Drillers: Sam Harvey, C. E. McCurry, D. F. Pierce  
Tool Pusher: Jim Lang.

August 14, 1968 - Drilled 40' to 160' (120'). Reamed hole to 12½". Ran  
6 jts. of 8 5/8" surface casing - 161.63' K.B. 24#, J-55.  
Cemented with 125 sks cement with returns to surface.

- Nippling up and waiting on cement.
- Installed blow-out preventer on top of surface casing.

August 15, 1968 - Drilled 160' to 714' (554'). Drilled 7-7/8" below surface  
casing. Made rd. trip at 611' for Bit. #3. Bit #2 (Smith-DT)  
made 448' in 11 hours. Deviation at 515' was 3/4°. Drilling  
with clear water. Drilled at rate of about 40 ft. per hour.

August 16, 1968 - Drilled 714' to 1236' (522'). Made rd trip at 754' for Bit #4.  
Bit #3 (C.P. - EH1) made 143 feet in 4½ hours. Drilled at rate  
of about 35 ft/hour. Drilling in cherty, silty shale - pyrite and  
quartz chards. Gray purple, red, buff calc. sh. and mudstone.  
Twisted off at 822'. Came out and picked up overshot. Came out  
with fish. Bit #4 (C.D.-EH1) made 68' in 3 hours. Sample top  
of Uinta formation at about 1060'. Made rd trip at 112' for  
Bit #6. Bit #5 (C.P.-ES2T) made 290 feet in 8 3/4 hours.  
Drilled at rate of about 32 ft/hour. Drilling in varicolored silty,  
bentonite calcareous shale and some ss. with lots of pyrite.  
Deviation at 1081' - 1/4°.

- August 17, 1968 - Drilled 1236' to 1677' (441). Made rd. trip at 1360' for Bit #7. Bit #6 (Smith DT) made 248' in 6 3/4 hours. Drilled at rate of about 35 ft/hour. Drilling in lt. gray silty to sandy v. calc. bent. shale. Made rd trip at 1541' for Bit #8. Bit #7 (C.P.-ES2T) made 181' (1360' to 1541') in 6 1/2 hours. Drilled at rate of about 30 ft/hr. Deviation at 1541' - 1 1/2°.
- August 18, 1968 - Drilled 1677' to 2222' (545'). Made rd trip at 1689' for Bit #9. Bit #8 (C.P. ES 4T) made 148' (1541' to 1689') in 8 1/2 hours. Drilled at rate of less than 20 ft/hour. Deviation at 1689' - 1-3/4°. Made rd. trip at 1954' for Bit #10. Bit #9 (Smith-DG) made 265 ft (1689' to 1954') in 6 3/4 hours. Drilled at rate of 38 ft/hour. Made rd trip at 2165' for Bit #11. Bit #10 (Reed-YT1A) made 211' (1954' to 2165') in 5 3/4 hours. Drilled at rate of 35 ft/hour. Deviation at 2165' 4-3/4°. Hole drifted off about 3° in 500 feet. There is a change in samples at 1760' which could be a change in formation. Began getting gilsonite in samples at 1900; also brown, gilsonite impregnated sandstone and brown carb. shale and siltstone. Gilsonite abundant.
- August 19, 1968 - Drilled 2222' to 2515' (293'). Survey at 2229' - 5°. Made rd trip at 2265' for Bit #12. Bit #11 (C.P.-ES2T) made 100' (2165 to 2265') in 7 hours. Drilled at rate of 14 ft/hour. Drilling in varicolored silty, calc. shales and sands with lots of pyrite and gilsonite. Survey at 2265' - 5°. Survey at 2323' - 5°. Survey at 2388' - 5°. Twisted off at 2515'. Came out of hole and left 6 drill collars in hole. Went in with overshot and caught fish. Came out of hole with fish and layed two collars down. Bit #12 (Smith-K2) made 123 ft (2265' to 2388') in 8 hrs. Bit #13 (Smith-DTT) made 127' (2388' to 2515') in 4 hours. Drilled at rate of 32 ft/hr. Had good c.g. speckled sandstone from 2550' to 2600'. Has gilsonite in it, but looks water wet.
- August 20, 1968 - Drilled 2515 to 2890' (375'). Finished fishing. Made rd. trip at 2748' for Bit #15. Bit #14 (Smith-DTT) made 233' (2515 to 2748') in 8 1/2 hours. Drilled at rate of 28 ft/hr. Hit solid gilsonite at 2780' and drilled mostly gilsonite to 2880'. Survey at 2638' - 5 1/2°; survey at 2840' - 5 1/2°.
- August 21, 1968 - Drilled 2890' to 2977' (87'). Made survey at 2977' and couldn't move pipe after survey. Worked pipe for 3 hours. Called McCullough to back-off pipe 1 jt. above drill collars at 2563'. Came out of hole with drill pipe and picked up test tool and packers. Went back in hole to set packers at 2546' and wouldnt set. Came out of hole and picked up single.

Went back in hole and tried to set packers at 2516' and they wouldn't set. Came out of hole and removed single below packers and 4 ft of perforations. Went back in hole. and tried to set packers at 2550' and they still wouldn't hold. Mixed gel in mud before backing off and brought viscosity to 55.

- August 22, 1968 - Depth 2977'. Still stuck. Came out of hole and layed test tool down. Went back in hole with drill pipe and screwed into fish. Began circulating and mixing mud. Mixed gel and brought viscosity up to 70 and circulated for 1½ hours. McCullough went in with magnet tech to find free-point but couldn't get detector down into collars. Came out and picked up sinker-bar and spudded rocks and shale to bottom of fish. Took two hours. Went back in with magnet tech and found free-point at top of collars-at 2590'. The first two collars were slightly free but third collar didn't move at all. Unscrewed from fish and came out of hole with drill pipe. Ran caliper log and found that the hole for 1500 or more feet above fish was washed out to 10 or more inches. No place could be found for packer seat. Decided to wash over and called for wash pipe.
- August 23, 1968 - Depth 2977'. Still fishing. Waiting on wash-over pipe. Went in hole with 168 ft. of wash-over pipe. Washed over and came out of hole. Went back in hole with drill pipe and ran free-point, and found it at about 2700 feet. Ran spring-shot and backed off 3 drill collars and 1 single drill pipe. Came out of hole with fish. Started back in hole with wash pipe.
- August 24, 1968 - Drilled 2977' - 3025' (48'). Went in hole with wash pipe and washed over about 30 feet. Made round trip for new wash-over shoe. Put new liner and head in pump. Washed to bottom and came out of hole with wash over pipe. Went back in with drill pipe and screwed into top of fish. Worked fish loose and came out of hole. Went back in hole with Bit #16. Bit #15 (C.P.-ES1C) made 229' (2748 to 2977') in 8½ hours. Drilled at rate of about 25 ft/hr.
- August 25, 1968 - Drilled 3025' - 3147' (122') Drilled in a sand-c.G. gry. speckled, calc. ss. w/yellow fluor. Had 25 units of gas when drilling sand 3020' to 3080'. Gas after trip was 110 units. Made rd. trip at 3111 for Bit #17. Bit #16 (C.P.-ES1C) made 134' (2977' to 3111') in 8 hours. Drilled at rate of 15 ft/hour in ss., shale and bent. with pyrite. Due to high gas reading (110 units) and slight fluor. in ss. - decided to run DST. Ran DST #1. Tested interval 2990-3130'. Tool open 1 hr. Shut in 45 min. Strong blow immediate. Dead in 45 min. Recovered 3100' of fluid (300' mud, 300' SCM., and 2600' of blk sulphur water). Tested porous sand from 3020' to 3080'. Bit #17 (C.P. - ES1CA) made 29' in 3 hours. It was green and pulled for the DST. Went back in hole with Bit #18.

- August 26, 1968 - Drilled 3147 to 3344' (197'). Made rd trip at 3264' for Bit #19. Bit #18 (HTC-OSClG) made 134 feet (3130' - 3264') in 12½ hours. Drilled at rate of 11 ft/hr in mostly c.g. to mg., gray spec. calc. ss., gilsonite and pyrite. Gas readings generally about 15 to 20 units, but was as high as 100 units after trip. Gas readings up to 35-40 units on top of gilsonite bed at 3205' - 40'. Sandstone bed (3240'-3300') below gilsonite zone probably carries water. Survey at 3111 - 5½°.
- August 27, 1968 - Drilled 3344' - 3521' (177'). Made rd trip at 3364' for Bit #20. Bit #19 (HTC-)SClG) made 100' (3264'-3364') in 13 hours. Drilled at rate of 7 ft/hr. Drilled in gray silty. calc. ss., Bent. sh. and brown carb. to petrol. shale. Made rd trip at 3521' for Bit #21. Bit #20 (Smith-DG) made 157 ft (3364'-3521') in 14 ¾ hrs. Drilled at rate of 10'+ per hour. Drilled in oil shale, volcanic tuff beds, and marlstone. Survey at 3521' - 6°.
- August 28, 1968 - Drilled 3521-3850' (331"). Made rd trip at 3758' for Bit #22. Bit #21 (CP-ESlCA) made 237 ft (3521'-3758') in 11 ¾ hours. Drilled at rate of 20'/hour. Drilled mostly tuff beds, marlstone and bentonite. Put new swab in pump.
- August 29, 1968 - Drilled 3850' - 4081' (231'). Made round trip at 3941' for Bit #23. Bit #22 (CP-ESlCA) made 182' (3758' to 3941') in 13½ hours. Drilled at rate of 13 ft/hour. Drilled in tuff beds, gray arg. ss. and marlstone. Gas readings remained constant at 10-15 units. Made rd trip at 4081' for Bit #24. Bit #23 (C.P. ESlCA) made 140' (3941' to 4081') in 10 ¾ hours. Drilled at rate of 13 ft/hr in siltstone, bent. shales, and thin sandstone beds.
- August 30, 1968 - Drilled 4081'-4342' (261'). Finished rd trip in hole. Made rd trip at 4312 for Bit #25. Bit #24 (C.P-ES-lCA) made 231' (4081'-4312') in 15½ hours. Drilled at rate of 15 ft/hr in siltstone, sands, marlstone and oil shale. Survey at 4312' - 7½°. Gas readings - 10-20 units.
- August 31, 1969 - Drilled 4342'-4514' (172'). Made rd at 4395' for Bit #26. Bit #25 (C.P.-ESlCA) made 83' in 10 ¾ hours. Drilled at rate of 7+ft/hr. Survey at 4395' - 8°. Drilled in oil shale and marlstone. Gas readings steady at 15-20 units.

- Sept. 1, 1968 - Drilled 4514' to 4674' (160'). Made rd. trip at 4523' for Bit #27. Bit #26 (Reed - YTLA-R) made 128' (4395' to 4523') in 15 hours. Drilled at rate of 8 ft/hr. Drilled in black oil shale, gilsonite and fine grained ss. Gas readings - 15-20 units. Made rd trip at 4674' for Bit #28. Bit #27 (Smith-DT) made 151 ft (4523-4674') in 15½ hours. Drilled at rate of 10 ft/hr. Drilled in fine-grained calcareous bentonitic sand, gilsonite and gray shale. Survey at 4523' - 7½°; survey at 4674' - 8½°. Gas readings 2500 to 4700' - 15-20 units.
- Sept. 2, 1968 - Drilled 4674' to 4844' (170'). Finished trip for Bit #27. Made rd trip at 4782' for Bit #29. Bit #28 (Smith-DG) made 108' (4674' to 4782') in 11½ hours. Drilled at rate of 10' per hour in malstone, black oil shale, calcareous sand and siltstone. Gas readings 10-15- units normal, but had readings 160+ units after trip at 4674'. Gas readings from 4674' to 4782' were 15 to 25 units. Survey at 4782' - 7½°.
- Sept. 3, 1968 - Drilled 4844' - 5039' (195'). Made rd trip at 4939' for Bit #30. Bit #29 (Smith DG) made 157' (4782' to 4939') in 12½ hours. Drilled at rate of 13 ft/hr. in sandstone, oil shale and marlstone. Had drilling break 4960 to 5010'; drilled less than 2 min./ft. Gas readings about 15 to 20 units. Had readings over 160+ units after trip at 4949'. Made rd trip at 5039' for Bit #31. Bit #30 (Smith-DG) made 100' in 8 hours. Drilled at rate of 12+ ft/hour. Drilled sandstone bed from 4960 to 5010 mentioned above. Gas readings thru sand was 20 to 30 units. Survey at 4939' - 6 3/4°.
- Sept. 4, 1968 - Drilled 5039 - 5106' (67'). Decided to test at 5106'. Had gas readings of over 160+ units after trips and steady at 25 to 35 units while drilling. No fluorescence or shows in samples, however; decided to include sand at 4960 to 5010' in test, so had to run anchor of 150'. Came out of hole and picked up test tool for DST #2. Wanted to test interval 4955-5106' (150'). Went in hole with test tool and set packers at 4955'. Packers wouldn't hold and DST #2A was a misrun. Came out of hole and changed packer position 10 feet downward. Went in hole with test #3 and set packers at 4965' and they wouldn't hold; so DST #2B was a misrun. Came out of hole and laid down test tool. Went back in hole with Bit #32. Bit #31 (Reed-YTLA) made 67 feet (5039'-5106') in 4 hours. It was green and was pulled for the DST. It drilled a good sand section at 5040'-5075'. Some fluorescence and stain were seen in samples. Gas readings were 25 to 35 units.
- Sept. 5, 1968 - Drilled 5106 to 5160' (54'). Decided to try another test at 5160'. Had gas readings of over 350 units after previous

DST attempts and encountered another sand with fluorescence at 5107 to 5130 feet. Drilled at rate of 2 to 3 min/ft and had gas readings up to 55 units after trip gas. Oil scum and fluorescence were observed on mud. Came out of hole and picked up test tool for DST #3A. Went and set packers at 5048' to test interval 5048 to 5160'. Tool wouldn't go all the way down and set packers at 5033'. Packers didn't hold and DST #3A was misrun. Decided to run hook-wall tool below packers instead of anchor. Made rd trip for hook-wall tool. Set tool and packers at 5048' but didn't hold and got 1150' of mud cushion in drill stem. Reset packers at 5060' and they held so tested interval 5060 to 5160' (100'). Tool open 45 minutes and shut in 15 minutes. Weak blow when died in 5 minutes. Hydrostatic pressure of mud cushion was greater than that of formation and thus recovered only the mud cushion (1150' of mud). Pressures were: IHP - 2659#; IFP - 535#; FFP - 746#; FSIP 726#; FHP 2630#. Looks like hole crossed a fault at 5130' and went from Green River formation into Mancos shale.

- Sept. 6, 1968 - Drilled 5160' - 5356' (196'). Went back in hole with Bit #33 Bit #32 (Reed-YT3A) made 54' (5106-5160') in 6 3/4 hours and was pulled for DST. Drilled at rate of 8 ft/hr. in sand and shale. Drilled in marine, dark gray, slightly calcareous, siliceous shale and light gray v.f.g. calc. glanc. ss. Gas readings steady at 10-15 units.
- Sept. 7, 1968 - Drilled 5356-5600' (244'). Made rd. trip at 5360' for Bit #34. Bit #33 (Smith-DG) made 200' (5160-5360') in 18 hours. Drilled at rate of 11'/hour in Mancos shale. Suspect top of Mancos at 5140'. Gas readings started to increase at 5530'. Wet gas began coming in at this point and steadily increased to 125 units at 5600'. Still drilling in dark grey, slightly calc. shale and f.g. to m.g. grey calc. ss. Circulated for 1 1/2 hours for logging. Survey at 5160' - 7 1/2°. (Survey tool stuck 3 drill collars from bottom).
- Sept. 8, 1968 - Drilled 5600' - 5640' (40'). Decided to drill deeper to encounter sand, if present. Made rd. trip at 5619' for Bit #35. Bit #34 (Smith - DT) made 259' (5360'-5619') in 19 hours. Drilled at rate of about 14'/hr in Mancos shale. Gas readings remained high. Thermal bridge is saturated and unreliable. Reading 700 units at times. Decided to log hole at 4640' so conditioned mud and hole for logging. Came out of hole and began logging at 6:00 P.M. Ran Sonic-Gamma log first, because Schlumberger's induction sonde wouldn't work. Bit #35 (C.P.RR) made 21 ft (5619' - 5640') in 3 hours. Drilled at rate of 7' per hour in Mancos shale.
- Sept. 9, 1968 - Depth - 5640'. Continued logging hole. Ran dual-induction-electric log and Shell wanted dipmeter log. Finished logging at 8:00 A.M. Logs confirmed top of Mancos at 5130'. No sands

or evidence of fracturing on logs in lower portion of the hole. Decided to drill ahead.

Drilled 5640' to 5766' (126'). Drilling in Mancos shale. Gas readings increased tremendously. Readings up to 200 units on catalytic bridge and over 2000 units on Thermal bridge. Readings were off scale - over 300+ and 3000 tn. at midnight at 5766'. No sign of fluorescence sand, or show in cuttings.

- Sept. 10, 1968 - Drilled 5766' to 5809' (43'). Decided to run DST on interval 5550' to 5809'. Conditioned hole and mud for DST. Ran in hook-wall tool and couldn't get to bottom after many attempts so came out of hole with tool and went back in with bit and drill pipe to clean hole. Found hole clean and only 6' of fill at bottom. Bit #36 (Smith - DTT) made 169' (5640'-5809') in 15 3/4 hours. Drilled at rate of 10'/hour in Mancos shale. No shows of fluorescence or cut in samples but gas readings were completely off on all units from 5760' to 5806'; more than 6 hours. Hence decision to test. Survey at 5809' - 5 3/4°.
- Sept. 11, 1968 - Drilled 5809-5909' (100'). Went in hole with test tool and hook-wall and set at 5550' to test interval 5550-5809' but packers didn't hold. Move tool up the hole 10 feet and reset and packers failed. Moved up the hole 20' and reset and packers failed. Moved up the hole 40' and reset and packers failed. Had about 3000 feet or more of mud in the drill-stem by this time so decided it was no value in trying to find another spot; so came out of hole and layed down the test tool. Went back in hole with Bit #37 and began drilling ahead. Gas readings were immediately off scale on all units, but still could not find any shows of fluor. or cut in samples. Mancos shale and thin-bedded vfg calc. gray ss.
- Sept. 12, 1968 - Drilled 5909 to 6036 feet. Made rd trip at 5937' for Bit #38. Bit #37 (Reed-YT1A) made 128' (5809' - 5937') in 12½ hours. Drilled at rate of 10 ft/hour in dark gray silic. marine shale and thin-bedded calc. ss. Hit rough drilling at 5840'. v.f.g. silty dark brown ss. Could be Frontier. Had some brown lms and buff-colored siltstone. Few pcs of chert. Started out of hole at 6036' for Bit #39. Bit #38 (Smith-DT) made 99' (5937-6036') in 12½ hours. Drilled at rate of 8 ft/hour in dark gray calc. silic. shale and gray calc f.g. ss. Gas readings were erratic; 20 to 85 units.
- Sept. 13, 1968 - Drilled 6036' to 6118' (82'). Made rd trip at 6092' for Bit #40. Bit #39 (Smith-DT) made 56' (6036' - 6092') in 7½ hours. Hit a reverse drilling break at 6087'. Drilling rate dropped from 8 min./ft to 17 and 20 min/ft. This is probable top of Dakota formation. Samples contained some gray lms.; dark gray silic. calc. shale. Shale was much less calc. for 40' above Dakota. Samples had some coal streaks.

- Sept. 14, 1968 - Drilled 6118' to 6145' (27'). Made rd trip at 6122' for Bit #41. Bit #40 (Reed YM) made 30' (6092' to 6122') in 8 3/4 hours. Drilled at rate of about 3 ft/hr. Very slow and hard. Samples contained indurated-silicified shale - dark gray quartzitic ss., with lots of pyrite. Must be Dakota. Came out of hole at 6145' for Bit #42, but decided to test upper portion of hole. Bit #41 (CP-EH-1) made 23 feet (6122-6145') in 7 1/2 hours. Drilled at rate of 3 ft/hr. in hard gray quartzite. Went in hole with test tool and hook-wall anchor to test interval 5125' to 6145'. Set packers five times in interval 5090' to 5155' without success. Put on 250' more of drill pipe and tried five times to set packers around 5400' without success. Came out of hole with test tool and went back in with Bit #42. Survey at 6145' - 1 3/4°. Dakota must be quite flat. Gas readings remained quite steady at 20 to 30 units (all methane) thru the upper Dakota.
- Sept. 15, 1968 - Drilled 6145 to 6180'. Made rd trip at 6160' for Bit #43. Bit #42 (CP-EH1) made 15 feet in 9 1/2 hours. Drilled at rate of 35 to 40 min/ft. Decided to abandon hole at 6160' (at least temporarily until other arrangements could be made and a larger rig obtained. But gas shows - about 20 units of wet gas - slight fluor. in cuttings and oil show changed the decision. Also samples indicated that the Cedar Mt. formation had been topped. Hence, it was decided to try one more bit. Lost 25 bbl. of mud at 6145 feet which could indicate porosity. Some brown oil residual was observed in cuttings.
- Sept. 16, 1968 - Drilled 6160-6194 (34'). Decided to temporarily abandon hole since the limit of the rig had been reached. Accordingly, the hole was plugged as follows:
1. 30 sks cement plug at 6160-6060'.
  2. 30 sk cement plug at 5150-5050'.
  3. 60 sk cement plug at 3100-2900'.
  4. 30 sk cement plug at 300-200' across bottom of surface casing.
- Drill pipe and collars were layed down and a well marker was placed at the surface.
- Sept 17, 1968 - Well was abandoned, but since review of the geologic data  
-April 17, 1969 developed by the well plus subsequent geophysical data suggested that a marked unconformity and thrust area existed between the Tertiary and Cretaceous sediments which eliminated much of the section, it was decided that an attempt should be made to deepen the well to the Weber formation which was estimated to be about 9250' below the surface based on the new data. Accordingly, these arrangements were made and a bigger rig (but not big enough to go all the way) was moved in on April 17, 1969, and rigging up was commenced.

- April 18-25, 1969 - Rigging up and cleaning hole out to the original total depth of 6194'. It was found that all of the cement plugs installed in the hole at the time of the temporary abandonment were hard and located in the proper positions. The mud was conditioned and drilled ahead was commenced. The 7 7/8" hole was continued.
- April 26, 1969 - Drilled 6194' to 6216' (22'). Drilled at rate of 8 to 12 min/ft in sandstone and shale. Drilling break at 6210' which was a medium-grained sandstone with well rounded quartz grains; could be Dakota and other previous sands could be in the lower Mowry section.
- April 27, 1969 - Drilled 6216' to 6273' (57'). Drilled to 6273' and twisted off. Made rd trip for fishing tools.
- April 28, 1969 - Drilled 6273' - 6297' (24'). Finished fishing for twisted-off section and went back in hole with Bit #5 (Reed-YMG). Drilled real slow - 20 min/ft. (Bit probably too hard and too short teeth.) Drilling in gray, black, brown and green-gray shale and fine-grained gray sandstone.
- April 29, 1969 - Drilled 6297' to 6339' (42'). Drilling in light gray bentonitic shale and light gray, v.f.g. calc. ss. Top of Morrison could be at 6315'. Drilled at rate of 15 to 25 min/ft.
- April 30, 1969 - Drilled 6339' to 6839' (500') in 9 days. Drilled at average rate of 50+ft/day. Drilled in bentonitic shales, argillaceous limestones, gray, v.f.g., calc. ss. of Morrison formation.  
- May 8, 1969
- May 9, 1969 - Drilled 6839' to 6915' (76'). Drilled at rate of 8 to 12 min/ft. Drilling in sands and shales. Encountered slight change at 6875' which could be top of Curtis formation.
- May 10 thru May 12, 1969 - Drilled 6915' to 7101' (186'). Drilled at rate of about 60 ft/day. Drilling in gray, slty. shale; carb. shale, chert; glauc. gray, congl. ss.; gray-green, bent. shale; and vfg gray, glauc. ss. of Curtis formation. Hooked up logging trailer at 7000' (Sentry Engineering Company) on May 11, 1969.
- May 13 thru May 19, 1969 - Drilled 7101' to 7424' (323). Drilled at rate of 46 feet/day. Encountered a change in the section at 7210' which is probably the top of the Entrada formation. Drilling in a white, v.f.g, glassy to frosted, speckled ss. w/ rd'd to sub-ang. grains; some black carb. shale; and light gray sandy limestone. Had trip gas kicks up to 2000 units of methane on chromatograph. (This is not truly trip-gas but rather gas that leaks into the mud column at depths of 2800' to 3500' while mud is idle in the hole during trips.) There was a marked change in lithology at 7390' where gray blue bent. shale; red brown slty bent. shale, purple and buff colored shales; and olive green bent. shales were encountered. These could be Morrison or Chinle shales.

- May 20 thru  
May 26, 1969 - Drilled 7424' to 7924' (500') in 7 days. Drilled at rate of 70 ft/day. Cuttings are varicolored shales and v.f.g. sandstone typical of Morrison formation; could be re-drilling part of the section previously drilled. This should be Navajo sand, but is not typical of Navajo. Had a definite drilling break at 7826' which was a white S. & P., rd'd, quartz ss.
- May 27, 1969 - Drilled 7924' to 7987' (63'). Drilled at rate of 5 to 7 min/ft. in good, s&p., rd'd quartz, m.g.ss; anhydrite; gray bent. shale; olive mottled congl. sh. and varicolored bent. shale. Could be Entrada or Curtis. Decided to run a correlation log to ascertain exact position of the hole in the stratigraphic section. Called Schlumberger to run IES log.
- May 28, 1969 - Drilled 7987' to 8110' (123'). Drilled at rate of 8 to 15 min/ft. Ran Schlumberger log at 7987'. Couldn't get logging tool below 7422' due to bridge or caved portion of hole. Log showed an abrupt change at 7390' but was not definite enough to identify. Log did show the following correlated tops however: Dakota at 6210'; Morrison at 5320'; Curtis at 6880'; Entrada at 7105'; and abrupt change at 7390'. These tops correspond fairly closely to the tops and changes found in the samples. A definite drilling break was obtained at 8026' and the cuttings showed it to be a white, m.g., rd'd quartz ss, with occasional amber colored grains; could be Entrada or Navajo (?).
- May 29, 1969 - Drilled 8110' to 8284' (174'). Drilled at rate of 3 to 10 min/ft. in m.g. quartz rd'd ss. and some c.g. ss.; must be Entrada or Navajo. Good thick sands, appears water wet; no gas or shows. Had reverse drilling break at 8254. Cuttings were varicolored (purple, olive, green, red, brown, and black) shales. Could be Carmel (?).
- May 30 thru 31,  
1969 - Drilled 8284' to 8343' (59'). Drilled at rate of 10 to 15 min/ft in varicolored silty shales and thin-bedded v.f.g. ss. Decided to change rigs since the limit of the second rig had been reached. Started out of hole laying down drill pipe.
- June 1 thru  
June 10, 1969 - Changing rigs and rigging up. Cleaned and conditioned hole. Reamed out key-seat areas. Put key-seat reamers in drill string on top of collars to keep from getting stuck when coming out of hole. Willard Pease Drilling Co. Rig #3 now on hole.
- June 11, 1969 - Began drilling ahead. Drilled from 8343' to 8348' and twisted off. Made rd trip for fishing tools. Caught fish and began working fish loose; finally got pipe to move about 10 feet.
- June 12, 1969 - Finally worked fish loose and came out of hole. Layed fish down and went back in hole with Bit #36. Had to drill out

several bridges and clean out to bottom. Drilled ahead 8348' to 8360'.

June 13 thru - Drilled 8360' to 8865' in 9 days (505') Drilled at rate of  
June 22, 1969 15 to 20 min/ft in white, c.g. to rd'd congl. ss. w/kaolin matrix and some rose-colored grains; buff and gray shale and black carb. shale. A definite decrease in drilling time occurred at 8433' which could be the top of a formation--possibly Navajo (?).

It was decided at 8865' to run another correlation log to determine, if possible, the approximate depth of the Shinarump and Weber formations. Accordingly, Schlumberger was called and the hole was made ready for logging.

June 23, 1969 - An IES log was run to 8851' which was only 14' off of bottom which was very good considering the hole trouble ~~was~~ usual after each trip. The log was carefully correlated and it was quite obvious that another fault had been crossed at 7390', as had been expected previously, and the hole passed from basal Entrada back up into the Morrison formation. About 400 feet of the Morrison was redrilled and the following formation tops were encountered the second time: Curtis at 7860'; and Entrada at 8030'. The top of the Carmel was found at 8255', and the top of the Navajo at 8430'. This meant that the top of the Chinle should be found at 9140'; the Shinarump at 9320'; the Moenkopi at 9360'; and the Weber at 10,100' if the section was normal below the top of the Navajo. Accordingly, it was decided to try for the Shinarump at least. Bit #41 was run into the hole and drilling ahead continued. Drilled 8865' to 8908' (43') in 11 hours; approximately 4 ft/hr. Drilled 8865' to 8908' (43') in 11 hours; approximately 4 ft/hr.

June 24 thru - Drilled 8908' to 9023' (115') in three days. Drilled very  
June 26, 1969 slowly at 2 to 3 feet per hour and a great deal of trouble was encountered in making trips. It would take 15 to 24 hours to make a round trip and usually required washing and cleaning back to bottom for 300' to 600'. Gas readings began increasing to 8700' (about 25 units methane) and held steady at 25 to 35 units methane to 9000'. At 9000' the lithology of the samples changed to more varicolored calcareous shales which could be similar to Chinle shales.

June 27 and - Drilled 9023' to 9184' (161'). A very marked drilling break  
June 28, 1969 occurred at 9050'. The rate increased to about 4 to 5 minutes/ft. and the gas readings increased to 60 units methane on the normal bridge and to 240 units on the chromatograph. This break really looked good and exciting. When the samples came up, they were full of very petroliferous and volatile coal. About 100 ft. of this coal was cut. The gas readings increased to 125 units on the normal bridge and 450 units on the chromatograph - all methane. This was a real disappointment, and the coal section suggested that another fault had been crossed

and the hole was now back in the Cretaceous section some where; could be Mesaverde or Frontier. (There is some coal in the Shinarump in the area north of the subject well.)

June 29 thru - Drilled 9184' to 9350' (166'). Drilled at rate of 4 to 12  
June 30, 1969 minutes/ft. Encountered another coal bed at 9250' which was 30 ft. thick, but had thin beds of coal all thru the section. Coal was shaly, fissile and less pure than previous bed.

Since the approximate limit of the third rig had been reached and due to the condition of the hole (it was taking approximately 24 hours to make a rd trip and about 8 hours was required to clean and wash the hole to get back to bottom after each trip), plus the unknown aspect of what formation or type of lithology to expect next, it was decided to discontinue the well. The possibility was still there and a favorable zone could be encountered at any time, but the hole condition and rig capacity precluded any further risk in drilling deeper. Accordingly, the hole was plugged and abandoned in the following manner:

- A. A 25-sk cement plug was placed at 8500-8400' (across the top of the Navajo).
- B. A 25-sk cement plug was placed at 8100' to 8000' (across top of Entrada).
- C. A 25-sk cement plug was placed at 6250' to 6150' (across top of Dakota).
- D. A 25-sk cement plug was placed at 5150' - 5050' (across Mancos and fault zone).
- E. A 50-sk cement plug was placed at 3100' to 2900' (thru sulphur water zone).
- F. A 30-sk cement plug was placed at 300' to 200' (across bottom of surface casing).

A well marker was placed in a cement plug in the top of the surface casing.

*W. Don Quigley*  
W\* DON QUIGLEY  
Consulting Geologist.

GEOLOGIC SIGNIFICANCE  
OF  
NAPOLEON #2 WELL

To say that the stratigraphic sequence, lithology and structural attitude of the sediments encountered in the Napoleon #2 well were complicated is probably the understatement of the year. It is known that at least three faults were crossed by the well which eliminated or repeated parts of the normal stratigraphic column. The first fault at 5070' to 5130' eliminated about 5000 feet of the section having passed from lower Green River formation into lower Mancos formation. The second fault at 7390' passed from lower Entrada back to the bottom 400 feet of Morrison formation and 850 feet of the section was repeated. The third fault at 9050' passed from lower Navajo to a coal zone which could be Mesaverde, Frontier, or (remotely) Shinarump. The identification of the section below the total depth of the well is, therefore, a mystery, but definitely is most intriguing and has unlimited possibilities for hydrocarbon accumulations.

It is now known from the above test that the previously expected stratigraphic section behind Asphalt Ridge is not present; that a sizeable fault is present which eliminates part of the section; that the structural attitude of the formations are greatly distorted and complexly arranged due to numerous faults, unconformities, and sharp folds; that the surface of the Duchesne River and Uinta formations completely mask this complexity; that the oil saturation present in the sand bed of the Mesaverde formation along Asphalt Ridge may not originate from seepage from Green River beds, but could be a faulted portion of saturated sandstone bed still in place somewhere below the faulted, thrust and folded section of the thrust sheet drilled by the Napoleon #2 well, and that all sorts of prospects for oil and/or gas accumulations are present beneath the thrust sheet in the Mesaverde, Mancos, Dakota and Entrada formations. The Shinarump, Phosphoria, and Weber formations would be definite prospects but are possibly at a depth of 16,500'; 17,250'; and 17,350' respectively. Of course, other faults and thrusts could be present which would place these formations either higher or lower than the above estimates.

The deepening of the Napoleon #2 well from 6200' to 9350' revealed a great many more structural complexities than estimated at the time the first fault at 5130' was crossed. The estimates of further formation tops at that time are shown in the attached "Prognosis" prepared for the deepening of the well. These estimates were changed considerably as will be shown later.

Prior to making plans to deepen the well, some detailed geophysical work was accomplished to obtain, if possible, additional information on the sub-surface attitude of the strata. This work revealed the presence of several

faults near the well and a positive anomaly south of the well. The presence of the faults were definitely confirmed by the deeper drilling and the complex and sharply folded nature of the rocks suggested by the geophysical work was also confirmed. The presence of the positive anomaly south of the well is still undecided.

Several other wells have been drilled by other companies immediately behind Asphalt Ridge in which attempts were made to unravel or determine the stratigraphic sequence and structural attitude of the sediments. Most all attempts have been significant and have suggested that the usually accepted configuration and sequence could be greatly in error. All of these tests have left unanswered questions and confusion as to proper identity of the bottom sediments. The Napoleon #2 is the deepest drilled in the area and has uncovered more data than any previous test. It has revealed a great deal about the section in the area and has served to enhance the petroleum possibilities of the region. The formations, their tops and thicknesses, as identified from study of the samples and electric logs which were found in the Napoleon #2 well are as follows:

Formation	Depth To Top	Thickness
Duchesne River	Surface	830'
Uintah	830'	1260'
Green River (Evacuation Ck)	2090'	695'
Parachute Creek	2785'	939'
Gorden Gulch	3724'	511'
Douglas Creek	4235'	895'
*Fault Zone and Mancos	5130'	770'
Frontier and Mowry	5900'	310'
Dakota	6210'	124'
Morrison	6334'	546'
Curtis	6880'	225'
Entrada	7105'	285'
*Thrust Fault and Morrison	7390'	470'
Curtis	7860'	170'
Entrada	8030'	225'
Carmel	8255'	175'
Navajo	8430'	610'
*Fault Zone (Mesaverde Coal ?)	9040'	310'
Total depth	9350'	

As noted above the well is of extreme value scientifically. Even though economic production was not discovered by the well, the data obtained suggest

-----

\*Definite faults crossed by the well.

that a number of prospects for oil and gas production may exist in the area at additional depths and that a location, possibly west and south of the subject well, could be in a less faulted and disturbed area. Certainly the oil saturation of the sandstone beds along Asphalt Ridge which is evident over a distance of 22 miles and which constitutes a total bitumen content that exceeds a billion barrels is sufficient encouragement and enticement to endeavor finding the source and reason for such accumulation. It has been normally accepted in the past by most geologists that the oil originated in the limestones and shales of the lower Green River formation and has migrated updip along the various unconformities from pinch-outs of various sand lenses, and has dispersed along the permeable and porous sandstone beds on the outcrop. The curious and disturbing feature about this theory, however, is that this same saturation has not been found in sands penetrated by wells or drill holes located behind the outcrop. The major fault found immediately behind and parallel to Asphalt Ridge seems to "cut off" the saturation completely. It, therefore, leaves one in doubt as to the credence of the presently accepted theory.

A detailed sample descriptive log is attached hereto. As can be seen from a study of this log, there were marked changes in the lithology of the sediments cut by the well, but because of close proximity to faults, there was a great deal of contamination and the samples were not as distinctive or typical of the formations as samples of similar formations in less disturbed areas. Thicknesses of the formations also varied considerably due to the divergent dips (some times probably high-angle dips) thus creating marked differences. No cores were taken in the hole but a continuous dipmeter log was run from 5640' to 3000' feet. This log showed fairly consistent dips of approximately  $60^{\circ}$  S.  $20^{\circ}$  W to a depth of 3880'; and from that point to 5640' they were completely erratic, varying from  $10^{\circ}$  to  $80^{\circ}$  in all directions. This suggests that the hole was approaching the fault zone as high as 3900' and probably was near and in the influence of the first fault as well as subsequent faults for the remainder of the depth drilled.

In final evaluation, the Napdeon #2 well uncovered facts which definitely encourage rather than discourage further exploration drilling in the area. Predictions and estimates of depths to further potential objectives are subject to considerable error and correction due to the complexity of faulting and folding. Sizeable oil and/or gas accumulations could be found at depths less than 10,000 feet or slightly deeper. Many objectives are sure to exist between the 10,000' and 15,000' interval. If production was encountered, it should be of considerable size and pressure. If one accepts the possibility that the surface saturation evident along Asphalt Ridge originated from some deep reservoir near the large fault behind the ridge, there is ample reason to explore the area further in an attempt to find the primary reservoir. If the size of such a reservoir has any relationship to the surface saturation, it should be huge.

  
W. DON QUIGLEY  
Consulting Geologist