

Rule C-36c) -  
6-22-72 Location Abandoned by Viking Oil

3-27-73 notice of Intent To Drill Re Filed &  
Approved For Thunderbird Oil & Gas -

**5-23-77** - approval given to Thunderbird  
to re-enter & deepen.

## RE-ENTRY ↓

FILE NOTATIONS	
Entered in NID File	_____ ✓ _____
Entered On SR Sheet	_____
Location Map Pinned	_____ ✓ _____
Card Indexed	_____
IWR for State or Fee Land	_____
Checked by Chief	_____
Copy NID to Field Office	_____
Approval Letter	_____
Disapproval Letter	_____
COMPLETION DATA:	
Date Well Completed	_____
Location Inspected	_____
OW _____ WW _____ TA _____	Bond released
GW _____ OS _____ PA _____	State of Fee Land _____
LOGS FILED	
Driller's Log	_____
Electric Logs (No. )	_____
E _____ I _____ E-I _____ GR _____ GR-N _____ Micro _____	
Lat _____ Mi-L _____ Sonic _____ Others _____	

FILE NOTATIONS

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

Checked by Chief *P.W.* ✓  
Approval Letter *1-18-72 3-27-73*  
Disapproval Letter .....

COMPLETION DATA:

Date Well Completed *7-19-73*

Location Inspected .....

*SI* OW..... ✓ WW..... TA.....  
GW..... OS..... PA.....

Bond released  
State or Fee Law .....

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.....

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. **Viking Oil & Drilling Co.**

3. **405 E. Mayfield Drive Casad Junction, Colorado 81501**  
**2307 feet from the North line and 253 feet from the**

4. **West line of Sec. 20, T. 18 N., R. 25 E., S. 22 N.**  
At surface

At proposed prod. zone

*SWSW1/4*

14. **North-Haley Tract Area**

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

16. **1000** ACRES IN LEASE

17. NO. OF ACRES ASSIGNED TO THIS WELL

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

19. PROPOSED DEPTH  
**1800' Max.**

20. ROTARY OR CABLE TOOLS  
**Rotary**

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

**5011**

22. APPROX. DATE WORK WILL START\*

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<b>9 5/8</b>	<b>7"</b>		<b>180'</b>	<b>50 sacks Cmc. to surface</b>
<b>6 1/4</b>	<b>4 1/2"</b>		<b>1300' +</b>	<b>30 sacks</b>

This is a test of the **Huberts** and the **Cedar Mountain Formation** also lower **Hubert** **Formation** unless commercial oil or gas production is found in one of above formations.

To be drilled with air as far as possible.  
Begin bit. gas oper. B.O.P.  
Rotating Head above B.O. P.

*C3*  
*9/10*  
*u 60'*  
*W geology*  
*660'*

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.

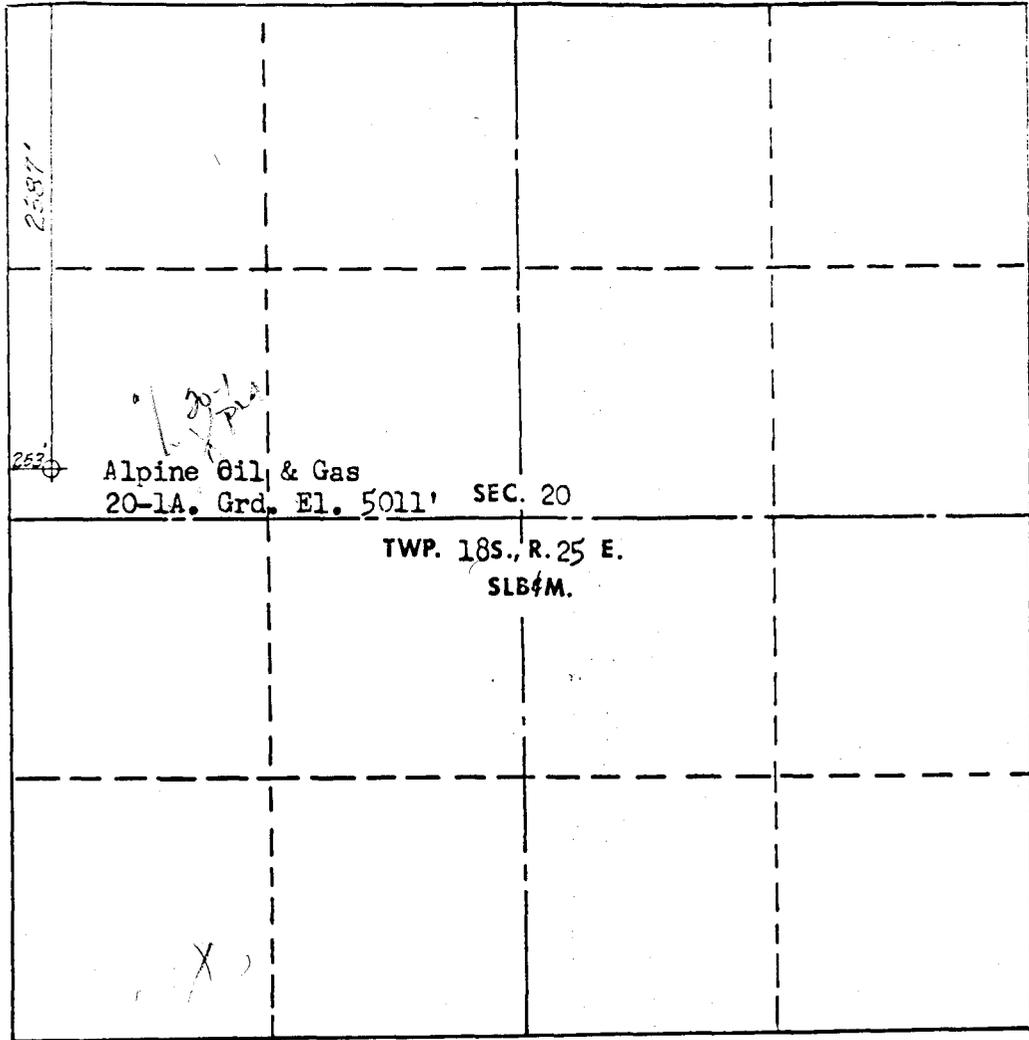
24. SIGNED *Poss Jacobs* TITLE *Partner* DATE *Jan. 17, 1972*

(This space for Federal or State office use)

PERMIT NO. *43-019-30079* APPROVAL DATE \_\_\_\_\_

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

CONDITIONS OF APPROVAL, IF ANY:



SCALE: 1"=1000'

SURVEYORS CERTIFICATE

I, GEORGE H. NEWELL A REGISTERED LAND SURVEYOR AS PRESCRIBED BY THE LAWS OF THE STATE OF UTAH, HOLDING LICENSE NO. 1770, CERTIFY THAT THIS PLAT OF:

ALPINE OIL & GAS 20-1A

AND MORE SPECIFICALLY DESCRIBED AS FOLLOWS:

2387 feet from the North line and 253 feet from the West line of Sec. 20, T. 18 S., R. 25 E., SLB&M. Grd. line El. 5011'.

IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE

6-5-71

*George H. Newell*  
 GEORGE H. NEWELL

4

January 27, 1972

MEMO FOR FILING

Re: Cisco Area  
Grand County, Utah

On January 24, 1972, the above referred to area was visited.

A cursory inspection was made of various wells throughout the area and no unorthodox activity was observed. A check was made of the Viking Oil Company's proposed Larson Federal well in Sec. 20, T. 18 S, R. 25 E, however, no work has commenced.

PAUL W. BURCHELL  
CHIEF PETROLEUM ENGINEER

PWB:ck

cc: U.S. Geological Survey

W

Branch of Oil and Gas Operations  
8416 Federal Building  
Salt Lake City, Utah 84111

PMB

January 27, 1972

Mr. Ross Jacobs  
Viking Oil & Drilling Company  
405 West Mayfield Drive  
Grand Junction, Colorado 81501

Re: Well No. 20-1a (Larsen-Federal)  
SW<sup>1</sup>/<sub>4</sub> sec. 20-18S-25E, S1M  
Grand County, Utah  
Lease U 2915

STEP 83 WAL

Dear Mr. Jacobs:

Enclosed is your copy of the Application for Permit to Drill the referenced well which approved by this office on January 27, 1972.

This is to advise that the approval of your application does not constitute either approval or disapproval of the assignment of 10 acres to the well as indicated in Block 17. This is also to advise that this approval is conditioned upon your satisfying the State of Utah Division of Oil and Gas Conservation concerning the waiver of its Rule C-3.

We have not yet received the Notice of Intention to Abandon, the Subsequent Report of Abandonment, the Well Completion Report and Log, nor the Geologic Logs requested in our letter to you dated November 1, 1971, concerning well 20-1. If this office has not received these reports by February 7, 1972, we will seriously consider ordering all operations suspended on the lease until such time as the reports are received.

Sincerely,

(ORIG. SGD.) G. R. DANIELS

Gerald R. Daniels,  
District Engineer

Enclosures

cc: State Div. O&G Cons. ✓  
Casper

January 18, 1972

Viking Oil Company  
405 West Mayfield Avenue  
Grand Junction, Colorado

Re: Well No. Larson Federal 20-1a  
Sec. 20, T. 18 S, R. 25 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(c), General Rules and Regulations and Rules of Practice and Procedure. Said approval, however, is conditional upon the following:

1. Written statement as to why this unorthodox location was selected, whether topographical or geological.
2. Notification that your company owns or controls all the acreage within 660' radius of the proposed location.

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

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 43-019-30079.

Very truly yours,

DIVISION OF OIL AND GAS CONSERVATION

CLEON B. FEIGHT  
DIRECTOR

7

JUN 25 9 15 AM '72

Branch of Oil and Gas Operations  
8416 Federal Building  
Salt Lake City, Utah 84111

June 22, 1972

Mr. Ross Jacobs  
Viking Oil & Drilling Company  
405 West Mayfield Drive  
Grand Junction, Colorado 81501

Re: Well 20-1a Larsen Federal  
SW $\frac{1}{4}$  sec. 20-18S-25E, SIM  
Grand County, Utah  
Lease U 2915

Dear Mr. Jacobs:

Our records indicate this office approved your Application for Permit to Drill the referenced well on January 27, 1972.

Since almost six months have passed and no operations have been conducted, this office hereby revokes its approval of the Application for Permit to Drill the referenced well without prejudice to future drilling. If you desire to drill a well at this location in the future, it will be necessary for you to file a new application.

Sincerely,

(ORIG. SGD.) G. R. DANIELS

Gerald R. Daniels,  
District Engineer

cc: State Div. O&G Cons. ✓  
BLM, Monticello  
Casper

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  
Thunderbird Oil & Gas Co.

3. ADDRESS OF OPERATOR  
710 Bunker Drive Grand Junction, Colorado 81501

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
2387' FNL & 253' FWL  
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
North Harley Dome Area

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
2893'

16. NO. OF ACRES IN LEASE  
1,000

17. NO. OF ACRES ASSIGNED TO THIS WELL  
10

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

19. PROPOSED DEPTH  
2200' Max.

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5011 GR

22. APPROX. DATE WORK WILL START\*  
April 1, 1973

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
9-7/8"	7-5/8"	24#	100'	50 sack Circ. to Surface ✓
6-3/4"	5-1/2"	14#	To Production	Circ. Cement above gas zone if any

This well is a test to the Entrada S.S. unless oil or gas in commercial quantities is found in one or more of above zones.

Blow out Equipment to be used

- 1- 8" full opening H.P. Shut off Valve
- 2- Regan-Nitrogen Operated B.O.P.
- 3- Rotating Head

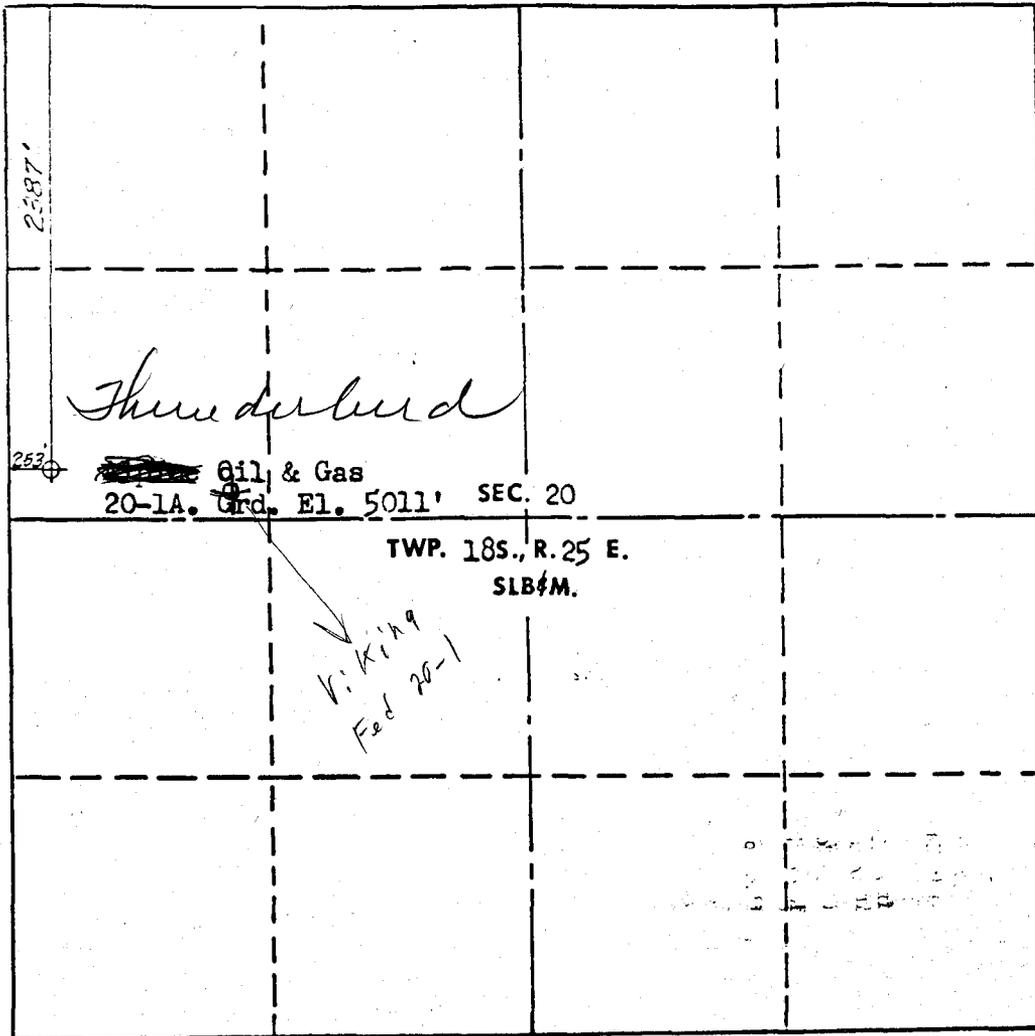
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depth. Give blowout preventer program, if any.

24. SIGNED Stan L. Jacobs TITLE President DATE Feb. 23, 1973

(This space for Federal or State office use)  
 PERMIT NO. 43-049-30138 APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

PWB



SCALE: 1"=1000'

**SURVEYORS CERTIFICATE**

I, GEORGE H. NEWELL A REGISTERED LAND SURVEYOR AS PRESCRIBED BY THE LAWS OF THE STATE OF UTAH, HOLDING LICENSE NO. 1770, CERTIFY THAT THIS PLAT OF:

ALPINE OIL & GAS 20-1A

AND MORE SPECIFICALLY DESCRIBED AS FOLLOWS:

2387 feet from the North line and 253 feet from the West line of Sec. 20, T. 18 S., R. 25 E., SLB&M. Grd. line El. 5011'.

IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE

6-5-71

*George H. Newell*  
 \_\_\_\_\_  
 GEORGE H. NEWELL

JMB

THUNDERBIRD OIL & GAS CO.  
710 Bunker Drive  
Grand Junction,  
Colorado 81501

Development Plan for Surface Use in Connection with Drilling  
Larsen 20-1 A Well

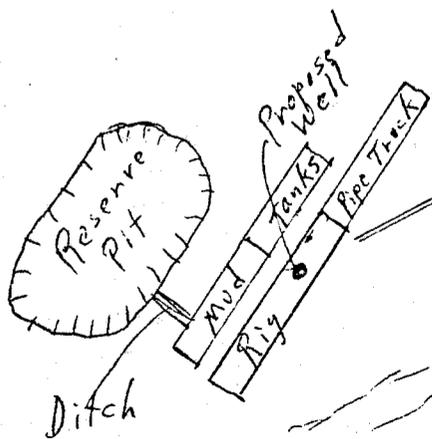
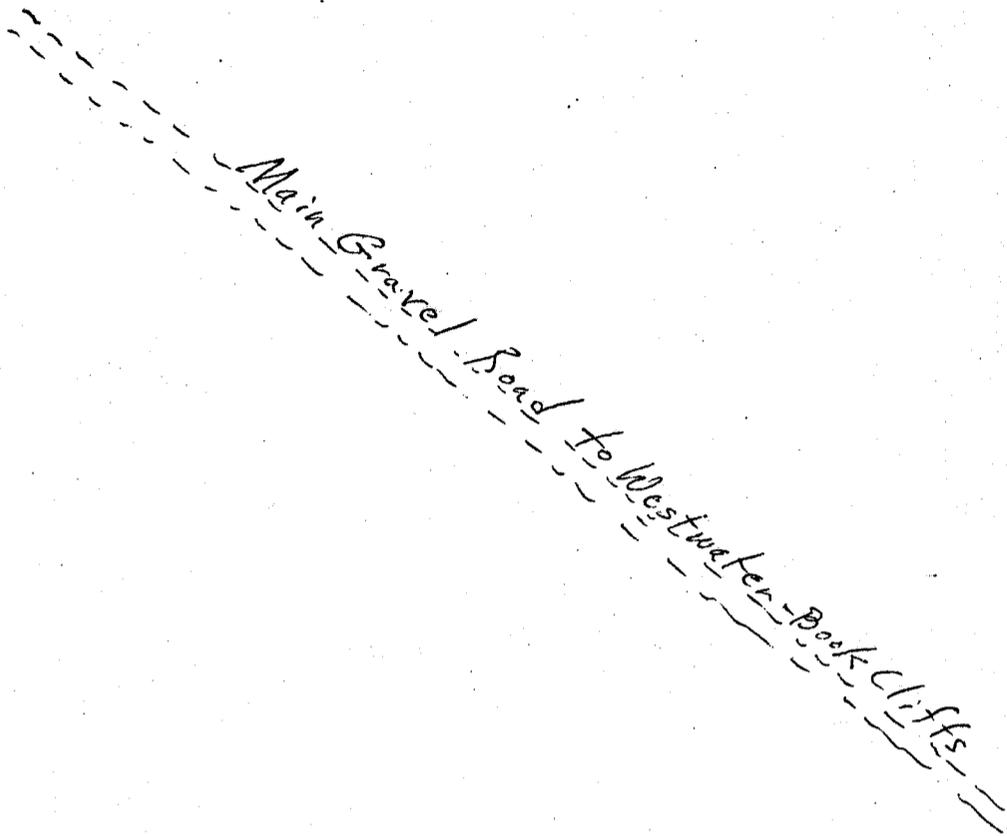
- 1- There are adequate existing roads to within 30 feet of well location.  
See attached map
- 2- There are no planned <sup>New</sup> access roads to the location.
- 3- See Location Plan Part 3.
- 4- Lateral road to well location already in.
- 5- See Location Plan Part 3.
- 6- Colorado River
- 7- Haul garbage to dump and have portable toilet.
- 8- None needed
- 9- None planned
- 10- See Location Plan Part 3.
- 11- Gravel access road and location in event of production. Level and reseed location if required



Part 3 of 12 Part Plan of Development.

PK

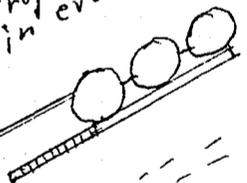
The leasee agrees to upgrade the roads to any well or other improvement which is regularly maintained or inspected as directed by the District Manager's Authorized Representative if any well becomes a producer or if any improvement is needed for the sustained production of oil and gas i.e. gauging stations, cathodic stations, and etc. Such upgrading may include ditching and draining, culverts, and graveling or capping of the road bed.



Proposed Flow Lines

Present Road to Location

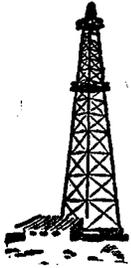
Proposed Tank Battery  
in event of Production



Scale - 50' = 1"

Sec. 20 - T. 18S R. 25E.

PWD



Oil and Gas Exploration

*Thunderbird Oil & Gas Company*

*732 Judge Building  
Salt Lake City, Utah 84111*

364-7885

March 24, 1973

State of Utah  
Oil & Gas Conservation Division  
1588 North Temple Street  
Salt Lake City, Utah 84111

Gentlemen:

Pursuant to verbal discussions with Mr. Paul Burchell we hereby request an exception to Rule C-3 in connection with the location of our proposed Larsen Fed. No. 20-1 A well for which the Application for Permit to Drill is enclosed herewith.

This request for exception is due to Geologic conditions as determined by dry holes in the area as well as other important factors.

The company also owns or controls all leases within a 660' radius.

This location does not fall under Cause 102-6.

Very truly yours,

Thunderbird Oil & Gas Co.  
Ilan L. Jacobs, President

March 27, 1973

Thunderbird Oil & Gas Company  
732 Judge Building  
Salt Lake City, Utah 84111

Re: Well No. Larsen Federal 20-1A  
Sec. 20, T. 18 S, R. 25 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. It is, however, recommended that a minimum of 4 joints of surface casing be set.

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

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation with regard to the above will be greatly appreciated.

The API number of this well is 43-019-30079.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT  
DIRECTOR

CBF:sd  
cc: U.S. Geological Survey

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TR. STATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-2915

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR

Thunderbird Oil & Gas Co.

3. ADDRESS OF OPERATOR

710 Bonker Dr. Grand Junction, Colo. 81501

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

2387' FNL & 253 FWL

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Larsen

9. WELL NO.

Fed. 20-1A

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

20-185R, 25F

14. PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)

5011 Gr.

12. COUNTY OR PARISH 13. STATE

Grand Utah

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

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.)\*

The above well has been drilled 50' into the Entrada ss. T.D. 1999'. This was limit of Drilling Rig. The well has been logged and is filled w/ drilling mud of 75-80 Viscosity. No shows of oil or Gas. The drilling Contractor (Viking Drilling Co.) plans to change crown Blocks & Traveling Blocks so that well can be deepened to Granite expected at 2500' more or less. Rather than run cement plugs at top of well as discussed w/ Paul Bunchell & Jerry Daniels we have made up steel plug to screw into Casing Collar. Drilling operations are expected to resume within 30 to 60 Days.

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

SIGNED Don L. Jacobs TITLE President DATE Aug. 1, 1973

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

APPROVAL CONDITIONAL UPON RE-ENTERING AND EITHER  
DEEPENING OR ABANDONING PRIOR TO OCTOBER 1, 1973.

\*See Instructions on Reverse Side

APPROVED BY DIVISION OF  
OIL & GAS CONSERVATION

DATE 7-1-73  
BY C.B. Ferphold

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424

5. LEASE DESIGNATION AND SERIAL NO.

U-2915

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME	
2. NAME OF OPERATOR Thunderbird Oil & Gas Co.		8. FARM OR LEASE NAME Larsen	
3. ADDRESS OF OPERATOR 710 Bunker Drive Grand Junction, Colorado 81501		9. WELL NO. Fed. 20 1A	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 2387' FNL & 253 FWL		10. FIELD AND POOL, OR WILDCAT Wildcat	
14. PERMIT NO.		11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA 20-18 SR, 25 E.	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 5011 Gr.		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 <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>	(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 described well is in same status as reported on Aug. 1, 1973. It is capped with steel plug screwed into casing collar.

Viking Drilling Co. has been able to obtain additional 3½" drill pipe however, they have been unable to obtain ne Crown and traveling blocks for six lines to date.

We still plan to deepen the well to test all formations to Granite at 3500 ft. more or less, (2500 ft. more or less reported in error last report.) when equipment can be acquired and therefore request that another 60 day extension be granted for operations to commence.

APPROVED BY DIVISION OF  
OIL & GAS CONSERVATION

DATE 10-15-73

BY C.B. Hughes

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

SIGNED Stan L. Jacobs TITLE President DATE Oct. 10, 1973

(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 THIS DATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-B1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-2915

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

8. FARM OR LEASE NAME

Larsen

9. WELL NO.

Fed. 20 1A

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

20-18 SR, 25 E.

12. COUNTY OR PARISH 13. STATE

Grand Utah

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR

Thunderbird Oil & Gas Co.

3. ADDRESS OF OPERATOR

710 Bunker Drive Grand Junction, Colorado 81501

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

2387' FNL & 253 FWL

14. PERMIT NO.

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

5011 Gr.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON\*

REPAIR WELL

CHANGE PLANS

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT\*

(Other)

(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 described well is in same status as reported on Aug. 1, 1973. It is capped with steel plug screwed into casing collar.

Viking Drilling Co. has been able to obtain additional 3 1/2" drill pipe however, they have been unable to obtain new Crown and traveling blocks for six lines to date.

We still plan to deepen the well to test all formations to Granite at 3500 ft. more or less, (2500 ft. more or less reported in error last report,) when equipment can be acquired and therefore request that an extension to May 1, 1974 be granted for operations to commence.

We plan to permanently plug the well after the above date unless the necessary equipment is acquired by that time.

APPROVED BY DIVISION OF  
OIL & GAS CONSERVATION

DATE 1-8-74

BY C.B. [Signature]

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

SIGNED

[Signature]

TITLE President

DATE Jan. 3, 1974

(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)

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL:		OIL WELL <input type="checkbox"/>	GAS WELL <input type="checkbox"/>	DRY <input type="checkbox"/>	Other _____		
b. TYPE OF COMPLETION:		NEW WELL <input type="checkbox"/>	WORK OVER <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	PLUG BACK <input type="checkbox"/>		
		DIFF. RESVR. <input type="checkbox"/>	Other _____				
2. NAME OF OPERATOR <u>Thunderbird Oil &amp; Gas Co.</u>							
3. ADDRESS OF OPERATOR <u>710 Bunker Drive Grand Junction, Colorado 81501</u>							
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface <u>2387' FNL &amp; 253' FWL</u>  At top prod. interval reported below  At total depth							
14. PERMIT NO.		DATE ISSUED		12. COUNTY OR PARISH			
<u>43-019-30079</u>		<u>3/27/73</u>		<u>Grand</u>			
15. DATE SPUDDED		16. DATE T.D. REACHED		17. DATE COMPL. (Ready to prod.)			
<u>7/5/73</u>		<u>7/19/73</u>		<u>Not Completed</u>			
18. ELEVATIONS (DF, REB, RT, GR, ETC.)*		19. ELEV. CASINGHEAD		20. TOTAL DEPTH, MD & TVD			
<u>5011 Gr.</u>		<u>Not Installed</u>		<u>1999'</u>			
21. PLUG, BACK T.D., MD & TVD		22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY			
				<u>→ All</u>			
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* <u>Well Not Comp. yet. Waiting on Larger Rig. Plan to deepen to Commercial Oil or Gas or Granite</u>					25. WAS DIRECTIONAL SURVEY MADE <u>No</u>		
26. TYPE ELECTRIC AND OTHER LOGS RUN <u>Schlumberger Induction Electrical</u>					27. WAS WELL CORED <u>No</u>		
28. CASING RECORD (Report all strings set in well)							
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED		
<u>7" O.D.</u>	<u>20#</u>	<u>100'</u>	<u>8 3/4"</u>	<u>25 Sax to Surface</u>	<u>None</u>		
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						
33.* PRODUCTION							
DATE FIRST PRODUCTION <u>None</u>		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.	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)					TEST WITNESSED BY		
35. LIST OF ATTACHMENTS							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED <u>John L. Jacobs</u>		TITLE <u>President</u>			DATE <u>1/20/75</u>		

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

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29:** "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF: CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES		38. GEOLOGIC MARKERS				
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
Cretaceous	0	1058'	Mancos Shale			
	1058'	1072'	Dakota Silt	Dakota Silt	1058'	
	1112'	1126'	Dakota Sand	Dakota Sand		
	1126'	1170'	Burro Canyon Green Shale	Burro Canyon Green Shale		
	1170'	1200'	Burro Canyon S.S.	Burro Canyon S.S.		
	1200'	1266'	Shale	Shale		
	1266'	1285'	Buckhorn S.S.	Buckhorn S.S.		
	1285'	1315'	Shale	Shale		
	1315'	1332'	Stray (Agate Sand)	Stray (Agate Sand)		
	1332'	1354'	Shale	Shale		
Jurassic-Morrison Brushy Basin Mem.	1354'	1364'	Brushy Basin Sand.	Brushy Basin Sand.		
	1364'	1590'	Shale	Shale		
	1590'	1664'	Shale & Sand Stringer	Shale & Sand Stringer		
Jurassic-Morrison Salt Wash Member	1664'	1676'	Salt Wash Sand	Salt Wash Sand		
	1676'	1850'	Shale	Shale		
	1850'	1910'	Shales & Limestone	Shales & Limestone		
Curtis Summerville Entrada	1910'	1947'	Siltstone, Sandstone & Shale	Siltstone, Sandstone & Shale		
	1947'	1999'	Coarse Sandstone	Coarse Sandstone		

PI  
J

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS CONSERVATION  
1588 West North Temple  
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING  
\*\*\*\*\*

Well Name and Number Larsen Federal #20-1 A

Operator Thunderbird Oil & Gas Co.

Address 710 Bunker Drive Grand Junction, Colorado 81501

Contractor Jacobs Drilling Co.

Address 405 West Mayfield Drive Grand Junction, Colorado 81501

Location 1/4, 1/4; Sec. 20 ; T. N; R. 25 E.; Grand County.  
18 S W

Water Sands:

	<u>Depth:</u> From - To -	<u>Volume:</u> Flow Rate or Head -	<u>Quality:</u> Fresh or Salty -
1.	<u>1112 1124</u>	<u>Small Amount</u>	<u>Brackish</u>
2.	<u>1172 1184</u>	<u>Small Amount</u>	<u>Salty</u>
3.	<u>1316 1330</u>	<u>Est. 200-500 Bbls. XD</u>	<u>Salty</u>
4.	<u>1354 1364</u>	<u>Small Amount</u>	<u>Salty</u>
5.	<u>1950 1999</u>	<u>Drilling on Mud (No Est.)</u>	<u>Brackish</u>

(Continue on Reverse Side if Necessary)

No Fresh Water Encountered

Formation Tops: 0

- NOTE:
- (a) Upon diminishing supply of forms, please inform this office.
  - (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.
  - (c) If a water quality analysis has been made of the above reported zone, please forward a copy along with this form.

*Utah State*

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  
 Thunderbird Oil & Gas Co.

3. ADDRESS OF OPERATOR  
 710 Bunker Drive, Grand Junction, Colorado

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface: 2387' from N-line & 253' from W-line  
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approx. 20 miles west of Mack, Colo.

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 2893'

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

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5011' grd.; 5019' K.B.

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
( 9 7/8"	7-5/8"	24#	100'	50 sks. circ. to surface
6-3/4"	4 1/2"	10.50#	to production	Cement 200' above Dakota

This well was drilled originally to a depth of 1999' which was about 50 ft. below the top of the Entrada formation. It is now planned to **deepen** the well to test the **Navajo** formation which should be at a depth of about 2710'. It is expected that the Carmel formation will be topped at about 2450'. The Navajo is a potential hydrocarbon producer and very few wells have tested the Navajo in the area. The well will be drilled with rotary tools with mud for circulation. An eight-inch full opening valve (H.P.) and a Regan blowout preventer (nitrogen operated) with manual back-up will be used for control equipment. All hydrocarbon shows will be tested; and in the event of commercial production 4 1/2" casing will be set and cemented with sufficient cement to bring the top about 200' above 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 H. Now Gugley TITLE Cons. Geol. DATE May 16, 1977

PERMIT NO. 43-014-50019 APPROVAL DATE \_\_\_\_\_

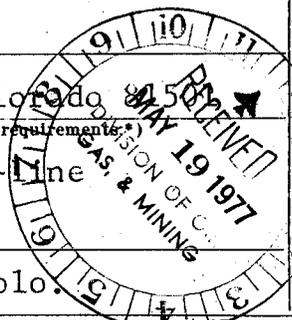
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE: DATE 5-23-77

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING

BY: Clara B. Fugate

*Other wells in Sec. 20 - SW*

\*See Instructions On Reverse Side



5. LEASE DESIGNATION AND SERIAL NO. U-2915

6. IF INDIAN, ALLOTTEE OR TRIBE NAME \_\_\_\_\_

7. UNIT AGREEMENT NAME \_\_\_\_\_

8. FARM OR LEASE NAME Federal -Larsen Co.

9. WELL NO. Fed. #20-1A

10. FIELD AND POOL, OR WILDCAT Wilcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SW.NW. Sec. 20-18S-25E. S.L.M.

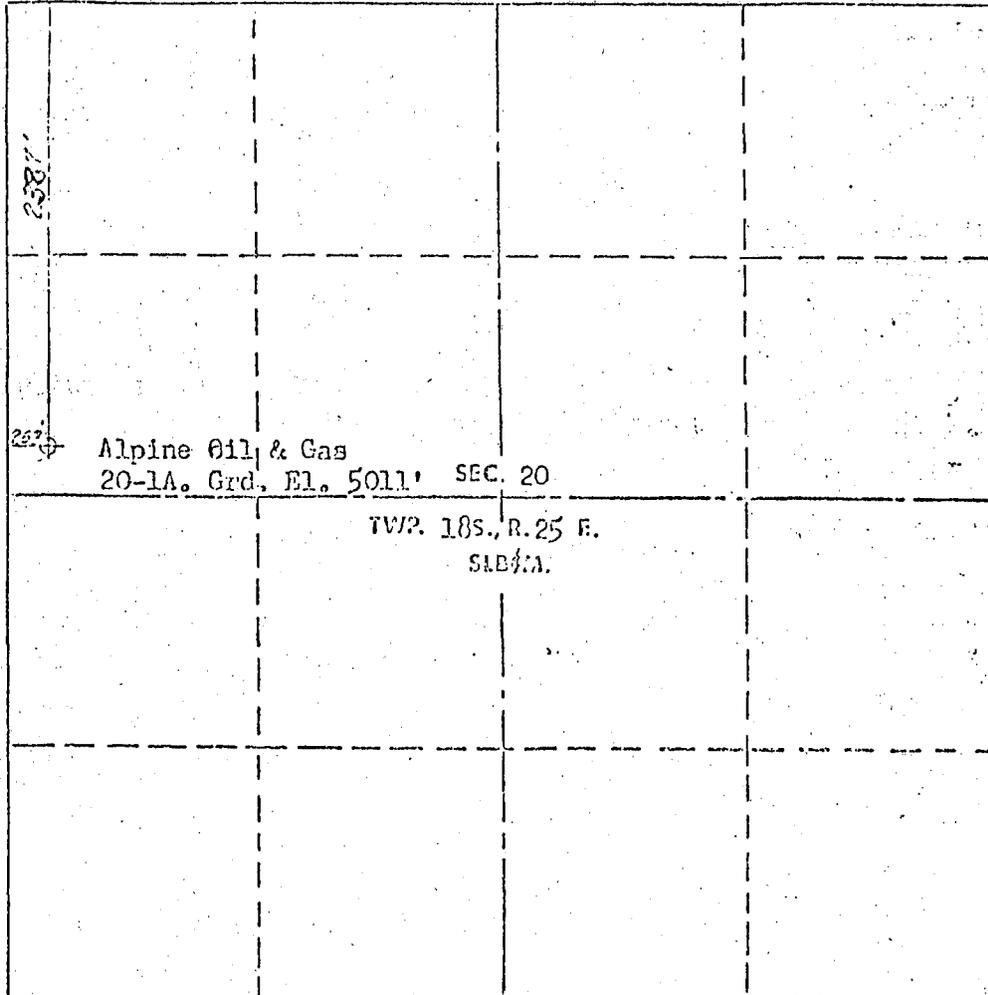
12. COUNTY OR PARISH Grand 13. STATE Utah

17. NO. OF ACRES ASSIGNED TO THIS WELL 40

20. ROTARY OR CABLE TOOLS Rotary

22. APPROX. DATE WORK WILL START\* May 25, 1977

*old 46*



SCALE: 1"=1000'

SURVEYORS CERTIFICATE

I, GEORGE H. HEWELL A REGISTERED LAND SURVEYOR AS PRESCRIBED BY THE LAWS OF THE STATE OF UTAH, HOLDING LICENSE NO. 1770, CERTIFY THAT THIS PLAT OF:

ALPINE OIL & GAS 20-1A

AND MORE SPECIFICALLY DESCRIBED AS FOLLOWS:

2387 feet from the North line and 253 feet from the East line of Sec. 20, T. 18 S., R. 25 E., S184A. Grd. Line EL. 5011'.

IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

PLAT. NO. 1

DATE

6-5-71

*George H. Hewell*

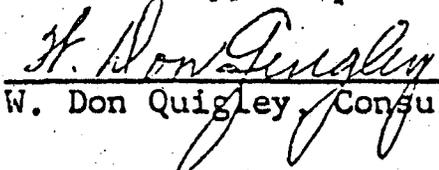
SURFACE USE & OPERATIONS PLAN  
FOR  
DEEPENING THE FED.#20-1A WELL  
SW.NW. Section 20-18S-25E.  
GRAND COUNTY, UTAH

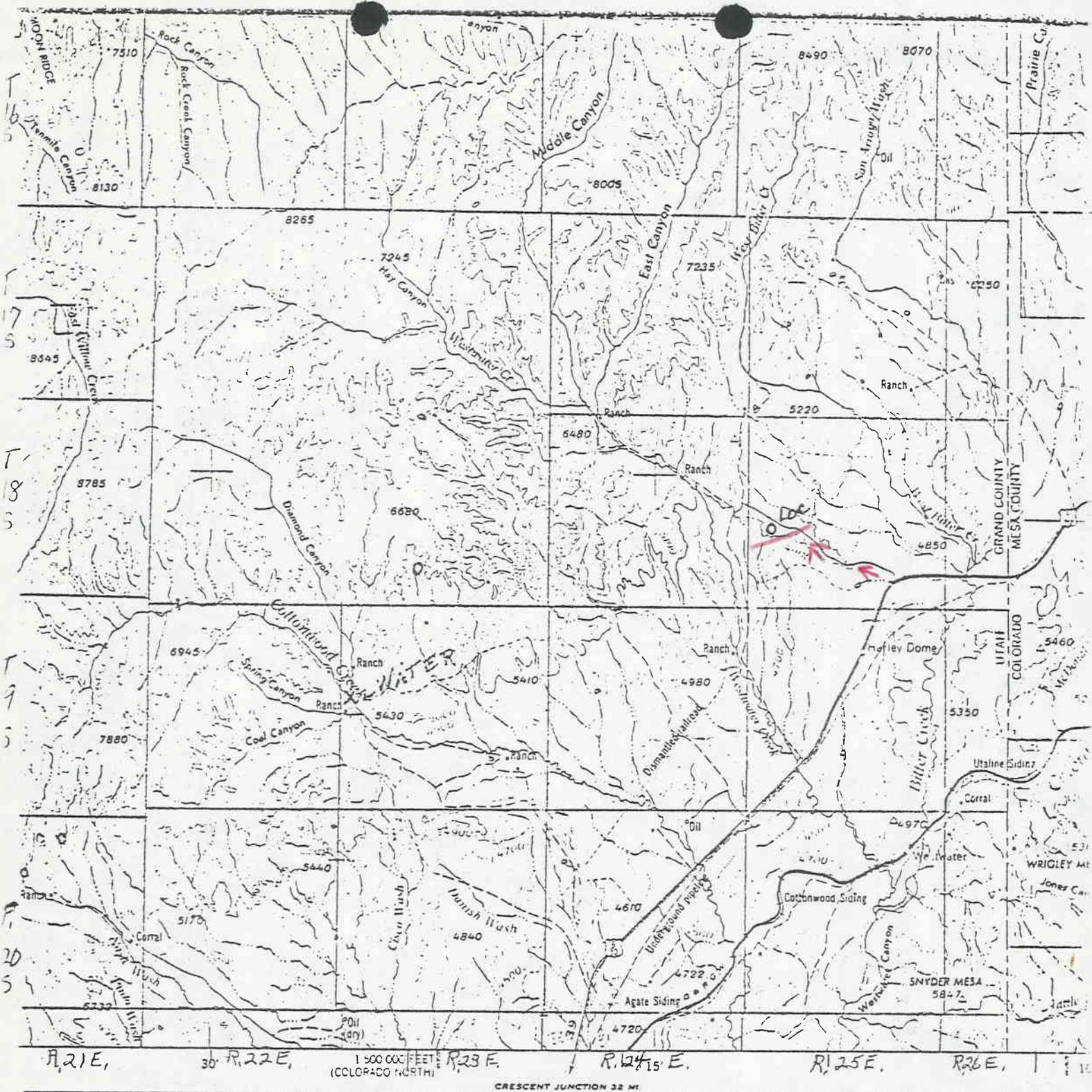
1. A survey plat showing the location of the well is attached as Plat No. 1. Map No.1 shows the route to the well site from Hwy 6-50. The road to the well site leaves Hwy 6-50 just NW of Harley Dome, about 2½ miles. It is about 4 miles to the location from the Hiway. Map No. 2 shows the location of the well site in reference to the gravel road from the hiway. The location and road are existing now; but the location will have to be enlarged and remodelled to suit the larger rig and to provide for additional equipment, larger reserve pit, etc.
2. Planned Access Road: The access road to the well site is already present and is as shown on Map No.2. No additional work should be required on the road.
3. Location of Existing wells: See Map No. 2.
4. Location of Production Equipment: A plan for the anticipated production equipment, if the well is successful, is submitted on Plat No.2. When production ceases this equipment will be removed and the land surface graded, levelled, and reseeded.
5. Water Supply : The water for the additional drilling and deepening of the well will be hauled by truck to the location from a water hole in Westwater Creek which is located near its junction with hiway 6-50. This distance is about 9 miles.
6. Road Material: No additional road material, gravel, sand, or culverts will be required for this additional work.
7. Waste Disposal: A reserve pit and a burn pit will be constructed at the well site. See Plat No.3. All excess water, mud, and cuttings from the drilling operations will be deposited into the reserve pit. Burnable material and garbage will be put into the burn pit, which will be fenced with chicken wire to prevent paper, etc being blown around the location by the wind.
8. Camp Facilities and Airstrips: No camp facilities or airstrips will be required for this operation due to its proximity to the hiway and to town.

9. Well Site Layout: A plan for the drilling equipment layout required for the drilling operations is submitted on Plat No. 3. The approximate dimensions of the drill site are shown. The site will be levelled for this equipment. Since the site is quite level, it will not be necessary to make any deep cuts or major surface shift. The reserve pit will be about 4 ft. deep with 4-ft. banks. The sage brush will be removed.
10. Restoration: After the drilling operations have been concluded and the equipment removed, the well site area will be cleaned, levelled and restored to normal. The pits will be covered and the area reseeded, if the well is not successful. Otherwise the site will be levelled and prepared for the placement of the production equipment. This work will be accomplished within 30 days after the drilling equipment has been removed.
11. Land Description : The proposed well site is on the gentle slope of a Mancos plateau and is on fairly level ground that is covered with heavy sage brush. There are no big Cedar or juniper trees on the site area. The surface is Mancos shale, and some gravel from erosion and deposition along the wash. Very little grading to the location will be required.
12. Representative: The operators representative at the well site will probably be Mr. Ross Jacobs of Grand Junction, Colorado. The location and restoration work will probably be done by Jacobs Drilling Company of Grand Junction.
13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access route; that I am familiar with the conditions which presently exist; that statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Thunderbird Oil & Gas Co. and its contractors in conformity with this plan and terms and conditions under which it is approved.

Date: May 18, 1977

  
W. Don Quigley, Consultant

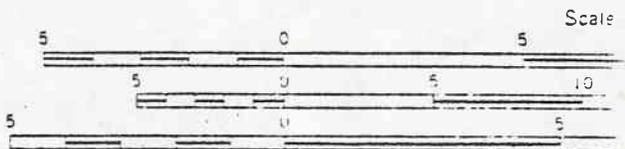


**LEGEND**  
ROAD DATA 1956

— in red denote approximate distances in miles between stars

ROADS	
Hard surface, heavy duty More than two lanes wide	3 LANES 4 LANES
Two lanes wide, Federal route marker	5
Hard surface, medium duty More than two lanes wide	3 LANES 4 LANES
Two lanes wide, State route marker	11
Improved light duty	
Unimproved dirt	
Trail	

Landplane airport		Landmarks School, Church, Other	
Landing area		Horizontal control point	
Seaplane airport		Spot elevation in feet	221
Orchard		Marsh or swamp	
Woods brushwood		Intermittent or dry stream	
		Power line	



CONTOUR INTERVAL  
WITH SUPPLEMENTARY CONTOURS

TRANSVERSE SECTION  
**MAP #1**

1955 MAGNETIC DECLINATION FOR THIS SHEET VARIES FROM 14° 45' EASTERLY FOR THE CENTER OF THE SHEET TO 14° 15' EASTERLY FOR THE CENTER OF THE SHEET

FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO

Map No. 2

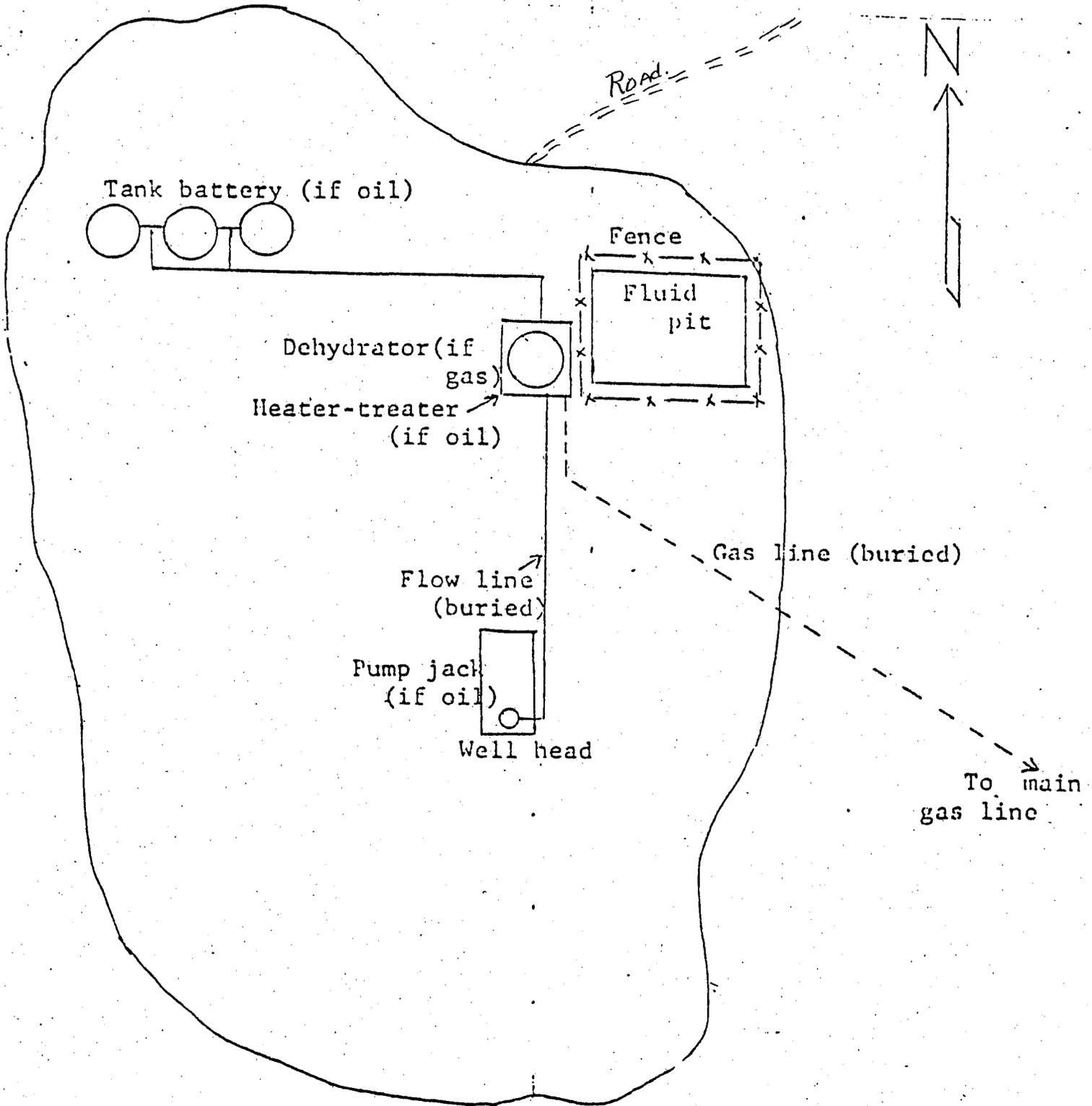
R. 24 E R 25 L 556 (BRYSON CANYON) 557 R. 25 E. 558 10' 559



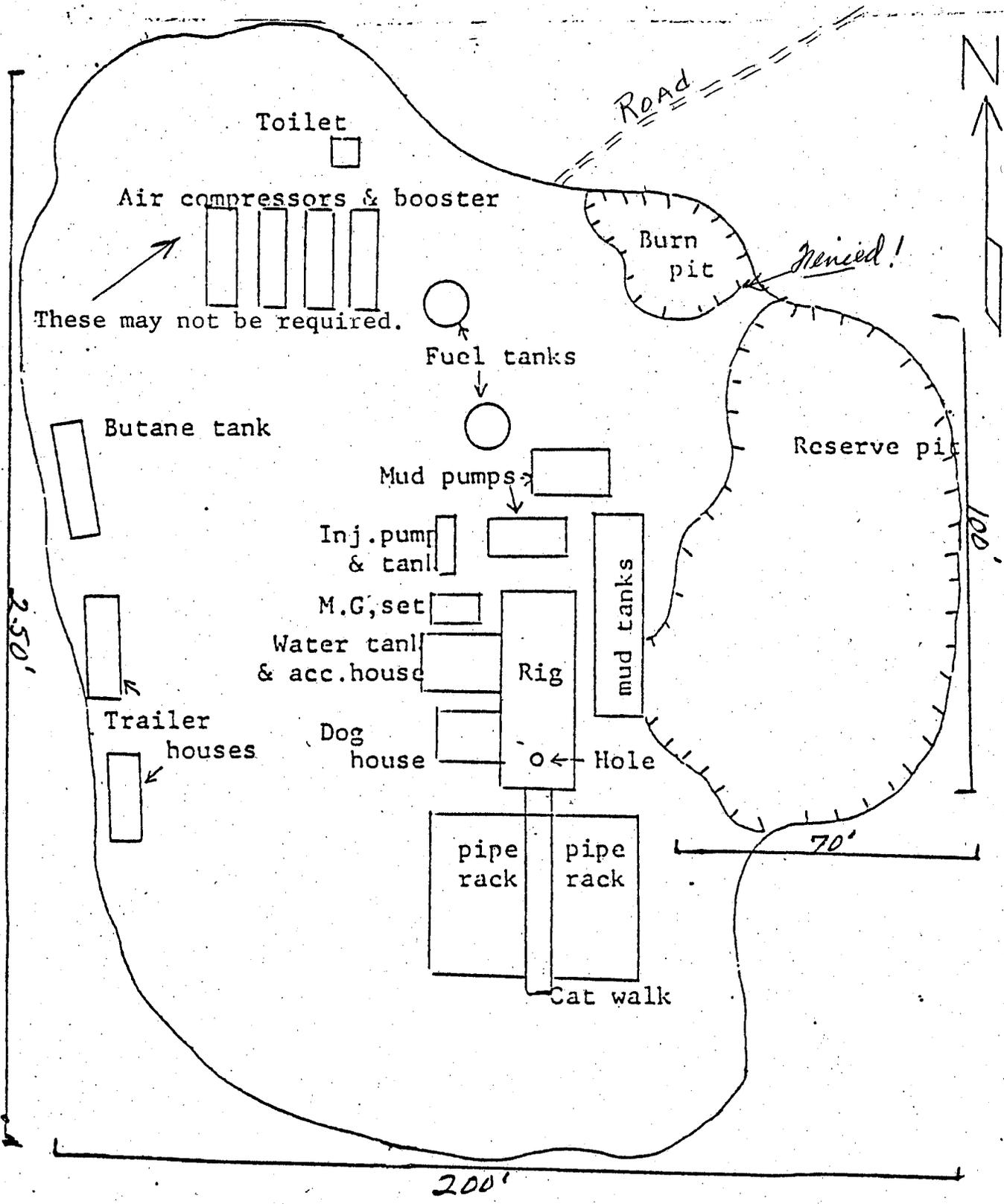
T. 18 S.

PLAN FOR PRODUCTION EQUIPMENT

THUNDERBIRD OIL & GAS COMPANY  
FEDERAL #20-1A  
SW.NW. SEC.20-18S-25E  
GRAND COUNTY, UTAH



LOCATION PLAN FOR  
 THUNDERBIRD OIL & GAS COMPANY  
 FEDERAL #20-1A  
 SW.NW.SEC.20-18S-25E  
 GRAND COUNTY, UTAH



Scale: 1 in. = approx. 35 ft.

HUNDERBIRD OIL & GAS COMPANY

FEDERAL #20-1A

SW.NW.SEC.20-18S-25E

GRAND COUNTY, UTAH

The following control equipment is planned for the above designated well: (See attached diagram).

1. Surface Casing: Surface Casing, 7-5/8", has been set at 100' and cemented.
  - A. Hole size for surface casing is 10 3/4"
  - B. Setting depth for surface casing is approx. 150 ft.
  - C. Casing specs. are: 7 5/8" D.D., J-55, 26.40#, 8 rd. thread, new or used.
  - D. Anticipated pressure at setting depth is approx. 20 lbs.
  - E. Casing will be run using three centralizers and a guide shoe, and will be cemented with 60 sks of cement with returns to the surface.
  - F. Top of the casing will be at ground level.
2. Casing Head:

Flange size: 10", A.P.I. Pressure rating: 2000# W.P., Series 600; Cameron, OCT, or equivalent; new or used; equipped w/two 2" ports with nipples and 2", 2000# W.P. ball or plug valves. Casing head and valves set above ground level.
3. Intermediate Casing:

None.
4. Blowout Preventors:
  - A. Double rams; hydraulic; one set of blind rams; one set of rams for 3 1/2" or 4" drill pipe; 10" flange; 2000# or greater W.P.; Series 900; equipped with mechanical wheels and rod for back-up; set on top of casing head flange and securely bolted down, and pressure tested for leaks up to 2000# p.s.i.
  - B. Rotating Head: Will probably not be used since mud will be used. Shaffer, Grants or equivalent; set on top of blowout preventor and bolted securely; complete with kelly drive, pressure lubricator; 3 1/2" or 4" rubber for 2000# W.P.; need not have hydril assembly on bottom.
  - C. Fill and Kill Lines:

The fill and kill lines (2" tubing or heavy duty line pipe) are to be connected thru the 2" valves on the casing head.
5. Auxillary Equipment:

A float valve is to be used in the bottom drill collar at all times. A string float will also be used in the drill pipe and kept within 200'-300' of the surface.
6. Anticipated Pressures:

The shut-in pressures of the Entrada, Carmet, Navajo and Chinle formations at depths of 2000' to 3000' in the area have been measured at about 1000# to 1500# maximum.
7. Drilling Fluids:

Mud will probably be used to deepen the subject well due to the probable sizable amount of water in the Entrada formation. Normal weight of 8.5 to 9 lb. per gal. will be maintained in the mud.

8. Production Casing:

- A. Hole size for production casing will be 6 3/4".
- B. Approx. setting depth will be about 2900'
- C. Casing Specs. are: 4 1/2" O.D.; J-55; 9.50#, .8-rd thread; new.
- D. If good production is obtained, the casing will be run with a guide shoe at the bottom and about six centralizers and cemented conventionally with sufficient cement to cover 200 ft. above the top of the Dakota formation. The production zone will be perforated, 2 3/8" O.D. tubing will be run, and the well completed conventionally. In the event the production is small, it may be desirable to minimize the damage to the formation by keeping all mud and cement off the formation. In this case the procedure outlined below will be used.
- E. Casing will be run with about six centralizers and a Lynes packer and DV tool set above the production zone. There will be sufficient casing to extend thru the production zone below the Lynes packer and a blind guide shoe on the bottom. The casing will be cemented above the packer with about 85 sks of cement (sufficient to cement thru the Dakota formation). The cement will be allowed to cure at least 48 hrs. The plug can then be drilled out and the casing perforated below the packer. Two inch tubing will be run and secured in the tubing head prior to perforating.

SCOTT M. MATHESON  
Governor



OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

I. DANIEL STEWART  
*Chairman*

CLEON B. FEIGHT  
*Director*

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

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

August 22, 1978

Thunderbird Oil & Gas Co.  
710 Bunker Drive  
Grand Junction, Colorado 81501

Re; Well No. Federal 20-1A  
Sec. 20, T. 18S, R. 25E  
Grand County, Utah  
June 1977-July 1978

Gentlemen:

Our records indicate that you have not filed a Monthly Report of Operations for the months indicated above on the subject well.

Rule C-22, General Rules and Regulations and Rules of Practice and Procedure, requires that said reports 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 Form 9-331) "Sundry Notices and Reports on Wells", or on company forms containing substantially the same information. We are enclosing forms for your convenience.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, & MINING

Tammy Edge  
Typist



SCOTT M. MATHESON  
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES

CHARLES R. HENDERSON  
*Chairman*

CLEON B. FEIGHT  
*Director*

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE McINTYRE

November 21, 1979

Thunderbird Oil & Gas  
4155 E. Jewell Ave.  
Denver, Colo. 80222

Gentlemen:

*Attached is a copy of the final order in Cause No. 102-16B.*

*You will note that this order requires a copy of the property or lease line to be filed with the Application for Permit to Drill. If this only covers the pertinent section, so state.*

*No new Applications for Permit to Drill will be granted unless all required forms on existing wells are up-to date. Also, some operators have not been submitting their 2 mill conservation levy as authorized under Section 40-6-14, Utah Code Annotated, 1953, as amended. The required sales report, Form 5, may be obtained upon request from this office.*

*Sincerely,*

DIVISION OF OIL, GAS AND MINING

*Cleon B Feight*  
Cleon B. Feight  
Director

/b:tm

cc Well Files

February 25, 1980

Thunderbird Oil and Gas  
~~710 ~~xxxx~~ Drive~~  
~~Grand Junction, Colorado 81501~~

Suite 700  
COLORADO CLUB Bldg  
4155 E Jewel Ave.  
DENVER, COLORADO  
80222

Re: Well No. Federal 20-1A  
Sec. 20, T. 18S, R. 25E  
Grand County, Utah

Gentlemen:

In reference to above mentioned well, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill this well, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If we do not hear from your company within fifteen (15) days, we will assume you do not intend to drill this well and action will be taken to terminate the application. If you plan on drilling this location at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

*Janice Tabish*

JANICE TABISH  
CLERK TYPIST

March 21, 1980

Thunderbird Oil and Gas  
Suite 700  
Colorado Club Bldg.  
4155 E. Jewel Ave,  
Denver, Colorado 80222

Re: Well No. Federal 20-1A  
Sec. 20, T. 18S, R. 25E.  
Grand County, Utah

Gentlemen:

In reference to above mentioned well, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill this well, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If we do not hear from your company within fifteen (15) days, we will assume you do not intend to drill this well and action will be taken to terminate the application. If you plan on drilling this location at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING



JANICE TABISH  
CLERK-TYPIST

Called Don Quigg on  
7-1-80. He said

U.S. G.S. Cancelled

May 31 -  
677 → application - well  
was never re opened -