

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

Dietrich Exploration Company

3. ADDRESS OF OPERATOR

602 Midland Savings Bldg.; 444 Seventeenth St.; Denver, Co. 80202

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

At surface

± 1850' FSL & 790' FEL

At proposed prod. zone

SAME

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

15. DISTANCE FROM PROPOSED*

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

16. NO. OF ACRES IN LEASE

320

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

1500

20. ROTARY OR CABLE TOOLS

Rotary

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

6086 G.L.

22. APPROX. DATE WORK WILL START*

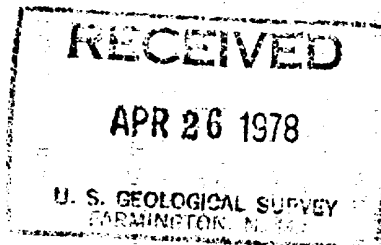
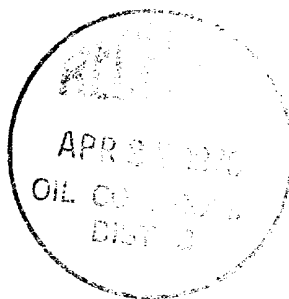
May 15, 1978

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
7 7/8	5 1/2	15.5	40	50 sk
4 3/4	2 7/8	6.5	1500	125 sk.

(See attachments)



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

John Alexander
John Alexander

TITLE

Agent

DATE 4-25-78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

ok Frank

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

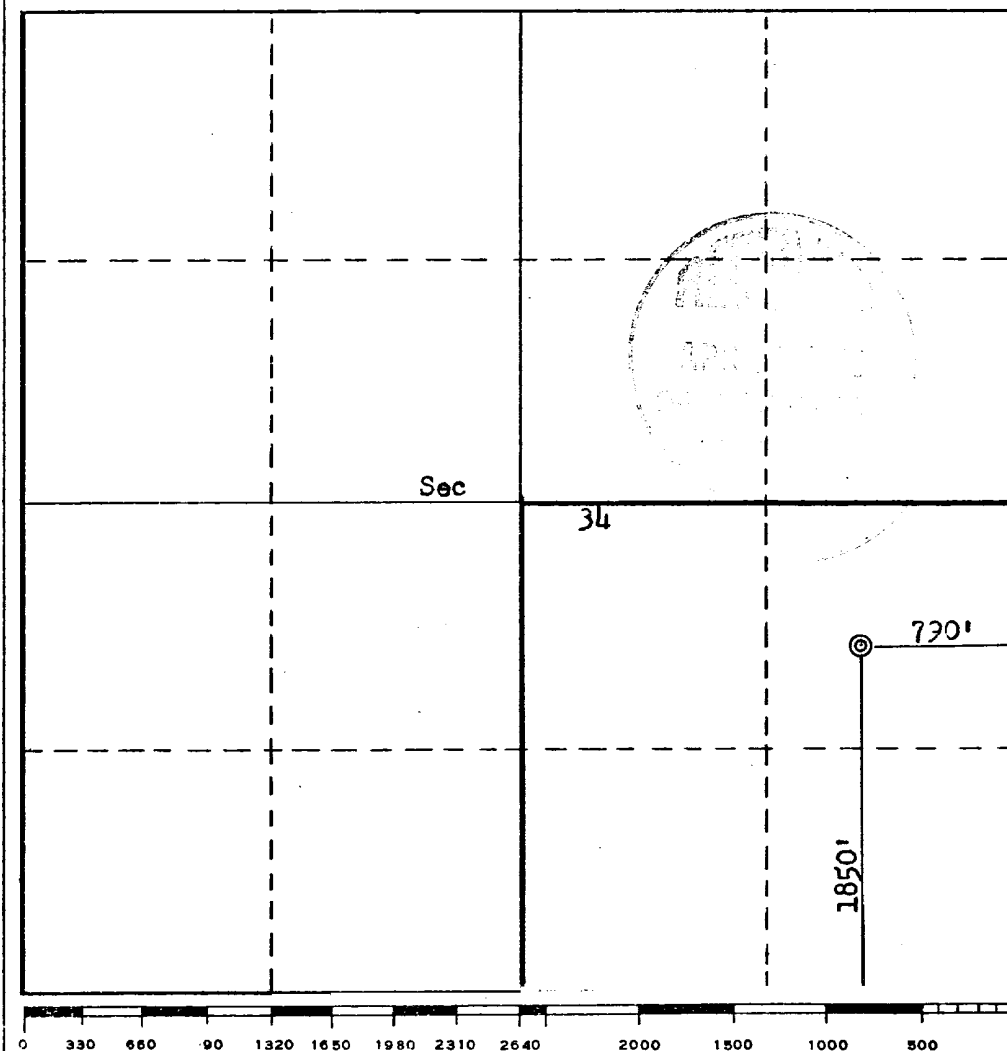
Operator Dietrich Exploration Company, Inc.			Lease Federal 34		Well No. 2
Unit Letter I	Section 34	Township 27N	Range 13W	County San Juan	
Actual Footage Location of Well:					
1850 feet from the South line and 790 feet from the East line					
Ground Level Elev. 6086	Producing Formation Pictured Cliffs	Pool WAW Pictured Cliffs ext - Fruitland	Dedicated Acreage: 160 Acres		

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

John Alexander
Name

John Alexander
Position

Agent

Company

3E Company, Inc.

Date

4-25-78

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

April 25, 1978

Registered Professional Engineer and/or Land Surveyor

Fred B. Kerr Jr.
Fred B. Kerr Jr.

Certificate No.

3950 & KERR, JR.

Dietrich Exploration Co.

Formation Information and Drilling Procedures

WELL:

Federal 34 No. 2

LOCATION:

1850' FSL & 790' FEL
Sec. 34, T27N, R13W
San Juan, New Mexico

LEASE NUMBER:

NM 33046

1) Geologic name of surface formation.

Ojo Alamo

2) Estimated tops of important geologic markers.

Kirtland	192'
Fruitland	997'
Pictured Cliffs	1360'

3) Estimated depths at which anticipated water, oil, gas or other mineral-bearing formations are expected.

997'	gas
1360'	gas

4) Proposed casing program.

Surface: 5 ½, 14.0 lb/ft, K-55, Used casing, to be set at 40'.
Cement to be 50 sk. Class "B" with 2% CaCl₂.

Production: 2 7/8", 6.4 lb/ft, J-55, used to be set at 1500'.
Cement to be 125 sk Class "B".

5) Specifications for pressure control equipment.

The attached schematic shows the type of blow out preventer to be used while drilling. The unit will be tested to 200 psi. as soon as possible after its installation on the surface pipe. Testing will be done with the rig pump. This is a manual type preventer, and its operation will be manually checked when practical.

6) Drilling fluids.

Depth	Type	Vixcosity	Weight	Fluid loss(cc)
0-1500'	gel-lime	35-55	8.9-9.2	15

7) Auxiliary equipment.

- a. bit float
- b. full opening valve for stabbing in drill pipe when the kelly is not in use.

8) Logging-Coring-Drill Stem Testing.

Logging: Induction Electric Log, Formation Compensated Density, Compensated Neutron log, Gamma ray, Caliper.

Coring: None

Drill Stem Testing: None

9) Abnormal temperatures, pressures, or hazardous conditions.

None expected.

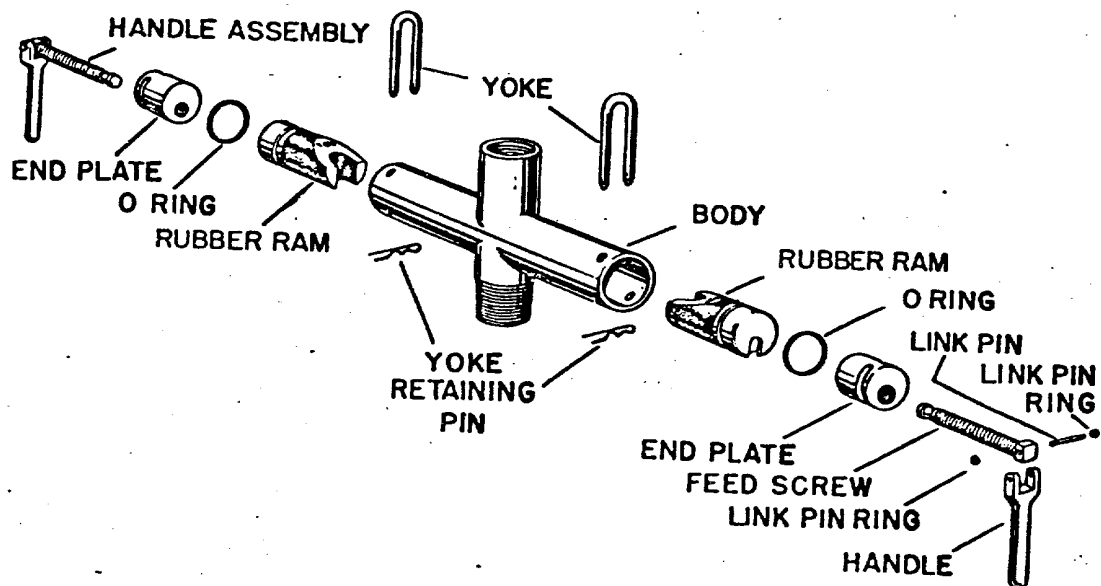
10) Starting date.

Anticipated starting date is May 15, 1978. Approximately 5 days will be needed to build roads and location and drill the well to total depth. If commercial, completion will commence immediately and require approximately 3 days to complete.

G TUBING BLOWOUT PREVENTERS

G BLOWOUT PREVENTER RAMS

PREVENTER SIZE	2-3/8"	2-7/8"	3-1/2"
RAM I.D. INCHES	Part No.	Part No.	Part No.
Blank.....	28262	28263	28264
9/16".....	59383	45019	59388
5/8".....	44948	44969	59393
3/4".....	59391	41502	59410
7/8".....	59392	54571	59389
1".....	59384	59386	45903
1.050".....	44949	41424	45056
1-1/8".....	28354	28336	28365
1-1/4".....	28355	28331	28366
1.315".....	45055	44109	44057
1-3/8".....	44730	59387	44964
1-1/2".....	28356	28337	28367
1-5/8".....	59385	46780	59390
1.660".....	45462	43629	44963
1-3/4".....	28357	28346	28368
1.900".....	45463	43630	45609
2.063".....	59394



ATTACHMENT TO POINT 5
API SERIES 6" 600

Dietrich Exploration Company

Development Plan for Surface Use

WELL:

Federal 34 No. 2

LOCATION:

1850' FSL & 790' FEL
Sec. 34, T27N, R13W
San Juan, New Mexico

LEASE NUMBER:

NM 33046

1) Existing roads. (Shown in green.)

The attached topographic map shows all existing roads within one mile of the proposed location. Access will be made to a county road 200' south of the location.

All existing roads are in good condition and will not have to be up-graded to handle normal drilling activity traffic.

2) Planned access road. (Shown in red.)

The planned access road will be approximately 200' long and 20' wide. Maximum grade will be about 1%. No turnouts or culverts will be required. Water bars will be used to aid drainage and prevent erosion. No surfacing material will be required. No gates, cattle guards, or fences will be crossed. No cuts or fills should be required.

3) Location of existing wells.

All wells (water, abandoned, disposal, and drilling) are shown and so labeled on the attached topographic map.

4) Location of tank batteries, production facilities and production, gathering and service lines.

All production facilities are to be contained within the proposed location. All other facilities owned or controlled by Dietrich Exploration are shown on the attached topographic map.

5) Location and type of water supply.

Water for drilling will be trucked from El Paso Natural Gas Chaco Plant located 6 miles southeast of location. This water is privately owned.

6) Source of construction material.

Any construction material required for road or location will be excess material accumulated during building of such sites.

7) Methods of handling waste disposal.

(Refer to attached well site layout.)

All burnable material will be burned in the trash pit when conditions permit. All nonburnable material (drilling fluids, cuttings, chemicals, etc.) will be held in the reserve pit and buried when dry. Any oil produced while drilling will be trucked from the location prior to leaving the pit to dry. Pits will be fenced during dryout time, then completely back filled with dirt prior to preparing the location for production or abandonment.

8) Ancillary Facilities.

No ancillary facilities are planned.

9) Well site layout.

The attached layout shows the drilling rig with all facilities. Cut and fill required is also indicated.

10) Plans for restoration of surface.

Restoration of well site and access road will begin within 90 days of well completion, weather permitting.

Should the well be abandoned, the drilling site will be reshaped to its approximate former contour. The access road will be plowed and leveled. Both site and road will have top soil replaced and will be reseeded when germination can occur.

Should the well be commercial, that portion of the location, not needed for operation, will be repaired as above. The portion needed for daily production operations, and the access road, will be maintained in good repair.

In either case, clean up of the site will include burning any safely burnable material, filling of all pits, carrying away of all nonburnable material and chemicals that can not be buried. Any oil that has accumulated on the pits will be trucked away.

11) Other information.

General topography of the area may be seen on the attached map.

The drilling site is flat and is covered with sage brush and other native grasses. There are no creeks, rivers or ponds in the area. The soil is sandy loam. Small animals and sheep inhabit the area.

The surface is part of the Navajo Irrigation Project, administered by the Bureau of Indian Affairs.

There are no occupied dwellings in the area.

There are no archaeological or cultural sites visible on the location. The archaeologist report is forthcoming.

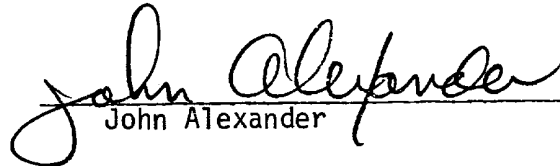
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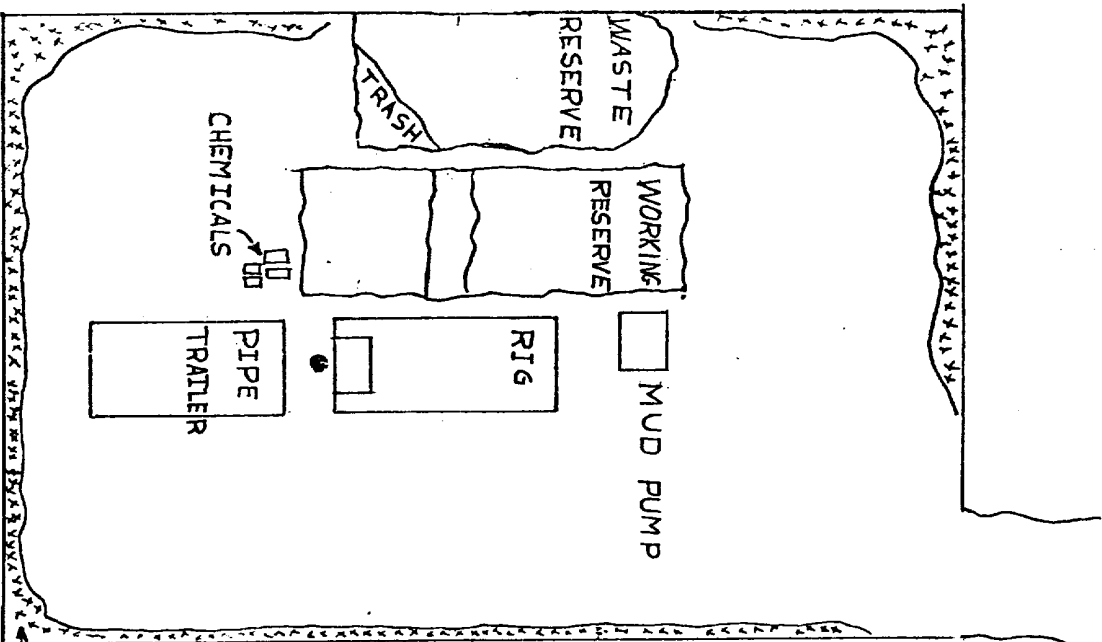
John Alexander
3E Company, Inc.
P.O. Box 190
Farmington, NM 87401
Phone: 505-327-4020

13)

I hereby certify that I or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Dietrich Exploration Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

4-25-78


John Alexander



PLAN VIEW 1"=30'

ALL PITS-EARTHEN

location grade

6" TOP SOIL ONLY NEED BE REMOVED

ACCESS ROAD

SOIL MATERIAL STOCKPILE



location grade

WELL SITE LAYOUT

DIETRICH EXPLORATION

CUT & FILL (SIDE) - 6" TOP SOIL

3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 —:— 505/327-4020

FARMINGTON, NEW MEXICO 87401

August 29, 1978

New Mexico Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico 87410

Attention: Mr. Al Kendrick

RE: Dietrich Exploration Co.
Federal 34 #2
1850' FSL and 790' FEL
Sec 34, T27N, R13W
San Juan County, New Mexico

Gentlemen:

This is to certify that the following straight hole surveys were taken while drilling the subject well, as reported by the drilling contractor:

DEPTH

DEGREE

1400'

1/2°

Sincerely yours,

John Alexander
John Alexander

JA:kj

Subscribed and sworn to before me this 29th day of August, 1978.

Katharine R. Jenkins
Notary Public

My commission expires:
May 12, 1980

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil ☐ well gas ☒ well other ☐
2. NAME OF OPERATOR
Dietrich Exploration Company, Inc.
3. ADDRESS OF OPERATOR
602 Midland Savings Bldg., 444 17th Street
Denver, Colorado 80202
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1850' FSL and 790' FEL
AT TOP PROD. INTERVAL: same
AT TOTAL DEPTH: same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

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

SUBSEQUENT REPORT OF:

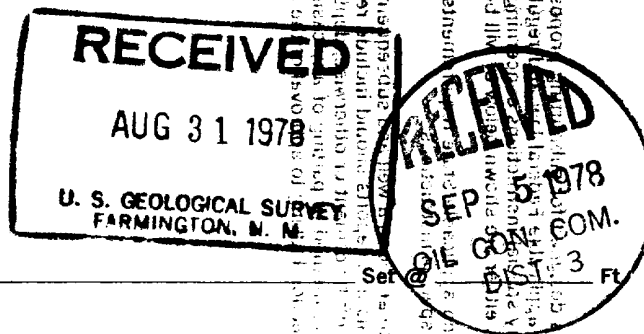
- ☒
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5. LEASE
NM 33046
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME
Federal 34
9. WELL NO.
2
10. FIELD OR WILDCAT NAME
WAW Pictured Cliffs
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 34, T27N, R13W
12. COUNTY OR PARISH
San Juan
13. STATE
New Mexico
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD)
6086 G.L.

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Move in rotary tools. Spud 5" hole at 0900 hours 8-16-78. Drill 5" hole to 560', ream to 8 3/4" from 0 to 50'. Set 41' 7" 20# K-55 casing Cement with 35 sacks class "B" with 2% CaCl₂, cement circulated. Plug down 1745 hours 8-16-78.



Subsurface Safety Valve: Manu. and Type

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

SIGNED John Alexander TITLE Agent DATE August 29, 1978

(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

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 Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other

2. NAME OF OPERATOR
Dietrich Exploration Company, Inc.

3. ADDRESS OF OPERATOR
602 Midland Savings Bldg., 444 17th Street
Denver, Colorado 80202

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1850' FSL and 790' FEL
AT TOP PROD. INTERVAL: same
AT TOTAL DEPTH: same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

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

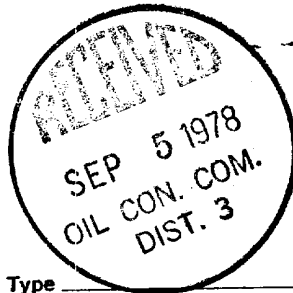
SUBSEQUENT REPORT OF:

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(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Move in and rig up swabbing unit. Ran GR-CCL log. Swab casing dry. Acidize 1300' - 1302', 1306' - 08' and 1310' - 14' with 2 jet shots per foot. Acidized with 500 gallons 15% "Gas Well Acid". Well now flowing to clean up and test.



RECEIVED

AUG 31 1978

Subsurface Safety Valve: Manu. and Type

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

SIGNED John Alexander

TITLE

Agent

DATE

August 29 1978

(This space for Federal or State office use)

APPROVED BY
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE