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NEW MEXICO OIL CONSERVATION COMMISSION

**RECEIVED**

SEP 23 1971

30-031-20353

Form C-101  
Revised 1-1-65

5A. Indicate Type of Lease	
STATE <input type="checkbox"/>	FEE <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

OIL CONSERVATION COMM.  
SANTA FE

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Farm or Lease Name <b>FERNANDEZ</b>	
2. Name of Operator <b>Shar-Alan Oil Corporation</b>		9. Well No. <b>FIVE</b>	
3. Address of Operator <b>4101 East Louisiana, Denver, Colorado 80222</b>		10. Field and Pool, or Wildcat <b>Wildcat</b>	
4. Location of Well UNIT LETTER <b>I</b> LOCATED <b>637'</b> FEET FROM THE <b>East</b> LINE AND <b>2265'</b> FEET FROM THE <b>South</b> LINE OF SEC. <b>24</b> TWP. <b>15N</b> RGE. <b>7W</b> NMPM		12. County <b>McKinley</b>	
19. Proposed Depth <b>2700</b>		19A. Formation <b>Dakota</b>	
20. Rotary or C.T. <b>Rotary</b>		21. Elevations (Show whether DF, RT, etc.) <b>6638</b>	
21A. Kind & Status Plug. Bond		21B. Drilling Contractor <b>Stewart Brothers Drilling</b>	
22. Approx. Date Work will start <b>October 1, 1971</b>			

23. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
8-3/4	7"	17#	60'	30	

Propose to drill 6 9/16" hole from under surface casing to a depth sufficient to test the Dakota, Run I.E.S. to Density Logs, to be followed by D.S.T. In the event the well is case 4" casing will be used.

APPROVAL VALID  
FOR 90 DAYS UNLESS  
DRILLING COMMENCED,

EXPIRES 12-23-71



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. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed *A. J. Gomez* Title Manager Date September 17, 1971

(This space for State Use)

APPROVED BY *Ernest C. Ames* TITLE SUPERVISOR DIST. #3 DATE SEP 24 1971

CONDITIONS OF APPROVAL IF ANY:

## WELL LOCATION AND ACREAGE DEDICATION

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Superseded by 128  
Effective 1-1-65

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

SEP 23 1971

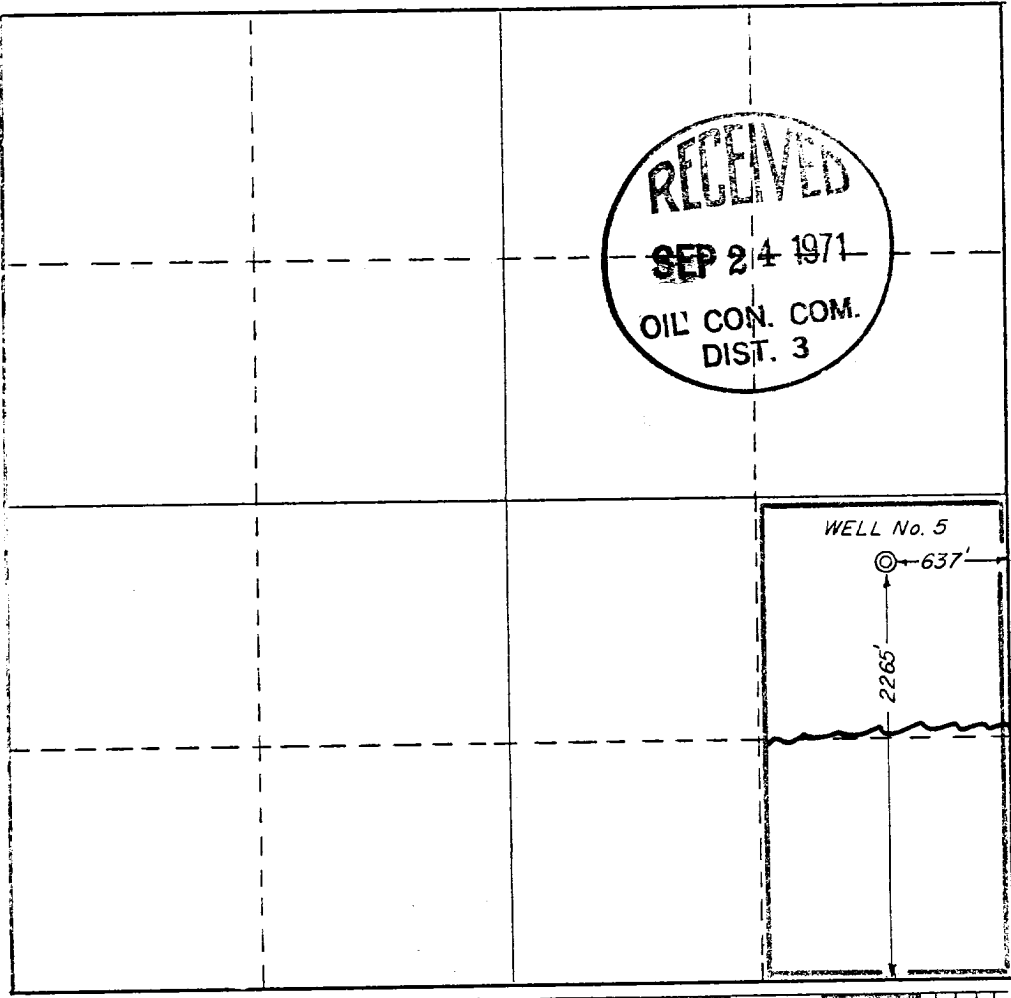
Operator <b>SHAR-ALAN OIL CORPORATION</b>		Lease <b>FERNANDEZ COIL CONSERVATION COMM. SANTA FE</b>		Well No. <b>FIVE</b>
Unit Letter <b>I</b>	Section <b>24</b>	Township <b>15NORTH</b>	Range <b>7West</b>	County <b>McKinley</b>
Actual Footage Location of Well: <b>2265</b> feet from the <b>South</b> line and <b>637</b> feet from the <b>East</b> line				
Ground Level Elev. <b>6638</b>	Producing Formation	Pool <b>Wildcat</b>	Dedicated Acreage: <b>80 40</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. 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.

Name **Hank Gumz**  
 Position **Land Manager**  
 Company **Shar-Alan Oil Corporation**  
 Date **September 17, 1971**

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 **September 12, 1971**

Registered Professional Engineer and/or Land Surveyor

**Fred D. Matmon**  
 Certificate No. **2031**

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0



**LTR**



**Job separation sheet**

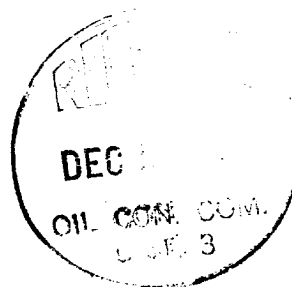
WELL REPORT

SHAR-ALAN OIL CORPORATION

FERNANDEZ NO. 5

2265 Feet FSL & 637 Feet FEL  
Sec. 24: T15N, R7W

McKinley County, New Mexico



WELL REPORT  
Shar-Alan Oil Corporation  
Fernandez No. 5  
McKinley County, New Mexico

Location: 2265' FSL & 637' FEL, Sec. 24, T15N, R7W N.M.P.M.

Elevation: 6638' Ground Level, 6642' KB (Datum)

Contractor: Stewart Bros. Rig #24 WABCO 2000 Rotary

Spud Date: October 21, 1971

Completion Date: October 28, 1971 P & A

Total Depth: 2479' Driller, 2475' Welex KB.

Casing: Surface 7 5/8" CSA 34' cem w/9 sx

Plugging: Dakota 50' plug 2475 to 2425' & 2190 to 2140'. Base of Massive Gallup 100' plug 1540 to 1440'. Landowner ran casing completed as a flowing fresh water well from Gallup.

Electrical

Surveys: Welex Induction-Electric Log 2469' to 50'  
Gamma Ray-Density Log 2474 to 1000'

Test Data: DST #1 20 min. pre-flow, 30 min. shut-in, 20 min. 2nd flow, 20 min. final shut-in. Recovered 1990' fluid - 60' mud, 1930' fresh water.  
IHP 1043 psig, IFP 470 psig, FFP 899 psig, ISIP 899 psig, 2nd flow 899 psig, FSIP 899 psig, FHP 1043 psig.

FORMATION TOPS

<u>Formation Name</u>	<u>Depth-KB Feet</u>	<u>K.B. Datum Feet</u>
Hospah Gallup	1204	+5438
Massive Gallup	1346	+5296
Middle Mancos	1445	+5197
Greenhorn	2070	+4572
Graneros	2132	+4510
Dakota	2171	+4471
Dakota DE Zone	2343	+4299
Morrison	2430	+4212
Total Depth	2475	+4167

SAMPLE DESCRIPTION  
(Tops shown are log tops)

Top of Hospah Gallup 1204'

1200-1260' Ss, vy fn gr, lt gry p-cons 70%, sh 30%  
1260-1340' Sh, lt gry 70%, ss 10%, sltstn 20%

Top of Massive Gallup 1346'

1340-1350' Sh, aa 50%, ss 40%, sltstn 10%, strong sulphur odor in produced water. This well flowing approx. 200 GPM at this point.  
1350-1450' Ss, lt gry, med gr. p-cons 80%, sh 20%.

Top of Middle Mancos 1445'

1450-1550' Sh, lt gry 60%, ss 20T, sltstn 20%  
1550-2080' Sh, aa 80%, sltstn 20%, some scattered calcite & pyrite.

Top of Greenhorn 2070'

2080-2140' Sh, dark gry 60%, lt gry 20%, ss lt gry med gr, co-cons 20%.

Top of Graneros 2132'

2140-2170' Sh, dk gry 80%, sltstn 20%, some pyrite, scattered qtz xls throughout.

Top of Dakota 2171'

2170-2220' Ss, lt gry med gr p-cons arkose in pt 40%, sh 40%, sltstn 20%.  
2220-2300' Ss, aa 20%, sh 80%  
2300-2330' Ss, aa 60%, sh 40%  
2330-2360' Ss, aa 20%, sh 80%  
2360-2400' Ss, lt gry, med gr med rounded 80%, sh 20%, No show  
2400-2430' Ss, aa 20%, sh 60%, sltstn, white 20%, some coal in bottom of section

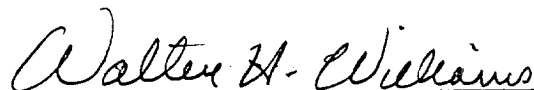
Top of Morrison 2430'

2430-40' Section as above, w/increase in white sltstn to 40%  
2440-2475 TD Sh, lt gry 20%, sh dark gry 40%, sltstn 40%.

SUMMARY

The Fernandez No. 5 was drilled to a TD of 2475 feet and after analysis of samples, results of a DST and electric log calculation it was concluded that no producable hydrocarbons were present in this well.

A strong water flow commenced while drilling at approximately 600 feet and increased to an estimated 300 GPM after the Massive Gallup zone was penetrated. A strong sulphur odor was noted in the flowing water at the time the Massive Gallup was being drilled. This odor dissipated and was not apparent after the well was completed as a flowing fresh water well by the landowner.



Walter H. Williams

DRILLING TIME - MINUTES PER FIVE FEET

SHAR-ALAN - FERNANDEZ No 5

MS KINLEY CO. NEW MEXICO

DEPTH	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
0-100										7	8	15	5	5	5	7	5	4	54	52
100-200	2	2	2	2	2	2	2	2	3	2	2	1	1	1	1	2	3	3	3	3
200-300	4	3	3	3	3	7	3	3	4	3	3	-	-	-	15	16	10	5	13	4
300-400	9	5	8	5	5	5	4	8	9	-	Geologist Not operative thru this section.									
400-500																				
500-600																				
600-700																				
700-800	-	-	-	-	-	-	-	-	15	6	5	6	3	3	5	7	11	4	6	4
800-900	7	8	8	6	9	5	6	5	4	6	6	7	8	10	7	12	7	6	5	7
900-1000	9	9	6	4	4	7	11	8	8	5	8	5	8	8	6	5	6	6	6	5
1000-1100	7	8	8	10	6	6	6	6	7	6	5	5	4	6	6	6	3	3	3	5
1100-1200	7	6	6	7	8	10	9	9	12	12	11	9	12	11	13	11	11	14	13	10
1200-1300	16	16	9	13	13	14	14	15	13	15	11	9	11	9	11	11	10	8	8	9
1300-1400	7	9	8	8	9	9	9	4	4	4	4	2	2	2	2	2	2	3	3	4
1400-1500	4	5	5	7	7	7	13	10	11	12	10	12	-	8	6	8	7	5	10	6
1500-1600	7	8	7	8	9	7	7	6	6	5	7	6	5	6	6	8	9	8	7	8
1600-1700	8	7	7	8	7	5	6	5	7	6	5	6	5	5	5	5	5	5	5	5
1700-1800	5	5	4	5	5	4	5	4	4	4	7	5	7	7	5	6	5	4	4	4
1800-1900	4	5	4	4	4	4	5	4	4	5	6	5	4	-	4	7	21	19	10	6
1900-2000	6	6	7	7	6	7	8	7	6	7	7	7	8	8	14	15	8	8	8	7
2000-2100	11	8	7	10	7	7	8	9	9	10	8	8	7	7	8	12	11	9	9	9
2100-2200	7	7	10	7	11	7	5	7	7	7	8	5	7	8	8	6	7	6	7	9
2200-2300	12	11	18	19	18	19	8	10	13	10	10	9	8	9	12	9	9	14	8	7
2300-2400	24	11	4	4	4	8	10	10	9	7	8	9	9	9	7	16	12	13	15	16
2400-2500	18	20	16	18	24	21	15	16	16	21	18	16	25	24	21	TD 2475' (GL)				
2500-2600																				
2600-2700																				
2700-2800																				