Form 0-89 (11/58) Printed in USA

SUN OIL COMPANY

COPY

Well File

April 22, 1966

RE: San Augustin Plains Unit, Well No. 1 - M
Sun Oil Company, Operator, Catron County, New Mexico
Federal Lease No. NM-058327

United States Department of the Interior
U. S. Geological Survey
Roswell, New Mexico

CHANGE OK ..al

Gentlemen:

We are presently drilling at a depth of 7029 feet the San Augustin Plains Unit Well No. 1 in Section 29, Township 3[illegible]-S, Range 9-W, Catron County, New Mexico, with projected total depth of 11,000 feet.

We have been advised by Mr. Roy W. Foster, Petroleum Geologist with the State Bureau of Mines and Mineral Resources, Socorro, New Mexico, that if the well is completed as a dry hole, the New Mexico Institute of Mining and Technology would be interested in taking over this well. Mr. Foster gave the following reasons why the school would want this hole:

(1) The hole would be used for temperature surveys.
(2) It would be used as a seismic station which would serve to reduce cultural and surface (atmospheric) noises.
(3) It would be used for rock stress and rock mechanic tests.
(4) It would be used to measure viscoelastic properties of the rock by correlating bore hole deformation, stress conditions and rock types.
(5) It would be used for heat balance information by injection and recovery of water.
(6) The hole could be used as a hydrofracing laboratory whereby any induced seismic activity could be measured relative to fracing by fluid injection.

We want to give this matter due consideration, and would like to have your comments and advice concerning the mechanics of transferring full responsibility of the well over to the NMIMT school if we are unable to develop hydrocarbons. We would need to have your approval and decide upon the necessary course to follow. No doubt, some advance agreements, releases, etc. would be necessary which will require some time to work out and we need to be able to move quickly at such time as it is decided to let NMIMT have the well. We would need to be relieved of further responsibility, both from requirements of your office and the Oil Conservation Commission. The school

#1-M
29-35-9W
Catron

would need to make some arrangements in advance of the abandonment date concerning any further work of deepening or conditioning the hole for its needs.

It is apparent that a myriad of details must be worked out in advance and we would appreciate your advice concerning necessary methods of clearance with your Department.

Yours very truly,

SUN OIL COMPANY

F. A. Lawrence
Regional Superintendant

FAL:km
cc New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Form 9-330

N. M. O. C. C. COPY

RECEIVED

SEP 22 1966

O. C. C.

ARTESIA, OFFICE

Budget Bureau No. 42-R355.1.
Approval expires 11-30-49.

U. S. LAND OFFICE _____

SERIAL NUMBER NMD58327

LEASE OR PERMIT TO PROSPECT _____

LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
SEP 3 1966
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

LOG OF OIL OR GAS WELL

Company Sun Oil Company Address Box 2792, Odessa, Texas

Lessor or Tract San Augustin Plains Field Wildcat State New Mexico

Well No. UT #1 Sec. 29 T. 3S R. 9W Meridian _____ County Catron

Location 860 ft. {N.} of S Line and 660 ft. {E.} of W Line of Sec. 29 Elevation 7056' Gr.
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed _____

Date 9-2-66 Title Area Superintendent

The summary on this page is for the condition of the well at above date.

Commenced drilling 3-12-66, 19____ Finished drilling 6-19-, 1966

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from None to _____ No. 4, from _____ to _____

No. 2, from _____ to _____ No. 5, from _____ to _____

No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from 293' to 297' No. 3, from _____ to _____

No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
13 3/8	48	8R	Lone Star	500.15	Howco	none			
9 5/8	36	8R	ditto	5377.30	Howco	none			

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13 3/8	515.00	300	pump	12.1	
9 5/8	5390.00	400	pump	13.0	

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____

Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 12,284 feet, and from _____ feet to _____ feet

Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

SEE BACK OF FORM FOR PLUGGING RECORD

_____, 19____ Put to producing _____, 19____

The production for the first 24 hours was _____ barrels of fluid of which _____ % was oil; _____ % emulsion; _____ % water; and _____ % sediment.

Gravity, °Bé. _____

If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. _____

EMPLOYEES

R. L. Deere, Driller H. L. Wonger, Driller

M. L. Bean, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	233	233	Surface Rock
233	1009	776	Gravel and sand
1009	1208	199	Volcanic Lava
1208	1409	201	Sandstone volcanic quartz chert
1409	1565	156	Volc. quartz chert
1565	1631	66	Volc. quartz
1631	1994	363	Basalt
1994	2434	440	Volc. lava and basalt
2434	3036	602	Volc. tuff
3036	3219	183	Volc. fill and lime
3219	3413	194	Volc. fill, siltstone, lime
3413	4937	1524	Volc. fill, and xlime
4937	5218	281	Red bed, sand and anhydrite
5218	5446	228	Dolomite siltstone
5446	5635	189	Red bed and sand
5635	5874	239	Volc. lava
5874	6118	244	Volc. lava and red shale
6118	6518	400	Volc. rock and red shale
6518	6810	292	Red volc. shale, pan blown lime and volc. sand
6810	7594	784	Sand and shale
7594	7842	248	Shale, sand and tuff volcanic
7842	7929	87	Dark gray limey shale
7929	7982	53	Hard gray green sand (quartite
7982	8026	44	Quartz and shale
8026	8133	107	Shale, gray and green

FOLD | MARK

(OVER)

16—43094-2

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION
8133	8543	410	Lime
8543	8667	124	Quartzite and sand
8667	8963	296	Quartzite and shale and sand
8963	9085	122	Dolomite and shale
9085	9146	61	Shale, sand and lime
9146	9256	110	Sandstone and shale
9256	9356	100	Dolomite
9356	9436	80	Shale, lime and dolomite
9436	9563	127	Sand and shale
9563	9632	69	Sand
9632	9692	60	Sand, shale and shaley lime
9692	9750	58	Dolomite and lime
9750	10024	274	Sand
10024	10100	76	Sandstone and tuff
10100	10247	147	Quartzite sand
10247	10304	57	Red shale
10304	11214	910	Rhyolite
11214	11800	586	Quartzite
11800	12027	227	Red sandy shale
12027	12132	105	Shale and lime
12132	12141	9	Red shale
12141	12152	11	Shale and lime
12152	12284	132	Granite

16—43094-1 U. S. GOVERNMENT PRINTING OFFICE

HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

Plugged well as follows:

50 sks slo set - 12,000- 12,100
50 sks slo set - 9,900 -10,000
75 sks Incor 8,100 - 8250
50 sks Incor 6,950 7,050
75 sks Incor 2% CaCl-2 5320-5470

Plugging completed 6-23-66. Removed BOP and casing spool. 5390' of 9 5/8" OD casing left in well and bradenhead left on.
School of Mines installed 9 5/8" x 6" swage, 6" 350# test valve and 6" bull plug.
Well released to New Mexico School of Mines for use as a temperature and seismology station.

7" plate was welded on top of water well. Water well released to Bureau of Land Management(US).

Note: Well is not yet ready for final inspection.

Logs on this well will be sent to you by Sun's Roswell Office.