

EASTERN #18 SANTA FE  
NE SW 13-20N-27E APACHE CO. 237

P-11

sl

COUNTY Apache AREA 4 mi. S/Chambers LEASE NO. Santa Fe Fee

WELL NAME Eastern Petroleum Company #18 Santa Fe

LOCATION NE SW SEC 13 TWP 20N RANGE 27E FOOTAGE 2500' FSL 1750' FWL

ELEV 5833' GR KB SPUD DATE 8-12-63 STATUS 8-21-63 1st CR TOTAL  
5785' 1st completion report 6-23-70 re-entered COMP. DATE 11-9-70 DEPTH 1353'

CONTRACTOR \_\_\_\_\_

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY	DRILLED BY CABLE TOOL	PRODUCTIVE RESERVOIR	INITIAL PRODUCTION
7"	224'	60 sx	NA	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1650 bbls water according to first Comp. Rpt.
4 1/2"	1241'	60 sx		<input type="checkbox"/>	<input type="checkbox"/>		

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
Shinarump	1146'		x	Attached is copy of geologist report on well.
Moenkopi	1193'			
Coconino	1335'			

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
IE, Cement Bond and Casing Collar	1106-1140		SAMPLE DESCRP. _____
	1152-1184		SAMPLE NO. _____
			CORE ANALYSIS _____
			DSTs _____

REMARKS \*Well drilled under U.S.F. & G Bond No. 27716-13-3746-60 in amount of \$10,000. Well has not been plugged nor permanently abandoned according to first completion report. Trace of helium found in Shinarump. This well was re-entered 6-23-70 and abandoned 11-9-70.

APP. TO PLUG  PLUGGING REP.  COMP. REPORT  10-15-70  
1-8-71

WATER WELL ACCEPTED BY \_\_\_\_\_

BOND CO. U. S. Fidelity & Guaranty Co. BOND NO. 27716-13-3983-65  
DATE \_\_\_\_\_ ORGANIZATION REPORT 9-17-63

BOND AMT. \$ 25,000\* CANCELLED  WELL BOOK  PLAT BOOK

FILING RECEIPT 9337 LOC. PLAT  DATE ISSUED 8-2-63 DEDICATION All

API NO. 02-001-05337

PERMIT NUMBER 237



## WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well  Work-Over  Deepen  Plug Back  Same Reservoir  Different Reservoir  Oil  Gas  Dry

DESCRIPTION OF WELL AND LEASE

Operator <b>Eastern Petroleum Company</b>		Address <b>Box 291, Carmi, Illinois 62821</b>	
Federal, State or Indian Lease Number or name of lessor if fee lease <b>Santa Fe Fee</b>		Well Number <b>18</b>	Field & Reservoir <b>East Navajo Springs Shinarump</b>
Location <b>2500 FSL; 1750 FWL</b>		County <b>Apache</b>	
Sec. TWP-Range or Block & Survey <b>13-20N-27E</b>			
Date started-43-entered <b>6-23-70</b>	Date total depth reached <b>8-9-70</b>	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.) feet <b>5833</b>
Elevation of casing hd. flange feet <b>5833</b>			
Total depth <b>1353</b>	P.B.T.D.	Single, dual or triple completion?	If this is a dual or triple completion, furnish separate report for each completion.
Producing interval (s) for this completion <b>Dry</b>		Rotary tools used (interval) <b>0-1353</b>	Cable tools used (interval)
Was this well directionally drilled?	Was directional survey made?	Was copy of directional survey filed?	Date filed
<b>No</b>	<b>No</b>		
Type of electrical or other logs run (check logs filed with the commission) <b>Gamma Ray Casing Collar Induction-Electrical Cement Bond</b>			Date filed

### CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
Sfc.	8 3/4	7"		224	60	-0-
Production	6 1/4	4 1/2"	9.5	1241	60	446

### TUBING RECORD

### LINER RECORD

Size	Depth set	Packer set at	Size	Top	Bottom	Sacks cement	Screen (ft.)
in.	ft.	ft.	in.	ft.	ft.		

### PERFORATION RECORD

### ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft.	Size & type	Depth Interval	Amt. & kind of material used	Depth Interval
20 shots	3 5/8x3 1/8	1106-1140	Sand-water frac -	1106-1140 & 1152-1184
4	Shape	1152-1184	35,680 gals. & 40,000# sand	

### INITIAL PRODUCTION

Date of first production \_\_\_\_\_ Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:)

Date of test	Hrs. tested	Choke size	Oil prod. during test	Gas prod. during test	Water prod. during test	Oil gravity
			0 bbls.	0 MCF	1650 bbls.	° API (Corr)

Tubing pressure	Casing pressure	Cal'd rate of Production per 24 hrs.	Oil	Gas	Water	Gas-oil ratio
			0 bbls.	0 MCF	bbls.	

Disposition of gas (state whether vented, used for fuel or sold):  
**None**

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Secretary of the Eastern Petroleum Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

January 8, 1971  
Date

Signature *J. Edwards*

RECEIVED

JAN 11 1971

cc: Western Helium Corp.

Permit No. 237

STATE OF ARIZONA  
OIL & GAS CONSERVATION COMMISSION

Well Completion or Recompletion Report and Well Log

File One Copy

Form No. 4

**DETAIL OF FORMATIONS PENETRATED**

Formation	Top	Bottom	Description*
Shinarump	1146	1193	Sand, gray med. to coarse gr.
Moenkopi	1193	1335	Shales, brown-red
Coconino	1335		Sand - fg-buff

ATTACHED IS COPY OF GEOLOGIST REPORT ON WELL

\* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

**INSTRUCTIONS:**

Attach drillers log or other acceptable log of well.  
 This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil & Gas Conservation Commission not later than thirty days after project completion.



APPLICATION TO ABANDON AND PLUG

FIELD EAST NAVAJO SPRINGS SHINARUMP
OPERATOR EASTERN PETROLEUM COMPANY ADDRESS Box 291, Carmi, Illinois
Federal, State, or Indian Lease Number or Lessor's Name if Fee Lease Santa Fe Fee WELL NO. 18
SURVEY NE SW SECTION 13 COUNTY Apache
LOCATION 2500 FSL; 1750 FWL - 20N - 27E

TYPE OF WELL Dry Hole (Oil, Gas or Dry Hole) TOTAL DEPTH
ALLOWABLE (If Assigned)
LAST PRODUCTION TEST OIL 0 (Bbls.) WATER 1650 (Bbls.)
GAS 0 (MCF) DATE OF TEST
PRODUCING HORIZON PRODUCING FROM TO

1. COMPLETE CASING RECORD

SFC - 7" - 224'
PROD - 4 1/2" - 1241

2. FULL DETAILS OF PROPOSED PLAN OF WORK Propose to pull as much 4 1/2" as possible;
will set cement plugs at 1190'-1080'; 1266-16; 270-220; 15-0, and fill inter-
vals with heavy mud - and erect regulation dry hole marker.
(will furnish perforation data in final report.)

If well is to be abandoned, does proposed work conform with requirements of Rule 202? Yes If not, outline proposed procedure above.

DATE COMMENCING OPERATIONS --

NAME OF PERSON DOING WORK Tony Schneider ADDRESS Navajo, Arizona

CORRESPONDENCE SHOULD BE SENT TO J. N. Edwards
Name

Copy to: Box 1358 Secretary
Scottsdale, Az. Title
85252 Address P.O. Box 291, Carmi, Illinois-62821

Date 9/30/70

Date Approved 10-6-70
STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
By: John Gannester

Permit No. 237

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Application to Abandon and Plug
File Two Copies
Form No. 9





GEOLOGICAL WELL REPORT

OPERATOR Eastern Petroleum Company  
Western Helium Corporation FARM Santa Fe WELL NO. 18  
 LOCATION 2500 FSL; 1750 FWL NESW  
Sec. 13 T20N R27E COUNTY Apache STATE Arizona  
 ELEV: 5833 Grd Re-entered: 6-23-70 Re-comp: 8-9-70  
 COMM. 8-12-63 COMP. 8-21-63 TOTAL DEPTH 1353 feet  
 SURFACE PIPE 7" @ 224' CEMENT 60 SX req. OIL STRING 1241' SIZE 4 1/2" CEMENT 60 SX  
 GAMMA RAY LOG Go. Int. 100' - 1194' ELECTRICAL LOG Schl. IES - 224' to 1352'  
 DRILLING TIME LOG Casing Collar log: 1080' - 1230'  
Cement Bond log: 410 - 1194' CONTRACTOR Eastern Drilling Company

FORMATION DATA

SAMPLE TOPS	G. R. AND/OR ELECTRICAL LOG TOPS	
Sonsela ss mbr. "A" bed	325'	(+) 5508
Lower Petrified Forest Mbr.	353'	(+) 5480
Monitor Butte Mbr.	1101'	(+) 4732
Shinarump Congl. ss Mbr.	1146'	(+) 4687
Moenkopi fm.	1193'	(+) 4640
Coconino Sandstone	1335'	(+) 4498

SHOWS OF OIL AND/OR GAS

DEPTH	DESCRIPTION	REMARKS (CIRCULATING, ETC.)
1146 - 1193	(Shinarump) indicated gas bubbles in sample cuttings. Data from Contractor.	RECEIVED JAN 11 1971 O & G CONS. COMM.
	Three Drill Stem Tests were attempted in the Shinarump; all were mis-runs.	
	Water recovered during swabbing of Shinarump; had a measured resistivity value of 2.31 ohms @ 90°F	
1335 - 1353	Salt water - recovered on DST; IES log also indicates the water is salty.	

DURANGO, COLORADO

GEOLOGIST

ROBERT E. LAUTH

237



CORING DATA: No cores were taken.  
No samples were described as none were readily  
available for examination.

DRILL-STEM TEST DATA: Original Data: August, 1963  
DST No. 1 - 1333 - 1353 - tool opened with fair blow air; died in  
40 minutes; Recovered 312' of Salt water  
and 60' Salty drilling mud. IHP 732#, FHP 692#  
IHP 17# FFP 77# No shut-in recorded.  
DST No. 2 114A - 1193 Mis-run  
DST No. 3 114A - 1193 Mis-run  
DST No. 4 1154 - 1179 Mis-run

COMMENTS: This test was originally drilled in August, 1963 as a  
Coconino sandstone test. When it was found unproductive in the  
Coconino sand, various open hole drill stem tests were taken in the  
Shinarump conglomerate sand member to test the gas shows found by the  
contractor in the sample cuttings while drilling. After 3 drill stem  
tests failed to give any concrete results, the operator set and  
cemented 4½" casing at 1241 feet with 60 sacks of cement. The for-  
mation was perforated using Schlumberger's 3 5/8" & 3 1/8" shape  
charges from 1152 - 1184 (128 shots) and from 1106 - 1140 (20 shots).  
The hole was swabbed through tubing with no results. It swabbed dry.  
In going back in the hole in 1970, it was found that cement, cuttings  
and debris were as high as 1148 feet, so that all the Shinarump per-  
forations were covered and not open previously.

DURANGO, COLORADO

GEOLOGIST

ROBERT E. LAUTH



RECOMMENDATION: It was thought that the original completion (1963) did not adequately test the Shinarump sandstone because of its low permeability. The low permeability is due to cementation and filling of the pore space with much clay.

It was recommended that the old hole be re-entered and the existing perforations be cleaned and washed out and the formation stimulated by a fairly large sand-gel-water frac treatment.

It was regrettable that the upper perforations (1106 - 1138) in the Monitor Butte member existed so the frac could not be selectively directed to the Shinarump sand alone (perforations 1152 - 1184).

DRILLING IN DATA: CONDENSED DRILLING LOG OF THE RECOMPLETION

6-15-70 Swabbed 600 feet water out of hole; no shows, left set overnight, no entry of water or gas.

6-24-70 Checked total depth, found cement, cuttings and perforating debris to 1148 feet. Drilled out to 1213 feet. Hole is taking fluid so no need to re-perforate.

7-4-70 Ran Bond log; cement bond OK; Ran Gamma Ray log, checked perforation; all OK.

7-10-70 Sand-water frac the existing perforations (1106 - 1140 & 1152 - 1184) as follows:

Total Fluid - 35,680 gallons water

30,000 lbs 20-40 mesh sand

10,000 lbs 10-20 mesh sand

1% Potassium Chloride

30 lbs per 1000 gallon wtr. of W-G-6-Gel

10 lbs AP gel breaker

10 units Ray-frac, radioactive sand

Load and Breakdown - 4000 gallons water

No breakdown pressure evident, hole taking fluid immediately.

DURANGO, COLORADO

GEOLOGIST

ROBERT E. LAUTH



DURANGO, COLORADO  
GEOLOGIST  
ROBERT E. LAUTH

Average injection pressure 650 psig  
Instantaneous shut-in pressure - 400 psig, 5 minutes later  
375 psig.  
Average injection rate 35 BPM.  
Started 20-40 mesh sand at 1 lb per gal; increased to 1 1/4 lb  
per gal then to 1 1/2 lbs per gallon.  
Dropped back to 1 1/4 lb per gal with 10-20 mesh sand, put in  
radioactive sand in last 100 lbs of 10-20 sand. Total time -  
17 minutes. Shut-in.  
7-16-70 Ran Rob Co Radioactive log 800 to 1200 feet to check the  
spots the frac-job went.  
Found hot spots as follows: 1064 - 1083; 1088 - 1097;  
1127 - 1137; 1143 - 1163; 1174 - 1200.  
Corrected depth due to line stretch is as follows: 1054 - 1073;  
1078 - 1087; 1117 - 1127; 1133 - 1153; 1164 - 1190.  
7-22-70 Rigging up cable tool rig (Standard Drilling Company) to  
swab back frac water.  
7-23-70 Started swabbing, water level at 850 feet. Total fluid to  
recover including that lost previously is 1450 bbls water.  
7-27-70 Pulling from 950 feet; total fluid back is 675 bbls; some  
gas bubbles and very sulphurous odor.  
8-5-70 Recovered to date 1200 bbls of water.  
8-9-70 Total fluid recovered to date, 1650 bbls. No change in  
fluid level (900 feet) or rate of entry. Water is sulphurous  
at times and then clear. Sent water sample to Halliburton  
for analysis.  
Analysis as follows:  
Specific Gravity 1.00  
PH 8  
Resistivity @ 80°F 3.89 ohms  
Chlorides 1012 mpl  
Sulphates Medium  
Total dissolved solids 1667 mpl  
The Cable Tool Rig was released at 12 noon.



DURANGO, COLORADO  
GEOLOGIST  
ROBERT E. LAUTH

Average injection pressure 650 psig  
Instantaneous shut-in pressure - 400 psig, 5 minutes later  
375 psig.  
Average injection rate 35 BPM.  
Started 20-40 mesh sand at 1 lb per gal; increased to 1 1/4 lb  
per gal then to 1 1/2 lbs per gallon.  
Dropped back to 1 1/4 lb per gal with 10-20 mesh sand, put in  
radioactive sand in last 100 lbs of 10-20 sand. Total time -  
17 minutes. Shut-in.  
7-16-70 Ran Rob Co Radioactive log 800 to 1200 feet to check the  
spots the frac-job went.  
Found hot spots as follows: 1064 - 1083; 1088 - 1097;  
1127 - 1137; 1143 - 1163; 1174 - 1200.  
Corrected depth due to line stretch is as follows: 1054 - 1073;  
1078 - 1087; 1117 - 1127; 1133 - 1153; 1164 - 1190.  
7-22-70 Rigging up cable tool rig (Standard Drilling Company) to  
swab back frac water.  
7-23-70 Started swabbing, water level at 850 feet. Total fluid to  
recover including that lost previously is 1450 bbls water.  
7-27-70 Pulling from 950 feet; total fluid back is 675 bbls; some  
gas bubbles and very sulphurous odor.  
8-5-70 Recovered to date 1200 bbls of water.  
8-9-70 Total fluid recovered to date, 1650 bbls. No change in  
fluid level (900 feet) or rate of entry. Water is sulphurous  
at times and then clear. Sent water sample to Halliburton  
for analysis.  
Analysis as follows:  
Specific Gravity 1.00  
PH 8  
Resistivity @ 80°F 3.89 ohms  
Chlorides 1012 mpl  
Sulphates Medium  
Total dissolved solids 1667 mpl  
The Cable Tool Rig was released at 12 noon.



At this point it was decided to plug the hole due to the excess of water entry and so little gas.

Presently waiting on hydraulic jacks and rig to pull casing and plug in accordance with the rules and regulations of the Arizona Oil & Gas Commission.

This well adequately tested the Shinarump conglomerate sand and found it non-commercial.

Respectfully submitted,

*Robert E. Lauth*

Robert E. Lauth

AIPG 1366, AAPG 707

Durango, Colorado

September 14, 1970

DURANGO, COLORADO

GEOLOGIST

ROBERT E. LAUTH

TO AMEND REPORT DATED 11/22/65 TO SHOW PERFORATIONS

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well  Work-Over  Deepen  Plug Back  Same Reservoir  Different Reservoir  Oil  Gas  Dry

DESCRIPTION OF WELL AND LEASE

Operator Eastern Petroleum Company Address Box 291, Carmi, Illinois 62821

Federal, State or Indian Lease Number or name of lessor if fee lease Eastern Santa Fe Fee Well Number 18 Field & Reservoir Wildcat

Location 2500' N of SL; 1750' E of WL County Apache

Sec. TWP-Range or Block & Survey 13-20N-27E

Date spudded 8-12-63 Date total depth reached 8-21-63 Date completed, ready to produce Elevation (DF, RKB, RT or Gr.) 5785 Gr. feet Elevation of casing hd. flange feet

Total depth 1353 P.B.T.D. Single, dual or triple completion? If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion Rotary tools used (interval) 0-1353 Cable tools used (interval)

Was this well directionally drilled? No Was directional survey made? Was copy of directional survey filed? Date filed

Type of electrical or other logs run (check logs filed with the commission) Schlumberger Electric Date filed

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
Surface	8 5/8	7"		218'		-0-
Long String		4 1/2"		1241'	60	-0-

TUBING RECORD

LINER RECORD

Size	Depth set	Packer set at	Size	Top	Bottom	Sacks cement	Screen (ft.)
in.	ft.	ft.	in.	ft.	ft.		

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number	Size & type	Depth Interval	Amt. & kind of material used	Depth Interval
20	3 5/8x 3 1/8	1106-40		
4	Shape	1152-1184		

INITIAL PRODUCTION

Date of first production Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:)

Date of test	Hrs. tested	Choke size	Oil prod. during test	Gas prod. during test	Water prod. during test	Oil gravity
			bbls.	MCF	bbls.	° API (Corr)

Tubing pressure	Casing pressure	Cal'ed rate of Production per 24 hrs.	Oil	Gas	Water	Gas-oil ratio
			bbls.	MCF	bbls.	

Disposition of gas (state whether vented, used for fuel or sold):

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Secretary of the Eastern Petroleum Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date October 15, 1970

Signature



STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Well Completion or Recompletion Report and Well Log Form No. 4 File One Copy

Permit No. 237

**DETAIL OF FORMATIONS PENETRATED**

Formation	Top	Bottom	Description*
			<p>DST #1 - 1333-53 - Open tool w/fair blow, died in 40 mins. Recovered 312' saltwater and 60' salt mud (Coconino)</p> <p>DST #2 - 1148-1193 - Misrun, bridge off</p> <p>DST #3 - 1148-1193 - Misrun, bridge off</p> <p>DST #4 - 1154-1179 - Misrun - no readings</p> <p align="center">Last three in Shinarump</p> <p>This well has not been plugged nor permanently abandoned. There was a trace of helium in the Shinarump. However, due to lack of market the well is now capped. It may well be this well may have to be plugged &amp; abandoned. Therefore, no plugging record is being filed at this time.</p>

\* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

**INSTRUCTIONS:**

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil & Gas Conservation Commission not later than thirty days after project completion.

### WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well  Work-Over  Deepen  Plug Back  Same Reservoir  Different Reservoir  Oil  Gas  Dry

DESCRIPTION OF WELL AND LEASE

Operator <b>Eastern Petroleum Company</b>		Address <b>P. O. Box 291, Carmi, Illinois</b>	
Federal, State or Indian Lease Number or name of lessor if fee lease <b>Eastern Santa Fe Fee</b>		Well Number <b>18</b>	Field & Reservoir <b>Wildcat</b>
Location <b>2500' N of SL; 1750' E of WL</b>		County <b>Apache</b>	
Sec. TWP-Range or Block & Survey <b>13-20N-27E</b>			
Date spudded <b>8-12-63</b>	Date total depth reached <b>8-21-63</b>	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.) feet <b>5785 Gr.</b>
Total depth <b>1353</b>	P.B.T.D.	Single, dual or triple completion <b>0 - 1353</b>	
Producing interval (s) for this completion		Rotary tools used (interval)	Cable tools used (interval)
<b>No</b>		<b>0 - 1353</b>	
Was this well directionally drilled?	Was directional survey made?	Was copy of directional survey filed?	Date filed
<b>No</b>			
Type of electrical or other logs run (check logs filed with the commission) <b>Schlumberger electric</b>			Date filed

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)						
Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
Surface	8 5/8	7"		218'		-0-
Long String		4 1/2"		1241'	60	-0-

TUBING RECORD

LINER RECORD

Size in.	Depth set ft.	Packer set at ft.	Size in.	Top ft.	Bottom ft.	Sacks cement	Screen (ft.)

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft.	Size & type	Depth Interval	Amt. & kind of material used	Depth Interval

INITIAL PRODUCTION

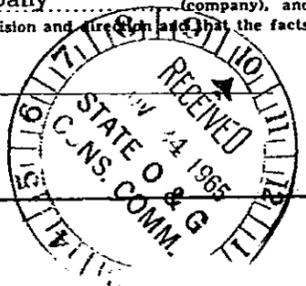
Date of first production		Producing method (Indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:)				
Date of test	Hrs. tested	Choke size	Oil prod. during test bbls.	Gas prod. during test MCF	Water prod. during test bbls.	Oil gravity ° API (Corr)
Tubing pressure	Casing pressure	Cal'ed rate of Production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas—oil ratio

Disposition of gas (state whether vented, used for fuel or sold):

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Secretary of the Eastern Petroleum Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date November 22, 1965

Signature [Signature]



Permit No. **237**

STATE OF ARIZONA  
OIL & GAS CONSERVATION COMMISSION  
Well Completion or Recompletion Report and Well Log  
Form No. 4 File One Copy

**DETAIL OF FORMATIONS PENETRATED**

Formation	Top	Bottom	Description*
			<p>DST #1 - 1333-53 - Open tool w/fair blow, died in 40 mins. Recovered 312' saltwater and 60' salt mud (Coconino)</p> <p>DST #2 - 1148-1193 - Misrun, bridge off</p> <p>DST #3 - 1148-1193 - Misrun, bridge off</p> <p>DST #4 - 1154-1179 - Misrun - no readings</p> <p align="center">Last three in Shinarump</p> <p>This well has not been plugged nor permanently abandoned. There was a trace of helium in the Shinarump. However, due to lack of market the well is now capped. It may well be this well may have to be plugged &amp; abandoned. Therefore, no plugging record is being filed at this time.</p>

\* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

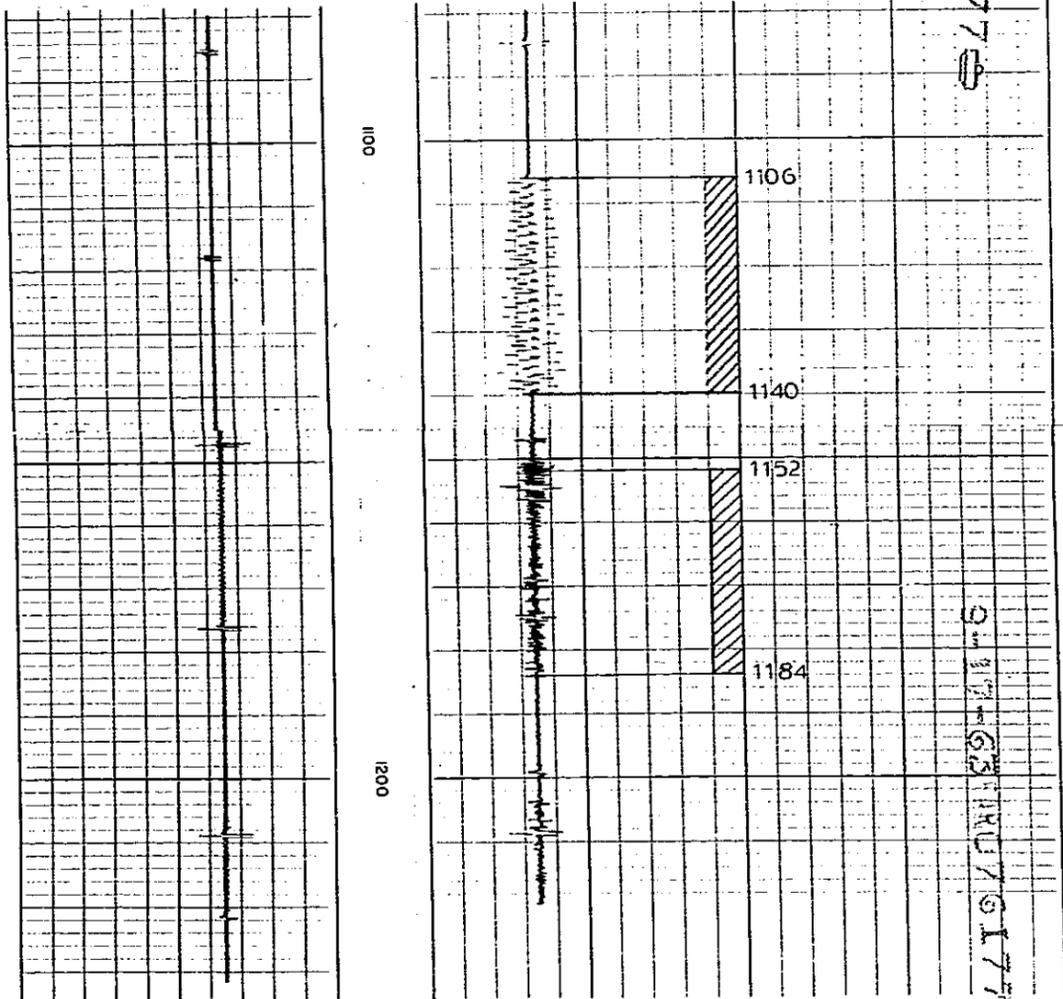
**INSTRUCTIONS:**

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil & Gas Conservation Commission not later than thirty days after project completion.

FOLD HERE

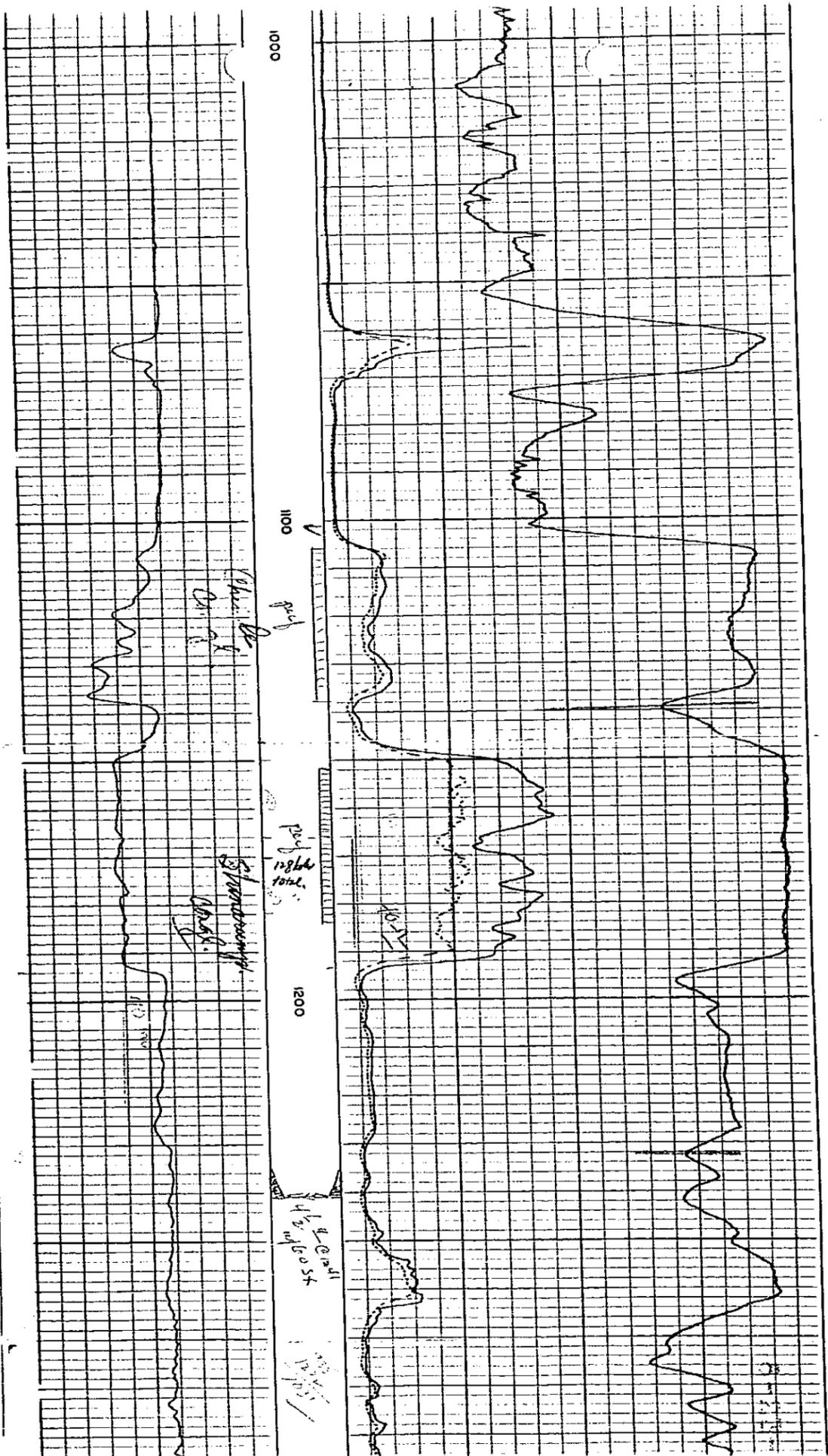
REMARKS			
CASING COLLAR LOG BEFORE PERFORATION		DEPTH	CASING COLLAR LOG AFTER PERFORATION



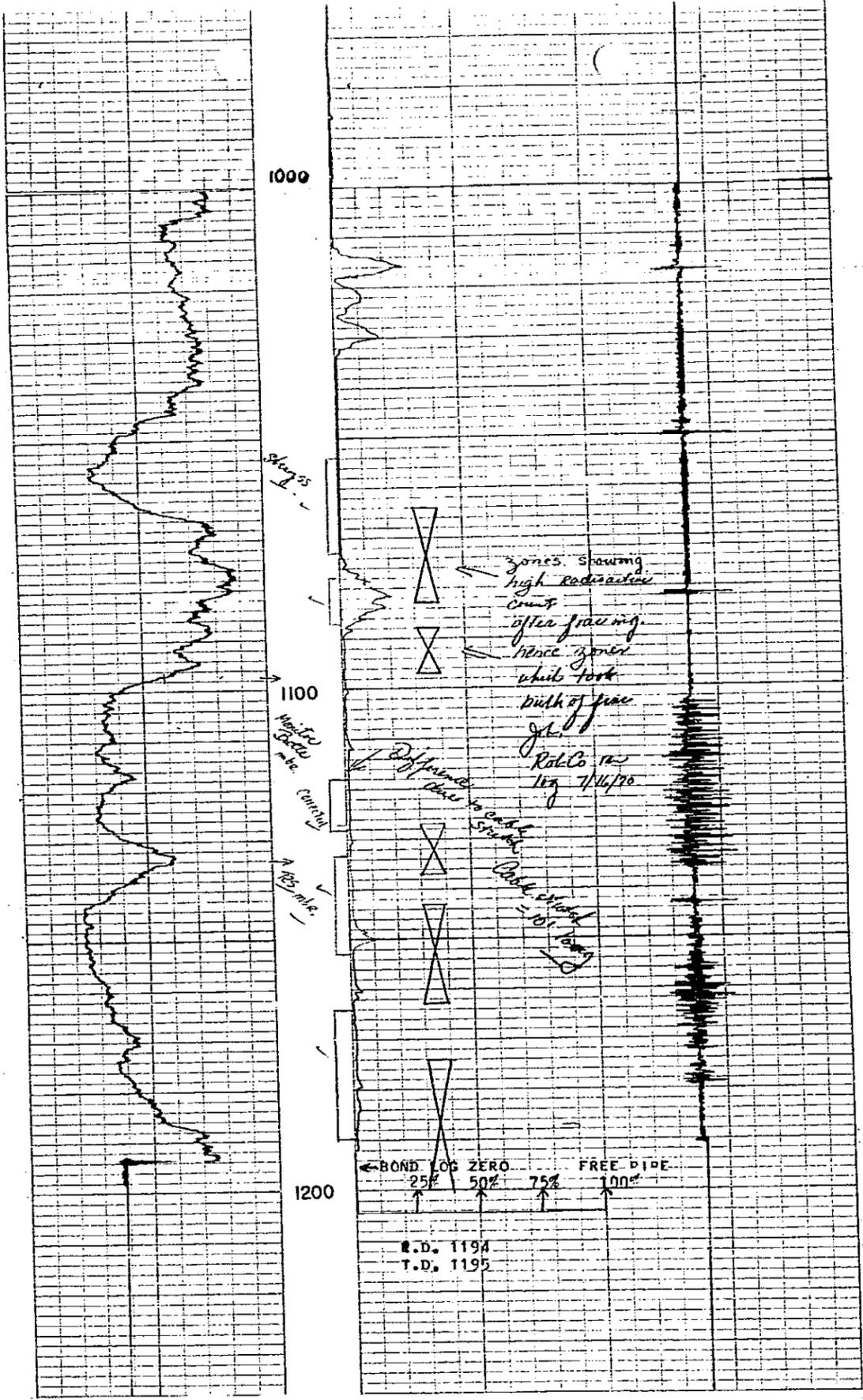
9-17-63 4076177

9-17-63 4076177

COMPANY EASTERN PETROLEUM COMPANY LOCATION: SEC. 13-20-27  
 WELL: SANTA FE #18 COUNTY: APACHE STATE: ARIZONA



0 0 0



APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

APPLICATION TO DRILL  DEEPEN  PLUG BACK

NAME OF COMPANY OR OPERATOR **Eastern Petroleum Company** DATE **June 17, 1963**

Address **P. O. Box 291** **Carmi** **Illinois**  
City State

DESCRIPTION OF WELL AND LEASE

Name of lease <b>Eastern-Santa Fe</b>	Well number <b>18</b>	Elevation (ground) <b>5785</b>
Well location (give footage from section lines) <b>2500' N of S.L. and 1750' E of W.L.</b>	Section—township—range or block & survey <b>13-20N-27E</b>	
Field & reservoir (If wildcat, so state) <b>Wildcat</b>	County <b>Apache</b>	
Distance, in miles, and direction from nearest town or post office <b>Approx. 4 miles south of Chambers</b>		
Nearest distance from proposed location to property or lease line: <b>1750'</b> feet	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: feet	
Proposed depth: <b>1100 ft.</b>	Rotary or cable tools <b>Rotary</b>	Approx. date work will start <b>June 24, 1963</b>
Number of acres in lease: <b>640</b>	Number of wells on lease, including this well, completed in or drilling to this reservoir: <b>One</b>	

If lease, purchased with one or more wells drilled, from whom purchased: Name Address

Status of bond  
**Blanket**

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone)

\* Fill in Proposed Casing Program on other side

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Secretary** of the **Eastern Petroleum Company** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date **June 17, 1963**

Signature *J. H. Edwards*

Permit Number: **237**  
Approval Date: **6-2-63**  
Approved By: *J. H. Edwards*

Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.  
See Instruction on Reverse Side of Form

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION  
Application to Drill, Deepen or Plug Back  
Form No. P-1 File two copies  
Authorized by Order No. **4-8-59**  
Effective **April 6, 1959**

237

16

INSTRUCTIONS

READ CAREFULLY AND COMPLY FULLY

For the purpose of this determination attach hereto a neat, accurate plat, map or sketch of this lease, section, block or lot locating thereon the proposed site for this location. Plat shall be drawn to a scale which will permit the facile observation of all pertinent data. Show distances of the proposed well from the two nearest lease and section lines, and from the nearest wells on the same lease completed in or drilling to the same reservoir. If the location requested is not in conformance with the applicable well-spacing rules, show all off-setting wells to the proposed well, and the names and addresses of all adjoining lease or property owners.

In event plat is filed for the purpose of designating the drilling and producing unit, or proration unit, on which the proposed well is to be drilled, the boundaries of such unit shall be shown, also the boundaries of all other such units attributed to other wells on the same lease completed in or drilling to the same reservoir. The acreage contained within each unit shall also be shown.

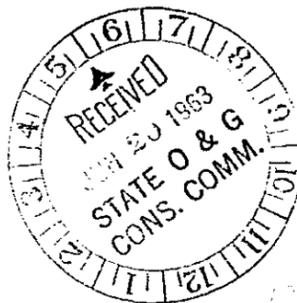
Do not confuse survey lines with lease lines. The sketch or plat should show your entire lease if possible. If it is not practical to show the entire lease and the plat shows only a section, block or lot out of your lease, you should clearly show that same is only a part of the lease.

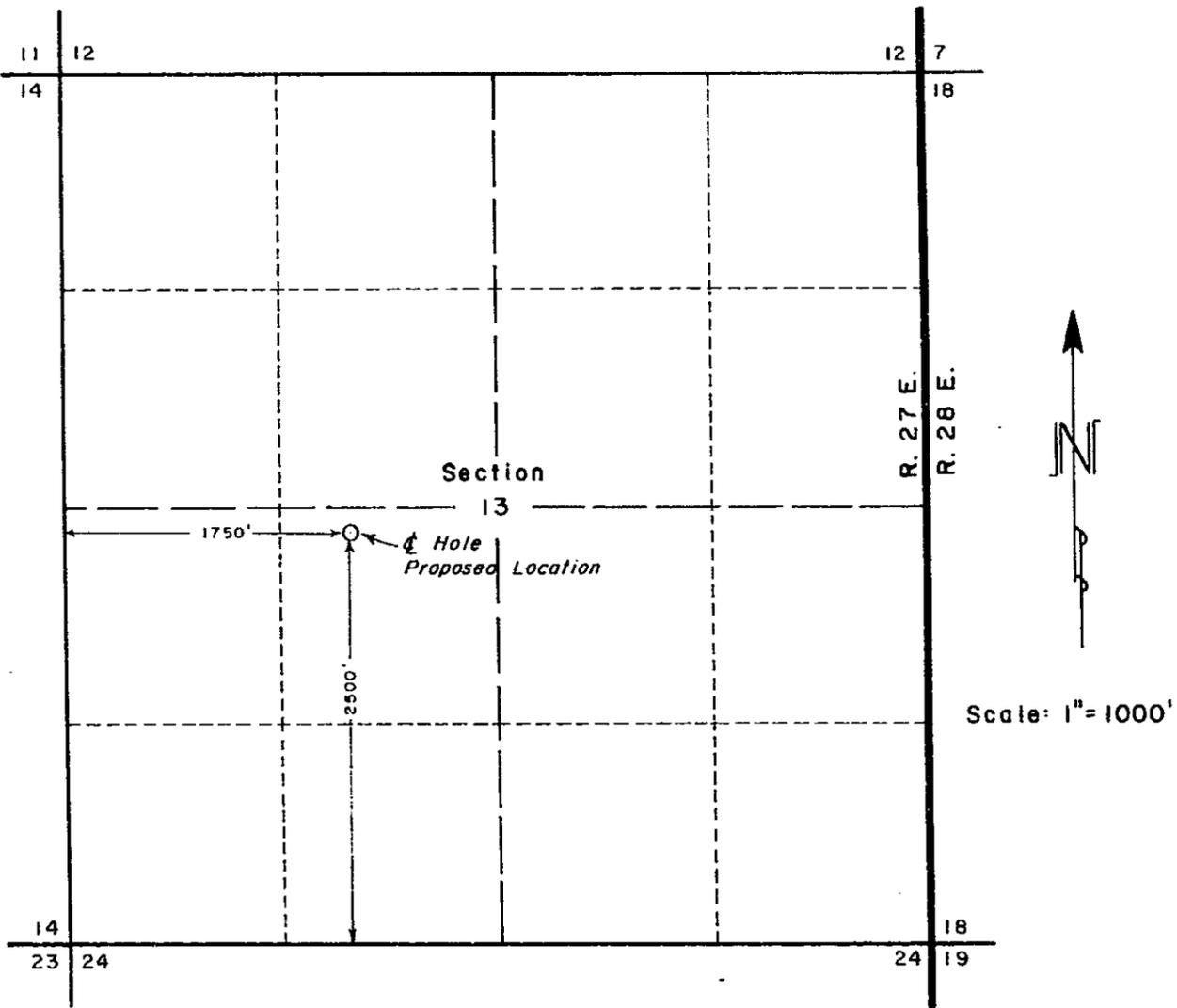
Designate scale to which plat or sketch is drawn. Also designate northerly direction on the sketch or plat.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
8 5/8"		H-40	0	90'	90'	40

Form No. P-1





**WELL LOCATION: Eastern Petroleum - Santa Fe # 18**

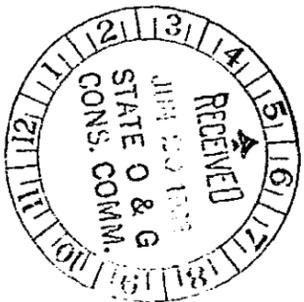
Located 2500 feet North of the South line and 1750 feet East of the West line of Section 13,  
 Township 20 North, Range 27 East, Gila & Salt River Meridian.  
 Apache Co., Arizona

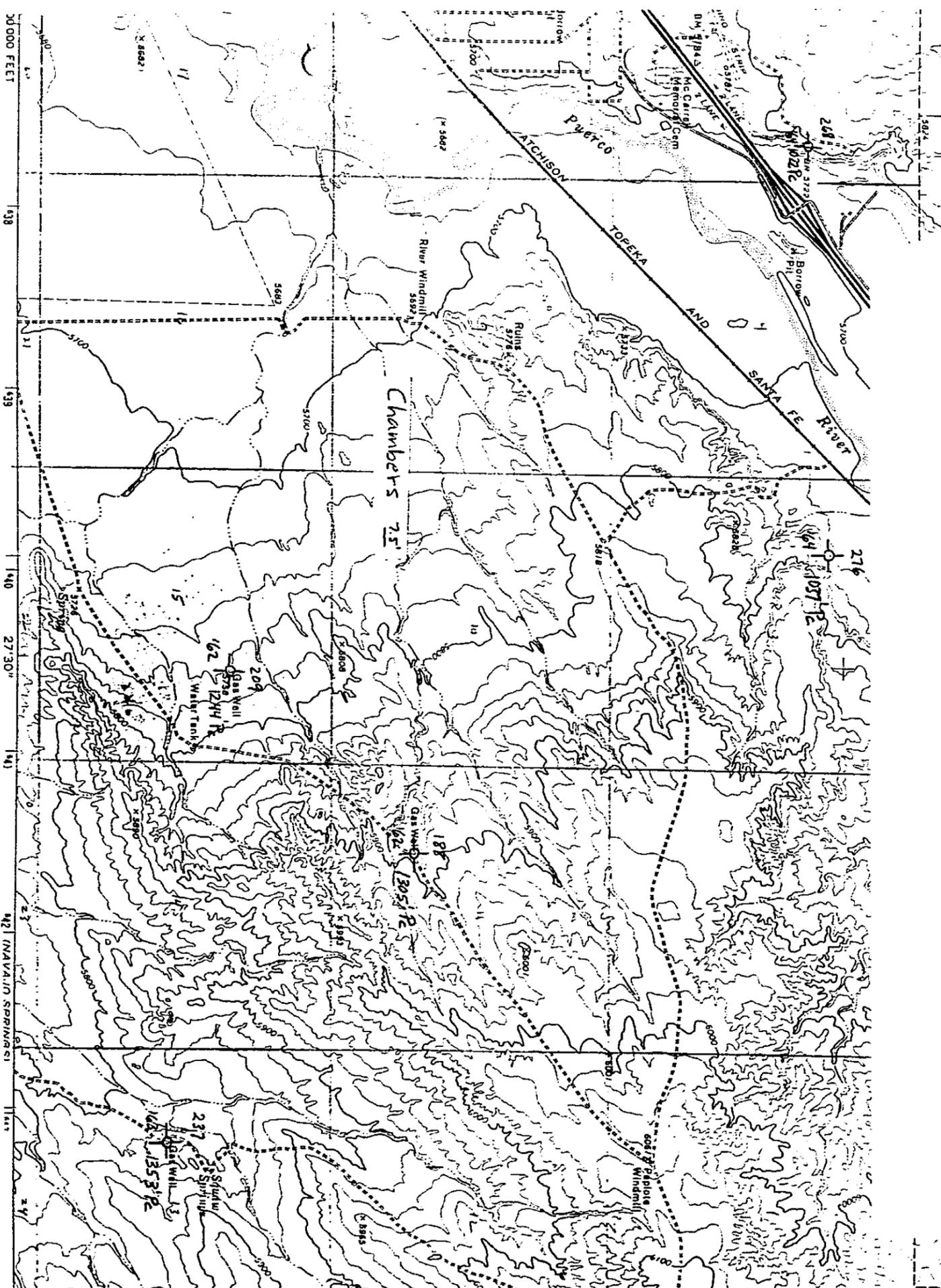
I hereby certify the above plat represents a survey made under my supervision and that it is accurate to the best of my knowledge and belief.

*Almer M. Clark*

ALMER M. CLARK  
 Registered Land Surveyor  
 State of Arizona #4973

<b>EASTERN PETROLEUM</b>	
<b>WELL LOCATION PLAT</b> Sec. 13, T. 20 N., R. 27 E. Apache Co., Arizona	
E.M. CLARK & ASSOC. Durango, Colorado	DATE: March 4, 1963 FILE NO: 63010





Phone 602/947-8388



**western helium corporation**

suite 3, box 1358 / scottsdale square / 44 east indian school road / scottsdale, arizona 85252

PRODUCERS  
OF HELIUM

January 16, 1971

Mr. W. E. Allen  
Oil & Gas Conservation Comm.  
4515 North 7th Avenue  
Phoenix, Arizona 85013

Re: Eastern Petroleum Co.-  
Western Helium Corp.  
Santa Fe #18

Dear Mr. Allen:

Enclosed herewith is the log on the above captioned well that Eastern Petroleum requested we send you in their letter of January 14, 1971.

Thank you.

Yours truly,

WESTERN HELIUM CORPORATION  
by: Lew A. Halter

LAH:HT

RECEIVED

JAN 18 1971

O & G Cons. Comm.

237



OFFICE OF  
**Oil and Gas Conservation Commission**  
STATE OF ARIZONA  
4515 NORTH 7th AVE.  
PHOENIX, AZ. 85018  
Phoenix, Arizona 85007  
PHONE: 271-5161

January 11, 1971

Mr. J. N. Edwards  
Eastern Petroleum Company  
P. O. Box 291  
Carmi, Illinois 62821

Re: Eastern #2-26 Santa Fe Fee  
SE/4 SE/4 Sec. 26-T20N-R27E  
Apache County  
Our File #547

Dear Mr. Edwards:

We have received your Completion Report and Plugging Record on the above well. You indicated on your Completion Report that an Induction-Electrical Log had been run on this well. Will you please forward us copies of this log at your earliest convenience.

In the future a Form 25, Sundry Notices and Reports on Wells, will not be required on wells that have been completed and temporarily shut in awaiting market. The only time, except in unusual circumstances, that we will require this Form 25 on completed wells is when there has been a change in the well status.

Very truly yours,

W. E. Allen, Director  
Enforcement Section

WEA:jd

cc: Mr. J. N. Edwards, Scottsdale, Arizona

P. S. We also have the above problem on the Eastern Santa Fe #18 well, Permit #237, and we would appreciate receiving the logs on this well as soon as possible.

237

November 30, 1970

Mr. Henry Fullop  
Eastern Petroleum Company  
P. O. Box 291  
Carmi, Illinois

Re: Eastern Petroleum #18 Santa Fe  
NE/4 SW/4 Section 13-T20N-R27E  
Apache County  
Our File #237

Dear Mr. Fullop:

On October 5, 1970, this office approved a copy of your Application to Abandon and Plug the above referenced well.

As of this date we have received no further information. If this well has been plugged, please forward a copy of the Plugging Record. If plugging operations have not commenced, please advise what your intentions are regarding this well.

Very truly yours,

W. E. Allen  
Director, Enforcement Section

WEA:jd

cc: J. N. Edwards, Scottsdale, Arizona  
J. N. Edwards, Carmi, Illinois

237

September 28, 1970

Mr. J. N. Edwards  
P. O. Box 1358  
Scottsdale, Arizona

Certified Mail

Re: Eastern #1-26 Santa Fe Fee  
SE/4 SW/4 Sec. 26-T20N-R27E  
Apache County  
Our File #543

Eastern #18 Santa Fe  
NE/4 SW/4 Sec. 13-T20N-R27E  
Apache County  
Our File #237

Dear Mr. Edwards:

We are in receipt of your Form 9's, Application to Abandon and Plug, the above referenced wells.

As you know, the procedure as outlined on your request does not conform to our recommendations as we discussed several days ago in this office.

In your well #1-26 Santa Fe Fee SE/4 SW/4 Section 26-T20N-R27E, Apache County, a 50' plug will be required from 1147' to 1097' instead of the 20' plug indicated on your application. The portion of the hole not plugged with cement shall be filled with heavy mud. An approved copy of this application is enclosed with the necessary corrections indicated on the form.

In your well #18 Santa Fe NE/4 SW/4 Section 13-T20N-R27E, Apache County, the bottom of the hole must be filled with heavy mud, a 50' cement plug from 1266' to 1216', heavy mud from 1216' to 1160', cement plug from 1160' to 1080', heavy mud from the top of this plug to 270', cement plug from 270' to 220', heavy mud from 220' to 15', and a cement plug from 15' to surface, and the regulation dry hole marker set. Please furnish a revised Form 9 on this well.

237

Page 2  
Mr. J. N. Edwards  
September 28, 1970

Since our records do not indicate that the 4-1/2" casing in well #18 was perforated in order for you to test the Shinarump formation, will you please furnish this office with a corrected Form 4, Well Completion Report. We also will need a Form 25, Sundry Notices and Reports on Wells, on both these subject wells detailing the work to be done in salvaging the 4-1/2" casing. Also, we have not received your Form 4, Well Completion Report, on your #1-26 Santa Fe Fee.

Please notify this office 24 hours prior to commencing plugging operations on the above wells. We plan to have a representative witness the plugging procedure. Thank you for your cooperation.

Yours very truly,

W. E. Allen  
Director, Enforcement Section

WEA:jd  
Enc.

cc: Mr. Henry Fullop  
Mr. J. N. Edwards, Carni, Illinois

237

Operator Eastern Petroleum Company

Bond Company U. S. Fidelity & Guaranty Co. Amount \$10,000

Bond No. 27716-13-3746-60 Date Approved 8-1-60

Permits covered by this bond:

*See this  
file*

- |              |       |
|--------------|-------|
| <u>269</u> ✓ | 234 ✓ |
| <u>81</u> ✓  | 230 ✓ |
| <u>252</u> ✓ | 229 ✓ |
| <u>251</u> ✓ | 237 ✓ |
| <u>107</u> ✓ | 236 ✓ |
| <u>207</u> ✓ | 218 ✓ |
| <u>157</u> ✓ | 209 ✓ |
| <u>88</u> ✓  | 206 ✓ |
| <u>80</u> ✓  | 194 ✓ |
| <u>78</u> ✓  | 188 ✓ |
| <u>264</u> ✓ | 155 ✓ |
| <u>263</u> ✓ | 150 ✓ |
| <u>273</u> ✓ | 152 ✓ |
| <u>259</u> ✓ | 109 ✓ |
| <u>258</u> ✓ | 108 ✓ |
| <u>255</u> ✓ | 107 ✓ |
| <u>282</u> ✓ |       |
| <u>250</u> ✓ |       |
| <u>276</u> ✓ |       |
| <u>284</u> ✓ |       |
| <u>227</u> ✓ |       |

**CANCELLED**

DATE Jan 11-22-65

231

May 13, 1965

Mr. Henry Fallop  
Eastern Petroleum Company  
Box 291  
Carmi, Illinois

Dear Hank:

Attached is a list showing Eastern's wells and what we need from Eastern Petroleum in order to complete our files.

We have attempted in the past to get you to furnish this information. I do not want to have to go against the board or to get the Attorney General in on this in order to secure this information which, as you know, by law the Commission is entitled to.

If you need any forms, or if we can help you in any way in securing and filing this information, please let us know.

Please comply with this request at your earliest convenience.

Sincerely,

John Bannister  
Executive Secretary

nr  
enc

cc: Attorney General

237

Handwritten notes at the top of the page, including a circled 'C' and some illegible text.

Handwritten notes in the upper middle section, possibly starting with 'The first...'.

Handwritten notes in the middle section, possibly starting with 'The second...'.

Handwritten notes in the lower middle section, possibly starting with 'The third...'.

Handwritten notes in the lower section, possibly starting with 'The fourth...'.

Handwritten notes in the lower section, possibly starting with 'The fifth...'.

231

Handwritten notes at the bottom of the page, possibly starting with 'The sixth...'.

Santa Fe Sec #18 Need: 1) Logging record  
Sec 13-20N-27E 2) Completion "  
Apache Co.

Santa Fe Sec #19 Need: 1) Logging report  
Sec 12-19N-27E 2) Completion "  
Apache Co.

Santa Fe Sec #15 Need: 1) Completion report  
Sec 15-20N-27E  
Apache Co.

~~Santa Fe Sec #14~~ Need: 1) Completion report  
Sec 1-14N-24E  
Apache Co.

Santa Fe #1 Need: (1) Completion report  
Sec 35-21N-26E  
Apache Co.  
Start test

Santa Fe #2 Need: (1) Completion report  
Sec 7-20N-27E  
Apache Co.

237

Santa Fe #3 Need: (1) Completion report  
Sec 9-19N-27E  
Apache Co.

Unit  
No.

50 Santa Fe #5 need: ~~log~~ ~~completion~~ ~~report~~  
Sec 9-19N-28E  
Apache Co.

Santa Fe #6 need: completion report  
Sec 25-20N-28E  
Apache Co.

34 Santa Fe #21 need: (1) logs  
Sec 3-20N-28E (2) completion report  
Apache Co.

227 Santa Fe #23 need: (1) logs  
(2) completion report

Note: EASTERN should be informed  
that we require (1) formation tops,  
(2) Drill stem test descriptions and  
(3) Core descriptions and this  
completion forms.



PAUL FANNIN  
GOVERNOR  
LYNN LOCKHART  
CHAIRMAN  
R. KEITH WALDEN  
VICE CHAIRMAN  
CHARLES KALIL, M.D.  
MEMBER  
ORME LEWIS  
MEMBER  
LUCIEN B. OWENS  
MEMBER

Oil and Gas Conservation Commission

STATE OF ARIZONA

ROOM 204  
1801 WEST ARIZONA  
PHOENIX, ARIZONA 85007  
PHONE: 271-9181

JOHN BANNISTER  
EXECUTIVE SECRETARY  
JOHN K. PETTY  
PETROLEUM GEOLOGIST

August 8, 1954

Mr. J. N. Edwards  
Eastern Petroleum Company  
Box 201  
Carmi, Illinois

Dear Mr. Edwards:

In reviewing our files we find that we are without numerous and various forms necessary to complete our files in some cases, and in others the required forms are necessary that we may keep our files current with the operations of your wells. I am enclosing a substantial number of the required forms together with a guide so that you may fill out the proper information with the wells concerned. Inasmuch as we are trying to stay current your early cooperation will be appreciated.

If there is any assistance that we may give, please advise.

Very truly yours,

Bill Cooper  
Records Section

237

August 5, 1963

Mr. Henry Fullop, President  
Eastern Petroleum Company  
P. O. Box 291  
Carmi, Illinois

Re: Eastern Petroleum - Ancon - Santa Fe Fee #21  
Sec. 31, 20N, 28E, Apache County, Arizona

✓ Eastern Petroleum - Santa Fe Fee #18 - Sec. 13,  
20N, 27E, Apache County, Arizona

Dear Sir:

Enclosed are your approved copies of application to  
drill the captioned locations together with the re-  
ceipts for the two \$25.00 permit fees paid by you to  
this commission.

Yours very truly,

N. A. Ludewick  
Executive Secretary

encs 4

PAUL FANNIN  
GOVERNOR  
R. KEITH WALDEN  
CHAIRMAN  
LYNN LOCKHART  
VICE CHAIRMAN  
CHARLES KALIL, M.D.  
MEMBER  
ROBERT B. HEWARD  
MEMBER  
ORME LEWIS  
MEMBER



OFFICE OF  
**Oil and Gas Conservation Commission**  
STATE OF ARIZONA  
ROOM 202  
1624 WEST ADAMS  
Phoenix 7, Arizona  
271-5161

N. A. LUDEWICK  
EXECUTIVE SECRETARY  
JOHN K. PETTY  
PETROLEUM GEOLOGIST

August 2, 1963

Mr. N. A. Ludewick  
Executive Secretary  
Oil and Gas Conservation Commission  
State of Arizona  
Room 202, 1624 West Adams  
Phoenix 7, Arizona

Dear Noel:

Enclosed, you will find the following  
in connection with Eastern Petroleum Company:

1. Executed application for  
permit to drill;
2. Copy of letter with reference  
to the company's violation of location  
of drilling.

Copies of the latter are being sent to  
all Commissioners.

Yours very truly,

R. Keith Walden  
Chairman



RKW:ac

enclosures

July 25, 1963

Mr. R. Keith Walden, Chairman  
Oil and Gas Conservation Commission  
P. O. Box 1271  
Tucson, Arizona

Re: Eastern Petroleum Co. Santa Fe #18 - Sec. 13,  
T20N, R27E, Apache County, Arizona

Dear Mr. Walden:

This application was submitted to you in our letter of June 20 and was held pending the hearing on July 24 on Eastern's violation of their #21 - Sec. 31, 20N, 28E, Apache County.

I failed to bring this to your attention yesterday and am submitting it herewith for your consideration in light of yesterday's developments.

Yours very truly,

N. A. Ludewick  
Executive Secretary

encs 3



PAUL FANNIN  
GOVERNOR

R. KEITH WALDEN  
CHAIRMAN

LYNN LOCKHART  
VICE CHAIRMAN

CHARLES KALIL, M.D.  
MEMBER

ROBERT B. HEWARD  
MEMBER

ORME LEWIS  
MEMBER

OFFICE OF  
**Oil and Gas Conservation Commission**

STATE OF ARIZONA  
ROOM 202  
1624 WEST ADAMS  
Phoenix 7, Arizona  
271-5161

N. A. LUDEWICK  
EXECUTIVE SECRETARY

JOHN K. PETTY  
PETROLEUM GEOLOGIST

June 20, 1963

*file to  
a meeting 6/26*

*TDU*

R. Keith Walden, Chairman  
P. O. Box 1271  
Tucson, Arizona

Dear Mr. Walden:

Enclosed please find APPLICATION FOR PERMIT TO DRILL submitted by Eastern-Petroleum Company covering its proposed Eastern-Santa Fe Fee, well #18, located in Section 13, T20N-R27E Apache County, Arizona, for your approval.

Permit #237 has been assigned to this application. Eastern's check in the amount of \$25 is being remitted to the State Treasurer.

Sincerely,

*N. A. Ludewick*  
N. A. Ludewick  
Executive Secretary

NAL/vc  
enclosure

237