

P-W

NE/4-SW/4 Sec. 31 Twp. 20N R27E

s1

COUNTY Apache AREA Pinta LEASE NO. Santa Fe Fee

WELL NAME Eastern Petroleum Company #13 Santa Fe

LOCATION NE SW SEC 31 TWP 20N RANGE 27E FOOTAGE 1650 FSL 2630 FWL

ELEV 5786 ^{DF} _{GR} KB SPUD DATE 6-19-62 W. O. Deepen STATUS Comp. 4/5 - 63 TOTAL COMP. DATE 6-25-62 DEPTH 980
5740 GL (USGS Quad) 5744+ from USGS 7 1/2 quad per JNC He B 1030 core records
CONTRACTOR

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY
8 5/8	91'	40 sx	NA	<input checked="" type="checkbox"/>
4 1/2	967	50 sx		

DRILLED BY CABLE TOOL _____
PRODUCTIVE RESERVOIR PIF 6290 MCFPI
calculated absolute / open flow
INITIAL PRODUCTION _____
~~Helium well shutin 6-25-62~~

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
Chinle	582		x	
Shinarump	761			
Moenkopi	802			
Coconino	964			

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
Elec. Log		967-980	SAMPLE DESCRP. _____ SAMPLE NO. <u>1272*</u> CORE ANALYSIS _____ DSTs _____ *Tucson 1660

REMARKS NOTE: This well originally permitted to Crest -
See File 132. Well drilled by Eastern under #194 & permit
#132 cancelled.

APP. TO PLUG _____
PLUGGING REP. _____
COMP. REPORT

WATER WELL ACCEPTED BY _____

BOND CO. U. S. Fidelity & Guaranty Co. BOND NO. 27716-13-3983-65

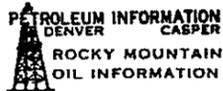
BOND AMT. \$ 25,000 CANCELLED 6-26-78 DATE 9-17-63
ORGANIZATION REPORT

FILING RECEIPT 9303 LOC. PLAT WELL BOOK PLAT BOOK

API NO. 02-001-05133 DATE ISSUED 6-22-62 DEDICATION A11

PERMIT NUMBER 194

194
ARIZONA
APACHE CO.
PINTA DOME (D)



Twp 20n-27e
Section 31
ne sw
1650 n/s 1980 e/w

OPR: Eastern Petroleum

WELL #: 13 Santa Fe

ELEV: 5600 Gr.

TOPS: Log-52778

Coconino 964

DSTS. & CORES:
No cores. DST 968-980,
flowed 1330 MCFGPD
(8.2% helium), FP 35-
38#, SIP (1 hr) 115#.

SPUD: 6-19-62 COMPL: 6-25-62

TD: 980 PB:
CSG: 8-5/8" @ 92 w/50
4 1/2" @ 967 w/50

PERF:

PROD. ZONE: Coconino 968-980 (open
hole)

INIT. PROD: IPF 1330 MCFGPD

Contr: Scott Bros.

ARIZ-3-263201

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**

Lease Name **Santa Fe** Well Number **13** Field & Reservoir **Navajo Springs**

Location **1650' N of S.L.; 2630' E of W.L.** Sec.—TWP—Range or Block & Survey **31-20N-27E**

County **Apache** Permit number **194** Date Issued **6-22-62** Previous permit number _____ Date Issued _____

Date spudded **6-19-62** Date total depth reached **6-24-62** Date completed, ready to produce **6-25-62** Elevation (D.F., RKB, RT or Gr.) **DF 5786** feet Elevation of casing hd. flange _____ feet

Total depth **980** P.B.T.D. _____ Single, dual or triple completion? **Single** If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion **967-80** Rotary tools used (interval) **Total depth** 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	10 3/4	8 5/8	24.0#	91.5'	40	-0-
Casing	6 1/4	4 1/2	9.5#	967	50	-0-

TUBING RECORD

None

LINER RECORD

None

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

PERFORATION RECORD

None

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

None

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

INITIAL PRODUCTION

Date of first production **Shut in 6/25** Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:) **Flowing**

Date of test **6-24** Hrs. tested **1** Choke size **1"** Oil prod. during test **-0-** bbls. Gas prod. during test **1,330** MCF Water prod. during test **-0-** bbls. Oil gravity *** API (Corr)**

Tubing pressure _____ Casing pressure _____ Cal'd 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):

Shut in

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.

BH Pressure 115# per DST. No other completion information until after perforating and drilling plug. OPEN HOLE COMPLETION

July 13, 1962
Date

J. H. Edwards
Signature

STATE OF ARIZONA OIL & GAS
CONSERVATION COMMISSION
Well Completion or Recompletion Report and Well Log
Form No. P-7
File two copies

Effective **April 6, 1962**

194

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
Chinle	582		One hour DST Coconino 968-78, swabbed through DST tool. Recovered gas to surface after 5th pull; gauge 1,330 MCF by Orifice test. 137.2# pressure on water gauge initial flow pressure 35# final flow pressure 38# final closed in pressure 115# Gas show from 964-80 Set 4 1/2" C. 967, circulated cement to surface.
Shinarump	761		
Moenkopi	802		
Coconino	964		

* 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 Navajo Springs Coconino Sand Unit

OPERATOR Eastern Petroleum Company ADDRESS Box 291, Carmi, Illinois 62821

Federal, State, or Indian Lease Number Santa Fe WELL NO. 13

or Lessor's Name if Fee Lease

LOCATION 1650' NSL; 2630' EWL Section 31-20N-27E, Apache County

TYPE OF WELL Gas-Helium TOTAL DEPTH 980

(Oil, Gas or Dry Hole)

ALLOWABLE (If Assigned)

LAST PRODUCTION TEST OIL -- (Bbls.) WATER -- (Bbls.)

GAS 1330 (MCF) DATE OF TEST 6/24/62

PRODUCING HORIZON Coconino PRODUCING FROM 967 TO 980

1. COMPLETE CASING RECORD.

8 5/8" @ 91.5' w/40 sks.
 4 1/2" @ 967' w/50 sks.

2. FULL DETAILS OF PROPOSED PLAN OF WORK

Plug top to bottom w/cement slurry

DATE COMMENCING OPERATIONS 10/12/77

NAME OF PERSON DOING WORK Petroleum Consultants ADDRESS Denver, Colorado

Signature _____

Secretary _____

Title _____

Box 291, Carmi, Illinois 62821 _____

Address _____

November 1, 1977 _____

Date _____

Date Approved _____

**STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION**

By: _____

**STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION**

Application to Abandon and Plug
 File Two Copies

Form No. 9

No. 194

COPY

March 8, 1971

Memo from W. E. Allen, Director
Enforcement Section

Memo to: Eastern Santa Fe Fee #13
NE/4 SW/4 Sec. 31-T20N-R27E
Apache County
Our File #194

This well is on production and has a separator connected at the well. Evidence from the bleeder and dump valve of the separator seem to indicate that there has been some condensate through this separator.

ENGINEERING REPORT

of

Well Tests and Gas Flow Calculations
Shut-in Gas Wells, Navajo Springs Area
Apache County, Arizona

For

Western Helium Corporation

by

John D. Heller



194

JOHN M. HELLER

REGISTERED ENGINEER

P. O. Box 1507
1727 Forest Ave
DURANGO, COLORADO
81301

September 22, 1970

Phone 247-3846
AREA CODE (303)

Western Helium Corporation
P. O. Box 1358
Scottsdale, Arizona 85252

Gentlemen:

Submitted herewith is an engineering report of well tests and flow rate calculations on shut-in gas wells in the Navajo Springs Unit area.

This report is made at the request of Mr. R. E. Lauth. I wish to express my appreciation to him and also Mr. Henry Fullop of Eastern Petroleum Corporation for their cooperation in obtaining the field information and the accommodations they furnished while obtaining the field information.

I believe the data shown herein is sufficient for your needs. Do not hesitate to contact me if there are any questions about this report.

Very truly yours,

John M. Heller
John M. Heller

Copies to:
Mr. Henry Fullop
Mr. R. E. Lauth



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PURPOSE

To determine the productive capacity of shut-in gas wells in the Navajo Springs Unit and surrounding area, Apache County, Arizona.

To project flow rates at field gathering line pressures of 10, 20, 30, and 40 psig.

SUMMARY

Five wells, Santa Fe Nos. 14, 17, and 21-2; Lease No. 2; and Crest No. 7, were tested. These tests and calculated data indicate the wells are capable of producing at this time. A test was attempted on Santa Fe No. 25 but results are not valid because of fluid entry into the well bore during the flow periods. This well does have the capacity to produce some gas at limited rates before remedial work is necessary.

Calculated delivery rates at various back pressures are listed by individual wells:

Lease and Well Number	Location	Delivery Rates - scfd			
		10 psig.	20 psig.	30 psig.	40 psig.
Santa Fe No. 14	Coronado	315	375	445	525
Santa Fe No. 17	"	350	340	330	280
Santa Fe No. 21-2	Spinaroo	520	510	500	480
Lease No. 2	Coronado	270	260	250	240
Crest No. 7	"	150	170	180	190
Total wells - 5		2705	2855	2925	2715

Santa Fe No. 25 could possibly produce at a rate of 100 SCFD without more difficulty.

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PROGRAM and PROCEDURE

Information and data required to make the flow rate projections were obtained by individual well tests. Gas flow measurements were taken through a 2" Critical Flow Prover and a 2" Orifice Well Tester at critical flow. Pressures were obtained by dead weight and test gauges to the nearest one pound increment. Assumptions were made on the gravity of the gas and the barometric pressure.

Calculations were made to a base pressure of 14.65 psia. @ 60° F. The back pressure curves are drawn on values of P_c and P_w , surface shut-in and working pressures, corrected for flow friction where it was significant.

Two four point tests were satisfactorily correlated and the slope of the back pressure curve on these wells was applied to the other wells where one point tests were taken.

The projected delivery rates shown in this report were obtained by analyzing the back pressure curves, calculating the flow friction and adjusting the flow volume.

DISCUSSION

Santa Fe Wells No. 16, 17, and 21-2; Wells No. 2; and Crest No. were favorably tested. Well No. 2 did show a slight amount of moisture at the end of the test period but does not appear to effect the delivery potential at this time. Santa Fe No. 25 test is not considered valid because of the fluid entry into the well bore during the test period. This well can be produced to some extent and could show a sizable cumulative production before it becomes necessary to recondition. It is suggested that this well be produced at a rate of about 100 MCF per day initially, be checked closely for the fluid build up in the well bore, unloaded by blowing full open to the atmosphere for only short periods of time when necessary.

Other wells in the Navajo Springs Unit were checked but flow tests were not taken. They would not test in a satisfactory manner. Details of these wells are shown on page number 14 of this report.

The total GOR of the five wells considered productive at this time is 3,173 MCF. It would be prudent to start initial deliveries at approximately 25% of the GOR or about 794 MCF. This does not include the 100 MCF that may be produced from Santa Fe No. 25. That individual wells be checked closely for performance and the producing rates adjusted accordingly.

Wells Not Tested

Santa Fe No. 31 Sec. 28-20N-27E.

9/12/70 Shut-in well head pressure - 92 psig. Started flow test and well started dying. Dropped soap stick and shut-in overnight.

9/13/70 Shut-in 17 $\frac{1}{2}$ hrs. Well head pressure - 90 psig. Opened well to blow. Fluid in 5 minutes. Flew well for 20 minutes. Making water at end of blow period. Too wet to test. Well head pressure 1 $\frac{1}{2}$ hours after blowing was 60 psig.

Santa Fe No. 32 Sec. 28-20N-27E.

9/12/70 Shut-in well head pressure - 27 psig. Opened to blow. Lead. Dropped soap stick and shut-in overnight.

9/13/70 Shut-in well head pressure after 13 hours - TSTM. Closed well - Lead.

Trest No. 2 Sec. 33-20N-27E.

9/13/70 Shut-in well head pressure - 12 psig. Opened to blow. Very light blow - Lead.

Santa Fe No. 13 Sec. 31-20N-27E.

Producing into Kerr-McGee System. Well flowing with a well head pressure of 79 psig. Flow controlled by a pinched valve. Orifice Meter - American L-10-S chart; 50" X 250 psi. range; 4" X 2.50" plate; readings; L-3.9; F-3.6; T-6.8; Test gauge reads 22.5 psig. Flow had been fluctuating. Check readings indicate well was at that time flowing at approximately 200 MCFD. There was no indication of any water being produced at this rate.

Parfoot State No. 1 Sec. 32-20N-27E.

Producing into Kerr-McGee System. Well flowing with a well head pressure of 24 psig. Not restricted. Orifice Meter - American L-10-S chart; 50" X 250 psi. range; 4" X 0.50" plate; readings; L-2.5 to 4.0; F-3.7; T-7.2. Test gauge reads 24 psig. Flow had been fluctuating. Check readings indicate well was at that time flowing at a rate between 12.5 and 20 MCFD. The differential pen was sweeping in the range of 2.5 to 4.0 on the chart. This may have been an indication of some fluid being present in the well bore.

OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL OR GAS FROM LEASE

Federal, State or Indian Lease Number, or lessor's name if fee lease Santa Fe fee & State	Field Navajo Springs	Reservoir Coconino
Survey or Sec-Twp-Rge Navajo Springs Unit	County Apache	State Arizona
Operator Eastern Petroleum Company		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street Box 291	City Carmi	State Illinois
Above named operator authorizes (name of transporter) Kerr-McGee Oil Industries, Inc.		
Transporter's street address Kerr-McGee Building	City Oklahoma City	State Oklahoma
Field address Navajo, Arizona		
Oil, condensate, gas well gas, casinghead gas		
To transport 100	% of the gas from the Navajo Springs Unit	XXXXXXXXXX
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer	% transported	Product transported
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change.		
Certificate is to allow for the hookup of an additional well to the Kerr-McGee transmission line. Effective September 7, 1965.		

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

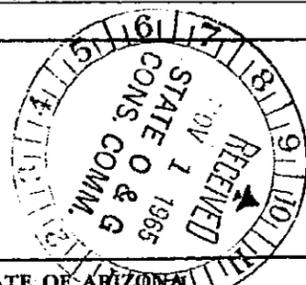
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Secretary of the Eastern Petroleum Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein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

Date October 27, 1965

Signature *J. Medwan*

Date approved: Nov 1, 1965

By: *John Bonmister*
 Permit No. Navajo Springs Unit



STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease
 File Two Copies
 Form No. 8

13 194 238

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Eastern Petroleum Company
 2. OIL WELL GAS WELL OTHER (Specify) _____
 3. Well Name Eastern-Santa Fe Fee #13
 Location 1722' N of SL; 2019' E of WL
 Sec 31 Twp 20N Rge 27E County Apache, Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease Santa Fe Pacific Railroad Company Fee
 5. Field or Pool Name Navajo Springs

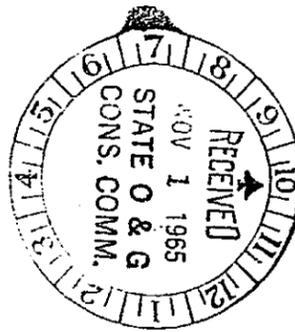
6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

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"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(OTHER) _____	ABANDONMENT <input type="checkbox"/>
(OTHER) <u>to hook up well to gas transmission line</u> <input checked="" type="checkbox"/>			

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. 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.)

To lay 3392' of 4½" coal tar doped and wrapped pipe due north from Santa Fe #13 to Kerr's transmission line running across north edge of Section 31 and hook up with separator.



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

Signed J. Edwards Title Secretary Date October 27, 1965

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
 File Two Copies
 Form No. 25

Permit No. 194

**OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL OR GAS FROM LEASE**

Federal, State or Indian Lease Number, or Lease & Name of Fee Lease Santa Fe Fee & State	Field Navajo Springs	Reservoir Cocoino
Survey or Sec-Twp-Rge Navajo Springs Unit	County Apache	State Arizona
Operator Eastern Petroleum Company		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street Box 291	City Carmi	State Illinois
Above named operator authorizes (name of transporter): Kerr-McGee Oil Industries, Inc.		
Transporter's street address Kerr-McGee Bldg.	City Oklahoma City	State Oklahoma
Field address Navajo, Arizona		
Oil, condensate, g.s. well gas, casinghead gas		
To transport 12,500,000 5,000,000 cubic ft. of area	of the gas well gas from said unit of the gas well gas	
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer	% transported	Product transported
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change. Certificate is for a new lease unit and change of operator.		

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

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 13, 1964 Signature [Handwritten Signature]

Date approved 10-22-64

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

By: John Hunter

Permit No. Navajo Springs Unit
+ # 238

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Operator's Certificate of Compliance & Authorization to
Transport Oil or Gas from Lease
File Two Copies
Form No. 2

194

Open Flow Test Record

Producers Name Eastern Petroleum Co. Date 10-10-63
Lease Name Santa Fe No. 13 Time 10:05 am
Location Sec. 31-20N-27E Apache County, Arizona
Shut-In Pressure 107.5 psig Unloading Period 10 min

Test Point	Time From	Time To	Flow Period	Orifice Size	Prover Press.	Wellhead Pressure	Flow Gas Temp.
1	10:15 am	10:30 am	15 min	2" Pitot Tube	20 psig	89.4 psig	71°
2	10:30 am	10:45 am	15 min	2" Pitot Tube	37 psig	67.0 psig	69°
3							

Remarks: It should be noted that due to high volumes a 2" Pitot Tube was used instead of the 2" orifice well tester.

Small traces of vapor were noted in gas stream during blow down period.

194/16

Geoelectric, Inc.

P. O. Box 842 • AZTEC, NEW MEXICO

STATE

NO. 1
114 0700
114 0724
114 0714

1.0000000000000000
2.0000000000000000
3.0000000000000000

10.0000000000000000
20.0000000000000000
30.0000000000000000

40.0000000000000000
50.0000000000000000
60.0000000000000000

3685 NCFPD

10.0	120.0	0010
20.0	2100.0	0020
30.0	30.0	0030
40.0	80.0	0040
50.0	3685.0	0050

Geoelectric, Inc.
BH KEYS

194

OPEN FLOW TEST DATA

Date: 6/22/58
 Operator: Eastern Petroleum Co Lease: East Fe No. 13
 Location: 31-32-27N County: _____ State: _____
 Formation: _____ Pool: _____
 Casing: _____ " Set @ _____ Tubing: _____ " Set @ _____
 Pay Zone: _____ To: _____ Total Depth: _____
 Choke Size: 1.375 " Choke Constant = C = 11.8236
 Stimulation Method: _____ Flow Through: Casing Tubing _____
 Shut-in Pressure Casing: 122.0 psig / 12 = 122.0 psia (Shut-in _____ days)
 Shut-in Pressure Tubing: _____ psig / 12 = _____ psia
 Flowing Pressure: P : _____ psig / 12 = _____ psia
 Working Pressure: P_w : 75.9 psig / 12 = 63.9 psia
 Temperature: T : 62 °F / 460 = _____ °Absolute
 F_{pv} (from tables) : 1.508 Gravity .970 n .65

Choke Volume = Q = C x P_t x F_t x F_g x F_{pv} 11.8236 x 90.9 x .9701 x 1.008
 Q = _____ = 3198 MCF/D

Open Flow - Aof = Q 3198

$$Aof = \frac{Q}{\left[\frac{P_c^2 - P_w^2}{2.2164} \right]^{.65} \cdot 1.0570}$$

Aof = 3198

Aof = 6,396 MCF/D @ 15,025 psia

Tested By: D.W. STILES
 Witnessed By: _____

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RESERVOIR PRESSURE REPORT

Operator **Eastern Petroleum Company** Address **Box 291, Carmi, Illinois** Date **6-20-63**
 Field **Navajo Springs** County **Apache** Gas Gravity _____
 Producing Formation **COCONINO** Oil Gradient _____ Initial Completion* _____ Datum Plane _____
 Water Gradient _____ Special* _____

Well No.	Date Tested	Bomb Test Data		Shut-In		Prod. Test (Bbls per Day)		Solids Instrument Test Data				Pressure At Datum		
		Oil (G)	Gas (G)	Shut-In Pressure	Test Depth	B.H. Temp.	Observed Pressure	Oil	Water	Liquid Level	Liquid Gradient		Wt. of Liquid Column	Wt. of Gas Column
Santa Fe #13 Sec. 31-20N-27E	See Geoelectric, Inc. - "Deliverability Calculation" attached													

* Designate type of report by "x".

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Secretary** of the **Eastern Petroleum Company**, and that I am authorized by said company to make this report; and 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.

STATE OF ARIZONA STATE LAND COMMISSIONER

Reservoir Pressure Report
 Form No. P-12 File two copies
 Authorized by Order No. 4-659

J. J. Edwards
 Signature

Effective April 6, 1959

9-17-63
 Date

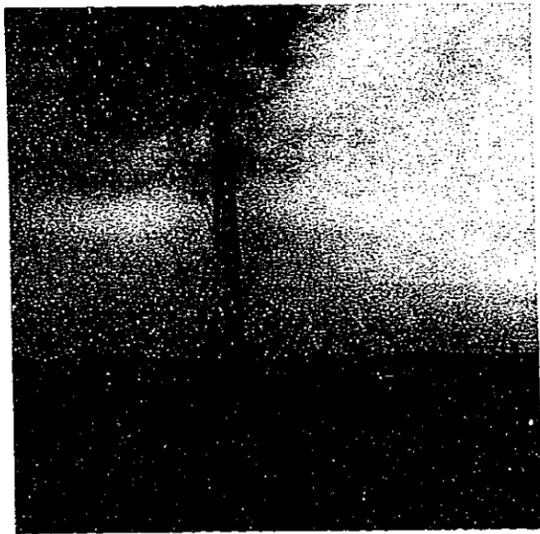
INSTRUCTIONS FOR RUNNING AND REPORTING BOTTOM HOLE PRESSURES

This report shall be mailed, in duplicate, not later than the 15th day of the month immediately following the month in which the tests were made. All bottom hole pressure tests reported herein shall be made by a person qualified by both training and experience to make such tests.

1. Oil gradient shall be in pounds per square inch per foot.
2. Water gradient shall be in pounds per square inch per foot.
3. Datum plane shall be in feet plus or minus sea level.
4. Gas gravity shall be determined from an analysis of the casinghead gas.
5. Date Tested—Enter in this column the month and day on which the bottom hole pressure test was made.
6. Shut-in Time—Shall be reported accurately to nearest hour. The well tested shall have produced its normal daily rate of production or allowable within the 24-hour period immediately preceding the time at which it was shut in. (Any deviations shall be certified to on this report)
7. Test Depth—Shall be reported in feet as the lowest point to which the bomb was run and shall be reported in feet plus or minus sea level.
8. Bottom Hole Temperature—Shall be reported in degrees Fahrenheit as determined at test depth by either a recording or maximum reading thermometer.
9. Observed Pressure—Shall be reported as the pressure in pounds per square inch gauge observed at test depth before any necessary temperature correction has been made.
10. Production Test—The oil and water reported shall be from a representative production test immediately preceding the time at which the well was shut in.
11. Fluid Level—The fluid level reported shall be in feet above the datum plane.
12. Fluid Gradient—Shall be in pounds per square inch per foot and shall be representative of both the oil and water gradient where the well produces water as well as oil.
13. Weight of Oil Column shall be in pounds per square inch.
14. Weight of Gas Column shall be in pounds per square inch.
15. Casing Pressure—Shall be reported as the pressure in pounds per square inch gauge.
16. Datum Pressure—
 - (a) In the case of bomb measurements, this pressure shall be the observed pressure after the corrections for reservoir temperature and for the difference between test depth and datum plane have been made.
 - (b) In the case of sonic measurements, this pressure shall be determined from the weight of the fluid column plus the weight of any gas present above the fluid column plus casinghead pressure after proper corrections are made for temperature.

Calibration—The subsurface pressure instrument shall be calibrated against a dead weight tester both prior and subsequent to the dates at which all tests reported hereon are made, and in no case shall this time exceed a period of one month. The prior and subsequent calibrations shall not disagree by more than one per cent (1%). The dead-weight tester used for the calibration shall be approved by the State Land Commissioner.

Nov. 1962 - May 1963



Eastern Petroleum Co. #13 Navajo
Springs ~~well~~ 31-T20N-R27E I.P.
1,330 Mef. Helium (8%) from Coconino
will deepen for more reservoir
thickness & I.P., Apache County 194

CORE ANALYSIS RESULTS

Company: EASTERN PETROLEUM COMPANY
Well: # 13 SANTA FE
Field: PINTA DO-RE AREA
Country: APACHE State: ARIZONA
Formation: COCONINO
Core Type: DIAMOND CONV.
Drilling Fluid: AIR
Location: SEC 31 T27N R27E

File: RP-3-1743
Date Rec'd: 4/27/63
Analyst: DEPPE

Lithological Abbreviations

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDAR YS	POROSITY PERCENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
1	984-85	756	13.0	0.0	7.7	SANDSTONE
2	985-86	704	15.1	0.0	10.0	SANDSTONE
3	986-87	287	14.4	0.0	11.1	SANDSTONE
4	987-88	461	14.4	0.0	10.4	SANDSTONE
5	988-89	446	12.4	0.0	12.1	SANDSTONE
6	989-90	140	13.4	0.0	14.9	SANDSTONE VERTICAL FRACTURE
7	990-91	85	15.7	0.0	27.4	SANDSTONE
8	991-92	176	14.5	0.0	17.9	SANDSTONE
9	992-93	63	15.6	0.0	26.9	SANDSTONE
10	993-94	111	16.5	0.0	27.2	SANDSTONE
11	994-95	64	15.6	0.0	25.0	SANDSTONE
12	995-96	66	14.4	0.0	25.6	SANDSTONE
13	996-97	198	15.0	0.0	25.3	SANDSTONE
14	997-98	120	15.3	0.0	22.2	SANDSTONE VERTICAL FRACTURE
15	998-99	35	14.1	0.0	23.4	SANDSTONE VERTICAL FRACTURE
16	999-1000	34	12.3	0.0	24.4	SANDSTONE
17	1000-01	43	13.1	0.0	23.6	SANDSTONE
18	1001-02	46	14.7	0.0	21.8	SANDSTONE
19	1002-03	74	12.9	0.0	23.2	SANDSTONE
20	1003-04	50	7.0	0.0	34.3	SANDSTONE
21	1004-05	0.48	13.7	0.0	16.1	SANDSTONE
22	1005-06	80	15.3	0.0	21.6	SANDSTONE
23	1006-07	167	10.7	0.0	27.1	SANDSTONE
24	1007-08	12	17.0	0.0	10.6	SANDSTONE
25	1008-09	299	15.5	0.0	9.1	SANDSTONE VERTICAL FRACTURE
26	1009-10	235	15.8	0.0	12.7	SANDSTONE
27	1010-11	154	12.2	0.0	12.3	SANDSTONE
28	1011-12	82	11.0	0.0	17.3	SANDSTONE
29	1012-13	65	13.8	0.0	13.8	SANDSTONE VERTICAL FRACTURE
30	1013-14	167	13.4	0.0	11.2	SANDSTONE
31	1014-15	12	13.2	0.0	22.0	SANDSTONE
32	1015-16	37	14.5	0.0	33.8	SANDSTONE
33	1016-17	37	13.9	0.0	23.7	SANDSTONE
34	1017-18	52	16.4	0.0	26.2	SANDSTONE
35	1018-19	3.7	14.5	0.0	31.0	SANDSTONE
36	1019-20	48	12.4	0.0	27.4	SANDSTONE
37	1020-21	47	12.1	0.0	23.1	SANDSTONE
38	1021-22	47	10.2	0.0	35.2	SANDSTONE
39	1022-23	77	14.0	0.0	22.5	SANDSTONE
40	1023-24	297	14.7	0.0	12.3	SANDSTONE
41	1024-25	67	13.0	0.0	20.0	SANDSTONE
42	1025-26	39	7.7	0.0	31.2	SANDSTONE

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for which, exclusively and confidentially, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted), but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representation, as to the productivity, properties or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

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CASE

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

Page No. 2

CORE ANALYSIS RESULTS

Company	EASTERN PETROLEUM COMPANY	Formation	COCONINO	File	RP-3-1743
Well	# 13 SANTA FE	Core Type	DIAMOND CONV.	Date Report	4/27-63
Field	PINTA DOME AREA	Drilling Fluid	AIR	Analysis	DEPPE
County	APACHE State ARIZONA	Elev.	Location SEC 31 T20N R27E		

Lithological Abbreviations

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCY	POROSITY PERCENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
				OIL	TOTAL WATER	
43	1027-28	140	10.1	0.0	18.8	SANDSTONE
44	1028-29	19	10.6	0.0	24.0	SANDSTONE
45	1029-30	70	12.1	0.0	24.8	SANDSTONE

Service No. 8 No interpretation of results.

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations are opinions expressed to represent the best judgment of Core Laboratories, Inc. All errors and omissions are hereby corrected. Core Laboratories, Inc. and its officers and employees assume no responsibility and make no warranty or representation as to the productivity, reservoir properties or profitability of any oil, gas or other mineral well or land in connection with which such report is used or relied upon.

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REPORT OF ANALYSIS

State Arizona F.S. No. 8599
 County Apache Field Pinta Dome
 Well Owner Eastern Petroleum Company Name Santa Fe No. 13
 Location: Sec. 31 T. 20N R. 27E Date Completed 6-25-62
 Open Flow MCF/D 1.300 Wellhead Pressure p.s.i.g. _____

Producing Stratum:

Depth to (feet): 977 Thickness (feet): _____

Stratigraphic Position of Producing Formation Coconino

Sampled: Date: 6-25-62 By: Art Preston

Mass Spectrometer Run No. 6521 Date of Run 7-10-62

Analysis:

Methane <u>0.1</u> %	Normal Pentane <u>0.0</u> %	Oxygen <u>0.5</u> %
Ethane <u>0.0</u> %	Isopentane <u>Trace</u> %	Argon <u>0.8</u> %
Propane <u>0.1</u> %	Cyclopentane <u>0.0</u> %	Helium <u>8.16</u> %
Normal Butane <u>0.0</u> %	Hexanes Plus <u>0.0</u> %	Hydrogen <u>Trace</u> %
Isobutane <u>Trace</u> %	Nitrogen <u>89.6</u> %	H ₂ S <u>0.0</u> %
		CO ₂ <u>0.9</u> %

Calculated gross B. t. u./cu. ft., dry at 60°F. and 30" mercury 4 Total

CHECK OF DATA: The well data are accurate:
 () Without correction () As corrected above

PERMISSION FOR PUBLICATION:

Permission is hereby granted for the Bureau of Mines to publish the above data, together with similar data released by other operators, as part of a series of papers on analyses of gases from various fields, states, or regions.

Company EASTERN PETROLEUM CO
 By Henry Fuller
 Title PRESIDENT

Well Analysis Report

REPORT OF ANALYSIS

State Alabama F.S. No. 2541
 County Anders Field 1st
 Well Owner WALTON INDUSTRIES, INC. Name 1st
 Location: Sec. 2 T. 10N R. 1E Date Completed 1-19-62
 Open Flow MCF/D 1000 Wellhead Pressure p.s.i.g. _____
 Producing Stratum: _____
 Depth to (feet): 817 Thickness (feet): _____
 Stratigraphic Position of Producing Formation COCCHESSA

Sampled: Date: 6-15-62 By: Art. Proctor
 Mass Spectrometer Run No. 5521 Date of Run 7-19-62

Analysis:

Methane <u>0.1</u> %	Normal Pentane <u>0.0</u> %	Oxygen _____
Ethane <u>0.0</u> %	Isopentane <u>Trac.</u> %	Argon _____
Propane <u>0.1</u> %	Cyclopentane <u>0.0</u> %	Helium _____
Normal Butane <u>0.0</u> %	Hexanes Plus <u>0.0</u> %	Hydrogen _____
Isobutane <u>Trac.</u> %	Nitrogen <u>89.8</u> %	H ₂ S _____
		CO ₂ _____

Calculated gross B. t. u./cu. ft., dry at 60°F. and 30" mercury 5 Total

CHECK OF DATA: The well data are accurate: () Without correction () As corrected above

PERMISSION FOR PUBLICATION: Permission is hereby granted for the Bureau of Mines to publish the above data, together with similar data released by other operators, as part of a series of papers on analyses of gases from various fields, states, or regions.

Company Walton Industries, Inc.
 By Henry Phillips
 Title President

Form 10433 Rev. 7-15-49

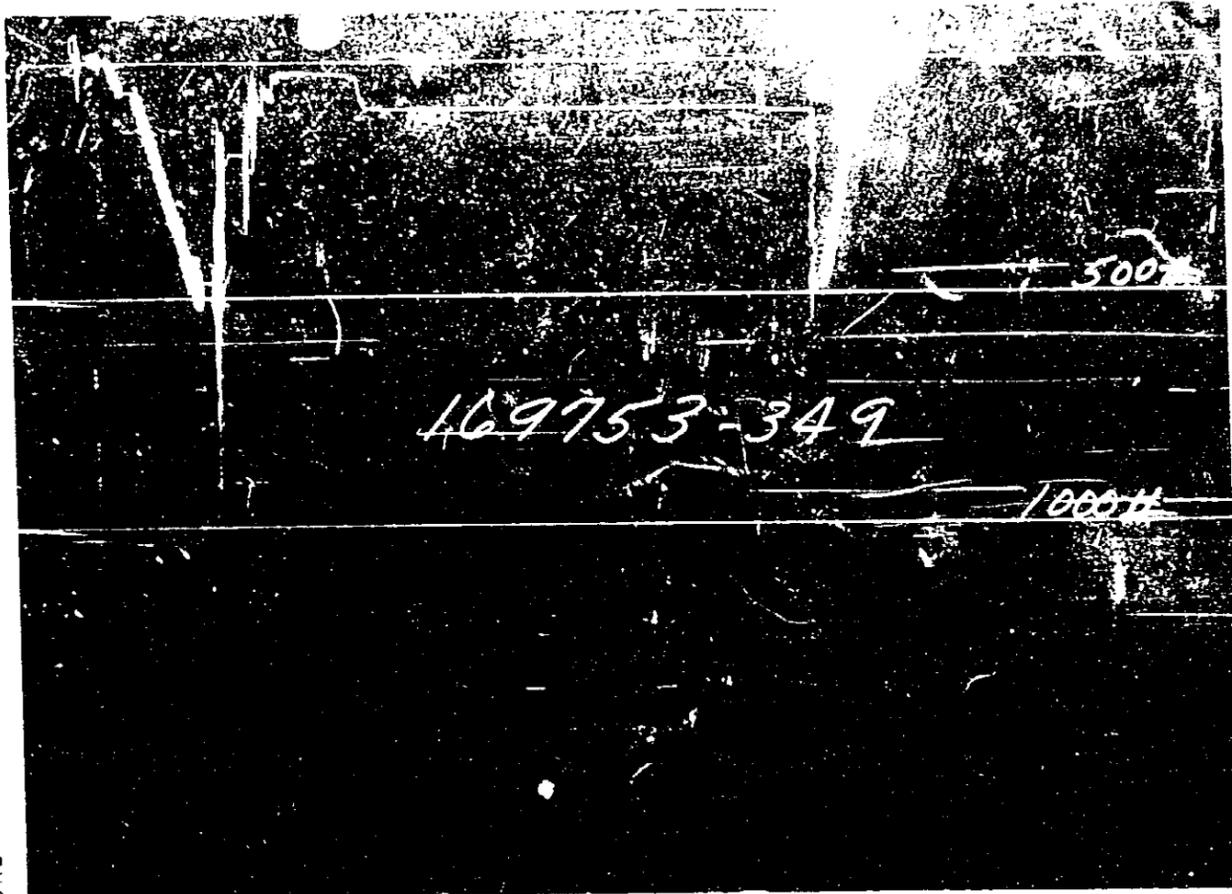
Flow Time	1st Min.	2nd Min.	47	Date	6-25-62	Ticket Number	169753
Closed In Press. Time	1st Min.	2nd Min.	30	Kind of Job	Open Hole	Halliburton District	Farmington
Pressure Readings	Field	Office Corrected		Tester	J.H. Manchester	Witness	Mr Preston
Depth Top Gauge	954	ft.	Blanked Off	Drilling Contractor	Scott Drlg Co.		
BT. P.R.D. No.	349		12	Elevation	-	Top Pecker	-
Initial Hydro Mud Pressure	490		472	Total Depth	978'	Bottom Pecker	967'
Initial Closed in Pres.				Interval Tested	967-978'	Formation Tested	Coconio
Initial Flow Pres.	35	1	213	Casing or Hole Size	6 3/4"	Casing Parfs.	Top / Bot.
Final Flow Pres.	38	1	29	Surface Choke	1"	Bottom Choke	.62
Final Closed in Pres.	110		108	Size & Kind Drill Pipe	2 7/8" EUE	Drill Collars Above Tester	I.D. - LENGTH
Final Hydro Mud Pressure	485		472	Mud Weight	9.6	Mud Viscosity	82
Depth Con. Gauge			Blanked Off	Temperature	88	Anchor Size & Length	ID 1 3/4" OD 3 1/2" X 11'
BT. P.R.D. No.			Hour Clock	Depth Mea. From	RT	Depth of Tester Valve	950
Initial Hydro Mud Pres.				Cushion		Depth Back Pres. Valve	
Initial Closed in Pres.				Recovered	Foot of		
Initial Flow Pres.		1		Recovered	Foot of		
Final Flow Pres.		2		Recovered	Foot of		
Final Closed in Pres.		1		Recovered	Foot of		
Final Hydro Mud Pres.		2		Recovered	Foot of		
Depth Bot. Gauge	975	ft.	Blanked Off	Oil A.P.I. Gravity		Water Spec. Gravity	
BT. P.R.D. No.	283		12	Gas Gravity		Surface Pressure	psi
Initial Hydro Mud Pres.	495		481	Tool Opened	7:54	Tool Closed	1:55
Initial Closed in Pres.				Remarks	Open tool with a very weak blow		
Initial Flow Pres.	35	1	226		swabbed in 8 mins. Gas to surface in 18 mins		
Final Flow Pres.	38	1	35		Swabbed for 35 mins, Measured 1,330 mcf.		
Final Closed in Pres.	115	2	111		TIGHT HOLE:		
Initial Hydro Mud Pres.	490		481				

Log # Location 31-120N-R27E
 Lease Name
 Well No. 13
 Test No. 1
 Field PINE DOME
 County APACHE
 State ARIZONA

SANTA FE
 EASTERN PETROLEUM COMPANY
 GARDI, ILL.

FORMATION TEST DATA

5



Each horizontal line equal to 1000 p.s.i.

hbl

SF #13

31-20-27

194



Your.....

Formation Testing Service Report

194

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

APPLICATION TO DRILL DEEPEN PLUG BACK

NAME OF COMPANY OR OPERATOR

DATE

Eastern Petroleum Company

June 19, 1962

Address

City

State

Box 291

Carmi

Illinois

DESCRIPTION OF WELL AND LEASE

Name of lease

Well number

Elevation (ground)

Navajo Springs

13

5600

Well location

(give footage from section lines)

Section—township—range or block & survey

1650' N of S line & 2630' E of W line Sec. 31-20N-27E

Field & reservoir (If wildcat, so state)

County

Wildcat

Apache

Distance, in miles, and direction from nearest town or post office

6 miles east of Navajo

Nearest distance from proposed location to property or lease line:

1650

feet

Distance from proposed location to nearest drilling, completed or applied—for well on the same lease:

feet

Proposed depth:

1400'

Rotary or cable tools

Rotary

Approx. date work will start

June 22, 1962

Number of acres in lease:

640

Number of wells on lease, including this well, completed in or drilling to this reservoir:

1

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

6-19-62

Signature

J. N. Edwards

Permit Number: 194

Approval Date: 6-22-62

Approved By: *[Signature]* By: *D.A. Johnson*

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. 1150

Effective April 6, 1959

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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.

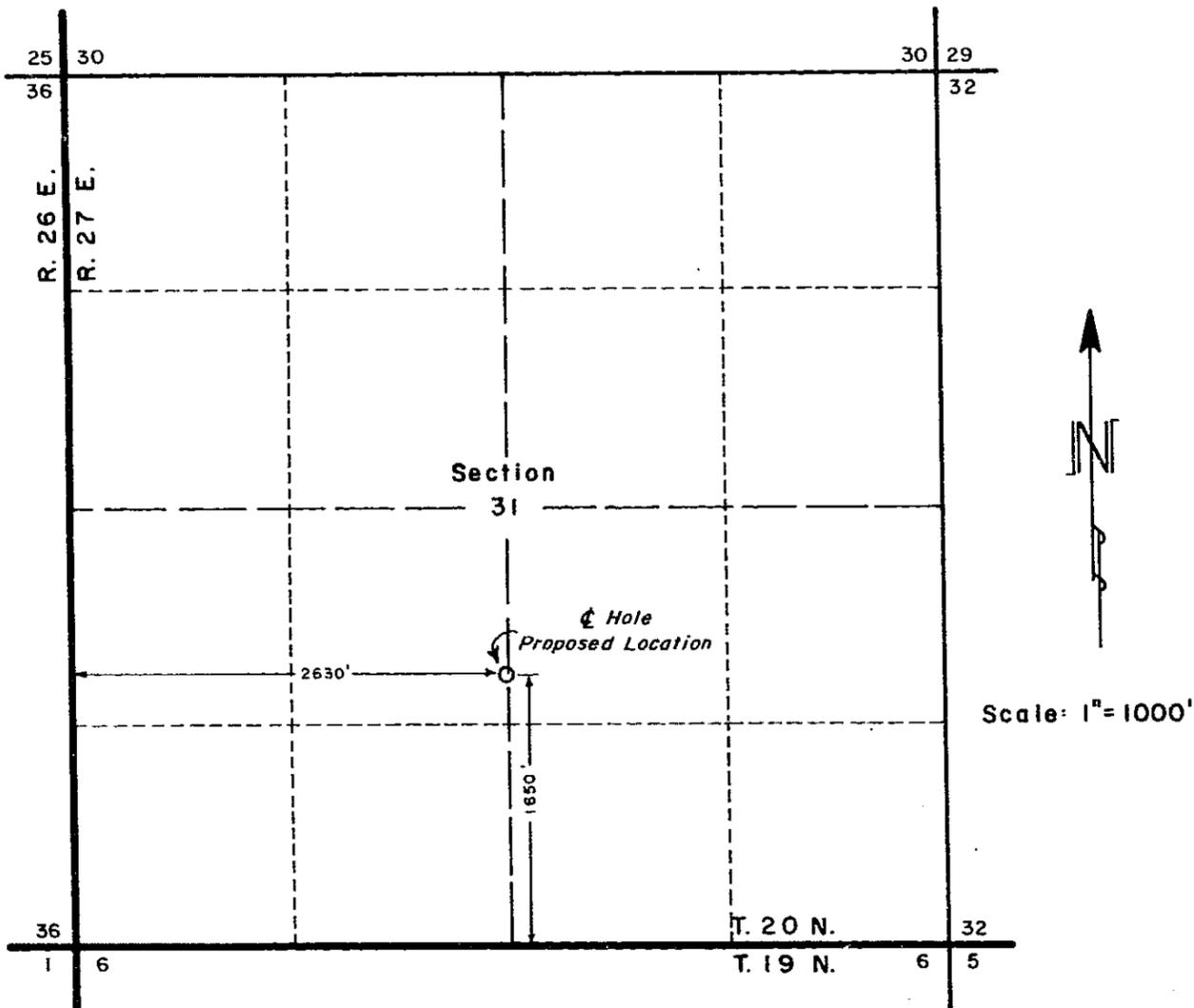
In event plat is filed for the purpose of designating the drilling and producing unit, or proration unit, on which the proposed well is to be drilled, the boundaries of such unit shall be shown, also the boundaries of all other such units attributed to other wells on the same lease completed in or drilling 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			100'	50



WELL LOCATION: ~~Crestone Company - Santa Fe # 13~~
 EASTERN PETROLEUM COMPANY - Santa Fe # 13

Located 1650 feet North of the South line and 2630 feet East of the West line of Section 31,
 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.

Elmer M. Clark

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

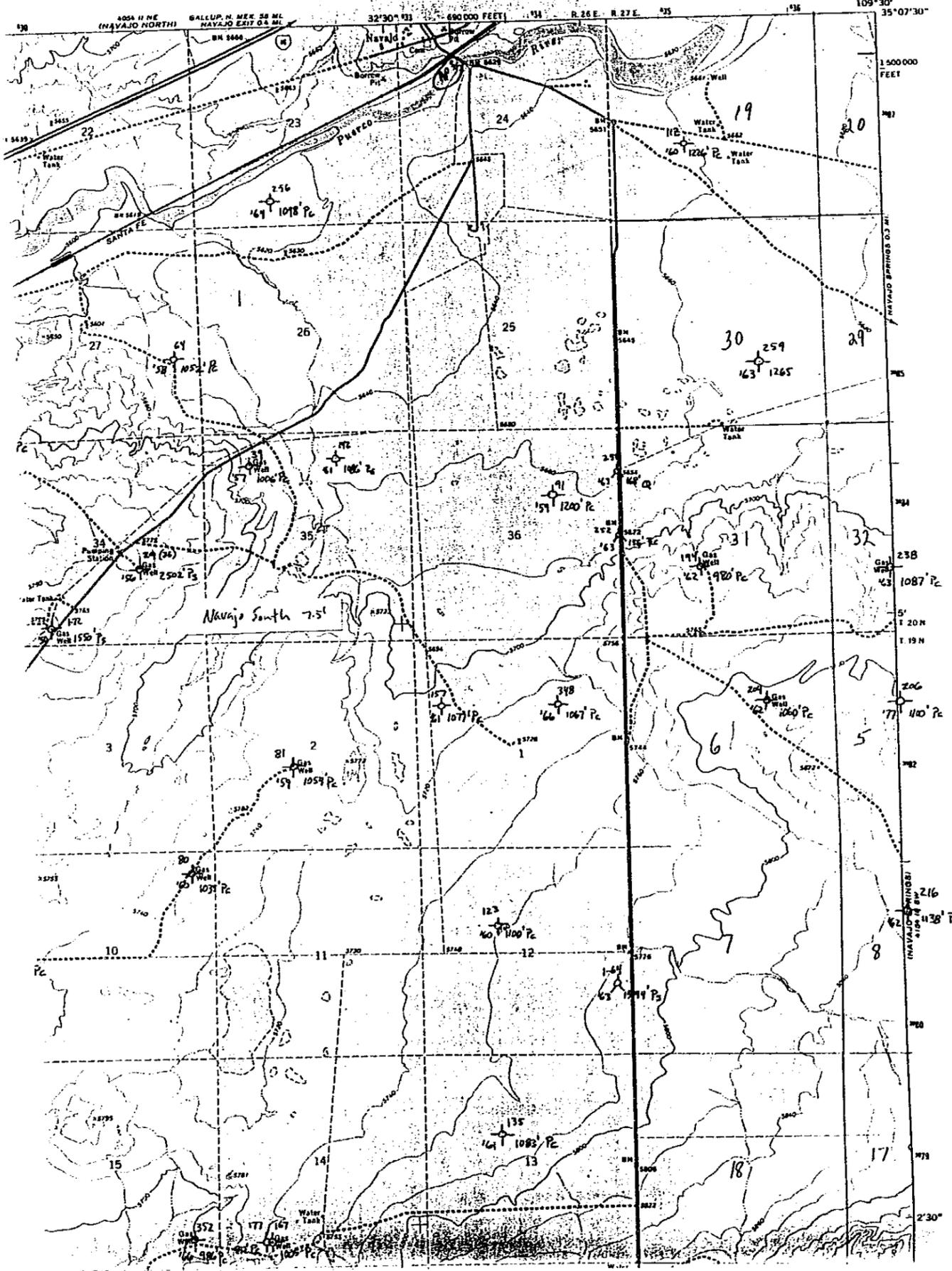
Eastern Petroleum Company
~~CRESTONE COMPANY~~

WELL LOCATION PLAT
 Sec. 31, T.20 N., R.27 E.
 Apache Co., Arizona

E.M. CLARK & ASSOC.
 Durango, Colorado

DATE: November 26, 1961
 FILE NO: 61093

NAVAJO SOUTH QUADRANGLE
ARIZONA-APACHE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



MONTHLY GAS (MCF) PRODUCTION - EASTERN SANTA FE #13, PERMIT NO. 194

	1965	1966	1967	1968	1969	1970	1971	1972	1973
JANUARY	18,077	20,277	9,328	6,027	9,757	19,940	17,847	17,416**	
FEBRUARY	12,110	30,523	11,343	4,561	8,183	13,630	15,825	21,924**	
MARCH	14,166	21,932	7,922	5,826	8,354	14,650	17,284	21,802**	
APRIL	15,132	12,097	7,153	5,939	10,076	16,383	18,637	21,324**	
MAY	14,848	13,288	9,850	7,241	12,124	14,743	18,084	15,838**	
JUNE	12,331	9,130	7,014	8,703	8,951	17,835	18,092	18,944**	
JULY	15,813	9,133	5,767	7,052	16,832	18,543	18,443	20,152**	
AUGUST	22,570	11,071	7,552 6,208*	7,486	16,851	17,255	19,954	19,121	
SEPTEMBER	16,530	12,197	9,575	7,048	11,827	18,093	18,621	17,678	
OCTOBER	14,435	18,472	10,468	8,955	18,114	18,236	19,501	18,473	
NOVEMBER	15,273	19,359	10,064	9,089	18,244	18,392	20,396**	15,288	
DECEMBER	16,719	16,032	8,180	6,326	15,894	17,593	16,688**	15,392	
TOTAL	62,957	191,107	165,738	90,395 92,975	86,576	155,207	205,293	219,372	223,352

* - Calculated only unit production reported, August #238-52% & #194-48% / September & October #238-42% & #194-58%. Corrections in red per K.M. letter of 9-23-74 ncb

** - Split delivery, gas to both Kerr-McGee and Western Helium.

KERR-McGEE CORPORATION
NAVAJO HELIUM PLANT, APACHE COUNTY, ARIZONA
GAS PURCHASE FROM NAVAJO SPRINGS UNIT
OCTOBER, 1968

<u>STATION NO.</u>	<u>UNIT WELL</u>	<u>GAS PURCHASES MCF</u>
HE-1201	Barfoot State #1	3,674
HE-1202	Santa Fe #13	<u>6,563</u>
		10,237



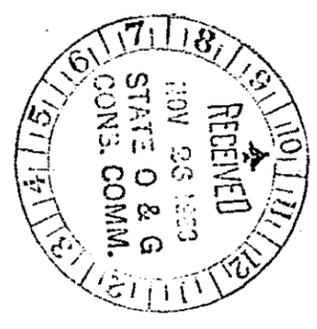
238
194

Eastern R. Co.

KERR-MCGEE CORPORATION
NAVAJO HELIUM PLANT, APACHE COUNTY, ARIZONA
GAS PURCHASE FROM NAVAJO SPRINGS UNIT
SEPTEMBER, 1968

<u>STATION NO.</u>	<u>UNIT WELL</u>	<u>GAS PURCHASES-MCF</u>
HE-1201	Barfoot State #1	4,440
HE-1202	Santa Fe #13	<u>7,583</u>
		12,023

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194



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 ltv 11-22-65



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

8686 NORTH CENTRAL, SUITE 106

PHOENIX, ARIZONA 85020

PHONE: (602) 271-5161

April 19, 1977

Mr. Warren E. Richardson
Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Dr. C. F. Swain
Crest Oil Company
Box 57
Alton, Illinois 62002

Mr. J. F. Schlafly
Crest Oil Company
Box 57
Alton, Illinois 62002

Re: Navajo Springs Unit, Apache County, Arizona

Gentlemen:

You are aware that Kerr-McGee Corporation suspended operations on their helium extraction plant located at Navajo, Arizona in February, 1976. This plant was supplied with raw helium from wells in the Pinta Dome Unit and also from two wells in the Navajo Springs Unit, namely: Eastern Petroleum Company's Santa Fe No. 13 located in the NE/4 SW/4 Section 31, T20N, R27E, and Kerr-McGee Barfoot No. 1 located in the NE/4 SW/4 Section 32, T20N, R27E.

Not only has Kerr-McGee Corporation suspended operations of its extraction plant, it has recently plugged all the remaining wells in the Pinta Dome Unit.

Records of the Oil and Gas Commission indicate there are ten wells in the Navajo Springs Unit that are classified as shut in helium wells. Only a few of these wells ever produced or were ever connected to the Kerr-McGee plant or the plant formerly operated by Western Helium.

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Mr. Warren E. Richardson
Dr. C. F. Swain
Mr. J. F. Schlafly
April 19, 1977
Page 2

In order to protect the fresh water zones in this area from any possibility of contamination and because there is no market now or in the foreseeable future for any raw helium gas that may remain within the Navajo Springs Unit, Coconino Formation, it is the opinion of this Commission that all remaining unplugged wells in this unit be properly plugged and abandoned.

Mr. Henry Fullop with Eastern Petroleum Company, the operator of the Navajo Springs Unit, has been advised of the Commission's position on this matter. He was first notified by letter and, more recently, by long distance telephone. A response to the letter was never received. Mr. Fullop did indicate by telephone that, at the present time, it would pose a severe financial strain on him to plug these wells.

Unless the Commission can receive some positive assurance within 60 days from the date of this letter that the remaining shut in wells in the Navajo Springs Unit will be properly plugged and abandoned, the Commission will find it necessary to request the bonding company to fulfill their obligations and plug the subject wells.

This letter is addressed to you only for the purpose of acquainting you, as working interest owners in the unit, with the situation as it presently exists and also to inform you of the Commission's position.

Very truly yours,

William E. Allen
Director
Enforcement Section

WEA/vb

cc - Mr. Henry Fullop
Eastern Petroleum Company



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA

4515 NORTH 7TH AVE.

6686 N. CENTRAL, SUITE 106
PHOENIX, ARIZONA 85020

November 18, 1975

Mr. Henry Fullop
Eastern Petroleum Company
P. O. Box 291
Carmi, Illinois 62821

RE: Santa Fe Fee #13 Barfoot #1
NE/SW Sec 31, T20N, R27E NE/SW Sec 32, T20N, R27E
Apache County Apache County
Permit #194 ✓ Permit #238

Dear Mr. Fullop:

It has been necessary to repeatedly request Production Reports on the above referenced wells. The last Production Report received from your office was for the month of July, 1975.

We know that Kerr McGee is actually operating these two wells, however Eastern Petroleum Company is the Operator of Record and it is your responsibility to submit Production Reports to this office. Unless we can receive these reports on a regular and timely basis which is the 25th of each month following the month of production, it will be necessary that this office take the necessary steps to close-in these two wells.

Very truly yours,

W. E. Alien, Director
Enforcement Section

WEA/sl

CC: J.N. Edwards
Warren Richardson
Robert Carter

XXXXXXXXXXXXXX
XXXXXXXXXXXXXX
XXXX

8686 N. Central
Suite 106
85020

July 30, 1975

Mr. Henry Fullop
Eastern Petroleum Company
P. O. Box 291
Carmi, Illinois 62821

RE: Santa Fe Fee #13
NE/SW Sec 31-T20N-R27E
Apache County
Permit No. 194

Barfoot #1
NE/SW 32-T20N-R27E
Apache County
Permit No. 238

Dear Mr. Fullop:

We have failed to receive the Production Report on the above referenced wells for the months of May, June and July. Please submit these reports to this office as quickly as possible.

Since in reality Kerr McGee is actually operating these wells, if you so desire, you could designate Kerr McGee the operators and save yourself the time and effort necessary to submit these reports. At any rate, we must have these Production Reports in this office by the 25th of the month following the month of production.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/sl

cc: J N Edwards
Eastern Petroleum Company

February 1, 1974

Mr. Robert Fullop
Eastern Petroleum Company
P. O. Box 291
Carmi, Illinois 62821

~~Re: All Wells Covered Under U.S.F.&G. Bond No. 27716-13-3983-65, \$25,000~~

Dear Mr. Fullop:

This office has just learned that as of January 1, 1974, Western Helium Corporation is no longer taking field gas from any of your wells in the Navajo Springs area. A recent check of wells that have been producing reveals all of the wells operated by you were shut-in except your Santa Fe Fee #13. The gas from this well is taken by Kerr-McGee.

Since all wells operated by you except the above mentioned Santa Fe Fee #13 are shut-in, it is necessary that you inform this Commission immediately of your plans for the future concerning all the non-plugged wells in this area. According to our records and information submitted to this Commission by your company, many of these non-plugged wells have never produced and several that have been completed in the past couple of years are presently not capable of producing. Unless you have plans to reactivate the wells in this area, this Commission will of necessity order all wells plugged and abandoned.

Again we urge you to advise this office of your plans for this area immediately.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/r1b

cc - U.S.F.&G.

194



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

December 19, 1974

Mr. Henry Fullop
Eastern Petroleum Company
P. O. Box 291
Carmi, Illinois 62821

Re: Santa Fe Fee #13	Barfoot #1
NE/SW Sec 31-T20N-R27E	NE/SW 32-T20N-R27E
Apache County	Apache County
Permit No. 194	Permit No. 238

As of this date we have not received October's Production Report for the above referenced wells. This report is due to reach this office by the 25th of the month following the month of production.

Please be advised that since you are the designated operator of the Navajo Springs Unit, it is your responsibility to furnish the required reports on a current basis.

November's report will be due on the 25th of December.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/r1b

November 22, 1974

Mr. Dan LaWell
300 South Walnut
Carmi, Illinois 62821

Re: Eastern Petroleum Company Wells - Navajo Springs Area

Dear Mr. LaWell:

Attached are copies of Form 9, Application to Abandon and Plug, for Eastern's 13 wells in the Navajo Springs area. You will note that these applications were submitted by Eastern and approved by this office. Also attached are completion reports on 12 of the 13 subject wells. A completion report was never filed on one well.

We are also attaching tabulations on 24 of Eastern's 26 unplugged wells in this area. The remaining two wells, Eastern Santa Fe No. 13 located in Section 31-T20N-R27E and Barfoot No. 1 in Section 32-T20N-R27E are currently producing into Kerr-McGee's helium extraction plant. All figures and estimates on the tabulation were either submitted by Eastern or derived from information submitted by Eastern to this office.

Please notify this office prior to commencing any plugging operations. A representative from this office will witness the plugging of all wells.

Please advise if we can be of any further assistance.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rfb

Encs.

File 194



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013

PHONE: (602) 271-5161

June 21, 1974

CERTIFIED MAIL

Mr. Henry Fullop
Eastern Petroleum Company
P. O. Box 291
Carmi, Illinois 62821

Re: Navajo Springs Area

Dear Mr. Fullop:

This Commission has requested several times to be advised of your plans for further operations on your unplugged wells in the Navajo Springs area.

Mr. Edwards submitted some Sundry Notices and Reports on Wells, Form 25, indicating that you planned to plug some of the wells. Some others were to be transferred to Dan Schwetz. Still others, some of which have never produced commercially, apparently were to maintain their present status.

You are aware that several wells in this area have never indicated any ability to produce and others that are carried as shut-in helium wells have never produced commercially and no attempt to produce some of these wells was ever made.

At a meeting of the Commission on this date we were instructed to direct you to properly plug, by August 31, 1974, all wells in this area not now producing. Prior to plugging any well, the plugging program must be approved by the Commission and all operations relating to the plugging and abandonment will be witnessed by a member of the Commission staff.

Within this time frame, this Commission will consider any feasible plan that you might have to place whatever wells that are capable of producing back on production.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

cc - J. N. Edwards and U.S.F. & G.



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE.

PHOENIX, ARIZONA 85013

PHONE: (602) 271-5161

September 18, 1973

Mr. Robert Fullop
Eastern Petroleum Company
P. O. Box 226
Farmington, New Mexico 87401

Dear Mr. Fullop:

Will you please supply this Commission with any information that you might have regarding the recoverable reserves in the Navajo Springs Field?

This information will be considered confidential if you so desire.

Thank you for your cooperation.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

June 11, 1971

Mr. J. N. Edwards
Eastern Petroleum Corporation
P. O. Box 1358
Scottsdale, Arizona 85052

Re: Wells formerly producing into Western Helium's helium extraction plant.

Dear Mr. Edwards:

As soon as practicable please furnish this office with copies of the production report for the above referenced wells. Since Western Helium has temporarily shut down this plant necessitating the closing in of your wells, please furnish us with Form 25, Sundry Notices and Reports on Wells, indicating your wells shut in awaiting market. We need this information in order to document our files.

Thank you for your cooperation.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA:jd
Enc.
cc: Mr. Henry Fullop, Carol, Illinois

234
471
537
238
194
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263



EASTERN PETROLEUM CO.
EASTERN DRILLING, INC.

TELEPHONE 381-2104 • P. O. BOX 201 • GARDEN CITY, ILLINOIS

W.D.

March 26, 1971

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

Re: Santa Fe #31
Sec. 29-20N-27E

Dear Mr. Allen:

In searching through some old well material I find this well was subsequently perforated from 992-1006 w/4 holes per foot and tested on May 12, 1964. A copy of this test indicating an open flow potential of 590 MCF/D is enclosed. I also find the wash-over was a failure.

A subsequent test was taken by Arkla on August 13, 1964 with an indicated maximum flow of 394 MCF/D.

Shut-in Pressure -	5/12/64	107.1#
	8/13/64	95.9#

This well has never been on production.

As to Santa Fe #13 our records indicate this was an open hole completion with 4½" set on top of the Coconino.

Yours very truly,

EASTERN PETROLEUM COMPANY

J. N. Edwards
J. N. Edwards

JNE:sjn

Enc.

RECEIVED

MAR 29 1971

O & G CONS. COMM.

March 23, 1971

Mr. Henry Fullop
Eastern Petroleum Company
P. O. Box 291
Carmi, Illinois 62821

Re: Eastern #13 Santa Fe Fee
NE/4 SW/4 Sec. 31-T20N-R27E
Apache County
Our File #194

Eastern #31 Santa Fe Fee
C N/2 SE/4 Sec. 29-T20N-R27E
Apache County
Our File #255

Dear Mr. Fullop:

Please refer to my letter of March 2, 1971, requesting information on the well #31 and a corrected Completion Report on your well #13.

I understand that you have been ill; and, I assume that this is the reason you have not responded to my request.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA:jd

March 2, 1971

Mr. Henry Fullop
Eastern Petroleum Company
P. O. Box 291
Carmi, Illinois 62821

Re: Eastern #13 Santa Fe Fee
NE/4 SW/4 Sec. 31-T20N-R27E
Apache County
Our File #194

Eastern #31 Santa Fe Fee
C N/2 SE/4 Sec. 29-T20N-R27E
Apache County
Our File #255

Dear Mr. Fullop:

This office together with the Arizona Bureau of Mines is in the process of making a report for public distribution on all wells, not in confidential status, that have been drilled in the State of Arizona. This report, among other things, will show various geological information: formation tops; total depths; production, if any; etc.

While going through the files, we noticed that your Completion Report on well #31 submitted April 6, 1964, indicates that only one foot in this well was perforated. You also indicated that the well produced 146 MCF gas on a four-hour test. Certain information in our files indicate that this test may have been made while drill stem testing. Other information indicates that at the time the completion attempt on this well was being made, you anticipated washing over the 2-7/8" tubing used for your production string. Since our records indicate that this well has never been on production, would you please advise us of the present status, the producing interval, and any other information that might assist this office in assembling the information we need to complete our publication.

We need a corrected Form 4, Well Completion Report, on your well #13. The Completion Report that you filed with the Commission dated July 13, 1962, indicates that you had submitted all

Page 2
Mr. Henry Fullop
March 2, 1971

information available at that time; however, it also indicates that the cement plug had not been drilled or the production string perforated.

We would appreciate the requested information at your earliest convenience.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA:jd
Enc.

X-Chrono
X-Lambert

July 18, 1969

Mr. J. N. Edwards
Eastern Petroleum Company
P. O. Box 201
Carmi, Illinois 62821

Re: Eastern Santa Fe Fee #13 Kerr-McGee Barfoot State #1
T20N, R27E, G & SRM T20N, R27E, G & SRM
Sec. 31: NE/4 SW/4 Sec. 32: NE/4 SW/4
Apache County Apache County
Permit #194 Permit #238 X

Eastern Santa Fe Fee #35
T20N, R27E, G & SRM
Sec. 27: NE/4 SW/4
Apache County
Permit #269 X

Dear Mr. Edwards:

By this date we have received Production Reports from all of the companies except yours. Please furnish us the Monthly Producer's Report, Form 16, covering the captioned wells. We will appreciate your help in getting the Monthly Production Report compiled and published.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:JF

Chrono-x
Lambert-x
Navajo Springs-x

June 5, 1969

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

Re: Navajo Springs Unit Wells

Dear Mr. Edwards:

This letter constitutes permission from this Commission to suspend the annual testing for the captioned wells as provided by Rule 401 during June, 1969.

Sincerely,

John Bannister
Executive Secretary

JAL:jf

cc: Mr. Henry Fullop, Eastern Petroleum Company

204-x
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194



EASTERN PETROLEUM CO.
 EASTERN DRILLING, INC.
 TELEPHONE 38-24104 • P. O. BOX 291 • CARMEL, ILLINOIS

X-WAUA
 SPRINGS

June 3, 1969

Mr. John Bannister
 Oil & Gas Conservation Comm.
 1624 West Adams, Room 202
 Phoenix, Arizona 85007

Re: Capacity Tests of Gas Wells

Dear Mr. Bannister:

Reference is made to Mr. Lambert's letter of May 22 relative to annual testing of gas wells under Rule 401.

You will recall that last year this requirement was waived for Kerr-McGee's Pinta Dome Unit for various reasons and for Navajo Springs. Please refer to my letter of July 5, 1968 and yours of June 21.

Is there any particular reason why this cannot be waived this year. Please advise at an early date.

Didn't take long for you to get the Corporation Commission on the ball. Thanks.

Yours very truly,

EASTERN PETROLEUM COMPANY

J. N. Edwards
 J. N. Edwards

JNE:sjn

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194

X-Lambert
X-Chrono

May 22, 1969

Mr. Henry Fullop
Eastern Petroleum Company
P. O. Box 291
Carai, Illinois 62821

Re: Eastern Santa Fe #13
Eastern Santa Fe #14
Eastern Santa Fe #17
Eastern Santa Fe #31
Eastern Santa Fe #32
Eastern Santa Fe #35
Eastern Ancon Santa Fe #21
Eastern Reese #2
Kerr-McGee Barfoot State #1
Crest Santa Fe #2
Crest Santa Fe #7

Permit #194
Permit #206
Permit #236
Permit #255
Permit #258
Permit #263
Permit #234
Permit #348
Permit #238
Permit #110
Permit #204

Dear Mr. Fullop:

In accordance with Rule 401 the Oil and Gas Conservation Commission, State of Arizona, has adopted procedures for the annual testing for all gas and/or helium wells.

The Commission's procedure is based upon and must be used in conjunction with the Manual of Back-pressure Testing of Gas Wells as issued by Interstate Oil Compact Commission, P. O. Box 53127, Oklahoma City, Oklahoma 73103.

The Commission has prepared, in addition, a supplement to the IOCC manual inasmuch as that manual is based upon a pressure base other than the 15.025 required by the State of Arizona. The supplement to the IOCC manual has made all necessary corrections to the IOCC manual to reflect the 15.025 pressure base.

Page 2
Mr. Henry Fullop
May 22, 1969

The tests as required by Rule 401 shall be conducted during the month of June each year and reported in duplicate by July 10th of each year. Forms 18 and 20 will be used for this purpose.

Yours truly,

James A. Lambert
Administrative Assistant

JB:jf
Enc.
copy to Mr. J. N. Edwards



EASTERN PETROLEUM CO.
EASTERN DRILLING, INC.

TELEPHONE 38-24104 • P. O. BOX 291 • CARMI, ILLINOIS

January 21, 1969

Mr. James A. Lambert
Oil & Gas Conservation Comm.
1624 West Adams, Room 202
Phoenix, Arizona 85007

Dear Mr. Lambert:

This will reply to your letters of January 13, 14 and 16.

1/13 - Form 25 for Eastern Pet. Co. #1 Federal Moqui Bardo enclosed.

1/14 - Re: #2 Reese, #1 and #2 NMA. If your geologist did not pick up samples either at the well sites or at Tonto Motel, Holbrook and the motel at Navajo, then none are available for distribution as we do not have any on hand. Drill stem test recovered water only.

In reply to your January 16 letter I always appreciate lectures of substance. We shall do better in the future.

Yours very truly,

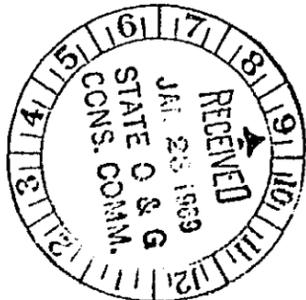
EASTERN PETROLEUM COMPANY

J. W. Edwards
J. W. Edwards

JNE:sjn

Encl.

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348

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194

January 16, 1969

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

Re: Eastern Petroleum Company #13 Santa Fe Fee
T20N, R27E, G & SRM
Sec. 31: NE/4 SW/4
Apache County, Arizona
Permit #194

Kerr-McGee Barfoot State
T20N, R27E, G & SRM
Sec. 32: SW/4 NE/4
Apache County, Arizona
Permit #238

Dear Mr. Edwards:

With the advent of the new year we had hopes you would be off to a running start, and that we would not have to request the Production Reports on the captioned wells. By this date we have received Production Reports from all of the companies except yours. We cannot understand why you continue to flaunt the regulations which you agreed to operate under. Surely, people who have the maturity and mental capacity that have made your organization a success can accomplish this routine requirement. In 1968 you spent many hours in useless correspondence affixing reasons for your delay in reporting. You are too big a man to equivocate thusly. Please delegate the responsibility of this monthly report to one of your trustworthy, capable subordinates and allow this Commission to fulfill its responsibility as charged by law in the publishing of the monthly Production Report.

Yours truly,

James A. Lambert
Administrative Assistant
jal:jf

blcc: C. F. Miller /o attachments
B. G. Taylor /attachments



COPY

November 22, 1968

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

Dear Mr. Edwards:

This is in response to the copy we received of your letter to Mr. John Bannister dated November 15, 1968. We are at a loss to understand what additional information we can furnish Eastern Petroleum relative to Kerr-McGee's gas purchases from the individual wells in the Navajo Springs Unit that we have not already furnished you.

On October 4, 1968, in response to your letter of October 1, 1968, we furnished Eastern Petroleum Company, in a letter addressed to you, a tabulation of Kerr-McGee's raw gas purchases by well from the Navajo Springs Unit for the month of August, 1968. We have continued to furnish you with this same data for the subsequent months of September and October, 1968, via a separate attachment to our gas purchase status report, a copy of which is addressed to you.

If there is additional information or data that Eastern Petroleum Company feels Kerr-McGee, as a gas purchaser from the Navajo Springs Unit, needs to furnish, we would appreciate it if you would please identify and request it. It has always been our policy to cooperate to the fullest extent possible with the producers at all of our gas processing plants, but good communications are essential.

Yours very truly,

KERR-McGEE CORPORATION

Original Signed By
P. K. SMITH, JR.

P. K. Smith, Jr., Manager
Gas Processing Department



PKS:sjf

cc: Mr. John Bannister ← COPY FOR
1624 West Adams, Room 202
Phoenix, Arizona 85007

(Blind note) John, as I explained to Edwards, we are at a loss as to what additional data we as a gas purchaser can furnish him. I am sending for your file a complete set of correspondence and data furnished Eastern by Kerr-McGee's Gas Processing Department to date.

PKS

194
238

E P

K2 IR-MOORE

LEASE NO. **9400** LEASE NAME

EASTERN PETROLEUM CO

COUNTY **APACHE**

15.025 10/31/68

COPY TO

**EASTERN PETROLEUM CO
P O BOX 291
GARY ILLINOIS**

NATURAL GASOLINE VALUE

NET MCF PURCHASED	TEST GPM	THEORETICAL GALLONS	RATE

ADDITIONAL PRODUCTS VALUE

THEORETICAL GALLONS	RATE

RESIDUE VALUE

NET MCF PURCHASED	CONTRACT RATE	RESIDUE VALUE

SUMMARY

NET MCF PURCHASED	CONTRACT RATE	RESIDUE VALUE	TOTAL
10.237	.300000	3.071.10	3.071.10

PLANT SUMMARY TOTALS

GASOLINE		ADDITIONAL PRODUCTS		RESIDUE
THEORETICAL GALLONS	GALLONS SOLD	TOTAL PROCEEDS	RESIDUE	RESIDUE

OPERATOR **2**

4

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5



EASTERN PETROLEUM CO.
EASTERN DRILLING, INC.

TELEPHONE 38-24104 · P. O. BOX 291 · CARMI, ILLINOIS

November 15, 1968



Mr. John Bannister
Room 202
1624 West Adams
Phoenix, Arizona 85007

Re: Navajo Springs

Dear John:

This is a copy of Kerr's gas purchase statement for October, which shows the total only. Prior to this form of statement instituted a few months ago, there were separate statements for Barfoot and No. 13.

I have tried and you have tried and I don't know what else it takes to get the message through. I, too, would like this information for our files.

Please send a pad of Form No. 16.

11-18-68
Yours very truly,

EASTERN PETROLEUM COMPANY

J. N. Edwards
J. N. Edwards

JNE:sjn

cc: Mr. P. K. Smith, Jr., Manager
Gas Processing Department
Kerr-McGee Corporation
Oklahoma City, Oklahoma 73102

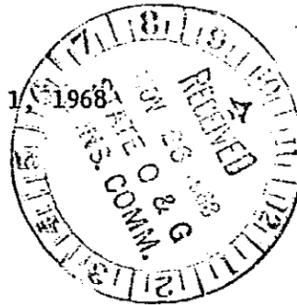
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263



EASTERN PETROLEUM CO.
EASTERN DRILLING, INC.

TELEPHONE 38-24104 - P. O. BOX 291 - CARMIL, ILLINOIS

October 1, 1968



Kerr-McGee Corporation
Kerr-McGee Building
Oklahoma City, Oklahoma

Attention: Mr. P. K. Smith

Re: Navajo Springs

Gentlemen:

I enclose a letter from Oil & Gas Commission relative to production from the Barfoot-State #1 and Santa Fe #13.

Mr. Bannister has also called in regard to this. So, in the future, please show on your Gas Purchase Statement production from each well. You might also send us the production figures for August.

Yours very truly,

EASTERN PETROLEUM COMPANY

J. N. Edwards
J. N. Edwards

JNE:sjn

Enc.

#194
#238

November 1, 1968

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

Re: Monthly production reports, Navajo Springs Unit

Dear Jesse:

Please refer to Mr. Lambert's previous correspondence concerning captioned subject.

To reiterate, the rules and regulations require that monthly production reports shall be filed with this Commission for all wells by the 15th of the succeeding month. Our Form 16 (sample attached) clearly provides that production shall be reported by well.

In addition, this form requires to be reported a status code (i.e. flowing or gas lift), barrels of water produced, days produced, quantity sold, and the purchaser's code.

To date we have received no reply to Mr. Lambert's letter of October 21, 1968. We are holding our compilation of September production for your reply. Will you therefore immediately bring yourself into compliance with the rules and regulations by furnishing the required report for September, 1968 and by the 15th of each month succeeding.

Should you have any questions, please contact us immediately.

Very truly yours,

John Lannister
Executive Secretary
m/mr

cc: Mr. P.K. Smith, Jr., Manager
Gas Processing Department
Kerr-McGee Corporation
Oklahoma City, Okla. 73102

October 21, 1968

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

Re: Eastern #13 Santa Fe Fee
T20N, R27E, G & SRM
Sec. 31: NE/4 SW/4
Apache County, Arizona
Permit #194

Kerr-McGee Barfoot State
T20N, R27E, G & SRM
Sec. 32: SW/4 NE/4
Apache County, Arizona
Permit #238

Eastern #35 Santa Fe Fee
T20N, R27E, G & SRM
Sec. 27: SW NE SW
Apache County, Arizona
Permit #263

Dear Mr. Edwards:

The Monthly Producers Report dated October 17, 1968, showed production in the unit only. We call to your attention Rule No. 502 wherein it is stated that the report shall be filed on each producing lease, not unit.

We received your letter from P. K. Smith, Jr., advising that Kerr-McGee Corporation would furnish you this specific information each month. We are willing at this date to prorate the production of the Barfoot State #1 and the Santa Fe #13 on the basis of last month's production, but John Bannister, the Executive Secretary, requested me to advise you that it will be impossible for us to accept such figures when Arizona Helium starts taking from Eastern #35 Santa Fe Fee.

We hope to receive an amended report for September, 1968, within the next few days. I note that my premature proration of production for August, 1968, was grossly inaccurate, and the September report when issued will reflect a correction. A prompt reply will allow us to put out a September Production Report that will not need be corrected.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

194

September 27, 1968

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

Re: Barfoot State
Santa Fe #13

Dear Jess:

We received the Monthly Producer's Report for August this date. Please prorate this production in the future. For the month of August we prorated it 52% to the Barfoot State and 48% to the Santa Fe #13.

We received the Monthly Producer's Report covering State 1-28 and State 1-2 from Kerr-McGee on September 18. They are prompt in reporting production on the Pinta Dome Field.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

July 10, 1968

Eastern Petroleum Co.
P.O. Box 291
Carmi, Illinois 62821

Attention: Mr. J.N. Edwards

Re: Eastern #13 Santa Fe
NE SW 31-20N-27E Apache County, Arizona
File 194

Kerr-McGee #1 State Barfoot
NE SW 32-20N-27E Apache County, Arizona
File 238

Gentlemen:

In reply to your letter of July 5, 1968 this letter constitutes permission from this Commission to suspend until further notice the annual capacity testing of captioned helium producing gas wells in the Navajo Springs Unit.

Very truly yours,

John Bannister
Executive Secretary
MB



EASTERN PETROLEUM CO.
EASTERN DRILLING, INC.

TELEPHONE 38-24104 • P. O. BOX 291 • CARMEL, ILLINOIS

July 5, 1968

Mr. John Bannister
Oil & Gas Conservation Comm.
1624 West Adams, Room 202
Phoenix, Arizona 85007

Re: Capacity Tests of Gas Wells

Dear Mr. Bannister:

Geolectric has conducted all of our back pressure tests at Navajo in the past. From the correspondence with Mr. Keyes you will see the difficulty we've had in finding a tester.

On June 18 I called Kerr-McGee's plant for Mr. Otto. He was on vacation but the superintendent said he would make these tests for us on the 24th.

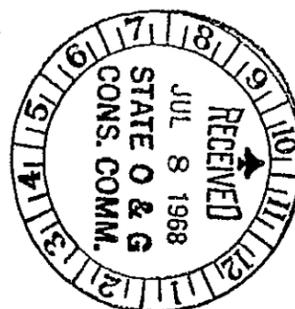
Failing to hear further I called Mr. Otto on July 3. He told me you had granted an unspecified testing delay on the Pinta Dome for some technical reasons given you, I believe, by Kerr's Oklahoma City office, citing impossibility to test except by venting, waste of resources, pressure fluctuations, inability to tie in four points, inconclusiveness of tests and the like. He further stated there was no reason to believe the Navajo Springs tests would react any differently, and, further, he could not make the tests, if required, without home office approval.

So, on the basis of this, we respectfully request a testing delay of the two Navajo Springs wells.

Yours very truly,

EASTERN PETROLEUM COMPANY

J. N. Edwards
J. N. Edwards



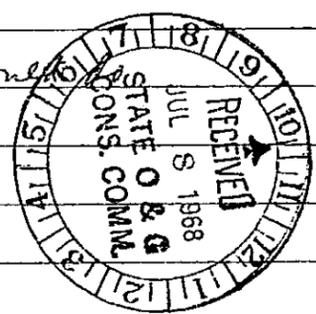
JNE:sjn

Approved
7-8-68
JN
194

Rec'd 6/16/68 JZ

To <i>Mr J N Edwards</i>	At <i>Garnett Illinois</i>
Subject <i>Back Pressure Tests</i>	Date <i>6/15/68</i>
<p>I thank you very much for your testing order but we are unable to handle it at present. Several other testers were contacted but could not help.</p> <p style="text-align: right;"><i>Colective Inc</i></p>	
PLEASE REPLY TO →	Signed <i>BH Keyes</i>

<i>6/18</i>	
<i>Called Kern-McGee at Navajo - Supt said Otto was not at for no one June 24 (Monday)</i>	
Date	Signed



Rediform®
45469

SEND PARTS 1 AND 3 WITH CARBONS INTACT.
PART 3 WILL BE RETURNED WITH REPLY.

June 10, 1968

Geo-Electric, Inc.
P. O. Box 842
Aztec, New Mexico 87410

Re: Back-Pressure Tests
Navajo Springs Unit
Apache County, Arizona

Gentlemen:

Will you please conduct back-pressure tests in accordance with the Manual of Back-Pressure Testing of Gas Wells, copy enclosed, on the following Navajo Springs wells at Navajo, Arizona.

Santa Fe #13 - Section 30-20N-27E
Barfoot-State #1 - Section 31-20N-27E

These are the two producing wells in the Unit. A supply of Forms 18 and 20 for reporting are enclosed. Tests are to be conducted in June and reported by July 10.

Your cooperation will be most appreciated.

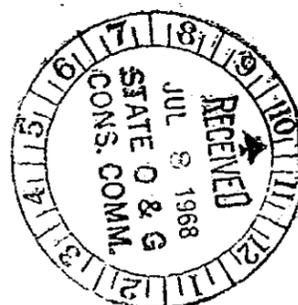
Yours very truly,

EASTERN PETROLEUM COMPANY

J. N. Edwards

JNE:sjn

Encs.





SAMUEL P. GODDARD
GOVERNOR
LYNN LOCKHART
CHAIRMAN
R. KEITH WALDEN
VICE CHAIRMAN
ORME LEWIS
MEMBER
LUCIEN B. OWENS
MEMBER
GEORGE T. SILER
MEMBER

OFFICE OF
Oil and Gas Conservation Commission

STATE OF ARIZONA
ROOM 202
1624 WEST ADAMS
Phoenix, Arizona 85007
PHONE: 271-5181

JOHN BANNISTER
EXECUTIVE SECRETARY
J. R. SCURLOCK
PETROLEUM GEOLOGIST

October 25, 1965

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

Re: Eastern Petroleum Co. #13 Santa Fe Fee well
Navajo Springs Unit, Apache County, Arizona

Dear Mr. Fullop

We are in receipt of your Producers Report of Gas Production for September, 1965.

We noted that the Eastern Petroleum #13 Santa Fe (Navajo Springs) well has been tied in and has produced 16,530 MCF of helium.

This office was not notified of your intent to tie in this well and a report to this effect should have been submitted prior to any production.

We are enclosing for your immediate handling two copies of our Form 25, Sundry Notices and Reports on Wells. Will you please fill this in and report to us your tying in of this well, giving us the date and to what system it has been tied.

On October 13, 1964 you filed with this office Operators Certificate of Compliance and Authorization to Transport Oil and Gas from Lease for the Navajo Springs Unit. This application was approved on October 30, 1964 by this Commission. You were authorized to transport only 12,500 MCF of gas. You will note that the production is now in excess of the authorized amount.

Consequently, we are attaching hereto two copies of Form 8 for you to fill in to correct this authorization. The line starred in red should read "to transport 100% of the gas" from the Navajo Springs Unit. This new certificate, when approved, will then allow you to transport all your produced gas without further amendments.

Mr. Henry Fullop

Page 2

October 25, 1965

These two forms must be filled out and returned immediately to this office.

In the future, this office must be notified prior to the tying in of any addition wells from this unit.

This letter will further acknowledge receipt of the information furnished recently on some of your wells.

We still need, in order to complete our files and to bring Eastern into full compliance with our Rules and Regulations the following:

Permit 227, Eastern #23 Santa Fe Fee: Well Completion Report and logs

Permit 187, Eastern #1 Coyote Creek: Plugging Record, Well Completion Report, logs.

Permit 188, Eastern #12 Santa Fe Fee: Plugging Report, Well Completion Report, logs

Permit 209, Eastern #15 Santa Fe Fee: Well Completion Report

Permit 218, Eastern #16 Santa Fe Fee: Plugging Record, Well Completion Report, logs

Permit 229, Eastern #19 Santa Fe Fee: Plugging Record, Well Completion Report

Permit 230, Eastern #20 Santa Fe Fee: Plugging Record, Well Completion Report

Permit 234, Eastern #21 Santa Fe Fee: Well Completion Report, logs

Permit 237, Eastern #18 Santa Fe Fee: Plugging Record, Well Completion Report

Again, we request your immediate compliance with this request.

Yours very truly,

John Bannister
Executive Secretary.
mr
enc

**OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL OR GAS FROM LEASE**

Federal, State or Indian Lease Number, or Lessor's name if fee lease	Field	Reservoir
Santa Fe Fee & State	Navajo Springs	Coconino
Survey or Sec-Twp-Rge	County	State
Navajo Springs Unit	Apache	Arizona
Operator Eastern Petroleum Company		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street	City	State
Box 291	Carmi	Illinois
Above named operator authorizes (name of transporter)		
Kerr-McGee Oil Industries, Inc.		
Transporter's street address	City	State
Kerr-McGee Bldg.	Oklahoma City	Oklahoma
Field address		
Navajo, Arizona		
Oil, condensate, gas well gas, casinghead gas		
To transport	area	
12,500,000 5,000,000 cubic ft	of the gas well gas from said unit	
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer	% transported	Product transported
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change.		
Certificate is for a new lease unit and change of operator.		

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

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 13, 1964

Signature [Signature]

Date approved: 10-20-64
STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

By: John Hunsicker

Permit No. Navajo Springs Unit
4 #238

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Operator's Certificate of Compliance & Authorization to
Transport Oil or Gas from Lease
File Two Copies
Form No. 2

194

October 25, 1965

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

Re: Eastern Petroleum Co. #13 Santa Fe Fee well
Navajo Springs Unit, Apache County, Arizona

Dear Mr. Fullop

We are in receipt of your Producers Report of Gas Production for September, 1965.

We noted that the Eastern Petroleum #13 Santa Fe (Navajo Springs) well has been tied in and has produced 16,530 MCF of helium.

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Consequently, we are attaching hereto two copies of Form 8 for you to fill in to correct this authorization. The line starred in red should read "to transport 100% of the gas" from the Navajo Springs Unit. This new certificate, when approved, will then allow you to transport all your produced gas without further amendments.

Mr. Henry Fullop

Page 2

October 25, 1965

These two forms must be filled out and returned immediately to this office.

In the future, this office must be notified prior to the tying in of any addition wells from this unit.

This letter will further acknowledge receipt of the information furnished recently on some of your wells.

We still need, in order to complete our files and to bring Eastern into full compliance with our Rules and Regulations the following:

Permit 227, Eastern #23 Santa Fe Fee: Well Completion Report and logs

Permit 187; Eastern #1 Coyote Creek: Plugging Record, Well Completion Report, logs.

Permit 188, Eastern #12 Santa Fe Fee: Plugging Report, Well Completion Report, logs

Permit 209; Eastern #15 Santa Fe Fee: Well Completion Report

Permit 218, Eastern #16 Santa Fe Fee: Plugging Record, Well Completion Report, logs

Permit 229, Eastern #19 Santa Fe Fee: Plugging Record, Well Completion Report

Permit 230, Eastern #20 Santa Fe Fee: Plugging Record, Well Completion Report

Permit 234, Eastern #21 Santa Fe Fee: Well Completion Report, logs

Permit 237, Eastern #18 Santa Fe Fee: Plugging Record, Well Completion Report

Again, we request your immediate compliance with this request.

Yours very truly,

John Bannister
Executive Secretary
wr
enc

cc: Robt P. Davidson, 77 Third Ave W. Scottsdale, Ariz.

October 25, 1965

Mr. Frits Ryan
State Land Department
400 ARizona State Office Bldg.
Phoenix, Arizona 85007

Re: Eastern Petroleum Co. #13 Santa Fe Fee well
NE/4SW/4 31-20N-24E, Apache County (Navajo Springs Unit)
Our Permit 194

Dear Frits:

This is to advise you that Eastern Petroleum Company as
Unit Operator of Navajo Springs Unit, has advised that the
captioned well has been tied in to the Kerr-McGee gathering
system and produced 16,530 MCF during September, 1965.

Yours very truly,

John Bannister'
Executive Secretary
nr

C
O
P
Y

ARKANSAS LOUISIANA GAS COMPANY

Shreveport, Louisiana

August 14, 1964

Arizona Oil and Gas Commission
1624 West Adams
Phoenix, Arizona

Attention: Mr. John Bannister

Gentlemen:

In accordance with your request to receive the test results on the wells in the Navajo Springs Field, Apache County, Arizona, we are enclosing herewith, in duplicate, the results of these tests.

Each well was tested at what we speak of as a maximum rate of flow that is, the maximum rate at which we produced the well; and the rates of flow where the wellhead pressure approached 100 pounds. This is indicated under Column 2 where it says, "Well Tubing Pressure-PSIG." You will note that a volume of 1800 MCFPD was measured from eight wells, testing these wells from 15 to 18 1/2 hours each. These are our field calculations, and there may be a slight change in the total volume when the final calculations are determined. The volumes of gas in MCFPD have

been corrected to indicate the standard conditions of measuring gas at 15.025 pressure base.

I would like to take this opportunity to express to you how much I appreciate you and your staff turning over the records of the Conservation Office and the assistance which was given to me on my two trips to Phoenix. If the volumes are any different on our final calculations, I will forward a copy to your office.

Yours very truly,

ARKANSAS LOUISIANA GAS COMPANY

(signed)

F. B. Emmons
Production Engineer

PRE:kt
Enclosures

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XXXXXXXXXX
XXXXXXXXXX

November 20, 1963

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

Re: Eastern Petroleum Company - Santa Fe #13
Section 31-20N-27E, Apache County, Ariz.

Dear Mr. Edwards:

Here is a copy of a corrected survey and an
incorrect survey which we had extra in our
files on this well.

Very truly yours,

John K. Petty
Acting Executive Secretary

JKP:mkc
Encl. 2

194

DENVER OFFICE 2520 FIRST NATIONAL BANK BUILDING - MAIL 5259



EASTERN PETROLEUM CO.
EASTERN DRILLING, INC.

TELEPHONE 38-24104 - P. O. BOX 291 - CARMEL, ILLINOIS

September 17, 1963

Mr. John Petty, Acting Executive Sec.
Oil & Gas Conservation Commission
1624 West Adams, Room 202
Phoenix 7, Arizona

Re: Navajo Springs
Apache Co., Ariz.

Dear John:

I am sending you the information I have with respect to wells #13, #14 and #17. Here are the items forwarded in order of your request.

194 ✓ 1. #13 - Sec. 31-20N-27E

Microlog - not run
DST - enclosed
Back Pressure test - Geolectric test enclosed
Gas Analysis - enclosed - helium 8.16%
Core Analysis - enclosed (Note well deepened to 1030')

2. #14 - Sec. 5-19N-27E

Microlog - not run
DST - enclosed
Core Analysis - enclosed
Back Pressure Test - Geolectric test enclosed
Gas Analysis - not available - Bureau of Mines did not analyze

3. #17 - Sec. 4-19N-27E

Completion Report - enclosed
Induction-electric log - enclosed
Core Analysis - enclosed
DST - enclosed
Gas Analysis - not available - well perforated 9-14-63

194

Mr. John Petty
Page 2

September 17, 1963

4. Crest #7 - Sec. 6-19N-27E

Back Pressure Test - enclosed - This was not requested but
you probably desire this information.

None of these has been fractured; however, it's possible #17
will be. In addition am submitting two copies of Organization
Report.

Trusting you will find the enclosed helpful, I am

Sincerely yours,

EASTERN PETROLEUM COMPANY

Henry Fullbp
Henry Fullbp

HF:mf

Encls.

cc: Mr. James W. Dean
Box 781
Littleton, Colorado

September 11, 1963

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

Re: Navajo Springs Wells, Apache County, Arizona

Dear Henry:

We were glad you came to the last meeting and congratulations on your Unitization project.

Per our conversation in which you told me to ask you for items missing in our well files, I am writing this letter. Upon perusing the commission files, I find that we are lacking several items in the new area to be unitized. Later, I will ask for missing items on other wells.

Presently, the items mentioned are vital information as far as our part of your unitization is concerned so please send them as soon as possible, as the unitization hearing is only two weeks away.

- 1 - Eastern #13 Santa Fe, Sec. 31, T20N, R27E - we need a micro-log, drill stem test or pitot tube test records not on Completion forms, core analysis, Back Pressure Tests not on Completion forms and gas analysis.
- 2 - Also, I would like all the data on the other well you drilled in Section 31.
- 3 - Eastern #14 Santa Fe, Sec. 5, T19N, R27E - we need a micro-log, any additional drill stem test or pitot tube information to what is on completion forms, if any; core analysis, any back pressure test data not on completion form and gas analysis.
- 4 - Eastern #17 Santa Fe, Sec. 4, T19N, R27E - we need Completion Report, Electric Log and micro-log, core analysis and gas analysis.

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Page Two

Mr. Henry Fullop

I will surely appreciate any further information you will let us have, like sample descriptions, fracturing and acidizing details - preferably a copy of the company's (Halliburton, Western or Dowell, etc) description of the amount used, pumping in and breakdown pressures, etc. A copy run off on a machine will suffice.

As you can see, I am trying to build up our well records to compare with what New Mexico and other states require of the operators.

Of course, I am presently just asking for the information on the pertinent wells involved in your unitization in order that we have sufficient data to compare with what you present for reserve calculation.

This is why I mentioned to Mr. Davidson that if you show the commission a De Golyer, McNaughten Engineering reserve report while presenting your unitization project, no one can counteract what you wish as long as it conforms to their results. At least, that is what I believe.

Wishing you huge success on all your projects, I am

Sincerely,

John K. Petty
Acting Executive Secretary

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DENVER OFFICE 2520 FIRST NATIONAL BANK BUILDING - M. 3-5259



EASTERN PETROLEUM CO.
EASTERN DRILLING, INC.

TELEPHONE 38-24104 - P. O. BOX 281 - CARMEL, ILLINOIS

July 13, 1962

Oil and Gas Conservation Commission
3500 North Central Ave., Suite 221
Phoenix 12, Arizona

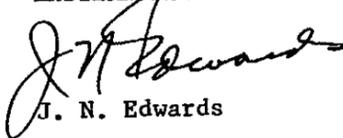
Re: Santa Fe #13
31-20N-27E

Gentlemen:

We have enclosed in duplicate "Well Completion Report" and Schlumberger electric log of the above well.

Yours very truly,

EASTERN PETROLEUM COMPANY


J. N. Edwards

JNE:mf

Encls.

cc: Mr. Dave Walsh
Santa Fe Pacific Railroad Co.
4549 Produce Plaza
Los Angeles, Calif.

1941

June 22, 1962

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

Re: Eastern Petroleum Company Navajo Springs No. 13 -
Sec. 31, T20N, R27E, Apache County, Arizona

Dear Mr. Edwards:

Enclosed is a copy of your application for permit to
drill the above well approved by Lynn Lockhart, our
Vice Chairman, per D. A. Jerome.

Also enclosed are two receipts for permit fees. No. 9298
in the amount of \$50.00 for your State No. 1 and Santa Fe
No. 12 and No. 9302 for the above well.

Needless to say, we hope you have a commercial producer
in this test.

Yours very truly,

D. A. Jerome
Executive Secretary

encs 3

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EASTERN PETROLEUM CO.
ACCOUNT NO. 2

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	NO.			DISCOUNT	FREIGHT	
		Application for permit to drill Santa Fe #13 - Sec. 31-20N-27E Apache County, Arizona. (Coyote Creek & Navajo Springs)				\$25.00

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