GENERAL AMERICAN OIL COMPANY OF TEXAS

DISTRICT OFFICE
BOX 416
LOCO HILLS, NEW MEXICO

October 22, 1963

WFX - 156

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

Pursuant to Section 5 of Rule 701-E, we hereby make application for administrative approval to convert two wells to water injection. These wells are within the boundaries of a waterflood project in the Loco Hills Pool, approved by Commission Order No. R-2031, and have both indicated substantial response to water injection.

These two wells, with pertinent data concerning each, are set out below:

1. General American Oil Co. of Texas Beeson F No. 13, located 2310' from South line and 2322' from West line of Section 31, Township 17 South, Range 30 East, N.M.P.M., Eddy County, New Mexico. This well was completed as a producing oil well from the Loco Hills Sand on June 4, 1962 and after producing 12,400 barrels oil, percentage of produced water increased so as to preclude economic production. The undersigned operator expects that conversion of this well to injection will result in more efficient flooding of the Southwest Quarter of Section 31, Township 17 South, Range 30 East. Injection will be through the 7" OD production casing, which was cemented to the surface, into the Loco Hills Sand from 2805' to 2823' in open hole.

2. General American Oil Co. of Texas State B-1778 No. 3, located 330' from South line and 990' from East line of Section 36, Township 17 South, Range 29 East, N.M.P.M., Eddy County, New Mexico. This well was completed in the Loco Hills Sand on December 31, 1947. Primary production amounted to 19,605 barrels oil and secondary recovery thru September 30, 1963 was 163,837 barrels. Extrapolation of present producing rates indicate that economic limit of production will be reached in the near future. Thorough and efficient flooding of the Southeast Quarter of Southeast Quarter of Section 36, Township 17 South, Range 29 East, requires the conversion of this well to injection. Injection will be through 2" EUE tubing, with packer set near bottom of 7" OD production casing, into the Loco Hills Sand from 2739' to 2753' in open hole.

Source of water for injecting into these two wells will be the General American Waterflood plant and will be a mixture of produced water, from Loco Hills wells, and fresh water purchased from Caprock Water Company. Injection volumes will be from 500 to 1000 barrels water per well per day.

Enclosed herewith are the following, as required by said Rule 701:

1. Plat depicting location of the two wells and all wells within a two mile radius together with the formations from which they are producing or have produced.

2. Forms C-116 listing periodic tests which indicate response to injection.

3. Well logs of subject wells showing all formations encountered, pay zones, casing strings, etc.

4. Schematic diagrams which indicate all strings of casing, cement tops as well as tubing and packers, if any.

A copy of this application, with all enclosures, is being forwarded to the Office of the State Engineer. Copies of the application are also being sent to Ambassador Oil Corporation, Fair Oil Company and Newmont Oil Company.

Respectfully submitted,

GENERAL AMERICAN OIL COMPANY OF TEXAS

By: R. J. Heard

R. J. Heard
District Superintendent

RJH/rfm
Encls.

Form C- 116
Revised (12/1/55

NEW MEXICO OIL CONSERVATION COMMISSION

MAIN OFFICE OCC

GAS-OIL RATIC REPORT

1963 OCT 24 AM 8:22

OPERATOR General American Oil Co. of Texas POOL Loco Hills

ADDRESS P. O. Box 416, Loco Hills, N. M. MONTH OF , 19

SCHEDULED TEST COMPLETION TEST SPECIAL TEST X (Check One)

(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
State B-1778	3	4-30-61	Pump	2"	24		0	2		
		12-30-61	"	"	"		0	69		
		6-30-62	"	"	"		0	95		
		7-19-62	"	"	"		0	177		
		10-28-62	"	"	"		0	552		
		2- 4-63	"	"	"		43	483		
		4-30-63	"	"	"		228	305		
		6- 2-63	"	"	"		288	256		
		8- 2-63	"	"	"		312	132		
		9-25-63	"	"	"		334	101		
		10-17-63	"	"	"		430	108		

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60 degrees F. Specific gravity base will be 0.60.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date October 22, 1963

General American Oil Company Of Texas
Company

By R. J. Heard

R. J. Heard

District Superintendent
Title

Form C- 116
Revised (12/1/55

NEW MEXICO OIL CONSERVATION COMMISSION

MAIN OFFICE OCC

1963 OCT 24 AM 8:22

GAS-OIL RATIC REPORT

OPERATOR General American Oil Co. of Texas POOL Loco Hills

ADDRESS P. O. Box 416, Loco Hills, N. M. MONTH OF , 19

SCHEDULED TEST COMPLETION TEST SPECIAL TEST X (Check One)

(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
Beeson F	13	10- 3-62	Pump	2"	24		0	1		
		11-11-62	"	"	"		0	19		
		12-28-62	"	"	"		0	132		
		1-13-63	"	"	"		0	95		
		1-19-63	"	"	"		20	103		
		2-19-63	"	"	"		47	39		
		4-23-63	"	"	"		86	25		
		5-18-63	"	"	"		480	11		
		7-18-63	Flow	3/4"	"		468	4		

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60 degrees F. Specific gravity base will be 0.60.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date October 22, 1963

General American Oil Co. of Texas
Company

By R. J. Heard

District Superintendent
Title

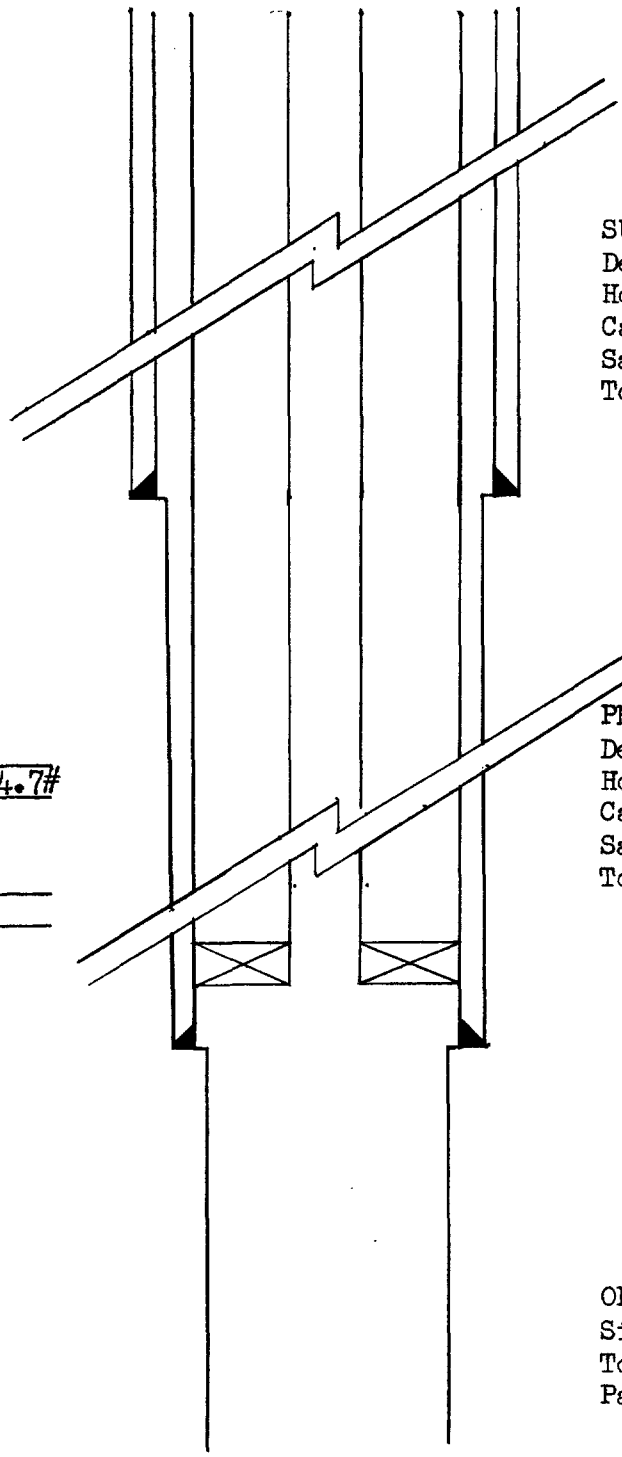
LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

MAIN OFFICE OCC

1963 OCT 24 AM 8:22

Lease and Well No.: State B-1778 No. 3
Location: 330 feet from South line and
990 feet from East line of
Section 36 TWP 17-S RGE 29-E
N.M.P.M. Eddy County, New Mexico



SURFACE CASING
Depth Set: 550'
Hole Size: 10"
Casing Size & Wt.: 8 5/8" 24#
Sacks Cement: 75
Top of Cement: 100' (Est.)

TUBING
Depth Set: 2600'
Size, Wt. & Type: 2" EUE 4.7#

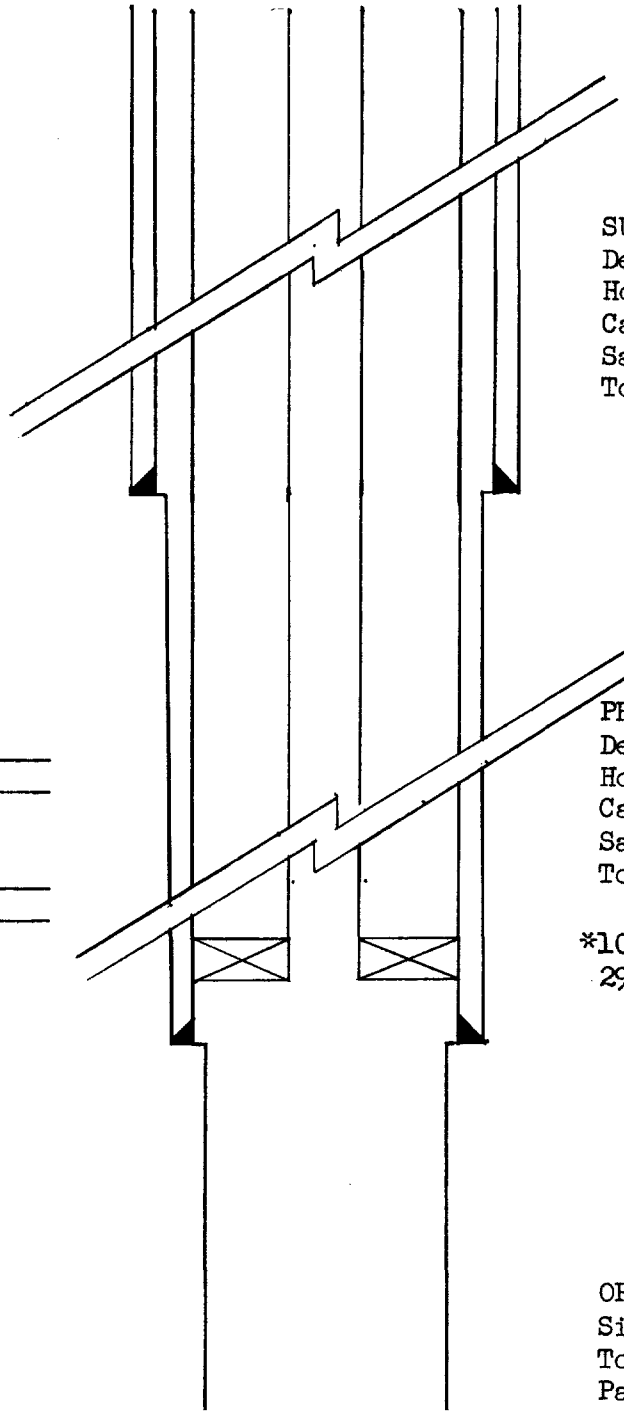
PACKER
Make & Type: Totem, Type E
Depth Set: 2605'

PRODUCTION CASING
Depth Set: 2650'
Hole Size: 8"
Casing Size & Wt.: 7" OD 20#
Sacks Cement: 100
Top of Cement: 1650' (Est.)

OPEN HOLE
Size: 6 1/4"
Total Depth: 2775'
Pay Zone: 2739' - 2753'
Loco Hills Sand

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

Lease and Well No.: Beeson F No. 13
Location: 2310 feet from South line and
2322 feet from West line of
Section 31 TWP 17-S RGE 30-E
N.M.P.M. Eddy County, New Mexico



SURFACE CASING
Depth Set: 423'
Hole Size: 12"
Casing Size & Wt.: 10 3/4" 32.75#
Sacks Cement: None
Top of Cement:

Set & Pulled

TUBING
Depth Set: None
Size, Wt. & Type:

PACKER
Make & Type: None
Depth Set:

PRODUCTION CASING
Depth Set: 2798'
Hole Size: 12" & 8"
Casing Size & Wt.: 7" OD 23#
Sacks Cement: 394*
Top of Cement: Surface

*100 Sax Incor w/ 2% $CaCl_2$
294 Sax Incor w/ 6% Gal.

OPEN HOLE
Size: 6 1/4"
Total Depth: 2827'
Pay Zone: 2805' - 2823'

Form 9-330

Form approved.
Budget Bureau No. 42-R355.4.

U. S. LAND OFFICE Las Cruces
SERIAL NUMBER 060529
LEASE OR PERMIT TO PROSPECT Beeson F

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company General American Oil Co. of Texas Address P. O. Box 416, Loco Hills, N. M.
Lessor or Tract Beeson F Field Loco Hills State New Mexico
Well No. 13 Sec. 31 T. 17S R. 30E Meridian N.M.P.M. County Eddy
Location 2310 ft. {N.} of S Line and 2232 ft. {E.} of W Line of Section 31 Elevation 3562'
(Derrick floor relative to sea level)

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

Signed R. J. Heard
Date June 11, 1962 Title District Superintendent

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

Commenced drilling May 2, 1962 Finished drilling June 4, 1962

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 2805' to 2823' No. 4, from ____ to ____
No. 2, from ____ to ____ No. 5, from ____ to ____
No. 3, from ____ to ____ No. 6, from ____ to ____

IMPORTANT WATER SANDS

No. 1, from 330 to 335 No. 3, from ____ to ____
No. 2, from 365 to 375 No. 4, from ____ to ____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
10 3/4"	32.70#	8rd	Used	423'	Texas Pattern	423'			Water Shut-off
7"	23#	8rd	Used	2798'	Texas Pattern				Production String

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10 3/4"	423	Obtained formation	shut-off.		
7"	2800	394	Pump & Plug		

PLUGS AND ADAPTERS

Heaving plug—Material ____ Length ____ Depth set ____
Adapters—Material ____ Size ____

STIMULATION SHOOTING RECORD

Size	Shell used	Explosive or Chemical used	Quantity	Date	Depth shot	Depth cleaned out
		Chemical 20% Mud Acid	500	6-4-62	2800-2827	

TOOLS USED

Rotary tools were used from ____ feet to ____ feet, and from ____ feet to ____ feet
Cable tools were used from 0 feet to 2827 feet, and from ____ feet to ____ feet

DATES

June 11, 1962 Put to producing June 4, 1962

The production for the first 24 hours was 3 barrels of fluid of which 100 % was oil; 0 % emulsion; 0 % water; and 0 % sediment. Gravity, °API 36.0°

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

Rock pressure, lbs. per sq. in. ____

EMPLOYEES

O. L. Anderson, Driller I. B. Harper, Driller
W. M. Clark, Driller ____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	90	90	Sand
90	250	160	Red Beds & Gyp
250	345	95	Anhy
345	365	20	Red Shale
365	375	10	Gravel
375	450	75	Red Bed & Anhy
450	1120	670	Salt
1120	1290	170	Anhy
1290	1405	115	Broken Anhy
1405	2000	595	Anhy
2000	2260	260	Broken Anhy
2260	2290	30	Anhy
2290	2313	23	Red Sand
2313	2350	37	Shale & anhy
2350	2375	25	Lime & Anhy
2375	2533	158	Broken Anhy
2533	2550	17	Red Rock
2550	2615	65	Broken Anhy
2615	2787	172	Lime
2787	2793	5	Lime & Sand
2793	2798	5	Sandy Lime
2798	2823	25	Sand
2823	2827	4	Lime
			GEOLOGIC TOPS
			Top Salt 450' (Drlr.)
			Base Salt 1120' (Drlr.)
			Top Queen 2250' (Samples)
			Top Grayburg 2618' (Samples)

FOLD | MARK

[OVER]

16—43094-5

FORMATION RECORD—Continued

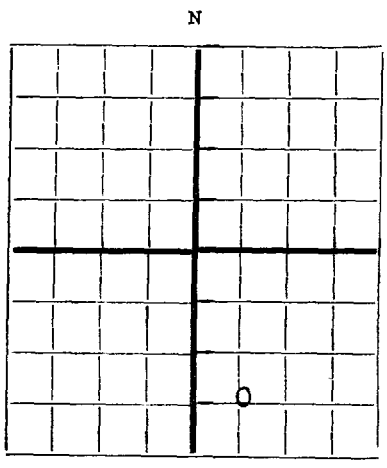
FROM—	TO—	TOTAL FEET	FORMATION

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

HISTORY OF OIL OR GAS WELL

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

FORM C-105



AREA 640 ACRES
LOCATE WELL CORRECTLY

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

WELL RECORD

Mail to Oil Conservation Commission, Santa Fe, New Mexico, or its proper agent not more than twenty days after completion of well. Follow instructions in the Rules and Regulations of the Commission. Indicate questionable data by following it with (?). SUBMIT IN TRIPLICATE. FORM C-110 WILL NOT BE APPROVED UNTIL FORM C-105 IS PROPERLY FILLED OUT.

Grayburg Oil Company of New Mexico (Company or Operator) Box 416 (Address) Loco Hills, New Mexico

State B-1778 (Lease) Well No. 3 in SW¼SE¼SE¼ of Sec. 36, T. 17-South

R. 29-East, N. M. P. M., Loco Hills Field, Eddy County.

Well is 330 feet North of the South line and 990 feet west of the East line of Sec. 36-T17S-R29E.

If State land the oil and gas lease is No. B-1778 Assignment No. 10

If patented land the owner is ....., Address .....

If Government land the permittee is ....., Address .....

The Lessee is ....., Address .....

Drilling commenced November 26 19 47 Drilling was completed December 31 19 47

Name of drilling contractor Company, Address .....

Elevation above sea level at top of casing 3542 feet.

The information given is to be kept confidential until ..... 19 .....

OIL SANDS OR ZONES

No. 1, from 2734 to 2744 No. 4, from ..... to .....

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

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

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from 315 to 330 feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

CASING RECORD

SIZE	WEIGHT PER FOOT	THREADS PER INCH	MAKE	AMOUNT	KIND OF SHOE	CUT & FILLED FROM	PERFORATED FROM	PERFORATED TO	PURPOSE
8 5/8	24#	8rd		550	Guide				Salt String
7	20#	10V		2650	Float				Oil String

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHODS USED	MUD GRAVITY	AMOUNT OF MUD USED
10"	8 5/8	550		Halliburton	Heavy	To Surface
8"	7	2650		Halliburton	Heavy	To Surface

PLUGS AND ADAPTERS

Heaving plug—Material ..... Length ..... Depth Set .....

Adapters—Material ..... Size .....

RECORD OF SHOOTING OR CHEMICAL TREATMENT

SIZE	SHELL USED	EXPLOSIVE OR CHEMICAL USED	QUANTITY	DATE	DEPTH SHOT OR TREATED	DEPTH CLEANED OUT
	5"	Nitro-Glycerin	190 qts.	12-30-47	2713-2760	2775

Results of shooting or chemical treatment .....

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto.

TOOLS USED

Rotary tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

Cable tools were used from 0 feet to 2775 feet, and from ..... feet to ..... feet

PRODUCTION

Put to producing December 31, 19 47.

The production of the first 24 hours was 36 barrels of fluid of which 100 % was oil; 0 % emulsion; 0 % water; and 2/10 % sediment. Gravity, Be 34

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

Rock pressure, lbs. per sq. in. .....

EMPLOYEES

Max Stephens, Driller L. W. Ledbetter, Driller

G. C. Pratt, Driller ....., Driller

FORMATION RECORD ON OTHER SIDE

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Subscribed and sworn to before me this 8th day of January, 1948

Notary Public

My Commission expires April 25, 1951

Loco Hills, New Mexico (Place) January 8, 1947. (Date)

Name R. J. Heard

Position Vice President

Representing Grayburg Oil Company of New Mexico (Company or Operator)

Address Box 416 Loco Hills, New Mexico

FORMATION RECORD

FROM	TO	THICKNESS IN FEET	FORMATION
0	50		Red Rock.
50	125		Red Shale.
125	195		Red Sand and Red Bed.
195	240		Red Rock.
240	315		Red Rock and Gyp.
315	330		Water Sand.
330	370		Anhydrite.
370	375		Blue Shale.
375	400		Anhydrite.
400	430		Red Rock.
430	470		Red Shale.
470	490		Red Bed.
490	515		Shale, Gyp, and Salt Stringers.
515	965		Salt.
965	1025		Salt and Polyhalite.
1025	1140		Broken Anhydrite.
1140	1220		Anhydrite.
1220	1305		Anhydrite and Red Shale.
1305	1350		Anhydrite and Red Rock.
1350	1390		Broken Anhydrite and Shale.
1390	1430		Broken Anhydrite.
1430	1470		Anhydrite and Gray Shale.
1470	1485		Broken Anhydrite.
1485	1525		Broken Anhydrite.
1525	1570		Anhydrite and Red Rock.
1570	1620		Anhydrite.
1620	1635		Lime.
1635	2175		Anhydrite.
2175	2230		S. L. M.
2230	2265		Red Sand.
2265	2275		Anhydrite.
2275	2295		Gray Lime.
2295	2470		Broken Anhydrite.
2470	2500		Sandy Lime.
2500	2520		Show of oil-Shale and Lime Broken.
2520	2530		Broken Anhydrite and Shale.
2530	2550		Broken Anhydrite and Shale.
2550	2570		Lime.
2570	2595		Lime and REd Shale.
2595	2620		Broken Lime.
2620	2643		Lime.
2643	2710		Gray Lime.
2710	2715		White Lime.
2715	2739		Lime.
2739	2753		Gas and Oil Sand.
2753	2775		Gray Lime.
2775			TOTAL DEPTH

AMBASSADOR OIL CORPORATION
AMBASSADOR BUILDING
3109 WINTHROP P. O. BOX 9338
FORT WORTH 7, TEXAS

C. HARRISON COOPER
PRESIDENT
CHIEF EXECUTIVE OFFICER

CABLE ADDRESS
FRANJO, FORT WORTH

OCTOBER 29, 1963

MR. A. L. PORTER, JR.
SECRETARY-DIRECTOR
NEW MEXICO OIL CONSERVATION COMMISSION
P.O. Box 871
SANTA FE, NEW MEXICO

DEAR SIR:

AS OFFSET OPERATOR, WE HAVE NO OBJECTION TO GENERAL AMERICAN OIL COMPANY OF TEXAS' APPLICATION FOR ADMINISTRATIVE APPROVAL TO CONVERT TWO WELLS IN THE LOCO HILLS POOL TO WATER INJECTION STATUS. THESE WELLS, BEESON "F" No. 13 AND STATE OF NEW MEXICO B-1778 No. 3 ARE MORE SPECIFICALLY DESCRIBED IN THEIR LETTER APPLICATION TO YOU DATED OCTOBER 22, 1963.

YOURS VERY TRULY,

E. A. RILEY
ASSISTANT VICE-PRESIDENT
MANAGER OF SECONDARY RECOVERY DIV.

CC: MR. R. J. HEARD, DIST. SUPERINTENDENT
Box 416
LOCO HILLS, NEW MEXICO

NEWMONT OIL COMPANY
ROWLEY BUILDING
ARTESIA, NEW MEXICO

October 24, 1963

NEW MEXICO
DISTRICT OFFICE

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

We have no objection to General American Oil Company's conversion of their Beeson F No. 13 and State B No. 3 in the Loco Hills Pool Waterflood, Eddy County, New Mexico.

Yours truly,

NEWMONT OIL COMPANY

Herman J. Ledbetter
District Superintendent

HJL-sf
Carbon copy to:
R. J. Heard
Loco Hills, New Mexico

FAIR OIL COMPANY

OIL PRODUCERS -:- ROYALTIES

BOX 689 — PHONE LY 2-3811

TYLER, TEXAS

November 4, 1963

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
Box 871
Sante Fe, New Mexico

Subject: Application by General American Oil Company to
Convert Two Wells to Water Injection
Loco Hills Field
Eddy County, New Mexico

Dear Sir:

We have been furnished with a copy of the application of General American Oil Company to convert their Beeson "F" #13 and their State B-1778 #3 from producing oil wells to water injection wells. As operator of the State "A" Lease in Sec. 36, T. 17 S., R. 29 E., which offsets both of General American's wells, we do not have any objection to the conversion as requested by General American.

Yours very truly

FAIR OIL COMPANY

Richard L. Ray

RLR:n

cc General American Oil Company
Box 416
Loco Hills, New Mexico

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

October 24, 1963

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, N. M.

Re: General American Oil Co. of Texas--Conversion of Beeson F No. 13 & State B-1778 No. 3

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

This office has received notice that the General American Oil Company of Texas proposes to convert Beeson F No. 13 and State B-1778 No. 3 to water injection wells.

The State Engineer offers no objection to the granting of the application provided the injection is made through plastic coated tubing and packer as described for Texas State B-1778 No. 3.

Very truly yours,

S. E. Reynolds
State Engineer

By: Frank E. Irby

Frank E. Irby

Water Rights Division

ma
cc-R. J. Heard
F. H. Hennighausen