

AE Order Number Banner

Application Number: pMSG2315753839

SWD-2541

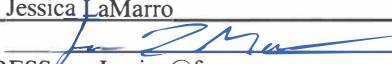
FAE II Operating LLC [329326]

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X (SWD-793) Disposal Storage
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: FAE II Operating, LLC
ADDRESS: 11757 Katy Freeway, Suite 725, Houston, TX 77079
CONTACT PARTY: Jessica LaMarro PHONE: (832) 706 0049
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? Yes X No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
NAME: Jessica LaMarro TITLE: Geologist
SIGNATURE:  DATE: 3/31/2012
E-MAIL ADDRESS: Jessica@faenergyus.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: _____
 WELL NAME & NUMBER: _____
 WELL LOCATION: _____

FOOTAGE LOCATION
WELLBORE SCHEMATIC

UNIT LETTER

SECTION

TOWNSHIP

RANGE

WELL CONSTRUCTION DATASurface Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. **or** _____ ft³

Top of Cement: _____ Method Determined: _____

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. **or** _____ ft³

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. **or** _____ ft³

Top of Cement: _____ Method Determined: _____

Total Depth: _____

Injection Interval

_____ feet to _____

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: _____ Lining Material: _____

Type of Packer: _____

Packer Setting Depth: _____

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____ Yes _____ No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: _____

3. Name of Field or Pool (if applicable): _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

Range: 37E
Formation: SWD; QUEE

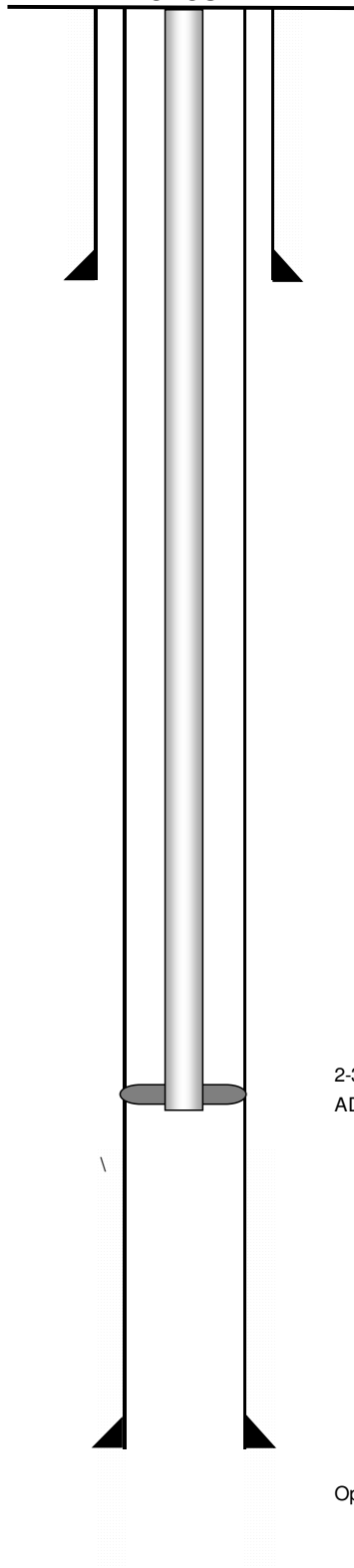
III. Well Data

Location: 2310' FSL & 990' FEL Sec: 22 Township: 25S
 County: Lea State: NM API: 30-025-11690

Range: 37E
 Formation: SWD; QUEE

Surface Csg

Size: 9-5/8"
 Wt.&Thrd: 33.75#
 Grade: _____
 Set @: 1100'
 Sxs cmt: 500 sx
 Circ: _____
 TOC: _____
 Hole Size: _____

PROPOSED

KB: _____

DF: _____

GL: _____

Spud Date: 7/6/1938

Compl. Date: _____

2-3/8" coated tubing - 3,110'

AD-1 packer set @ 3,110'

Production Csg

Size: 7"
 Wt.&Thrd: 22#
 Grade: _____
 Set @: 3218'
 Sxs Cmt: 250 sx
 Circ: _____
 TOC: _____
 Hole Size: _____

Openhole from 3218' to 3366'

TD 3366'

Tubulars - Capacities and Performance

	<u>bb/ft</u>	<u>cf/ft</u>	<u>Tensile (lbs)</u>	<u>Burst (psi)</u>	<u>Collapse (psi)</u>	<u>ID(in)</u>	<u>Drift (in)</u>
3110' of 2-3/8" 4.6# J-55 coated	0.0039	0.0217	72000	7700	8100	1.995	

III. Well Data

INJECTION WELL DATA SHEET

OPERATOR: FAE II Operating, LLCAPI NUMBER: 30-025-11690WELL NAME & NUMBER: Harrison Federal #2

WELL LOCATION: 2310 FSL	990 FEL	I	22	25S	37E
FOOTAGE LOCATION		UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELL CONSTRUCTION DATASurface Casing

Hole Size:	<u>11"</u>
Casing Size:	<u>9-5/8"</u>
Depth Set:	<u>1100'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>500 sx</u>
Method Determined:	<u>circulated</u>

Additional Data

1. NOT a new well.
 1. Originally an oil well in the LANGLEIE MATTIX;7 RVRS-Q-GRAYBURG Pool.
 2. Currently an SWD well.
2. Injection Formation: Queen Formation
3. Pool: [96117] SWD;QUEEN
4. Well has NOT been perforated within more than one zone.
5. Overlying & Underlying Zones:
 1. Overlying Oil/Gas Zone: Seven Rivers
 1. Depth of Zone: +/- 2833'
 2. Underlying Oil Zone: Grayburg
 1. Depth of Zone: +/- 3600'

Production Casing

Hole Size:	<u>8-7/8"</u>
Casing Size:	<u>7"</u>
Depth Set:	<u>3218'</u>
Top of Cement:	<u> </u>
Cement with	<u>250 sx</u>
Method Determined:	<u> </u>

Proposed Injection Interval

Queen Formation
<u>~3218' to 3366'</u>
Zone will be Open Hole

Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Cement</u>
Type of Packer:	<u>AD-1</u>
Packer Depth Set:	<u>~3110'</u>

Well Name: Harrison Federal #002
Objective: Re-establish as injector
Field: Jal
Surface Location: 2310' FSL & 990' FEL
Sec 22, Township 25 S, Range 37 E
County, State: Lea, NM
API: 30-025-11690

Engineer: Garret Johnson 918-697-8311 or 832-706-0056 garret@faenergyus.com

Well Information:

Casing:

Casing Size	Weight lb. ft.	Depth Set	Cement
9.625	33.75	1100	500 sx-circ
7.000	22	3218	250 sx-circ
Openhole		3366	

Perforations:

Top	Bottom	SPF	Status
3218	3366	Openhole	Open

Safety:

Please be aware of your surroundings and follow safe work practices. It is your job to shut down the job in the event of an unsafe situation. Prior to any work, conduct a meeting addressing the safety concerns of the operations.

Procedure:

1. Please inspect lease roads to location to assure adequate access for work activities. Function test the wellhead valves to assure proper operation during the procedure. Locate and inspect rig anchors, test or replace anchors if necessary.
2. Conduct MIT test to ensure integrity of casing prior to injection. Pump fluid to capacity of backside and pressure to 500 psi. Monitor pressure with a chart recorder.

V.

Exhibit A shows 14 unique well locations within a ½ mile radius of the Harrison Federal #2, and 354 unique well locations within a 2 mile radius of said well.

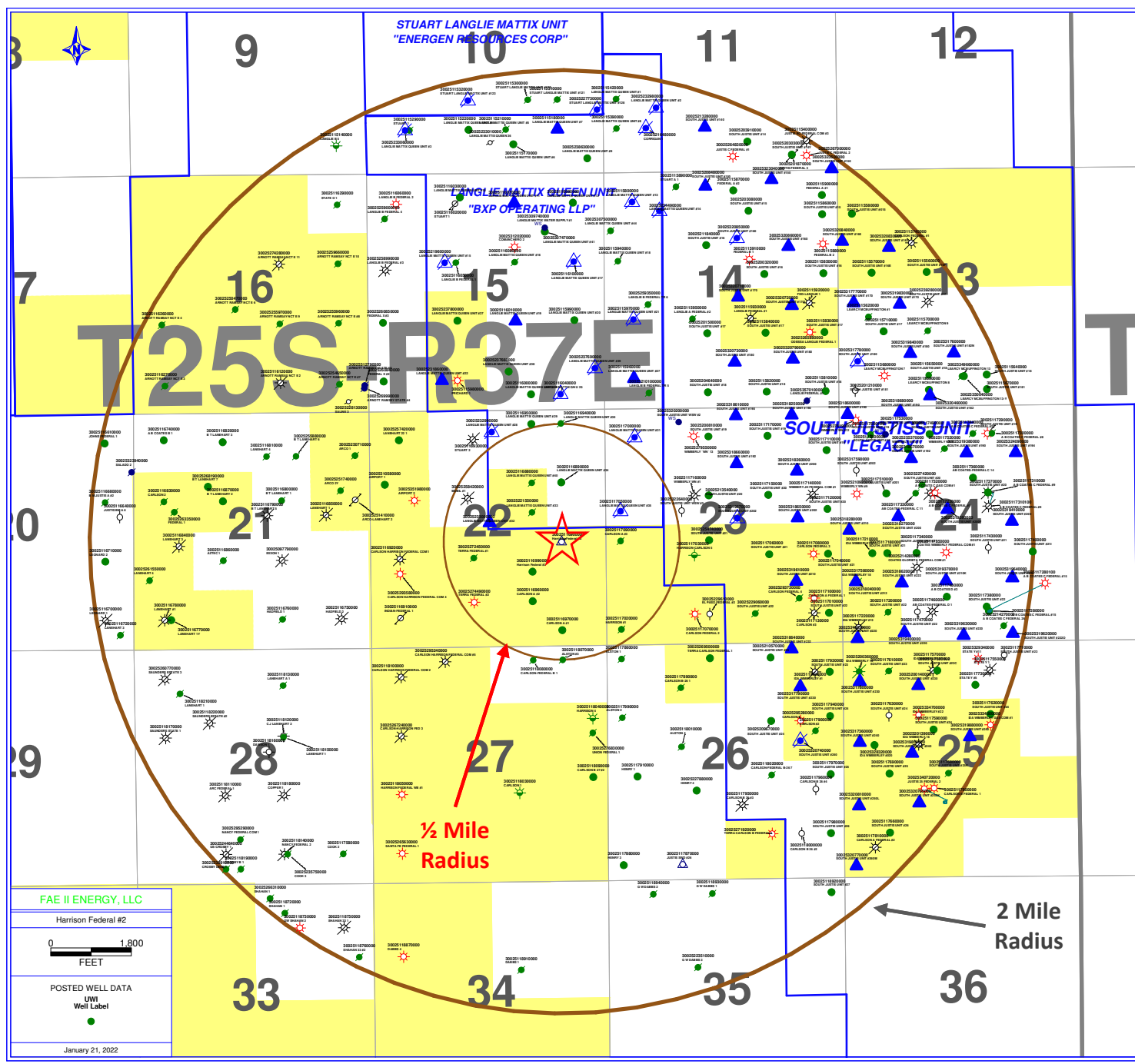


Exhibit A

VI.

Following Exhibit A, the tabulation of the wells with each well's type, construction, date drilled, location, depth, and completion date of wells within a ½ mile radius are displayed in **Exhibit B**. The plugged well wellbore diagrams are displayed in **Exhibit C1-C7**.

Exhibit B

1/2 Mile Radius	OPERATOR	WELL LABEL	ID	WELL TYPE	CURRENT ZONE	Distance (ft) from Harrison Federal #2	SPUD DATE	COMP DATE	TOWNSHIP	RANGE	SECTION	FOOTAGE
30025116900000	FAE II Operating LLC	Harrison Federal #2	3366	SWD	[37240] LANGUE MATTX;7 RVRS-Q-GRAYBURG ;[96117] SWD;QUEEN	0.0	7/6/1938	7/29/1938	255	37E	22	990 FEL 2310 FSL
30025116990000	FAE II Operating LLC	Harrison Federal #3	3403	OIL	[37240] LANGUE MATTX;7 RVRS-Q-GRAYBURG	934.6	8/15/1938	9/11/1938	255	37E	22	1650 FEL 1650 FSL
30025211550000	PRIZE OPERATING COMPANY	LANGUE MATTX QUEEN UNIT #33	3344	PLUGOIL	Plugged	935.0	6/15/1967	5/12/1968	255	37E	22	1650 FEL 2310 FNL
30025117090000	SANTA FE ENERGY RESOURCES INCORPORATED	CARLSON A #3	3345	PLUGOIL	Plugged	1322.2	12/13/1938	1/15/1939	255	37E	23	330 FWL 2310 FSL
30025116890000	BXP Operating, LLC	LANGUE MATTX QUEEN UNIT #34	3380	OIL	[37240] LANGUE MATTX;7 RVRS-Q-GRAYBURG	1328.0	2/16/1939	3/17/1939	255	37E	22	990 FEL 1650 FNL
30025116880000	LINN OPERATING, LLC	LANGUE MATTX QUEEN UNIT #40	3345	PLUGOIL	Plugged	1480.0	4/5/1938	5/3/1938	255	37E	22	1650 FEL 1650 FNL
30025116960000	FAE II Operating LLC	CARLSON A #2	3354	OIL	[37240] LANGUE MATTX;7 RVRS-Q-GRAYBURG	1480.9	10/2/1938	11/18/1938	255	37E	22	1650 FEL 990 FSL
30025117050000	LINN OPERATING, LLC	LANGUE MATTX QUEEN UNIT #35	3360	PLUGINJ	Plugged	1484.8	4/18/1939	5/9/1939	255	37E	23	330 FWL 2310 FNL
30025233000000	BXP Operating, LLC	LANGUE MATTX QUEEN UNIT #32	3620	INJECT	[37240] LANGUE MATTX;7 RVRS-Q-GRAYBURG	1667.3	10/10/1969	11/18/1969	255	37E	22	2600 FEL 2530 FNL
30025116970000	FAE II Operating LLC	CARLSON A #1	3327	OIL	[37240] LANGUE MATTX;7 RVRS-Q-GRAYBURG	1979.2	9/30/1938	11/2/1938	255	37E	22	990 FEL 330 FSL
30025272450000	ENDEAVOR ENERGY RESOURCES, LP	TERRA FEDERAL #1	3470	PLUGOIL	Plugged	1998.9	2/13/1981	5/1/1981	255	37E	22	2310 FWL 1980 FSL
30025258420000	HERMAN L. IOEB LLC	MOBIL #1	3450	PLUGGAS	Plugged	2319.7	3/9/1978	5/3/1978	255	37E	22	2180 FWL 1980 FNL
30025117020000	PERMAN RESOURCES INC	HARRISON #1	3347	PLUGOIL	Plugged	2373.8	2/2/1938	3/10/1938	255	37E	23	330 FWL 330 FSL
30025274490000	ENDEAVOR ENERGY RESOURCES, LP	TERRA FEDERAL #2	3470	GAS	[79240] JALMAT;TAN-VAITES-7 RVRS (GAS)	2379.9	6/7/1981	4/6/1982	255	37E	22	2310 FWL 990 FSL

VI. Exhibit C1

MOBIL #1

API# 30-025-25842

2180 FWL 1980 FNL,

Sec 22, T25S, R37E Lea Co., NM

MICHAEL POLLEY OILFIELD CONSULTING, INC.

9223 Lakeview Road • Trinidad, CO 81082

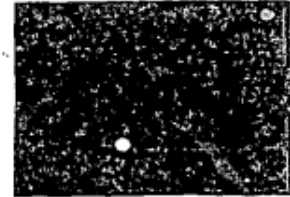
MICHAEL POLLEY

COMPANY: Herman LoebWELL NAME: Mobil #1LEGAL: F, Sec 22, 25S, 37EAPI# 30-025-25842COMPLETION, WORKOVER
AND
DRILLING SUPERVISION

PHONE: 719-846-3434

MOBILE: 719-342-5600

polleysm@gmail.com



VOL. BETWEEN PIPE & HOLE CAP.

	BLUFT	FTBL	CSL
4 1/2 - 7 7/8	0456	24 65	2278
5 1/2 - 7 7/8	5329	32 41	1733
8 5/8 - 12 1/4	7735	13 81	2127
8 5/8 - 12 1/4	2558	17 09	3132
13 5/8 - 17 1/2	1721	8 00	6248

TUBING & CASING SIZE & CAP.

	WT.	BLUFT	FTBL
2 3/8	4.5	0039	258 65
2 7/8	8.5	0158	172 78
3 1/2	9.3	0087	114 99
4 1/2	10.5	0158	82 70
4 1/2	11.8	0158	84 34
5 1/2	15.5	0235	42 01
5 1/2	17.0	0232	40 02
5 1/2	20.0	0222	45 00
5 1/2	23.0	0212	47 00
8 5/8	32.0	0629	16 41
8 5/8	38.0	0775	12 84

D.P. SIZE _____ TUBING SIZE: _____ CASING SIZE: _____

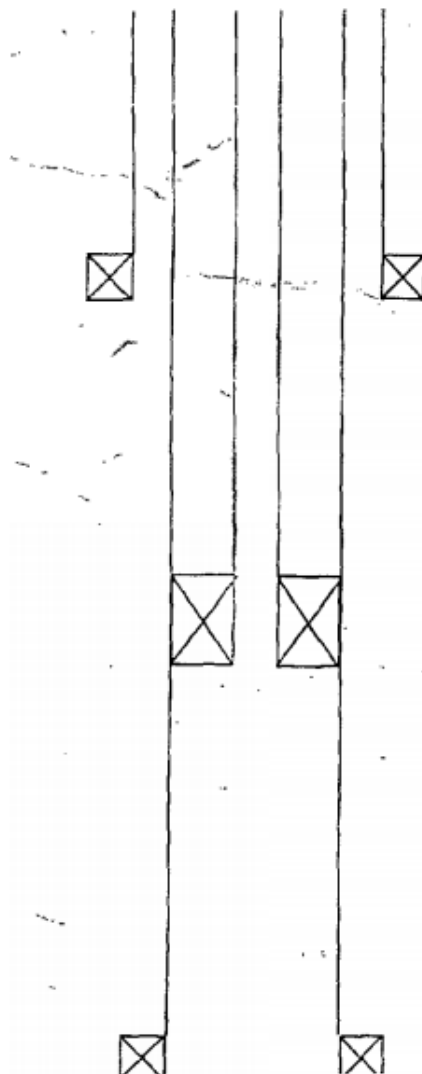
HOLE SIZE: _____ PERFS: _____

PACKER SETTING: _____ BP SETTING: _____ MAX RATE: _____

MAX PSI: _____ BHST: _____ FORM: _____ TAIL PIPE: _____

VOL. BETWEEN PIPE & PIPE CAP.

	WT.	BLUFT	FTBL	CSL
2 3/8 - 4 1/2	11.8	0101	29 37	0945
2 3/8 - 5 1/2	17.0	0178	53 28	0296
2 7/8 - 5 1/2	17.0	2152	43 71	0854
2 7/8 - 7	23.0	8013	31 91	1760



GR 3,071

13 5/8 Hole

24 # 8 5/8

Set @ 1014'

Cmt to Surf.

W/ 1100 SX

Est 1700

0183h

Perf 5

2643' - 2742'

Perf 6

2805' - 2945'

CIOP

W/ cmt cap 3280'

Perf 6

3150' - 3341'

10.5 # 4 1/2

Set @ 3450'

Cmt W/ 400 SX

7 3/8 Hole

OCT 08 2015

VI. Exhibit C2

LANGLIE MATTIX QUEEN UNIT #35

API# 30-025-11705

330 FWL 2310 FNL,

Sec 23, T25S, R37E Lea Co., NM

Wellbore Diagram

<u>Lense & Well No.</u>	<u>Langlie Mattix Queen Unit #35</u>
<u>Field Name</u>	<u>Langlie Mattix</u>
<u>Location</u>	<u>2,310' FNL & 4,950' FEL; T: 25S R: 37E Sec: 22</u>

<u>Former Name</u>	
<u>County & State</u>	<u>Lea County, New Mexico</u>
<u>API No.</u>	<u>30-025-11705</u>

<u>K.B. Elevation</u>	
<u>D.F. Elevation</u>	
<u>Ground Level</u>	<u>3,076'</u>

Surface Casing				
<u>Size (OD)</u>	<u>8 5/8"</u>	<u>Weight</u>	<u>32.0#</u>	<u>Depth</u>
<u>Grade</u>		<u>Sx. Cmt.</u>	<u>600 sx</u>	<u>TOC @</u>
				<u>Surface</u>

Intermediate Casing				
<u>Size (OD)</u>	<u>n/a</u>	<u>Weight</u>		<u>Depth</u>
<u>Grade</u>		<u>Sx. Cmt.</u>		<u>TOC @</u>

Production Casing				
<u>Size (OD)</u>	<u>6"</u>	<u>Weight</u>	<u>15.0#</u>	<u>Depth</u>
<u>Grade</u>		<u>Sx. Cmt.</u>	<u>200 sx</u>	<u>TOC @</u>
				<u>1,785'</u>

Calc

P&A Procedure:

POOH w/ injection tbg and pkr.

RIH & set CIBP at 3058' & cap w/ 35 sxs cmt.

WOC & tag top of CIBP no lower than 3008'.

Circ the hole with mud laden fluid.

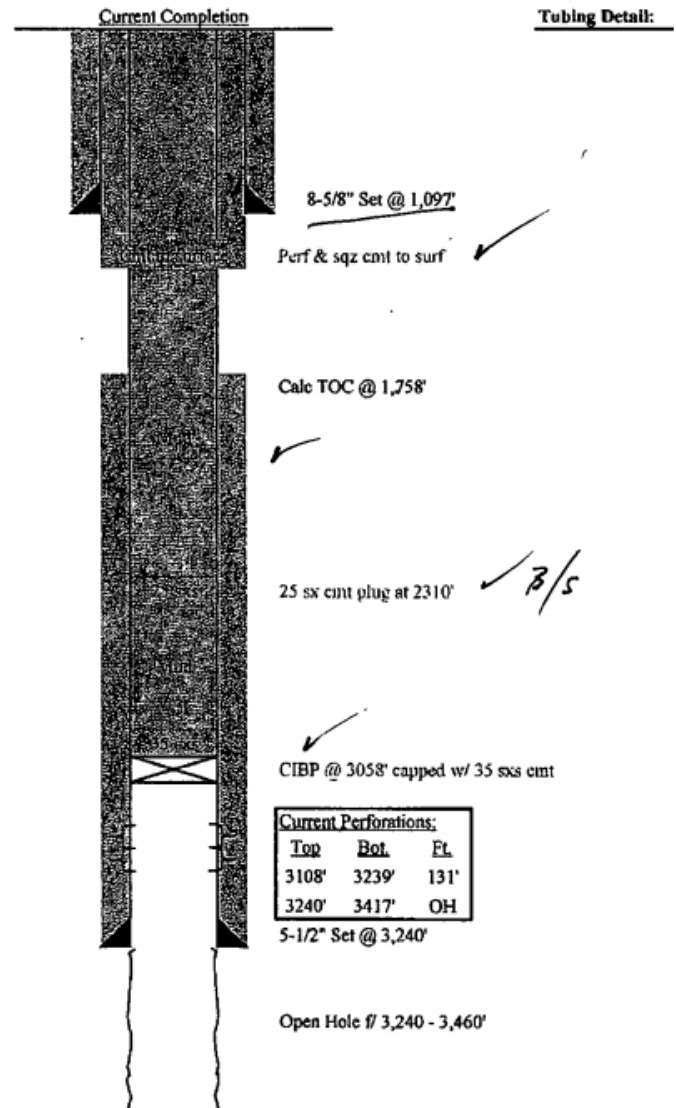
RIH & set a 25 sx cmt plug at 2310'.

WOC & tag no lower than 2210'.

Perf the 6" csg at 1170' & sqz cmt in/out of csg to surface

Set the dry hole marker & clean up location.

Formation Record	Depth
Top of Salt	1,120'
Base of Salt	2,260'
Yates	2,470'
7 Rivers	2,730'
Queen	3,110'
Penrose	3,256'



<u>Plug Back Depth</u>	
<u>Total Depth</u>	<u>3,460'</u>

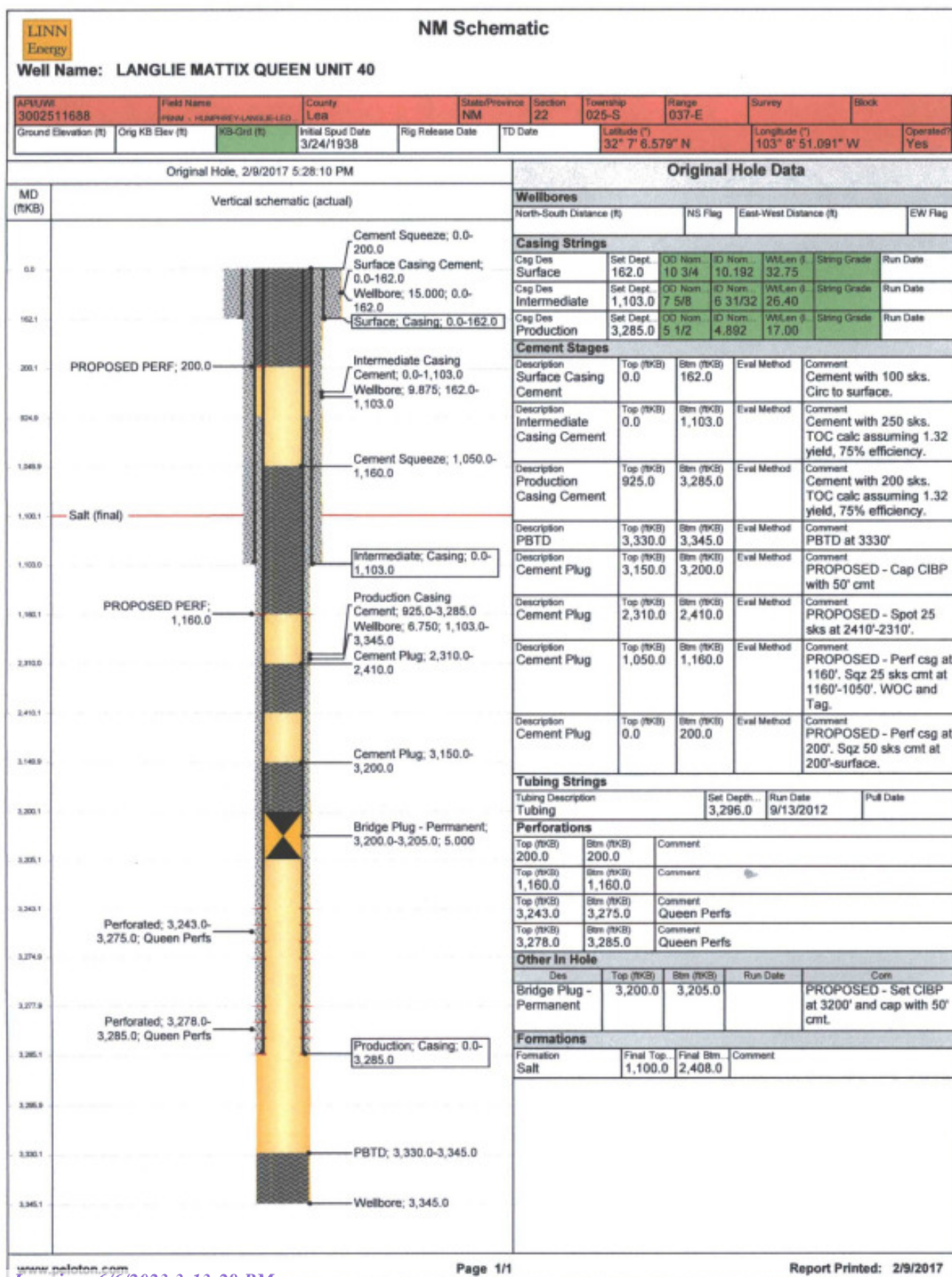
VI. Exhibit C3

LANGLIE MATTIX QUEEN UNIT #40

API# 30-025-11688

1650 FEL 1650 FNL,

Sec 22, T25S, R37E Lea Co., NM



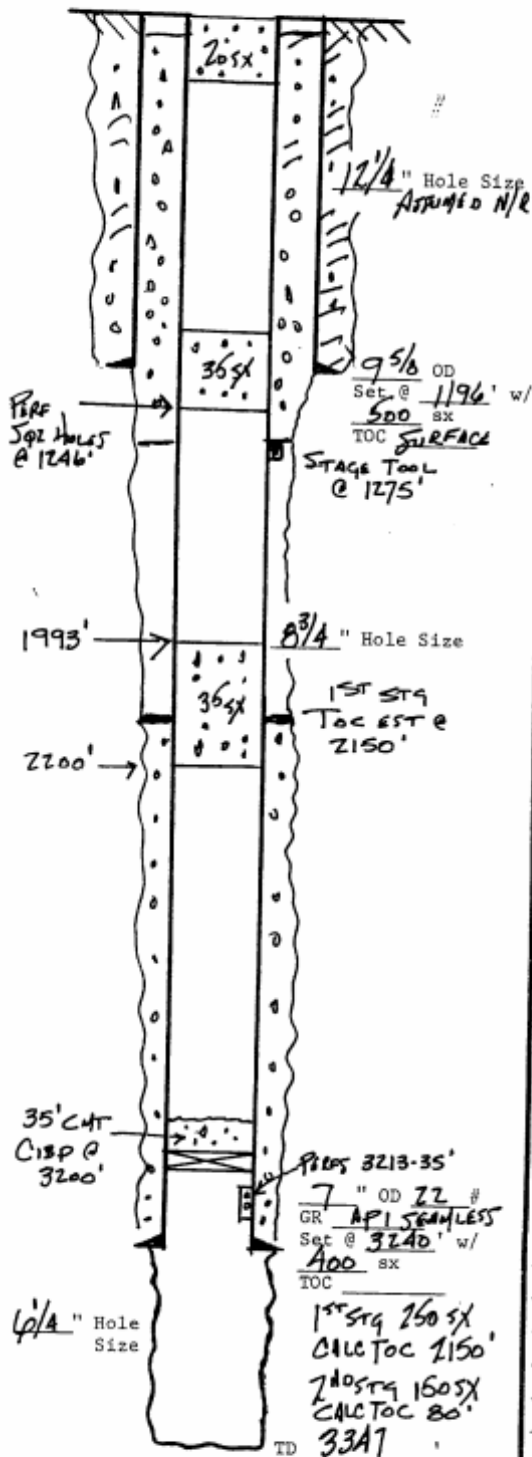
VI. Exhibit C4

HARRISON #1

API# 30-025-11702

330 FWL 330 FSL,

Sec 23, T25S, R37E Lea Co., NM



COMPANY PERMIN RESOURCES INC

WELL HARRISON #1

FIELD LANGUE MARTIN (QUEEN)

LOCATION 330' FSL + 330' FSL (M)
SECTION 23, T25S, R37E

COUNTY LEA

STATE NM

ELEVATIONS: KB _____
DF 3047
GL _____

COMPLETION RECORD

SPUD DATE 2/3/38 COMP. DATE 3/3/38

TD 3347 PSTD 3347

CASING RECORD
9 5/8\" OD 1196' w/ 500 SX
7 1/2\" OD 93240' CMTO H/ 400 SX

PERFORATING RECORD
OH 3240-3347
PERFS 3213-3235'

STIMULATION

OH 3240-3347 120 qts H₂O
PERFS 3268-3285' 160 qts H₂O

IP

GOR

GR

TP

CP

CHOKE

TUBING

⊙

REMARKS

8/2/61 S&F 3295-3339' OH &
3213-3235' PERFS N/
20,000 GAL RIF OIL +
30,000 #20/40 SAND

SI 2/27/87

RECEIVED
FEB 28 1987
OCD

VI. Exhibit C5

CARLSON A #3

API# 30-025-11709

330 FWL 2310 FSL,

Sec 23, T25S, R37E Lea Co., NM

Surface Casing

Size	13"
WT	40#
Depth	155'
TOC	Surface
# sks	100

Cement plug @ Surface
Set 10sx cement inside 7".

Intermediate Casing

Size	9.625 "
WT	29.3#
Depth	1163'
TOC	est 600'
# sks	300

Perf 7" @ 1100', set cement
retainer @ 1050'.
Cement 7" w/200 sx.
Cement circulated to surface.
Left 80' plug on top of retainer.

Perf 7" @ 2200', set cement
retainer @ 2100'.
Cement 7" w/310 sx.
TOC @ 1800'.

Production Casing

Size	7"
WT	24#
Depth	3223'
TOC	est 2000'
# sks	300

25sx cement plug from 2975' to 3075'
Set CIBP @ 3075'

PBD w/Fill @ 3290'

TD @ 3345'

CIBP @ 3075'

Open Hole Completion in 1939:
Queen Formation
Depth: 3223' to 3345'

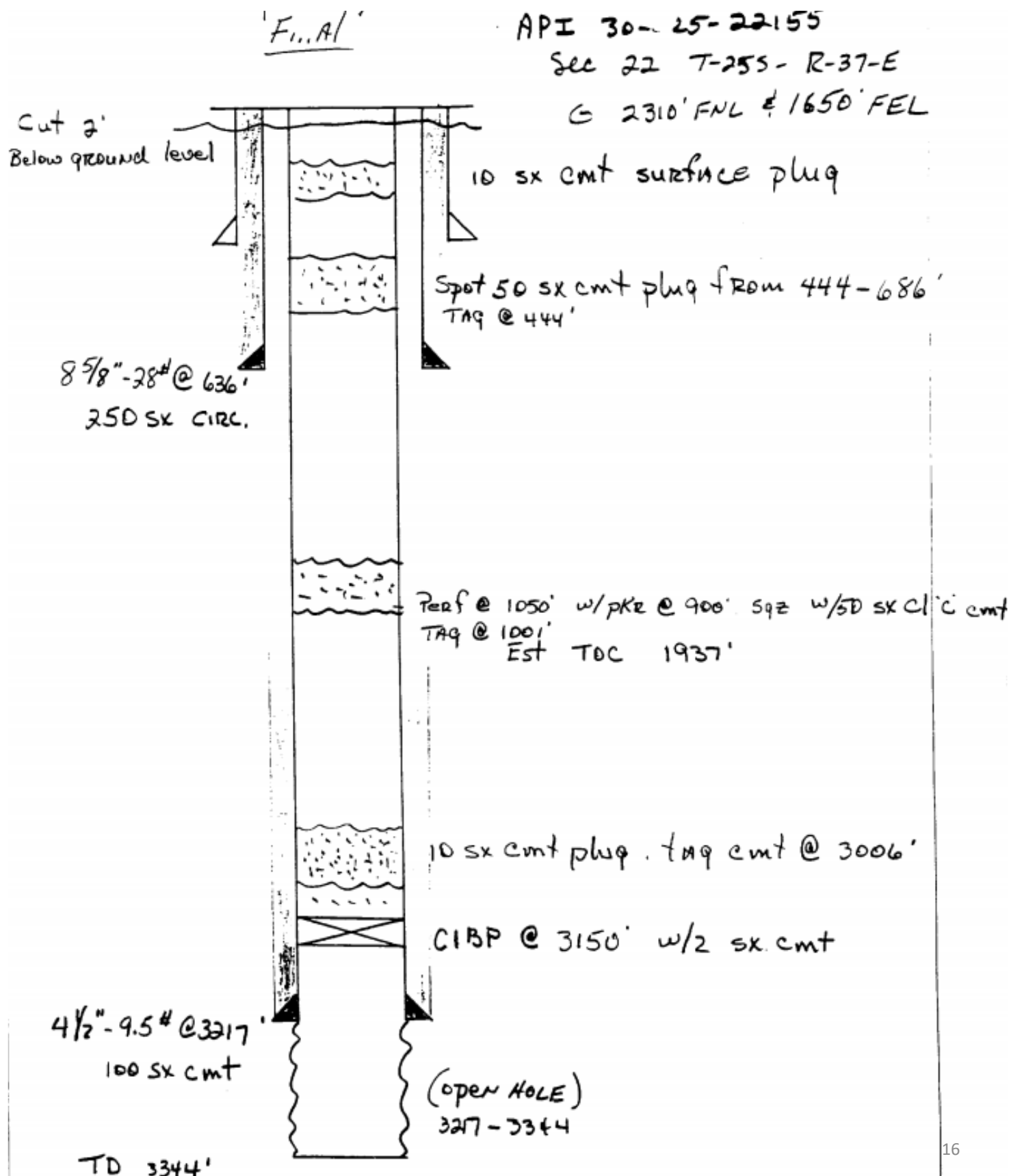
VI. Exhibit C6

LANGLIE MATTIX QUEEN UNIT #33

API# 30-025-22155

1650 FEL 2310 FNL,

Sec 22, T25S, R37E Lea Co., NM



TERRA FEDERAL #1

Sec 22, T25S, R37E Lea Co., NM

8-28-17

Endeavor Ever Ros L. P.

Terra Fed
WELL# 1

TUBING DETAIL
R.C.

Rustler 903

Salado 1048

Tinggi 2482

Juliana f 2800

کتابخانه

72 29 88

Math. x 3140

Que 3290

ROD DETAIL

PERFS:

3242-3366

SPF

2152075

TD: 3470 PBTD:

AFTER PLA

VII. Proposed Injection Operation

1. Average daily volume of fluids: 350 barrels of water per day. Maximum: 600 barrels of water per day.
2. The system will be a closed system: On-lease water and water only from offset company lease.
1. Average injection pressure will be ~1200 psi. Maximum: 2000 psi.
2. The water source will be produced water from within the lease and offset company lease.
3. Injection will be into the Queen formation.

VIII. Geologic Data

The SWD will be disposing into the SWD; QUEEN [96117]. The portion that will be injected consists mainly of sandstones and dolomitic sandstones.

Formation Tops Are:

Formation	Offset Top (LANGLIE MATTIX QUEEN UNIT #33) 30-025-22155	Contents
Alluvium	GL	Fresh Water
Rustler	909	Anhydrite
Salado (top of salt)	1101	Salt
Tansil (base of salt)	2388	Gas, Oil, & Water
Yates	2530	Gas, Oil, & Water
Seven Rivers	2816	Gas, Oil, & Water
Queen	3226	Gas, Oil, & Water
SWD Interval	3200-3344	Gas, Oil, & Water
Total Depth	3344	

IX. Proposed Stimulation Program

The well will be acidized with 3,000 gal 15% HCl

X. Logging and Test Data

Well originally completed as an oil well producing from the Langlie Mattix Pool [37240] in 1938. Open Hole (3218'-3366') I.P.F 28 BOPH 8/9/1938.

The Harrison Federal #2 was converted to an SWD; QUEEN [96117] well in 2001.

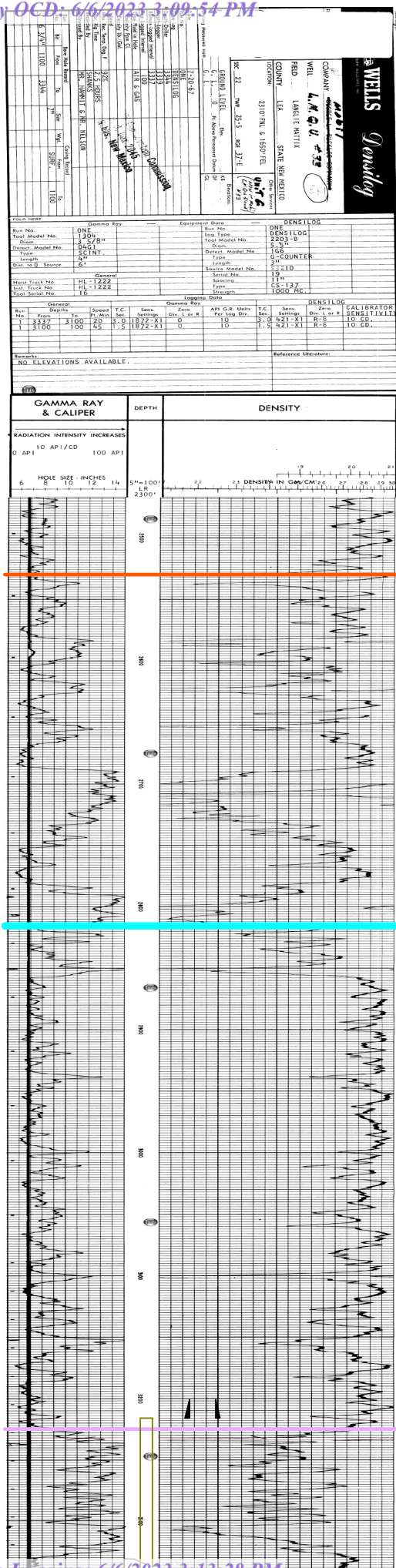
No wireline log is available for the Harrison Federal #2, but a close offset is provided.

Offset Well:

API: 30-025-22155

Well Name & Number:

LANGLIE MATTIX QUEEN UNIT #33



XI. Chemical Analysis of Fresh Water Wells

According to the New Mexico Office of the State Engineer, there are 2 active water wells within 1 mile of the HARRISON FEDERAL #2 (Exhibit D1a & b). There are no active water wells within a ½ mile radius. The closer of the two, CP 00784, is a 4500' deep well drilled as a secondary recovery water supply well. Water was sourced from the Grayburg and San Andres formations. This water supply well, also known as the South Justiss Unit WSW #3 (30-025-32264), is Temporarily Abandoned and no sample was taken. The second water well, CP 00216, was drilled to 84' MD. It is considered a "shallow water" fresh water well for "Domestic and Livestock use". FAE II Operating, LLC was unable to get a sample of this well.

FAE II Operating, LLC was able to get 2 fresh water samples from residential well locations. A map showing their locations relative to HARRISON FEDERAL #2 can be seen in Exhibit E1. The first sample was taken from 31 Buckle Ln (Lat: 32.137172, Long: -103.147540) and is about 1.53 Miles North from the HARRISON FEDERAL #2. The second sample was taken from 303 S. Willis Rd (Lat:32.072644, Long: -103.140920) and is about 2.96 Miles South from the HARRISON FEDERAL #2. Their analyses can be seen in Exhibits E2 and E3 respectively. A produced water sample of similar water that will be injected was also taken from the Carlson A Battery (Lat: 32.110152, Long: -103.143242°), and its analysis can be seen in Exhibit E4.

XII. Based on the available geologic and engineering data, it has been determined that there is no evidence of open faults or any other hydrologic connection between the injection zone and shallow fresh water sources.

XIII. FAE II OPERATING, LLC, BXP Operating, LLC, ENDEAVOR ENERGY RESOURCES, LP, & LEGACY RESERVES OPERATING, LP, and the BLM are the offset operators. Surface owners are the Willis Family Trust.

Well: **Harrison Federal #2****XI. Exhibit D1a**

Location: Twn 25S Rge 37E Sec 22

Footages: 990 FEL 2310 FSL

County: Lea

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): **674974.850** mtrsNorthing (Y): **3554672.356** mtrsWater Wells Within 1 Mile Radius**** 2 ACTIVE ****

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the
 POD suffix indicates the
 POD has been replaced
 & no longer serves a
 water right file.)

(R=POD has been
 replaced,
 O=orphaned,
 C=the file is
 closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth	Well	Depth	Water
CP 00784 POD1		CP	LE	3	4	1	23	25S	37E	675771	3554889*	825		4500		
CP 00216 POD1		CP	LE	2	2	1	22	25S	37E	674353	3555464*	1006		84		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 2Basin/County Search:

Basin: Capitan

County: Lea

UTM NAD83 Radius Search (in meters):

Easting (X): 674974.85

Northing (Y): 3554672.356

Radius: 1609.3

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

1/31/22 9:10 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Well: Harrison Federal #2**XI. Exhibit D1b**

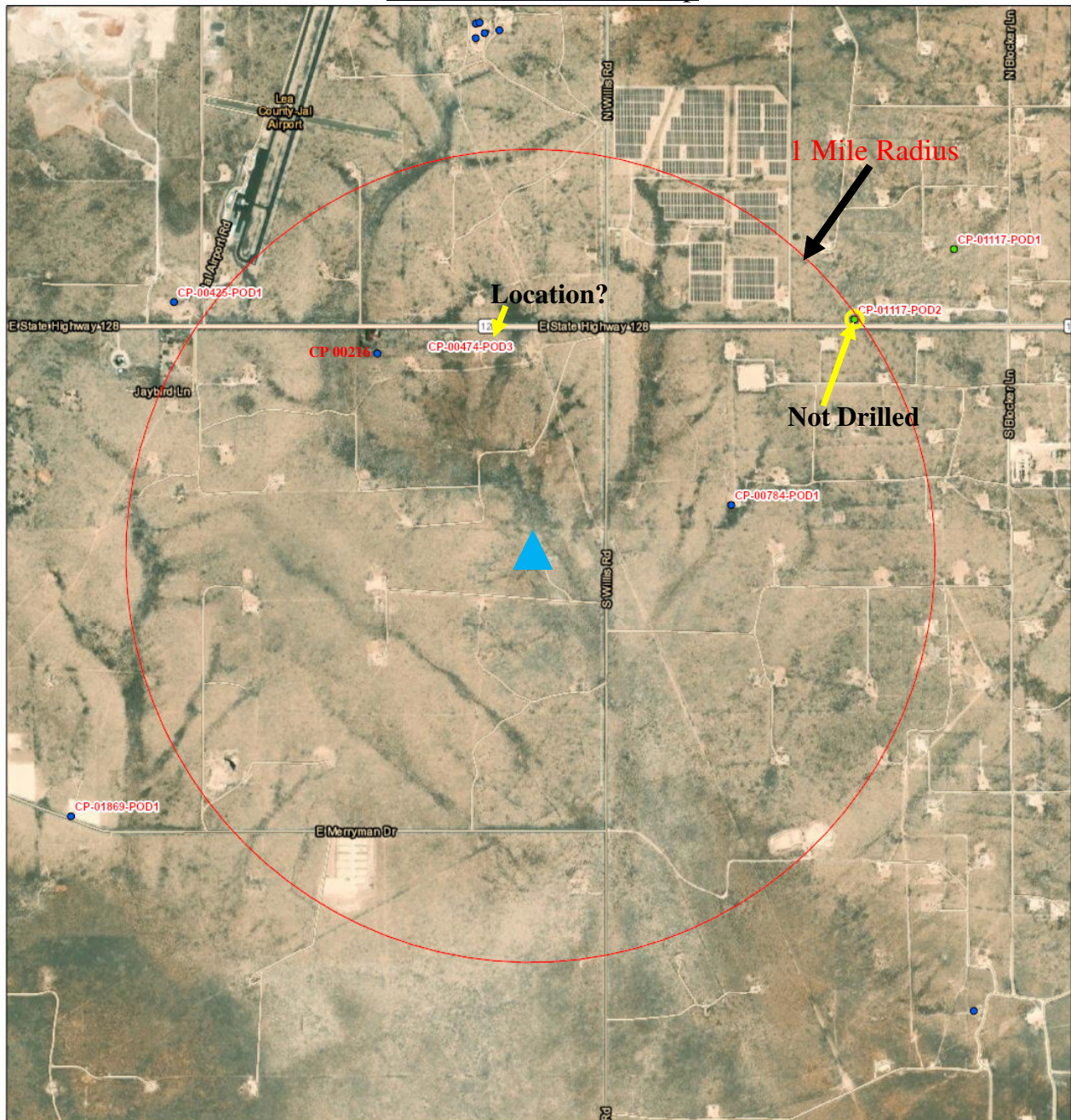
Location: Twn 25S Rge 37E Sec 22

Footages: 990 FEL 2310 FSL

County: Lea

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): **674974.850** mtrsNorthing (Y): **3554672.356** mtrsWater Well Location Map

1/31/2022, 10:13:41 AM

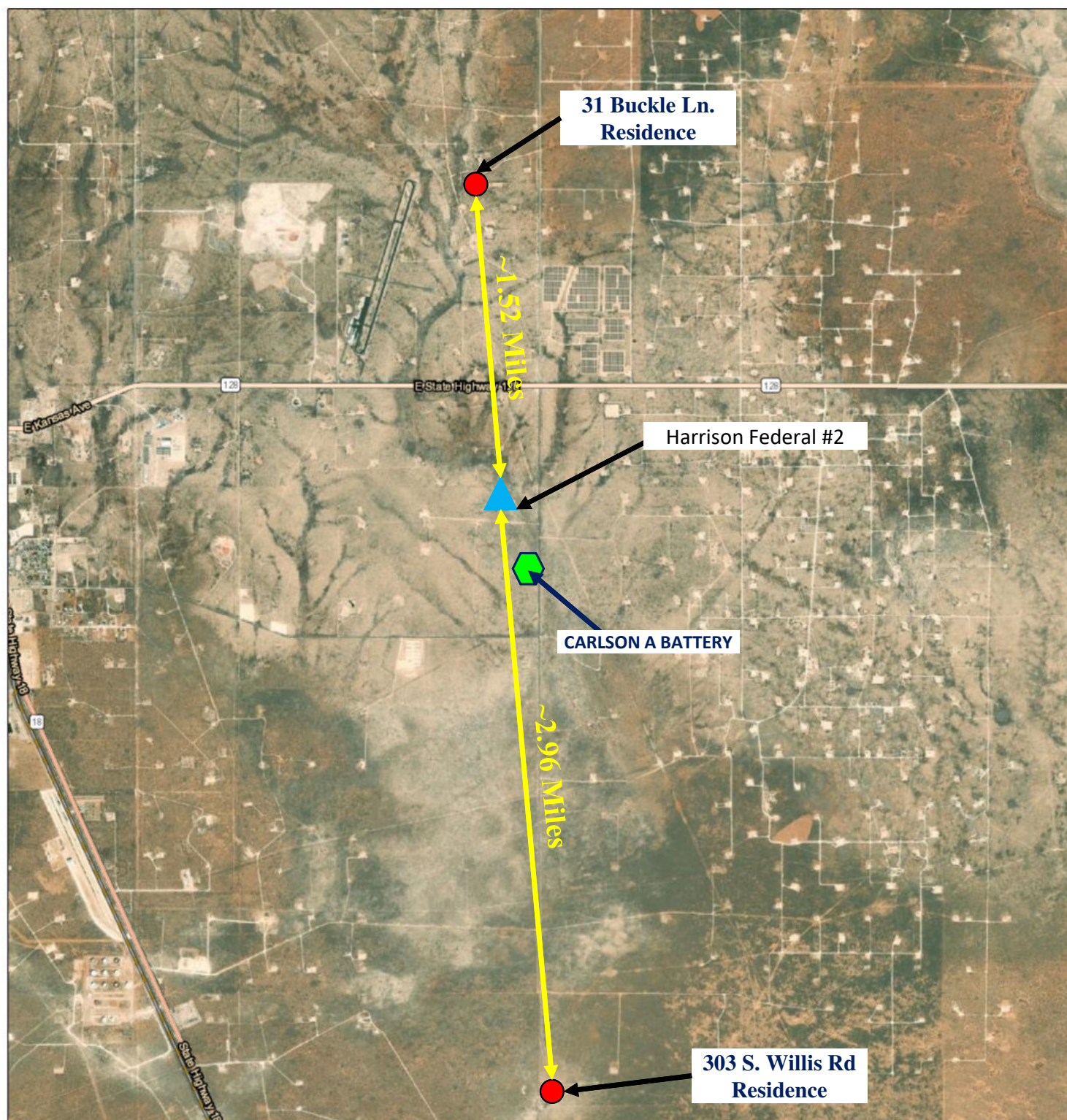
GIS WATERS PODs

● Active

▲ C-108 SWD

1:18,056

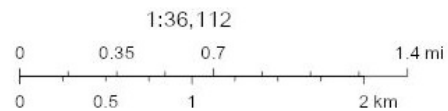
0 0.17 0.35 0.7 mi
0 0.28 0.55 1.1 km

XI. Exhibit E1**Fresh Water Well Sample Locations**

1/31/2022, 11:23:11 AM

▲ C-108 SWD

OSE District Boundary



XI. Exhibit E2

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

FORTY ACRES ENERGY
11777 KATY FREEWAY STE. 305 B
HOUSTON TX, 77079

Project: EAST OF JAL
Project Number: NONE GIVEN
Project Manager: JAMES MARTINEZ
Fax To:

Reported:
05-Oct-21 14:17

31 BUCKLE LN RESIDENCE- 32.137172-103.147540**H212702-01 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories**Inorganic Compounds**

Chloride*	600		4.00	mg/L	1	1092909	AC	29-Sep-21	4500-Cl-B	
TDS*	2660		5.00	mg/L	1	1092310	AC	30-Sep-21	160.1	

31 BUCKLE LANE:
Residential
Water Supply Well

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

XI. Exhibit E3

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

FORTY ACRES ENERGY
11777 KATY FREEWAY STE. 305 B
HOUSTON TX, 77079

Project: EAST OF JAL
Project Number: NONE GIVEN
Project Manager: JAMES MARTINEZ
Fax To:

Reported:
05-Oct-21 14:17

303 S. WILLIS RD- MARTIN 32.072644-103.140920**H212702-02 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	--------------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories**Inorganic Compounds**

Chloride*	92.0		4.00	mg/L	1	1092909	AC	29-Sep-21	4500-C1-B	
TDS*	684		5.00	mg/L	1	1092310	AC	30-Sep-21	160.1	

303 S. WILLIS RD:
Residential
Water Supply Well

Cardinal Laboratories

*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

XI. Exhibit E4

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

FORTY ACRES ENERGY
11777 KATY FREEWAY STE. 305 B
HOUSTON TX, 77079

Project: EAST OF JAL
Project Number: NONE GIVEN
Project Manager: JAMES MARTINEZ
Fax To:

Reported:
05-Oct-21 14:17

CARLSON A BAT - PRODUCED**H212702-04 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories**Inorganic Compounds**

Chloride*	15600		4.00	mg/L	1	1092909	AC	29-Sep-21	4500-Cl-B	
TDS*	35800		5.00	mg/L	1	1092907	AC	30-Sep-21	160.1	

CARLSON A BATTERY:
32.110152°, -103.143242°
Produced Water Sample

Cardinal Laboratories

*=Accredited Analyte

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complete items 1, 2, and 3.
Print your name and address on the reverse
that we can return the card to you.
Attach this card to the back of the mailpiece,
or on the front if space permits.

Article Addressed to:

Bureau of Land Management
State of New Mexico
301 Dinosaur Trail
Santa Fe, NM 87508

9590 9402 6453 0346 3976 02




Article Number (Transfer from service label)

7021 2720 0000 6973 4444

PS Form 3811, July 2020 PSN 7530-02-000-9053

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A. Signature


☐ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1?
If YES, enter delivery address below:

☐ Yes
☐ No

MAR 21 2022

NEW MEXICO

3. Service type
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☐ Adult Signature Restricted Delivery
☐ Certified Mail
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
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☐ Registered Mail™
☐ Registered Mail Restricted Delivery
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Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
March 13, 2022
and ending with the issue dated
March 13, 2022.



Publisher

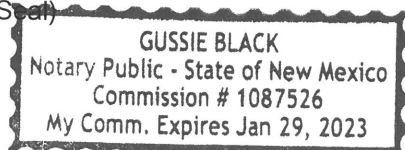
Sworn and subscribed to before me this
13th day of March 2022.



Business Manager

My commission expires
January 29, 2023

(Seal)



This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

FAE II Operating, LLC announces its intent to apply to the New Mexico Oil Conservation Division (NMOCD) for an Authorization to Inject for the injection well in the table below. The coordinate system for the locations in the table is WGS 84.

Well Name	Proposed Injection Zone	Legal Description	Township	Range	Section	Latitude	Longitude
Harrison Federal #2	Queen SWD Reactivation	2310 FSL 990 FEL	25S	37E	22	32.1148541	-103.1453650

The well in the table is in the Queen formation at approximately 3,200' total vertical depth. Maximum injection pressure and rates will be 2000 psi and 600 bpd. For questions or comments about this application, contact the operator at FAE II Operating, LLC Attn.: Huxley Song, 11757 Katy Freeway, Suite 725, Houston, TX 77079. Phone 832-706-0057. Objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505, within 15 days.

67115951

00264580

MARITZA SANTANA
FORTY ACRES ENERGY
11757 KATY FREEWAY, STE 725
HOUSTON, TX 77079

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 224661

CONDITIONS

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID: 329326
	Action Number: 224661
	Action Type: [IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	6/6/2023