

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION**

**APPLICATION OF FAE II OPERATING, LLC
FOR APPROVAL OF A WATERFLOOD
PROJECT AND TO QUALIFY THE PROJECT
FOR THE RECOVERED OIL TAX RATE,
LEA COUNTY, NEW MEXICO**

Case No. _____

APPLICATION

Pursuant to 19.15.26.8.F NMAC, FAE II Operating, LLC (“FAE”) requests an order authorizing it to implement a waterflood project within the Seven Rivers formation to inject produced water for secondary recovery. FAE also requests approval to qualify the project for the recovered oil tax rate under the Enhanced Oil Recovery Act, NMSA 1978, § 7-29A-1 *et seq.* and 19.15.6 NMAC. In support of its application, FAE states the following.

1. FAE seeks authorization to implement the Arnott Ramsay Waterflood Project (“Project”) by injecting produced water into the Seven Rivers formation. FAE’s Application for Authorization to Inject (Division Form C-108) is attached as Exhibit A.

2. The Project will be located on State lands, and the Project area will include 640 acres, more or less, comprised of Section 32, Township 25 South, Range 37 East in Lea County.

3. FAE proposes to operate the Project. 100% of the working interests in the waterflood acreage are committed to the Project.

4. To implement the Project, FAE proposes to convert its Arnott Ramsay NCT-B #11 well from a producer to an injector. The well is located in Unit L in Section 32, Township 25 South, Range 37 East in Lea County. The proposed injection interval is located in the Seven Rivers formation at a depth of approximately 3,170 to 3,290 feet, and the proposed maximum injection

rate is 800 barrels per day at a maximum injection pressure of 634 psi. Pending results of a Step-Rate Test, maximum injection pressure may increase.

5. FAE also proposes to drill and complete the following new injection wells within the Project area:

- a. Arnott Ramsay NCT-B #14 well, which will be located in Unit D in Section 32, Township 25 South, Range 37 East in Lea County. The proposed injection interval is located in the Seven Rivers formation at a depth of approximately 3,100 to 3,300 feet, and the proposed maximum injection rate is 800 barrels per day at a maximum injection pressure of 620 psi. Pending results of a Step-Rate Test, maximum injection pressure may increase.
- b. Arnott Ramsay NCT-B #15 well, which will be located in Unit E in Section 32, Township 25 South, Range 37 East in Lea County. The proposed injection interval is located in the Seven Rivers formation at a depth of approximately 3,100 to 3,300 feet, and the proposed maximum injection rate is 800 barrels per day at a maximum injection pressure of 620 psi. Pending results of a Step-Rate Test, maximum injection pressure may increase.
- c. Arnott Ramsay NCT-B #16 well, which will be located in Unit G in Section 32, Township 25 South, Range 37 East in Lea County. The proposed injection interval is located in the Seven Rivers formation at a depth of approximately 3,050 to 3,300 feet, and the proposed maximum injection rate is 800 barrels per day at a maximum injection pressure of 610 psi.

Pending results of a Step-Rate Test, maximum injection pressure may increase.

- d. Arnott Ramsay NCT-B #17 well, which will be located in Unit J in Section 32, Township 25 South, Range 37 East in Lea County. The proposed injection interval is located in the Seven Rivers formation at a depth of approximately 3,050 to 3,300 feet, and the proposed maximum injection rate is 800 barrels per day at a maximum injection pressure of 610 psi. Pending results of a Step-Rate Test, maximum injection pressure may increase.
- e. Arnott Ramsay NCT-B #18 well, which will be located in Unit C in Section 32, Township 25 South, Range 37 East in Lea County. The proposed injection interval is located in the Seven Rivers formation at a depth of approximately 3,050 to 3,300 feet, and the proposed maximum injection rate is 800 barrels per day at a maximum injection pressure of 610 psi. Pending results of a Step-Rate Test, maximum injection pressure may increase.
- f. Arnott Ramsay NCT-B #19 well, which will be located in Unit I in Section 32, Township 25 South, Range 37 East in Lea County. The proposed injection interval is located in the Seven Rivers formation at a depth of approximately 3,050 to 3,300 feet, and the proposed maximum injection rate is 800 barrels per day at a maximum injection pressure of 610 psi. Pending results of a Step-Rate Test, maximum injection pressure may increase.

6. FAE requests that, pursuant to 19.15.26.8.F(5), NMAC, the Division permit FAE to obtain administrative approval of additional injection wells within the Project area and expand the Project without the necessity of additional hearings.

7. FAE requests that the Project be qualified for the recovered oil tax rate under NMSA 1978, § 7-29A-1 *et seq.* and 19.15.6 NMAC. The Project data includes:

- a. Number of initial producing wells: 8
- b. Number of initial injection wells: 0
- c. Number of injection wells at full development: 7
- d. Capital cost of initial additional facilities: \$600,000
- e. Estimated total initial project cost: \$7,000,000
- f. Estimated value of incremental production: \$10,000,000
- g. Estimated injection commencement date: August 1, 2020 (pending approval)
- h. Type of injected fluid: Produced water
- i. Anticipated injection volumes: 450 bwpd per well

8. The creation and operation of the Project will serve the interests of conservation, the protection of correlative rights, and the prevention of waste.

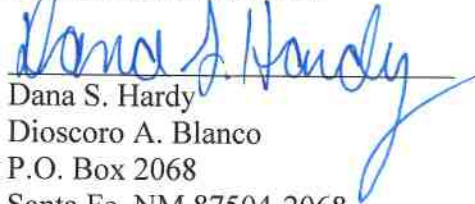
WHEREFORE, FAE requests that this Application be set for hearing on March 5, 2020 and that, after notice and hearing, the Division enter an order:

1. Approving the Arnott Ramsay Waterflood Project;
2. Designating FAE as the operator of the Project;
3. Allowing future applications for expansion of the Project and additional injection wells to be approved administratively; and

4. Qualifying the Project for the recovered oil tax rate.

Respectfully submitted,

HINKLE SHANOR LLP



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Counsel for Forty Acres Energy, LLC

VERIFICATION

STATE OF TEXAS)
) ss.
COUNTY OF HARRIS)

I, Garret Johnson, certify that I am an engineer employed by Forty Acres Energy, LLC. I have reviewed the foregoing application and state that it is true and correct to the best of my knowledge, information, and belief.


Garret Johnson

The foregoing was sworn before me on this 3rd day of February, 2020.


Notary Public



My commission expires: 9/11/2023

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ Yes ☒ No
- II. OPERATOR: FAE II Operating, LLC
ADDRESS: 11757 Katy Freeway, Suite 1000, 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 ☒ 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 **re injected** 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: [Signature] DATE: 01/30/2020
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

EXHIBIT
A

III. Well Data

INJECTION WELL DATA SHEET

OPERATOR: FAE II Operating, LLC

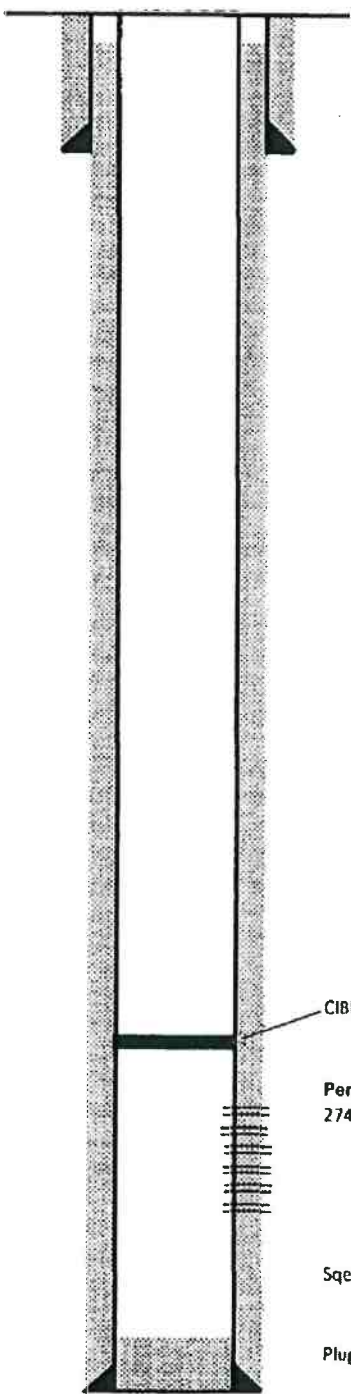
WELL NAME & NUMBER: ARNOTT RAMSAY NCT-B #11

WELL LOCATION: 1650 FSL & 990 FWL L 32 25S 37E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

CURRENT WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Csg
Size: 8-5/8"
Wt.&Thrd: 24#, STC
Grade: K-55
Set @: 399'
Sxs cmt: 275
Circ: _____
TOC: Surface
Hole Size: 12-1/4"



Surface Casing

Hole Size: 12-1/2"
Casing Size: 8-5/8"
Depth Set: 399'
Top of Cement: surface
Cement with 275 sx
Method Determined: circulated

Production Casing

Hole Size: 7-7/8"
Casing Size: 5-1/2"
Depth Set: 3,473'
Top of Cement: surface
Cement with 1710 sx
Method Determined: circulated

Proposed Injection Interval

Seven Rivers Inj. Zone
~3,100' to 3,300'
Zone will be Perforated

Tubing

Tubing Size: 2-3/8"
Lining Material: Nickel
Type of Packer: AS1-X
Packer Depth Set: ~3,120'

Additional Data

- Perfs: 2743'-3250'
1. Originally an oil producer.
 2. Injection Formation: Seven Rivers
 3. Field: Langlie-Mattix
 4. Well has NOT been perforated before.
 5. Underlying Oil Zone: Queen Formation
- Squeezed perfs @ 3270'-3281'
- Plugged Perfs @ 3354'-3362', 3356'-3360'
- Depth of Underlying Zone: +3,400'

Production Csg
Size: 5-1/2"
Wt.&Thrd: 14#, STC
Grade: K-55
Set @: 3473'
Sxs Cmt: 1710
Circ: _____
TOC: _____
Hole Size: 7-7/8"

III. Well Data

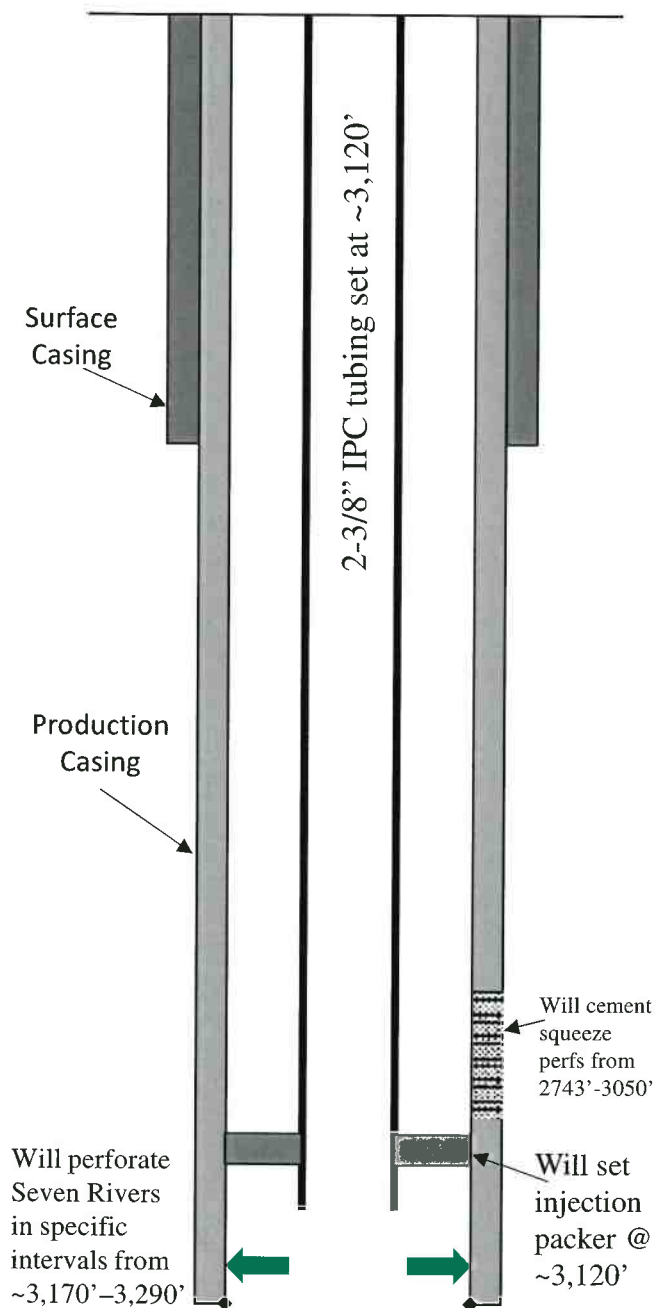
INJECTION WELL DATA SHEET

OPERATOR: FAE II Operating, LLC

WELL NAME & NUMBER: ARNOTT RAMSAY NCT-B #11

WELL LOCATION: 1650 FSL & 990 FWL L 32 25S 37E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

PROPOSED WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size:	<u>12-1/2"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>399'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>275 sx</u>
Method Determined:	<u>circulated</u>

Production Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>3,473'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>1710 sx</u>
Method Determined:	<u>circulated</u>

Proposed Injection Interval

Seven Rivers Inj. Zone
<u>~3,170' to 3,290'</u>
Zone will be Perforated

Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Nickel</u>
Type of Packer:	<u>AS1-X</u>
Packer Depth Set:	<u>~3,120'</u>

Additional Data

1. Originally an oil producer.
2. Injection Formation: Seven Rivers
3. Field: Langlie-Mattix
4. Well has NOT been perforated before.
5. Underlying Oil Zone: Queen Formation
 - Depth of Underlying Zone: +3,400'

TD: ~3,473

Well Name: ARNOTT RAMSAY NCT-B #11
 Objective: Convert to Injector
 Field: Langlie-Mattix
 Surface Location: 1650' FSL & 990' FWL
 Sec 32, Township 25 S, Range 37 E
 County, State: Lea, NM
 API: 30-025-26963
 Engineer: Garret Johnson 918-697-8311 or 832-706-0056 garret@faenergyus.com

Well Information:

Casing:

Casing Size	Weight lb. ft.	Depth Set	Hole Size	Cement	Amount Pulled
8.625	24	399	12.5	275 sx-circ	
5.5	14	3473	7.875	1710 sx-circ	

Perforations:

Top	Bottom	SPF	Diameter	Status
2743	3050	1		Open under CIBP
3270	3273	2	0.5"	Squeezed
3278	3281	2	0.5"	Squeezed
3354	3362	2	0.5"	Plugged
3356	3360	2	0.5"	Plugged

Completion: 3270-3281' – 1200 gallons 15% slick NEFE HCl, 8 7/8" RCNB's, 10,500 gal 70 qual foam, 12,000# 20/40 sand.

Notes: 07-05-13: set CIBP at 2675'. Dump 40' cement on top of plug. Load and test to 600 psi for 30 minutes, test held.

Planned Procedure:

1. 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. Nipple down wellhead and close wellhead valves. Break down flow lines from the wellhead and isolate lines. Blind flange to protect the lines to prevent fluids from escaping or leaking.
3. Rig up reverse package, swivel. RIH with 4-3/4" bit, 4 drill collars, and 2-3/8" L-80 workstring.
4. Keep tally of tubing and slowly come down on top of plug at ~2635'.
5. Load hole with 2% KCl water, begin to circulate, drill out 40' cement plug.
6. Continue drilling through CIBP – when metal cuttings appear on surface, back off of plug and circulate bottoms clean 2x. After circulation, continue to drill out plug.
7. Once through plug, continue to tally into hole until TD is reached. Report PBTD to Garret.
8. If TD is less than 3,390', drillout will continue.
9. Come out of hole laying down.
10. Cement squeeze interval 2743-3050.
11. Rig up wireline, and set CIBP at 3340'. Perforate 4 SPF interval 3170'-3290'. Use gas gun to stimulate – also see attached. Rig down wireline.
12. Pick up 2-3/8" ICP tubing. RIH w/ AS1X nickel coated packer and set @ 3120'. Note pressure on the backside – monitor while pumping down tubing.
13. Rig up acid equipment. Pump 5,000 gallons 15% HCl, flush w/ 25 bbls produced water.
14. Swab water back into frac tank. Note top of fluid, bbl amount, and signs of gas on each run.
15. Rig down and move out service rig and equipment. Connect injection lines to wellhead. Clean up location as necessary.

III. Well Data

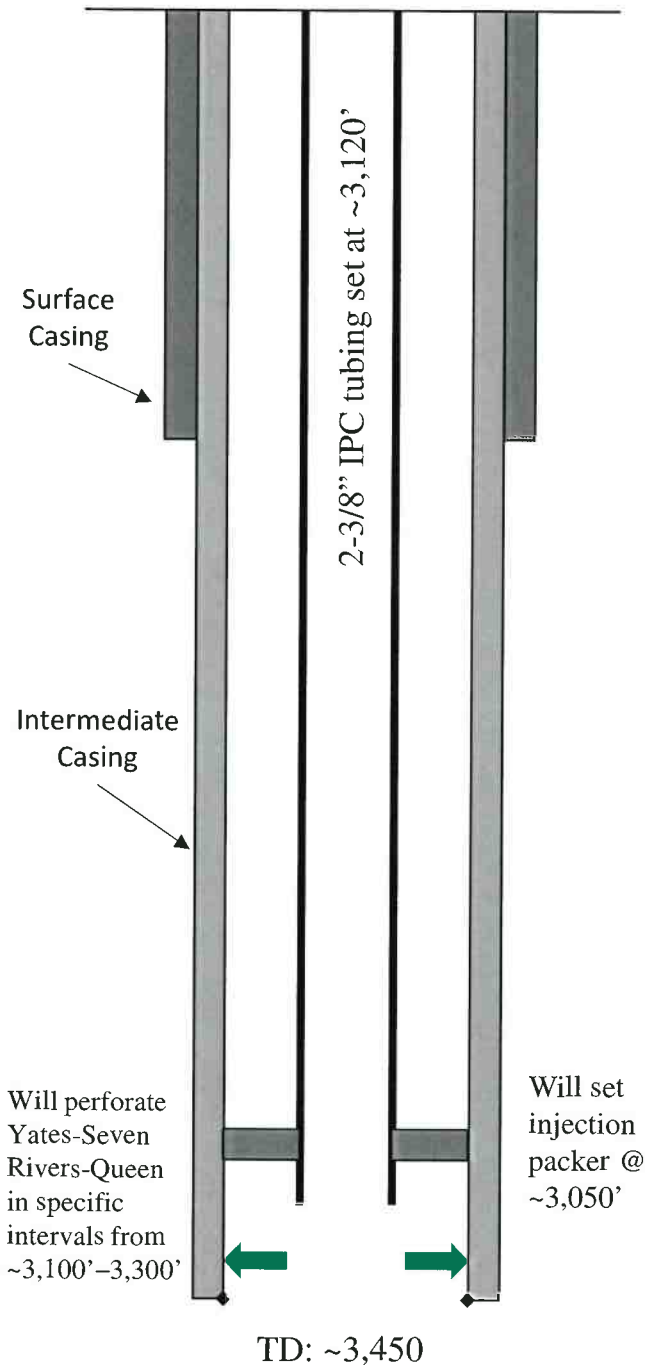
INJECTION WELL DATA SHEET

OPERATOR: FAE II Operating, LLC

WELL NAME & NUMBER: ARNOTT RAMSAY NCT-B #14

WELL LOCATION: 1060 FNL & 1160 FWL	D	32	25S	37E
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>965'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>240 sx</u>
Method Determined:	<u>circ. 80 sx</u>

Intermediate Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>3,400'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>300 sx</u>
Method Determined:	<u>circ. 100 sx</u>

Injection Interval

Seven Rivers Inj. Zone
~3,100' to 3,300'
 Zone will be Perforated

Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Nickel</u>
Type of Packer:	<u>AS1-X</u>
Packer Depth Set:	<u>~3,050'</u>

Additional Data

1. New well drilled for injection.
2. Injection Formation: Seven Rivers
3. Field: Langlie-Mattix
4. Well has NOT been perforated before.
5. Underlying Oil Zone: Queen Formation
 - Depth of Underlying Zone: +3,400'

III. Well Data

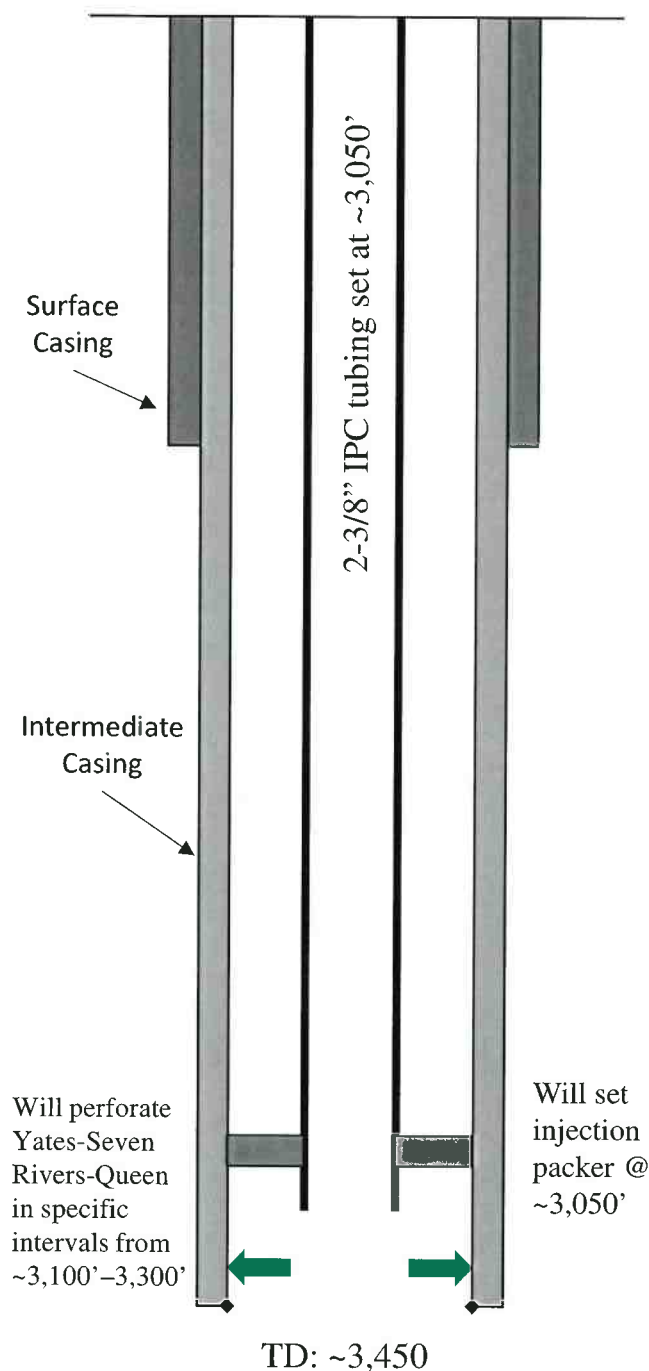
INJECTION WELL DATA SHEET

OPERATOR: FAE II Operating, LLC

WELL NAME & NUMBER: ARNOTT RAMSAY NCT-B #15

WELL LOCATION: 2455 FNL & 1195 FWL E 32 25S 37E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>965'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>240 sx</u>
Method Determined:	<u>circ. 80 sx</u>

Intermediate Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>3,450'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>300 sx</u>
Method Determined:	<u>circ. 100 sx</u>

Injection Interval

Seven Rivers Inj. Zone ~3,100' to 3,300' Zone will be Perforated
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Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Nickel</u>
Type of Packer:	<u>AS1-X</u>
Packer Depth Set:	<u>~3,050'</u>

Additional Data

1. New well drilled for injection.
2. Injection Formation: Seven Rivers
3. Field: Langlie-Mattix
4. Well has NOT been perforated before.
5. Underlying Oil Zone: Queen Formation
 - Depth of Underlying Zone: +3,400'

III. Well Data

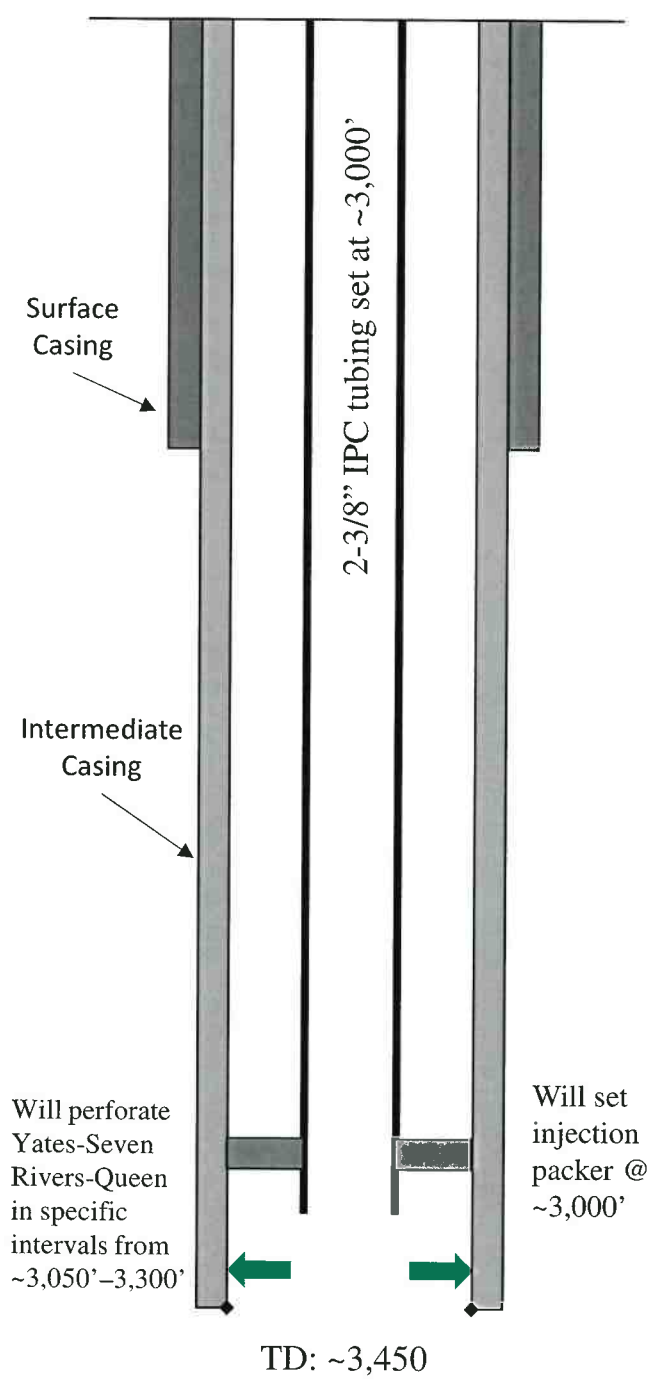
INJECTION WELL DATA SHEET

OPERATOR: FAE II Operating, LLC

WELL NAME & NUMBER: ARNOTT RAMSAY NCT-B #16

WELL LOCATION: 2625 FNL & 2630 FEL 32 25S 37E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>970'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>240 sx</u>
Method Determined:	<u>circ. 80 sx</u>

Intermediate Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>3,450'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>300 sx</u>
Method Determined:	<u>circ. 100 sx</u>

Injection Interval

Seven Rivers Inj. Zone
<u>~3,050' to 3,300'</u>
Zone will be Perforated

Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Nickel</u>
Type of Packer:	<u>AS1-X</u>
Packer Depth Set:	<u>~3,000'</u>

Additional Data

1. New well drilled for injection.
2. Injection Formation: Seven Rivers
3. Field: Langlie-Mattix
4. Well has NOT been perforated before.
5. Underlying Oil Zone: Queen Formation
 - Depth of Underlying Zone: +3,400'

III. Well Data

INJECTION WELL DATA SHEET

OPERATOR: FAE II Operating, LLC

WELL NAME & NUMBER: ARNOTT RAMSAY NCT-B #17

WELL LOCATION: 1350 FSL & 2635 FEL

FOOTAGE LOCATION

UNIT LETTER

32

SECTION

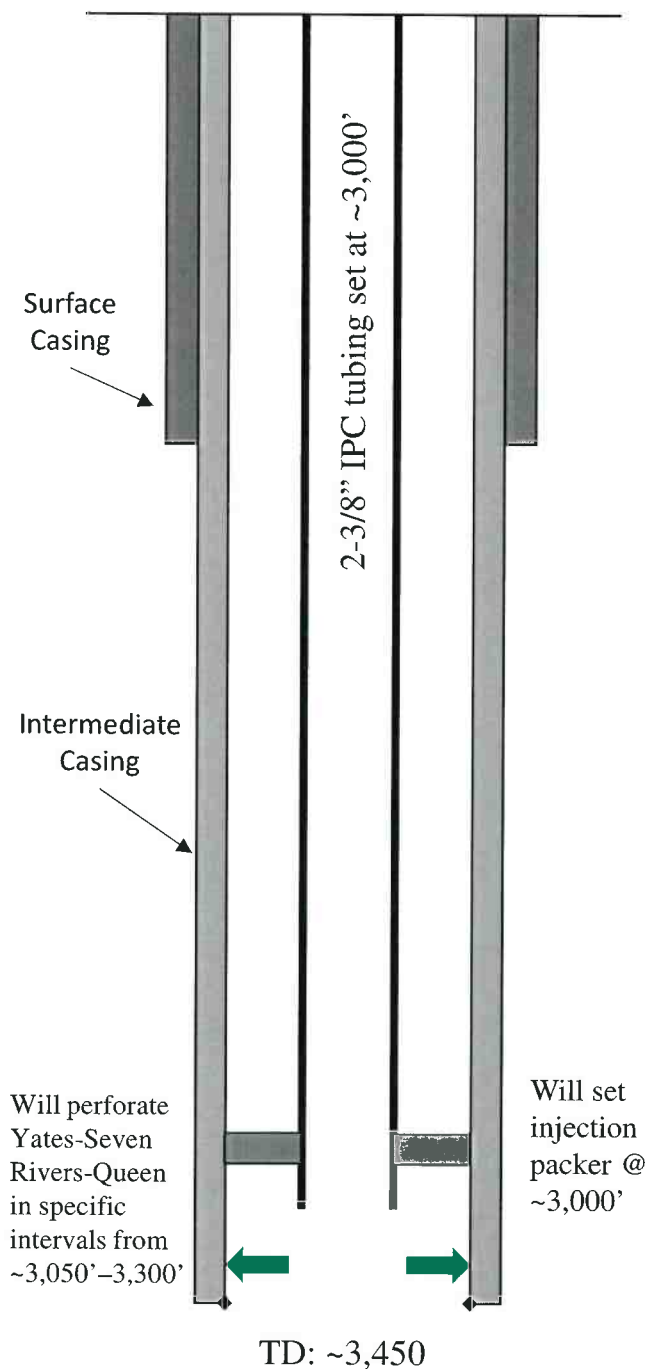
25S

TOWNSHIP

37E

RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>970'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>240 sx</u>
Method Determined:	<u>circ. 80 sx</u>

Intermediate Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>3,450'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>300 sx</u>
Method Determined:	<u>circ. 100 sx</u>

Injection Interval

Seven Rivers Inj. Zone
~3,050' to 3,300'
 Zone will be Perforated

Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Nickel</u>
Type of Packer:	<u>AS1-X</u>
Packer Depth Set:	<u>~3,000'</u>

Additional Data

1. New well drilled for injection.
2. Injection Formation: Seven Rivers
3. Field: Langlie-Mattix
4. Well has NOT been perforated before.
5. Underlying Oil Zone: Queen Formation
 - Depth of Underlying Zone: +3,400'

III. Well Data

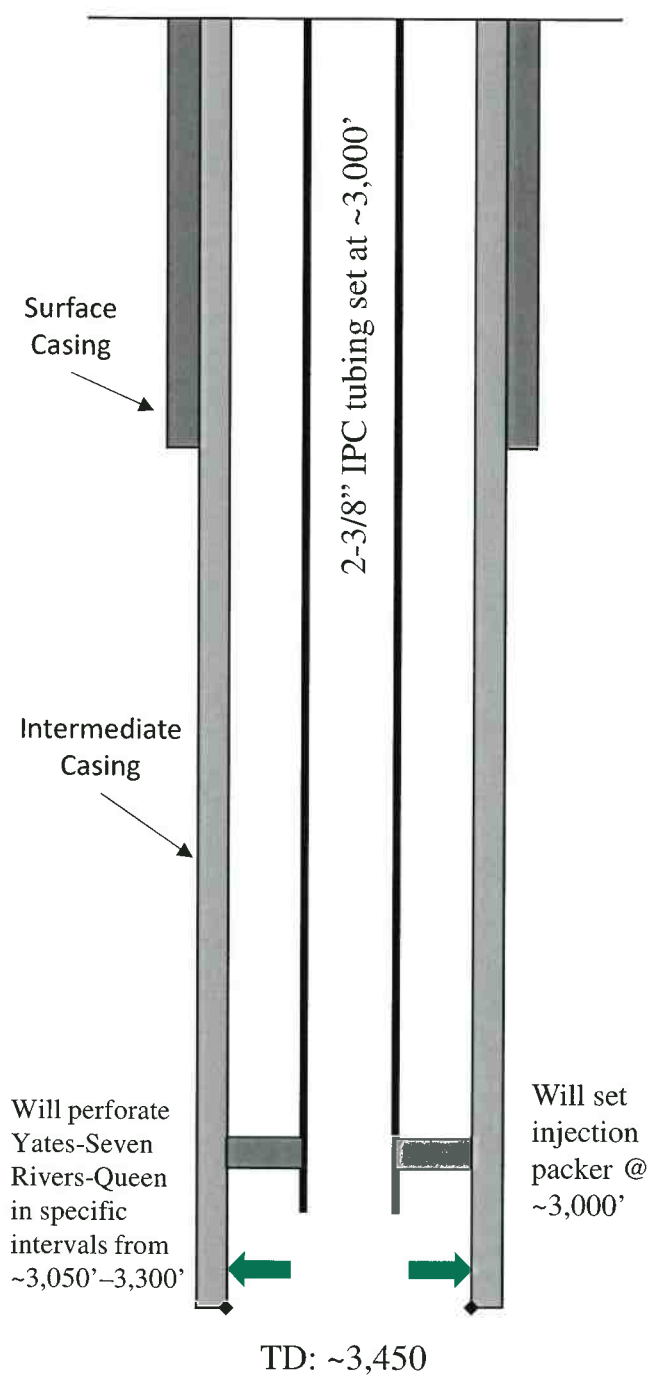
INJECTION WELL DATA SHEET

OPERATOR: FAE II Operating, LLC

WELL NAME & NUMBER: ARNOTT RAMSAY NCT-B #18

WELL LOCATION: 1115 FNL & 2495 FWL C 32 25S 37E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>970'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>240 sx</u>
Method Determined:	<u>circ. 80 sx</u>

Intermediate Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>3,450'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>300 sx</u>
Method Determined:	<u>circ. 100 sx</u>

Injection Interval

Seven Rivers Inj. Zone <u>~3,050' to 3,300'</u> Zone will be Perforated

Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Nickel</u>
Type of Packer:	<u>AS1-X</u>
Packer Depth Set:	<u>~3,000'</u>

Additional Data

1. New well drilled for injection.
2. Injection Formation: Seven Rivers
3. Field: Langlie-Mattix
4. Well has NOT been perforated before.
5. Underlying Oil Zone: Queen Formation
 - Depth of Underlying Zone: +3,400'

III. Well Data

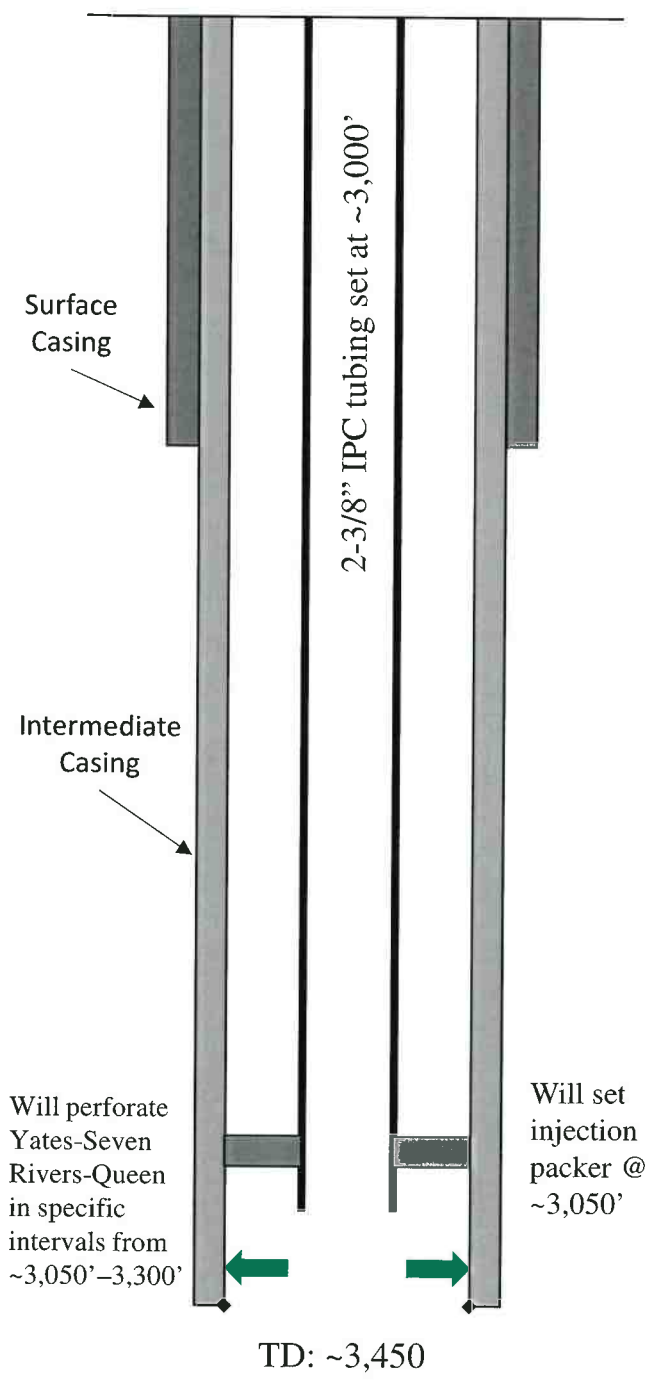
INJECTION WELL DATA SHEET

OPERATOR: F&E II Operating, LLC

WELL NAME & NUMBER: ARNOTT RAMSAY NCT-B #19

WELL LOCATION: 1340 FSL & 1330 FEL 32 25S 37E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>980'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>240 sx</u>
Method Determined:	<u>circ. 80 sx</u>

Intermediate Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>3,450'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>300 sx</u>
Method Determined:	<u>circ. 100 sx</u>

Injection Interval

Seven Rivers Inj. Zone
<u>~3,050' to 3,300'</u>
Zone will be Perforated

Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Nickel</u>
Type of Packer:	<u>AS1-X</u>
Packer Depth Set:	<u>~3,000'</u>

Additional Data

1. New well drilled for injection.
2. Injection Formation: Seven Rivers
3. Field: Langlie-Mattix
4. Well has NOT been perforated before.
5. Underlying Oil Zone: Queen Formation
 - Depth of Underlying Zone: +3,400'

V.

Exhibit A shows 35 unique well locations within a ½ mile radius of the proposed new drill injector locations, and 247 unique well locations within a 2 mile radius, and all associated leases.

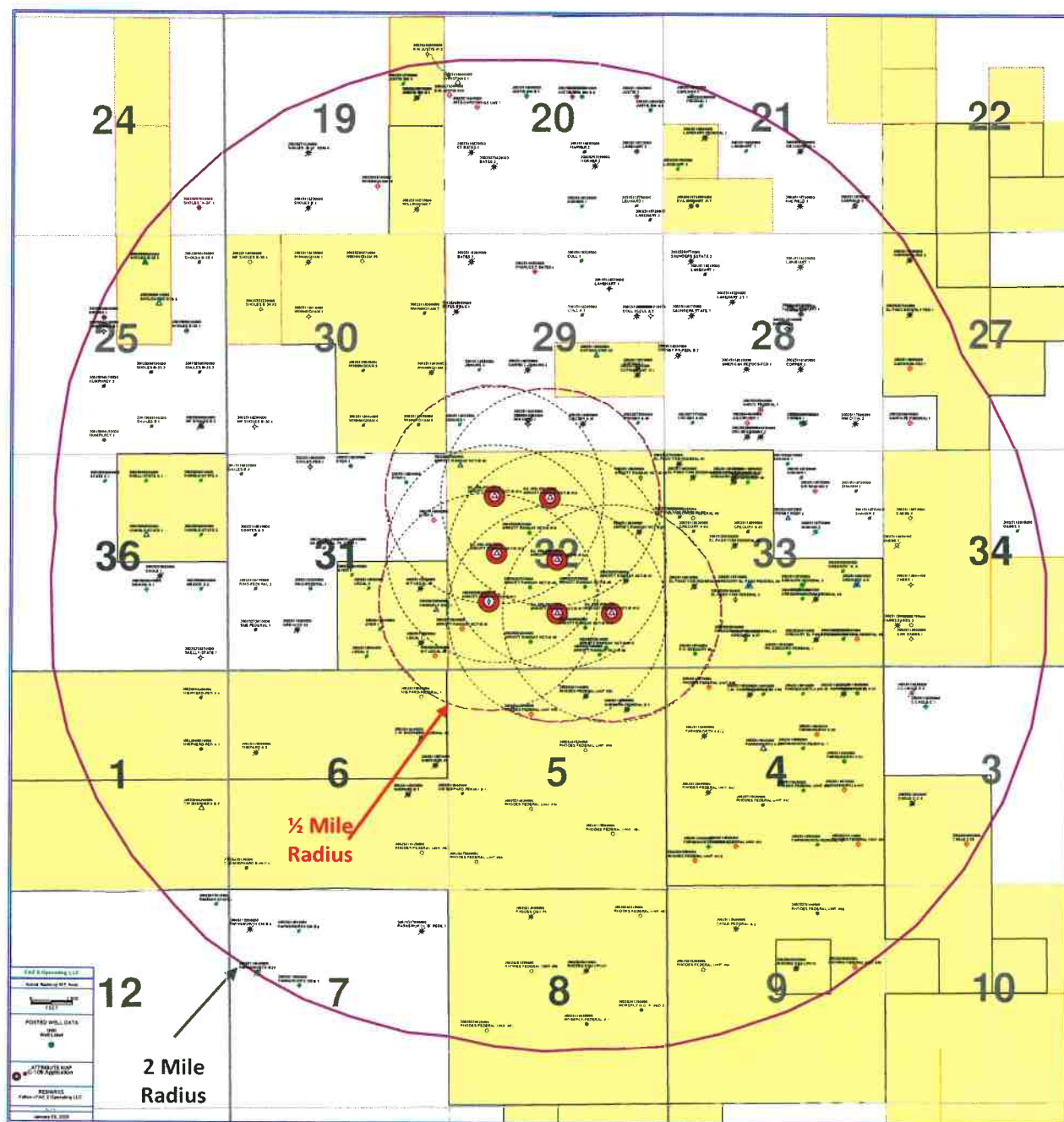


Exhibit A

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 B1-B7**. The plugged well wellbore diagrams are displayed in **Exhibit C1-C14**.

Exhibit B1

UW/API	OPERATOR	WELL LABEL	ID	WELL TYPE	CURRENT ZONE	Distance	SPUD DATE	COMP DATE	TOWNSHIP	RANGE	SECTION	FOOTAGE	MAZZZ- SURFLAT	MAZZZ- SURFLON	WGS84- SURFLAT	WGS84- SURFLON
30025169630000	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #11	3473	LOC-INJ / TA	JALMAT; TAN-YATES-7 R/VMS	0	11/21/1981	1/20/1982	255	37E	32	990 FNL 1650 FSL	32.083910	-103.189610	32.084034	-103.189008
3002511864000	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #11	3400	GAS	JALMAT; TAN-YATES-7 R/VMS	926	4/28/1935	8/8/1935	255	37E	32	330 FNL 990 FSL	32.082090	-103.191730	32.082214	-103.192106
SU 255-37E-3074	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #15		LOC-INJ	Location-Injection	1083			255	37E	32	2455 FNL & 1195 FNL	32.087118	-103.189887	32.087242	-103.189865
30025267570000	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #9	3450	OIL	LANGUE MARTIX, 7 R/VMS-Q-GRAYBURG	1099	4/22/1980	5/08/1980	255	37E	32	1980 FNL 1980 FSL	32.084320	-103.186470	32.084344	-103.186588
30025435900000	OWL SWD OPERATING LLC	KIMBERLY SWD-1		SWD	SWD-DECONMAN-SULBMAN	1377			255	37E	31	287 FEL 1450 FSL	32.083360	-103.193730	32.083484	-103.194208
30025262800000	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #8	3650	OIL	JALMAT; TAN-YATES-7 R/VMS	1397	4/26/1979	7/19/1979	255	37E	32	1980 FNL 660 FSL	32.081190	-103.185390	32.081314	-103.186868
SU 255-37E-3401	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #17		LOC-INJ	Location-Injection	1784			255	37E	32	1350 FSL & 2635 FEL	32.083064	-103.184291	32.083208	-103.184769
30025118577000	CMAREX ENERGY CO OF COLORADO	M-F LEGAL #2	3350	PLUGGAS	Plugged	1792	8/18/1951	9/30/1951	255	37E	31	660 FEL 1980 FSL	32.084620	-103.194940	32.084644	-103.195418
30025269620000	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #10	3400	OIL	JALMAT; TAN-YATES-7 R/VMS	1840	9/5/1980	10/10/1980	255	37E	32	1980 FNL 1980 FNL	32.088470	-103.186440	32.088594	-103.186318
30025282890000	FAE II Operating LLC	M-F LEGAL #5	3350	GAS	JALMAT; TAN-YATES-7 R/VMS	1850	7/29/1983	8/10/1983	255	37E	31	330 FEL 330 FSL	32.080280	-103.193850	32.080404	-103.194328
30025118564000	BURLINGTON RESOURCES O&G CO LP	LEGAL 1	3254	PLUGGAS	Plugged	1977	12/11/1950	8/10/1951	255	37E	31	660 FEL 660 FSL	32.081190	-103.194920	32.081314	-103.195398
SU 255-37E-2066	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #16		LOC-INJ	Location-Injection	1987			255	37E	32	2625 FNL & 2630 FEL	32.086664	-103.184285	32.086788	-103.184769
30025118559000	FUEER OIL & CATTLE COMPANY LLC	DIER 3	2977	GAS	JALMAT; TAN-YATES-7 R/VMS	2299	6/26/1954	7/11/1954	255	37E	31	330 FEL 1650 FNL	32.089360	-103.193900	32.089484	-103.194378
SU 255-37E-300C	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #14		LOC-INJ	Location-Injection	2335			255	37E	32	1060 FNL & 1160 FNL	32.090560	-103.189133	32.091064	-103.189811
30025262780000	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #6	3600	OIL	LANGUE MARTIX, 7 R/VMS-Q-GRAYBURG	2500	4/6/1979	6/8/1979	255	37E	32	1980 FEL 1980 FSL	32.084320	-103.183120	32.084344	-103.182758
30025306550000	FAE II Operating LLC	ARNOTT RAMSAY NCT-8 #13	3159	OIL	JALMAT; TAN-YATES-7 R/VMS	2580	9/6/1988	9/22/1988	255	37E	32	1980 FEL 990 FSL	32.082100	-103.182700	32.082224	-103.182578

Exhibit B2

UWI/API	OPERATOR	WELL LABEL	ID	WELL TYPE	CURRENT ZONE	Distance	SPUD DATE	COMP DATE	TOWNSHIP	RANGE	SECTION	FOOTAGE	NA02Z- SUBEAT	NA02Z- SUBECON	WGS84- SUBEAT	WGS84- SUBECON
SU 255-37E 32C	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #14		LOC-NU	Location-Injection	0			25S	37E	32	1060 FNL & 1160 FWL	32.090940	-103.189133	32.091064	-103.189611
30025261060000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #4	3600	SWD	SWD, SEVEN RIVERS-QUEEN	1115	12/27/1978	2/7/1979	25S	37E	32	330 FWL 330 FNL	32.093990	-103.191800	32.093114	-103.192776
30025269600000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #10	3400	OIL	JALUAT, TAN-VATES-7 RIVRS	1211	9/5/1980	10/10/1980	25S	37E	32	1980 FWL 1980 FNL	32.088470	-103.188640	32.088594	-103.188916
SU 255-37E 30FF	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #15		LOC-NU	Location-Injection	1268			25S	37E	32	2455 FNL & 1195 FWL	32.087118	-103.188987	32.087232	-103.189405
SU 255-37E 32BB	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #18		LOC-NU	Location-Injection	1435			25S	37E	32	1115 FNL & 2495 FWL	32.095808	-103.188803	32.095932	-103.185281
30025118550000	FULFERT OIL & CATTLE COMPANY LLC	DYER 3	2977	GAS	JALUAT, TAN-VATES-7 RIVRS	1664	6/26/1954	7/11/1954	25S	37E	31	330 FEL 1650 FNL	32.089360	-103.193900	32.089484	-103.194378
30025118250000	AMERGA DA OUSEN & PERRIES	IMA HAYS 1	8576	DRY	Plugged	1815	11/29/1956	1/31/1957	25S	37E	29	1980 FWL 660 FSL	32.095730	-103.186480	32.095854	-103.186958
30025118310000	TEXAS PACIFIC OIL COMPANY	JEKINS 1	3174	PLUGGOL	Plugged	1816	12/5/1980	12/10/1981	25S	37E	29	330 FWL 660 FSL	32.095720	-103.194378	32.095854	-103.186958
30025118340000	BURLESON LEWIS B INCORPORATED	JEKINS 3	3443	PLUGGAS	Plugged	1883	11/20/1951	5/12/1952	25S	37E	29	1980 FWL 760 FSL	32.095700	-103.186480	32.095824	-103.192788
SU 255-37E 32G6	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #16		LOC-NU	Location-Injection	2142			25S	37E	32	2625 FNL & 2630 FFL	32.086664	-103.186285	32.086788	-103.186763
30025267570000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #9	3450	OIL	LANGLE MATTHEW, 7 RIVRS O-GRAVIRBURG	2219	4/22/1980	5/28/1980	25S	37E	32	1980 FWL 1980 FSL	32.084820	-103.186420	32.084944	-103.186898
30025118540000	FULFERT OIL & CATTLE COMPANY LLC	DYER 2	3171	OIL	JALUAT, TAN-VATES-7 RIVRS	2303	12/13/1952	1/3/1953	25S	37E	31	980 FEL 735 FNL	32.091880	-103.198020	32.092004	-103.199498
30025268590000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #11	3473	LOC-NU /TA	JALUAT, TAN-VATES-7 RIVRS	2335	11/21/1981	1/01/1982	25S	37E	32	990 FWL 1650 FSL	32.083910	-103.189510	32.084034	-103.190988
30025118450000	BURLINGTON RESOURCES O&G CO LP	WINNINGHAM 6	3191	PLUGGOL	Plugged	2506	4/6/1951	4/28/1951	25S	37E	30	660 FEL 650 FSL	32.095710	-103.195300	32.095834	-103.195478

Exhibit B3

UWI/API	OPERATOR	WELL LABEL	ID	WELL TYPE	CURRENT ZONE	DISTANCE	SPUD DATE	COMP DATE	TOWNSHIP	RANGE	SECTION	FOOTAGE	MAZ27 SURF-LAT	MAZ27 SURF-LON	WGS84 SURF-LAT	WGS84 SURF-LON
SU 255-37E 321F	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #15		LOC-NU	Location Injection	0			255	37E	32	2455 FNL & 1195 FWL	32.087118	-103.188987	32.087242	-103.189465
3002526960000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #10	3400	OIL	JALUAT, TAN-YATES-7 RIVRS	996	9/5/1980	10/10/1980	255	37E	32	1980 FWL 1980 FNL	32.088470	-103.188640	32.088594	-103.188918
3002526960000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #11	3473	LOC-NU / TA	JALUAT, TAN-YATES-7 RIVRS	1083	11/21/1981	1/07/1982	255	37E	32	990 FNL 1630 FSL	32.088310	-103.188610	32.084034	-103.188918
3002526750000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #9	3450	OIL	LANGUE MATTX: 7 RIVRS-Q-GRAYBURG	1142	4/22/1980	5/28/1980	255	37E	32	1090 FWL 1980 FSL	32.084820	-103.188420	32.084904	-103.188698
SU 255-37E 31C	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #14		LOC-NU	Location Injection	1288			255	37E	32	1060 FNL & 1160 FWL	32.093940	-103.189133	32.091064	-103.188611
SU 255-37E 31G	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #16		LOC-NU	Location Injection	1565			255	37E	32	2625 FNL & 2630 FEL	32.086644	-103.188285	32.086786	-103.188473
3002511855000	FULFER OIL & CATTLE COMPANY LLC	DIVER 3	2977	GAS	JALUAT, TAN-YATES-7 RIVRS	1790	6/26/1954	7/11/1954	255	37E	31	330 FEL 1650 FNL	32.093360	-103.193900	32.093460	-103.194278
SU 255-37E 31HB	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #18		LOC-NU	Location Injection	1849			255	37E	32	1115 FNL & 2495 FWL	32.094808	-103.189803	32.090932	-103.188281
3002511854000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #1	3400	GAS	JALUAT, TAN-YATES-7 RIVRS	1898	4/28/1995	8/8/1995	255	37E	32	330 FEL 1990 FSL	32.082360	-103.193730	32.082214	-103.194208
3002543800000	OWI SWD OPERATING LLC	KIMBERLY SWD 1		SWD	SWD, DEVONIAN-SILURIAN	2005			255	37E	31	287 FNL 1450 FSL	32.083960	-103.193730	32.083444	-103.194208
SU 255-37E 32J	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #17		LOC-NU	Location Injection	2052			255	37E	32	1350 FSL & 2635 FEL	32.083984	-103.189291	32.083708	-103.184769
3002511857000	CIMAREX ENERGY CO OF COLORADO	ME LEGAL #2	3350	PLUGGAS	Plugged	2115	8/18/1951	9/30/1951	255	37E	31	660 FEL 1990 FSL	32.084820	-103.194940	32.084944	-103.195418
3002526780000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #8	3600	OIL	JALUAT, TAN-YATES-7 RIVRS	2145	4/26/1979	7/19/1979	255	37E	32	1980 FNL 1600 FSL	32.081190	-103.188390	32.081314	-103.188668
3002526780000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #4	3600	SWD	SWD, SEVEN RIVERS-QUEEN	2158	12/27/1978	2/7/1979	255	37E	32	330 FNL 330 FNL	32.092990	-103.191800	32.093114	-103.192278
3002526780000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #6	3600	OIL	LANGUE MATTX: 7 RIVRS-Q-GRAYBURG	2400	4/6/1979	6/8/1979	255	37E	32	1980 FEL 1980 FSL	32.084820	-103.189120	32.084944	-103.188298

Exhibit B4

UWI/API	OPERATOR	WELL LABEL	ID	WELL TYPE	CURRENT ZONE	Distance	SPUD DATE	COMP DATE	TOWNSHIP	RANGE	SECTION	FOOTAGE	NAOZ2- SURFPLAT	NAOZ2- SURFLOM	WISS24- SURFPLAT	WISS24- SURFLOM
SU 255-37E 3766	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #16		LOC-NU	Location-Injection	0			255	37E	32	2625 FNL & 2630 FEL	32,086664	-103.184295	32,086788	-103.184763
300252650000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #10	3400	OIL	JALMAT, TAN-VATES-7 RVS	932	9/5/1980	10/10/1980	255	37E	32	1980 FNL 1980 FNL	32,088470	-103.186440	32,088594	-103.186918
3002526270000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #9	3450	OIL	LANGUE MATTIX-7 RVS-Q-GRAYBURG	935	4/22/1980	5/28/1980	255	37E	32	1980 FNL 1980 FSL	32,084820	-103.186420	32,084944	-103.186988
3002526278000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #6	3600	OIL	LANGUE MATTIX-7 RVS-Q-GRAYBURG	942	4/6/1979	6/8/1979	255	37E	32	1980 FNL 1980 FSL	32,084820	-103.187120	32,084944	-103.187296
SU 255-37E 3201	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #17		LOC-NU	Location-Injection	1186			255	37E	32	1950 FSL & 2635 FEL	32,083864	-103.184291	32,083208	-103.184765
SU 255-37E 3208	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #18		LOC-NU	Location-Injection	1384			255	37E	32	1115 FNL & 2485 FNL	32,090868	-103.184805	32,089932	-103.185281
SU 255-37E 3207	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #15		LOC-NU	Location-Injection	1565			255	37E	32	2485 FNL & 1195 FNL	32,087118	-103.186867	32,087242	-103.186865
3002526055000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #13	3159	OIL	JALMAT, TAN-VATES-7 RVS	1677	9/6/1989	9/22/1989	255	37E	32	1980 FEL 1990 FSL	32,082100	-103.182100	32,082224	-103.182576
3002526279000	HARTMAN DOYLE	ARNOTT RAMSAY NCT-B #7	3600	PLUGGOL	Plugged	1836	4/14/1979	7/11/1979	255	37E	32	990 FEL 2130 FSL	32,085240	-103.178930	32,085364	-103.179408
SU 255-37E 3201	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #19		LOC-NU	Location-Injection	1840			255	37E	32	1340 FSL & 1330 FEL	32,083079	-103.180047	32,083203	-103.180525
3002526280000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #8	3630	OIL	JALMAT, TAN-VATES-7 RVS	1944	4/26/1979	7/19/1979	255	37E	32	1980 FNL 660 FSL	32,081190	-103.186390	32,081314	-103.186866
SU 255-37E 320C	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #11	3473	LOC-NU / TA	JALMAT, TAN-VATES-7 RVS	1987	11/21/1981	1/20/1982	255	37E	32	990 FNL & 1650 FNL	32,083510	-103.188610	32,083634	-103.190088
3002526063000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #14		LOC-NU	Location-Injection	2142			255	37E	32	1060 FNL & 1160 FNL	32,090940	-103.188133	32,091064	-103.190611
SU 255-37E 320C	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #14		LOC-NU	Location-Injection	2205	8/22/1985	10/9/1985	255	37E	32	660 FEL 1980 FNL	32,088300	-103.177890	32,088424	-103.178368
3002521856000	CHEVRON U.S.A INCORPORATED	ARNOTT RAMSAY NCT-B #2	3225	PLUGGAS	Plugged	2205	1/13/1982	3/18/1982	255	37E	32	1480 FEL 500 FSL	32,080760	-103.180480	32,080884	-103.180958
3002527551000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #12	3620	OIL	JALMAT, TAN-VATES-7 RVS	2328	1/13/1982	3/18/1982	255	37E	32	1480 FEL 500 FSL	32,080760	-103.180480	32,080884	-103.180958
3002526105000	HARTMAN DOYLE	ARNOTT RAMSAY NCT-B #5	3500	PLUGGOL	Plugged	2373	12/20/1978	1/19/1979	255	37E	32	1650 FEL 390 FSL	32,080290	-103.181020	32,080414	-103.181498

Exhibit B5

UWI/API	OPERATOR	WELL LABEL	ID	WELL TYPE	CURRENT ZONE	Distance	SPUD DATE	COMP DATE	TOWNSHIP	RANGE	SECTION	FOOTAGE	MDZ7- SURF1AT	MDZ7- SURF1ON	WSS34- SURF1AT	WSS34- SURF1ON
SU 255-37E-321J	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #17		LOC-INJ	Location-Injection	0			255	37E	32	1350 FSL & 2635 FEL	32.083084	-103.184291	32.083208	-103.184769
3002536650000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #13	3159	OIL	JALMAT: TAN-VATES-7 RVS	796	9/6/1989	9/22/1989	255	37E	32	1980 FSL 990 FSL	32.082100	-103.182100	32.082224	-103.182576
3002562570000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #9	3450	OIL	LANGUE MATTX: 7 RVS-Q-GRAYBLING	910	4/22/1980	5/28/1980	255	37E	32	1980 FSL 1980 FSL	32.084820	-103.186420	32.084944	-103.186595
3002562678000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #6	3600	OIL	LANGUE MATTX: 7 RVS-Q-GRAYBLING	921	4/6/1979	6/8/1979	255	37E	32	1980 FSL 1980 FSL	32.084820	-103.182120	32.084944	-103.182598
3002562800000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #8	3650	OIL	JALMAT: TAN-VATES-7 RVS	937	4/26/1979	7/19/1979	255	37E	32	1980 FSL 660 FSL	32.081190	-103.186390	32.081314	-103.186868
SU 255-37E-3266	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #16		LOC-INJ	Location-Injection	1186			255	37E	32	2625 FSL & 2630 FEL	32.086664	-103.189285	32.086788	-103.184763
SU 255-37E-321J	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #19		LOC-INJ	Location-Injection	1406			255	37E	32	1340 FSL & 1330 FEL	32.083079	-103.189047	32.083293	-103.189255
30025626100000	HARTMAN DOYLE	ARNOTT RAMSAY NCT-B #5	3500	PLUGGOL	Plugged	1426	12/20/1978	1/19/1979	255	37E	32	1650 FSL 530 FSL	32.080799	-103.181020	32.080814	-103.181498
30025725510000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #12	3620	OIL	JALMAT: TAN-VATES-7 RVS	1479	1/13/1982	3/18/1982	255	37E	32	1480 FSL 500 FSL	32.080760	-103.180480	32.080864	-103.180958
30025626930000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #11	3473	LOC-INJ / TA	JALMAT: TAN-VATES-7 RVS	1784	11/21/1981	7/11/1979	255	37E	32	990 FSL 1600 FSL	32.083910	-103.188610	32.084034	-103.180958
3002562790000	HARTMAN DOYLE	ARNOTT RAMSAY NCT-B #7	3600	PLUGGOL	Plugged	1915	4/14/1979	7/11/1979	255	37E	32	990 FSL 2130 FSL	32.085240	-103.178930	32.085364	-103.179408
30025626790000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #10	3400	OIL	JALMAT: TAN-VATES-7 RVS	1922	9/5/1980	10/10/1980	255	37E	32	1980 FSL 1980 FSL	32.086470	-103.186440	32.086594	-103.186918
30025281160000	CHIMAREX ENERGY CO OF COLORADO	RHODES FEDERAL UNIT #52	3607	PLUGGAS	Plugged	1968	6/13/1983	7/21/1983	265	37E	5	1980 FSL 660 FSL	32.077510	-103.182090	32.077694	-103.182568
SU 255-37E-3274	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #15		LOC-INJ	Location-Injection	2052			255	37E	32	2465 FSL & 1195 FSL	32.087118	-103.188887	32.087242	-103.189465
30025313930000	FAE II Operating LLC	RHODES FEDERAL UNIT #53	3100	GAS	RHODES VATES-SEVEN INVERS	2338	8/20/1991	9/20/1991	265	37E	5	1980 FSL 1100 FSL	32.076530	-103.189390	32.076744	-103.189518
30025318640000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #1	3400	GAS	JALMAT: TAN-VATES-7 RVS	2487	4/28/1935	8/8/1935	255	37E	32	330 FSL 990 FSL	32.082098	-103.191730	32.082214	-103.192208
SU 255-37E-328B	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #18		LOC-INJ	Location-Injection	2565			255	37E	32	1115 FSL & 2485 FSL	32.090908	-103.189803	32.090932	-103.189261

Exhibit B6

UWI/API	OPERATOR	WELL LABEL	ID	WELL TYPE	CURRENT ZONE	Distance	SPUD DATE	COMP DATE	TOWNSHIP	RANGE	SECTION	FOOTAGE	NAD27 SURF ELEV	NAD27 SURF ELEV	WGS84 SURF ELEV	WGS84 SURF ELEV
SU 255-37E-3288	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #18		LOC-INJ	Location-Injection	0			25S	37E	32	1115 FNL & 2495 FNL	32.090808	-103.184803	32.090932	-103.185281
3002518650000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #10	3400	OIL	JALMUT, TAN-WATES-7 RIVIS	946	9/5/1980	10/10/1980	25S	37E	32	1980 FNL 1980 FNL	32.088470	-103.186440	32.088394	-103.186918
SU 255-37E-3266	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #16		LOC-INJ	Location-Injection	1384			25S	37E	32	2615 FNL & 2630 FNL	32.086664	-103.184235	32.086788	-103.184763
SU 255-37E-3100	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #14		LOC-INJ	Location-Injection	1456			25S	37E	32	1060 FNL & 1160 FNL	32.090940	-103.189133	32.091064	-103.189612
3002511823000	AMERADA OUSEN & PEERLES	IMA HAYS 1	8576	DRY	Plugged	1723	11/29/1966	1/31/1967	25S	37E	29	1980 FNL 660 FSL	32.095730	-103.186480	32.095854	-103.186958
3002511834000	PURLESON LEWIS B INCORPORATED	JENKINS 3	3443	PLUGGAS	Plugged	1808	11/20/1951	5/12/1962	25S	37E	29	1980 FNL 780 FSL	32.096000	-103.186480	32.096124	-103.186958
3002511838000	AMERICAN INLAND RESOURCES COMPANY LLC	CROSBY A #1	3100	PLUGGAS	Plugged	1848	2/23/1929	10/24/1929	25S	37E	29	1980 FNL 660 FSL	32.095740	-103.182200	32.095864	-103.182678
SU 255-37E-3047	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #15		LOC-INJ	Location-Injection	1849			25S	37E	32	2455 FNL & 1105 FNL	32.087118	-103.188987	32.087242	-103.189465
3002526757000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #9	3450	OIL	LANGUE MATTIK, 7 RIVIS-O-GRAVBLING	2055	4/22/1980	5/28/1980	25S	37E	32	1980 FNL 1980 FSL	32.084820	-103.186420	32.084944	-103.186968
3002526278000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #6	3600	OIL	TA	2175	4/6/1979	6/8/1979	25S	37E	32	1980 FNL 1980 FSL	32.084820	-103.182120	32.084944	-103.182598
3002511865000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #3	8797	TA	TA	2384	10/26/1956	3/8/1957	25S	37E	32	600 FNL 660 FNL	32.091120	-103.177230	32.091244	-103.178208
3002511865000	CHEVRON U.S.A INCORPORATED	ARNOTT RAMSAY NCT-B #2	3225	PLUGGAS	Plugged	2415	8/22/1955	10/9/1955	25S	37E	32	660 FNL 1980 FNL	32.088500	-103.177890	32.088624	-103.178368
3002526108000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #4	3600	SMD	SMD SEVEN RIVERS-QUEEN	2429	12/27/1978	2/7/1979	25S	37E	32	330 FNL 330 FNL	32.092990	-103.191800	32.093114	-103.192278
SU 255-37E-3201	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #17		LOC-INJ	Location-Injection	2565			25S	37E	32	1350 FSL & 2635 FSL	32.083084	-103.184291	32.083208	-103.184769
3002526729000	HARTMAN DOWLE	ARNOTT RAMSAY NCT-B #7	3600	PLUGGAS	Plugged	2682	4/14/1979	7/11/1979	25S	37E	32	990 FNL 2130 FSL	32.085240	-103.178930	32.085364	-103.179408

Exhibit B7

UWI/API	OPERATOR	WELL LABEL	ID	WELL TYPE	CURRENT ZONE	Distance	SPUD DATE	COMP DATE	TOWNSHIP	RANGE	SECTION	FOOTAGE	MDZ7 SURFAT	MDZ7 SURFON	WGS84 SURFAT	WGS84 SURFON
SU 255-37E 32II	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #19		LOC-INV	Location-Injection	0			25S	37E	32	1340 FSL & 1330 FEL	32.083079	-103.180047	32.083203	-103.180525
3002530650000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #13	3159	OIL	JALMAT, TAN-VATES-7 R/VIS	754	9/6/1989	9/22/1989	25S	37E	32	1980 FEL 990 FSL	32.082100	-103.182100	32.082224	-103.182578
30023275510000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #12	3630	OIL	JALMAT, TAN-VATES-7 R/VIS	782	1/13/1982	3/18/1982	25S	37E	32	1480 FEL 500 FSL	32.080760	-103.180480	32.080884	-103.180958
30025262780000	HARTMAN DOYLE	ARNOTT RAMSAY NCT-B #7	3600	PLUGGOL	Plugged	806	4/14/1979	7/11/1979	25S	37E	32	990 FEL 2180 FSL	32.085240	-103.179930	32.085364	-103.179408
30025261020000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #6	3600	OIL	LANGLE MATTY; 7 R/VIS-Q-GRAYBURG	897	4/6/1979	6/8/1979	25S	37E	32	1980 FEL 1980 FSL	32.084820	-103.182120	32.084944	-103.182598
	HARTMAN DOYLE	ARNOTT RAMSAY NCT-B #5	3500	PLUGGOL	Plugged	979	12/20/1978	1/19/1979	25S	37E	32	1650 FEL 330 FSL	32.080290	-103.181020	32.080414	-103.181498
SU 255-37E 32II	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #17		LOC-INV	Location-Injection	1406			25S	37E	32	1350 FSL & 2655 FEL	32.083084	-103.184291	32.083208	-103.184765
SU 255-37E 3266	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #16		LOC-INV	Location-Injection	1840			25S	37E	32	2655 FSL & 2650 FEL	32.086664	-103.184285	32.086788	-103.184763
30025118620000	CHEVRON U.S.A INCORPORATED	ARNOTT RAMSAY NCT-B #2	3225	PLUGGAS	Plugged	1993	8/22/1955	10/9/1955	25S	37E	32	660 FEL 1980 FSL	32.088500	-103.177890	32.088624	-103.178368
30025281140000	CMAREX ENERGY CO OF COLORADO	RHODES FEDERAL UNIT #52	3607	PLUGGAS	Plugged	1947	6/13/1983	7/21/1983	26S	37E	5	1980 FEL 660 FSL	32.077570	-103.178090	32.077694	-103.182588
30025119550000	EL PASO NATURAL GAS COMPANY	SHEPARD FEDERAL B.3	3290	PLUGGAS	Plugged	2161	1/14/1937	4/6/1937	26S	37E	5	990 FEL 990 FSL	32.076660	-103.178900	32.076784	-103.179378
30025262570000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #9	3450	OIL	LANGLE MATTY; 7 R/VIS-Q-GRAYBURG	2189	4/22/1980	5/28/1980	25S	37E	32	1980 FSL 1980 FSL	32.084820	-103.186420	32.084944	-103.186898
30025262800000	FAE II Operating LLC	ARNOTT RAMSAY NCT-B #8	3630	OIL	JALMAT, TAN-VATES-7 R/VIS	2193	4/26/1979	7/19/1979	25S	37E	32	1980 FSL 660 FSL	32.084820	-103.186390	32.084944	-103.186668
30025118810000	CMAREX ENERGY CO OF COLORADO	EL PASO TOW FEDERAL #7	3214	PLUGGOL	Plugged	2215	9/12/1954	10/1/1954	25S	37E	33	660 FSL 1980 FSL	32.084840	-103.178600	32.084954	-103.174078
30025118740000	FAE II Operating LLC	R.O GREGORY #3	3285	OIL	JALMAT, TAN-VATES-7 R/VIS	2339	8/16/1960	10/4/1960	25S	37E	33	660 FSL 330 FSL	32.089300	-103.173560	32.089424	-103.174038

VI. Exhibit C1

IMA Hays 1

API# 30-025-11823
1980 FWL 660 FSL,
Sec 29, T25S, R37E Lea Co., NM

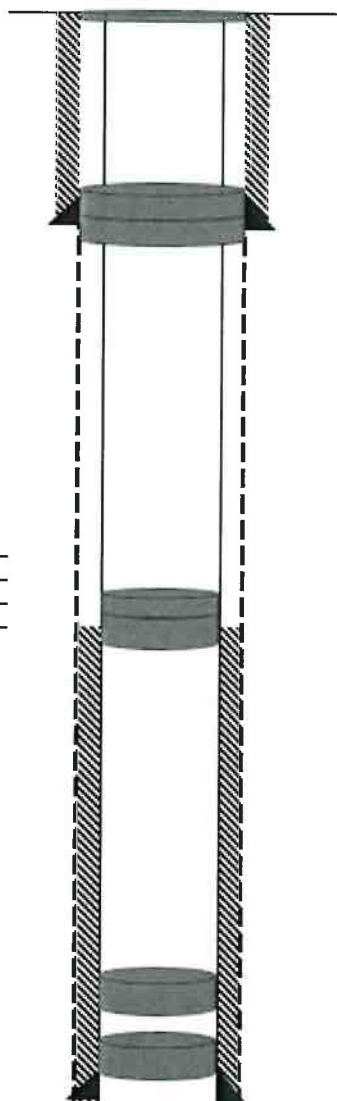
Forty Acres Energy

Well Name IMA HAYS 1
County Lea County, NM
Location 29-25S-37E
API 30-025-11823

10/3/2019

Surface Casing

OD 13.375"
WT 36#
Depth 600'
TOC Surface'
sks 600
Hole 17.5"



Perforations

PI Top	PI Bot
-	-
-	-
-	-
-	-

Production Casing

OD 8.625"
WT 32#
Depth 3704'
TOC 835'
sks 1000
Hole 11"

PBTD
TD 8576'

Geologist's Notes

0

Status: Plugged

Cum Oil: 0 Mbo

Plugging Profile

Type	Depth	TOC
1 Cement	8,350	8,236
2 Cement	7,650	7,536
3 Cement	3,757	3,700
4 Cement	3,700	3,644
5 Cement	642	619
6 Cement	619	596
7 Cement	28	15

Cut Casing @

Objective

Step	Procedure
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VI. Exhibit C2

JENKINS 1

API# 30-025-11831
1980 FEL 1980 FSL,
Sec 36, T25S, R36E Lea Co., NM

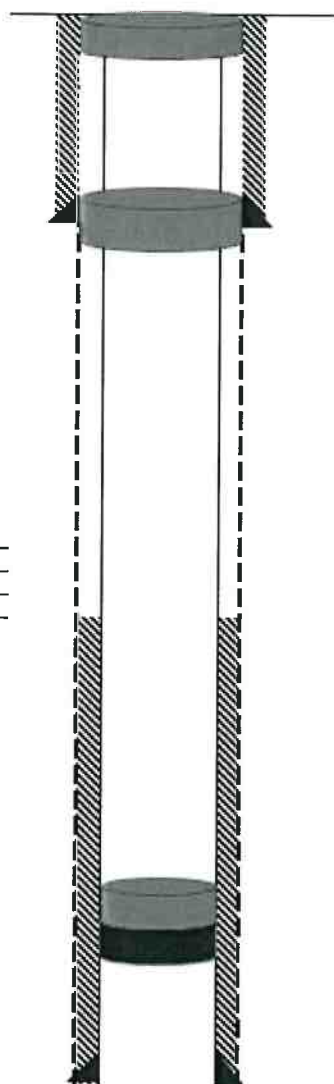
Forty Acres Energy

Well Name JENKINS 1
County Lea County, NM
Location 36-25S-36E
API 30-025-11831

1/6/2020

Surface Casing

OD 8.625"
WT 32#
Depth 295'
TOC Surface'
cks 100
Hole 10.75"



Perforations

PI Top	PI Bot
-	-
-	-
-	-
-	-

Production Casing

OD 5.5"
WT 15.5#
Depth 2686'
TOC '
cks 400
Hole 7.625"

PBTD '
TD 2981'

Geologist's Notes

0

Status: 0

Cum Oil: 0 Mbo

Plugging Profile

Type	Depth	TOC
1 CIBP	2,650	-
2 Cement	2,650	2,605
3 Cement	540	338
4 Cement	36	Surface
5 0	-	-

Cut Casing @

Objective

Step	Procedure
1	
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JENKINS #3

API# 30-025-11834
760 FSL 1980 FWL,
Sec 29, T25S, R37E Lea Co., NM

VI. Exhibit C3

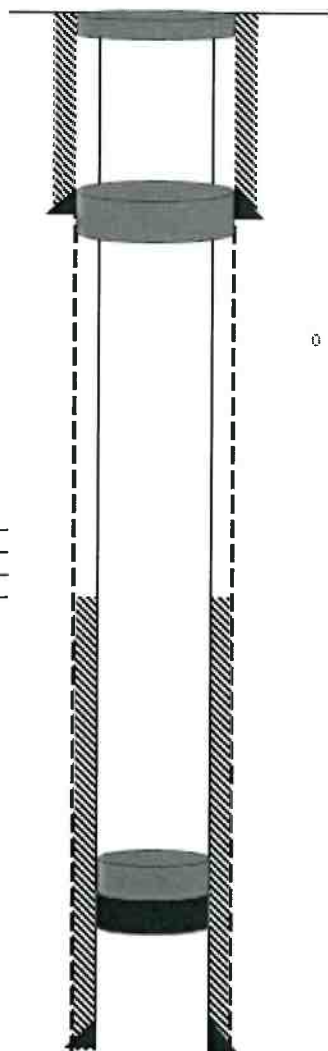
Forty Acres Energy

Well Name JENKINS 3
County Lea County, NM
Location 29-25S-37E
API 30-025-11834

10/2/2013

Surface Casing

OD 10.75"
WT 32#
Depth 238'
TOC -
sks 200
Hole 13.375"



Status: Plugged

Cum Oil: 0 Mbo

Plugging Profile

	Type	Depth	TOC
1	CIBP	2,810	
2	Cement	2,810	2,750
3	Cement	350	170
4	Cement	96	Surface
5	0	-	-

Cut Casing @

Perforations

PI Top	PI Bot
3,092	3,102
3,070	3,086
-	-
-	-

Production Casing

OD 7"
WT 23#
Depth 3417'
TOC -
sks 400
Hole 8.625"

PBTD -
TD 3417'

Objective

Step	Procedure
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Geologist's Notes

0

CROSBY A #1

API# 30-025-11836
1980 FEL 660 FSL,
Sec 29, T25S, R37E Lea Co., NM

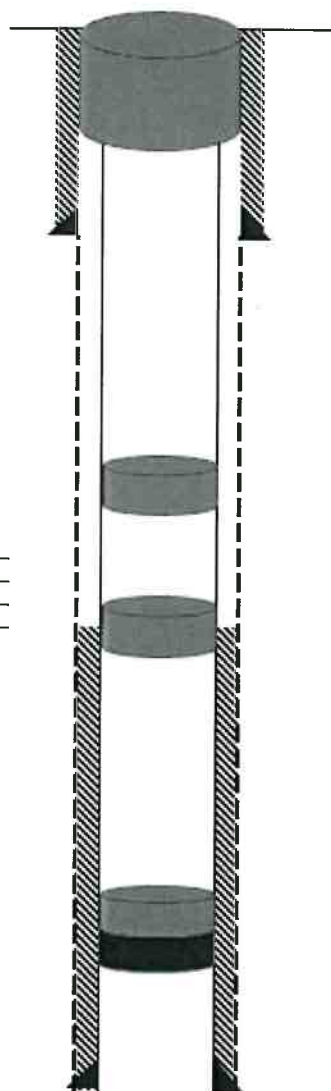
Forty Acres Energy

Well Name	RUBY S CROSBY-FED A 1
County	Lea County, NM
Location	29-25S-37E
API	30-025-11636

10/4/2019

Surface Casing

OD	13.375"
WT	48#
Depth	340'
TOC	'
# sks	80
Hole	"



Perforations

PITop	-	PI Bot
2,595	-	3,016
-	-	-
-	-	-
-	-	-

Production Casing

OD	10.75"
WT	40#
Depth	1302'
TOC	
# sks	150
Hole	"

PSTD
TD

Geologist's Notes

0

Status: Plugged

Cum Oil: 0 Mb0

Plugin Profile

	Type	Depth	TOC
1	CIBP	2,550	-
2	Cement	2,550	2,318
3	Cement	1,300	1,650
4	Cement	1,350	1,160
5	Cement	250	Surface

Cut Casing @

Objective

Step	Procedure
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*Input procedure on this page

VI. Exhibit C5

WINNINGHAM 6

API# 30-025-11845
653 FEL 598 FSL,
Sec 19, T25S, R37E Lea Co., NM

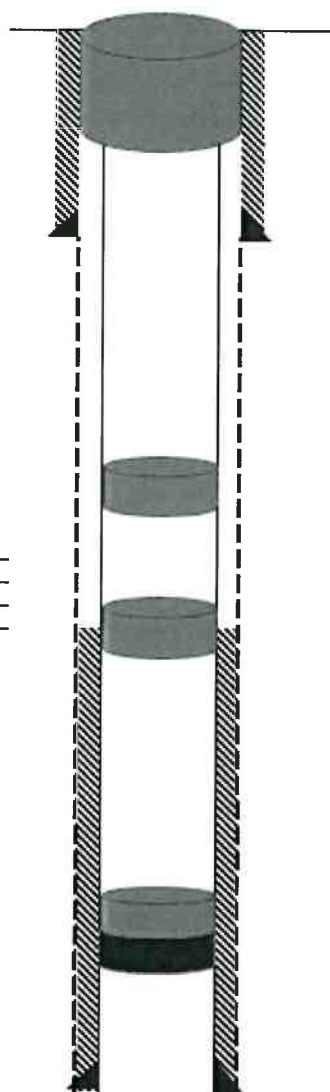
Forty Acres Energy

Well Name RUBY S CROSBY-FED A 1
County Lea County, NM
Location 23-25S-37E
API 30-025-11836

10/4/2019

Surface Casing

OD 13.375"
WT 48#
Depth 940'
TOC '
sks 60
Hole "



Status: Plugged

Cum Oil: 0 Mbo

Plugging Profile

	Type	Depth	TOC
1	CIBP	2,550	-
2	Cement	2,550	2,318
3	Cement	1,900	1,650
4	Cement	1,350	1,160
5	Cement	250	Surface

Cut Casing @

Perforations

PI Top	PI Bot
2,595	3,016
-	-
-	-
-	-

Production Casing

OD 10.75"
WT 40#
Depth 1302'
TOC '
sks 150
Hole "

PBTD '
TD '

Objective

Step	Procedure
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*Input procedure on this page

Geologist's Notes

0

VI. Exhibit C6

LEGAL #1

API# 30-025-11856
660 FEL 660 FSL,
Sec 31, T25S, R37E Lea Co., NM

Forty Acres Energy

Well Name: LEGAL 1
County: Lea County, NM
Location: 31-25S-37E
API: 30-025-11856

10/2/2019

Surface Casing

OD: 8.625"
WT: 24#
Depth: 238'
TOC: -
sks: 150
Hole: 10.75"

Status: Plugged

Cum Oil: 0 Mbo

Plugging Profile

	Type	Depth	TOC
1	CIBP	2,710	-
2	Cement	2,710	2,510
3	Cement	1,185	1,077
4	Cement	409	Surface
5	0	-	-

Cut Casing @ -

Perforations

PI Top	PI Bot
-	-
-	-
-	-
-	-

Production Casing

OD: 5.5"
WT: 15.5#
Depth: 3133'
TOC: -
sks: 400
Hole: 7.875"

PSTD: -
TD: 3254'

Geologist's Notes

0

Objective

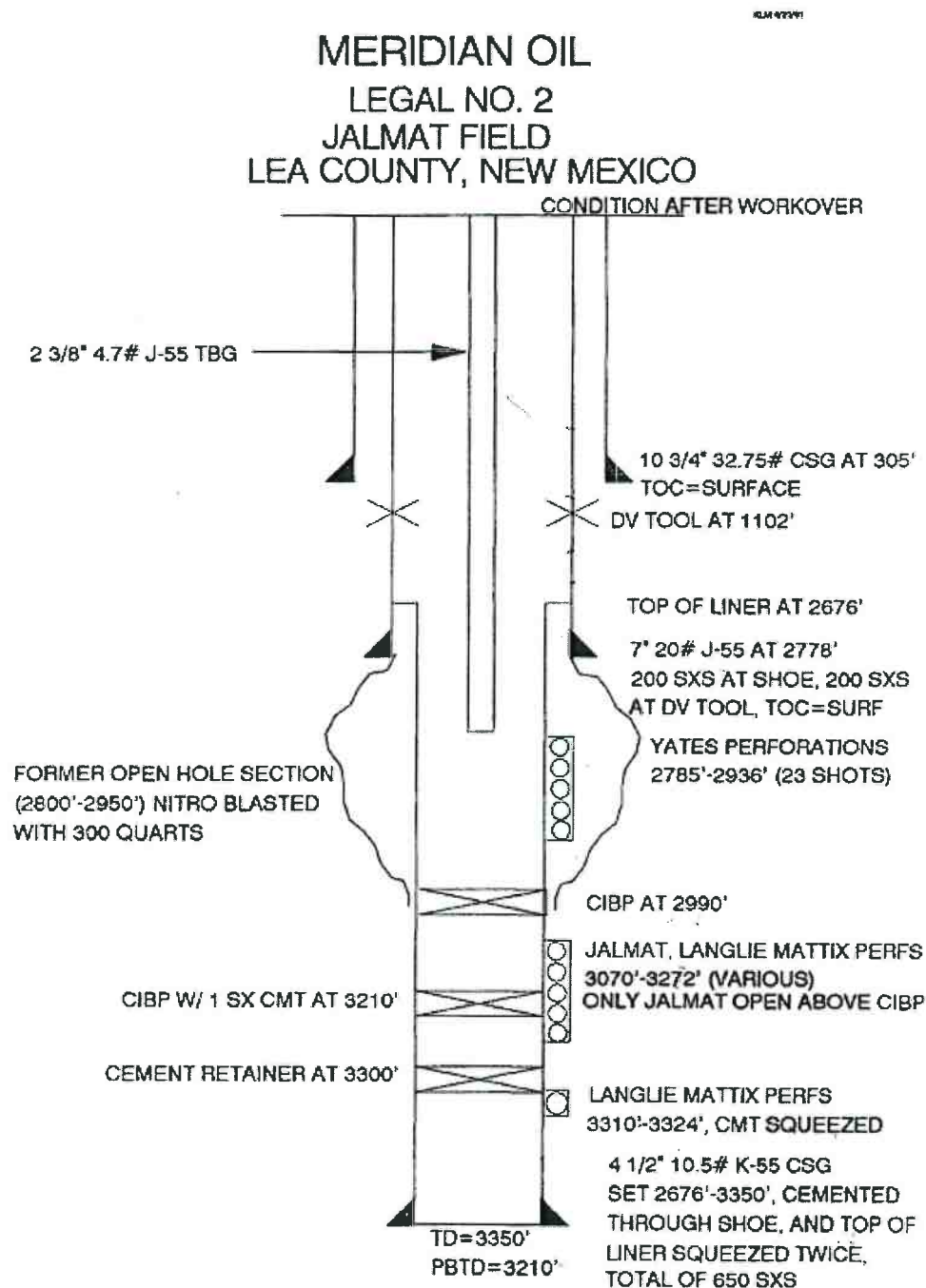
Step	Procedure
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VI. Exhibit C7

M F LEGAL #2

API# 30-025-11857
660 FEL 1980 FSL,
Sec 31, T25S, R37E Lea Co., NM



VI. Exhibit C8

ARNOTT RAMSAY NCT B #2

API# 30-025-11862

660 FEL 1980 FNL,

Sec 32, T25S, R37E Lea Co., NM

Forty Acres Energy

Well Name ARNOTT RAMSAY B 2
County Lea County, NM
Location 32-25S-37E
API 30-025-11862

10/2/2019

Surface Casing

OD 3.625"
WT 32.3#
Depth 305'
TOC '
sks 325
Hole 13.75"

Status: 0

Cum Oil: 0 Mbo

Plugging Profile

	Type	Depth	TOC
1	Cement	1,285	395
2	Cement	63	Surface
3	0	-	-
4	0	-	-
5	0	-	-

Cut Casing @

Perforations

PI Top	PI Bot
2,792	2,820
2,634	2,736
2,660	2,682
2,578	2,650

Production Casing

OD 7"
WT 20#
Depth 3137'
TOC '
sks 1025
Hole 8.75"

PBTD '
TD 3225'

Geologist's Notes

0

Objective

Step	Procedure
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VI. Exhibit C9

ARNOTT RAMSAY NCT-B #3

API# 30-025-11863
660 FEL 660 FNL,
Sec 32, T25S, R37E Lea Co., NM

Well Name: Arnett Ramsay NCT-B #3
Location: 660 FNL 660 FEL Sec: 32 Township: 25S
County: Lea State: NM API: 30-025-11863

Lease Type: STATE
Range: 37E
Formation: JALMAT

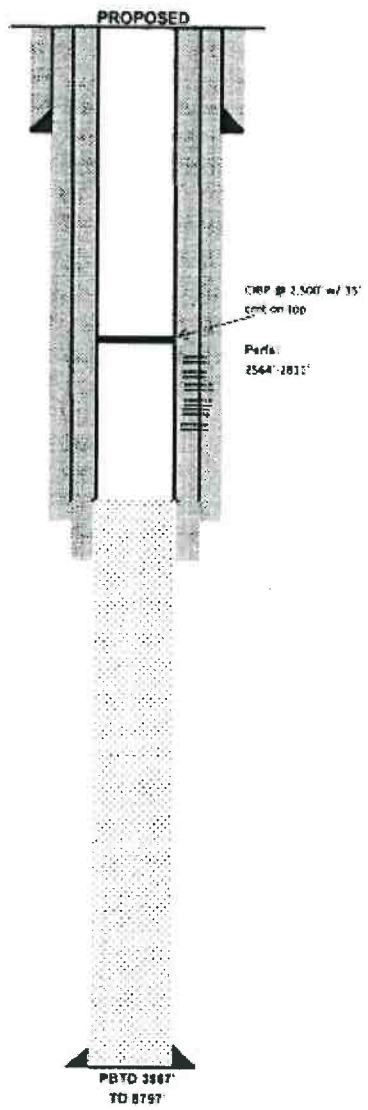
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JUN 11 2013
HOBBSOCD

Surface Cas
Size: 13-3/8"
Wt.&Thrd: 48#
Grade: S-40
Set @: 484'
Sas cmt: 600 sas
Circ:
TOC: Surface
Hole Size: 13-3/8"

Intermediate Cas
Size: 8-5/8"
Wt.&Thrd: 32#
Grade: J-85
Set @: 3600'
Sas cmt: 3388 sas
Circ:
TOC: Surface
Hole Size: 11"

Production Cas
Size: 6-1/2"
Wt.&Thrd: 16.5#
Grade: K-85
Set @: 3678'
Sas Cmt: 660 sas
Circ:
TOC:
Hole Size: 7"

Production Cas
Size: 6-1/2"
Wt.&Thrd: 14#, 16.5#, 17#
Grade: M-80 & J-85
Set @: 4280'-6787'
Sas Cmt: 600 sas
Circ:
TOC:
Hole Size: 7-7/8"



KB:
OF:
GL: 2982'
Spud Date: 11/21/1961
Compl. Date: 12/14/1961

History - Highlights
1/6/24/64: Spud 17" hole
12/16/64: Out to TD @ 8797'
2/12/67: Well put to production. Producing from 8644'-8715' @ 1740' DNGP
8/28-10/7/64: Well P&A'd by Gulf Oil Corporation. 50 sas cmt spotted from 8725'-8830', 25 sas spotted to 4240', 25 sas spotted to 3575'. Casing left in hole: 5-1/2" @ 4495', 8-5/8" @ 3583', 13-3/8" @ 477'
10/25/61: Doyle Hartman re-entered well.
- Perf from 2900'-3051'. 32# w/1500 sas cmt
- Perf from 2565'-2811'. 32# w/500 sas cmt
- Perf from 2564'-2811' w/24 holes, cracks w/5200 gal 15% MCA. SWF 224,053 gal. & 4500,000 lbs. sand. 1st production: 12/18/61

Tubulars - Capacities and Performance						
Size	Wt.	Grade	Yield Point	Ultimate Tensile	Min. Elong.	Min. Reduc.
2 3/8" 4.7# J-55 Tubing	4.7#	J-55	50,000	60,000	25%	10%
5-1/2" 14# K-85 Casing	14#	K-85	50,000	60,000	25%	10%
Annulus 2 3/8" - 5-1/2" 14#	14#	K-85	50,000	60,000	25%	10%

VI. Exhibit C10

EL PASO TOM FEDERAL #7

API# 30-025-11881
660 FEL 660 FSL,
Sec 33, T25S, R37E Lea Co., NM

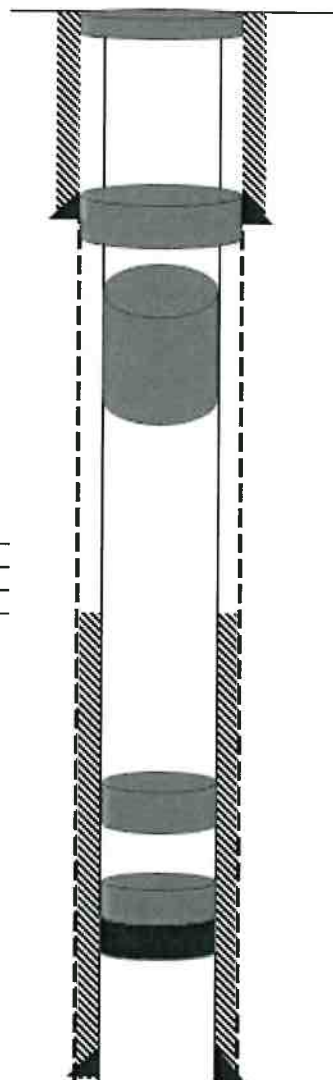
Forty Acres Energy

Well Name GREGORY 2
County Lea County, NM
Location 33-25S-37E
API 30-025-11881

10/3/2019

Surface Casing

OD 3.625"
WT 36#
Depth 293'
TOC '
sks 200
Hole 12.25"



Status: 0

Cum Oil: 0 Mbo

Plugging Profile

	Type	Depth	TOC
1	CIBP	2,920	-
2	Cement	2,920	2,740
3	Cement	2,457	2,300
4	Cement	1,250	770
5	Cement	410	283
6	Cement	63	Surface

Cut Casing @ '

Perforations

PI Top	PI Bot
2,330	-
345	-
63	-
-	-

Production Casing

OD 7"
WT 20#
Depth 3154'
TOC '
sks 300
Hole 8.75"

PBTD '
TD 3214'

Objective

Step	Procedure
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Geologist's Notes

0

VI. Exhibit C11

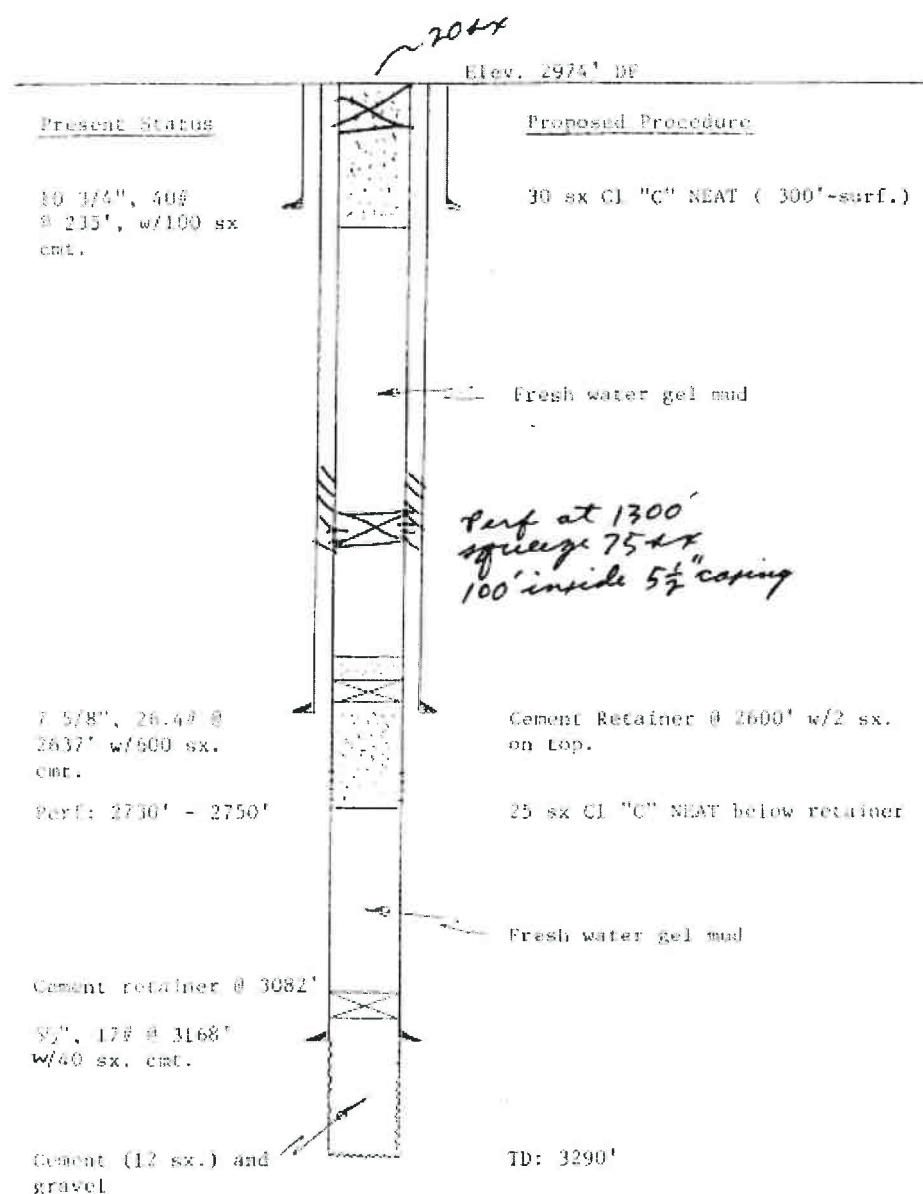
SHEPARD-FEDERAL B 3

API# 30-025-11955

660 FNL 990 FEL,

Sec 5, T26S, R37E Lea Co., NM

Shepard "B" No. 3
Lea County, New Mexico
Proposed P & A Procedure



VI. Exhibit C12

ARNOTT RAMSAY NCT-B #5

API# 30-025-26105
1650 FEL 330 FSL,
Sec 32, T25S, R37E Lea Co., NM

Forty Acres Energy

Well Name ARNOTT-RAMSEY NCT-B
County Lea County, NM
Location 32-25S-37E
API 30-025-26105

10/4/2019

Surface Casing

OD 8.625"
WT 24#
Depth 350'
TOC Surface'
cks 200
Hole 11"

Status: 0

Cum Oil: 0 Mbo

Plugging Profile

	Type	Depth	TOC
1	Cement	2,345	Surface
2	0	-	-
3	0	-	-
4	0	-	-
5	0	-	-

Cut Casing @

Perforations

PI Top	PI Bot
3,278	3,281
3,298	3,301
3,323	3,323
3,358	3,361

Production Casing

OD 4.5"
WT 9.5#
Depth 3498'
TOC 340'
cks 925
Hole 7.875"

PBTD
TD 3500'

Objective

Step	Procedure
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

*Input procedure on this page

Geologist's Notes

0

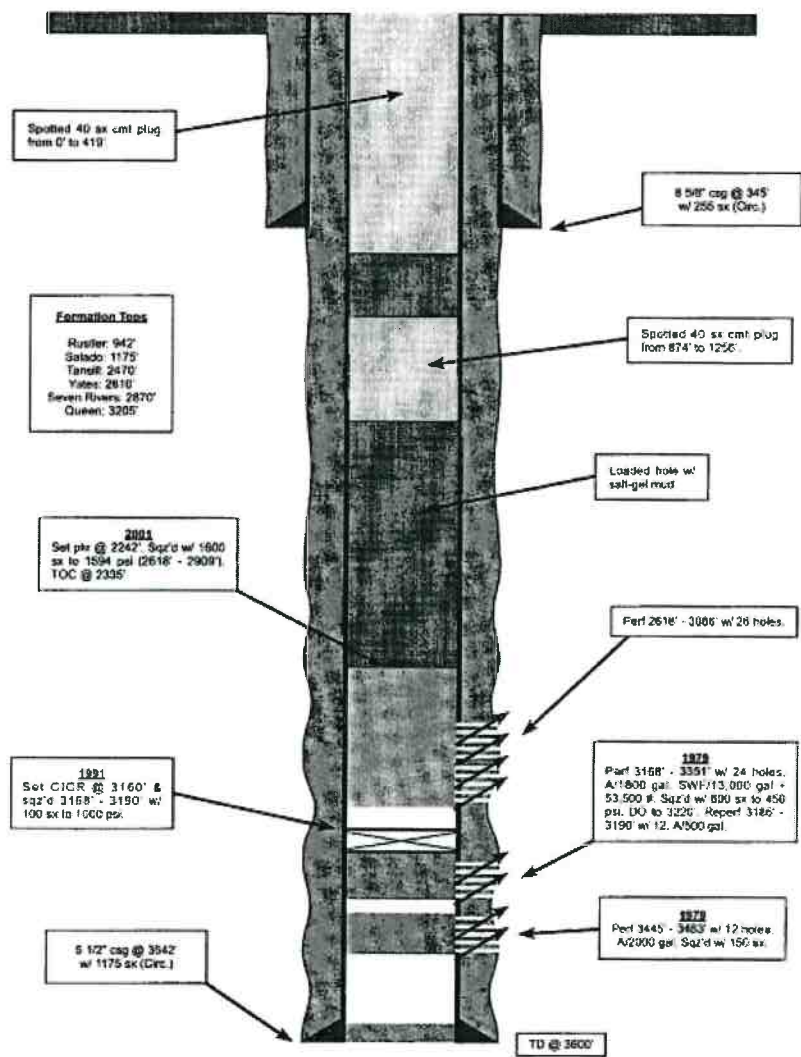
VI. Exhibit C13

ARNOTT RAMSAY NCT-B #7

API# 30-025-26279
990 FEL 2130 FSL,
Sec 32, T25S, R37E Lea Co., NM

Page 3 of 3
TMCCB Form O-100-0000-01000000
Doyle Hartman
Arnett Ramsay "NCT-B" No. 7
2310' FSL & 990' FWL
API No. 30-025-26279

Wellbore Schematic
Plugging and Abandonment Procedure
Arnett Ramsay "NCT-B" No. 7
2310' FSL & 990' FWL (Unit I)
Section 32, T-25-S, R-37-E
Lea County, NM
Doyle Hartman



VI. Exhibit C14

RHODES FEDERAL UNIT #52

API# 30-025-28114
660 FEL 660 FNL,
Sec 5, T26S, R37E Lea Co., NM

Forty Acres Energy

Well Name SHEPRD C W 'B' FDR L 7
County Lea County, NM
Location 5-26S-37E
API 30-025-28114

10/2/2019

Surface Casing
OD 8.625"
WT 24#
Depth 1000'
TOC -
cks 750
Hole 12.25"

Status: 0
Cum Oil: 0 Mbo

Plugging Profile		
Type	Depth	TOC
1 CIBP	2,700	-
2 Cement	2,700	2,620
3 Cement	1,100	900
4 Cement	63	3
5 0	-	-

Cut Casing @ -

Perforations		
PITop	PI Bot	
3,277	-	-
3,288	-	-
3,306	-	-
3,312	-	-

Objective -

Step	Procedure
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Production Casing
OD 5.5"
WT 15.5#
Depth 3607'
TOC -
cks 1025
Hole 7.875"

PBTD -
TD 3607'

Geologist's Notes
0

*Input procedure on this page

VII. Proposed Injection Operation

1. Average injection rate target will be ~350 bpd. Maximum injection rate will be 800 bpd. These numbers are based off of typical injection rates in nearby Yates-Seven Rivers-Queen water floods.
2. The system will be a closed system. The injection well will not be made available for commercial disposal purposes.
3. Average injection pressure will be ~600 psi. Maximum injection pressure will be calculated relative to the depth of the highest perforation, using a factor of 0.2 psi/ft. The proposed injector will have perforation depths of approximately 3,100' (or 620 psi maximum injection pressure). Pending results of a step rate test, the maximum injection pressure could potentially be increased to a factor of 0.6 psi/ft (or 1,860 psi at 3,100').
4. The water source will be produced water from a nearby wells and water transfer lines.
5. Injection will be into the Seven Rivers formation, which is immediately productive in the area.

VIII. Geologic Data

The waterflood will be injecting into the Seven Rivers reservoir. The portion that will be injected consists mainly of sandstones interbedded with dolomites and anhydrites. The reservoir quality rocks have porosities ranging from 10% to 20% and averages around 16%.

Formation Tops Are:

Formation	Offset Top (ARNOTT RAMSAY NCT-B #11) 30-025-26963	Contents
Alluvium	GL	Fresh Water
Rustler	927	Anhydrite
Salado (top of salt)	1050	Salt
Tansil (base of salt)	2590	Gas, Oil, & Water
Yates	2740	Gas, Oil, & Water
Seven Rivers	2996	Gas, Oil, & Water
<i>SR Injection Interval</i>	<i>3100-3300</i>	<i>Gas, Oil, & Water</i>
Queen	4100	<i>Gas, Oil, & Water</i>
Total Depth	3950	

IX. Proposed Stimulation Program

The new drill injector will be acidized with 3,000 gal 15% HCl for each set of perforations. Acid in the Seven Rivers formation is known to break down the perfs and cause injection at lower pressures vs perforating alone. The injectors will not be sand frac'd so there will be better vertical conformance.

X. Logging and Test Data for Wells

The ARNOTT RAMSAY NCT-B #11 will be converted from a producer to an injector. The well logs for this well have been submitted to the NMOCD previously.

Test Data for the above mentioned well is as follows:

Date: 1-20-1982

Perf Interval: 3270-81' w/16 holes (an interval between 3354-62' was cement squeezed)

Method: 1200 gals 15% slick NEFE HCL, (8) 7/8" RCNB's, 10500 gals 70 qual foam, & 12000# 20/40 sand.

Result: 24 hour test, 25 bbls oil, 24 bbls water, & 64 mcf gas on 36/64" choke.

Date: 9-9-1999

Perf Interval: 2743-3050' w/25 holes (lower perfs were cement squeezed)

Method: Acidize perfs with 7668 gal 15% MCA acid and 44 ball sealers.

Result: 190 MCFPD and 3 BOPD

The other 6 wells will be new drill injector wells.

XI. Chemical Analysis of Fresh Water Wells

According to records from the Office of the State Engineer (Exhibit D1-7a & D1-7b) there are between 7 and 14 active water wells within the 1 mile radius around the proposed ARNOTT RAMSAY NCT-B #11, #14, #15, #16, #17, #18, and #19. The ARNOTT RAMSAY NCT-B #14, #16, #17, and #19 have active water wells within a 1/2 mile radius.

FAE II Operating, LLC has obtained water analyses on 3 fresh water wells between 0.4 and 1.3 miles from the proposed injectors. The three water wells are the CP-01304, CP-01306, and CP-01308. The CP-01304, is 0.7 miles away from the AR NCT-B #11, 1 mile away from the AR NCT-B #14, 0.8 miles away from the AR NCT-B #15, 1 mile away from the AR NCT-B #16, 0.9 miles away from the AR NCT-B #17, is 1.1 miles away from the AR NCT-B #18, 1.2 miles away from the AR NCT-B #19, 459' (md) deep, with water found at 285' (md), and is considered an "artesian" water from the Dockum Aquifer. The second well, the CP-01306, is 0.8 miles away from the AR NCT-B #11, is 0.4 miles away from the AR NCT-B #14, is 0.6 miles away from the AR NCT-B #15, is 0.8 miles away from the AR NCT-B #16, is 1.0 mile away from the AR NCT-B #17, is 0.5 miles away from the AR NCT-B #18, is 1.1 miles away from the AR NCT-B #19, 458' (md) deep, with water found at 110' (md), and is considered an "artesian" water from the Dockum Aquifer. The third well, the CP-01308, is 0.8 miles away from the AR NCT-B #11, is 0.5 miles away from the AR NCT-B #14, is 0.7 miles away from the AR NCT-B #15, is 0.9 miles away from the AR NCT-B #16, is 1.1 mile away from the AR NCT-B #17, is 0.8 miles away from the AR NCT-B #18, is 1.3 miles away from the AR NCT-B #19, 420' (md) deep, with water found at 210' (md), and is considered an "artesian" water from the Dockum Aquifer. See **Exhibits E1, E2, and E3**.

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, FULFER OIL & CATTLE COMPANY LLC, and LANEXCO INCORPORATED are the offset operators.

Well: ARNOTT RAMSAY NCT-B #11

Location: Twn 25S Rge 37E Sec 32

Footages: ~990 FWL 1650 FSL~

County: Lea

XI. Exhibit D1a

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): 670858.442 mtrs

Northing (Y): 3551170.032 mtrs

Water Wells Within 1 Mile Radius

**** 10 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	Water Column
CP 00900 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843	101		
CP 00901 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843	96		
CP 00902 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843	95		
CP 00903 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843	95		
CP 00904 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843	97		
CP 00905 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843	100		
CP 00906 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843	102		
CP 01304 POD1		CP	LE	4	3	4	31	25S	37E	669863	3550797	1062	459	285	174
CP 01306 POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	1352	458	110	348
CP 01308 POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	1364	420	210	210

Average Depth to Water **201 feet**

Minimum Depth: **110 feet**

Maximum Depth: **285 feet**

Record Count: 10

UTM/NAD83 Radius Search (in meters):

Easting (X): 670858.442

Northing (Y): 3551170

Radius: 1609.3

*UTM location was derived from PLSS - see Help

35

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1/28/20 9:16 PM

WATER COLUMN/AVERAGE DEPTH
TO WATER

Well: ARNOTT RAMSAY NCT-B #11

Location: Twn 25S Rge 37E Sec 32

Footages: ~990 FWL 1650 FSL~

County: Lea

XI. Exhibit D1b

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): 670858.442 mtrs

Northing (Y): 3551170.032 mtrs



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	Rge	X	Y	Distance	Depth	Well Depth	Water Column
CP 00900 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843		101	
CP 00901 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843		96	
CP 00902 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843		95	
CP 00903 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843		95	
CP 00904 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843		97	
CP 00905 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843		100	
CP 00906 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	843		102	
CP 01304 POD1		CP	LE	4	3	4	31	25S	37E	669863	3550797	1062	459	285	174
CP 01306 POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	1352	458	110	343
CP 01308 POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	1364	420	210	210

Water
Analysis
Available

0.7 Miles away

0.8 Miles away

0.8 Miles away

Average Depth to Water: 201 feet

Minimum Depth: 110 feet

Maximum Depth: 285 feet

Record Count: 10

UTM NAD83 Radius Search (in meters):

Easting (X): 670858.442

Northing (Y): 3551170

Radius: 1609.3

*UTM location was derived from PLSS - see Help

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1/28/20 9:16 PM

WATER COLUMN/AVERAGE DEPTH
TO WATER

Well: ARNOTT RAMSAY NCT-B #14
Location: Twn 25S Rge 37E Sec 32
Footages: ~1060 FNL 1160 FWL ~
County: Lea

XI. Exhibit D2a

Location For Office of the State Engineer:
NAD 1983 UTM Zone 13
Easting (X): 670890.376 mtrs
Northing (Y): 3551950.192 mtrs

Water Wells Within 1 Mile Radius ** 14 ACTIVE **

 <i>New Mexico Office of the State Engineer</i> 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	Water Column
CP 01306 POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	613	458	348
CP 01308 POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	875	420	210
CP 01256 POD4		CP	LE	3	2	3	29	25S	37E	670994	3552889	944	440	230
CP 01256 POD3		CP	LE	4	1	3	29	25S	37E	670707	3552893	961	450	260
CP 00900 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1363	101	
CP 00901 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1363	96	
CP 00902 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1363	95	
CP 00903 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1363	95	
CP 00904 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1363	97	
CP 00905 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1363	100	
CP 00906 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1363	102	
CP 00387		CP	LE		3	2	29	25S	37E	671472	3553308*	1477	422	210
CP 01304 POD1		CP	LE	4	3	4	31	25S	37E	669863	3550797	1544	459	174
CP 00774		CP	LE		1	29	25S	37E	670869	3553495*	1544	100	60	40
Average Depth to Water:													182 feet	
Minimum Depth:													60 feet	
Maximum Depth:													285 feet	

Record Count: 14

UTM/NAD83 Radius Search (in meters):

Easting (X): 670890.376

Northing (Y): 3551950.192

Radius: 1609.3

37

*UTM location was derived from PLSS - see Help

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1/29/20 11:10 AM

WATER COLUMN/AVERAGE DEPTH
TO WATER

Well: ARNOTT RAMSAY NCT-B #14

Location: Twn 25S Rge 37E Sec 32

Footages: ~1060 FNL 1160 FWL~

County: Lea

XI. Exhibit D2b

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): 670890.376 mtrs

Northing (Y): 3551950.192 mtrs



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)

Water Analysis Available																
		POD	Water													
		Sub-	Column													
		basin														
		County														
		Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth	Well	Depth	Water	Column	
0.4 Miles away	CP 01306 POD1	CP	LE	1	3	3	29	25S	37E	670622	3552502		613	458	110	348
0.5 Miles away	CP 01308 POD1	CP	LE	3	4	4	30	25S	37E	670086	3552295		875	420	210	210
	CP 01256 POD4	CP	LE	3	2	3	29	25S	37E	670994	3552889		944	440	210	230
	CP 01256 POD3	CP	LE	4	1	3	29	25S	37E	670707	3552893		961	450	190	260
	CP 00900 POD1	CP	LE	4	3	4	32	25S	37E	671613	3550794*		1363	101		
	CP 00901 POD1	CP	LE	4	3	4	32	25S	37E	671613	3550794*		1363	96		
	CP 00902 POD1	CP	LE	4	3	4	32	25S	37E	671613	3550794*		1363	95		
	CP 00903 POD1	CP	LE	4	3	4	32	25S	37E	671613	3550794*		1363	95		
	CP 00904 POD1	CP	LE	4	3	4	32	25S	37E	671613	3550794*		1363	97		
	CP 00905 POD1	CP	LE	4	3	4	32	25S	37E	671613	3550794*		1363	100		
	CP 00906 POD1	CP	LE	4	3	4	32	25S	37E	671613	3550794*		1363	102		
	CP 00387	CP	LE		3	2	29	25S	37E	671472	3553308*		1477	422	210	212
1.0 Miles away	CP 01304 POD1	CP	LE	4	3	4	31	25S	37E	669863	3550797		1544	459	285	174
	CP 00774	CP	LE		1		29	25S	37E	670869	3553495*		1544	100	60	40
Average Depth to Water:															182 feet	
Minimum Depth:															60 feet	
Maximum Depth:															285 feet	

Record Count: 14

UTM NAD83 Radius Search (in meters):

Easting (X): 670890.376

Northing (Y): 3551950.192

Radius: 1609.3

*UTM location was derived from PLSS - see Help

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1/29/20 11:10 AM

WATER COLUMN/AVERAGE DEPTH
TO WATER

Well: ARNOTT RAMSAY NCT-B #15
 Location: Twn 25S Rge 37E Sec 32
 Footages: ~2455 FNL 1195 FWL ~
 County: Lea

XI. Exhibit D3a

Location For Office of the State Engineer:
 NAD 1983 UTM Zone 13
 Easting (X): 670911.274 mtrs
 Northing (Y): 3551526.685 mtrs

Water Wells Within 1 Mile Radius

**** 12ACTIVE ****



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	Column
CP 00900 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014		101			
CP 00901 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014		96			
CP 00902 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014		95			
CP 00903 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014		95			
CP 00904 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014		97			
CP 00905 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014		100			
CP 00906 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014		102			
CP 01306 POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	1017		458	110	348	
CP 01308 POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	1127		420	210	210	
CP 01304 POD1		CP	LE	4	3	4	31	25S	37E	669863	3550797	1277		459	285	174	
CP 01256 POD4		CP	LE	3	2	3	29	25S	37E	670994	3552889	1365		440	210	230	
CP 01256 POD3		CP	LE	4	1	3	29	25S	37E	670707	3552893	1382		450	190	260	

Average Depth to Water: **201 feet**
 Minimum Depth: **110 feet**
 Maximum Depth: **285 feet**

Record Count: 12

UTM NAD83 Radius Search (in meters):

Easting (X): 670911.274

Northing (Y): 3551526.685

Radius: 1609.3

39

*UTM location was derived from PLSS - see Help

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1/29/20 11:20 AM

WATER COLUMN/AVERAGE DEPTH
 TO WATER

Well: ARNOTT RAMSAY NCT-B #15

Location: Twn 25S Rge 37E Sec 32

Footages: ~2455 FNL 1195 FWL~

County: Lea

XI. Exhibit D3b

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): 670911.274 mtrs

Northing (Y): 3551526.685 mtrs



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)

Water
Analysis
Available

0.6 Miles away

0.7 Miles away

0.8 Miles away

POD Number	Code	POD Sub- basin	County	Q 6	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP.00900.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014	101		
CP.00901.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014	96		
CP.00902.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014	95		
CP.00903.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014	95		
CP.00904.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014	97		
CP.00905.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014	100		
CP.00906.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1014	102		
CP.01306.POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	1017	458	110	348
CP.01308.POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	1127	420	210	210
CP.01304.POD1		CP	LE	4	3	4	31	25S	37E	669863	3550797	1277	459	285	174
CP.01256.POD4		CP	LE	3	2	3	29	25S	37E	670994	3552889	1365	440	210	230
CP.01256.POD3		CP	LE	4	1	3	29	25S	37E	670707	3552893	1382	450	190	260

Average Depth to Water: 201 feet

Minimum Depth: 110 feet

Maximum Depth: 285 feet

Record Count: 12

UTM NAD83 Radius Search (in meters):

Easting (X): 670911.274

Northing (Y): 3551526.685

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.

1/29/20 11:20 AM

WATER COLUMN/AVERAGE DEPTH
TO WATER

Well: ARNOTT RAMSAY NCT-B #16
 Location: Twn 25S Rge 37E Sec 32
 Footages: ~2625 FNL 2630 FEL ~
 County: Lea

XI. Exhibit D4a

Location For Office of the State Engineer:
 NAD 1983 UTM Zone 13
 Easting (X): 671355.927 mtrs
 Northing (Y): 3551483.815 mtrs

Water Wells Within 1 Mile Radius

**** 11 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	DepthWell	DepthWater	Water Column
CP 00900 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736	101		
CP 00901 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736	96		
CP 00902 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736	95		
CP 00903 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736	95		
CP 00904 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736	97		
CP 00905 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736	100		
CP 00906 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736	102		
CP 01306 POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	1255	458	110	348
CP 01256 POD4		CP	LE	3	2	3	29	25S	37E	670994	3552889	1451	440	210	230
CP 01308 POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	1506	420	210	210
CP 01256 POD3		CP	LE	4	1	3	29	25S	37E	670707	3552893	1552	450	190	260

Average Depth to Water: **180 feet**

Minimum Depth: **110 feet**

Maximum Depth: **210 feet**

Record Count: 11

UTM NAD83 Radius Search (in meters):

Easting (X): 671355.927

Northing (Y): 3551483.815

Radius: 1609.3

*UTM location was derived from PLSS - see Help

41

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1/29/20 11:30 AM

WATER COLUMN/AVERAGE DEPTH
 TO WATER

Well: ARNOTT RAMSAY NCT-B #16
Location: Twn 25S Rge 37E Sec 32
Footages: ~2625 FNL 2630 FEL~
County: Lea

XI. Exhibit D4b

Location For Office of the State Engineer:
NAD 1983 UTM Zone 13
Easting (X): 671355.927 mtrs
Northing (Y): 3551483.815 mtrs



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)

Water
Analysis
Available

0.8 Miles away

0.9 Miles away

1.0 Miles away

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth	Well	Depth	Water	Water Column
CP 00900.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736			101		
CP 00901.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736			96		
CP 00902.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736			95		
CP 00903.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736			95		
CP 00904.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736			97		
CP 00905.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736			100		
CP 00906.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	736			102		
CP 01306.POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	1255			458	110	348
CP 01256.POD4		CP	LE	3	2	3	29	25S	37E	670994	3552889	1451			440	210	230
CP 01388.POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	1506			420	210	210
CP 01256.POD3		CP	LE	4	1	3	29	25S	37E	670707	3552893	1552			450	190	260
CP 01304.POD1		CP	LE	4	3	4	31	25S	37E	669863	3550797	1643			459	285	174

Average Depth to Water: 201 feet
Minimum Depth: 110 feet
Maximum Depth: 285 feet

Record Count: 12

UTM NAD83 Radius Search (in meters):

Easting (X): 671355.927

Northing (Y): 3551483.815

Radius: 1650

*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.

1/29/20 11:37 AM

WATER COLUMN/AVERAGE DEPTH
TO WATER 42

Well: ARNOTT RAMSAY NCT-B #17

Location: Twn 25S Rge 37E Sec 32

Footages: ~1350 FSL 2635 FEL~

County: Lea

XI. Exhibit D5a

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): 671362.044 mtrs

Northing (Y): 3551086.897 mtrs

Water Wells Within 1 Mile Radius

**** 9 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	DepthWell	DepthWater	Water Column
CP 00900 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	101		
CP 00901 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	96		
CP 00902 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	95		
CP 00903 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	95		
CP 00904 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	97		
CP 00905 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	100		
CP 00906 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	102		
CP 01304 POD1		CP	LE	4	3	4	31	25S	37E	669863	3550797	1526	459	285	174
CP 01306 POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	1596	458	110	348

Average Depth to Water: **197 feet**

Minimum Depth: **110 feet**

Maximum Depth: **285 feet**

Record Count: 9

UTM NAD83 Radius Search (in meters):

Easting (X): 671362

Northing (Y): 3551086.897

Radius: 1609.3

*UTM location was derived from PLSS - see Help

43

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.

1/29/20 12:09 PM

WATER COLUMN/AVERAGE DEPTH
TO WATER

Well: ARNOTT RAMSAY NCT-B #17

Location: Twn 25S Rge 37E Sec 32

Footages: ~1350 FSL 2635 FEL~

County: Lea

XI. Exhibit D5b

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): 671362.044 mtrs

Northing (Y): 3551086.897 mtrs



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)

Water
Analysis
Available

0.9 Miles away

1.0 Miles away

1.1 Miles away

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rge	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00900.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	101		
CP 00901.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	96		
CP 00902.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	95		
CP 00903.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	95		
CP 00904.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	97		
CP 00905.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	100		
CP 00906.POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	385	102		
CP 01304.POD1		CP	LE	4	3	4	31	25S	37E	669863	3550797	1526	459	285	174
CP 01306.POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	1596	458	110	348
CP 01308.POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	1757	420	210	210

Average Depth to Water: **201 feet**

Minimum Depth: **110 feet**

Maximum Depth: **285 feet**

Record Count: 10

UTM/NAD83 Radius Search (in meters):

Easting (X): 671362

Northing (Y): 3551086.897

Radius: 1800

*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.

1/29/20 12:24 PM

WATER COLUMN/AVERAGE DEPTH
TO WATER

Well: ARNOTT RAMSAY NCT-B #18
Location: Twn 25S Rge 37E Sec 32
Footages: ~1115 FNL 2495 FWL ~
County: Lea

XI. Exhibit D6a

Location For Office of the State Engineer:
NAD 1983 UTM Zone 13
Easting (X): 671299.300 mtrs
Northing (Y): 3551942.430 mtrs

Water Wells Within 1 Mile Radius

**** 12 ACTIVE ****

 <i>New Mexico Office of the State Engineer</i> 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	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 01306 POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	878	458	110	348
CP 01256 POD4		CP	LE	3	2	3	29	25S	37E	670994	3552889	995	440	210	230
CP 01256 POD3		CP	LE	4	1	3	29	25S	37E	670707	3552893	1120	450	190	260
CP 00900 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	101		
CP 00901 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	96		
CP 00902 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	95		
CP 00903 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	95		
CP 00904 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	97		
CP 00905 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	100		
CP 00906 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	102		
CP 01308 POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	1263	420	210	210
CP 00387		CP	LE	3	2	29	25S	37E	37E	671472	3553308*	1376	422	210	212
Average Depth to Water:														186 feet	
Minimum Depth:														110 feet	
Maximum Depth:														210 feet	

Record Count: 12

UTM/NAD83 Radius Search (in meters):

Easting (X): 671299.3

Northing (Y): 3551942.43

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.

1/29/20 10:24 AM

WATER COLUMN/AVERAGE DEPTH
TO WATER

Well: ARNOTT RAMSAY NCT-B #18
 Location: Twn 25S Rge 37E Sec 32
 Footages: ~1115 FNL 2495 FWL~
 County: Lea

XI. Exhibit D6b

Location For Office of the State Engineer:
 NAD 1983 UTM Zone 13
 Easting (X): 671299.300 mtrs
 Northing (Y): 3551942.430 mtrs



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)

0.5 Miles away

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth	Well	Depth	Water	Column
CP 01306 POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	878	458		110	348	
CP 01256 POD4		CP	LE	3	2	3	29	25S	37E	670994	3552889	995	440		210	230	
CP 01256 POD3		CP	LE	4	1	3	29	25S	37E	670707	3552893	1120	450		190	260	
CP 00900 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	101				
CP 00901 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	96				
CP 00902 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	95				
CP 00903 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	95				
CP 00904 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	97				
CP 00905 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	100				
CP 00906 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	1190	102				

Water
 Analysis
 Available

0.8 Miles away

CP 01308 POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	1263	420		210	210	
CP 00337		CP	LE	3	2	29	25S	37E	671472	3553308*	1376	422		210	212		
CP 00506		CP	LE	2	29	25S	37E	671673	3553509*	1610	425	200	225				
CP 00774		CP	LE	1	29	25S	37E	670869	3553495*	1611	100	60	40				
CP 00509		CP	LE	4	1	2	29	25S	37E	671564	3553609*	1687	300	275	25		
CP 00487		CP	LE	2	1	29	25S	37E	671063	3553703*	1776	421	250	171			

1.1 Miles away

CP 01304 POD1		CP	LE	4	3	4	31	25S	37E	669863	3550797	1836	459		285	174	
-------------------------------	--	----	----	---	---	---	----	-----	-----	--------	---------	------	-----	--	-----	-----	--

Average Depth to Water: **200 feet**
 Minimum Depth: **60 feet**
 Maximum Depth: **285 feet**

Record Count: 17

UTM NAD83 Radius Search (in meters):

Easting (X): 671299.3

Northing (Y): 3551942.43

Radius: 1850

*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.

1/29/20 10:49 AM

WATER COLUMN/AVERAGE DEPTH
 TO WATER

Well: ARNOTT RAMSAY NCT-B #19
 Location: Twn 25S Rge 37E Sec 32
 Footages: ~1340 FSL 1330 FEL ~
 County: Lea

XI. Exhibit D7a

Location For Office of the State Engineer:
 NAD 1983 UTM Zone 13
 Easting (X): 671762.649 mtrs
 Northing (Y): 3551093.095 mtrs

Water Wells Within 1 Mile Radius

**** 7 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	DepthWell	DepthWater	Water Column
CP 00900 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334	101		
CP 00901 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334	96		
CP 00902 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334	95		
CP 00903 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334	95		
CP 00904 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334	97		
CP 00905 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334	100		
CP 00906 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334	102		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 7

UTM NAD83 Radius Search (in meters):

Easting (X): 671762.649

Northing (Y): 3551093

Radius: 1609.3

*UTM location was derived from PLSS - see Help

47

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.

1/29/20 11:50 AM

WATER COLUMN/AVERAGE DEPTH
 TO WATER

Well: ARNOTT RAMSAY NCT-B #19

Location: Twn 25S Rge 37E Sec 32

Footages: ~1340 FSL 1330 FEL~

County: Lea

XI. Exhibit D7b

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): 671762.649 mtrs

Northing (Y): 3551093.095 mtrs



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)

Water
Analysis
Available

1.1 Miles away

1.2 Miles away

1.3 Miles away

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth	Well	Depth	Water	Column
CP 00900 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334			101		
CP 00901 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334			96		
CP 00902 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334			95		
CP 00903 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334			95		
CP 00904 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334			97		
CP 00905 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334			100		
CP 00906 POD1		CP	LE	4	3	4	32	25S	37E	671613	3550794*	334			102		
CP 01306 POD1		CP	LE	1	3	3	29	25S	37E	670622	3552502	1812			458	110	348
CP 01304 POD1		CP	LE	4	3	4	31	25S	37E	669863	3550797	1922			459	285	174
CP 01356 POD4		CP	LE	3	2	3	29	25S	37E	670994	3552889	1954			440	210	230
CP 01302 POD1		CP	LE	3	4	4	30	25S	37E	670086	3552295	2063			420	210	210

Average Depth to Water: 203 feet

Minimum Depth: 110 feet

Maximum Depth: 285 feet

Record Count: 11

UTM NAD83 Radius Search (in meters):

Easting (X): 671762.649

Northing (Y): 3551093

Radius: 2075

*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.

1/29/20 11:56 AM

WATER COLUMN/AVERAGE DEPTH
TO WATER

48

XI. Exhibit E1

MITCHELL ANALYTICAL LABORATORY

2638 Faudree
Odessa, Texas 79765-8538
561-5579

Company: **Imperative Chemical Partners**

Well Number:	Frying Pan Road	Sample Temp:	70
Lease:	CP-01304	Date Sampled:	1/24/2020
Location:	POD-1	Sampled by:	David Garcia
Date Run:	1/27/2020	Employee #:	
Lab Ref #:	20-jen-w91301	Analyzed by:	GR

Dissolved Gases

		Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulfide	(H2S)	.00	16.00	.00
Carbon Dioxide	(CO2)	NOT ANALYZED		
Dissolved Oxygen	(O2)	NOT ANALYZED		

Cations

		Mg/L	Eq. Wt.	MEq/L
Calcium	(Ca++)	145.52	20.10	7.24
Magnesium	(Mg++)	69.34	12.20	5.68
Sodium	(Na+)	168.10	23.00	7.31
Barium	(Ba++)	.05	68.70	.00
Manganese	(Mn+)	.01	27.50	.00
Strontium	(Sr++)	3.42	47.80	.07

Anions

		Mg/L	Eq. Wt.	MEq/L
Hydroxyl	(OH-)	.00	17.00	.00
Carbonate	(CO3=)	.00	30.00	.00
Bicarbonate	(HCO3-)	268.84	61.10	4.40
Sulfate	(SO4=)	270.00	48.80	5.53
Chloride	(Cl-)	368.40	35.50	10.38

Total Iron	(Fe)	0.09	18.60	.00
Total Dissolved Solids		1,293.79		
Total Hardness as CaCO3		648.09		
Conductivity MICROMHOS/CM		2,174		

pH	7.890	Specific Gravity 60/60 F.	1.001
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CaSO4 Solubility @ 80 F.	19.19MEq/L,	CaSO4 scale is unlikely
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CaCO3 Scale Index

70.0	.305	100.0	.655	130.0	1.165
80.0	.435	110.0	.895	140.0	1.165
90.0	.655	120.0	.895	150.0	1.395

Imperative Chemical Partners

XI. Exhibit E2

MITCHELL ANALYTICAL LABORATORY

2638 Faudree
Odessa, Texas 79765-8538
561-5579

Company: **Imperative Chemical Partners**

Well Number:	Cow Pens	Sample Temp:	70
Lease:	CP-01306	Date Sampled:	1/24/2020
Location:	POD-1	Sampled by:	David Garcia
Date Run:	1/27/2020	Employee #:	
Lab Ref #:	20-jan-w91300	Analyzed by:	GR

Dissolved Gases

		Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulfide	(H2S)	.00	16.00	.00
Carbon Dioxide	(CO2)	NOT ANALYZED		
Dissolved Oxygen	(O2)	NOT ANALYZED		

Cations

Calcium	(Ca++)	103.64	20.10	5.16
Magnesium	(Mg++)	87.40	12.20	7.16
Sodium	(Na+)	134.79	23.00	5.86
Barium	(Ba++)	.00	68.70	.00
Manganese	(Mn+)	.23	27.50	.01
Strontium	(Sr++)	.00	47.80	.00

Anions

Hydroxyl	(OH-)	.00	17.00	.00
Carbonate	(CO3=)	.00	30.00	.00
BiCarbonate	(HCO3-)	268.84	61.10	4.40
Sulfate	(SO4=)	300.00	48.80	6.15
Chloride	(Cl-)	271.30	35.50	7.64
Total Iron	(Fe)	0.02	18.60	.00
Total Dissolved Solids		1,166.21		
Total Hardness as CaCO3		617.44		
Conductivity MICROMHOS/CM		2,008		

pH	7.710	Specific Gravity 60/60 F.	1.001
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CaSO4 Solubility @ 80 F.	19.48MEq/L.	CaSO4 scale is unlikely
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CaCO3 Scale Index

70.0	.022	100.0	.328	130.0	.838
80.0	.108	110.0	.568	140.0	.838
90.0	.328	120.0	.568	150.0	1.068

Imperative Chemical Partners

XI. Exhibit E3

MITCHELL ANALYTICAL LABORATORY

2638 Faudree
Odessa, Texas 79765-8538
561-5579

Company: **Imperative Chemical Partners**

Well Number:	Fulfers Shop	Sample Temp:	70
Lease:	CP-01308	Date Sampled:	1/24/2020
Location:	POD-1	Sampled by:	David Garcia
Date Run:	1/27/2020	Employee #:	
Lab Ref #:	20-jan-w91302	Analyzed by:	GR

Dissolved Gases

		Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulfide (H2S)		.00	16.00	.00
Carbon Dioxide (CO2)	NOT ANALYZED			
Dissolved Oxygen (O2)	NOT ANALYZED			

Cations

Calcium (Ca++)	233.64	20.10	11.62
Magnesium (Mg++)	112.78	12.20	9.24
Sodium (Na+)	168.66	23.00	7.33
Barium (Ba++)	.08	68.70	.00
Manganese (Mn+)	.99	27.50	.04
Strontium (Sr++)	4.97	47.80	.10

Anions

Hydroxyl (OH-)	.00	17.00	.00
Carbonate (CO3=)	.00	30.00	.00
BiCarbonate (HCO3-)	219.96	61.10	3.60
Sulfate (SO4=)	540.00	48.80	11.07
Chloride (Cl-)	485.53	35.50	13.68
Total Iron (Fe)	0.01	18.60	.00
Total Dissolved Solids	1,766.62		
Total Hardness as CaCO3	1,046.50		
Conductivity MICROMHOS/CM	2,949		

pH	7.610	Specific Gravity 60/60 F.	1.001
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CaSO4 Solubility @ 80 F.	19.78MEq/L.	CaSO4 scale is unlikely
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CaCO3 Scale Index

70.0	.144	100.0	.494	130.0	1.004
80.0	.274	110.0	.734	140.0	1.004
90.0	.494	120.0	.734	150.0	1.234

Imperative Chemical Partners