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

APPLICATION OF FAE II OPERATING, LLC FOR REINSTATEMENT OF INJECTION AUTHORITY AND AUTHORIZATION TO CONVERT DISPOSAL WELL TO AN INJECTOR FOR WATERFLOOD OPERATIONS, LEA COUNTY, NEW MEXICO

CASE NO. 22134

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HEARING EXHIBITS

EXHIBIT A	Self-Affirmed Statement of Stephen Lehrbass					
A-1	Curriculum Vitae of Stephen Lehrbass					
A-2	Application & Proposed Notice of Hearing					
A-3	Plat of Tracts, Tract Ownership, Pooled Party, Unit Recapitulation					
A-4	Area of Review Map					
A-5	Application for Authorization to Inject (Form C-108)					
A-6	Hearing Notice Letter and Return Receipts					
A-7	Affidavit of Publication					
Exhibit B	Self-Affirmed Statement of Jessica LaMarro					
B-1	Type Log of the Seven Rivers-Queen Injection Interval					
B-2	Structure Map					
B-3	Cross-Section					
B-4	Cross-Section					
B-5	Produced Water Analysis					
Exhibit C	Self-Affirmed Statement of Huxley Song					
C-1	Production Curve					
C-2	Incremental Production and Economic Summary					

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

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CASE NO. 22134

SELF-AFFIRMED STATEMENT OF STEPHEN LEHRBASS

- 1. I am over 18 years of age and am competent to provide this Self-Affirmed Statement. I have personal knowledge of the matters addressed herein. I am the Director of Land at FAE II Operating, LLC ("FAE"). I have not previously testified before the New Mexico Oil Conservation Division ("Division"). A copy of my curriculum vitae is attached as **Exhibit A-1**.
- 2. I am familiar with the Application in this case and with the land matters pertaining to this Application. Copies of the application and proposed notice are attached as **Exhibit A-2**.
 - 3. FAE did not receive notice of any objections to its Application.
- 4. FAE's Application seeks an order: (1) reinstating injection authority for certain injection wells within its Blackbeard South Waterflood Project ("Project") within the Seven Rivers and Queen formations comprised of portions of Sections 3, 4, 9-11, 13-15, 17, and 20-24, Township 23 South, Range 36 East, Lea County, New Mexico; and (2) authorizing FAE to convert a produced-water disposal well to an injector for waterflood operations.
- 5. On July 9, 1974, the Division entered Order No. R-4819 in Case No. 5258. Order No. R-4819 established the Project in the Jalmat and Langlie Mattix pools and authorized the injection of water into the Seven Rivers and Queen formations. On June 17, 1975, the Division entered Order No. R-4819-A in Case No. 5489 to expand the Project area. On January 2, 1984, the

FAE II OPERATING, LLC

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Exhibit A

Division entered Administrative Order WFX-522 to include injection into the State "A" A/C 1 No. 117 and 120 wells and the State "A" A/C 3 No. 10 and 11 wells. Administrative Order WFX-522 was amended on July 17, 1984, to include injection into the State "A" A/C 1 No. 116 well.

6. The approved Project area is comprised of the following described State lands located in Township 23 South, Range 36 East, Lea County, New Mexico:

Section 3: S2	Section 13: W2, NE4	Section 21: W2, SE4
Section 4: W2, NE4	Section 14: N2	Section 22: W2
Section 9: all	Section 15: N2	Section 23: N2
Section 10: all	Section 17: SE4	Section 24: W2, SE4
Section 11: W2, NE4	Section 20: F2	

7. The following wells ("Wells") authorized under the Orders are located within the Jalmat; Tan-Yates-7 RVRS (Oil) and Langlie Mattix; 7 RVRS-Q-Grayburg pools of the Seven Rivers and Queen formations:

Well Name (API: 30-025-)	Location within T23S-R6E	Injection interval
State "A" A/C 1 No. 116 (28396)	Unit D, 1260 FNL & 1310 FWL, Sec. 10	3644'- 3845'
State "A" A/C 1 No. 117 (28512)	Unit K, 1395 FSL & 1345 FWL, Sec. 3	3640'- 3820'
State "A" A/C 1 No. 120 (28515)	Unit C, 25 FNL & 1345 FWL, Sec. 10	3650'- 3800'
State "A" A/C 3 No. 10 (28509)	Unit G, 1345 FNL & 1480 FEL, Sec. 10	3575'- 3705'
State "A" A/C 3 No. 11 (28510)	Unit G, 1345 FNL & 2615 FEL, Sec. 10	3575'- 3705'

- 8. The "unitized interval" was defined by Order R-4819 as the Jalmat; Tan-Yates-7 RVRS (Oil) and Langlie Mattix Pools, which are at depths of 2,798' to 4,075' on the State A A/C 3 #3 (3002509301) log.
 - 9. The Wells were initially drilled as injectors within the Queen formation.
- 10. FAE acquired the Project in June 2021 and has been designated operator of the Wells.
- 11. Prior to FAE's acquisition of the Project, production within the Project was maintained, but injection authority for certain Wells expired at various times.

- 12. FAE proposes to convert its State "A" A/C 1 No. 116 well from a salt-water disposal well to an injector for waterflood operations and to reinstate injection into the State "A" A/C 1 No. 117 and 120 wells and State "A" A/C 3 No. 10 and 11 wells for waterflood operations. FAE plans to inject water through a closed system of perforations at depths of 3,500' to 4,000' within the Seven Rivers and Queen formations.
- 13. **Exhibit A-3** contains a plat of the Unit that identifies the ownership interests by tract and includes applicable lease numbers.
- 14. **Exhibit A-4** is a map of the Project that depicts the injection wells and producing wells.
- 15. **Exhibit A-5** includes a copy of FAE's Application for Authorization to Inject (Form C-108). I am generally familiar with the content provided in the Form C-108.
- 16. Pages 7-11 of Form C-108 contain location maps depicting the proposed Wells and other wells within the ½ mile radius areas of review that penetrate the proposed injection zone. Pages 12-16 of Form C-108 provide detailed well information for the wells within the areas of review.
 - 17. Page 36 of Form C-108 identifies the affected parties entitled to notice.
- 18. FAE conducted a diligent, good-faith effort to identify the correct addresses of persons entitled to notice and has complied with the Division's notice requirements.
- 19. At FAE's direction, notice of the Division's hearing was provided to all affected parties, including the New Mexico State Land Office and Bureau of Land Management, at least 20 days prior to the hearing date. A sample of the hearing notice letter and the associated return receipts are attached as **Exhibit A-6**.

- 20. Notice of the hearing was also published more than ten business days prior to the hearing date. The affidavit of publication is attached as **Exhibit A-7**.
- 21. The exhibits referenced above were either prepared by me or under my supervision or were compiled from company business records.
- 22. In my opinion, the granting of FAE's application would serve the interests of conservation, the prevention of waste, and the protection of correlative rights.
- 23. I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 22 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.

Steven Lehrbass

Date

Steven Lehrbass, JD

11757 Katy Freeway, Suite 725 Steven@faenergyus.com 210-262-7117

EXPERIENCE

Forty Acres Energy, Houston, Texas

Director of Land

December, 2020 - Present

- Leads the Forty Acres' Land Department and fields all legal and land-related matters;
- Negotiates Oil & Gas Leases, Acquisitions & Divestitures, and Surface Use Agreements with land owners;
- Supervises the management, maintenance, and analysis of all of Forty Acres' active leases, contracts, permits, licenses, and other types of agreements;
- Exercises strong legal and title related analytical skills to resolve complex problems during the review of title opinions, contracts, deeds, leases, easements, and court orders to confirm proper ownership breakdowns;
- Responsible for the creation of Federal and State voluntary and statutory enhanced oil recovery units;
- Prepares legal documents including Leases, Surface Use Agreements, Assignments, Conveyances, Joint Operating Agreements, Unit Agreements, and curative instruments.

Chevron USA, Inc. (Formerly Noble Energy, Inc.), Houston, Texas

Lease & Contracts Supervisor Sr. Lease & Contracts Analyst

August, 2019 – December, 20202 July, 2017 - August, 2019

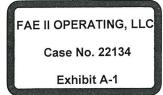
- Supervised the management, maintenance, and analysis of all active leases, contracts, permits, licenses, and other types of agreements, which relate to Chevron's Rocky Mountain development area;
- Exercised strong legal and title related analytical skills to resolve complex problems during the review of title opinions, contracts, deeds, leases, easements, and court orders to confirm proper ownership breakdowns;
- Led team projects relating to acquisitions, divestitures, and organic leasing efforts, while assisting with the initial training, mentoring, and long-term development of Lease & Contracts Analysts;
- Independently managed the analysis, interpretation, and implementation of critical information from contracts into Noble Energy's land/contract management system of record (Quorum Land Systems);
- Analyzed and troubleshot annual 10-K acreage/proven reserve reports prior to submission to the SEC;
- Generated and monitors performance-based and quantitative workflow metrics and analytics;
- Fielded high priority and confidential reports and other requests from other Noble business units.

Principle Energy, LLC, Houston, Texas

General Counsel & Head of Land Department

September, 2016 - July, 2017

- Drafted and executed a high volume of legal documents including mineral and royalty deeds, purchase and sale agreements, letter agreements, oil and gas leases, and various curative instruments;
- Provided legal support to Principle Energy and its management team; assessed and advised the company regarding the assumption of business risks, negotiated the settlement of legal disputes, and coordinated with outside counsel with regard to litigation;
- Managed the day to day operations of Principle Energy's Land Department including resolving title defects and assisting with land owner negotiations;
- Conducted legal research regarding title defects, regulatory and spacing rules, case law, and relevant statutes;
- Reviewed and analyzed title opinions covering large acquisitions in order to advise on and prioritize curative issues; negotiated and drafted curative instruments;
- Interviewed and trained landmen and mineral buyers; drafted and maintained standard operating procedures for every position within the Land Department;
- Collaborated with software developers on a daily basis in the development of Principle Energy's proprietary software which tracks asset status and value, streamlines title examination efforts, automates/streamlines instrument generation, and serves as a company database.



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

APPLICATION OF FAE II OPERATING, LLC FOR REINSTATEMENT OF INJECTION AUTHORITY AND AUTHORIZATION TO CONVERT DISPOSAL WELL TO AN INJECTOR FOR WATERFLOOD OPERATIONS, LEA COUNTY, NEW MEXICO

Case No. 22134

APPLICATION

Pursuant to 19.15.26.8 NMAC and Oil Conservation Division ("Division") Order No. R-4819, FAE II Operating, LLC ("FAE") (OGRID No. 329326) applies for an order: (1) reinstating injection authority for certain injection wells within its Blackbeard South Waterflood Project ("Project") within the Seven Rivers and Queen formations comprised of portions of Sections 3, 4, 9-11, 13-15, 17, and 20-24, Township 23 South, Range 36 East, Lea County, New Mexico; and (2) authorizing FAE to convert a produced-water disposal well to an injector for waterflood operations. In support of its Application, FAE states the following.

- 1. On July 9, 1974, the Division entered Order No. R-4819 in Case No. 5258 establishing the Project. On June 17, 1975, the Division entered Order No. R-4819-A expanding the Project area. On January 2, 1984, the Division entered Administrative Order WFX-522 expanding the Project area to include injection into the State "A" A/C 1 No. 117 and 120 wells and the State "A" A/C 3 No. 10 and 11 wells. Administrative Order WFX-522 was amended on July 17, 1984 to expand the Project area to include injection into the State "A" A/C 1 No. 116 well.
- 2. The approved Project area is comprised of the following described State lands located in Township 23 South, Range 36 East, Lea County, New Mexico:

Section 3: S2 Section 4: W2, NE4 Section 13: W2, NE4

Section 21: W2, SE4

Section 14: N2

Section 22: W2

FAE II OPERATING, LLC

Case No. 22134

Exhibit A-2

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Section 9: all Section 15: N2 Section 23: N2
Section 10: all Section 17: SE4 Section 24: W2, SE4
Section 11: W2, NE4 Section 20: E2

3. The following wells ("Wells") authorized under the Orders are located within the Jalmat; Tan-Yates-7 RVRS (Oil) and Langlie Mattix; 7 RVRS-Q-Grayburg pools of the Seven Rivers and Queen formations:

Well Name (API: 30-025-)	Location within T23S-R6E	Injection interval
State "A" A/C 1 No. 116 (28396)	Unit D, 1260 FNL & 1310 FWL, Sec. 10	3644'- 3845'
State "A" A/C 1 No. 117 (28512)	Unit K, 1395 FSL & 1345 FWL, Sec. 3	3640'- 3820'
State "A" A/C 1 No. 120 (28515)	Unit C, 25 FNL & 1345 FWL, Sec. 10	3650'- 3800'
State "A" A/C 3 No. 10 (28509)	Unit G, 1345 FNL & 1480 FEL, Sec. 10	3575'- 3705'
State "A" A/C 3 No. 11 (28510)	Unit G, 1345 FNL & 2615 FEL, Sec. 10	3575'- 3705'

- 4. The "unitized interval" was defined by Order R-4819 as the Jalmat; Tan-Yates-7 RVRS (Oil) and Langlie Mattix Pools, which are at depths of 2,798' to 4,075' on the State A A/C 3 #3 (3002509301) log.
- 5. FAE acquired the Project in June 2021 and has been designated operator of the Wells.
- 6. Prior to FAE's acquisition of the Project, production within the Project was maintained, but injection authority for the Wells expired at various times.
- 7. FAE proposes to convert its State "A" A/C 1 No. 116 well from a salt-water disposal well to an injector for waterflood operations and to reinstate injection into the State "A" A/C 1 No. 117 and 120 wells and State "A" A/C 3 No. 10 and 11 wells for waterflood operations. FAE plans to inject water through a closed system of perforations at depths of 3,500' to 4,000' within the Seven Rivers and Queen formations.
- 8. The proposed average injection pressure is expected to be 700 psi. The expected maximum injection pressure will be calculated relative to the depth of the highest perforation,

using a factor of 0.2 psi/ft. The proposed Wells will have perforation depths of approximately 3,640' and 3599' (or 728 psi and 720 psi maximum injection pressure, respectively). Pending results of a step rate test, the maximum injection pressure could potentially be increased to a factor of 0.6 psi/ft (or 2,184 psi at 3,640' and 2160 psi at 3599').

- 9. The proposed average injection rate is expected to be 600 barrels of water per day. The maximum daily injection rate will be 1,000 barrels of water per day or as permitted by the Division.
- 10. The source of the water to be injected will be produced water from other Seven Rivers-Queen wells within the vicinity of the Project and water transfer lines.
 - 11. Injection will be into the Seven Rivers Queen formation.
- 12. FAE's proposed injection operations can be conducted in a safe and responsible manner without causing waste, impairing correlative rights or endangering fresh water, public health or the environment.
 - 13. Granting FAE's application will protect correlative rights and prevent waste.
- 14. A copy of FAE's C-108 Application for Authorization to Inject is attached as **Exhibit A**.

WHEREFORE, FAE requests this Application be set for hearing before a duly appointed examiner of the Oil Conservation Division on September 9, 2021, and that after notice and hearing as required by law, the Division enter an Order approving FAE's State "A" A/C 1 No. 116 well for injection operations in its Blackbeard South Waterflood Project and reinstating injection authority for its State "A" A/C 1 No. 117 and 120 wells and State "A" A/C 3 No. 10 and 11 wells at the intervals, pressures, volumes and rates indicated.

Respectfully submitted,

HINKLE SHANOR LLP

/s/ Dana S. Hardy

Dana S. Hardy Michael Rodriguez P.O. Box 2068

Santa Fe, NM 87504-2068

Phone: (505) 982-4554 Facsimile: (505) 982-8623 dhardy@hinklelawfirm.com mrodriguez@hinklelawfirm.com Counsel for FAE II Operating Application of FAE II Operating, LLC for Reinstatement of Injection Authority and Authorization to Convert Disposal Well to an Injector for Waterflood Operations, Lea County, New Mexico. Applicant applies for an order: (1) reinstating injection authority for certain injection wells within its Blackbeard South Waterflood Project ("Project") within the Seven Rivers and Queen formations comprised of portions of Sections 3, 4, 9-11, 13-15, 17, and 20-24, Township 23 South, Range 36 East, Lea County, New Mexico; and (2) authorizing FAE to convert a produced-water disposal well to an injector for waterflood operations. The following wells ("Wells") authorized under the Orders are located within the Jalmat; Tan-Yates-7 RVRS (Oil) and Langlie Mattix; 7 RVRS-Q-Grayburg pools of the Seven Rivers and Queen formations:

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State "A" A/C 3 No. 11 (28510)	Unit G, 1345 FNL & 2615 FEL, Sec. 10	3575'- 3705'

Applicant proposes to convert its State "A" A/C 1 No. 116 well from a salt-water disposal well to an injector for waterflood operations and to reinstate injection into the State "A" A/C 1 No. 117 and 120 wells and State "A" A/C 3 No. 10 and 11 wells for waterflood operations. FAE plans to inject water through a closed system of perforations at depths of 3,500' to 4,000' within the Seven Rivers and Queen formations. The proposed average injection pressure is expected to be 700 psi. The expected maximum injection pressure will be calculated relative to the depth of the highest perforation, using a factor of 0.2 psi/ft. The proposed Wells will have perforation depths of approximately 3,640' and 3599' (or 728 psi and 720 psi maximum injection pressure, respectively). Pending results of a step rate test, the maximum injection pressure could potentially be increased to a factor of 0.6 psi/ft (or 2,184 psi at 3,640' and 2160 psi at 3599'). The proposed average injection rate is expected to be approximately 600 barrels of water per day. The maximum daily injection rate will be 1,000 barrels of water per day or as permitted by the Division. The Unit acreage is located approximately 9.3 miles southwest of Eunice, New Mexico.

Exhibit A-3

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AE II OPERATING, LLC

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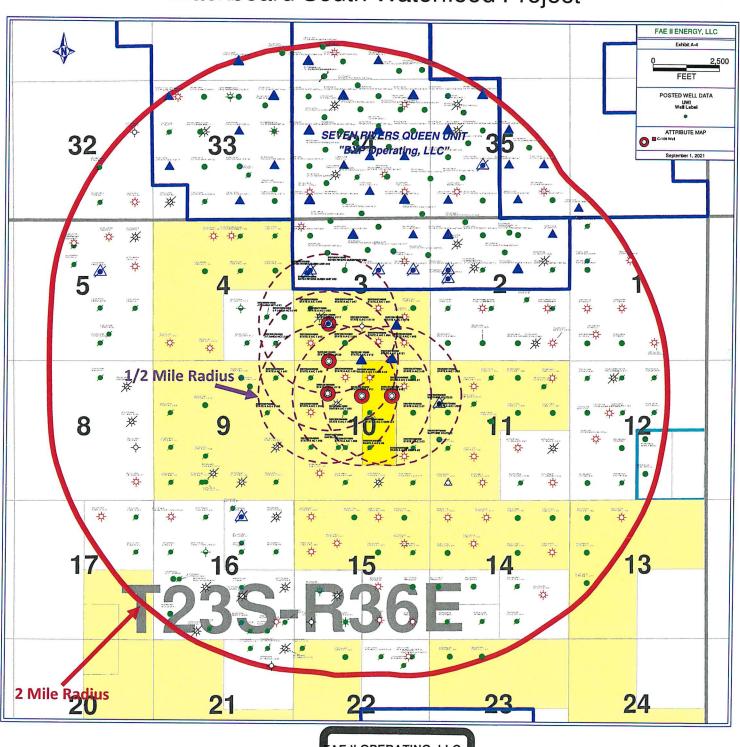
Case No. 22134

Exhibit A-3

					Exhi	Exhibit A-3	ကု						
					(Con	(Continued)							
Tract #	t# Owner Name	Subject Lease	Interest Type	Working	Net Revenue Interest	Section	Townshin	Range	, dans	64:45	Legal		
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						23	235	36E	Lea	Σ	N2	320.00	
						24	235	36E	Lea	MM	W2 & SE	480.00	
						e	235	36E	Lea	ΣN	S2	320.00	
						4	235	36E	Lea	MN	W2 & NE	480.00	
						6	235	36E	Lea	ΣN	A	640.00	
						10	235	36E	Lea	Σ	¥	640.00	
						11	235	36E	Lea	_	W2 & NE	480.00	
	Southwest Royalties, Inc.					13	235	36E	Lea	_	W2 & NE	480.00	
н		State of New Mexico	3	0.04243750	000017500	14	235	36E	_		N2	320.00	
	Midland, Texas 75373	A0-0983-0004		001012100	0.037 13200	15	235	36E	_	ΣX	N2	320.00	Surface to the base of the San Andres Formation
						17	235	36E	Lea	ΣN	SE	160.00	
						70	235	36E	Lea	Σ	E2	320.00	
						21	235	36E	Lea		W2 & SE	480.00	
						22	235	36E	Lea		W2	320.00	
						23	235	36E	Lea	Σ	N2	320.00	
						24	235	36E	Lea	NM	W2 & SE	480.00	
						m •	235	36E			S2	320.00	
						4 (552	365	_		W2 & NE	480.00	
						, 5	230	300			W I	640.00	
						1 5	230	36.	ם כם	_	All A CAN	940.00	
	Commissioner of Public Lands					13	235	36F		_	W 2 & INE	480.00	
7		State of New Mexico	ō	0000000		14	235	36E			N S INC	320.00	
6		A0-0983-0004	Z	0.00000000	0.12500000	15	235	36E		2	Z 2	320.00	Surface to the base of the San Andres Formation
						17	235	36E		Z		160.00	
						20	235	36E		Σ	_	320.00	
						21	235	36E			ı,	480 00	
						22	235	36E				320.00	
						23	235	36E		Σ		320.00	
						24	235	36E	Lea	_	SE	480.00	
			_	1.00000000	0.95212188						LS.	5,760.00	

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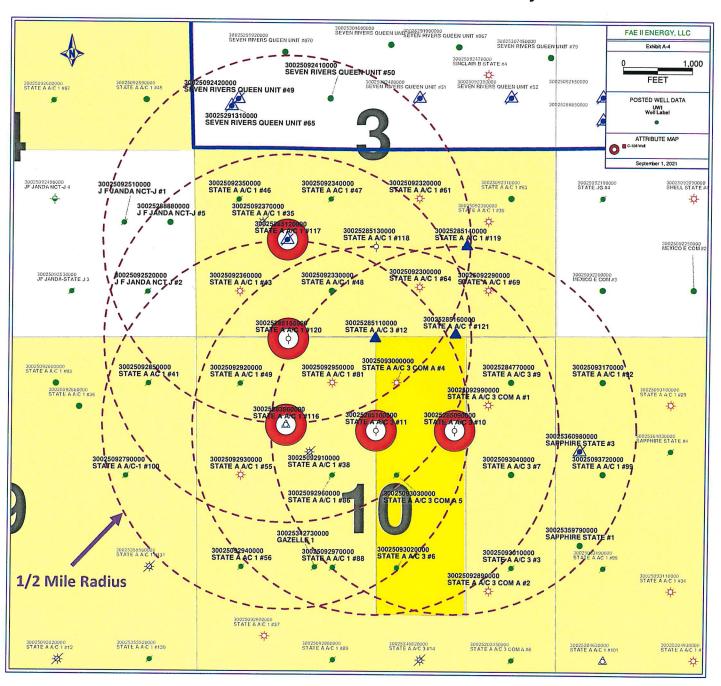
Blackbeard South Waterflood Project



AE II OPERATING, LLC Case No. 22134

Exhibit A-4

Blackbeard South Waterflood Project



STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, New Mexico 87505 FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: X Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? Yes X No
II.	OPERATOR:FAE II Operating, LLC
	ADDRESS:11757 Katy Freeway, Suite 725, Houston, TX 77079
	CONTACT PARTY: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?YesX_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.
	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:
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, 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.).
*VII	1. 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 Overlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and
	belief.
	NAME: Jessica LaMarro TITLE: Geologist
	SIGNATURE:DATE: 07/26/2021_
XV.	E-MAIL ADDRESS:Jessica@faenergyus.com
	DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

AE II OPERATING, LLC

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Case No. 22134

Exhibit A-5

III. Well Data

INJECTION WELL DATA SHEET

OPERATOR: FAE II OPERATING LLC

API: 30-025-28396

WELL NAME & NUMBER: STATE A A/C 1 #116

WELL LOCATION: 1260 FNL & 1310 FWL

FOOTAGE LOCATION UNIT LETTER 10 **SECTION** 235 **TOWNSHIP** 36E **RANGE**

17-1/2"

13-3/8"

1350'

surface

1200 sx

12-1/4"

8-5/8"

4000'

surface

1425 sx

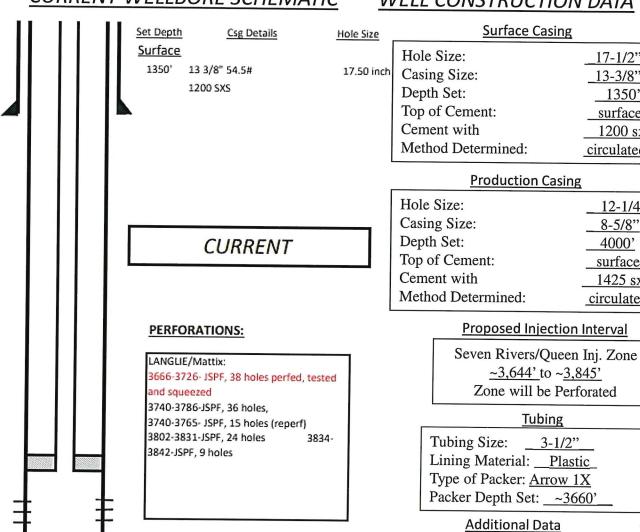
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CURRENT WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA



12.25 inch

- 1. NOT a new well drilled for water injection
 - 1. Originally an SWD well.
- Injection Formation: Seven Rivers/Queen
- Pool: Langlie Mattix
- Well has been perforated before.
- Overlying Oil Zone: Yates & Seven Rivers Formation
 - Depth of Overlying Zone: 3326' Underlying Oil Zone: Grayburg
 - Depth of Underlying Zone: ±4020'

8 5/8" 32# & 24#

Open Hole CMT PLUGS: Wolfcamp - 35 sxs from 8283 1

8383 1 Abo - 50 sxs from 7756'-79016 Drinkard - 35 sxs

75941 -76941 Tubb - 35 sxs 72971 -73971 Blinebry - 35

sxs'66501 -67501 Glorieta - 35 sxs from 5791 1 -5891',

1425 SXS

Prod

4000

III. Well Data

INJECTION WELL DATA SHEET

OPERATOR: FAE II OPERATING LLC

API: 30-025-28512

WELL NAME & NUMBER: STATE A A/C 1 #117

WELL LOCATION: 1395 FSL 1345 FWL

FOOTAGE LOCATION

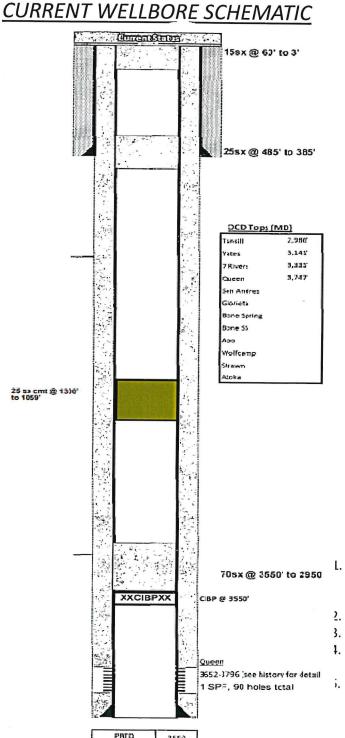
235

36E

UNIT LETTER SECTION

TOWNSHIP

RANGE



Total Depth

3,830

WELL CONSTRUCTION DATA

Surface Casing

Hole Size:	12-1/4"_
Casing Size:	_8-5/8"
Depth Set:	<u>435'</u>
Top of Cement:	surface
Cement with	<u>275 sx</u>
Method Determined:	circulated

Production Casing

Proposed Injection Interval

Seven Rivers/Queen Inj. Zone ~3,640' to ~3,820' Zone will be Perforated

Tubing

Tubing Size: 2-3/8" Lining Material: __Cement Type of Packer: OTIS Perma-latch Packer Depth Set: _~3559'

Additional Data

- NOT a new well.
 - 1. Originally an injection well.
 - 2. Currently plugged
- 2. Injection Formation: Seven Rivers/Queen
- 3. Pool: Langlie Mattix
- 1. Well has not been perforated in another zone before.

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- i. Overlying Oil Zone: Yates & Seven Rivers **Formation**
 - Depth of Overlying Zone: 3336'

Underlying Oil Zone: Grayburg

Depth of Underlying Zone: ±4000'

III. Well Data

INJECTION WELL DATA SHEET

UNIT LETTER

OPERATOR: FAE II OPERATING LLC

WELL NAME & NUMBER: STATE A A/C 1 #120

WELL LOCATION: 25 FNL & 1345 FWL

FOOTAGE LOCATION

API: 30-025-28515

235 **SECTION TOWNSHIP**

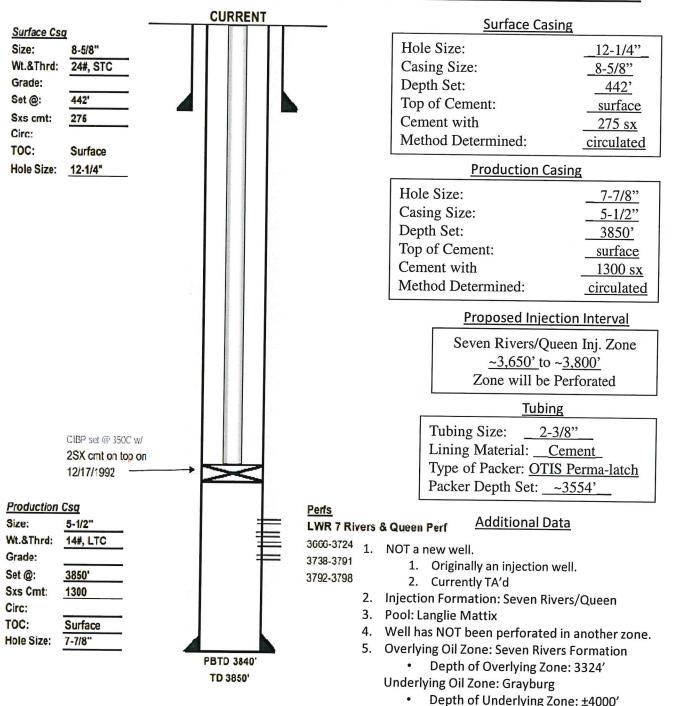
10

36E RANGE

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CURRENT WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA



III. Well Data

INJECTION WELL DATA SHEET

OPERATOR: FAE II OPERATING LLC

WELL NAME & NUMBER: STATE A A/C 3 #10

2-3/8" Tubing Cement Lined

Otis Perma-latch Packer @ 3559' MD set w/7000' tension.

N Profile: 1.5° ID

On/Off tool EOT @ 3559' MD G

WELL LOCATION: 1345 FNL & 1480 FEL

FOOTAGE LOCATION

10

235

36E

UNIT LETTER

TOWNSHIP **SECTION**

RANGE

CURRENT WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

API: 30-025-28509

Hole Size:	_12-1/4"_
Casing Size:	_8-5/8"
Depth Set:	<u>457°</u>
Top of Cement:	surface
Cement with	<u>275 sx</u>
Method Determined:	circulated

Production Casing

Hole Size:	_ 7-7/8"
Casing Size:	_ 5-1/2"
Depth Set:	<u>2750'</u>
Top of Cement:	surface
Cement with	$_{650 \text{ sx}}$
Method Determined:	circulated

Proposed Injection Interval

Queen Inj. Zone ~3,575' to ~3,705' Zone will be Perforated

Tubing

Tubing Size: <u>2-3/8"</u>
Lining Material: <u>Cement</u>
Type of Packer: OTIS Perma-latch
Packer Depth Set:~3559'

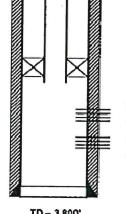
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Additional Data

- 1. NOT a new well.
 - 1. Originally an injection well.
 - 2. Currently TA'd
- 2. Injection Formation: Queen
- 3. Pool: Langlie Mattix
- 4. Well has NOT been perforated in another zone.
- 5. Overlying Oil Zone: Seven Rivers Formation
 - Depth of Overlying Zone: 3165'

Underlying Oil Zone: Grayburg

Depth of Underlying Zone: ±4000'



Grayburg Completion:

Perfs: 3655' - 3700' (1 SPF, 46 holes) Addized w/4000gal 15% INEFE.

Perfs: 3700' - 3710' (1 SPF, 10 holes) Acidized w/1000gal 15% NEFE

TD - 3,800°

PBTD - 3,758°

III. Well Data

INJECTION WELL DATA SHFFT

OPERATOR: FAE II OPERATING LLC LLC

25 SK Crist @ 1275

WELL NAME & NUMBER: STATE A A/C 3 #11

WELL LOCATION: 1345 FNL & 2615 FEL

FOOTAGE LOCATION

FEL G UNIT LETTER

60sxs@ 500'-3'

Tansill

Yates

San Andres Gicrieta Bone Spring

Welfcamo

DV Tool @ 2767

OCD Tops (MD)

3,0501

),236' 3.622' 10

SECTION TO

23S TOWNSHIP

API: 30-025-28510

36E RANGE

CURRENT WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size:	12-1/4"_
Casing Size:	_8-5/8"
Depth Set:	445'
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:	3800'
Top of Cement:	surface
Cement with	1300 sx
Method Determined:	circulated

Proposed Injection Interval

Queen Inj. Zone

<u>~3,575'</u> to ~3,705'

Zone will be Perforated

Tubing

Tubing Size: <u>2-3/8"</u>
Lining Material: <u>Cement</u>
Type of Packer: OTIS Perma-latch
Packer Depth Set: _~3572'

Additional Data

- 1. NOT a new well.
 - 1. Originally an injection well.
 - 2. Currently TA'd
- 2. Injection Formation: Queen
- 3. Pool: Langlie Mattix
- 4. Well has NOT been perforated in another zone.

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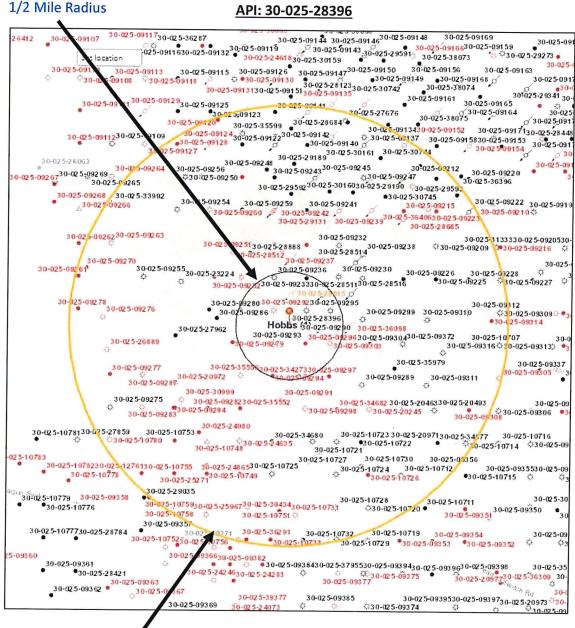
- 5. Overlying Oil Zone: Seven Rivers Formation
 - Depth of Overlying Zone: 3236'

Underlying Oil Zone: Grayburg

Depth of Underlying Zone: ±4000'

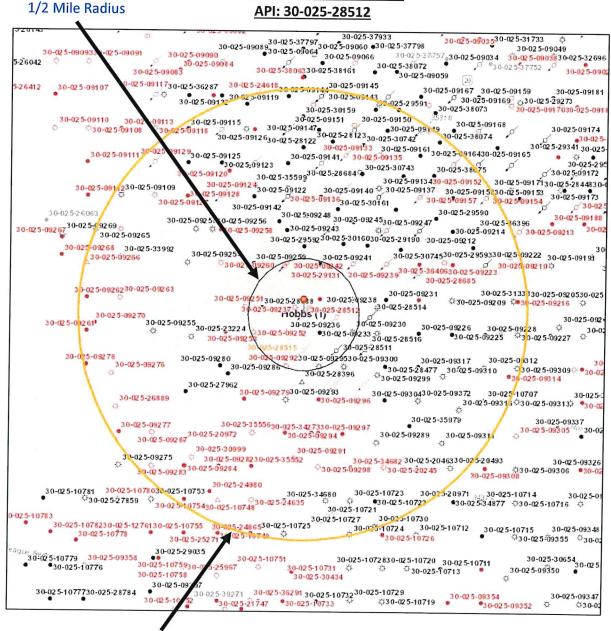
V. Exhibit A1 shows 17 unique well locations within a ½ mile radius of the proposed new drill injector locations, and 176 unique well locations within a 2 mile radius.

State A A/C 1 # 116



V. Exhibit A2 shows 18 unique well locations within a ½ mile radius of the proposed new drill injector locations, and 197 unique well locations within a 2 mile radius.

State A A/C 1 # 117



V. Exhibit A3 shows 18 unique well locations within a ½ mile radius of the proposed new drill injector locations, and 197 unique well locations within a 2 mile radius.

State A A/C 1 # 120 09083 30-025-38161 30-025-38068 30-025-09059 30-025-09163 30-025-09144 30-025-09144 30-025-09144 30-025-09143 30-025-09163 30-025-09155 30-025-09155 30-025-09155 30-025-09155 30-025-09155 30-025-09156 30-025-09156 30-025-09156 30-025-09156 30-025-09157 1/2 Mile Radius 30-025-09083 30-025-0911730-025-36287 30-025-091 30-025-0911630-025-09132 30-025-09119 30-025-09123 30-025-28684* 30-025-091330-025-09154 30-025-09142 30-025-09142 30-025-09142 30-025-09142 30-025-09142 30-025-09137 30-025-0915830-025-09153 30-025-09154 30-025-30-025-09124 025-09128 30-025-09142 30-025-09144 30-025-26063 30-025-09264 30-025-0256 5-092 <u>67</u> 3 0-02 5<u>50</u>926<mark>9</mark> €30-02 30-025-09259 30-025-09241 30-025-092 30-025-09254 A30-025-09266 19259 30-025-09241 30-025-09215 30-025-09210 30-025-09210 30-025-09210 30-025-09239 30-025-28685 30-025-0926230-025-09263 30-025-09232 30-025-28514 30-025-0925130-025-28888 \$30-025-09209 \$0-025-0921 28512 30-025-0923 30-025-09270 30-025-09255 30-025-23224 30-025-09230 30-025-09226 30-02 30-025-09223 30-025-09236 30-025 092 52 30-025 0923 30-025-2 51130-025-28516 30-025-09278 9286 30-025-08390 30-025-09310 30-025-09310 30-025-09310 30-025-09390 30-025-09310 30-025-26889 30-02'5-09316\$\display30-025-0931 30-025-3555630-025-3427330-025-09297 30-025-09311 *30-02 5-092 94 * 30-025-09289 30-025-09291 30-025-30999 30-025-0928230-025-35552 30-025-34682 30-025-2046330-025-20493 30-025-09284 30-025-35552 30-025-20245 30-025-09288 30-025-20245 30-025-09288 30-025-0928330-025-09284 30-025-10753 • 30-025-24980 30-025-1078130-025-27859 30-025-29035 30-025-10739 30-025-10739 30-025-10739 30-025-10739 -025-10779 30-025-09358 -030-025-10776 30-025-10711 \$30-025-10720 ● 30-025-09351 30-025-09350 30-025-10758 30-025-09357 30-025-36291 30-025-10732 30-025-10719 30-02 10733 ¹²30-025²10729 **8**30-025-09353 30-025-10719 30-025-09354 325 10756 e30-025-10733 25-0936630-025-093

30-025-31043

V. Exhibit A4 shows 19 unique well locations within a ½ mile radius of the proposed new drill injector locations, and 179 unique well locations within a 2 mile radius.

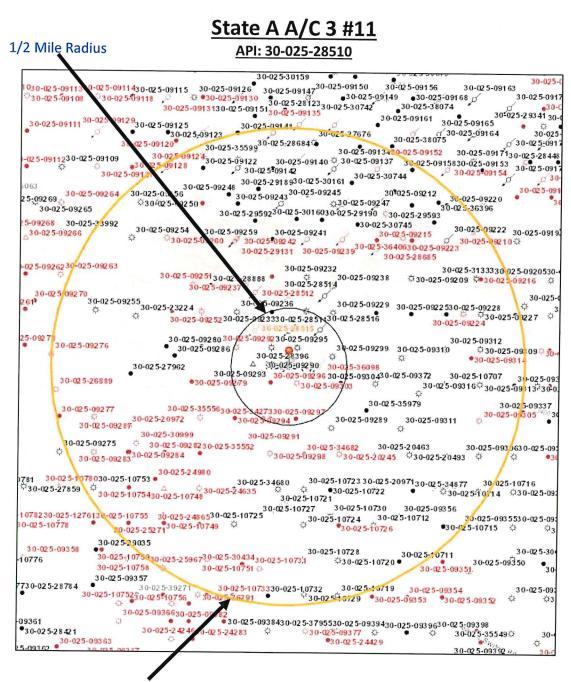
State A A/C 3 #10 1/2 Mile Radius API: 30-025-28509 30-025-09125 30-025-09141 30-025-09141 30-025-09141 30-025-09150 30-025-09168 30-025-09168 30-025-09174 \$\frac{30-025-09131}{30-025-09131}30-025-09150 30-025-09149 30-025-09168 30-025-09174 \$\frac{30-025-09131}{30-025-09131}30-025-09151 30-025-09151 30-025-09161 30 0-025-09111 30-025-0912 30-025-09121 30-025-09140 30-025-0913430-025-09152 30-025-0917130-025-2844830-025-09121 30-025-09140 30-025-09137 30-025-09153 30-025-09153 30-025-09153 30-025-09153 30-025-09154 30-025-09154 30-025-09154 30-025-09154 30-025-09155 30-025-09188 30-025-09188 5-09245 30-025-09212 30-025-09288 30-025-09247 30-025-36396 30-025-29190 30-025-29190 30-025-29190 92.48 30-02.5-092.43 30-02.5-09245 30=02.5-09212 30-02.5-092.47 30-02.5-2.9190 30-02.5-2.9190 30-02.5-2.9190 30-02.5-2.9190 30-02.5-2.9190 30-02.5-2.9190 30-02.5-3.0745 \$50-025-09250 30-025-09265 9268 30-025-33992 30-025-09259 30-025-09241 •30-025-30745 30-025-09254 259 30-025-09241 30-025-09215 30-025-09222 30-025-09242 30-025-09210 30-025-09210 30-025-29131 30-025-09239 30-025-3640630-025-29685 0-025-09266 30-025-09242 30-025-09238 30-025-3133330-025-0920530-025-0920 30-025-0925130-025-288 025-28512 30-025-28514 0-025-09255 30-025-23224 30-025-0925230-025-0923336-025-2851130-025-28516 30-025-09229 30-025-0922530-025-09228 \$\frac{1}{9}\$ \$\frac 30-025-09299 30-025-09310 \$\overline{\pi}30-025-09314 30-025-09286 30-025-09276 70-025-28396 **9** \$30-025-09309\$30-025-0932 30-025-09290530-025-36098 30-025-09293 30-025-09296 30-025-0930 30-025-09372 30-025-10707 30-025-09316 30-025-09313 30-025-30812 ·30-025-09279 30-025-09289 30-025-09311 30-025-30999 30-025-0928230-025-35552 30-025-34682 30-025-20463 30-02 30-025-09298 30-025-20245 30-025-20493 \$ 30-025-0928330-025-09284 30-025-1078030-025-10753 - 30-025-24980 - 025-27859 - 4 30-025-24980 30-025-29035 30-025-30654 30-025-10728 30-025-10728 30-025-10711 30-025-10731 30-025-10720 30-025-10720 30-025-10751 30-025-0936630-025-09382

2 Mile Radius

0-025-28421

30-025-2424630-02

V. Exhibit A5 shows 21 unique well locations within a ½ mile radius of the proposed new drill injector locations, and 173 unique well locations within a 2 mile radius.



<u><</u>

drilled, location, depth, and completion date of wells within a lpha mile radius are displayed Following Exhibit A, the tabulation of the wells with each well's type, construction, date in Exhibit B1-B5. The plugged well wellbore diagrams are displayed in Exhibit C1-C17.

Exhibit B1

State A AC 1 #116

Exhibit B2

State A AC 1 #117

	3002503292	3002509295	257505706	2420002000	CPCBUSCUCE	3002509241	3002509230	3002529131	202002000	- CONTOURNE	1158550UE	3002528888	3002528515	2100202000	E138636U06	3002509236	3002509233	2020002000	200020000	Pecklycule.	3002509237	21C02C2UUC	UWI/ API
	3002503232 FAE II OPERATING LLC	3002509295 FAE II OPERATING LLC	2002505252 ARCH PETROLEUM INC	SOCIOSION ARCO OIL OLGAS CORP	SECOND SECOND	3002509241 BXP OPERATING LLC	3002509230 FAE II OPERATING LLC	3002529131 LINN OPERATING ILC	SUUZSUSZSZ FAE II OPERATING LLC	SOCIONO INC. II OF LIVE LING LICE	EVE II OBERATING II C	3002528888 FAE II OPERATING LLC	3002528515 FAE II OPERATING LLC	SOUZOCOTO FAE II OPERALING LLC	EAR II OPERATING III	3002509236 FAE II OPERATING LLC	3002509233 FAE II OPERATING LLC	SUUZSUSZUS PETROHAWK OPERATING CO	Con Control Control	JUN ADDRESS SWELLING NOTATION PECKUSCULE.	3002509237 FAE II OPERATING LLC	SUUZSZOSTZ FAE II OPERATING LLC	Operator
	STATE A A/C 1 #049	STATE A A/C 1 #081	J F JANDA NCT J #002	PRE-ONGARD WELL #049	SCACIN SIACUS GOESM ONLI #020	SEVEN BINEDS OFFERN HALL TOPO	STATE A A/C 1 #064	SEVEN RIVERS QUEEN UNIT #065	STATE A A/C 1 #061	いれになみていました	STATE A ICO DOS	F JANDA NOT-J EDOS	STATE A A/C 1 #120	STATE A A/C 1 #118		STATE A A/C 1 #043	STATE A A/C 1 #048	STATE A A/C 1 #046	_		STATE A A/C 1 #035	STATE A A/C 1 #117	Well Label
2000	ago Car	3754 Gas	3825 Gas	3800 Injection	+	+	7	_	3719 Gas	5810 Injection	2000	30000	3850 Injection	3820 Injection	2042	3826 Gac	3800 011	3800 011	3800 0:1		3625 Gas	3830 Injection	TD Well Type
Morra	Olitica	QUEEN	TANSILL / YATES	NWONNIU	NACANA	קריבון אוייבהי / עטבני	VENEN DIVERS / OTIESM	QUEEN	QUEEN	QUEEN	COLETA	Cincer	QUEEN	QUEEN	COLEA	Olisen	QUEEN	NWOWNU	NWOWN	1000	TANSIII / YATES	QUEEN	Well Type Current Zone
0,49	2	048	0.48	0.47	0.47			0.46	0.46	0.44	0.38		0.32	0.3	0.22		022	0.2	0.19	0.1	2.	0	Distance in Miles D
2587.2		2524 4	2534.4	2481.6	2481.6	2.0747	2000	2428 8	2428.8	2323.2	2006.4	2000.0	1689 6	1584	1161.6	1101.0	11616	1056	1003.2	976	003	0	Distance in Miles Distance in Feet from. SPUD Date Township Range Section Footage
2587.2 1959-03-16 235 36E 10 NW NW	220000	2534 4 1960-01-31 335 365 10	2534 4 1957-03-29 239 36F 4	2481 6 1959-09-21 23S 36E 3	2481.6 1959-10-03 23S 36E 3	2428 E 1459-08-05 235 36E 3	2100 0 1050 00 00 00 000 000 000 000 000	1025.03.10 335 365	2428 8 1959-05-04 239 36F 3	2323.2 1984-04-12 235 36E 10	2006.4 1584-11-09 23S 36E 4	TOO OF TOO CO. TO TOO TO	1004.03.77 730 361	1584 1984-03-06 235 36E 3	1161 6 1557-12-09 235 36E 3 52 SW SW	MC 3C 030 00-01 230 00C 0 3E 3W	1050.03.07 736 76	1056 1959-02-11 235 368 3	1003.2 1959-02-22 23S 36E 3	1552-10-15 235 36E 5		1984-03-17 236 366 3	SPUD Date Townsh
10 NW NW 660	000					3 710	ANN AND	CLU MILL															ip Range Section Fo
O FNL 660 FWL CONGRESS SECTION	O THE THE LAST COURTEDS SECTION	O 13C 000 FEE CONGRESS SECTION	O SCI SEO ESI CONCRESS SECTIONI	1980 FNL 660 FWL CONGRESS SECTION	1980 FNL 1980 FWL CONGRESS SECTION	10 FSL 1980 FEL CONGRESS SECTION	JOURNE SECTION		1980 EST 1980 EST CONCRETS SECTION	25 FNL 2615 FEL CONGRESS SECTION	1650 FSL 350 FEL CONGRESS SECTION	23 FRE 1345 FWE CONGRESS SECTION	Contract of Contra	1995 ESI 9615 EEI CONGBESS SECTION	660 FSL 660 FWL CONGRESS SECTION	BOO FOL THEO PART CONGRESS SECTION	1900 ST 1000 FWL COMBRESS SECTION	BO ESI ESO EMI COMORESE SECTIONI	1980 FSL 1980 FWL CONGRESS SECTION	1650 FSL 990 FWL CONGRESS SECTION	1999 FOR 1949 FWL COMBRESS SECTION	See Est 1345 Bill Colleges section	ootage
32.324385	32.324375	32.328023	22.0000	32 335479	32.33548	32.32813	32.335204	27.331071	2202020	37 376115	32,330742	32.326125	24,676,70	מינים	32.328013	32.328003	24.331642		27 221621	32.330732	32.330028		Surflat
-103.2589 STAT	32.324375 -103.2547 STATE A A/C 2 #117 Active	-103.2632 STAT	- NO. CO. C.	-103 259 STAT	32.33548 -103.2547 STATE A A/C 2 #117 Active	-103.2504 STATE A A/C 2 #117 Active	103.2593 STAT	32.531621 -103.2504 STATE A A/C 2 #117 Active	יייייייייייייייייייייייייייייייייייייי	103 2525 STAT	32.330742 -103.2622 STATE A A/C 2 #117 Active	-103.2567 STAT	- INS C2C2.CUT-	200000000000000000000000000000000000000	-103 259 STATE A A/C 2 #117 Active	32.328003 -103.2547 STATE A A/C 2 #117 Active	-103.259 STAT	100 COAL OIN	103 7547 CTAT	-103 2579 STAT	103.2567 STAT	ANCH TIC	Surflon
EAA/C2#117	EAA/C 2 #117	EAA/C 2 #117	11787 JAN 3	E A A (C) #117	EAA/C 2 #117	EAA/C2#117	EAA/C 2#117	EAA/C2#117	CAMC 2 471/	E A A /C 7 = 177	EAA/C2#117	EAA/C2#117	EAA/CZ#11/	2000	E 4 4/6 2 #117	EAA/C2#117	EAA/C 2#117	- ANG - +11/	E A A C 3 4 4 4 4	FAA/C 2#117	EAA/C 2#117	1110	•
-103.2589 STATE A A/C 2 #117 Plugged (site released)	Active	32.328023 -103.2632 STATE A A/C 2 #117 Plugged (site released)	- tourney of Air A Ay C & A A A Y TURBER (Site Feleased)	District (Site of Land	active	Active	32.335204 -103.2593 STATE A A/C 2 #117 Plugged (site released)	Active	HELIVE			32.326125 -103.2567 STATE A A/C 2 #117 Temporary Abandonment (expired)	02.029743 -100.2025 SIAIE A A/C 2 #117 Temporary Abandonment (expired)	SCHOOL	Artist.	Active	-103.259 STATE A A/C 2 #117 Plugged (site released)	TOURIST CAPE CARLES TOURIST CALCADED	office late letenand	-103.2579 STATE A A/C 2 #117 Division (cite released)	-103.2567 STATE A A/C 2 #117 Plugged (site released)		status

Exhibit B3

State A AC 1 #120

3002509235 PETROHAWK OPERATING CO	3002509252 ARCH PETROLEUM INC	3002508234 CLAYTON WILLIAMS ENERGY INC	3002509285 CLAYTON WILLIAMS ENERGY INC	3002509230 FAE II OPERATING LLC	3002509293 FAE II OPERATING LLC	3002508296 PETROHAWK OPERATING CO	3002528510 FAE II OPERATING LLC	3002528513 FAE II OPERATING LLC	3002508300 FAE II OPERATING LLC	3002508237 FAE II OPERATING LLC	3002500230 FAE II OPERATING LLC	3002528512 FAE II OPERATING LLC	3002528511 FAE II OPERATING LLC	3002528396 FAE II OPERATING LLC	3002509236 FAE II OPERATING LLC	SUCCUCCO FAE II OPERATING LLC	3002508233 FAE II OPERATING LLC	3002509295 FAE II OPERATING LLC	3002528515 FAE II OPERATING LLC	UWI/ API Operator
STATE A A/C 1 #046	J F JANDA NCT J #002	STATE A AC 1 #047	STATE A AC 1 #041	STATE A A/C 1 #064	STATE A A/C 1 #055	STATE A A/C 1 #085	STATE A A/C 3 #011	STATE A A/C 1 #118	STATE A A/C 3 COM A #004 3729 Gas	STATE A A/C 1 #035	STATE A A/C 1 #037	STATE A A/C 1 #117	STATE A A/C 3 #012	STATE A A/C 1 #116	STATE A A/C 1 #043	STATE A A/C 1 #049	STATE A A/C 1 #048	STATE A A/C 1 #081	STATE A A/C 1 #120	Well Label
3800 011	3825 Gas	3800 011	3800 Oil	3682 Gas	3800 Gas	3696 Oil	3800 Injection	3820 Injection	4 3729 Gas	3625 Gas	3290 Gas	3830 Injection	3810 Injection	8400 Salt Water Disposa ABO /SH	3825 Gas	3800 Gas	3800 0:1	3754 Gas	3850 Injection	TD Well Type
UNKNOWN	TANSILL / YATES	NAMONANI	UNKNOWN	SEVEN RIVERS / QUEEN	QUEEN	QUEEN	QUEEN	QUEEN	QUEEN	TANSILL / YATES	TANSILL / YATES	QUEEN	QUEEN	ABO /SH/	QUEEN	QUEEN	QUEEN	QUEEN	QUEEN	Current Zone
0.48	0.48	0.47	0.47	0.47	0.47	0.46	0.42	0.42	039	0.39	0.37	0.32	0.29	0.28	0.22	0.21	0.21	02	9	Distance in Miles Distance in
2534.4 1959-02-11 235 36E 3		2481 6 1959-07-77 735 36F 3	2481 6 1957-11-04 233 36F 9	2481 6 1959-08-05 235 36F 3	2481 6 1959-03-25 235 36E 10 SW MW	2428 8 1960-03-20 235 36F 10	2217 6 1984-04-04 238 365 10	2717 6 1984-03-06 238 36E 3	2059.2 1960-02-19 233 36F 10 NW NE	2059.2 1952-10-15 238.36F 3		1689 6 1984-03-17 234 36F 3	1531 2 1984-04-12 234 36F 10	1478 4 1983-19-09 238 365 10	1161 6 1957-12-09 235 36F 3 52 SW SW	1108.8 1959-03-16 235 36F 10 NW NW	1108.8 1959-03-07 235.36E 3 SE SW	1056 1960-01-21 235 36E 10	0 1984-03-77 736 366 10	Distance in Miled Distance in Feet From: SPUD Date Township page Section Ison
1980 FSL 660 FWL CONGRESS SECTION	EST SED FEL CONGRESS SECTION	AL DOOFEL CONGRESS SECTION	SEL SEL CONGRESS SECTION	FILL 1980 EEL COMPRESS SECTION	1980 FM LESS SECTION	FNL 2515 FEL CONGRESS SECTION	FOR 2010 FEL COMBRESS SECTION	ML 2310 FEL CONGRESS SECTION	THE SECOND PRICE OF THE PRICE O		EST 800 EWI CONGRESS SECTION	AF 7013 LET COMPRESS SECTION	12 SOUTH LASTO FWL CONGRESS SECTION	1350 EN 1310 EN COMBRESS SECTION	EST EGO EINI CONCRECT SECTION	ENI SEO EMI COMORESE SECTION	EST 1980 EMI CONGRESS SECTION	+	age	
32.331642 -103.2632 STATE A A/C 2 #120 Plugged (site released)		32.324395 -103.2632 STATE A A/C 2 #120 Plugged (site released)	32.32813 -103.2504 STATE A A/C 2 #120 Active	32.320/57 -103.2589 STATE A A/C 2 #120 Active	FML 1980 FWL CONGRESS SECTION 32.320746 -103.2547 STATE A A/C 2 #120 Plugged (site released)	32.322486 -103.2525 STATE A A/C 2 #120 Temporary Abandonment (expired	32.329743 -103.2525 STATE A A/C 2 #120 Temporary Abandonment (expired)	32.324357 -103.2515 STATE A A/C 2 #120 Active	32.350/32 -103.25/9 STATE A A/C 2 #120 Plugged (site released)	32.314396 -105.2579 STATE A A/C 2 #120 Active	32.530028 -103.2567 STATE A A/C 2 #120 Plugged (site released)	32.326115 -103.2525 STATE A A/C 2 #120 Active	32.322731 -103.2568 STATE A A/C 2 #120 Active	32.328013 -103.259 STATE A A/C 2 #120 Active	32.324385 -103.2589 STATE A A/C 2 #120 Plugged (site released)	27.5260 - 103.234/ SIAIS AA/C 2#120 ACtive	32.328375 -103.2547 STATE A A/C 2 #120 Active	32.325125 -103.2567 STATE A A/C 2 #120 Temporary Abandonment (expired	Surfier Well Tie status	:

xhibit B4

State A AC 3 #10

SOUZSUSSE / FAE II OPERATING LLC	CONTROL PAR II OPERALING ILC	nnosnago res il consociate de	3002509390 EAE II OBEDATING IIG	3002509302 CLAYTON WILLIAMS ENERGY INC	0002509301 PETROHAWK OPERATING CO	3002509230 FAE II OPERATING LLC	3002508229 FAE II OPERATING ILC	JULZUSZSS FAE II OPERATING LLC	JULZDUSZS PETROHAWK OPERATING CO	3002336036 LEGACY RESERVES OPERATING LP	OF THE PROPERTY OF THE PROPERT	3002528511 FAF II OPERATING ITO	3002528516 FAE II OPERATING LLC	3002528510 FAE II OPERATING LLC	3002509300 FAE II OPERATING LLC	JULI DERATING LLC	2002520177	SUDSCRIEGO ANNA OBESATIVO CO	3002509304 FAE II OPERATING LLC	3002509299 FAE II OPERATING LLC	3002528509 FAE II OPERATING LLC	Contato:
STATE A A/C 1 #092	SIAIE A A/C 1 #099	SIRIERAJCIAGO	STATE A A/C 1 PORT	STATE A A/C 3 #006	STATE A A/C 3 #003	STATE A A/C 1 #064	STATE A A/C 1 #069	STATE A A/C 1 #081	STATE A A/C 1 #086	SAPPHIRE STATE #003	SHIE HAYCORULL	CTATE A A/C 2 COLO	STATE A A/C 1 #121	STATE A A/C 3 #O11	STATE A A/C 3 COM A #CO4	STATE A A/C 3 #009	SIMIE MA/CS COM A #COS	57475 4 4/63 5044 4 4055	STATE A A/C 3 #007	STATE A A/C 3 COM A #CO1 3165 Gas	STATE A A/C 3 #010	Well Label
3693 011	3737 Gas	5290 Gas	0000	3695	8500 0.1	3682 Gas	3675 Gas	3754 Gas	3696 OH	8647 Salt Water Disposal PADDOC	SELUINJECTION	200	3800 Injection	3800 Injection	3729 Gas	3770 Oil	5698 685		3753 OH	2165 Gas	3800 Injection	10 Well Type
UNKNOWN	NWOWN	HANS ILL / YATES	SEVER NIVERS / QUEEN	CENERI DIVIERO I CHIEFFI	NAONAND	SEVEN RIVERS / QUEEN	TANSILL / YATES	QUEEN	QUEEN	PADDOCK	QUEEN		SELIEVARD	QUEEN	QUEEN	GRAYBURG	QUEEN	0.00	GRAVEUSG	TANSIII / YATES	GRAYBURG	Current Zone
0.5	0.5	0.49	0.48	2 5 6	0.48	0.48	0.46	0.44	0.43	0.41	0.39	10.0	0 0 0	0.25	0.24	0.24	0.23	02.0	0.33	0 44	0	Distance in Miles Distance
2640 1960-09-03 235 36E 11 C NW NW	2640 1962-08-31 235 36E 11 SW NW	2587.2 1953-02-28 235.36E 10	2554.4 1960-07-14 235 36E 10	Of 300 607 h7.co.ecc 1 h4667	2534.4 1959.05.74 235.365.10	25344 1959.08.05 235 36F 3	2428 8 1959-10-09 235 36E 3 SE SE	2323.2 1960-01-21 235.36F 10	2270.4 1960-03-20 235 36E 10	2164.8 2003-01-18 235 36E 11 NW SW NW	2059.2 1984-04-12 23S 36E 10	T0000 1904-02-18 235 30E 3	07 305 557 10-10-10-10-10-10-10-10-10-10-10-10-10-1	1370 1084-04-04 236 366 10	1267 2 1960-02-19 236 366 10 MW ME	1267 2 1984-01-20 236 366 10	1214.4 1960-05-17 23S 36E 10 SW NE	12144 1367-03-10 532 38E 10	07 306 667 80.10.6647 3.664	230 200 00 00 00 00 00 00	01 336 350 00 100010	Distance in Miles Distance in Feet From: SPUD Date Township Range Section Footage
	1980 FNL 660 FWL CONGRESS SECTION	990 FSL 990 FWL CONGRESS SECTION	1980 FSL 2310 FEL CONGRESS SECTION	1980 FSL 660 FEL CONGRESS SECTION	TO THE TRACE OF THE COMPANY SECTION	TIO SEL 1000 SEL CONCORTO PROTICO	\perp	CONCRETE SECTION	1 1980 FWI CONGRESS SECTION	NL 330 FWL CONGRESS SECTION	25 FNL 2615 FEL CONGRESS SECTION	25 FSL 1460 FBL CONGRESS SECTION	1345 FNL 2615 FEL CONGRESS SECTION		OBO TEL CONGRESS SECTION	SEO SEI COMODECT SECTION	1980 FML 2310 FEL CONGRESS SECTION	1980 FAL 660 FEL CONGRESS SECTION	IL 990 FEL CONGRESS SECTION			Footage
32.3243409 -	32.3207126 -	32.3143956 -	32.3171061 -	32.3170968 -		140517070	. /+/5+26.70	- 5041026.25		27 2716722	32 3261148 -	32.326243 .	32.3224864 .	32.3243669 -	52.3245537	100000	37 3707387	32.3207254 -	52.3234493 .	32.3224773	SUTTING	
32.3243409 -103.2419 STATE A A/C 3 #010 Active	-103.2419 STATE A A/C 3 #010 Active	-103.2579 STATE A A/C 3 #010 Active	-103.2515 STATE A A/C 3 #010 Plugged (site released)	-103.2461 STATE A A/C 3 #010 Plugged (site released)	-103.2504 STATE A A/C 3 #010 Active	ACINE A A/C 5 HULL A COLOR	TOS 277 STATE A A/C S TOTO ACTIVE	-105.2547 STATE A A/C 3 #UTU Plugged (site released)	100-25-2 STATE AA/C SHOULD FINESED (Site released)	TOTAL PROPERTY OF THE PARTY OF	-103 2525 STATE A A/C = #010 Action	-103.2487 STATE A A/C 3 #010 Active	-103.2525 STATE A A/C 3 #010 Temporary Abandonment (expired)	-103.2515 STATE A A/C 3 #010 Active	52.5243537 -103.2461 STATE A A/C 3 #010 Active	TOOLEGE SHEER AND GROUP HOLD FINE COLOR (SITE FEIE SEED)	-108 2515 STATE A A/C B #010 B #110 B	32.3207254 -103.2461 STATE A A/C 3 #010 Active	\$2.3234493 -103.2472 STATE A A/C 3 #010 Active	32.3224773 -103.2488 STATE A A/C 3 #010 Temporary Abandonment	Surion Wellife Status	Wall To

Exhibit B5

State A AC 3 #11

			and the state of t		Surfice	4
			0 1984-04-04 23S 35E 10 13	L 2615 FEL CONGRESS SECTION	2 3224864 -103 25247 STATE & A/C = +011	Tomorra Annual Control
	OUEEN			4	יוסיים אינו פון מיינו אינו אינו אינו אינו אינו אינו אינו	remporary Abandonment (expired)
STATE A A/C 3 COM A #004 3729 Gas	QUEEN			O FEL CONGRESS SECTION	2 3243650 -103 25148 STATE 4 A/C 3 #011	Plugged (site released)
STATE A A/C 1 #086 3696 Oil	QUEEN			BO EWI CONCEERS SECTION	TO# 0.70 # 01 #10 0 #10 #10 #10 #10 #10 #10 #10	Hottive
STATE A A/C 1 #081 3754 Gas	QUEEN		1161.6 1960-01-21 238 365 10		4.320/465 -103.2546/ STATE A A/C 3 #011	Plugged (site released)
STATE A A/C 1 #037 3290 Gas	TANSILL	/YATES	1367 3 1963-03-29 236 366 10	O FWAL COMBRESS SECTION	2.3243747 -103 25467 STATE A A/C 3 #011	Active
		90	01 300 00 02 70 000 1	FWL CONGRESS SECTION	2.3143956 -103 25787 STATE 4 A/C 3 #011	Active
			1398 602-00 623 361 10	L	2.3224773 -103 24879 STATE 4 A/C 3 #011	Temporary Abandonment
	Water Disposal 480 /SH		1584 1584-04-12 255 368 10	FEL CONGRESS SECTION	2.3261148 -103.25247 STATE A A/C 3 #011	Active
1001	The Contract of the Contract o	1	1984 1983-12-09 235 366 10	_	32.3227306 -103.25584 STATE 4 A/C 3 #011 Active	
		/VAPER		Ļ	The state of the s	Active
		CHANSILL / YATES	1953 6 1953-01-08 235 36E 10	\vdash	2.3234493 -103 24721 STATE A A/C 3 #011	Active
		/YATES	19536 1953-01-08 235 36£ 10 2112 1984-02-18 235 36£ 3	FEL CONGRESS SECTION TEL CONGRESS SECTION	92.9294493 -103.24721 STATE A A/C 3 #011 Active	Active Active
		/YATES	1953-6 1953-01-08 235 36E 10 2112 1984-02-18 235 36E 3 2217-6 1984-03-27 235 36E 10	FEL CONGRESS SECTION FUL CONGRESS SECTION FWL CONGRESS SECTION	22.3234493 - 103.24721 STATE A A/C 3 #011 Active 32.326243 - 103.24727 STATE A A/C 3 #011 Active 32.326243 - 103.24373 STATE A A/C 3 #011 Termo 22.3261251 - 103.25572 STATE A A/C 3 #011 Termo	Active Active Tennorary Abandonment (avoice)
		PERS / QUEEN	1936 [195-01-08] 233 366 10 2112 [198-02-18] 235 366 3 22176 [198-03-27] 235 366 10 2376 [196-03-14] 235 366 10	FEL CONGRESS SECTION FWL CONGRESS SECTION OFEL CONGRESS SECTION	9.23234493 10934721 [SATE AAC 3 #011 Active 92.2365493 10934873 [STATE AAC 3 #011 Active 92.2365493 10935877 [STATE AAC 3 #011 Temporary Asandoment (expired) 93.23765151 109.25877 [STATE AAC 3 #011 Temporary Asandoment (expired) 93.237651 109.25878 [STATE AAC 3 #011 Temporary Asandoment (expired)	Active Active Active Temporary Abandonment (expired
		23 AT	293.6 1955-01-08 235 36E 10 2112 1984-02-18 235 36E 3 22176 1984-03-17 235 36E 10 2376 1960-07-17 235 36E 10 243.8 1962-09-10 235 36E 10	FEL CONGRESS SECTION FYLL CONGRESS SECTION OFFL CONGRESS SECTION OFFL CONGRESS SECTION FEL CONGRESS SECTION	32.3234493 -103.24721 (SATE A.Q.C and 1 Active 32.326243 -103.24873 (STATE A.Q.C and 1 Active 32.32621351 -103.25872 (STATE A.Q.C and 1 Active 32.32621351 -103.25872 (STATE A.Q.C and 1 Temporary Abandonin 32.3271051 -103.2548 (STATE A.Q.C and 1 Plugged (pite released)	Active Active Active Active Active Active Active Plemporary Abandonment (expired Plugged (site released)
		R AI	217.5 [195-0-108] 238 39E [10 217.1 [196-0-7-18] 235 36E [3 227.6 [198-0-3-7] 235 36E [10 2376 [196-0-7-14] 235 36E [10 242.8 [196-0-7-10] 235 36E [10 242.8 [196-0-7-10] 235 36E [10	2 2	32.3234493 1.03.24721 SATE A,C 3 RO11 Active 32.326423 1.03.24873 SATE A,C 3 RO11 Active 32.326423 1.03.24873 SATE A,C 3 RO11 Active 32.3261251 1.03.25485 SATE A,C 3 RO11 Plugge 32.3211051 1.03.25485 SATE A,C 3 RO11 Plugge 33.3207254 1.03.25484 SATE A,C 3 RO11 Active 33.3207254 1.03.25484 SATE A,C 3 RO11 Active 33.3207254 1.03.25484 SATE A,C 3 RO11 Active	Active Active Active Comparery Abandonment (expired Plugged (site released) Plugged (site released)
		23 AT	293.6 [1959-01-08] 233-96E [0 211.7 [198-02-18] 233-96E 3 211.7 [198-02-18] 233-96E 3 211.7 [198-02-18] 233-96E [0 233.6 [196-02-14] 233-96E [0 242.8 [198-02-10] 233-96E [0	FEL CONGRESS SECTION FYL CONGRESS SECTION OFFL CONGRESS SECTION D.FEL CONGRESS SECTION P.FL CONGRESS SECTION OFFL CONGRESS SECTION OFFL CONGRESS SECTION	32.325493 1:03.2473 ISIATE A.C.2 8:011 Active 32.326431 1:03.24873 ISIATE A.C.2 8:011 Active 32.326431 1:03.25873 ISIATE A.C.2 8:011 Icmpol 32.326431 1:03.25873 ISIATE A.C.2 8:011 Icmpol 32.321051 1:03.25874 ISIATE A.C.2 8:011 Active 32.3207334 1:03.24514 ISIATE A.C.2 8:011 Active 32.3207334 1:03.24514 ISIATE A.C.2 8:011 Active 32.3207334 1:03.24514 ISIATE A.C.2 8:011 Active	Active Active lemporary Abandonment (expired
		R AT	2176 193-01 193-01-08 233 395 10 2177 193-0-0-08 233 395 10 2277 193-0-0-27 233 385 10 2376 193-0-0-14 233 385 10 2428 193-0-0-10 233 385 10 2428 193-0-0-10 233 385 10 2431 195-0-0-10 233 385 10 2431 195-0-0-10 233 385 10 10 10 10 10 10 10 10 10 10 10 10 10	2	22.32.33.493 -1.03.2473 STATE A ACC #011 Active 32.32.62.43 -1.03.24873 STATE A ACC #011 Active 32.32.62.521 -1.03.25873 STATE A ACC #011 Emporar A bandonin 32.32.65.321 -1.03.25873 STATE A ACC #011 Diuged Diver released 32.3370.354 -1.03.25844 STATE A ACC #011 Active 32.3370.354 -1.03.25845 STATE A ACC #011 Active 32.3370.354 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3370.355 -1.03.24814 STATE A ACC #011 Pugged Diver released 32.33713115 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.33713115 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.33713115 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.33713115 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3371315 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3371315 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3371315 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3371315 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3371315 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3371315 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3371315 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3371315 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3371315 -1.03.25867 STATE A ACC #011 Pugged Diver released 32.3371315 -1.03.25867 DIVER RELEASED 32.33	Active Active Active Active lemporary Asandonment (expired lemporary Asandonment (expired Active Active Active Reline
		73 AT	2376 1959-01-08 235 96£ 10 23712 1958-02-18 235 96£ 10 2376 1958-03-14 235 36£ 10 2376 1958-03-14 235 36£ 10 2428 1958-03-10 235 36£ 10 2428 1958-03-10 235 36£ 10 2428 1959-03-25 235 36£ 10 Nf SW 2481.6 1959-03-25 235 36£ 10 SW NW 2481.6 1959-03-25 235 36£ 10 SW NW	FEL CONGRESS SECTION PRIL CONGRESS SECTION OF EL CONGRESS SECTION OF EL CONGRESS SECTION OF EL CONGRESS SECTION FEL CONGRESS SECTION OF PLU CONGRESS SECTION OF PLU CONGRESS SECTION OF PLU CONGRESS SECTION	22.232443 - 1.03.24721 STATE AAC 8 0011 Active 23.236243 - 1.03.24873 STATE AAC 8 0011 Tempo 23.236243 - 1.03.24873 STATE AAC 8 0011 Tempo 23.236243 - 1.03.25148 STATE AAC 8 0011 Plugge 23.2371051 - 1.03.25148 STATE AAC 8 0011 Active 23.237254 - 1.03.2514 STATE AAC 8 0011 Active 23.237254 - 1.03.24514 STATE AAC 8 0011 Active 23.2372115 - 1.03.24514 STATE AAC 8 0011 Plugge 23.2371115 - 1.03.24519 STATE AAC 8 0011 Plugge 23.2372115 - 1.03.24519 STATE AAC 8 0011 Active 23.2372115 - 1.03.24519 STATE AAC 8 0011 Active 23.2372115 - 1.03.24519 STATE AAC 8 0011 Active	Active Active Active Incirc (separatry Abandonment (expired Illugrad (site released) Active Illugrad (site released) Active Active Active Active
		27 28	2171 1984-02-18 235 96E 10 2171 1984-02-18 235 96E 3 21716 1984-03-17 235 96E 10 2376 1980-03-14 235 36E 10 2428 1982-03-10 235 36E 10 2428 1982-03-10 235 36E 10 2428 1990-03-20 235 36E 10 SW AW 24816 1990-03-16 235 36E 10 SW AW 24816 1990-03-16 235 36E 10 SW AW 24816 1990-03-16 235 36E 10 SW AW	FEL CONGRESS SECTION FEL CONGRESS SECTION FIVE CONGRESS SECTION DFEL CONGRESS SECTION	30.333493 - 103.24973 [STATE A A/C 3 m011 Active 32.341023 - 103.24973 [STATE A A/C 3 m011 Active 32.341023 - 103.24973 [STATE A A/C 3 m011 Active 32.341023 - 103.24973 [STATE A A/C 3 m011 Active 32.341023 - 103.24914 [STATE A A/C 3 m011 Active 32.3410234 - 103.24914 [STATE A A/C 3 m011 Active 32.341037 - 103.24914 [STATE A A/C 3 m011 Active 32.341037 - 103.24914 [STATE A A/C 3 m011 Active 32.3410358 - 103.25994 [STATE A A/C 3 m011 Active 32.3410358 - 103.25994 [STATE A A/C 3 m011 Active 32.3410358 - 103.25994 [STATE A A/C 3 m011 Active 32.3410358 - 103.25994 [STATE A A/C 3 m011 Active 32.3410358 - 103.25994 [STATE A A/C 3 m011 Active 32.3410358 - 103.25994 [STATE A A/C 3 m011 Active 32.3410358 - 103.25994 [STATE A A/C 3 m011 Active 32.3410358 - 103.25994 [STATE A/C 3 m011 Active 32.3410	Active Active Active Active Deporary Abandoment (expired Diagred (site released) Active Diagred (site released) Diagred (site released)
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	A #0005	3800 injection A #003 5938 Gas A #004 3739 Gas 3739 Gas 3739 Gas 3739 Gas 3290 Gas 3800 injection 3810 injection 3810 injection 3810 injection	3800 injection ÜDEEN A AROUS 5958 Gass QUEEN A ROUGH 5729 Gass QUEEN 3729 Gass QUEEN 3754 Gass QUEEN 3754 Gass QUEEN 3759 Gas TAKILL / VATES 3800 injection Gax/BURG 3810 injection GAX/BURG 3810 injection QUEEN 3810 injection GAX/BURG 3810 injecti	S800 Injection OUEEN O	S200 Injection OUEEN O 16 OUEEN O 170 OUEEN OUEEN OUEEN O 170 OUEEN OUE	S200 Injection OUESI O. O. O. O. O. O. O. O

State A A/C 1 #49

API# 30-025-09292 660 FNL 660 FWL, Sec 10, T23S, R36E Lea Co., NM

MERIT ENERGY COMPANY

VI. Exhibit C1

Wellbore Diagram

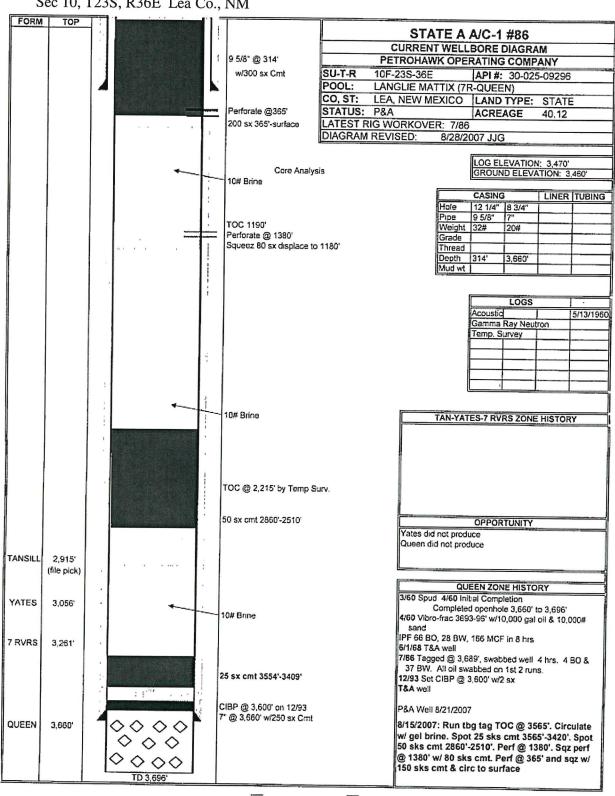
	<u>Lea</u>	se & Well No	State A	A/C1#49				Statu	s Active	
		Field Name						County & State		M
		Location	660' FNL	660' FWL; Un	it D. Sec. 10.	T23S, R36E		API No	-	
								Pool Name		l Yates Seven Rivers
								1 401214111	- Juniot. 1911311	Tates Seven Rivers
Well Inform	ation							A4555	ost P/A Schemati	RESTUR
Spud	f: 3/16/59	Grou	nd Elevation:			D.F. Elevation:	3,486'			
Completed	f:	-	KB Elevation:		-	Total Depth:	5,100	6.60		12.5
		•			-	-				Perf @ 319' circ 170 sxs cmt
Pipe Data								1880		from 319' to surface
A Surface In	400				CAT CALLS			172		
Hole size	Depth	Size (GO)	Weight	Grade	Su. Crest	Comments	SOUR CHEST STORY			Z
	319 ft	8 5/8"	24.0W	H-40	300 sx	Cement Circ to Su	rtace	E.		200
Production		T NAME OF STREET	100000					200		OCD Tops (MD)
Hole size	Depth	Size (00)	Weight	Grade	Su. Cmt	Comments	SALES CONTRACTOR			Tansil 5,003
	3790 ft	5-1/2"	14.08	1-55	250 sx	TOC=2665' Temp	Survivu			Yates 3,143'
Downhole T	ubulars (Top to litt	1000000			AND SAME					7 Rivers 3,350'
MA.SN,115 jts 2		77-17-117-117-117		Although bloom managed by	- A. A. C.	and the same and	DESCRIPTION OF STREET			Queen 3,778'
GA, 2" x 1 1/4"	x 12' RWTC, 2'x3/4",	5-7/8°,99-3/4°,3	15-7/8"							San Andres
										Glorieta
Well History										Bone Spring
3/29/1959	Quean: Parl 359	0-3710, 3722-3	2, 3744-48, 37	60-66 w/4 sof: S	itimulate with	25000 gals oil and I	50 000# 20/40 sand			Bone SS
	IP: 77 BO and 2					gois an and	70,000	'	10000	Abo
4/1/1969	Install Pumping I									Wolfcamp
2/14/1989	Set Howco EZS	V Retainer @ 3	680': Pump 320	sks Class C				1		Strawn
2/16/1989					r and Acildze:	ISIP: 200 psi 5; 0		10/		Atoka
	Frac with 31000									Perf @ 1500' sqz 50 sxs cmt @
3/2/1989						pls XL 32000# 12/2	NO.			1500' to 1400'
11/22/1989	Perf Yates: 3159	,63,70,89,95,99	,3206,28,35,54	.56 / Acidize &	Frac: 26 born	@ 3200 psig 52000				
	1-2-3-4-5 ppg / IS					G pary and a	, - 105000 1220		1	
	D BO 169 MCF 2	t BW								1
12/20/1989	CO to 3667 // Co	suple Pump Cha	ingos from 196	9-1996 noting s	cala / Wir ana	Nais 24000 CL				
	Tag @ 3601* / Re					,				
				ak; Pull 105 its	to 2 3/8" body	break; Run 4 11/16	ros.			
	TOF#3238" / Cou									
7/16/2003	Left 9-3/4" 5-7/8"								1	
								— I	- 1	
11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	A Procedures	100						i	- 1	
1 Pole Test Ancho	rs/MIRU W/ORI	g. RV H25 Equip	ment - Pre-job	sfty mtg / Disc F	ws supply Loci	k/out Tag/out		100	975	TOC=2565' Temp Survey
2 ND HH; RU Rod	Equipment; Unsea	st Pump and TO	H with Rods-LD	Rods / ND WH,	NU BOPs w/ 2	3/8" Rams and Ter	t / Rack Back Tubin		魔	The same same
3 Inspect Rods and	d Tubing; NU 4 3/4	" Varel Bit and I	RIH to PBTD/T	OH and Rack Ba	ck Tubing					#
4 MIRU W/L; Set C	CIBP @ 3100' +- / D	lump Bail 35° ce	ment / RD W/L	/ W.O.C. / RIH a	ind Tag Cemen	t / Circ MLF / TOH -	Rack Back Tubing			ã
	0'/RIH with Work					at				
	/ Pump 50 sks Cer									
	below ground lev		2" Steel Plate /	install P/A Mari	cer					
Clean Location /	Remove Pumping	Unit								Spot 30 sxs cmt @ 3100" an
							#1 CIBE	@ 3100'	XXCIBPXX	CIBP Yates
Well History Co	ontinued						l			3159-3256
6/23/2011: S	et 5-1/2" CIBP	@ 3100'					1	F	ish @ 3238	Acidize and Frac
6/24/2011: C	irc hole w/ sal	t gel @ 310	0'. Spot 30 :	sxs cmt @ 3	100' on CIE	BP. Perf@	1			100,000# 12/20
	sxs cmt @ 15				2461					7 Rivers
SIZI/ZUII, I	ag cmt @ 144	э. геп (д. 31	is circ 1/0	5X5 CMI Tro	m 319' to s	urtace				3323-3638
									FISH	Acidize and Frac
							#1 CICR	@ 3680	XXCICRXX	
										Queen Perfs
							I	#		3690-3710 3722-32 3744-48 376
							1		113-7274	Frac
									2.00.10	•
								PB	TD 3667	

State A A/C 1 #86

VI. Exhibit C2

API# 30-025-09296 1980 FNL 1980 FWL,

Sec 10, T23S, R36E Lea Co., NM

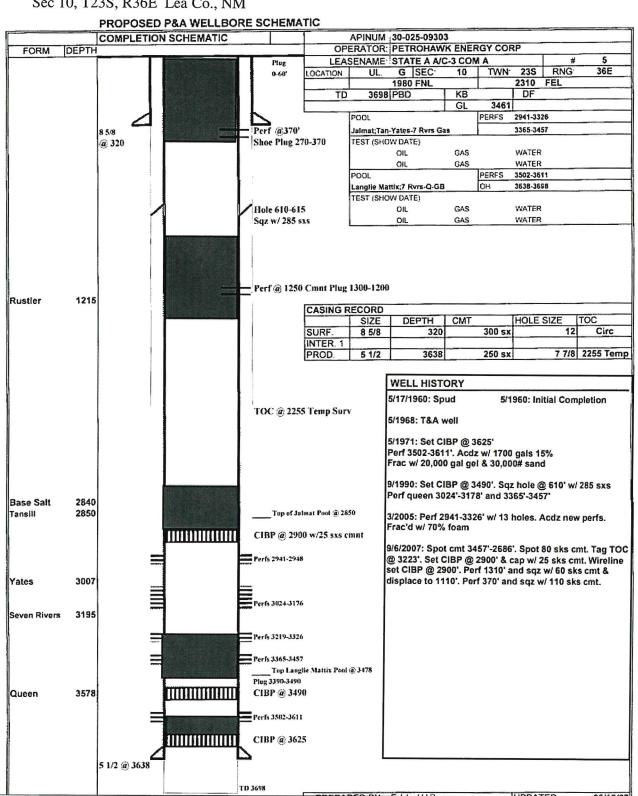


State A A/C 3 Com #005

VI. Exhibit C3

Released to Imaging: 9/8/2021 9:12:23 AM

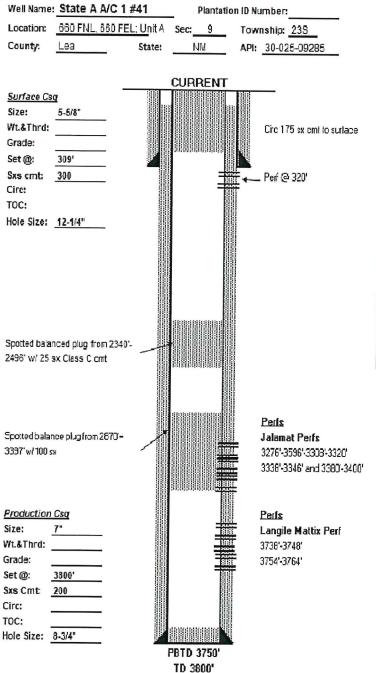
API# 30-025-09303 1980 FNL 2310 FEL, Sec 10, T23S, R36E Lea Co., NM



State A A/C 1 #041

VI. Exhibit C4

API# 30-025-09285 660 FNL 660 FEL, Sec 10, T23S, R36E Lea Co., NM



Lease Type: STATE 36E Range:

Formation: Jalamat; Tansill, Tates, 7 Rivers

KB: DF: 3493 GL: 11/4/1957 Spud Date: Compi. Date: 5/31/1966

History - Highlights

11/4/1957: Spud well

9/12/1994:

Spotted balanced plug from 2370'- 3397' w/ 100 sx . Tagged top of plug @ 2870'. Spotted balanced plug from 2340'-2496' w/ 25 sx Class C. Perficesing at 320". One can't down 7" casing and up the 7" to 9-5-8" annulus to surface w/ 175 sx

Gazelle #001

VI. Exhibit C5

Released to Imaging: 9/8/2021 9:12:23 AM

API# 30-025-34273 1980 FNL 1718 FEL, Sec 10, T23S, R36E Lea Co., NM

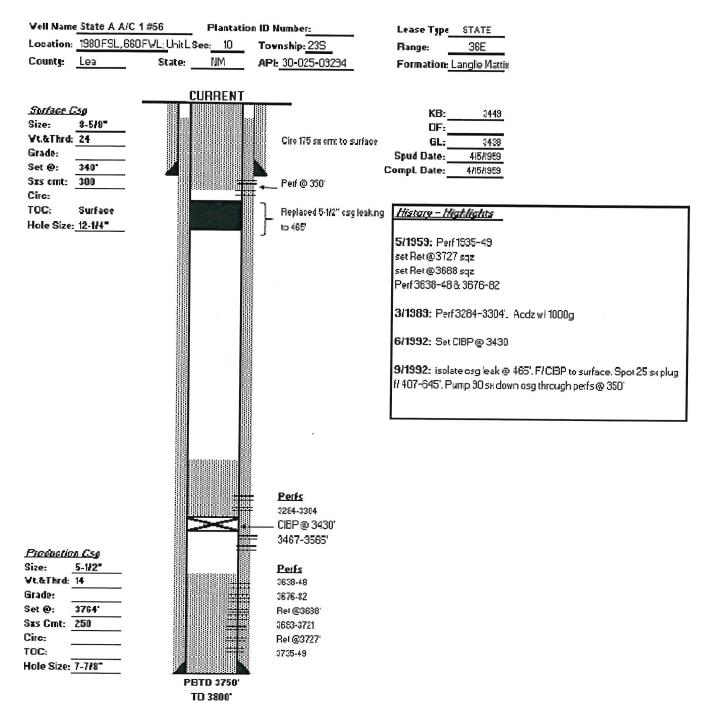
Vell Name: Gazelle #001	Lease Type: State
Location: 1980 FSL 1718 FWL; Unit K. 23S-36E-10	County/State: Lea/NM
Field/Formation: Wildcat	API: 30-025-34273
CURRENT Size: 11-3/4" Vt.hThrd: 42 Grade: Set @: 400" Sas omt: 300 Circ: TOC: Surface Hole Size: 14-3/4" CURRENT 100' plug @ 100'-sur 100' plug @ 100'-sur	KB:
Intermediate Csg	2/9/1998: Spud well 6/12/1998: Flace 100' balanced omt plug 7050'-6950' & 6400'-6300'
En	8/10/1998 - 8/17/1998: FOHw/tbg. Set Circ @ 7749'. Spot 60 sx cmt on circ (7749'-7689'). Spotted 25 sx cm; 7050'-6853'. Spotted 25 sx cmt 6400'-6203'. Spotted 25 sx cm; 5900'-5654'. Spotted 50 sx cmt 4591'. Tagged @ 4441' Spotted 100 sx cmt 3860'-3560'. Spotted 35 sx cmt 3200'-3100'. Spotted 75 sx cm; @ 3000'. Tagged @ 2797' Spotted 30 sx cm; 1250'-1140'. Spotted 30 sx cmt 450'-340'. Spotted 30 sx cm; 100' - surface.
TOC: 6000' TO Hole Size: 7-718")50'-6853' with 100' balanced cmt plug ite (7749'-7689')
PBTD 7966"	

State A A/C 1 #56

VI. Exhibit C6

Released to Imaging: 9/8/2021 9:12:23 AM

API# 30-025-09294 1980 FSL 660 FWL, Sec 10, T23S, R36E Lea Co., NM

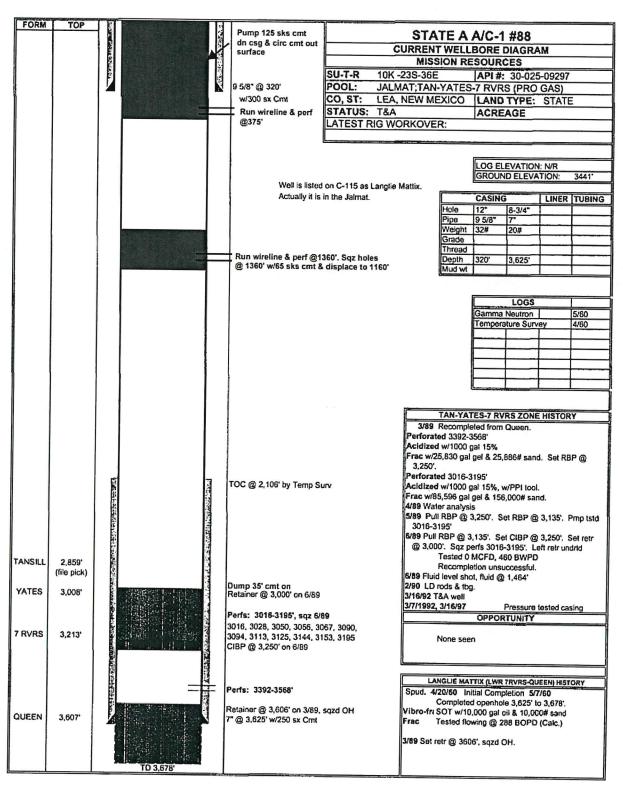


State A A/C 1 #88

VI. Exhibit C7

Released to Imaging: 9/8/2021 9:12:23 AM

API# 30-025-09297 1980 FSL 1980 FWL. Sec 10, T23S, R36E Lea Co., NM



Released to Imaging: 9/8/2021 9:12:23 AM

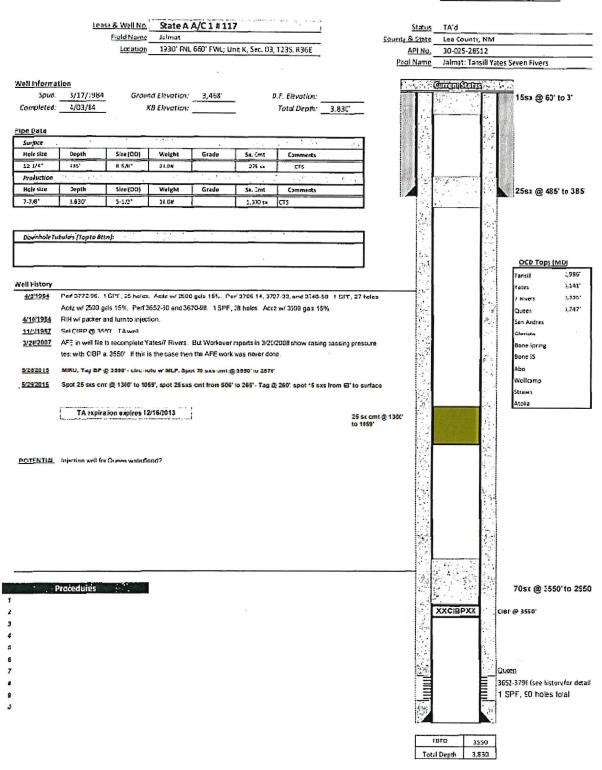
Received by OCD: 9/8/2021 9:10:37 AM

State A A/C 1 #117

VI. Exhibit C8

API# 30-025-28512 1930 FSL 660 FWL, Sec 03, T23S, R36E Lea Co., NM

Wellbore Diagram

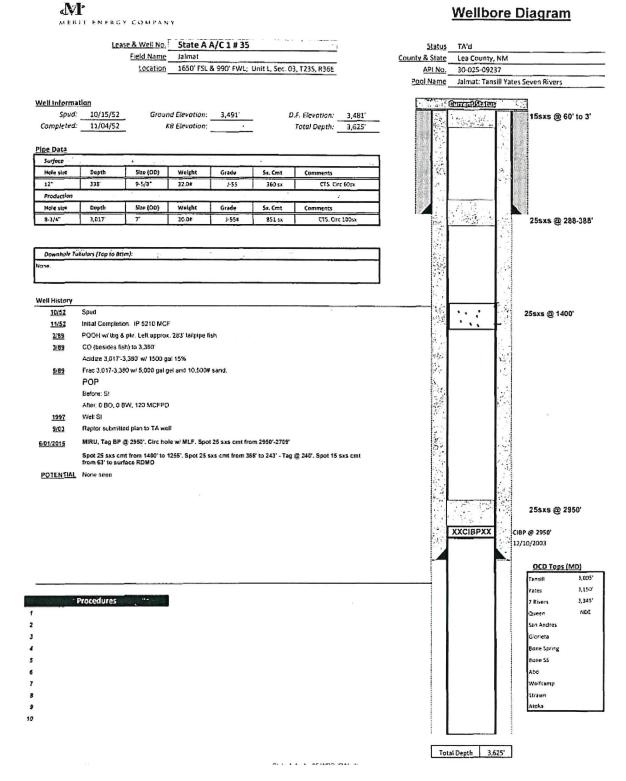


State A A/C 1 #35

VI. Exhibit C9

Released to Imaging: 9/8/2021 9:12:23 AM

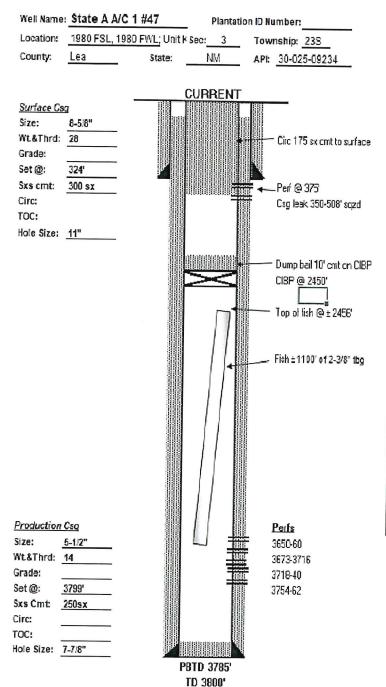
API# 30-025-09237 1650 FSL 990 FWL, Sec 03, T23S, R36E Lea Co., NM



State A A/C 1 #47

VI. Exhibit C10

API# 30-025-09234 1980 FSL 1980 FWL. Sec 03, T23S, R36E Lea Co., NM



Lease Type: STATE 36E Range: Formation: Langlie Mattix - SR-Qu-GB

KB: DF: GL: 3601 Spud Date: 2/22/1959 Compl. Date: 3/4/1959

History - Highlights

2/22/1959: Spud well

3/1959

Perf 3650-60+3718-40

3/1976:

Add perfs 3673-3716. Acdz w/ 2000 g

During Recompletion effort to Yates, lost 1100 of 2-3/8" tbg Fished for 4 days · unsuccessful

TA well

12/17/1992 - 12/28/1992-

Set CIBP @ 2450', Dump bail 38' cmt on CIBP.

Circulated 10# galled brine from CIBP to surface

Perf 5-1/2" csg @ 375", 2 SPF. Unable to break circulation up annulus. Pumped

Released to Imaging: 9/8/2021 9:12:23 AM

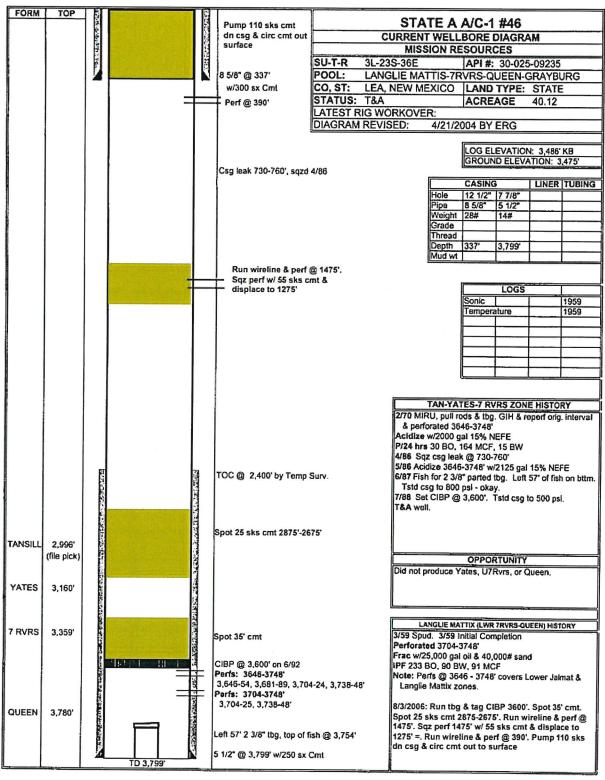
75 sx Class C into perls

P&A marker

State A A/C 1 #46

VI. Exhibit C11

API# 30-025-09235 1980 FSL 1980 FWL, Sec 03, T23S, R36E Lea Co., NM

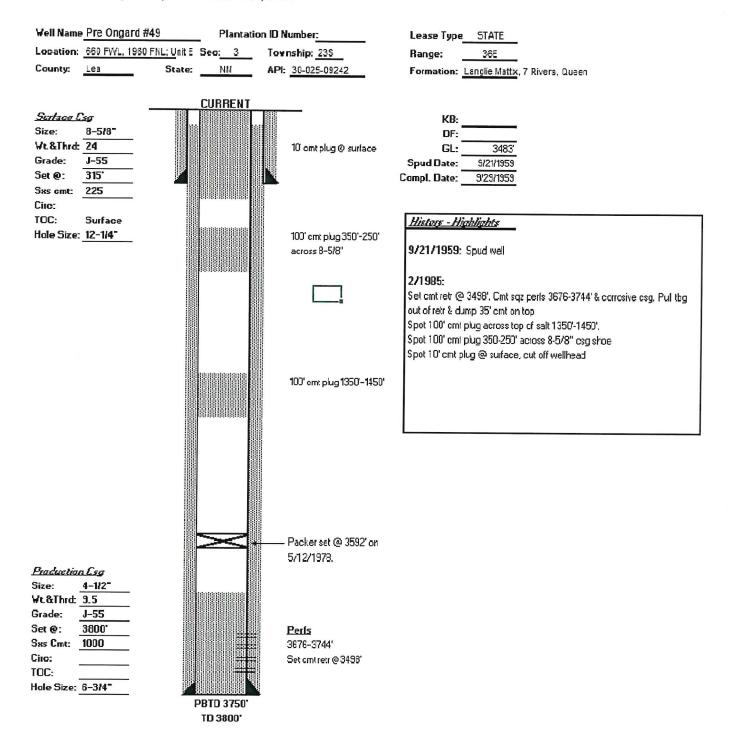


Pre – Ongard #49

VI. Exhibit C12

Released to Imaging: 9/8/2021 9:12:23 AM

API# 30-025-09242 660 FWL 1980 FNL, Sec 03, T23S, R36E Lea Co., NM

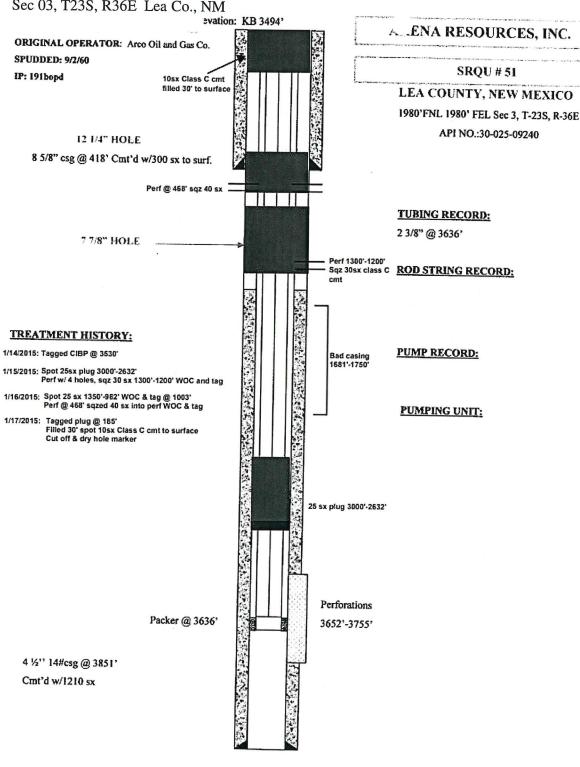


API# 30-025-09240

Seven Rivers Queen #51

VI. Exhibit C13

1980 FNL 1980 FEL, Sec 03, T23S, R36E Lea Co., NM



PBTD 3825' TD: 3856'

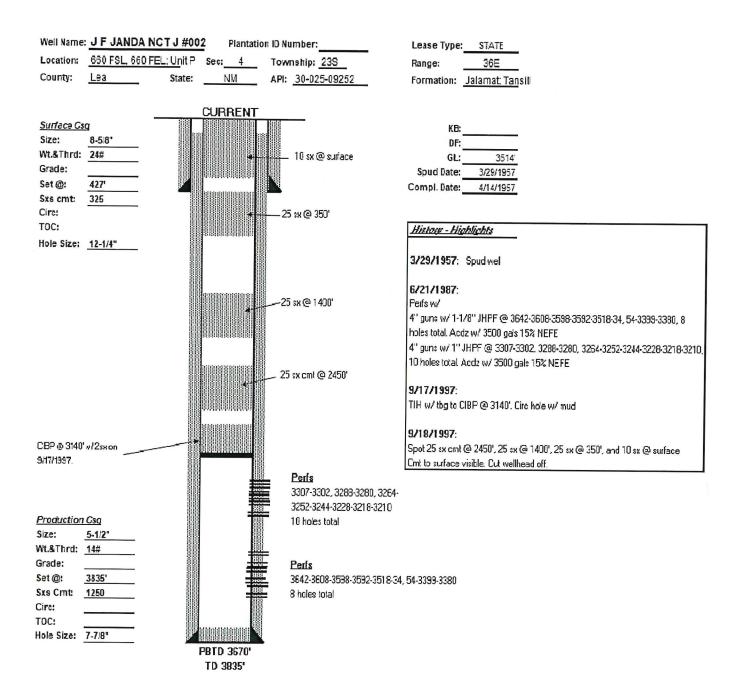
PREPARED BY: HK 2/1/05

J F Janda NCT J #002

VI. Exhibit C14

Released to Imaging: 9/8/2021 9:12:23 AM

API# 30-025-09252 660 FSL 660 FEL. Sec 03, T23S, R36E Lea Co., NM



Saphire State #003

VI. Exhibit C15

Released to Imaging: 9/8/2021 9:12:23 AM

API# 30-025-36098 1650 FNL 330 FWL, Sec 11, T23S, R36E Lea Co., NM

Sapphire State #3

LOCATION: 1650' FNL & 330' FWL, Sec 11, T23S, R36E

FIELD: Teague Northwest

COUNTY: Lea

STATE: New Mexico

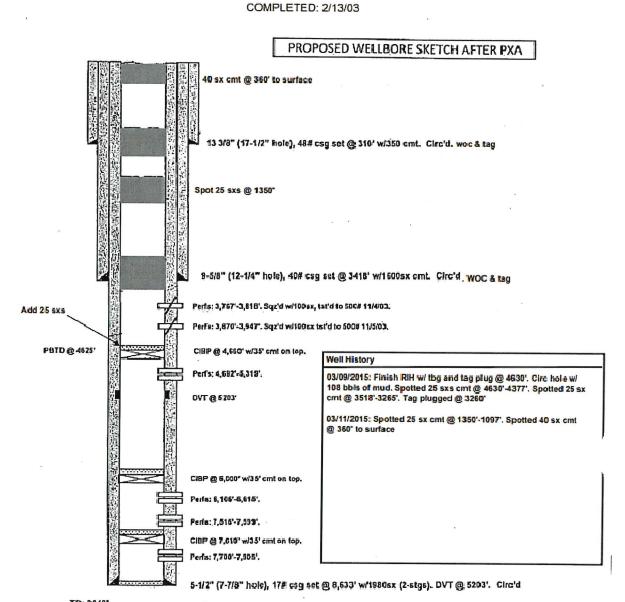
GL: 3456'

KB: 3469'

SPUD DATE: 01/18/03

LATEST UPDATE:

API No: 30-025-36098

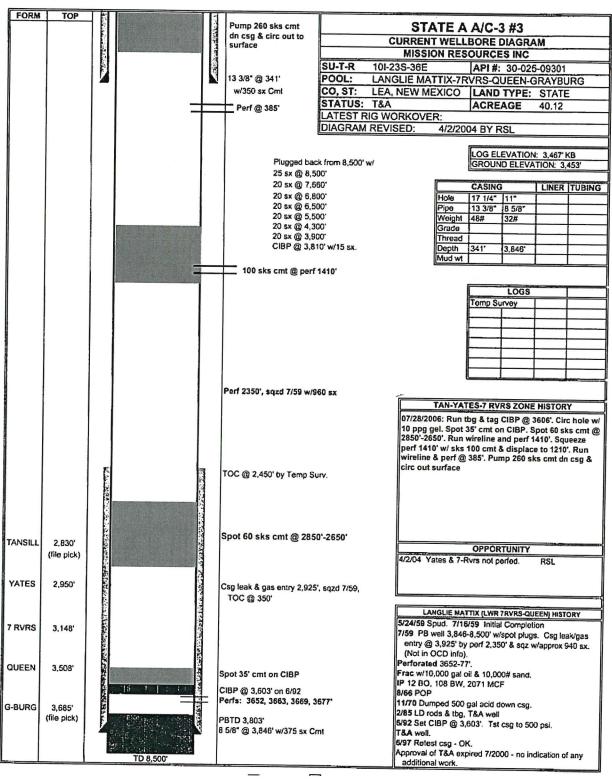


TD: 8648*

State A A/C 3#003

VI. Exhibit C16

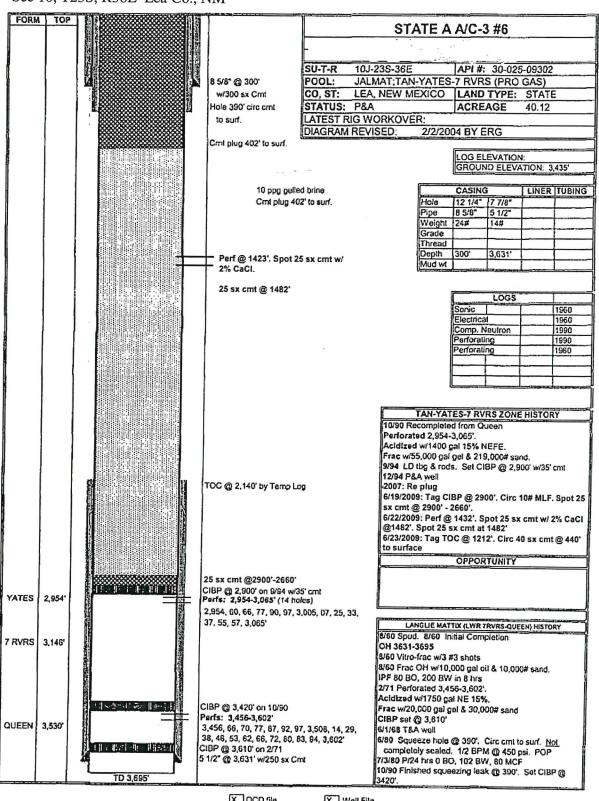
API# 30-025-09301 1980 FSL 660 FEL, Sec 10, T23S, R36E Lea Co., NM



State A A/C 3#006

VI. Exhibit C17

API# 30-025-09302 1980 FSL 2310 FEL, Sec 10, T23S, R36E Lea Co., NM



VII. Proposed Injection Operation

- 1. Average injection rate target will be ~600 bpd. Maximum injection rate will be 1000 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 ~700 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 3,640' and 3599' (or 728 psi and 720 psi maximum injection pressure, respectively). Pending results of a step rate test, the maximum injection pressure could potentially be increased to a factor of 0.6 psi/ft (or 2,184 psi at 3,640' and 2160 psi at 3599').
- 4. The water source will be produced water from nearby wells and water transfer lines.
- 5. Injection will be into the Seven Rivers Queen formation, which is immediately productive in the area.

VIII. Geologic Data

The waterflood will be injecting into the Seven Rivers – Queen 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:

1									
Sc	Southern Injection Zone								
Formation	Offset Top (STATE A A/C 1 #116) 30-025-28396	Contents							
Alluvium	GL	Fresh Water							
Rustler	1230	Anhydrite							
Salado (top of salt)	1422	Salt							
Tansill (base of salt)	3018	Gas, Oil, & Water							
Yates	3119	Gas, Oil, & Water							
Seven Rivers	3326	Gas, Oil, & Water							
SR-Queen Injection Interval	3640-4000	Gas, Oil, & Water							
Queen	3740	Gas, Oil, & Water							
Grayburg	4020	Gas, Oil, & Water							
Total Depth	8400								

IX. Proposed Stimulation Program

The injectors will be acidized with 5,000 gal 15% HCl for each set of perforations. Acid in the Seven Rivers – Queen 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 STATE A A/C 1 #116, STATE A A/C 1 #117, STATE A A/C 1 #120, STATE A A/C 3 #10, and STATE A A/C 3 #11 will be reactivated as an injector. The well logs for this well have been submitted to the NMOCD previously.

Test Data for the above mentioned wells is as follows:

STATE A A/C 1 #116

Date: 03/01/1984

Perf Interval: 3798-3827 w/ 4" CG

3740-3786 w/ 4" CG 3666-3726 w/ 4" CG 3666-3726 w/ 4" CG

Method: Acdz w/1600 gals 15% NEFEHCL

> Acdz w/ 2500 gals 15% NEFEHCL Acdz w/ 2500 gals 15% NEFEHCL Sqz w/ 250 sxs 11 C11, respectively

Result: Inj rate into perfs 3740-3832 @ 1BPM of water at 400 psi

STATE A A/C 1 #117

Date: 4/3/1984

Perf Interval: 3772-3796 w/ 25 holes. 1 SPF

3706-3714 w/ 27 holes. 1 SPF 3727-3733 w/ 27 holes. 1 SPF 3748-3758 w/ 27 holes. 1 SPF 3652-3670 w/ 38 holes. 1 SPF

Method: Acdz w/2500 gals 15% NEFEHCL

> Acdz w/ 2500 gals 15% NEFEHCL Acdz w/ 2500 gals 15% NEFEHCL

Acdz w/ 3500 gals 15% NEFEHCL, respectively

Result: Inj rate into perfs 3652-3796 w/ 100 bbls lse water @ 1BPM on Vac

STATE A A/C 1 #120

Date: 03/28/1984

Perf Interval: 3792-3798 w/ 11 holes, 1 JSPF.

3738-3791 w/ 43 holes, 1 JSPF. 3666-3724 w/ 38 holes, 1 JSPF.

Method: Acdz w/ 750 gals 15% NEFE HCL

Acdz w/ 5000 gals 15% NEFE HCL

Acdz w/ 4000 gals 15% NEFE HCL, respectively

Result: WIW, Inj rate 1 BPM on Vac

STATE A A/C 3 #10

Date: 04/6/1984

Perf Interval: 3700-3710 w/ 10 holes, 1 JSPF.

3655-3700 w/ 46 holes, 1 JSPF.

Method: Acdz w/ 1000 gals 15% NEFE HCL

Acdz w/ 4000 gals 15% NEFE HCL

2 x 1-1/2 x 16' gas lift

Result: 15 bbls oil, 166 bbls water, 10 mcf in 24 hours.

STATE A A/C 3 #11

Date: 04/6/1984

Perf Interval: 3742-3754 w/ 13 holes, 1 JSPF.

3642-3718 w/ 44 holes, 1 JSPF.

Method: Acdz w/ 1000 gals 15% NEFE HCL

Acdz w/ 4500 gals 15% NEFE HCL

2 x 1-1/2 x 16' gas lift

Result: WIW, Inj. 1 BPM on Vac

XI. Chemical Analysis of Fresh Water Wells

According to records from the Office of the State Engineer (Exhibit D1-5a & b) there is 1 active water wells within the 1 mile radius around the proposed STATE A A/C 1 #116, STATE A A/C 1 #117, STATE A A/C 1 #120, STATE A A/C 3 #10, and STATE A A/C 3 #11.

FAE II Operating, LLC has obtained water analyses on 2 freshwater samples. The closest water sample, a well near the NE BXP Battery, is 1.42 miles from the State A A/C 1 #117, is a "shallow" water supply used to water cattle. The second water sample was taken about 25 feet from the 7 Rivers Queen Unit #058 well and 2.7 miles away from State A A/C 1 #117. This sample is from another "shallow" water supply well used to water cattle. See Exhibits E1- E5.

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. BXP OPERATING, LLC is the offset operators. Surface Owners are RRR – State and Strain King Ranch, LLC

BXP Operating, LLC: P.O. Box 7227

Dallas, TX 75209

RRR - STATE: 4005 Roadrunner Trail, Midland, Texas 79707

STRAIN KING RANCH, LLC: 4119 MESCALERO DRIVE, Hobbs, NM, 88240, USA

Location: Twn 23S Rge 36E Sec 10 Footages: ~1260 FNL 1310 FWL ~

County: Lea

Location For Office of the State Engineer:

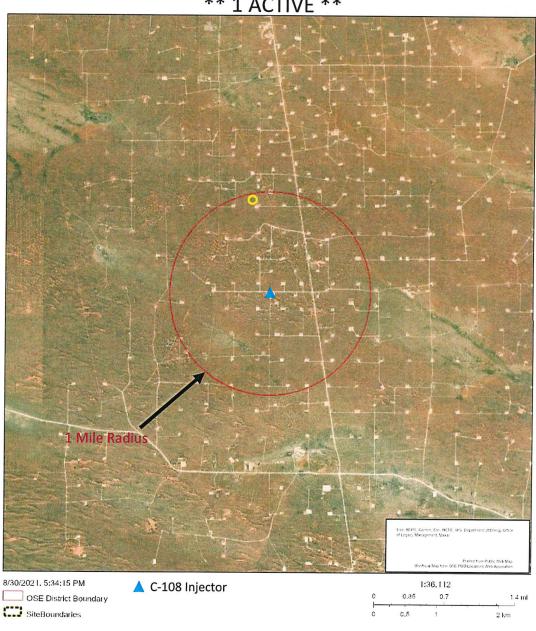
NAD 1983 UTM Zone 13 Easting (X): 664041.942 mtrs Northing (Y): 3577551.438 mtrs

Water Wells Within 1 Mile Radius

XI. Exhibit D1a

Released to Imaging: 9/8/2021 9:12:23 AM

** 1 ACTIVE **



Location: Twn 23S Rge 36E Sec 10 Footages: ~1260 FNL 1310 FWL ~

County: Lea

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13
Easting (X): **664041.942** mtrs
Northing (Y): **3577551.438** mtrs

Water Wells Within 1 Mile Radius ** 1 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) (NAI

(NAD83 UTM in meters)

(In feet)

XI. Exhibit D1b

Average Depth to Water:

Minimum Depth:

Maximum Depth:

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 664041.942

Northing (Y): 3577551.438

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.

8/30/21 4:58 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Location: Twn 23S Rge 36E Sec 3

Footages: ~1395 FSL 1345 FWL ~

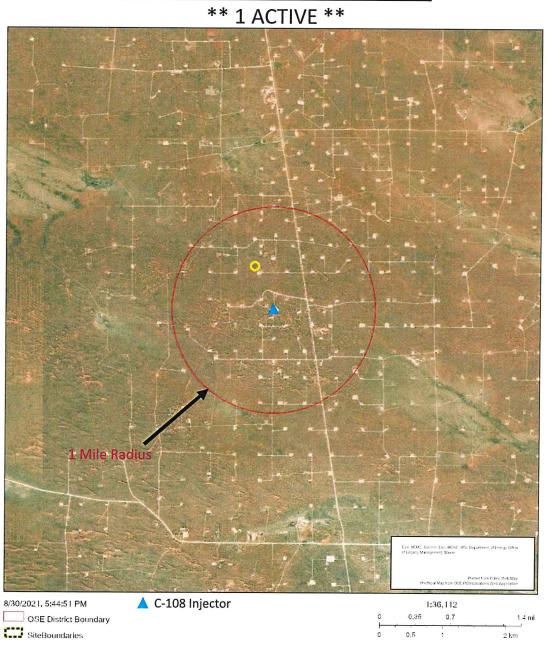
County: Lea

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13 Easting (X): **664035.335** mtrs Northing (Y): **3578360.897** mtrs

Water Wells Within 1 Mile Radius

XI. Exhibit D2a



Location: Twn 23S Rge 36E Sec 3 Footages: ~1395 FSL 1345 FWL ~

County: Lea

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13 Easting (X): **664035.335** mtrs Northing (Y): **3578360.897** mtrs

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



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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)

XI. Exhibit D2b

POD Sub-QQQ Water POD Number Code basin County 64 16 4 Sec Tws Rng DistanceDepthWellDepthWater Column Y CP 00786 POD1 1 3 1 03 23S 36E 663716 3579040*

Average Depth to Water:

Minimum Depth:

Maximum Depth:

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 664035.335

Northing (Y): 3578360.897

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.

8/30/21 5:01 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Location: Twn 23S Rge 36E Sec 10

Footages: ~25 FNL 1345 FWL ~

County: Lea

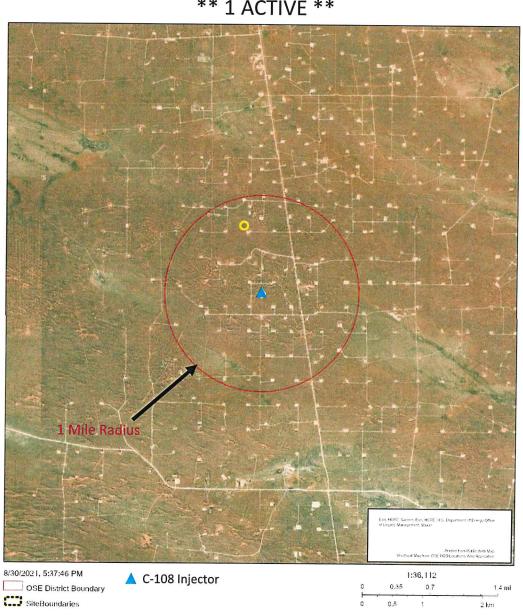
Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): **664045.196** mtrs Northing (Y): **3577928.565** mtrs

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

XI. Exhibit D3a



Location: Twn 23S Rge 36E Sec 10

Footages: ~25 FNL 1345 FWL ~

County: Lea

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): **664045.196** mtrs Northing (Y): 3577928.565 mtrs

Water Wells Within 1 Mile Radius ** 1 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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number CP 00786 POD1

POD Sub-QQQ Code basin County 64 16 4 Sec Tws Rng 1 3 1 03 23S 36E

663716 3579040*

DistanceDepthWellDepthWater Column 1159

XI. Exhibit D3b

Average Depth to Water:

Minimum Depth: Maximum Depth:

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 664045.196

Northing (Y): 3577928.565

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.

8/30/21 5:06 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Location: Twn 23S Rge 36E Sec 10 Footages: ~1345 FNL 1480 FEL~

County: Lea

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13 Easting (X): 664781.443 mtrs Northing (Y): 3577535.772 mtrs

Water Wells Within 1 Mile Radius ** 0 ACTIVE **

XI. Exhibit D4a



Well: State A A/C 3 #10 Location: Twn 23S Rge 36E Sec 10

ge 36E Sec 10 XI. Exhibit D4b

Footages: ~1345 FNL 1480 FEL~ County: Lea

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13 Easting (X): **664781.443** mtrs Northing (Y): **3577535.772** mtrs

Water Wells Within 1 Mile Radius ** 0 ACTIVE **



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NADS3 UTM in meters)

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 664781.443 Northing (Y): 3577535.772 Radius: 1609.3

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.

8/30/21 5:23 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Well: State A A/C 3 #11

Location: Twn 23S Rge 36E Sec 10

Footages: ~1345 FNL 2615 FEL ~

County: Lea

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13 Easting (X): 664435.910 mtrs Northing (Y): 3577531.248 mtrs

Water Wells Within 1 Mile Radius ** 0 ACTIVE **

XI. Exhibit D5a



Location: Twn 23S Rge 36E Sec 10 Footages: ~1345 FNL 2615 FEL ~

County: Lea

Location For Office of the State Engineer:

NAD 1983 UTM Zone 13

Easting (X): **664435.910** mtrs Northing (Y): **3577531.248** mtrs

Water Wells Within 1 Mile Radius ** 0 ACTIVE **



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NADS3 UTM in meters)

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 664435.91 Northing (Y): 3577531.248 Radius: 1609.3

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.

8/30/21 5:27 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

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XI. Exhibit D5b

XI. Exhibit E1

Imperative Water Analysis Report

202.00

214.00

226.00

238.00

64 000

73,000

82,000

91.000

250.00 100.000

0.820

0.759

0.707

0.657

0.611

-0.0728

-0.0867

-0.0997

-0.112

Lbs per

1000

0.0145

0.0239

			SY	STEM IDEN	ITIFICATI	ON				WATER (CHEMISTRY						
тнем: 200 ф	Company: FAE II Location: NE BXP Battery Sample Source: Pond Fresh Water Account Rep: Junior Garda		r			Magne Barium Stronti Sodium Potassi	n(as Ca) sium(as Mg i(as Ba) um(as Sr) i(as Na) ium(as K)	0	55.50 28.14 .0790 1.49 1363 7.96	Sulfat Dissol Bicart	de(as CI) e(as SO ₄) ved CO ₂ (as sonate(as H as H ₂ S)		2200 40.00 10.00 100.00 1.70 0.00				
			Sa	mple ID#:		W-42493				Lithium Iron(as Manga			0080. 0.00 00.0				
				nple Date: port Date:		07-20-20 07-29-20				PARAME	TERS						
SCALE AN	ID CORRO	CION DO	PENTTAL							Tempe Conduc Resisti			77.00 6648 50.42	Sampl Sp.Gr. T.D.S.	(g/mL)		8.30 1.000 3794
Temp.	Press.		alote	Ant	ydrite	Gy	psum	В	arite	Cel	estite	Si	derite	Mad	kinawite	CO ₂	pCO ₂
(OF)	(atm)	C	aCO ₃	Ca	1904	Ca50	4*2H2O	Ba	3SO ₄	Sr	SO ₄	-	eCO ₂		FeS	(mpy)	(atm)
70.00	1.000	1.58	0.356	0.00207	-695.36	0.00354	-592.26	0.420	-0.0644	0.00487	-61.18	0.00	-0.0148	0.00	-0.00180		< 0.001
130.00	10.000	1.26	0.103	0.00315		0.00413		0.137	-0.291	0.00553	-55.45	0.00	-0.0125	0.00	-0.00584	0.0241	0.00469
142.00	19.000	1.17	0.0642	0.00362		0.00445	-503.27	0.112	-0.366	0.00560	-54.75	0.00	-0.0124	0.00	-0.00868	0.0260	0.0089
154.00	28.000	1.09	0.0319	0.00424		0.00476	-481.71	0.0919	-0.454	0.00564	-54.18	0.00	-0.0124	0.00	-0.0109	0.0306	0.0131
166.00	37.000	1.01	0.00405		408.87	0.00506	-462.45	0.0758	-0.558	0.00567	-53.72	0.00	-0.0123	0.00	-0.0136	0.0346	0.0174
178.00	46.000	0.942	-0.0188	0.00610		0.00534	-445.30	0.0627	-0.681	0.00568	-53.37	0.00	-0.0123	0.00	-0.0169	0.0335	0.0216
190.00	55.000	0.879	-0.0383	0.00747	-324.17	0.00562	-430.08	0.0521	-0.824	0.00567	-53.14	0.00	-0.0123	0.00	-0.0206	0.0180	0.0258

Barrels Barrels Barrels Barrels Barrels Barrels Saturation Ratios (xSAT) are the ratio of ion activity to solubility, e.g. $(Ca)(CO_3)/K_{Sp}$, pCO_2 (atm) is the parbal pressure of CO_2 in Lhs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium

-0.991

-1.43

-1.70

-2.01

Lbs per

1000

0.00563

0.00543

0.00533 -53.96

0.00522 -54.38

-53.67

Lbs per

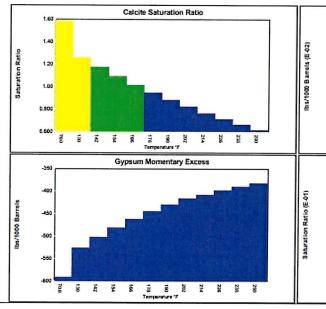
1000

0.0435

0.0359

0.0300

0.0211



-0.0550 0.00927 -285.06 0.00587 -416.66

-217.46

Lbs per

1000

0.0115 -250.97 0.00603 -408.47

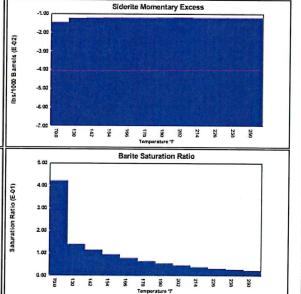
0.0185 -186.98 0.00640 -389.88

-159.52 0.00654 -382.66

0.00623 -398.46

Lbs per

1000



0.00

0.00

0.00

0.00

0.00

-0.0122

-0.0123

-0.0123

-0.0123

-0.0123

Lbs per

0.00

0.00

0.00

xSAT 1000 -0.0251

-0.0305

-0.0365

-0.0434

-0.0512

Lbs per

1000

0.0300

0.0343

0.0385

0.0427

0.0469

0.0159

0.0195

0.0235

0.0281

0.0321

XI. Exhibit E2



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

Analytical Results For:

FORTY ACRES ENERGY 11777 KATY FREEWAY STE. 305 B HOUSTON TX, 77079 Project: BLACKBEARD AREA Project Number: FRESH WATER

Project Manager: JAMES MARTINEZ

Fax To:

Reported: 03-Aug-21 14:50

API 30025-28120 7 RIVER QUEEN UNIT #58

H212024-03 (Water)

Analyte	Result	MDL.	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Inorganic Compounds										
Chloride*	104		4.00	mg/L	1	1080304	GM	03-Aug-21	4500-CI-B	
TDS*	663		5.00	mg/L	1	1080213	AC	03-Aug-21	160.1	
Sulfide, total	< 0.0100		0.0100	mg/L	1	1080305	AC	03-Aug-21	376.2	A-01

Received by OCD: 9/8/2021 9:10:37 AM

*=Accredited Analyte

PLEASE MITTS: Likelity and Damages. Cardinal's labelity and clean's exclusive remove for any states arising, whether based is contract or tost, while to inside to the amount paid by clean for analyses. All dama, including those for registeries any other cause extractioners that be deemed valued unless making more or extractioners and the deemed valued unless making more than contractions. In the event shall Curdinal be liable for including unless including unless instance, between management of the analysis because of the sandown because to the sandown because of the sandown because of the sandown because the contraction of the sandown because of the sandown

Reported:

03-Aug-21 14:50

Analytical Results For:

FORTY ACRES ENERGY

11777 KATY FREEWAY STE. 305 B HOUSTON TX, 77079

Project: BLACKBEARD AREA

Project Number: FRESH WATER Project Manager: JAMES MARTINEZ

Fax To:

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting		Spike	Source		%REC		RPD	
Malyle	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1072912 - Filtration		The state of the s								
Blank (1072912-BLK1)				Prepared: 2	29-Jul-21 A	nalyzed: 0.	2-Aug-21			
TDS	ND	5.00	mg/L	***************************************					-	
LCS (1072912-BS1)				Prepared: 2	9-Jul-21 A	nalyzed: 0.	2-Aug-21			
TDS	541		mg/L	500		108	80-120			
Duplicate (1072912-DUP1)	Soi	rce: H211989-	06	Prepared: 2	9-Jul-21 A	nalyzed: 0.	2-Aug-21			
TDS	332000	5.00	mg/L		340000			2.61	20	
Batch 1080213 - Filtration										
Blank (1080213-BLK1)				Prepared: 0	2-Aug-21	Analyzed: (3-Aug-21			
TDS	ND	5.00	mg/L							
LCS (1080213-BS1)				Prepared: 0	2-Aug-21 /	Analyzed: (3-Aug-21			
TDS	542		mg/L	500		108	80-120			
Duplicate (1080213-DUP1)	Sou	rce: H212007-	04	Prepared: 0	2-Aug-21 A	analyzed: 0	3-Aug-21			
TDS	807	5.00	mg/L		789	•	•	2.26	20	
Batch 1080304 - General Prep - Wet Chem										
Blank (1080304-BLK1)				Prepared &	Analyzed:	03-Aug-21				
Chloride	ND	4.00	mg/L	•						-
LCS (1080304-BS1)				Prepared &	Analyzed:	03-Aug-21				
Chloride	104	4.00	mg/L	100	THE PERSON NAMED IN COLUMN TWO	104	80-120	-	***************************************	***************************************

Cardinal Laboratories

*=Accredited Analyte

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PLEASE MOTE: Unabley and Darmages. Continue's bability and client's exclusive remotes for any darm arising, whether based in contract or but, shall be limited to the amount paid by client for analyses. All claims, including those for registers any other claims infrastructures shall be deemed uniform made in vertexy and received by Contract within their time; (20) days after completion of the applicable service. In no event shall Contract be stated to includent or communicated amounts and any other infrastructures, beautiful services because of use, or law of parties included, regardless and whateve and claim is between processing and the above these researchs of the services because it is to be serviced because it is to be serviced

Cally & treeme-

XI. Exhibit E4



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

Analytical Results For:

FORTY ACRES ENERGY

Project: BLACKBEARD AREA

Reported:

11777 KATY FREEWAY STE. 305 B

Project Number: FRESH WATER

03-Aug-21 14:50

HOUSTON TX, 77079

Project Manager: JAMES MARTINEZ

Fax To:

Inorganic Compounds - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1080304 - General Prep - Wet Chem

LCS Dup (1080304-BSD1)				Prepared & Anal	lyzed: 03-Aug-21			
Chloride	104	4.00	mg/L	100	104	80-120	0.00	20

Batch 1080305 - General Prep - Wet Chem

Blank (1080305-BLK1)				Prepared & Analyzed: 03-Aug-21
Sulfide, total	ND	0.0100	mg/L	

Cardinal Laboratories

*=Accredited Analyte

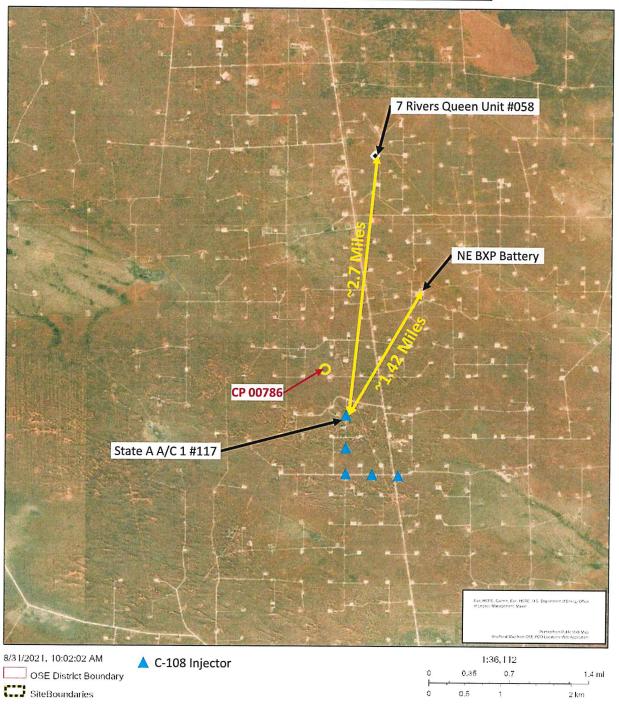
Released to Imaging: 9/8/2021 9:12:23 AM

PLEASE MOTE: Liability and Demagns. Current's liability and clearly includes remotely for any clean artering whither based in contract or not, what he leaded to the amount paid by clear for analyses. All carrin, entailing from the many critical settlems between the bedieve that the discrete the supplicable service. In no event shall Current the liability for consequent discrete the supplicable service. In no event shall Current the liability for consequent discrete the supplicable service. In no event shall current the liability for consequent discrete the supplicable service. In no event shall current the liability for consequent discrete the supplicable service. In the performance of the services between the supplicability of the services between the services between the supplicability of the services between the services b



XI. Exhibit E5

Fresh Water Wells & Sample Locations





HINKLE SHANOR LLP

ATTORNEYS AT LAW PO BOX 2068 SANTA FE, NEW MEXICO 87504 505-982-4554 (FAX) 505-982-8623

WRITER:

Dana S. Hardy, Partner dhardy@hinklelawfirm.com

August 12, 2021

VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED

TO ALL INTERESTED PARTIES SUBJECT TO NOTICE

Re:

Case No. 22134

Application of FAE II Operating, LLC for Reinstatement of Injection Authority and Authorization to Convert Disposal Well to an Injector for Waterflood Operations, Lea County, New Mexico.

To whom it may concern:

This letter is to advise you that the subject application was filed with the New Mexico Oil Conservation Division. The hearing will be conducted on September 9, 2021 beginning at 8:15 a.m.

During the COVID-19 Public Health Emergency, state buildings are closed to the public and hearings will be conducted remotely. To participate in the electronic hearing, see the instructions posted on the OCD Hearings website: https://www.emnrd.nm.gov/ocd/hearing-info/. You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Pursuant to Division Rule 19.15.4.13.B, a party who intends to present evidence at the hearing shall file a pre-hearing statement and serve copies on other parties, or the attorneys of parties who are represented by counsel, at least four business days in advance of a scheduled hearing, but in no event later than 5:00 p.m. mountain time, on the Thursday preceding the scheduled hearing date. The statement must be filed at the Division's Santa Fe office or submitted through the OCD E-Permitting system (https://www.apps.emnrd.state.nm.us/ocd/ocdpermitting/) and should include: the names of the parties and their attorneys, a concise statement of the case, the names of all witnesses the party will call to testify at the hearing, the approximate time the party will need to present its case, and identification of any procedural matters that are to be resolved prior to the hearing.

Please do not hesitate to contact me if you have any questions about this matter.

Sincerely.

/s/ Dana S. Hardy

Dana S. Hardy

AE II OPERATING, LLC Case No. 22134 Exhibit A-6

Released to Imaging: 9/8/2021 9:12:23 AM

Enclosure **PO BOX 10** ROSWELL, NEW MEXICO 88202 575-622-6510 (FAX) 575-623-9332

PO BOX 2068 SANTA FE, NEW MEXICO 87504 505-982-4554 (FAX) 505-982-8623

7601 JEFFERSON ST NE · SUITE 180 ALBUQUERQUE, NEW MEXICO 87109 505-858-8320 (FAX) 505-858-8321

3987	CERTIFIED MAIL® RECEIPT Domestic Mail Only
LU II.	For delivery information, visit our website at www.usps.com®.
0143	Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate)
0000	Return Receipt (hastcopy) Return Receipt (electronic) Certified Mail Restricted Delivery Adult Signature Required Adult Signature Required
0490	Adult Signature Resilicted Delivery \$
7020	S Sent To BXP Operating, LLC Street P.O. Box 7227 Dallas, TX 75209 City, S
	PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
Complete Items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: BXP Operating, LLC P.O. Box 7227 Dallas, TX 75209	A. Signature M. Agent Addressee B. Redeiver by (Printed Name) C. Date of Delivery D. Is delivery address different from item 13
9590 9402 5712 9346 7885 05 2. Article Number (Transfer from service label)	3. Service Type □ Adult Signature □ Adult Signature Restricted Delivery □ Certified Mail® □ Collect on Delivery □ Collect on Delivery □ Insured Mail □ Insured Mail □ Signature Confirmation™ □ Signature Confirmation □ Signature Confirmation □ Signature Confirmation
7020 0640 0000 0343 3987	☐ Insured Mail ☐ Signature Confirmation ☐ Insured Mail Restricted Delivery (over \$500) ☐ Restricted Delivery
PS Form 3811, July 2015 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature Agent Addressee B. Received by (Printed Name) C. Date of Delivery
NM Commissioner of Public Lands P.O. Box 1148 Santa Fe, NM 87504	D. Is delivery address different from item 1?
9590 9402 5712 9346 7884 99 2. Article Number (Transfer from service label) 7020 0640 0000 0343 3954	3. Service Type Adult Signature Adult Signature Restricted Delivery Certified Mail® Cotlect on Delivery Collect on Delivery Insured Mail Restricted Delivery Insured Mail Restricted Delivery Restricted Delivery Signature Confirmation Signature Confirmation Restricted Delivery Restricted Delivery Restricted Delivery Restricted Delivery Restricted Delivery Restricted Delivery
PS Form 3811, July 2015 PSN 7530-02-000-9053	(over \$500) Domestic Return Rece

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: RRR — State 4005 Roadrunner Trail Midland, TX 79707	A. Signature Agent Addressee B. Received by (Printed Name) C. Date of Delivery Address below:
9590 9402 5712 9346 7884 82 7020 0640 0000 0343 4007	3. Service Type Adult Signature Adult Signature Restricted Delivery Certified Mail Restricted Delivery Collect on Delivery Collect on Delivery Restricted Delivery Insured Mail Insured Mail Restricted Delivery Signature Confirmation Restricted Delivery Registered Mail Restricted Delivery Signature Confirmation Restricted Delivery Restricted Delivery
PS Form 3811, July 2015 PSN 7530-02-000-9053	□ Insured Mail Restricted Delivery (over \$500) Restricted Delivery Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON E	DELIVERY
Gomplete Items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Strain King Ranch, LLC 4119 Mescalero Drive Hobbs, NM 88240	A. Signature M. F. T. B. Received by (Printed Name) C - C - C - C - C - C - C - C - C - C	
9590 9402 5712 9346 7884 75 2. Article Number (Transfer from service label) 7020 0640 0000 0343 4034	3. Service Type Adult Signature Adult Signature Restricted Delivery Certified Mail® Certified Mail® Collect on Delivery Collect on Delivery Insured Mail Insured Mail	□ Priority Mail Express® □ Registered Mail™ □ Registered Mail Restricted Delivery □ Return Receipt for Merchandise □ Signature Confirmation Restricted Delivery

Affidavit of Publication

STATE OF NEW MEXICO COUNTY OF LEA

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

> Beginning with the issue dated August 20, 2021 and ending with the issue dated August 20, 2021.

Publisher

Sworn and subscribed to before me this 20th day of August 2021.

Business Manager

My commission expires

January 29, 2023

OFFICIAL SEAL GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 132 OFFICIAL SEAL

egal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of ₹937 and payment of fees for said

poses to convert its State "A" A/C 1 No. 116 well from a salt-water disposal well to an injuderations and to reinstate injection into the State "A" A/C 1 No. 117 and 120 wells and 10 and 11 wells for waterflood operations. FAE plans to inject water through a closed sy at depths of 3,500' to 4,000' d operations. FAE plans to inject water through a closed syst within the Seven Rivers and Queen formations. The propose be 700 psi. The expected maximum injection pressure will st perforation, using a factor of 0.2 psi/ft. The proposed Wells v 3,640° and 3599° (or 728 psi and 720 psi maximum injection). LEGAL NOTICE August 20, 2021 In Strate the New Mexico II Operating, LLC (Case closed to the public and 2021 beginning at 8:15 20 wells and State

02107475

GILBERT HINKLE, SHANOR LLP PO BOX 2068 SANTA FE, NM 87504

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AE II OPERATING, LLC Case No. 22134

Exhibit A-7

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

APPLICATION OF FAE II OPERATING, LLC FOR REINSTATEMENT OF INJECTION AUTHORITY AND AUTHORIZATION TO CONVERT DISPOSAL WELL TO AN INJECTOR FOR WATERFLOOD OPERATIONS, LEA COUNTY, NEW MEXICO

CASE NO. 22134

Released to Imaging: 9/8/2021 9:12:23 AM

SELF-AFFIRMED STATEMENT OF JESSICA LAMARRO

- 1. I am over 18 years of age and am competent to provide this Self-Affirmed Statement. I have personal knowledge of the matters addressed herein. I am employed by FAE II Operating, LLC ("FAE") as a geologist. I am familiar with the Application in this case and with the geology matters pertaining to this Application. I have previously testified before the New Mexico Oil Conservation Division ("Division"), and my credentials as an expert in petroleum geology matters were accepted and made a matter of record.
- 2. FAE's Application seeks an order: (1) reinstating injection authority for certain injection wells within its Blackbeard South Waterflood Project ("Project") within the Seven Rivers and Queen formations comprised of portions of Sections 3, 4, 9-11, 13-15, 17, and 20-24, Township 23 South, Range 36 East, Lea County, New Mexico; and (2) authorizing FAE to convert a produced-water disposal well to an injector for waterflood operations.

FAE II OPERATING, LLC

Case No. 22134

Exhibit B

3. The legal locations and injection intervals of the wells ("Wells") pertaining to this application are as follows:

		Injection
Well Name (API: 30-025-)	Location within T23S-R6E	interval
State "A" A/C 1 No. 116 (28396)	Unit D, 1260 FNL & 1310 FWL, Sec. 10	3644'- 3845'
State "A" A/C 1 No. 117 (28512)	Unit K, 1395 FSL & 1345 FWL, Sec. 3	3640'- 3820'
State "A" A/C 1 No. 120 (28515)	Unit C, 25 FNL & 1345 FWL, Sec. 10	3650'- 3800'
State "A" A/C 3 No. 10 (28509)	Unit G, 1345 FNL & 1480 FEL, Sec. 10	3575'- 3705'
State "A" A/C 3 No. 11 (28510)	Unit G, 1345 FNL & 2615 FEL, Sec. 10	3575'- 3705'

- 4. Order R-4819 defined the "unitized interval" as the Jalmat; Tan-Yates-7 RVRS (Oil) and Langlie Mattix Pools, which are at depths of 2,798' to 4,075' on the State A A/C 3 #3 (3002509301) log.
- 5. Produced water will be injected into the Seven Rivers and Queen Formations found at the drilling depth interval of 3,640' to 4,000' as measured on the electric log called the "Compensated Densilog, Compensated Neutron, Gamma Ray" ran January 24, 1984 on Sun Exploration/Prod. CO. now FAE II Operating LLC's STATE A A/C 1 #116 (API No. 30-025-28396) for the purpose of increasing the ultimate recovery of oil within the interval underlying the Project area.
- 6. The productive zone immediately overlying the proposed injection interval is the Seven Rivers formation with its top being at an approximate depth of 3,326' TVD. The productive zone immediately underlying the proposed injection interval is the Grayburg formation at an approximate depth of 4,020' TVD.
- 7. **Exhibit B-1** contains a type log of the Seven Rivers-Queen injection interval. The interval consists primarily of sandstones interbedded with dolomites and anhydrites. The log shows the interval top at 3640' and which is top sealed by a low porosity/low permeability non-oil bearing Seven Rivers carbonate layer. The bottom of the interval is sealed by a low porosity/low

3. The legal locations and injection intervals of the wells ("Wells") pertaining to this application are as follows:

Well Name (API: 30-025-)	Location within T23S-R6E	Injection interval
State "A" A/C 1 No. 116 (28396)	Unit D, 1260 FNL & 1310 FWL, Sec. 10	3644'- 3845'
State "A" A/C 1 No. 117 (28512)	Unit K, 1395 FSL & 1345 FWL, Sec. 3	3640'- 3820'
State "A" A/C 1 No. 120 (28515)	Unit C, 25 FNL & 1345 FWL, Sec. 10	3650'- 3800'
State "A" A/C 3 No. 10 (28509)	Unit G, 1345 FNL & 1480 FEL, Sec. 10	3575'- 3705'
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- 5. Produced water will be injected into the Seven Rivers and Queen Formations found at the drilling depth interval of 3,640' to 4,000' as measured on the electric log called the "Compensated Densilog, Compensated Neutron, Gamma Ray" ran January 24, 1984 on Sun Exploration/Prod. CO. now FAE II Operating LLC's STATE A A/C 1 #116 (API No. 30-025-28396) for the purpose of increasing the ultimate recovery of oil within the interval underlying the Project area.
- 6. The productive zone immediately overlying the proposed injection interval is the Seven Rivers formation with its top being at an approximate depth of 3,326' TVD. The productive zone immediately underlying the proposed injection interval is the Grayburg formation at an approximate depth of 4,020' TVD.
- 7. **Exhibit B-1** contains a type log of the Seven Rivers-Queen injection interval. The interval consists primarily of sandstones interbedded with dolomites and anhydrites. The log shows the interval top at 3640' and which is top sealed by a low porosity/low permeability non-oil bearing Seven Rivers carbonate layer. The bottom of the interval is sealed by a low porosity/low

permeability section of the Grayburg carbonate. There is no fracturing and essentially no vugular porosity fabric evident in cores or on the openhole wireline log data. Productive porosity typically ranges from 10% to 20% and averages around 16% throughout the interval.

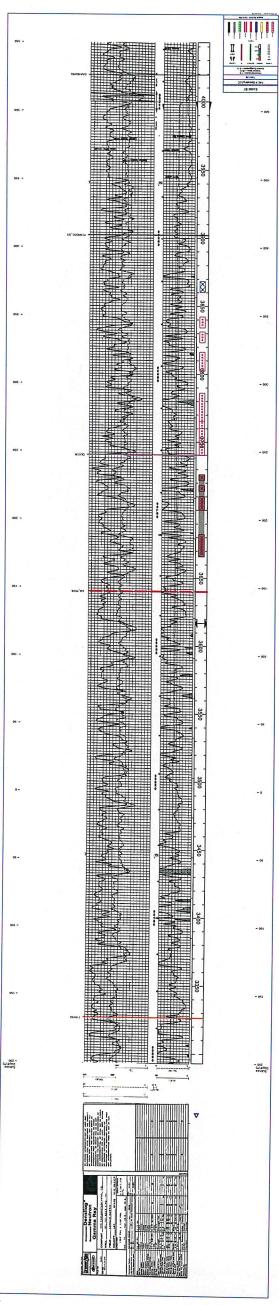
- 8. **Exhibit B-2** contains a structure map of the Unit. The map shows the structural contours near the top of the Seven Rivers-Queen injection interval. The structural slope is a gentle east to west downward slope into the Delaware Basin.
- 9. **Exhibits B-3 and B-4** contain cross-sections of the target injection interval within the Seven Rivers and Queen formations. The cross-sections demonstrate the injection interval is consistent and continuous across the target interval underlying the Project area. The cross-sections also show all lands within the proposed unit contain porous reservoir rock and therefore, all lands within the proposed unit appear capable of contributing additional secondary recovery reserves.
- 10. Accordingly, from geologic studies performed over this area, the unit area is well suited for secondary and tertiary recovery operations and the entire Project area should continue to contribute enhanced recovery reserves.
- 11. There are no faults or other geologic impediments that would impede the efficiency of the Project.
- 12. Based on my professional training and experience, it is my opinion that the proposed injection operations will not impair any hydrocarbon-bearing zones. It is also my opinion that injection fluids will be confined to the injection interval as a result of the stratigraphic confining layers above and below the injection zone.
- 13. Pages 37-46 of Form C-108 identify one (1) active freshwater well within a 1-mile radius of the Wells. Pages 47-51 of Form C-108 contain water analyses for the NE BXP Battery freshwater well and a freshwater trough. The NE BXP Battery well is located 1.42 miles from

State A A/C 1 #117. The well is considered a "shallow" water supply. The freshwater trough well is located 25 feet from the 7 Rivers Queen Unit #058 well and 2.7 miles from State A A/C 1 #117. The depth of the freshwater trough is a "shallow" water supply well.

- 14. With respect to compatibility, the source of the water to be injected will be produced water from other Seven Rivers and Queen formations wells drilled within the Project area and water transfer lines. **Exhibit B-5** contains a produced water analysis for the FAE II Operating LLC's STATE A A/C 1 #64 (API: 30-025-09230). I do not expect any water compatibility issues to arise from the proposed injection operations.
- 15. I have examined the available geological and engineering data and have found no evidence of open faults or hydrological connection between the proposed Seven Rivers-Queen injection interval and any underground sources of drinking water.
- 16. The exhibits referenced above were either prepared by me or under my supervision or were compiled from company business records.
- 17. In my opinion, the granting of FAE's application would serve the interests of conservation, the prevention of waste, and the protection of correlative rights.
- 18. I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 17 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.

Jessica LaMarro

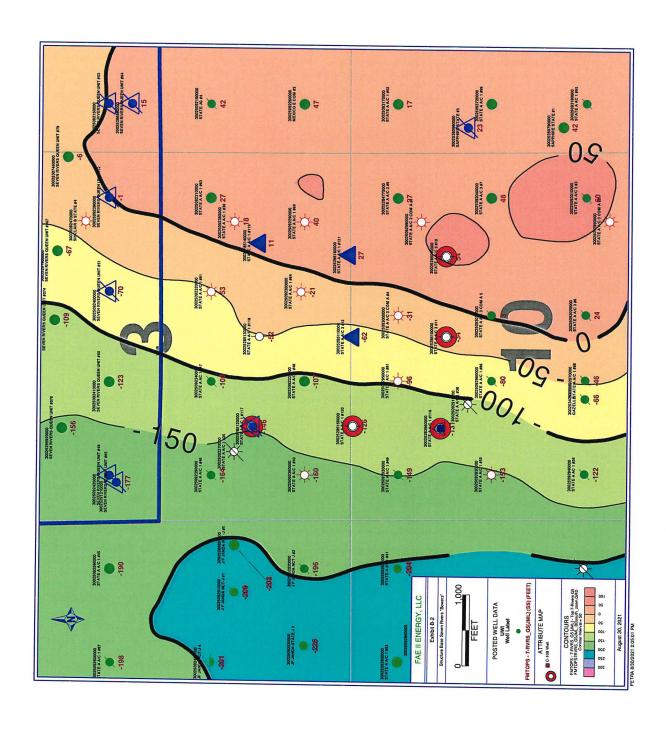
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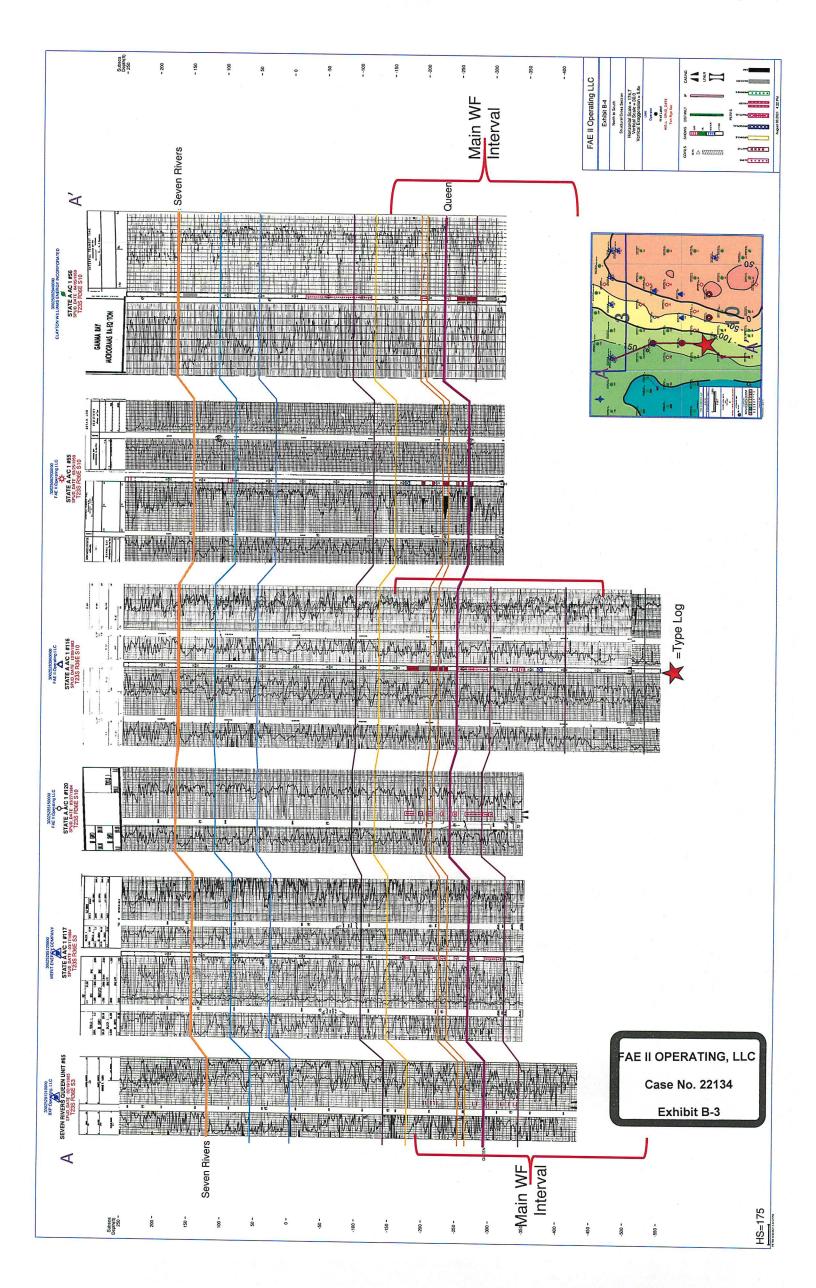
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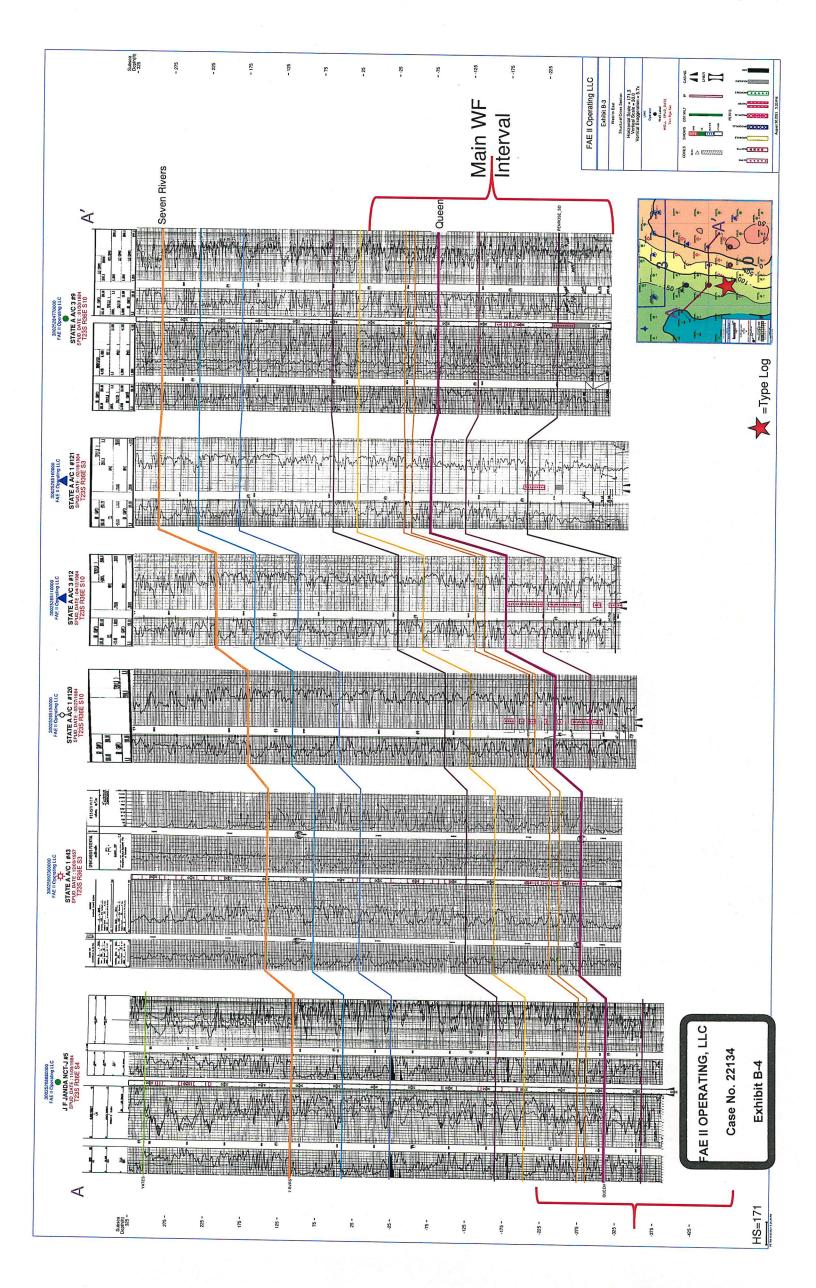
Case No. 22134

Exhibit B-1



FAE II OPERATING, LLC Case No. 22134 Exhibit B-2





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Impact Water Analysis Report

FAE II OPERATING, LLC

Case No. 22134

Exhibit B-5



SYSTEM IDENTIFICATION

Company: Blackbeard Location: State A A/C 1 #64 Sample Source: Wellhead Salesman: David Garcia

Sample ID#:

93627

Sample Date: Report Date:

02-20-2018

02-15-2018

WATER CHEMISTRY

CATIONS Calcium(as Ca) 504.00 Magnesium(as Mg) 764.50 Barium(as Ba) 0.00 Strontium(as Sr) 8.24 Potassium(as K) 188.40 Lithium(as Li) 3.38 Iron(as Fe) 0.49 Manganese(as Mn) 0.05

ANIONS	
Chloride(as Cl)	15000
Sulfate(as SO ₄)	501.00
Dissolved CO ₂ (as CO ₂)	300.00
Bicarbonate(as HCO ₃)	2418
H ₂ S (as H ₂ S)	342.00
Boron(as B)	18.96

PARAMETERS Temperature(OF) 77.00 Sample pH 7.00 Conductivity 36718 T.D.S. 28609 Resistivity 27.23 Sp.Gr.(g/mL) 1.01

SCALE AND CORROSION POTENTIAL

30.0

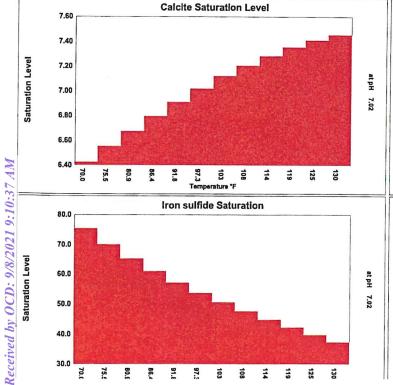
75.

Temp.	Press.	Ca	lcite	Anh	ydrite	Gy	osum	В	arite	Ce	lestite	Sic	lerite	Mack	awenite	CO2	pCO ₂
(OF)	(atm)	Ca	CO3	Ca	SO ₄	CaSO ₄	*2H ₂ O	В	3SO ₄	S	rSO ₄	Fe	CO3		eS	(mpy)	(atm)
70.00	1.00	6.42	3.68	0.0464	-2947	0.0770	-2362	0.00	-0.139	0.0637	-191.10	10.53	0.867	75.33	0.183	0.137	0.337
75.45	10.00	6.55	3.70	0.0451	-2968	0.0732	-2419	0.00	-0.163	0.0615	-196.21	11.33	0.875	69.98	0.182	0.230	1.85
80.91	19.00	6.67	3.71	0.0442	-2975	0.0699	-2471	0.00	-0.191	0.0598	-200.47	12.15	0.882	65.16	0.181	0.220	3.37
86.36	28.00	6.79	3.73	0.0435	-2970	0.0669	-2519	0.00	-0.221	0.0583	-204.05	13.00	0.889	60.89	0.179	0.203	4.88
91.82	37.00	6.91	3.74	0.0432	-2952	0.0642	-2563	0.00	-0.255	0.0570	-207.06	13.88	0.895	57.05	0.178	0.189	6.40
97.27	46.00	7.02	3.75	0.0431	-2922	0.0617	-2603	0.00	-0.292	0.0560	-209.61	14.79	0.900	53.58	0.177	0.179	7.92
102.73	55.00	7.12	3.75	0.0433	-2882	0.0595	-2639	0.00	-0.331	0.0550	-211.79	15.71	0.905	50.46	0.176	0.173	9.43
108.18	64.00	7.20	3.75	0.0438	-2832	0.0600	-2595	0.00	-0.375	0.0541	-213.81	16.63	0.909	47.50	0.174	0.155	10.95
113.64	73.00	7.28	3.75	0.0444	-2774	0.0608	-2544	0.00	-0.424	0.0532	-216.02	17.57	0.912	44.72	0.173	0.137	12.46
119.09	82.00	7.35	3.74	0.0453	-2708	0.0615	-2496	0.00	-0.479	0.0523	-218.27	18.53	0.916	42.12	0.171	0.122	13.98
124.55	91.00	7.41	3.74	0.0465	-2636	0.0622	-2452	0.00	-0.540	0.0513	-220.67	19.50	0.919	39.62	0.170	0.109	15.49
130.00	100.00	7.45	3.72	0.0479	-2558	0.0627	-2410	0.00	-0.608	0.0504	-223.21	20.46	0.921	37.24	0.168	0.0976	17.01
		xSAT	mg/L	xSAT	mg/L	xSAT	mg/L	xSAT	mg/L	xSAT	mg/L	xSAT	mg/L	xSAT	mg/L	0.0370	27.02

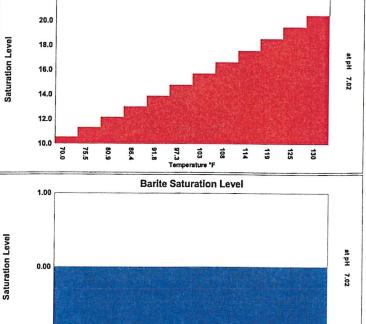
Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. {Ca}{CO₃}/K_{sp}. pCO₂ (atm) is the partial pressure of CO₂ in the gas phase. mg/L scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.

22.0

75. 3.08



125 130



Siderite Saturation Level

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

APPLICATION OF FAE II OPERATING, LLC FOR REINSTATEMENT OF INJECTION AUTHORITY AND AUTHORIZATION TO CONVERT DISPOSAL WELL TO AN INJECTOR FOR WATERFLOOD OPERATIONS. LEA COUNTY, NEW MEXICO.

CASE NO. 22134

Released to Imaging: 9/8/2021 9:12:23 AM

SELF-AFFIRMED STATEMENT OF HUXLEY SONG

- 1. I am over 18 years of age and am competent to provide this Self-Affirmed Statement. I have personal knowledge of the matters addressed herein. I am the Vice President of Engineering for FAE II Operating, LLC ("FAE"). I am familiar with the Application filed by FAE in this case and with the engineering matters pertaining to this Application. I have previously testified before the New Mexico Oil Conservation Division ("Division"), and my credentials as an expert in petroleum engineering matters were accepted and made a matter of record.
- 2. FAE's Application seeks an order: (1) reinstating injection authority for certain injection wells within its Blackbeard South Waterflood Project ("Project") within the Seven Rivers and Queen formations comprised of portions of Sections 3, 4, 9-11, 13-15, 17, and 20-24, Township 23 South, Range 36 East, Lea County, New Mexico; and (2) authorizing FAE to convert a produced-water disposal well to an injector for waterflood operations.

AE II OPERATING, LLC Case No. 22134 Exhibit C

3. The legal locations and injection intervals of the wells ("Wells") pertaining to this application are as follows:

Well Name (API: 30-025-)	Location within T23S-R6E	Injection interval
State "A" A/C 1 No. 116 (28396)	Unit D, 1260 FNL & 1310 FWL, Sec. 10	3644'- 3845'
State "A" A/C 1 No. 117 (28512)	Unit K, 1395 FSL & 1345 FWL, Sec. 3	3640'- 3820'
State "A" A/C 1 No. 120 (28515)	Unit C, 25 FNL & 1345 FWL, Sec. 10	3650'- 3800'
State "A" A/C 3 No. 10 (28509)	Unit G, 1345 FNL & 1480 FEL, Sec. 10	3575'- 3705'
State "A" A/C 3 No. 11 (28510)	Unit G, 1345 FNL & 2615 FEL, Sec. 10	3575'- 3705'

- 4. FAE proposes to convert its State "A" A/C 1 No. 116 well from a produced-water disposal well to an injector for waterflood operations and to reinstate injection into the State "A" A/C 1 No. 117 and 120 wells and State "A" A/C 3 No. 10 and 11 wells for waterflood operations. FAE plans to inject water through a closed system of perforations at depths of 3,500' to 4,000' within the Seven Rivers and Queen formations.
- 5. Specifications and wellbore schematics for the Wells are provided at pages 2-6 of Form C-108. The Wells will be adequately equipped for injection, and the construction of the Wells will protect fresh water and other hydrocarbon-bearing zones.
- 6. The proposed average injection pressure through the Wells is expected to be approximately 700 psi. The expected maximum injection pressure will be calculated relative to the depth of the highest perforation, using a factor of 0.2 psi/ft. The proposed Wells will have perforation depths of approximately 3,640' and 3,599' (or 728 psi and 720 psi maximum injection pressure, respectively). Pending results of a step rate test, the maximum injection pressure could potentially be increased to a factor of 0.6 psi/ft (or 2,184 psi at 3,640' and 2,160 psi at 3,599').
- 7. The proposed average injection rate is expected to be approximately 600 barrels of water per day. The maximum daily injection rate will be 1,000 barrels of water per day or as permitted by the Division.

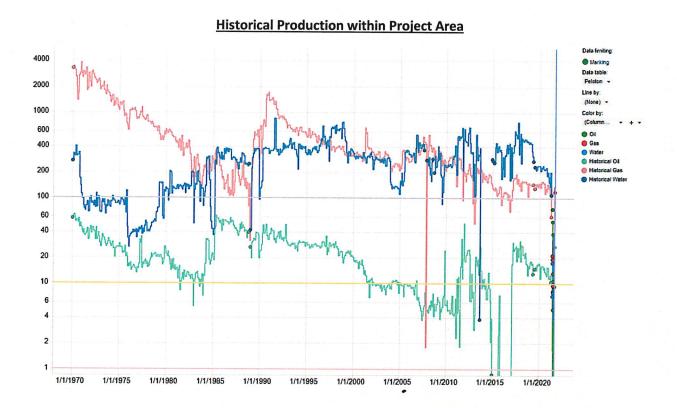
- 8. FAE proposes to acidize the perforations within its injector Wells with 5,000 gal 15% HCl for each set of perforations. Based on my professional training and experience, it is my professional opinion that acidizing each set of perforations within the Wells will maximize injection rates.
- 9. **Exhibit C-1** depicts the rate at which production has declined within the Project from approximately 60 bopd after initial waterflood implementation in the 1980s to approximately 10 bopd at present. Based on my professional training and experience, it is my opinion that production will decline even further from the current level of approximately 10 bopd in the absence of additional injection wells.
- 10. **Exhibit C-2** contains an Incremental Production and Economic Summary of the Project. The exhibit shows an economic comparison of continuing operations under current conditions with no additional injection support as opposed to increasing secondary recovery operations in the Wells within the Project. It is my opinion that commencing injection operations within the Wells would result in an incremental Estimated Ultimate Recovery (EUR) increase of approximately 800 Mbbl of oil.
- 11. It is my opinion that injection operations within the Project are economically and technically feasible and that it is prudent to utilize secondary recovery operations to maximize oil recovery. It is also my opinion that the proposed conversion of FAE's State "A" A/C 1 No. 116 producer to injector for waterflood operations is not premature.
- 12. FAE will run an MIT test prior to commencing injection and will monitor pressure during injection.
- 13. The exhibits referenced above were either prepared by me or under my supervision or were compiled from company business records.

- 14. In my opinion, the granting of FAE's application would serve the interests of conservation, the prevention of waste, and the protection of correlative rights.
- 15. I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 14 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.

Huxley Song

Date

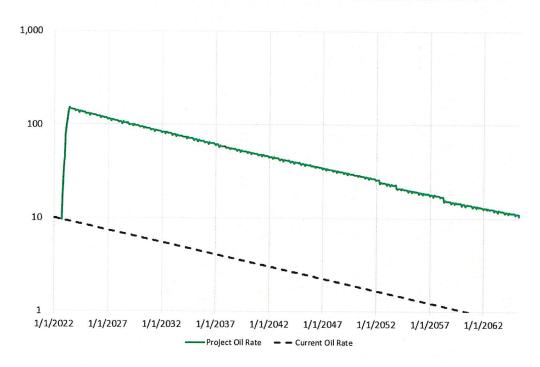
Exhibit C-1



FAE II OPERATING, LLC Case No. 22134 Exhibit C-1

Exhibit C-2

Production Comparison: Waterflood Reactivation Project vs Current Play Out



Economics of Waterflood Reactivation

	NPV-10 (Including Capital)	Gross Oil Reserves
Waterflood Reactivation	\$8.5 million	0.9 million bo
Current Play Out (No Waterflood Reactivation)	\$1.3 million	0.1 million bo
Delta (Benefit from Waterflood Reactivation)	\$7.2 million	0.8 million bo

FAE II OPERATING, LLC Case No. 22134 Released to Imaging: 9/8/2021 9:12:23 AM