DATE IN 4/29/2016	SUSPENSE	ENGINEER PRC	LOGGED IN 6/23/2016	TYPE SWD	APP NO. pMAM1617540142

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

SWD 1634 - Legacy Reserves Operating LP 240974 - Well - Lea Unit #17 30-025-32744 Pool

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

30-025-32744

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify ______________________

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

CRAIG SPARKMAN	Craig Sparkman	OPERATIONS ENG.	4/29/16
Print or Type Name	Signature	Title	Date

csparkman@legacylp.com
e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance __X__ Disposal _____ Storage
Application qualifies for administrative approval? __X__ Yes _____ No

II. OPERATOR: LEGACY RESERVES OPERATING LP

ADDRESS: P.O. BOX 10848, MIDLAND, TX 79707

CONTACT PARTY: CRAIG SPARKMAN PHONE: 432/689-5200

III. WELL DATA: *Complete the data required on the reverse side of this form for each well proposed for injection.* Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes __X__ No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: CRAIG SPARKMAN TITLE: OPERATIONS ENGINEER

SIGNATURE: Craig Sparkman DATE: 7/7/16

E-MAIL ADDRESS: csparkman@legacylp.com

* If the information required under Sections VI, VIII, X, and ~~XI~~ above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

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

Legacy Reserves Operating LP, P.O. Box 10848, Midland, Texas 79702

March 1, 2016

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

RE: Application for Authorization to Inject
Lea Unit #17
Lea (Devonian) Field
Lea County, New Mexico

Ladies and Gentlemen:

Attached is the referenced application to convert Lea Unit #17 to water injection in the Devonian from 14,353'-14,456'. Attached are the following:

1) The "Application for Authorization to Inject" form C-108.
2) The "Injection Well Data Sheet".
3) Two maps showing the wells and leases within two miles of the proposed injection well and the half-mile radius around the proposed injection well, which defines the well's area of review. All wells within one-half mile of the proposed injection well are identified on the map.
4) A table of all wells within the half-mile radius area of review around the proposed injection well. Legacy Reserves Operating LP operates all wells within this half-mile radius. Two wells within this half-mile radius are active.
5) An affidavit of publication signed by the publisher that notice of the application was published in a newspaper of general circulation in Lea County, New Mexico. A copy of the newspaper notice is also included.
6) Current and proposed wellbore diagrams of the Lea Unit #17.
7) Geological data on the Lea Unit #17.
8) Engineering data on the Lea Unit #17.

A notice of this application was published in the Hobbs News-Sun on November 20, 2015. A copy of this application was sent by certified mail to the surface owner, Kenneth Smith, Inc. on or before March 2, 2016. Legacy Reserves Operating LP operates all wells within the half-mile radius area of review; therefore, no offset operator to the Lea Unit was notified.

If there are any questions regarding this application or if any additional information is needed, please contact me at 432/689-5201 or by email at csparkman@legacylp.com. Thank you.

Sincerely,

Craig Sparkman

Craig Sparkman
Operations Engineer

CAS
Attachments
cc: NMOCD District Office – Hobbs
Kenneth Smith, Inc.

Side 2

III. WELL DATA

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

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

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

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

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

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

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

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

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

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

Side I

INJECTION WELL DATA SHEET

OPERATOR: LEGACY RESERVES OPERATING LP

WELL NAME & NUMBER: LEA UNIT #17

WELL LOCATION: 990' FSL, 1756' FEL (FOOTAGE LOCATION) O (UNIT LETTER) 13 (SECTION) 20S (TOWNSHIP) 34E (RANGE)

WELLBORE SCHEMATIC

SEE THE ATTACHED CURRENT AND PROPOSED WELLBORE DIAGRAMS

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17½" Casing Size: 13⅜"

Cemented with: 1100 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: VISUAL

Intermediate Casing

Hole Size: 12¼" Casing Size: 9⅝"

Cemented with: 2210 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: VISUAL

Production Casing

Hole Size: INSIDE 7" CASING Casing Size: 5"

Cemented with: 900 sx. *or* _____ ft³

Top of Cement: DESIGNED TO BE SURFACE Method Determined: _____

Total Depth: 14,348'

Injection Interval

14,353' feet to 14,456'

(Perforated or (Open Hole), indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8", 6.5#, N-80 Lining Material: INTERNALLY PLASTIC COATING

Type of Packer: ARROWSET IX

Packer Setting Depth: 14,323'

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

Additional Data

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

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

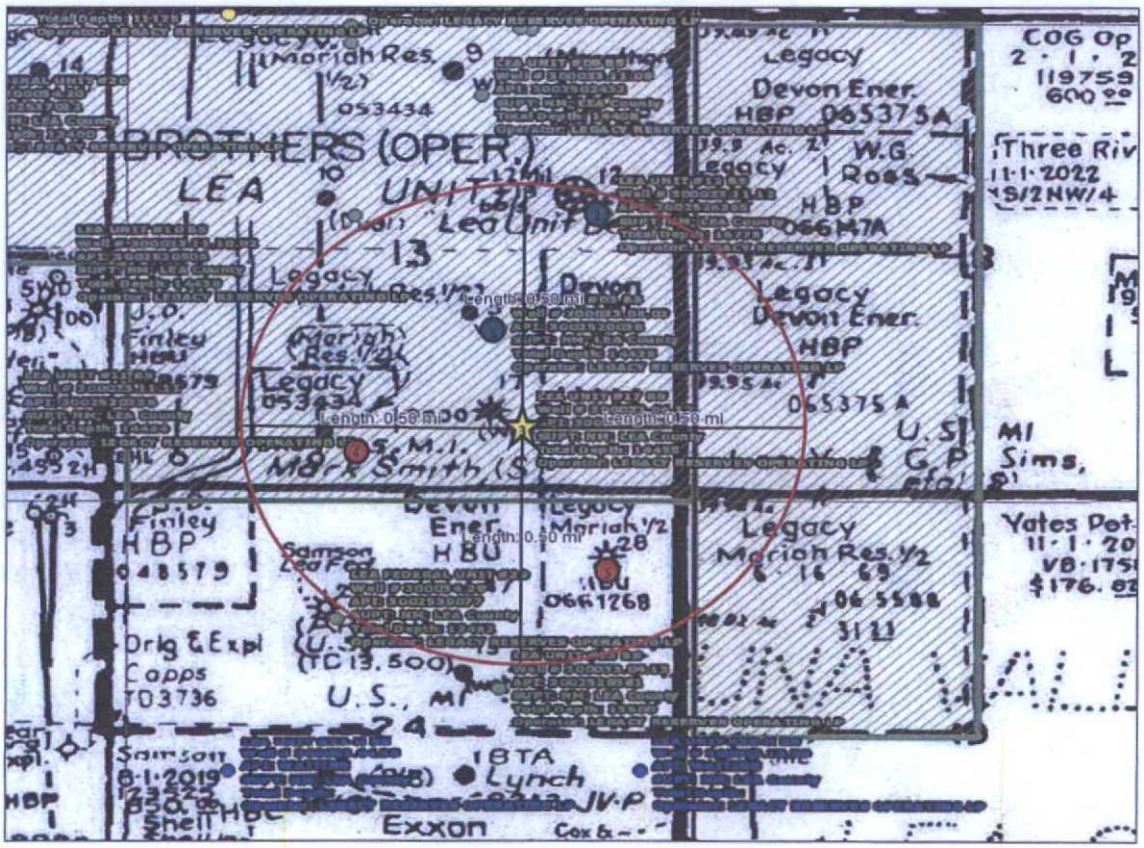
2. Name of the Injection Formation: DEVONIAN

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

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. BONE SPRING 9558'-11,030', MORROW (PENN) 12,814'-13,236' - BOTH OF THESE INTERVALS WILL BE ISOLATED BY A 5" CEMENTED LINER INSIDE 7" CASING.

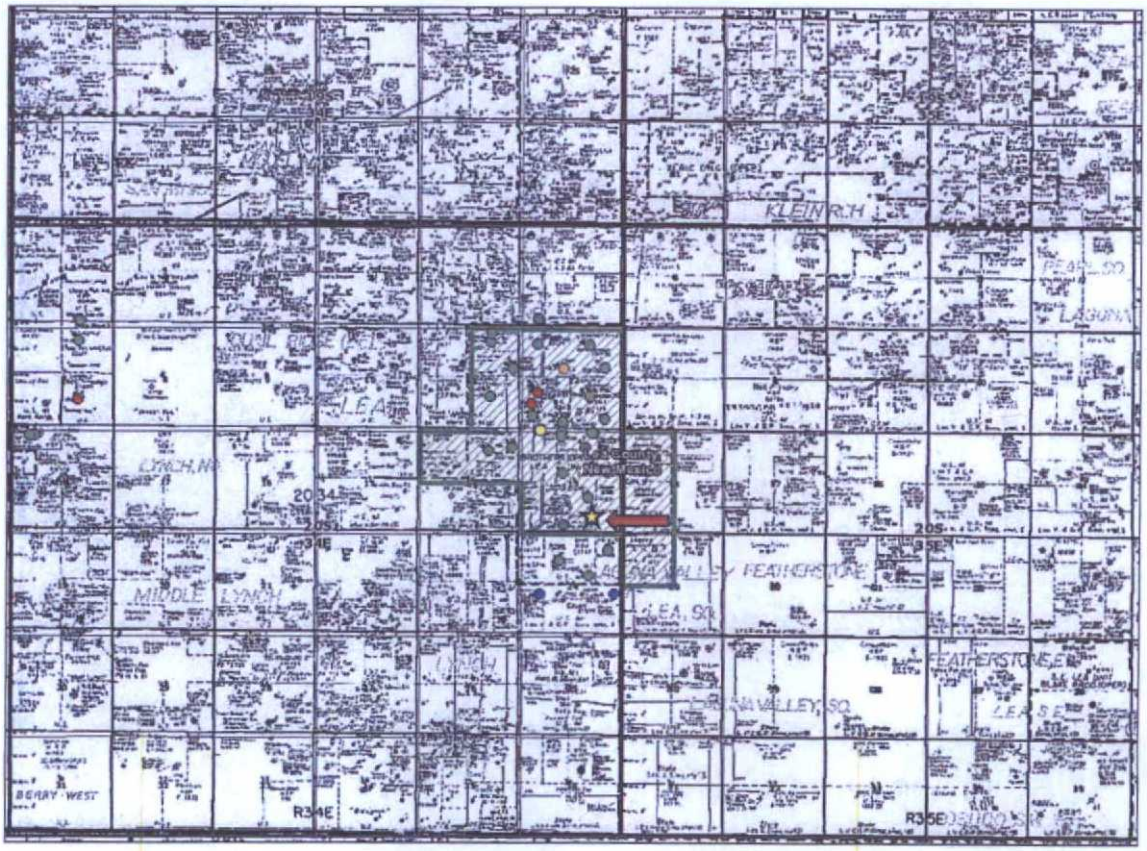
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: BONE SPRING +/- 9600', MORROW (PENNSYLVANIAN) +/- 12,900'

Lea Unit No. 17
API: 30-025-32794
County, State: Lea County, NM
Footage Location: 900' FSL, 1756' FEL
Section, Township, Range: 13, 20S, 34E
½ Mile Radius



LEGACY RESERVES

Lea Unit No. 17
API: 30-025-32794
County, State: Lea County, NM
Footage Location: 900' FSL, 1756' FEL
Section, Township, Range: 13, 20S, 34E
½ Mile Radius



Lea Unit No. 17
API: 30-025-32794
County, State: Lea County, NM
Footage Location: 900' FSL, 1756' FEL
Section, Township, Range: 13, 20S, 34E
½ Mile Radius

Wells within ½ Mile Radius of Lea Unit No. 17

Map No.	Well Name and No.	API Number	Class	Well Status	Operator	Location (Sec, Twp, Range)	TD
1	Lea Unit No. 3	30-025-20038	Oil	Active	Legacy Reserved Operating LP	13, 20S, 34E	14,435
2	Lea Unit No. 12	30-025-26365	Oil	Active	Legacy Reserved Operating LP	13, 20S, 34E	16,775
3	Lea Unit No. 17	30-025-32794	Oil	Active	Legacy Reserved Operating LP	13, 20S, 34E	14,455
4	Lea Unit No. 11	30-025-20338	Gas	Active	Legacy Reserved Operating LP	13, 20S, 34E	14,464
5	Lea Federal No. 28	30-025-38718	Gas	Active	Legacy Reserved Operating LP	12, 20S, 34E	13,500

LEGACY RESERVES

LEA UNIT #17

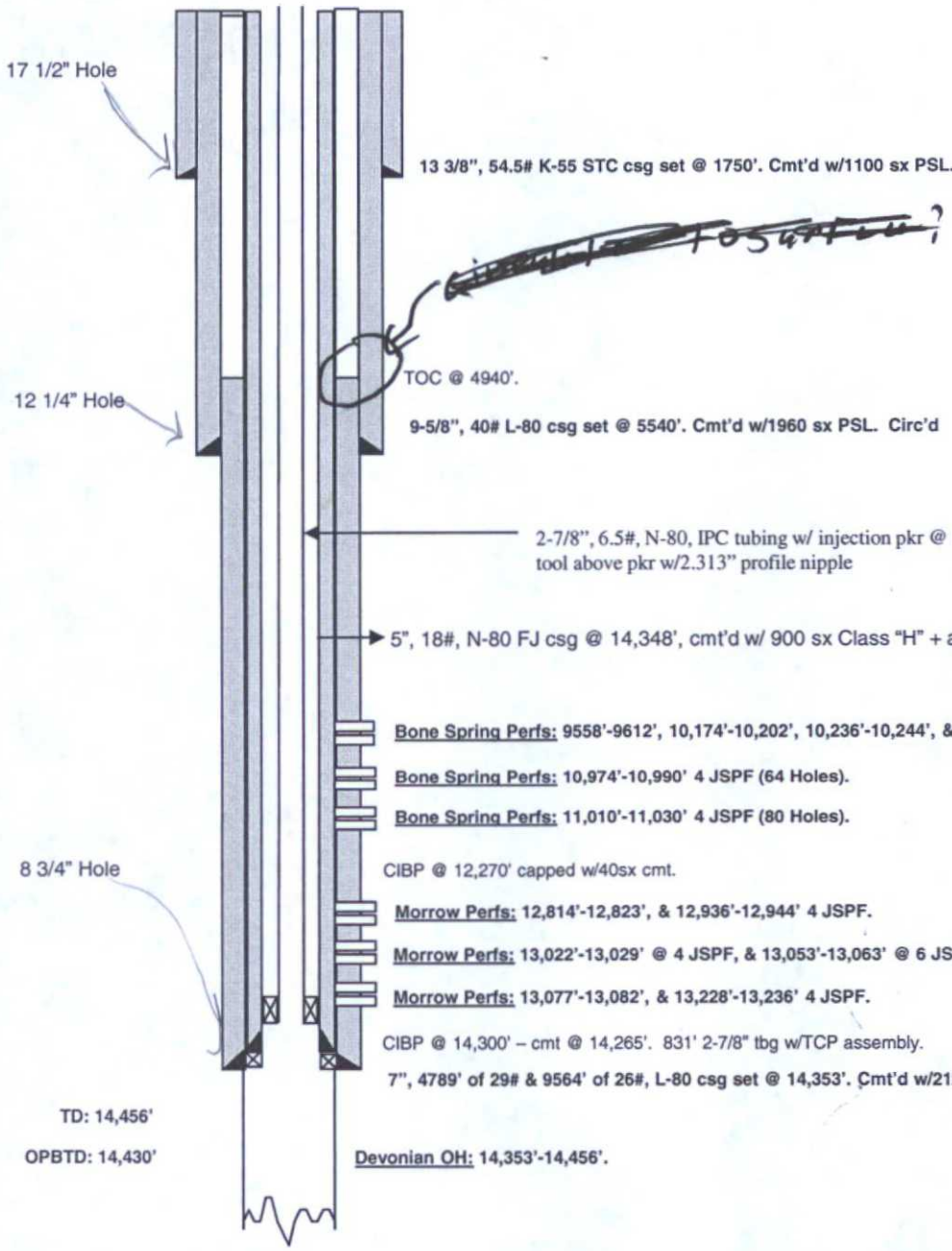
LOCATION: 900' FSL & 1756' FEL, Sec 13, T20S, R34E

Proposed Wellbore Diagram

FIELD: Lea (Devonian)
COUNTY: Lea
STATE: New Mexico

GL: 3660'
KB: 3683'
SPUD DATE: 2/3/1995

LATEST UPDATE: 2/2/2016
BY: CSPARKMAN
API No: 30-025-32794



LEGACY RESERVES

LEA UNIT #17

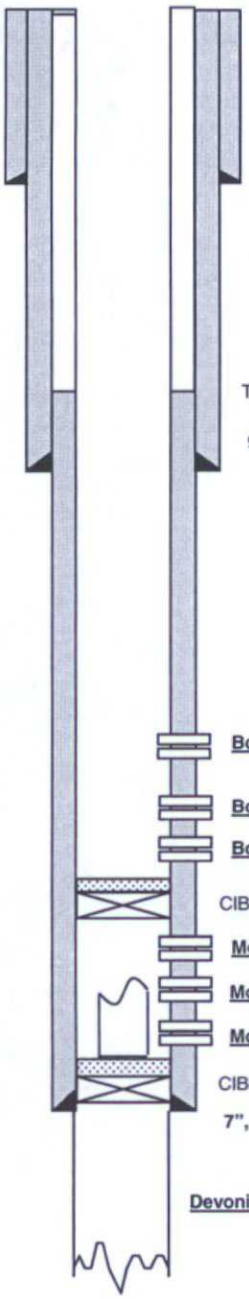
LOCATION: 900' FSL & 1756' FEL, Sec 13, T20S, R34E

Current Wellbore Diagram

FIELD: Lea; Bone Spring
COUNTY: Lea
STATE: New Mexico

GL: 3660'
KB: 3683'
SPUD DATE: 2/3/1995

LATEST UPDATE: 2/2/2016
BY: CSPARKMAN
API No: 30-025-32794



17 1/2" Hole

13 3/8", 54.5# K-55 STC csg set @ 1750'. Cmt'd w/1350 sx PSL. Circ'd.

TOC @ 4940'.

12 1/4" Hole

9-5/8", 40# L-80 csg set @ 5540'. Cmt'd w/2210 sx PSL. Circ'd

Bone Spring Perfs: 9558'-9612', 10,174'-10,202', 10,236'-10,244', & 10,808'-10,835' 2 JSPF (234 Holes).

Bone Spring Perfs: 10,974'-10,990' 4 JSPF (64 Holes).

Bone Spring Perfs: 11,010'-11,030' 4 JSPF (80 Holes).

8 3/4" Hole

CIBP @ 12,270' capped w/40sx cmt.

Morrow Perfs: 12,814'-12,823', & 12,936'-12,944' 4 JSPF.

Morrow Perfs: 13,022'-13,029' @ 4 JSPF, & 13,053'-13,063' @ 6 JSPF.

Morrow Perfs: 13,077'-13,082', & 13,228'-13,236' 4 JSPF.

CIBP @ 14,300' – cmt @ 14,265'. 831' 2-7/8" tbg w/TCP assembly.

7", 4789' of 29# & 9564' of 26#, L-80 csg set @ 14,353'. Cmt'd w/2120 sx Class H.

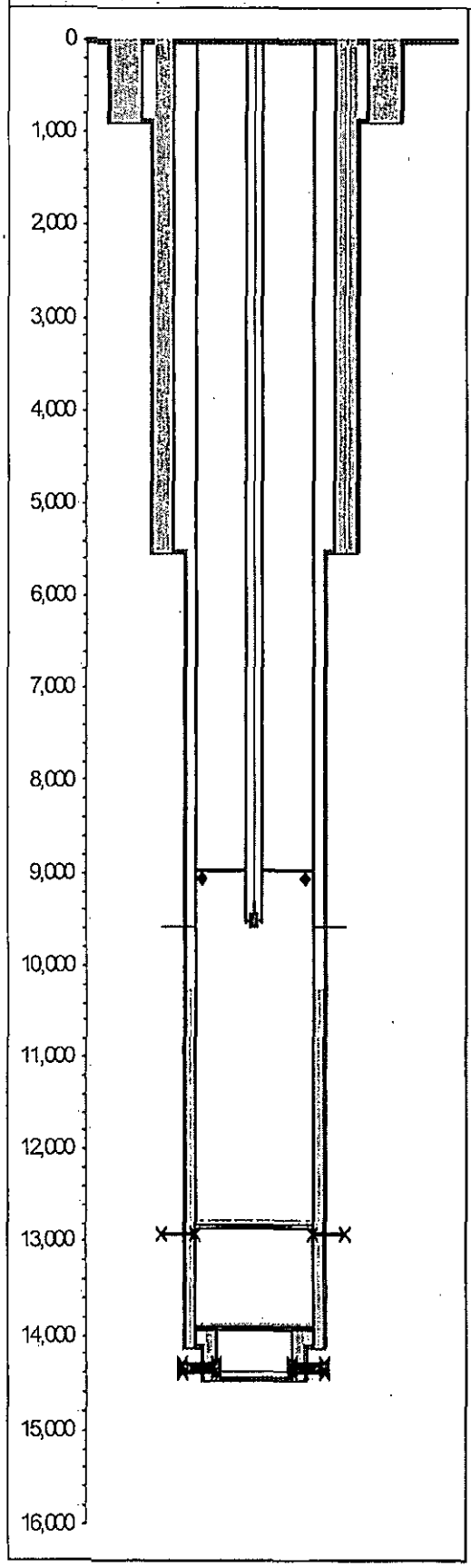
TD: 14,456'

OPBTD: 14,430'

Devonian OH: 14,353'-14,456'.

Wellbore Schematic (From Surface to TD)

Printed: 6/20/2016 Page 3



Lea Unit # 3 — **BOLO ID: 300033.06.03** — **API # 3002520038**

1980 FSL & 1980 FEL	GL Elev: 3,656.00	KOP:	
		EOC:	
County, State: Lea, NM		Fill Depth:	
Aux ID: 22960		PBTD:	12,765.00
KB = 21; DF = ; All Depths Corr To:		TD:	14,435.00
		BOP:	

Hole Size

Diameter	Top At	Btm At	Date Drilled
17.5000	0.00	867.00	8/3/1962
12.2500	867.00	5,498.00	8/18/1962
8.3750	5,498.00	14,090.00	11/24/1962
6.1250	14,090.00	14,435.00	12/22/1962

Surface Casing — *Date Ran: 8/3/1962*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	21	13.3750	48.00	H40	866.78	0.00	866.78

Intermediate Casing — *Date Ran: 8/18/1962*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	83	9.6250	36.00	J55	3,373.76	0.00	3,373.76
D.V. Tool	1	9.6250			3.16	3,373.76	3,376.92
Casing	8	9.6250	36.00	J55	326.42	3,376.92	3,703.34
Casing	26	9.6250	40.00	J55	1,093.95	3,703.34	4,797.29
Casing	17	9.6250	40.00	N80	697.85	4,797.29	5,495.14
Float Collar	1	9.6250			2.86	5,495.14	5,498.00

Production Casing String 1 — *Date Ran: 11/24/1962*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	68	7.0000	26.00	P110	2,776.51	0.00	2,776.51
Casing	43	7.0000	29.00	N80	1,834.82	2,776.51	4,611.33
Casing	1	7.0000	29.00	N80	27.76	4,611.33	4,639.09
Casing	113	7.0000	26.00	S95	5,242.79	4,639.09	9,881.88
Casing	90	7.0000	29.00	S95	4,203.44	9,881.88	14,085.32
Float Collar	1	7.0000			2.22	14,085.32	14,087.54
Float Shoe	1	7.0000			2.46	14,087.54	14,090.00

Production Casing String 2 — *Date Ran: 12/22/1962*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Set Below G.L.					13,928.51	0.00	13,928.51
Casing	12	4.5000	14.98	P110	506.49	13,928.51	14,435.00

Cement

# Sx	Class	Weight	I D	O D	Top At	Btm At	TOC Per
800	Regular		13.375	17.500	0.00	867.00	Circ
2870	Lite&Reg		9.625	12.250	0.00	5,498.00	Circ
1250	Inferno		7.000	8.375	10,260.00	14,090.00	TS
100	Inferno		4.500	6.125	13,934.00	14,435.00	TS
			0.000	7.000	12,765.00	12,800.00	Est
			0.000	*7.000*	*13,865.00*	*13,900.00*	Est

Zone and Perfs

Bone Spring
Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
9,564.00	9,580.00	Bone Spring	A	4/25/2005		2	34
12,902.00	12,918.00	Bend Gas	PA	8/1/1962	2/22/1973	2	32
14,290.00	14,294.00	Devonian	PA	6/18/1975	6/10/2005	2	8
14,336.00	14,342.00	Devonian	PA	6/18/1975	6/10/2005	2	12
14,348.00	14,350.00	Devonian	PA	6/18/1975	6/10/2005	2	4
14,380.00	14,388.00	Devonian	PA	8/1/1962	2/22/1973	6	48

Lea Unit # 3 BOLO ID: 300033.06.03 API # 3002520038

Wellbore Plugs and Junk

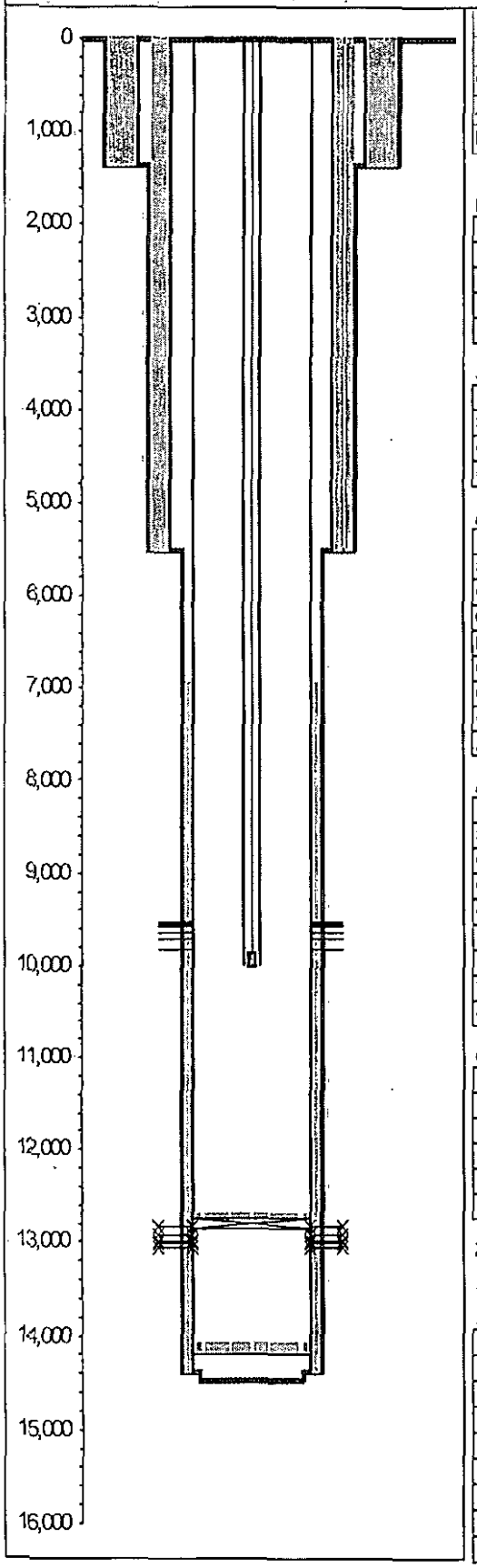
Top	Bottom	Type	Diameter	Solid	Date
12,800.00	12,850.00	CIBP	7.000	Yes	6/10/2005
13,900.00	13,950.00	CIBP	7.000	Yes	6/10/2005
14,370.00	14,380.00	CIBP	4.500	Yes	6/18/1975

Tubing String 1 *Date Ran: 1/14/2015*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Tubing	272	2.8750		L80	8,961.00	0.00	8,961.00
Tubing Anchor	1	7.0000			4.00	8,961.00	8,965.00
Tubing	16	2.8750		L80	530.00	8,965.00	9,495.00
Seat Nipple	1	2.3750			1.00	9,495.00	9,496.00
Perf Nipple	1	2.8750			4.00	9,496.00	9,500.00
Mud Anchor	1	2.8750			32.00	9,500.00	9,532.00

Rod String 1 *Date Ran: 4/8/2015*

Description	#	Diameter	Rod Box	Grade	Length	Top At	Btm At
Pony Rods	1	0.8750			6.00	0.00	6.00
Rods	185	0.8750			4,625.00	6.00	4,631.00
Rods	187	0.7500			4,675.00	4,631.00	9,306.00
Sinker Bars	7	1.5000			175.00	9,306.00	9,481.00
Pump	1	1.2500			24.00	9,481.00	9,505.00
2 x 1 1/4 x 24 RHBC							
Gas Anchor	1	1.0000			8.00	9,505.00	9,513.00



Lea Unit # 11 — **BOLO ID: 300033.11.11** — **API # 3002520338**

1660 FNL & 1980 FWL	GL Elev: 3,676.00	KOP:	
		EOC:	
County, State: Lea, NM		Fill Depth:	
Aux ID: 23000		PBTD:	12,700.00
KB = 23; DF = 20; All Depths Corr To:		TD:	14,464.00
		BOP:	

Hole Size

Diameter	Top At	Btm At	Date Drilled
17.5000	0.00	1,354.00	6/5/1963
12.2500	1,354.00	5,508.00	6/17/1963
8.3750	5,508.00	14,371.00	9/4/1963
6.1250	14,371.00	14,454.00	9/8/1963

Surface Casing — *Date Ran: 6/5/1963*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Set Below G.L.					27.00	0.00	27.00
Casing	32	13.3750	48.00	H40	1,325.68	27.00	1,352.68
Guide Shoe	1	13.3750			1.40	1,352.68	1,354.08

Intermediate Casing — *Date Ran: 6/17/1963*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Set Below G.L.					24.00	0.00	24.00
Casing	81	9.6250	36.00	J55	3,328.94	24.00	3,352.94
Casing	1	9.6250	40.00	J55	41.79	3,352.94	3,394.73
Float Collar	1	9.6250			3.30	3,394.73	3,398.03
Casing	30	9.6250	40.00	J55	1,261.01	3,398.03	4,659.04
Casing	20	9.6250	40.00	N80	845.87	4,659.04	5,504.91
Guide Shoe	2	9.6250			2.79	5,504.91	5,507.70
Baker Flex Flow collar and guide shoe							

Production Casing String 1 — *Date Ran: 9/4/1963*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Set Below G.L.					21.70	0.00	21.70
Casing	67	7.0000	26.00	P110	2,745.63	21.70	2,767.33
Casing	38	7.0000	29.00	N80	1,543.08	2,767.33	4,310.41
Casing	1	7.0000	29.00	P110	31.67	4,310.41	4,342.08
Casing	122	7.0000	26.00	S-95	5,659.03	4,342.08	10,001.11
Casing	94	7.0000	29.00	S-95	4,366.70	10,001.11	14,367.81
Float Collar	1	7.0000			2.21	14,367.81	14,370.02
Guide Shoe	1	7.0000			0.98	14,370.02	14,371.00

Cement

# Sx	Class	Weight	I D	O D	Top At	Btm At	TOC Per
1170	Regular		13.375	17.500	0.00	1,354.00	Circ
1250	Lite		9.625	12.250	0.00	5,508.00	Circ
1250	Regular		7.000	8.375	6,955.00	14,371.00	TS
35	Inferno		0.000	7.000	14,081.00	14,155.00	Calc
			0.000	7.000	12,700.00	12,750.00	Calc

Zone and Perfs

Bone Spring
Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
9,532.00	9,560.00	Bone Spring	A	5/1/1994		4	112
9,580.00	9,630.00	Bone Spring	A	8/1/1994		4	168
9,712.00	9,830.00	Bone Spring	A	4/29/1994		4	184
12,824.00	12,833.00	Morrow	PA	5/27/1965	4/27/1994	2	
12,912.00	12,919.00	Morrow	PA	5/27/1965	4/27/1994	2	
12,987.00	12,996.00	Morrow	PA	10/15/1963	5/20/1965	2	
13,024.00	13,050.00	Lower Morrow	PA	10/5/1983	4/27/1994	2	
14,371.00	14,454.00	Devonian	PA	9/8/1963	5/24/1965		

Lea Unit # 11 BOLO ID: 300033.11.11 API # 3002520338

Wellbore Plugs and Junk

Top	Bottom	Type	Diameter	Solid	Date
12,750.00	12,850.00	CIBP	7.000	Yes	4/27/1994
14,182.00	14,185.00	Packer	7.000	Yes	8/24/1965

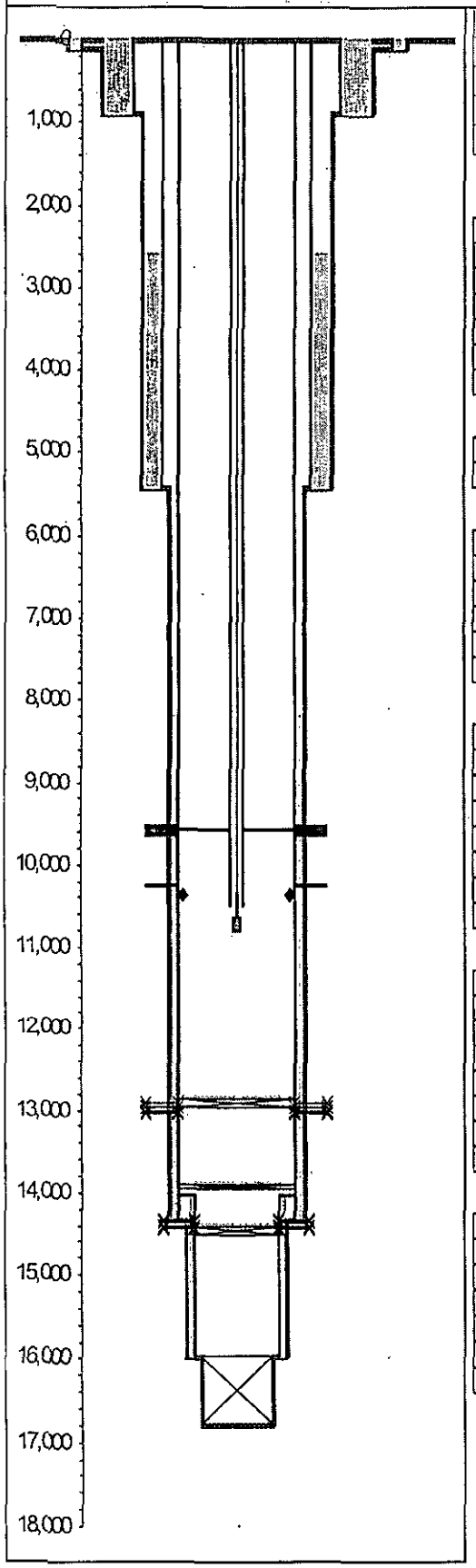
Tubing String 1 *Date Ran: 4/6/2012*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Tubing	301	2.8750	6.50	N80	9,491.00	0.00	9,491.00
Tubing Anchor	1				3.00	9,491.00	9,494.00
Tubing	14	2.8750	6.50	N80	441.00	9,494.00	9,935.00
Seat Nipple	1	2.8750			1.00	9,935.00	9,936.00
Perf Nipple	1	2.8750			4.00	9,936.00	9,940.00
Mud Anchor	1	2.8750			30.00	9,940.00	9,970.00

Rod String 1 *Date Ran: 4/6/2012*

Description	#	Diameter	Rod Box	Grade	Length	Top At	Btm At
Pony Rods	1	1.0000		FG	4.00	0.00	4.00
PONY							
Rods	156	1.0000		FG	5,850.00	4.00	5,854.00
Rods	72	0.8750		KD	1,800.00	5,854.00	7,654.00
Shear Tool	1	0.7500			1.00	7,654.00	7,655.00
Rods	88	0.7500		KD	2,200.00	7,655.00	9,855.00
Rods	2	0.7500		KD	50.00	9,855.00	9,905.00
Pump	1	1.5000			28.00	9,905.00	9,933.00
2.5X1.5XRHBCX28							
Gas Anchor	1	1.0000			6.00	9,933.00	9,939.00

Lea Unit # 12 BOLO ID: 300033.11.12 API # 3002526365



1980 FNL & 990 FEL	GL Elev: 3,662.00	KOP:	
		EOC:	
County, State: Lea, NM		Fill Depth:	
Aux ID: 23200		PBTD:	12,860.00
KB = 32; DF = ; All Depths Corr To: KB		TD:	16,775.00
		BOP:	

Hole Size

Diameter	Top At	Btm At	Date Drilled
22.0000	0.00	95.00	7/11/1979
17.5000	95.00	902.00	7/12/1979
12.2500	902.00	5,423.00	8/10/1979
8.7500	5,423.00	14,341.00	10/5/1979
6.5000	14,341.00	15,970.00	11/9/1979
4.5000	15,970.00	16,775.00	12/25/1979

Conductor Casing — *Date Ran: 7/11/1979*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	*1*	*20.0000*			*63.00*	*32.00*	*95.00*

Surface Casing — *Date Ran: 7/12/1979*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	1	13.3750			2.40	32.00	34.40
Casing	24	13.3750	48.00	H40	824.24	34.40	858.64
Float Collar	1	13.3750			1.50	858.64	860.14
Casing	1	13.3750	48.00	H40	41.09	860.14	901.23
Guide Shoe	1	13.3750			0.90	901.23	902.13

Intermediate Casing — *Date Ran: 8/10/1979*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	77	9.6250	36.00	K55	3,041.51	32.00	3,073.51
Casing	2	9.6250	40.00	N80	81.65	3,073.51	3,155.16
D.V. Tool	1	9.6250			3.30	3,155.16	3,158.46
Casing	56	9.6250	40.00	N80	2,217.61	3,158.46	5,376.07
Float Collar	1	9.6250			2.50	5,376.07	5,378.57
Casing	1	9.6250	40.00	N80	42.31	5,378.57	5,420.88
Float Collar	1	9.6250			2.25	5,420.88	5,423.13

Production Casing String 1 — *Date Ran: 10/5/1979*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	115	7.6250	29.70	P110	4,878.44	32.00	4,910.44
Casing	114	7.6250	29.70	AR95	3,975.88	4,910.44	8,886.32
Casing	84	7.6250	33.70	S95	3,576.93	8,886.32	12,463.25
Casing	46	7.6250	39.00	S95	1,799.10	12,463.25	14,262.35
Float Collar	1	7.6250			1.63	14,262.35	14,263.98
Casing	2	7.6250	39.00	S95	75.30	14,263.98	14,339.28
Float Shoe	1	7.6250			1.83	14,339.28	14,341.11

Production Casing String 2 — *Date Ran: 11/9/1979*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Set Below G.L.					14,001.00	32.00	14,033.00
Casing Hanger	1	5.5000			19.63	14,033.00	14,052.63
Casing	46	5.5000	20.00	P110	1,870.95	14,052.63	15,923.58
Float Collar	1	5.5000			2.33	15,923.58	15,925.91
Casing	1	5.5000	20.00	P110	41.87	15,925.91	15,967.78
Float Shoe	1	5.5000			1.92	15,967.78	15,969.70

Lea Unit # 12 BOLO ID: 300033.11.12 API # 3002526365

Cement

# Sx	Class	Weight	I D	O D	Top At	Btm At	TOC Per
325	C		20.000	22.000	0.00	95.00	Circ
63' of Conductor							
800	Lite & C		13.375	17.500	0.00	902.00	Circ
4100	*Lite & C*		*9.625*	*12.250*	*2,600.00*	*5,423.00*	*TS*
1500	Lite & H		7.625	8.750	8,200.00	14,341.00	TS
160	H		5.500	6.500	14,026.00	15,970.00	TS
	On CIBP		0.000	5.500	14,390.00	14,400.00	Calc
	On CIBP		*0.000*	*7.658*	*13,865.00*	*13,900.00*	*Calc*
6	On CIBP		0.000	7.658	12,825.00	12,860.00	Calc

Zone and Perfs

Bone Spring

Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
9,532.00	9,542.00	Bone Spring	A	8/3/1993		2	20
9,554.00	*9,556.00*	Bone Spring	A	*8/3/1993*		*2*	*4*
9,568.00	9,592.00	Bone Spring	A	8/3/1993		2	48
9,620.00	9,642.00	Bone Spring	A	8/3/1993		2	44
10,245.00	10,255.00	Bone Spring	A	7/29/1993		4	40
12,906.00	*12,957.00*	*Morrow*	PA	*2/20/1993*	*7/29/1993*	*6*	*144*
13,003.00	13,048.00	Morrow	PA	11/3/1992	7/29/1993	6	144
14,345.00	14,351.00	Devonian	PA	2/28/1980	10/29/1992	2	14
14,421.00	14,431.00	Devonian	PA	2/21/1980	10/29/1992	2	18

Wellbore Plugs and Junk

Top	Bottom	Type	Diameter	Solid	Date
12,860.00	12,960.00	CIBP	7.625	Yes	7/29/1993
13,900.00	13,944.00	CIBP	7.625	Yes	10/29/1992
13,945.00	13,950.00	Junk	7.625	Yes	10/29/1992
Permission from BLM to push junk from 8912'					
14,400.00	14,500.00	CIBP	6.500	Yes	2/27/1980
15,970.00	16,775.00	Cement	4.500	Yes	12/28/1979

Tubing String 1 *Date Ran: 11/11/2015*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Tubing	300	2.3750	4.60	N80	9,540.48	32.00	9,572.48
Tubing Anchor	*1*	*7.6250*			*3.00*	*9,572.48*	*9,575.48*
Tubing	28	2.3750		N80	883.27	9,575.48	10,458.75
Seat Nipple	1	2.3750			1.00	10,458.75	10,459.75
Perf Nipple	1	2.3750			4.00	10,459.75	10,463.75
Mud Anchor	1	2.3750			31.00	10,463.75	10,494.75
Bull Plug	1	2.3750			1.00	10,494.75	10,495.75

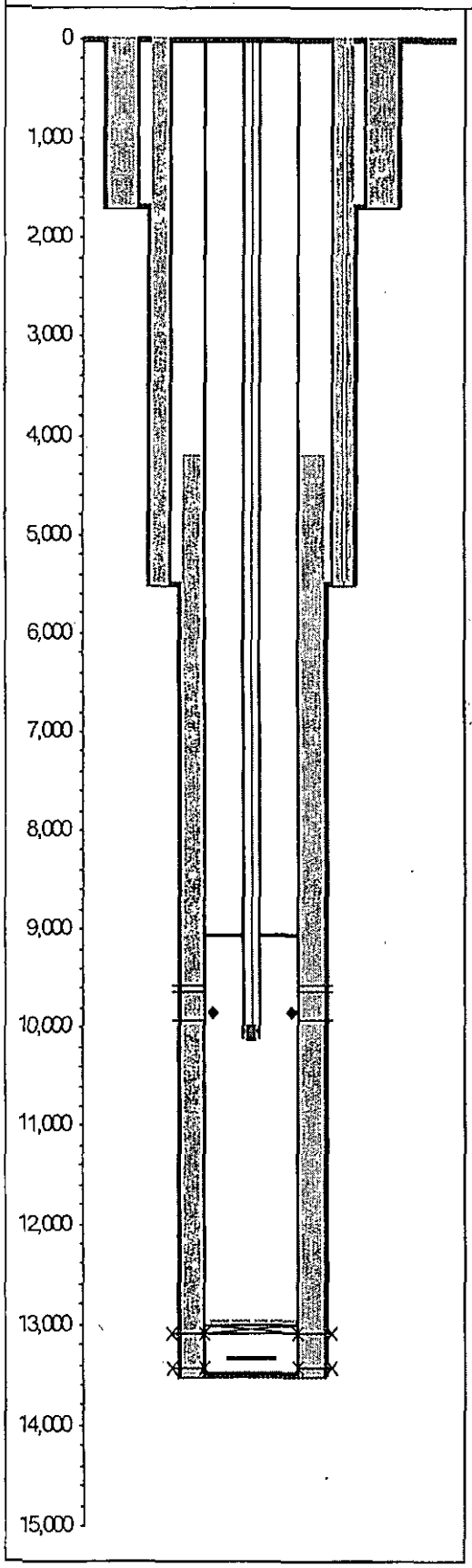
Rod String 1 *Date Ran: 12/2/2015*

Description	#	Diameter	Rod Box	Grade	Length	Top At	Btm At
Polish Rod	1	1.2500			26.00	0.00	26.00
Polish Rod Liner	1	1.5000			18.00	26.00	44.00
Rods	55	0.8750			1,375.00	44.00	1,419.00
Rods	132	1.0000		FG	4,950.00	1,419.00	6,369.00
Rods	39	0.8750			975.00	6,369.00	7,344.00
Rods	120	0.7500	Full		3,000.00	7,344.00	10,344.00
Sinker Bars	10	1.5000			250.00	10,344.00	10,594.00
Sinker Bars	4	1.7500			100.00	10,594.00	10,694.00
Shear Tool	1	0.7500			1.00	10,694.00	10,695.00
Pump	1	1.2500			25.00	10,695.00	10,720.00
20 - 1.25 - RHBC - 24 - 6 - 2							
Gas Anchor	1	1.0000			12.00	10,720.00	10,732.00

Wellbore Schematic (From Surface to TD)

Printed: 6/20/2016 Page 1

LEA FEDERAL # 28 **BOLO ID: 300034.28** **API # 3002538718**



810 FNL & 810 FEL	GL Elev: 3,664.00	KOP:	
		EOC:	
County, State: LEA, NM		Fill Depth:	
Aux ID: 122120		PBTD:	
KB = 17; DF = ; All Depths Corr To: KB		TD:	13,500.00
		BOP:	

Hole Size

Diameter	Top At	Btm At	Date Drilled
17.5000	0.00	1,672.00	1/31/2008
12.2500	1,672.00	5,490.00	2/10/2008
8.7500	5,490.00	13,500.00	3/9/2008

Surface Casing ***Date Ran:*** *1/31/2008*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Set Below G.L.					-17.00	17.00	0.00
Casing	39	13.3750	54.50		1,672.00	0.00	1,672.00
HC-55; BT&C							

Intermediate Casing ***Date Ran:*** *2/10/2008*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Set Below G.L.					-17.00	17.00	0.00
Casing	127	9.6250	40.00	J55	5,490.00	0.00	5,490.00

Production Casing String 1 ***Date Ran:*** *3/9/2008*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Set Below G.L.					-17.00	17.00	0.00
Casing	293	5.5000	20.00	P110	13,500.00	0.00	13,500.00

Cement

# Sx	Class	Weight	I D	O D	Top At	Btm At	TOC Per
1380			13.375	17.500	0.00	1,672.00	Circ
2150			9.625	12.250	0.00	5,490.00	Circ
1800			5.500	8.750	4,210.00	13,500.00	CBL
			0.000	5.500	12,965.00	13,000.00	

Zone and Perfs

Bone Spring, South

Comments / Completion Summary

FOUNDERS

Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
9,560.00	9,636.00	Bone Spring	A	4/2/2008			
9,924.00	9,934.00	Bone Spring	A	4/2/2008			
13,088.00	13,422.00	Morrow	PA	3/25/2008	3/31/2008		

Wellbore Plugs and Junk

Top	Bottom	Type	Diameter	Solid	Date
13,000.00	13,088.00	CIBP	5.500	Yes	3/31/2008
13,318.00	13,350.00	Tubing	2.875	Yes	
Mud Joint					
13,475.00	13,500.00	Junk	5.500	Yes	
Casing, Sub and collar					

Tubing String 1 ***Date Ran:*** *9/12/2015*

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Tubing	278	2.8750		L80	9,035.00	17.00	9,052.00
Tubing Anchor	1	5.5000			4.10	9,052.00	9,056.10
Tubing	30	2.8750		L80	975.00	9,056.10	10,031.10
Seat Nipple	1	2.3750			1.00	10,031.10	10,032.10
Perf Nipple	1	2.8750			4.00	10,032.10	10,036.10
Mud Anchor	2	2.8750		L80	65.00	10,036.10	10,101.10

LEA FEDERAL # 28	BOLO ID: 300034.28	API # 3002538718

Bull Plug	1	2.8750			-0.50	10,101.10	10,100.60

Rod String 1 *Date Ran: 9/12/2015*

Description	#	Diameter	Rod Box	Grade	Length	Top At	Btm At
Polish Rod	1	1.5000			30.00	0.00	30.00
Polish Rod Liner	1	1.7500			16.00	30.00	46.00
Pony Rods	2	0.8750		N97	8.00	46.00	54.00
Rods	152	0.8750		N97	3,800.00	54.00	3,854.00
Rods	237	0.7500		N97	5,925.00	3,854.00	9,779.00
Rods	10	1.0000		D	250.00	9,779.00	10,029.00
Stabilizer	1	0.8750			4.00	10,029.00	10,033.00
Pump	1	1.2500			24.00	10,033.00	10,057.00
2 x 1.25 x 24 RHBC 6' plger							
Gas Anchor	1	1.0000			12.00	10,057.00	10,069.00

LEGACY
RESERVES
Legacy Reserves Operating LP, P.O. Box 10848, Midland, Texas 79702

COPY

June 21, 2016

Kenneth Smith
267 Smith Ranch Road
Hobbs, New Mexico 88240

RE: Application for Authorization to Inject
Lea Unit #17
Lea (Devonian) Field
Lea County, New Mexico

Mr. Smith:

You should have received the attached application for authorization to inject for the Lea Unit #17 back in March of this year. You are receiving it once again as we made an error and should have mailed it by certified mail as required by the NMOCD.

We apologize for any confusion or inconvenience we may have caused. If there is any questions please feel free to contact me at 432/689-6334 or by e-mail at csparkman@legacylp.com

Sincerely,

Craig Sparkman

Craig Sparkman
Operations Engineer

cc: Well file

LEGACY
RESERVES

April 15, 2016

WI Partner
Lea Unit
Lea County, New Mexico

RE: Notice of Application for Fluid Injection Well Permit
Lea Unit #17
Devonian Formation

Working Interest Owner,

Legacy Reserves Operating LP is applying to the New Mexico Oil Conservation Division for a permit to inject fluid into a formation which is productive of oil and gas. Injection will be into the underlying salt water aquifer in the lower section of the Devonian formation. There is currently no Devonian production within the Lea Unit.

Legacy's proposed injection well, Lea Unit #17, is located 900' FSL, 1756" FEL in Section 13, Township 20 South, Range 35 East, Lea County, New Mexico. Fluid will be injected into strata in the subsurface depth interval from 14,430' to 14,500'. The maximum permitted water injection rate is 10,000 barrels of water per day (BWPD) at a maximum pressure of 3,000 pounds per square inch (PSI).

Requests for a public hearing from any party who can show they are adversely affected, or requests for further information concerning any aspect of the application should be submitted in writing within fifteen days of receipt of this notification to the New Mexico Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505.

If you have any questions for Legacy please contact Craig Sparkman, Operations Engineer, at 432-689-5200.

Sincerely,

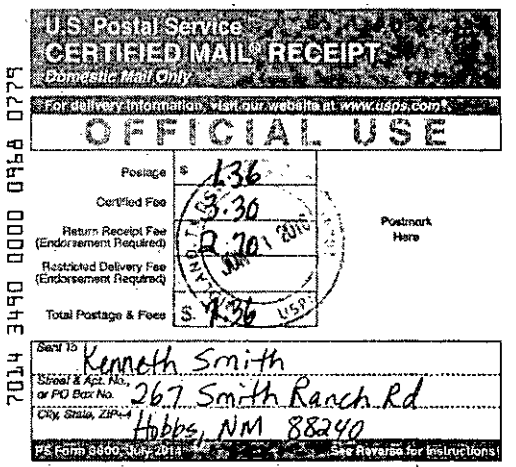
Clay Roberts
Landman

Legacy Reserves
303 West Wall, Suite 1800 • Midland, Texas 79701 • P. O. Box 10848 • Midland, Texas 79702
OFFICE 432-689-5200 • FAX 432-221-6399

LEA UNIT 17 - CERTIFIED MAILER LIST

RESPONDENT	CERTIFIED MAILER
COG OPERATING LLC 600 W. ILLINOIS MIDLAND, TX 79701	7015-3010-0000-3001-7800
JAMES D. FINLEY 1308 LAKE STREET, #200 FORT WORTH, TX 76102	7015-3010-0000-3001-7817
HOG PARTNERSHIP 5950 CEDAR SPRINGS ROAD, SUITE 242 DALLAS, TX 75235	7015-3010-0000-3001-7824

Lea Unit #17



U.S. Postal Service
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Domestic Mail Only

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Postage $ 1.36
Certified Fee 3.30
Return Receipt Fee (Endorsement Required) 2.70
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $ 7.36

Postmark Here

JUN 2016

7014 3490 0000 0958 0775

Sent To Kenneth Smith
Street & Apt. No., or PO Box No. 267 Smith Ranch Rd
City, State, ZIP+4 Hobbs, NM 88240

PS Form 3800, June 2014 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- 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.

1. Article Addressed to:

Kenneth Smith
267 Smith Ranch Rd
Hobbs, NM 88240

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X
☐ Agent
☐ Addressee

B. Received by (Printed Name) Matthew C. Date of Delivery 6-23-16

D. Is delivery address different from Item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail® ☐ Priority Mail Express™
☐ Registered ☑ Return Receipt for Merchandise

SENDER: COMPLETE THIS SECTION

- 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.

1. Article Addressed to:

COG OPERATING LLC
ATTN: MOLLIE MCAULIFFE
600 W. ILLINOIS
MIDLAND, TX 79701

9590 9402 1314 5285 3457 11

2. Article Number (Transfer from service label)
7015 3010 0000 2971 3164

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) [signature] C. Date of Delivery 4/19/16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Lea Unit #17. NOTICE Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- 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.

1. Article Addressed to:

JAMES D. FINLEY
1308 LAKE STREET, #200
FORT WORTH, TX 76102

9590 9402 1314 5285 3457 04

2. Article Number (Transfer from service label)
7015 3010 0000 2971 3171

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) [signature] C. Date of Delivery 4/21

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Lea Unit #17. NOTICE Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- 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.

1. Article Addressed to:

HOG PARTNERSHIP LP
5950 CEDAR SPRING ROAD, STE. 242
DALLAS, TX 75235-6803

9590 9402 1314 5285 3457 35

2. Article Number (Transfer from service label)
7015 3010 0000 2971 3188

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

RECEIVED
APR 20 2016
BY:

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Lea Unit #17. NOTICE Domestic Return Receipt

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
November 20, 2015
and ending with the issue dated
November 20, 2015.

Publisher

Sworn and subscribed to before me this 20th day of November 2015.

Business Manager

My commission expires
January 29, 2019
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-19

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

LEGAL LEGAL

LEGAL NOTICE
November 20, 2015

NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT

APPLICANT: Legacy Reserves Operating LP
P.O. Box 10848
Midland, Texas 79702

CONTACT: Craig Sparkman (432/689-5200)

Legacy Reserves Operating LP is applying to the New Mexico Oil Conservation Division for a permit to inject fluid into a formation which is productive of oil and gas. Injection will be into the underlying salt water aquifer in the lower section of the Devonian formation, a formation that previously produced in the area but is not currently on production.

The applicant proposes to inject fluid into the Devonian formation in the Lea Unit lease, well number 17. The proposed salt water disposal well is located 900' FSL, 1756' FEL, Section 13, Township 20 South, Range 34 East, approximately 20 miles west of Hobbs, New Mexico in the Lea (Devonian) Field, Lea County. Fluid will be injected into strata in the subsurface depth interval from 14,430' to 14,500'. The proposed maximum permitted water injection rate is 10,000 barrels of water per day (BWPD) at a maximum pressure of 3,000 pounds per square inch (psi).

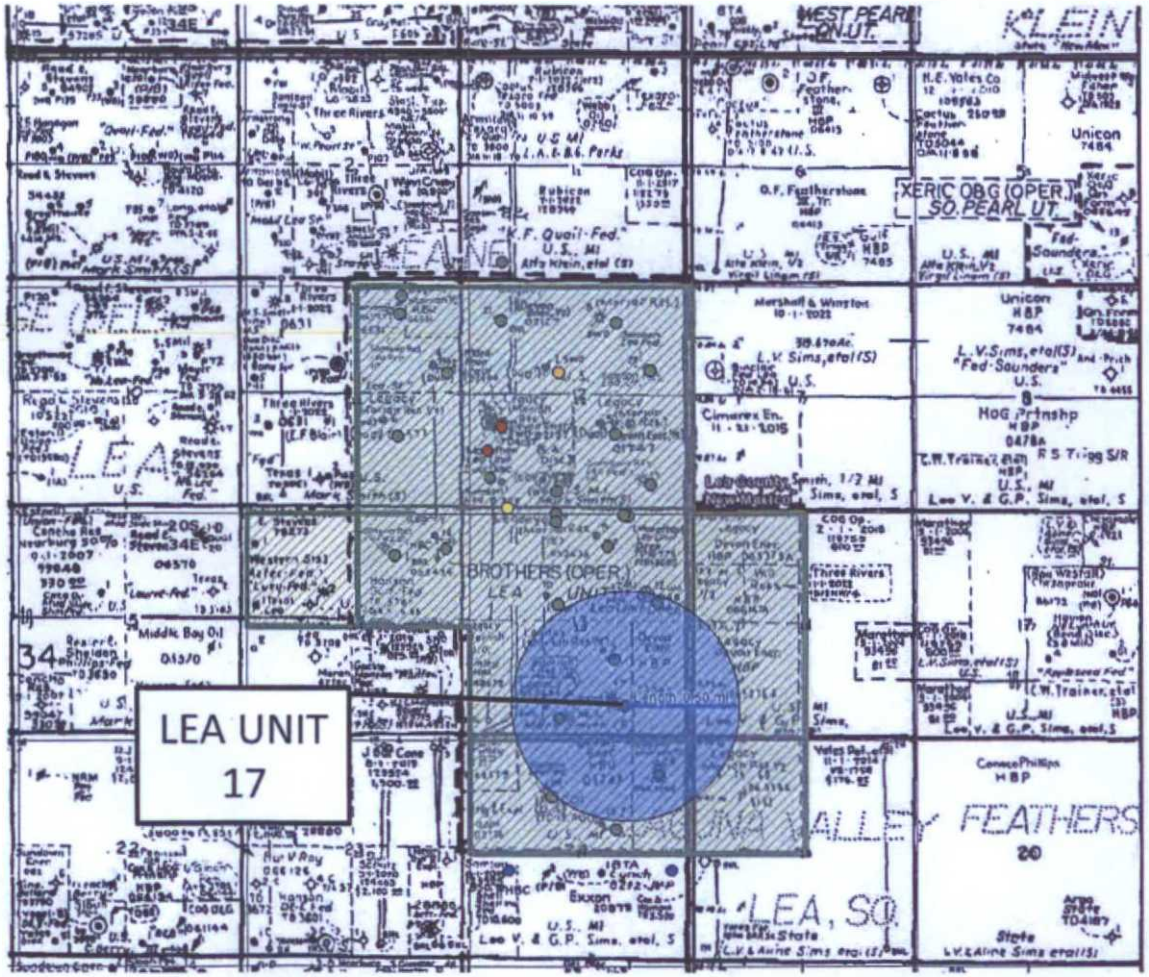
LEGAL AUTHORITY: Statewide Rules and Regulations of the New Mexico Oil Conservation Division.

Requests for a public hearing from persons who can show they are adversely affected, or requests for further information concerning any aspect of the application should be submitted in writing, within fifteen days of publication, to the New Mexico Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505.
#30498

67110811 00166639

LEGACY RESERVES OPERATING LP
PO BOX 10848
MIDLAND, TX 79702

Lea Unit #17 – ½ Mile Radius Map
Legal: 900' FSL & 1,756' FEL SECTION 13-20S-34E



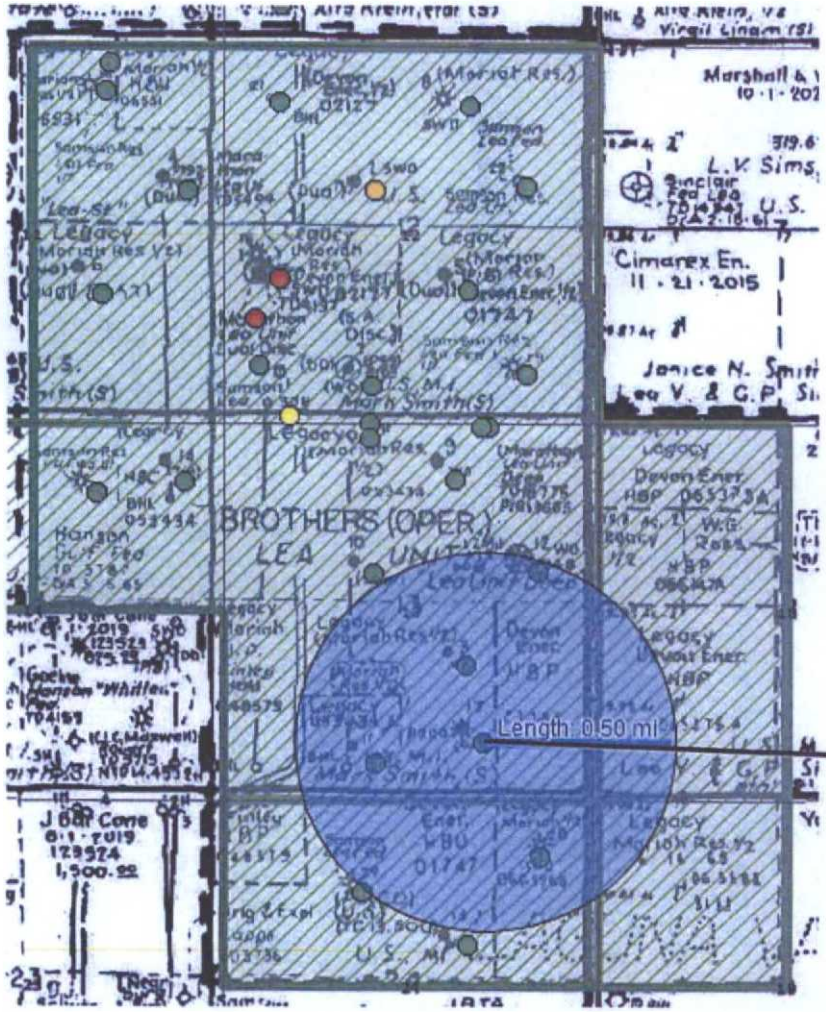
Lea Unit Boundary

Surface Owner:
Wayne Smith
267 Smith Ranch Road
Hobbs, NM

Mineral Owner:
BLM

Leasehold Owner:
Legacy Reserves
Concho Oil and Gas
Hamon Oil and Gas
Finley Resources

Lea Unit #17 – ½ Mile Radius Map
Legal: 900' FSL & 1,756' FEL SECTION 13-20S-34E



Lea Unit Boundary

Surface Owner:
Wayne Smith
267 Smith Ranch Road
Hobbs, NM

Mineral Owner:
BLM

Leasehold Owner:
Legacy Reserves
Concho Oil and Gas
Hamon Oil and Gas
Finley Resources

LEGACY

Lea Unit No. 17
API: 30-025-32794
County, State: Lea County, NM
Footage Location: 900' FSL, 1756' FEL
Section, Township, Range: 13, 20S, 34E
½ Mile Radius

Wells within ½ Mile Radius of Lea Unit No. 17

Map No.	Well Name and No.	API Number	Class	Well Status	Operator	Location (Sec, Twp, Range)	TD
1	Lea Unit No. 3	30-025-20038	Oil	Active	Legacy Reserved Operating LP	13, 20S, 34E	14,435
2	Lea Unit No. 12	30-025-26365	Oil	Active	Legacy Reserved Operating LP	13, 20S, 34E	16,775
3	Lea Unit No. 17	30-025-32794	Oil	Active	Legacy Reserved Operating LP	13, 20S, 34E	14,455
4	Lea Unit No. 11	30-025-20358	Gas	Active	Legacy Reserved Operating LP	13, 20S, 34E	14,464
5	Lea Federal No. 28	30-025-38718	Gas	Active	Legacy Reserved Operating LP	12, 20S, 34E	13,500

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
New Mexico State Office
P.O. Box 27115
Santa Fe, New Mexico 87502-0115
www.blm.gov/nm

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
NMNM70976X
3180 (P0220)

11/16/2015

RECEIVED
NOV 30 2015
LEGACY RESERVES

Reference:
Lea Unit #17
Lea Unit
Section 13, T. 20S, R. 34E
Lea County, New Mexico
Commercial Well Determination

Mr. Craig Sparkman
Legacy Reserves Operating L. P.
P. O. Box 10848
Midland, TX 79702

Gentlemen:

Pursuant to your letter of November 3, 2015, this office concurs with your determination that the Lea Unit #17 completion is not capable of producing unitized substances in paying quantities in the current Bone Spring completion interval.

Because of the determination, the subject wellbore shall be evaluated to be utilized for salt water disposal service in the Devonian interval. Please note this Letter does not give approval for the well to become a salt water disposal well. Separate applications and/ or Sundry notifications need to be submitted for this approval.

Under provisions of 43 CFR 3165.3, you may request a State Director Review of the decision described above. Such a request, including all supporting documents, must be filed in writing within 20 business days of receipt of this notice and must be filed with the State Director, Bureau of Land Management, P.O. Box 27115, Santa Fe, New Mexico 87502-0115. Such request shall not result in a suspension of the order unless the reviewing official so determines. Procedures governing appeals form instructions, orders, or decisions are contained in 43 CFR 2175.4 and 43 CFR Part 4.

If you have any questions, please contact Kenneth G. Rennick at 575-234-5964 or Edward G. Fernandez at 575-234-2220.

Sincerely,

Stephen Caffey
Assistant Field Manager,
Lands and Minerals

cc:
NM P0220, File Room
Mr. Paul Swartz, Roswell BLM Field Office

CONFIDENTIAL

LEGACY
RESERVES

Legacy Reserves Operating LP, P.O. Box 10848, Midland, Texas 79702

November 3, 2015

United States Department of Interior
Bureau of Land Management
620 E. Greene Street
Carlsbad, New Mexico 88220
ATTN: Mr. Ed Fernandez

RE: Non-commercial Well Determination
Lea Unit #17
Section 13, T20S, R34E, Lea County, New Mexico

Dear Mr. Fernandez:

Legacy Reserves Operating, LP as operator of the Bone Spring Participating Area within the Lea Unit, hereby submits information to certify the Lea Unit #17 as non-commercial in the current Bone Spring completion interval and to recommend utilization of the wellbore for salt water disposal service in the Devonian interval. Attached are the following:

1) A lease operating statement for the Lea Unit for the period from January 2015 to September 2015. As indicated, the average oil price received during that time period was $48.56 per barrel. Also, the average gas price received during that time period was $3.22 per MCF. These prices were used in the economic analysis of the well.
2) An actual production plot of Lea Unit #17 and a projected production decline forecast.
3) All 2015 production tests for the Lea Unit #17.
4) The annual projected cash flow analysis for Lea Unit #17 net to Legacy's interest based on the projected production decline forecast, an estimated operating expense of $4,000 per month, an oil price of $48.56/BO and a gas price of $3.22/MCF. This indicates the well to have a Discounted Present Worth of $61 and gross remaining reserves of 91 BO and 227 MCF.

Should you have any questions or comments in regard to this determination, please contact me at 432/689-5200 or by email at csparkman@legacylp.com. Thank you.

Sincerely,

Craig Sparkman

Craig Sparkman
Operations Engineer

Attachments

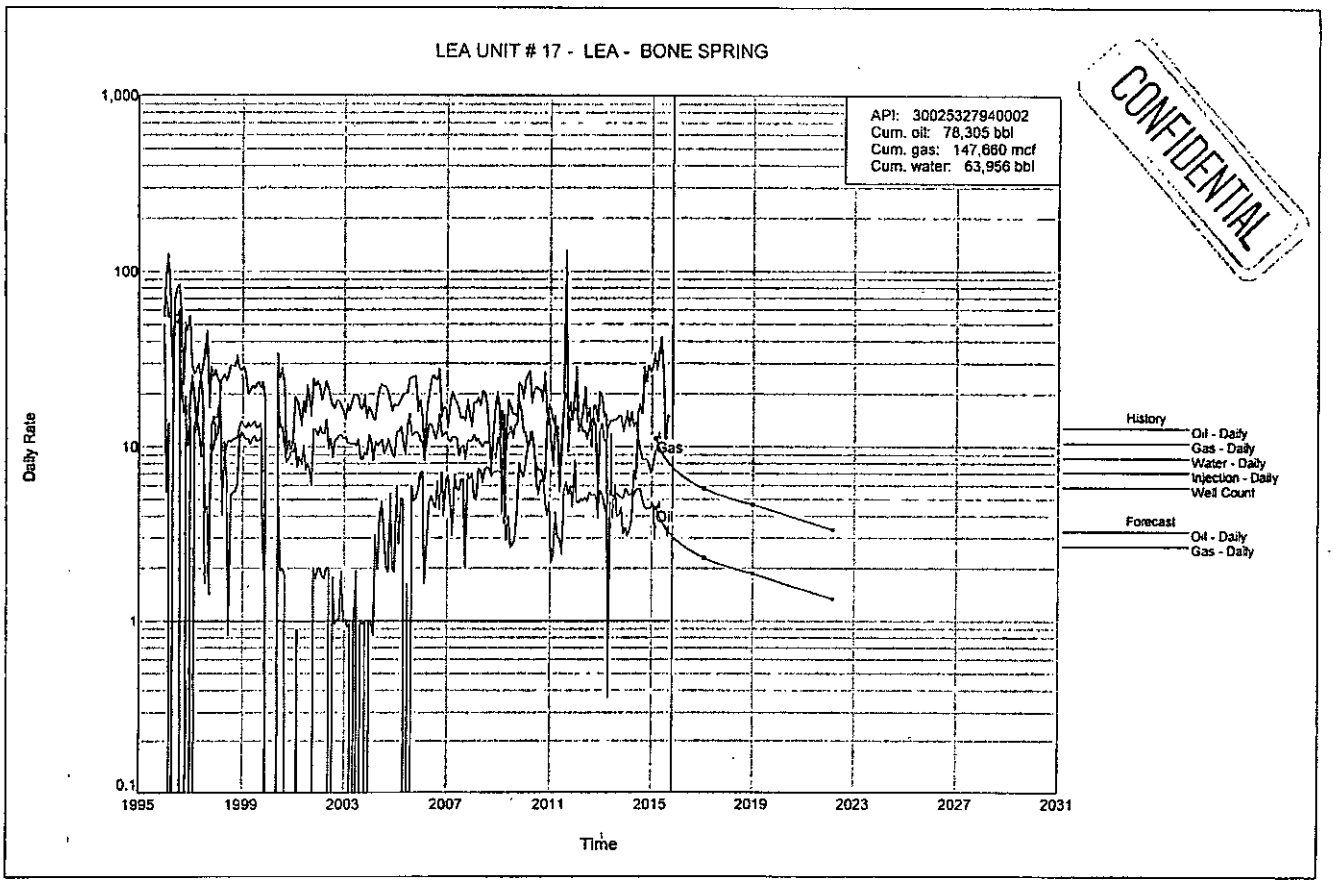
Rate/Time Graph

Project: H:\Legacy production\Lea Unit\Lea Unit #17.mdb

Date: 11/3/2015
Time: 2:56 PM

Lease Name: LEA UNIT (17)
County, ST: LEA, NM
Location: S20 E34 13

Operator: LEGACY RESERVES OPERATING LP
Field Name: LEA



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Production Tests, Run Time, and Fluid Levels: Legacy Reserves

Tests from 1/1/2015 through 11/3/2015

Lea Unit # 17 | **BOLO ID: 300033.06.17** | **API # 3002532794**

Zone #: 1 **Formation:** Bone Spring | **County:** Lea | **State:** NM

Production Tests					*Run Time*	*Producing Fluid Levels (measured from surface)*			
Test Date	BOPD	MCFD	BWPD	Allocate Test?		Date	Jts	Feet	PIP
1/23/2015	4.0	8.0	8.0	Yes		8/12/2015		11,038	105
2/23/2015	3.0	10.0	10.0	Yes		*Left unit as is 50% run time*			
3/22/2015	4.0	9.0	10.0	Yes					
4/15/2015	4.0	9.0	10.0	Yes					
5/20/2015	4.0	9.0	10.0	Yes					
7/22/2015	4.0	9.0	15.0						
8/24/2015	3.0	9.0	15.0						
9/9/2015	4.0	9.0	10.0						
10/26/2015	4.0	5.0	11.0						

Date: 11/3/2015

CONFIDENTIAL

Time: 2:55 PM

Annual CashFlow Report

Project: H:\Legacy production\Lea Unit\Lea Unit #17.mdb

Lease Name: LEA UNIT (17)
County, ST: LEA, NM
Location: S20 E34 13

Operator: LEGACY RESERVES OPERATING LP
Field Name: LEA
Reserve Type/Class: Proved/Developed, Producing

Date	Well Count	Gross Production Oil (Bbl)	Gross Production Gas (Mcf)	Net Production Oil (Bbl)	Net Production Gas (Mcf)	Average Prices Oil ($/Bbl)	Average Prices Gas ($/Mcf)	Sales Total ($)
11/2015	1	91	227	71	177	48.56	3.22	4,003
Grand Total:		91	227	71	177	48.56	3.22	4,003

Date	Operating Expenses ($)	Taxes ($)	Operating Income ($)	Other Costs ($)	Periodic Cash Flow ($)	Cumulative Cash Flow ($)	10% Cash Flow ($)
11/2015	3,653	289	61	0	61	61	61
Grand Total:	3,653	289	61	0	61	61	61

Discount Present Worth:

0.00 %	61
10.00 %	61
20.00 %	60
30.00 %	60
40.00 %	60
50.00 %	59
60.00 %	59
70.00 %	59
80.00 %	58
90.00 %	58
100.00 %	58

Economic Dates:

Effective Date	11/2015
Calculated Limit	11/2015
Economic Life	1 Month
	0 Years 1 Month

Economics Information:

Net Payout Date:	11/2015
Rate of Return:	>100 %
Return on Investment:	0.00
Disc Return on Invest:	0.00

Initial Division of Interest:

	WI:	91.314827		
				NRI / ORI
			Oil:	77.714498 / 0.000000
			Gas:	77.714498 / 0.000000
Reversion Date:	None		Injection:	0.000000 / 0.000000

Economics Summary:

	Bbl Oil	Mcf Gas
Ultimate Gross	78,490	148,121
Historic Gross	78,305	147,660
Gross at Eff Date	78,399	147,894
Remaining Gross	91	227
Remaining Net	71	177

BTU Content: 1.000 mmbtu/mcf
Gravity: Oil: 28.00 Gas: 0.800

BLM

'roject: M:\Fluids\...\Comercial Well Determination Projects\FY 2016\Legacy Reserves\NON-COMMERCIAL WELL DETERMINATION - LEGACY RESERVES 2015-13-2015.mdb

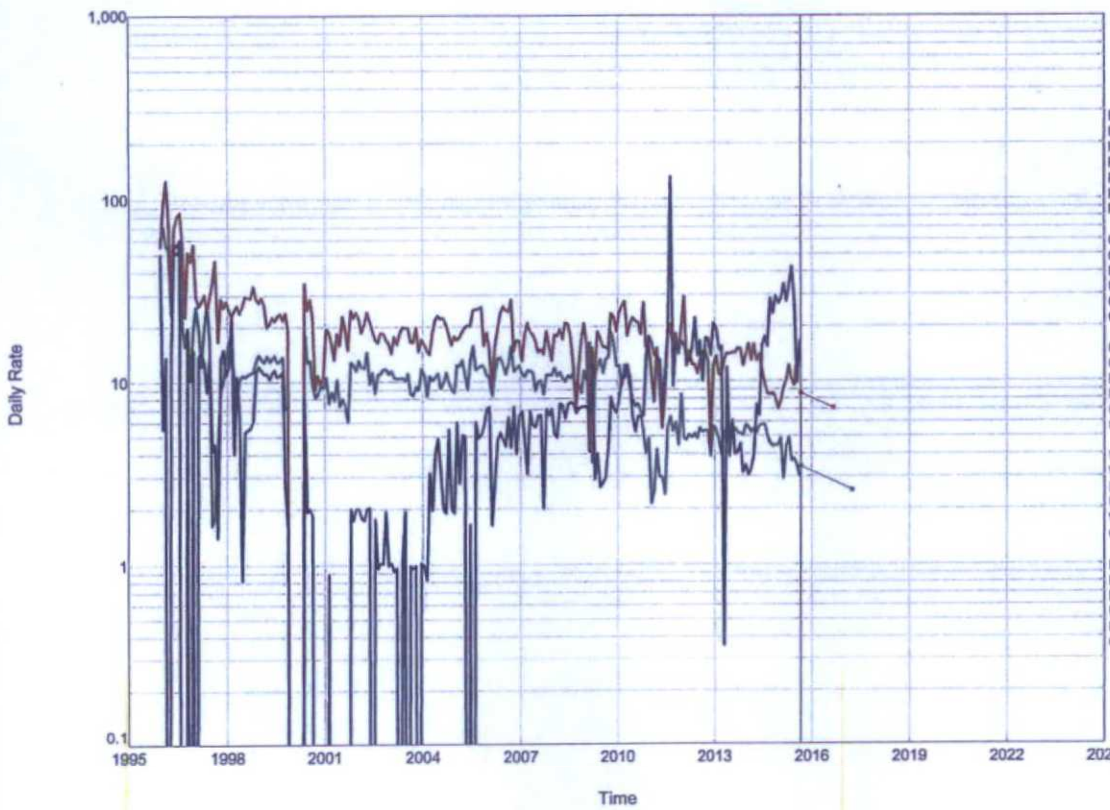
Rate/Time Graph

Time: 11:30 AM

Lease Name: LEA UNIT (17)
County, ST: LEA, NM
Location: S20 E34 13

Operator: LEGACY RESERVES OPERATING LP
Field Name: LEA

LEA UNIT - LEA 30025327940002



Economic Limit: 01/2016
Economic Life: 5 mo
Future Net Revenue: $848
Present Worth: $833
Rate of Return: >100 %
Return on Invest: 0.00
Payout Date: n/a

Oil at Effective Date: 102 bbl
Oil at Economic Limit: 96 bbl
Rem Oil (Decline): 496 bbl
Ult Oil (Decline): 78,679 bbl
Oil Decline at Eff Date: 17.00 %
Cum Oil at Eff Date: 78,183 bbl

Gas at Effective Date: 258 mcf
Gas at Economic Limit: 242 mcf
Rem Gas (Decline): 1,250 mcf
Ult Gas (Decline): 148,758 mcf
Gas Decline at Eff Date: 17.00 %
Cum Gas at Eff Date: 147,508 mcf

Water at Effective Date: 0 bbl
Water at Economic Limit: 0 bbl
Rem Water (Decline): 0 bbl
Ult Water (Decline): 63,545 bbl
Water Decline at Eff Date: 0.00 %
Cum Water at Eff Date: 63,545 bbl

Inj at Effective Date: 0 bbl
Inj at Economic Limit: 0 bbl
Rem Inj (Decline): 0 bbl
Ult Inj (Decline): 0 bbl
Inj Decline at Eff Date: 0.00 %
Cum Inj at Eff Date: 0 bbl

Annual CashFlow Report

rennick\Comercial Well Determination Projects\FY 2016\Legacy Reserves\NON-COMMERCIAL WELL DETERMINATION - LEGACY RESE

Lease Name: LEA UNIT (17)
County, ST: LEA, NM
Location: S20 E34 13

Operator: LEGACY RESERVES OPERATING LP
Field Name: LEA
Reserve Type/Class: Proved/Developed, Producing

Date	Well Count	Gross Production Oil (Bbl)	Gross Production Gas (Mcf)	Net Production Oil (Bbl)	Net Production Gas (Mcf)	Average Prices Oil ($/Bbl)	Average Prices Gas ($/Mcf)	Sales Total ($)
12/2015	1	399	1,007	320	806	48.56	3.22	18,113
01/2016	1	96	242	77	194	48.56	3.22	4,355
Grand Total:		496	1,250	396	1,000	48.56	3.22	22,469

Date	Operating Expenses ($)	Taxes ($)	Operating Income ($)	Other Costs ($)	Periodic Cash Flow ($)	Cumulative Cash Flow ($)	10% Cash Flow ($)
12/2015	16,000	1,306	807	0	807	807	794
01/2016	4,000	314	41	0	41	848	40
Grand Total:	20,000	1,620	848	0	848	848	833

Discount Present Worth:

0.00 %	848
10.00 %	833
20.00 %	820
30.00 %	808
40.00 %	797
50.00 %	787
60.00 %	778
70.00 %	769
80.00 %	762
90.00 %	754
100.00 %	747

Economic Dates:

Effective Date	09/2015
Calculated Limit	01/2016
Economic Life	5 Months
	0 Years 5 Months

Economics Information:

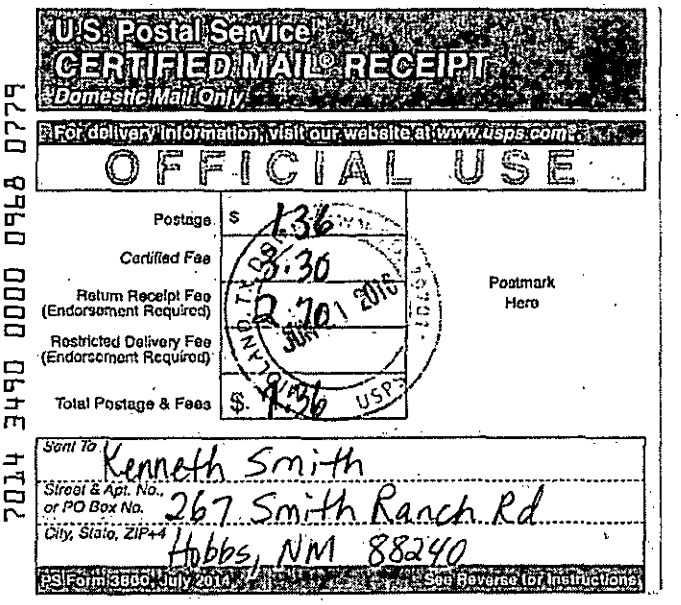
Net Payout Date:	09/2015
Rate of Return:	>100 %
Return on Investment:	0.00
Disc Return on Invest:	0.00
Initial Division of Interest:	
WI:	100.000000
Reversion Date:	None

Economics Summary:

	Bbl Oil	Mcf Gas
Ultimate Gross	78,679	148,758
Historic Gross	78,183	147,508
Gross at Eff Date	78,183	147,508
Remaining Gross	496	1,250
Remaining Net	396	1,000

BTU Content: 1.000 mmbtu/mcf
Gravity: Oil: 28.00 Gas: 0.800

	NRI	ORI
Oil:	80.000000	0.000000
Gas:	80.000000	0.000000
Injection:	0.000000	0.000000



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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 7.36

JUN 21 2016 USPS

Postmark Here

Sent To: Kenneth Smith
Street & Apt. No., or PO Box No.: 267 Smith Ranch Rd
City, State, ZIP+4: Hobbs, NM 88240

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0000 0968 0779

ATTACHMENT

QUAIL RIDGE (DELAWARE) WATER PRODUCED

Resistivity.......	0.052 @ 60° F
Specific GR.......	1.170 ✓
pH................	6.2
Calcium........... Ca	15900
Magnesium......... Mg	9300
Chlorides......... Cl	139500
Sulfates.......... SO_4	light
Bicarbonates...... HCO_3	134
Soluble Iron...... Fe	light

(Calcium, Magnesium, Chlorides bracketed: 164,700 mg/L)

Pool Merge Request
11-2-95

From 50463
To 37584

[illegible]

DownHole SAT™ Water Analysis Report

KEL-TECH

SYSTEM IDENTIFICATION

LEGACY
HAMMON 4H
TUBING
B. STRUBE

Sample ID#: 5717
ID: WA5717

Sample Date: 07-16-2015 at 1112
Report Date: 07-16-2015

WATER CHEMISTRY

CATIONS

Calcium(as Ca)	5275
Magnesium(as Mg)	959.30
Barium(as Ba)	1.91
Strontium(as Sr)	657.30
Sodium(as Na)	48124
Potassium(as K)	832.60
Iron(as Fe)	90.23
Manganese(as Mn)	1.53

ANIONS

Chloride(as Cl)	88000
Sulfate(as SO_4)	383.00
Dissolved CO_2(as CO_2)	80.00
Bicarbonate(as HCO_3)	158.60
Phosphate(as PO_4)	0.00
H_2S (as H_2S)	0.00

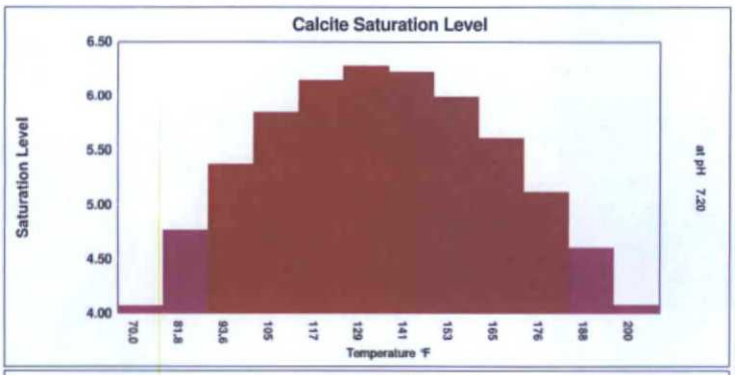
PARAMETERS

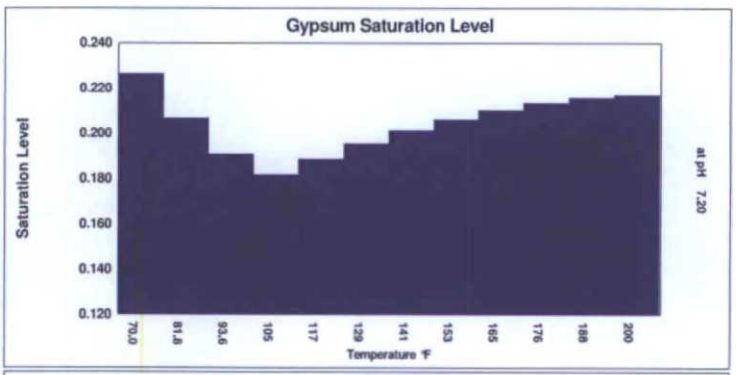
Temperature(°F)	70.00
Sample pH	7.20
Conductivity	209714
T.D.S.	140729
Resistivity	4.77
Sp.Gr.(g/mL)	1.10

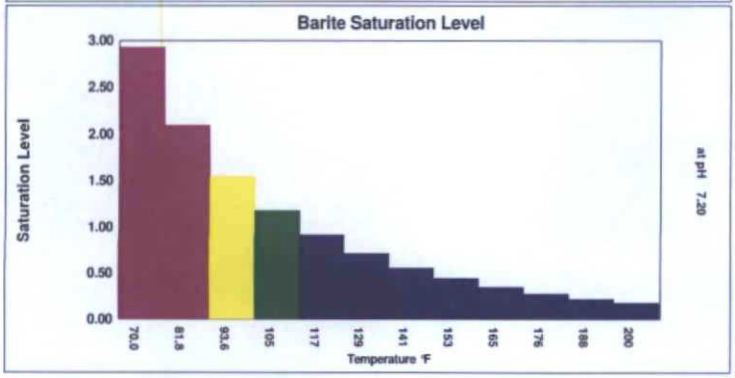
SCALE AND CORROSION POTENTIAL

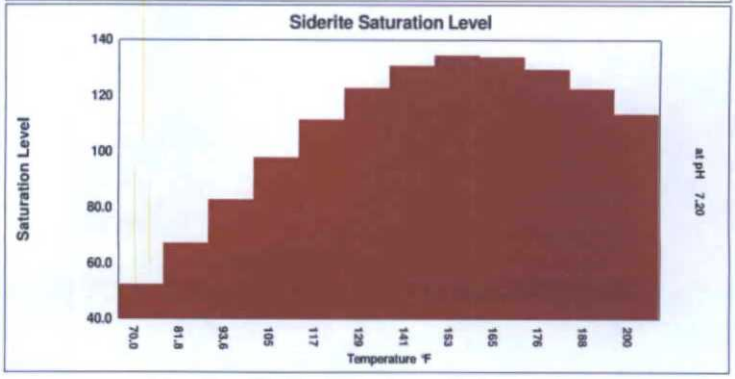
Temp. (°F)	Press. (psig)	Calcite $CaCO_3$		Anhydrite $CaSO_4$		Gypsum $CaSO_4*2H_2O$		Barite $BaSO_4$		Celestite $SrSO_4$		Siderite $FeCO_3$		Mackawenite FeS		CO_2 (mpy)	pCO_2 (psia)
70.00	14.70	4.07	0.0704	0.157	-347.98	0.227	-256.24	2.92	0.742	0.652	-39.22	52.29	0.106	0.00	-0.00992	0.0288	0.192
81.82	147.00	4.76	0.0810	0.152	-348.49	0.207	-275.47	2.09	0.586	0.613	-44.30	67.05	0.117	0.00	-0.0103	0.0606	1.05
93.64	279.30	5.37	0.0890	0.151	-337.68	0.191	-291.51	1.54	0.395	0.588	-47.20	82.78	0.125	0.00	-0.0107	0.0761	1.92
105.45	411.60	5.84	0.0937	0.154	-317.61	0.182	-297.99	1.17	0.166	0.572	-48.78	97.82	0.129	0.00	-0.0112	0.0882	2.78
117.27	543.90	6.15	0.0952	0.162	-290.64	0.189	-274.94	0.908	-0.114	0.556	-50.21	111.41	0.130	0.00	-0.0117	0.0807	3.64
129.09	676.20	6.28	0.0939	0.174	-259.20	0.195	-255.57	0.707	-0.462	0.540	-51.90	122.68	0.128	0.00	-0.0123	0.0715	4.51
140.91	808.50	6.22	0.0900	0.190	-225.51	0.201	-239.36	0.554	-0.893	0.523	-53.88	130.60	0.123	0.00	-0.0130	0.0614	5.37
152.73	940.80	5.99	0.0837	0.213	-191.46	0.206	-225.91	0.436	-1.42	0.505	-56.14	134.35	0.115	0.00	-0.0138	0.0661	6.23
164.55	1073	5.60	0.0757	0.242	-158.54	0.210	-214.88	0.346	-2.07	0.487	-58.72	133.78	0.106	0.00	-0.0148	0.0713	7.09
176.36	1205	5.11	0.0667	0.280	-127.83	0.213	-206.02	0.275	-2.85	0.468	-61.64	129.35	0.0952	0.00	-0.0158	0.0756	7.96
188.18	1338	4.60	0.0579	0.328	-99.99	0.215	-199.14	0.220	-3.79	0.449	-64.94	122.45	0.0850	0.00	-0.0171	0.0430	8.82
200.00	1470	4.07	0.0494	0.389	-75.35	0.216	-194.08	0.177	-4.91	0.429	-68.67	113.43	0.0751	0.00	-0.0187	0.0336	9.68
		xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels		

Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. $\{Ca\}\{CO_3\}/K_{sp}$. pCO_2 (psia) is the partial pressure of CO_2 in the gas phase.
Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.









DownHole SAT™ Water Analysis Report

KEL-TECH

SYSTEM IDENTIFICATION

LEGACY
HAMMON 2H
TUBING
B. STRUBE

Sample ID#: 5716
ID: WA5716

Sample Date: 07-16-2015 at 1110
Report Date: 07-16-2015

WATER CHEMISTRY

CATIONS

Calcium(as Ca)	11940
Magnesium(as Mg)	1936
Barium(as Ba)	1.98
Strontium(as Sr)	806.60
Sodium(as Na)	51769
Potassium(as K)	1094
Iron(as Fe)	41.35
Manganese(as Mn)	3.45

ANIONS

Chloride(as Cl)	109000
Sulfate(as SO_4)	367.00
Dissolved CO_2(as CO_2)	115.00
Bicarbonate(as HCO_3)	134.20
Phosphate(as PO_4)	0.00
H_2S (as H_2S)	0.00

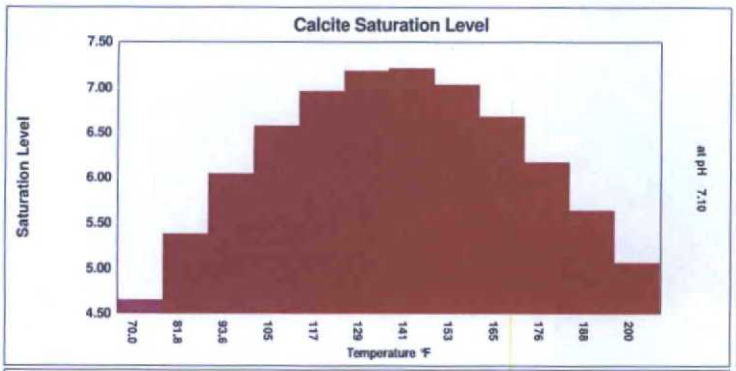
PARAMETERS

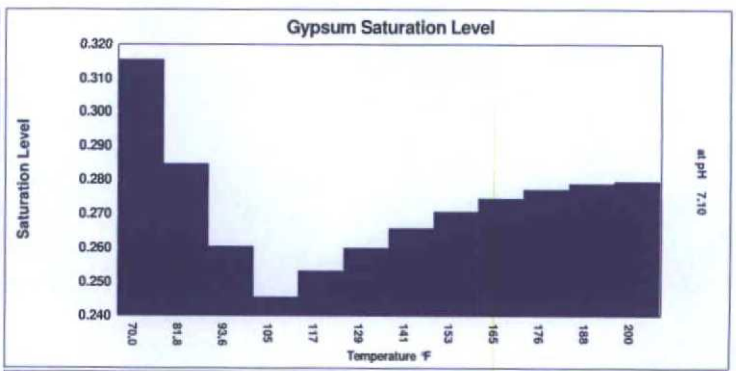
Temperature(°F)	70.00
Sample pH	7.10
Conductivity	269638
T.D.S.	171533
Resistivity	3.71
Sp.Gr.(g/mL)	1.13

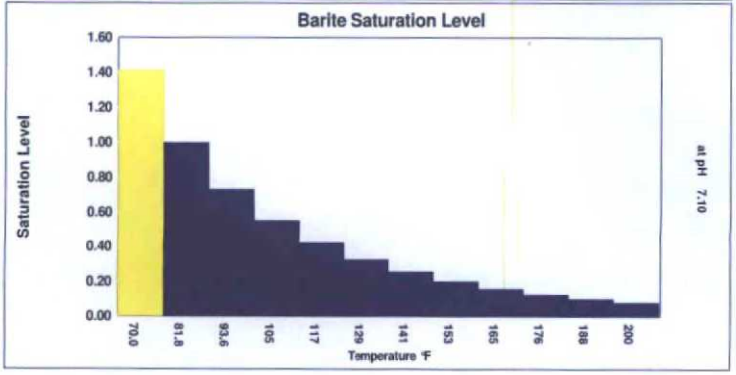
SCALE AND CORROSION POTENTIAL

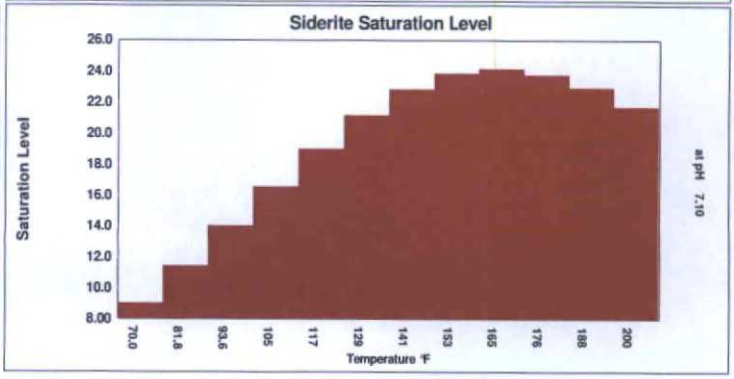
Temp. (°F)	Press. (psig)	Calcite $CaCO_3$		Anhydrite $CaSO_4$		Gypsum $CaSO_4*2H_2O$		Barite $BaSO_4$		Celestite $SrSO_4$		Siderite $FeCO_3$		Mackawenite FeS		CO_2 (mpy)	pCO_2 (psia)
70.00	14.70	4.65	0.0303	0.228	-132.56	0.315	-96.46	1.41	0.337	0.374	-73.68	8.99	0.0397	0.00	-0.0304	0.0293	0.196
81.82	147.00	5.38	0.0342	0.217	-133.73	0.285	-105.90	0.996	-0.00509	0.348	-78.06	11.41	0.0444	0.00	-0.0316	0.0615	1.08
93.64	279.30	6.04	0.0372	0.214	-129.90	0.260	-113.87	0.728	-0.427	0.330	-80.28	13.99	0.0479	0.00	-0.0329	0.0773	1.96
105.45	411.60	6.57	0.0391	0.217	-122.00	0.245	-117.55	0.550	-0.928	0.318	-81.20	16.54	0.0502	0.00	-0.0344	0.0895	2.85
117.27	543.90	6.96	0.0401	0.225	-111.10	0.253	-108.13	0.421	-1.54	0.307	-82.00	18.98	0.0513	0.00	-0.0361	0.0819	3.73
129.09	676.20	7.18	0.0400	0.240	-98.29	0.260	-100.28	0.326	-2.28	0.296	-83.12	21.14	0.0513	0.00	-0.0379	0.0726	4.61
140.91	808.50	7.21	0.0390	0.262	-84.55	0.266	-93.78	0.253	-3.19	0.284	-84.58	22.82	0.0501	0.00	-0.0400	0.0623	5.49
152.73	940.80	7.03	0.0369	0.291	-70.70	0.271	-88.44	0.199	-4.27	0.273	-86.39	23.85	0.0477	0.00	-0.0424	0.0671	6.38
164.55	1073	6.67	0.0340	0.329	-57.36	0.274	-84.11	0.156	-5.55	0.262	-88.58	24.14	0.0444	0.00	-0.0451	0.0724	7.26
176.36	1205	6.17	0.0307	0.378	-44.97	0.277	-80.68	0.124	-7.05	0.250	-91.20	23.74	0.0406	0.00	-0.0483	0.0767	8.14
188.18	1338	5.63	0.0273	0.442	-33.78	0.279	-78.08	0.0988	-8.79	0.239	-94.28	22.93	0.0367	0.00	-0.0520	0.0436	9.03
200.00	1470	5.06	0.0239	0.523	-23.92	0.279	-76.22	0.0790	-10.80	0.228	-97.87	21.67	0.0329	0.00	-0.0564	0.0341	9.91
		xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels		

Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. $\{Ca\}\{CO_3\}/K_{sp}$. pCO_2 (psia) is the partial pressure of CO_2 in the gas phase.
Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.









LEGACY RESERVES
Legacy Reserves Operating LP, P.O. Box 10848, Midland, Texas 79702

June 29, 2016

New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505
ATTN: Michael McMillan

RE: NMOCD Application for Authorization to Inject
Lea Unit #17
Lea County, New Mexico

The Devonian formation is more than 9,000' below the Capitan Reef, the deepest potential source of brackish water that might be economically used as a source of drinking water or as a source of water for hydraulic fracturing. There are no faults that could potentially transmit injection water into any underground sources of drinking water.

Sincerely,

Craig Sparkman
Operations Engineer

cc: Well file

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New Mexico Office of the State Engineer
Point of Diversion Summary

POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Twws	Rng	(NAD83 UTM in meters) X	Y
CP 00665	1	4		24	20S	34E	639740	3603128*

Driller License:	421	**Driller Company:**	GLENN'S WATER WELL SERVICE		
Driller Name:	GLENN, CLARK A."CORKY" (LD)				
Drill Start Date:	05/25/1984	**Drill Finish Date:**	05/28/1984	**Plug Date:**	
Log File Date:	06/11/1984	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	13 GPM
Casing Size:	6.63	**Depth Well:**	698 feet	**Depth Water:**	270 feet

Water Bearing Stratifications:	Top	Bottom	Description
	364	396	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	360	420

*UTM location was derived from PLSS - see Help

C-108 Review Checklist: Received 6/22/2016 Add. Request: 6/27/2016 Reply Date: 6/27/2016 Suspended: ________ [Ver 15]

ORDER TYPE: WFX / PMX / (SWD) Number: ________ Order Date: ________ Legacy Permits/Orders: ________

Well No. 17 Well Name(s): Lea Unit SWD

API: 30-0 25-32794 Spud Date: 4/3/1968 New or Old: N (UIC Class II Primacy 03/07/1982)

Footages 900FSL, 1756FEL Lot ____ or Unit O Sec 13 Tsp 20S Rge 34E County Lea

General Location: ~20 miles S W/Hobbs Pool: SWD; Devonian Pool No. 9614

BLM 100K Map: Hobbs Operator: ________ OGRID: ________ Contact: ________

COMPLIANCE RULE 5.9: Total Wells: 120 Inactive: 7 Fincl Assur: Y Compl. Order? NA IS 5.9 OK? Y Date: 7-7-2016

WELL FILE REVIEWED ✓ Current Status: T/A

WELL DIAGRAMS: NEW: Proposed ○ or **RE-ENTER:** Before Conv. ✓ After Conv. ○ Logs in Imaging: ________

Planned Rehab Work to Well: *Run 5" casing surface & circulate

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned __ or Existing __ Surface	17 1/2 / 13 3/8	1750		1100	Surface / Visual
Planned __ or Existing __ Interm/Prod	12 1/4 / 9 5/8	5540		2210	Surface / Visual
Planned __ or Existing __ Interm/Prod	8 3/4 / 7	14363		2??	4940
Planned __ or Existing __ Prod/Liner	7 / 5"	14348		900	Surface / Visual*
Planned __ or Existing __ Liner					
Planned __ or Existing (OH) / PERF	14353 / 14456		Inj Length 103		

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit: Litho. Struc. Por.		DV	14360
Confining Unit: Litho. Struc. Por.		WD	14184
Proposed Inj Interval TOP:			
Proposed Inj Interval BOTTOM:			
Confining Unit: Litho. Struc. Por.			
Adjacent Unit: Litho. Struc. Por.			

Completion/Operation Details:

Drilled TD ________ PBTD ________

NEW TD ________ NEW PBTD ________

NEW Open Hole ✓ or NEW Perfs ○

Tubing Size 2 7/8 in. Inter Coated? Y

Proposed Packer Depth 143 ft

Min. Packer Depth 14253 (100-ft limit)

Proposed Max. Surface Press. 3000 psi

Admin. Inj. Press. 2871 (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P NA Noticed? ____ BLM Sec Ord ○ WIPP ○ Noticed? ____ Salt/Salado T: 1710 B: 3520 **NW:** Cliff House fm ____

FRESH WATER: Aquifer Quaternary Max Depth 270 **HYDRO AFFIRM STATEMENT By Qualified Person** ✓

NMOSE Basin: 270 CAPITAN REEF: (thru) adj NA **No. Wells within 1-Mile Radius?** ____ FW Analysis

Disposal Fluid: Formation Source(s) Bone Spring Analysis? Y On Lease ○ Operator Only ○ or Commercial ✓

Disposal Int: Inject Rate (Avg/Max BWPD): ________ Protectable Waters? ____ Source: ________ System: Closed or Open

HC Potential: Producing Interval? Y Formerly Producing? Y Method: Logs/DST/P&A/Other Blomquist Analysis 2-Mile Radius Pool Map ○

AOR Wells: 1/2-M Radius Map? Y Well List? ____ Total No. Wells Penetrating Interval: 4 Horizontals? 0

Penetrating Wells: No. Active Wells 0 Num Repairs? ____ on which well(s)? ________ Diagrams? ____

Penetrating Wells: No. P&A Wells 5 Num Repairs? ____ on which well(s)? ________ Diagrams? ____

NOTICE: Newspaper Date 10-20-2016 Mineral Owner BLM Surface Owner Kenneth Smith N. Date 6-23-2016

RULE 26.7(A): Identified Tracts? Y Affected Persons: COG, Finley, HOC N. Date 4-20-2016

Order Conditions: Issues: ________

Add Order Cond: ________

*Run C-B-L from 5"-casing to surface. Circulate 5" casing surface

~~*[illegible]~~