2017	SUSPENSE	MAM	7/27/2017	SWD	pMAM1720854761
		ENGINEER	LOGGED IN	TYPE	APP NO.

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]

SWD 1689
-Delaware Energy, LLC
371195

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

[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

WCV
-Fikes #10
30-015-Pending

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

[D] Other: Specify _____

POW
-SWD; Devonian
96101

[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.

Mike McCurdy		**Operations Engineer**	**7/24/2017**
Print or Type Name	Signature	Title	Date

mmccurdy@delawareenergyllc.com
e-mail Address

Delaware Energy, LLC

Application for Injection/SWD

Fikes Federal SWD #1

UL H, Sec. 18, T-24-S, R-28-E, 2,325' FNL & 325' FEL, Eddy Co., NM

July 2017

Contents:

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 ___xxx__Disposal _____Storage
Application qualifies for administrative approval? ___xxx_Yes _____No

II. OPERATOR: _____Delaware Energy LLC_____

ADDRESS: ____3001 W. Loop 250 N, Suite C-105-318, Midland TX 79705_____

CONTACT PARTY: _____Mike McCurdy_____PHONE: __(432)-312-5251____

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 ___XXX__No
If yes, give the Division order number authorizing the project: _____

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

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

VII. Attach data on the proposed operation, including:

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

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

IX. Describe the proposed stimulation program, if any.

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

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

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

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

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

NAME: ____Mike McCurdy_____TITLE: _____Operations Engineer_____

SIGNATURE: _____DATE: ___7/24/2017___

E-MAIL ADDRESS: _____mmccurdy@delawareenergyllc.com _____

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

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

Side 2

III. WELL DATA

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

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

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

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

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

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

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

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

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

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

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

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

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

Side 1

OPERATOR: Delaware Energy LLC

WELL NAME & NUMBER: Fikes SWD No1

WELL LOCATION: 2325' FNL 325'FEL H 18 24S 28E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC ***WELL CONSTRUCTION DATA***

Surface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8"

Cemented with: 550 sx. *or* _____ ft^3

Top of Cement: SURFACE Method Determined: Circulated

Total Depth: 500'

Intermediate Casing (N/A)

Hole Size: 12-1/4" Casing Size: 9-5/8"

Cemented with: 2,000 sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Total Depth: 9,600'

Production Casing*

Hole Size: 8.50" Casing Size: 7"

Cemented with: 2,200 sx. *or* _____ ft^3

Top of Cement: surface Method Determined: Circulated

Total Depth: 13,650'

Injection Interval

13,650' feet to 14,650' Open hole

INJECTION WELL DATA SHEET

Tubing Size: 4.5" Lining Material: Internally plastic coated

Type of Packer: Weatherford Arrow Set 1X Injection Packer (Nickel Plated)

Packer Setting Depth: 50-100ft above open hole

Other Type of Tubing/Casing Seal (if applicable): NONE

Additional Data

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

2. Name of the Injection Formation: Devonian

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

N/A.

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

BELOW: None

ABOVE: Bone Spring 6,050'-9,532', Wolfcamp 9,532'-11,324', Strawn 11,324'-11,565', Atoka 11,565'-12,399', Morrow 12,399'-13,225'

Additional Questions on C-108

VII.

1. Proposed average and maximum daily rate and volume of fluids to be injected;

Average 20,000 BWPD, Max 25,000 BWPD

2. Whether the system is open or closed;

Open System, Commercial SWD

3. Proposed average and maximum injection pressure;

Average 1,000-2,000 PSI, Max 2,730 PSI

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,

Bone Spring, Delaware, and Wolfcamp produced water. No known incompatibility exists with these produced water types and the Devonian. Devonian formation is used as a disposal interval in offset Townships for Wolfcamp, Bone Springs, and Delaware produced water. See attached water analysis from Bone Spring, Wolfcamp, and Delaware produced water.

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.).

Disposal interval is barren and does not produce. No Devonian receiving formation water samples in the surrounding area.

***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.**

The proposed disposal interval is located in the Devonian formations 13,650'-14,650'. Devonian is an impermeable Shale at the very top (13,550', Woodford Shale) followed by permeable lime and dolomite. There are no fresh water zones underlying the proposed injection zone. Usable water depth is from surface to +/-300', the water source is older alluvium (Quaternary). All of the fresh water wells in the area have an average depth to water of 43' (Based on State Engineers Office).

IX. Describe the proposed stimulation program, if any.

20,000 gallons 15% HCL acid job with packer

X. Attach appropriate logging and test data on the well

Cased hole and open hole Logs will be filed following drilling operations.

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.

Attached are water samples from section 30, 16, and 21 of Township 24 South, Range 28 East and from section 12 of Township 24 South, Range 27 East.

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.

Delaware Energy, L.L.C. has reviewed and examined available geologic and engineering data in the area of interest for the Fikes SWD No 1 and have found no evidence of faults or other hydrologic connections between the Devonian disposal zone and the underground sources of drinking water. Furthermore, there exist many impermeable intervals between the injection interval and the fresh ground water in the 13,650' feet of lithology between the top of the Devonian and the base of the ground water.

Mike McCurdy **Operations Engineer** **7/24/2017**

_____ **Title** _____ **Date** _____

III. WELL DATA

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

Fikes SWD No 1, Sec. 18-T24S-R28E, 2325' FNL & 325' FEL, UL H, Eddy County, New Mexico

(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.

Casing Size	Setting Depth	Sacks of Cement	Hole Size	Top of Cement	Determined
13-3/8"	500'	550	17-1/2"	Surface	CIRC
9-5/8"	9,600'	2,000	12-1/4"	Surface	CIRC
7"	13,650'	2,200	8-1/2"	Surface	CIRC

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

4-1/2" OD, Internally Plastic Coated Tubing set 50 to 100ft above open hole

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

Weatherford Arrow set 1X injection packer, nickel plated with on/off tool

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.

Devonian Formation

Pool Name: SWD (Devonian)

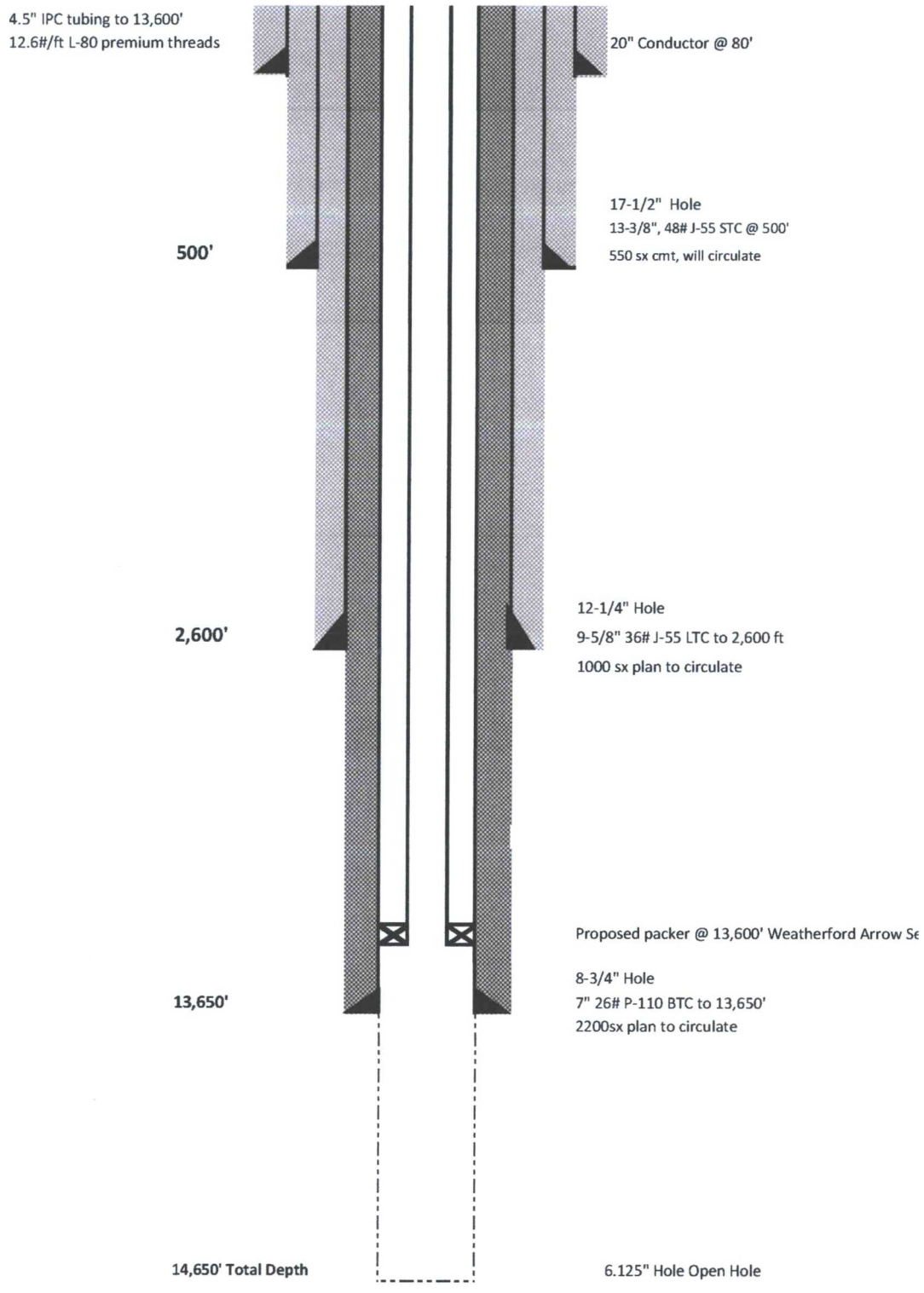
(2) The injection interval and whether it is perforated or open-hole.

13,650' to 14,650' (OH)

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

Well is a planned new drill for SWD

Fikes SWD No 1
2325' FNL & 325' FEL, UL H, SEC. 18, T-24S R-28E, Eddy County, NM
API # 30-015-



(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.
None, well is a planned new drill

(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.
Next Higher: Bone Spring 6,050'-9,532', Wolfcamp 9,532'-11,324', Strawn 11,324'-11,565', Atoka 11,565'-12,399', Morrow 12,399'-13,225'

Next Lower: None

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

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-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	FIKES SWD	1
OGRID No.	**Operator Name**	**Elevation**
	DELAWARE ENERGY	3082'

Surface Location

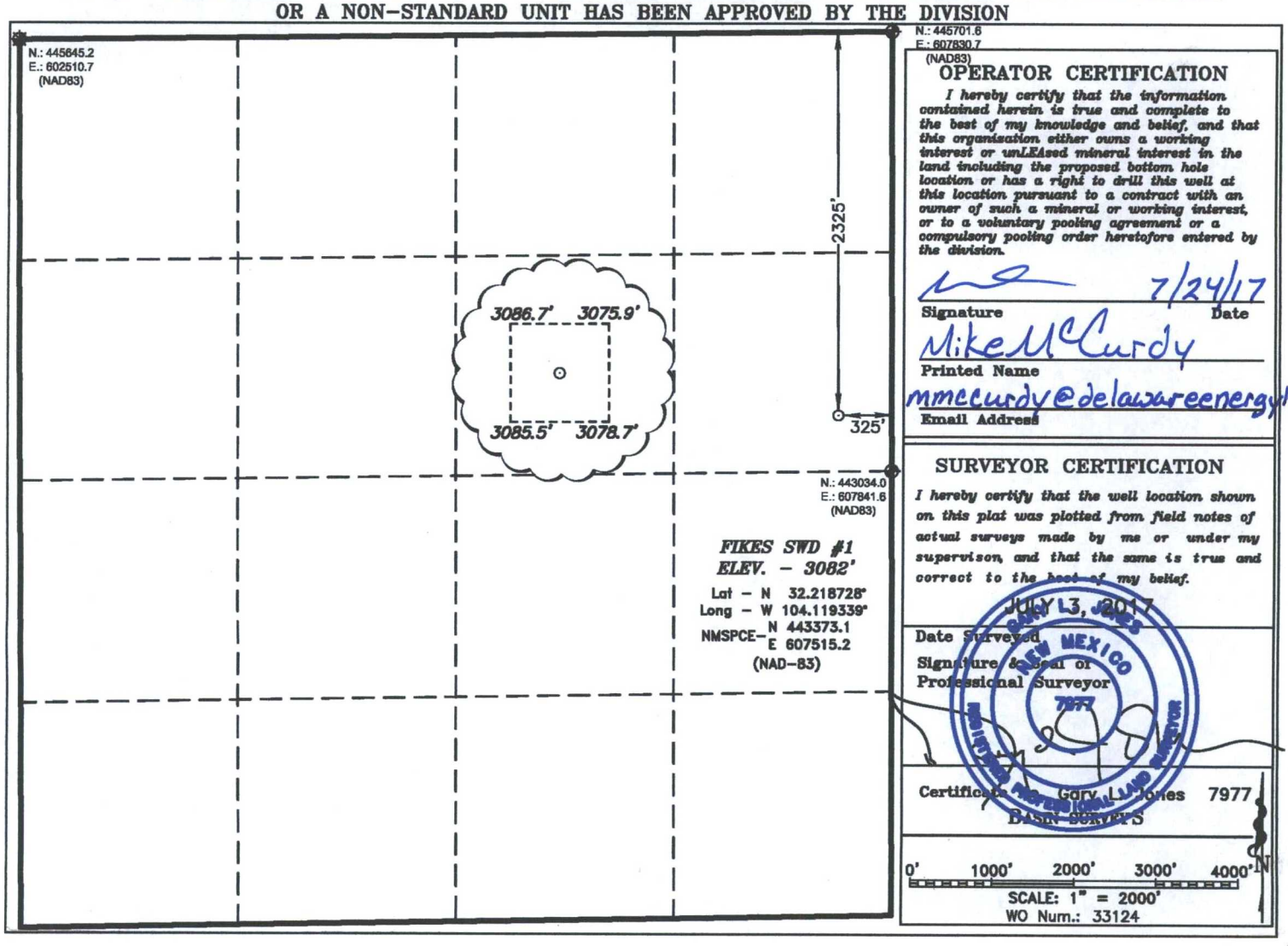
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	18	24 S	28 E		2325	NORTH	325	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unLEased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

7/24/17
Signature Date

Mike McCurdy
Printed Name

mmccurdy@delawareenergyllc.com
Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

JULY 13, 2017
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate Number Gary L. Jones 7977

BASIN SURVEYS

0' 1000' 2000' 3000' 4000' N

SCALE: 1" = 2000'
WO Num.: 33124

Sec 22, T25S, R28E

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Bone Spring

Water Analysis Report by Baker Petrolite

Company:		Sales RDT:	33514.1
Region:	PERMIAN BASIN	Account Manager:	TONY HERNANDEZ (575) 910-7135
Area:	ARTESIA, NM	Sample #:	534665
Lease/Platform:	PINOCHLE 'BPN' STATE COM	Analysis ID #:	106795
Entity (or well #):	2 H	Analysis Cost:	$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary	
Sampling Date:	03/10/11
Analysis Date:	03/18/11
Analyst:	SANDRA GOMEZ
TDS (mg/l or g/m3):	184911.1
Density (g/cm3, tonne/m3):	1.113
Anion/Cation Ratio:	1
Carbon Dioxide:	0 50 PPM
Oxygen:	
Comments:	

Analysis of Sample 534665 @ 75 °F

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	109618.0	3091.92	Sodium:	70275.7	3056.82
Bicarbonate:	2135.0	34.99	Magnesium:	195.0	16.04
Carbonate:	0.0	0.	Calcium:	844.0	42.12
Sulfate:	747.0	15.55	Strontium:	220.0	5.02
Phosphate:			Barium:	0.8	0.01
Borate:			Iron:	6.5	0.23
Silicate:			Potassium:	869.0	22.22
			Aluminum:		
Hydrogen Sulfide:		0 PPM	Chromium:		
pH at time of sampling:		7	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		7	Manganese:	0.100	0.
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4 \cdot 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	1.08	188.52	-1.20	0.00	-1.18	0.00	-0.11	0.00	0.56	0.29	1.72
100	0	1.10	206.05	-1.29	0.00	-1.20	0.00	-0.15	0.00	0.35	0.29	2.35
120	0	1.12	224.17	-1.36	0.00	-1.19	0.00	-0.17	0.00	0.16	0.00	3.17
140	0	1.13	243.17	-1.42	0.00	-1.16	0.00	-0.18	0.00	0.00	0.00	4.21

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

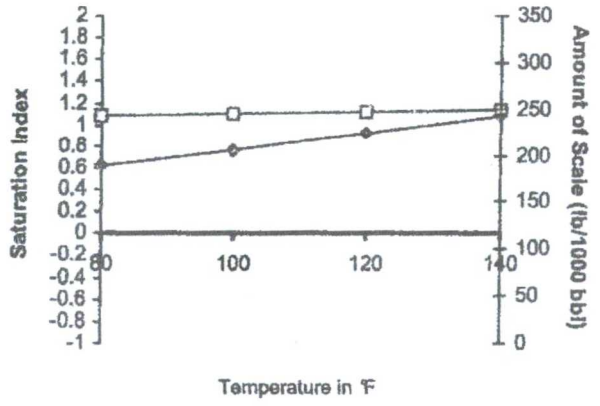
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

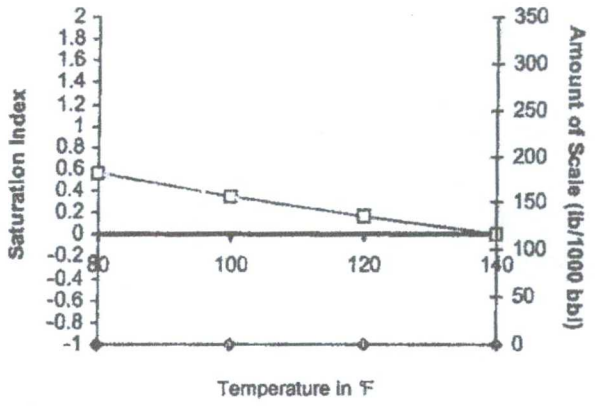
Scale Predictions from Baker Petrolite

Analysis of Sample 534665 @ 75 °F for 03/18/11

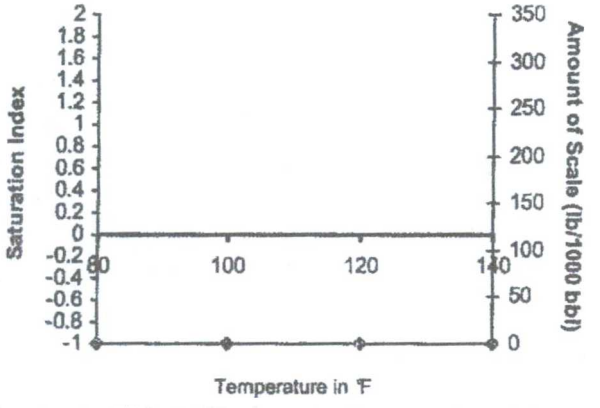
Calcite - CaCO3



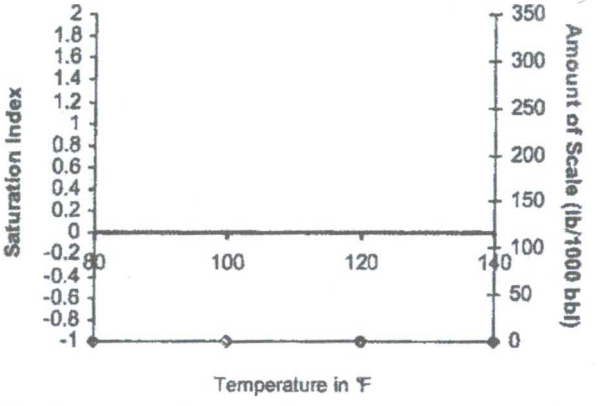
Barite - BaSO4



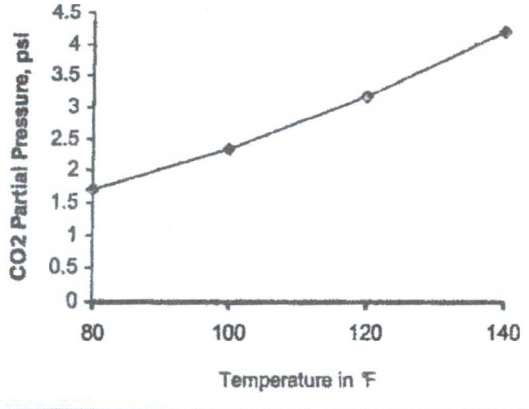
Gypsum - CaSO4*2H20



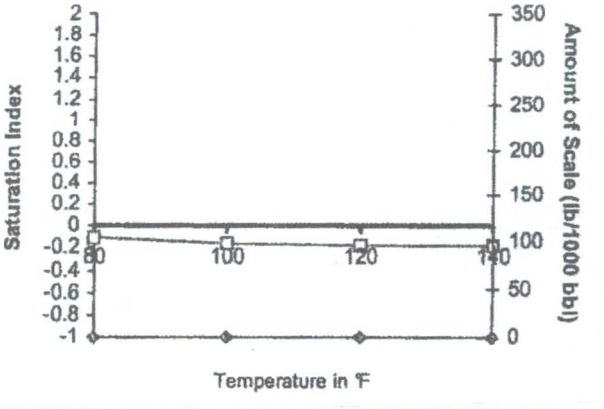
Anhydrite - CaSO4



Carbon Dioxide Partial Pressure



Celestite - SrSO4



Wolfcamp

BAKER HUGHES

Water Analysis

Date: 23-Aug-11

2708 West County Road, Hobbs NM 88240
Phone (575) 392-5556 Fax (575) 392-7307

Analyzed For Brushy Draw L #1

Company	Well Name	County	State
	BD	~~Lea~~ Eddy	New Mexico 1-26S-29E

Sample Source Swab Sample **Sample #** 1

Formation **Depth**

Specific Gravity	1.170	SG @ 60 °F	1.172
pH	6.30	Sulfides	Absent
Temperature (°F)	70	Reducing Agents	

Cations

Sodium (Calc)	in Mg/L	77,962	in PPM	66,520
Calcium	in Mg/L	4,000	in PPM	3,413
Magnesium	in Mg/L	1,200	in PPM	1,024
Soluable Iron (FE2)	in Mg/L	10.0	in PPM	9

Anions

Chlorides	in Mg/L	130,000	in PPM	110,922
Sulfates	in Mg/L	250	in PPM	213
Bicarbonates	in Mg/L	127	in PPM	108
Total Hardness (as CaCO3)	in Mg/L	15,000	in PPM	12,799
Total Dissolved Solids (Calc)	in Mg/L	213,549	in PPM	182,209
Equivalent NaCl Concentration	in Mg/L	182,868	in PPM	156,031

Scaling Tendencies

*Calcium Carbonate Index 507,520

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

*Calcium Sulfate (Gyp) Index 1,000,000

Below 500,000 Remote / 500,000 - 10,000,00 Possible / Above 10,000,000 Probable

*This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.

Remarks RW=.048@70F

Report # 3188

Sec 16, T23S, R28E

MCI
CHEMICALS and CONSULTING

PRODUCTION DEPARTMENT

MILLER CHEMICALS, INC.
Post Office Box 298
Artesia, N.M. 88211-0298
(505) 746-1919 Artesia Office
(505) 392-2893 Hobbs Office
(505) 746-1918 Fax
mci@plateautel.net

Delaware Brushy Canyon

WATER ANALYSIS REPORT

Company :
Address :
Lease : LOVING "AIB"
Well : #15
Sample Pt. : WELLHEAD

Date : MARCH 17, 2008
Date Sampled : MARCH 17, 2008
Analysis No. :

	ANALYSIS		mg/L		* meq/L
1.	pH	6.0			
2.	H2S	0			
3.	Specific Gravity	1.070			
4.	Total Dissolved Solids		304684.9		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	927.0	HCO3	15.2
12.	Chloride	Cl	187440.0	Cl	5287.4
13.	Sulfate	SO4	500.0	SO4	10.4
14.	Calcium	Ca	37200.0	Ca	1856.3
15.	Magnesium	Mg	996.3	Mg	82.0
16.	Sodium (calculated)	Na	77586.6	Na	3374.8
17.	Iron	Fe	35.0		
18.	Barium	Ba	NR		
19.	Strontium	Sr	NR		
20.	Total Hardness (CaCO3)		97000.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

1856	*Ca <----- *HCO3	15
	/------->	
82	*Mg -----> *SO4	10
	<---------/	
3375	*Na -----> *Cl	5287

Saturation Values Dist. Water 20 C
CaCO3 13 mg/L
CaSO4 * 2H2O 2090 mg/L
BaSO4 2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	15.2	1231
CaSO4	68.1	10.4	709
CaCl2	55.5	1830.7	101584
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	82.0	3902
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	3374.8	197223

REMARKS:

Wolfcamp

Impact Water Analysis Analytical Report

IMPACT!

Company:		Location:	El Presidente St. #3H
Source :	Wellhead	Date Sampled:	July 15, 2015
Number :	45813	Account Manager:	David Garcia
County:		Foreman:	

ANALYSIS	mg/L		EQ. WT.		MEQ/L
1. pH	6.70				
2. Specific Gravity 60/60 F	1.067				
3. Hydrogen Sulfide	10.2	PPM			
4. Carbon Dioxide	120.0	PPM			
5. Dissolved Oxygen	ND				
6. Hydroxyl (OH^-)	0	/	17.0	=	0.00
7. Carbonate (CO_3^{-2})	0	/	30.0	=	0.00
8. Bicarbonate (HCO_3^-)	244	/	61.1	=	3.99
9. Chloride (Cl^-)	57,987	/	35.5	=	1,633.44
10. Sulfate (SO_4^{-2})	654	/	48.8	=	13.61
11. Calcium (Ca^{+2})	2,792	/	20.1	=	138.91
12. Magnesium (Mg^{+2})	389	/	12.2	=	31.92
13. Sodium (Na^+)	34,045	/	23.0	=	1,480.21
14. Barium (Ba^{+2})	2.71				
15. Total Iron (Fe)	7.92				
16. Manganese	0.51				
17. Strontium	594.40				
18. Total Dissolved Solids	96,727				
19. Resistivity @ 75 °F (calculated)	0.082	Ω-m			

20. $CaCO_3$ Saturation Index

@ 80 °F	-0.3041
@ 100 °F	0.0059
@ 120 °F	0.2659
@ 140 °F	0.6259
@ 160 °F	0.9759

21. $CaSO_4$ Supersaturation Ratio

@ 70 °F	0.2391
@ 90 °F	0.2384
@ 110 °F	0.2406
@ 130 °F	0.2438
@ 150 °F	0.2469

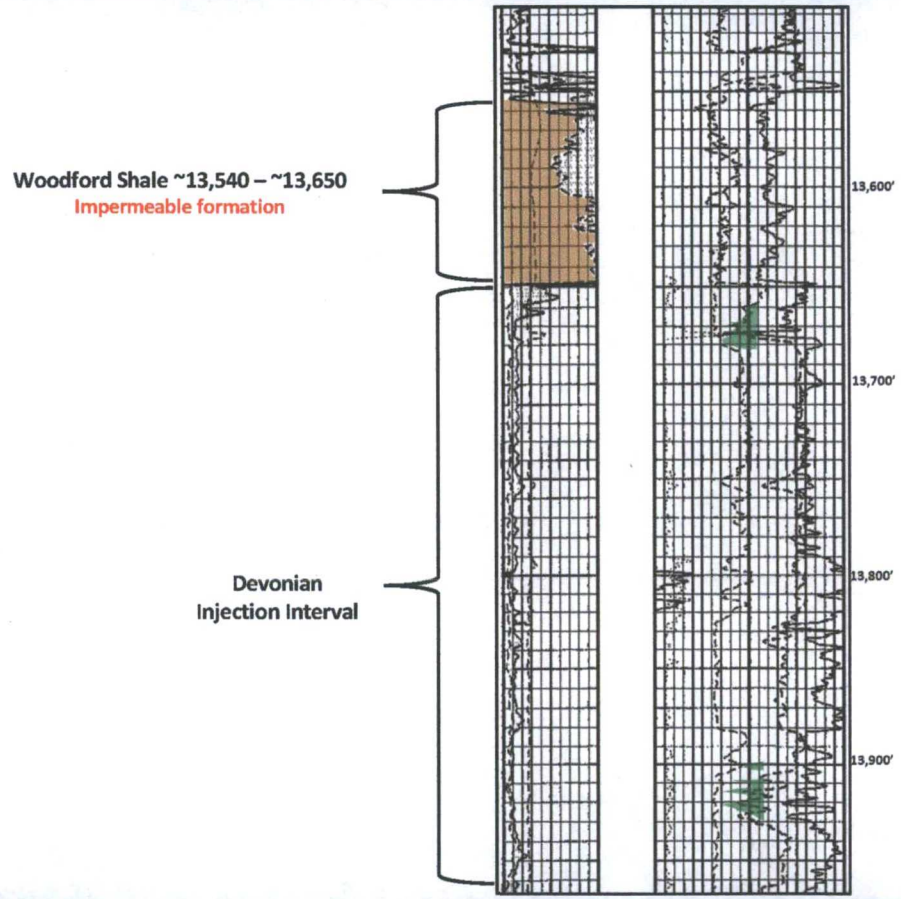
PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	MEQ/L	= mg/L
$Ca(HCO_3)_2$	81.04		3.99	323
$CaSO_4$	68.07		13.61	926
$CaCl_2$	55.50		121.31	6,733
$Mg(HCO_3)_2$	73.17		0.00	0
$MgSO_4$	60.19		0.00	0
$MgCl_2$	47.62		31.92	1,520
$NaHCO_3$	84.00		0.00	0
$NaSO_4$	71.03		0.00	0
NaCl	58.46		1,480.21	86,533

Analyst: Sylvia Garcia Date: July 17, 2015

Cigarillo SWD #1

- Operator: Yates Petroleum
- Top of Devonian: ~13,650'



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North American Oil and Gas News

3 key questions for the oil market poker game, ahead of OPEC's meeting

Castleton Commodities acquires East Texas assets from Anadarko Petroleum for over $1 billion

Spartan Energy Corp. acquires southeast Saskatchewan assets from ARC Resources for $700 million

Gauging the Trump effect on global commodities

Source: Oil Voice

NYMEX LS Crude	0
Navajo WTXI	0
Henry Hub	0
Updated :	11/18/2016

State Land Office Data Access

OCD well/log image files

PRRC NM-TECH NM-BGMR

- NM WAIDS
  - Data
    - Produced Water
    - Ground Water
    - Conversion Tools
  - Scale
    - Scale details
    - Stiff
    - Oddo
    - Probable Mineral Composition
    - mix
  - Corrosion
    - Theory
      - Uniform
      - Galvanic
      - Crevice
      - Hydrogen Damage
      - EIC

General Information About: Sample 10516			
Section/ Township/Range	16 / 24S / 28E	Lat/Long	32.2174/-104.0921
Elevation	3041	Depth	161
Date Collected	5/28/1981 12:00:00 AM	Chlorides	1039
Collector / Point of Collection	SEO/DP	Use	Irrigation Water
Formation	OAL	TDS	0

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Updated 11/18/2016

State Land Office Data Access

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    - Probable Mineral Composition
    - mix
  - Corrosion
    - Theory
      - Uniform
      - Galvanic
      - Crevice
      - Hydrogen Damage
      - EIC

General Information About: Sample 13258			
Section/ Township/Range	21 / 24S / 28E	Lat/Long	32.2028/-104.0921
Elevation	3005	Depth	62
Date Collected	7/13/1955 12:00:00 AM	Chlorides	785
Collector / Point of Collection	USG/DP	Use	Stock
Formation	OAL	TDS	0

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Gauging the Trump effect on global commodities

Source: Oil Voice

NYMEX LS Crude	0
Navajo WTXI	0
Henry Hub	0
Updated :	11/18/2016

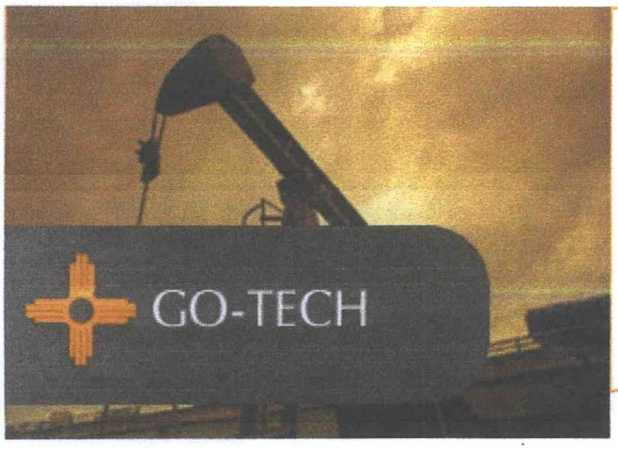
State Land Office Data Access

OCD well/log image files

PRRC NM-TECH NM-BGMR

NM WAIDS
Data
Produced Water
Ground Water
Conversion Tools
Scale
Scale details
Stiff
Oddo
Probable Mineral Composition
mix
Corrosion
Theory
Uniform
Galvanic
Crevice
Hydrogen Damage
EIC

General Information About: Sample 26932			
Section/ Township/Range	30 / 24S / 28E	Lat/Long	32.1883/-104.1264
Elevation	3047.1	Depth	201
Date Collected	9/3/1997 12:00:00 AM	Chlorides	360
Collector / Point of Collection	SEO/DP	Use	Stock
Formation	CAST	TDS	



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Gauging the Trump effect on global commodities

Source: Oil Voice

NYMEX LS Crude	0
Navajo WTXI	0
Henry Hub	0
Updated :	11/18/2016

State Land Office Data Access

OCD well/log image files

PRRC NM-TECH NM-BGMR

- NM WAIDS
  - Data
    - Produced Water
    - Ground Water
    - Conversion Tools
  - Scale
    - Scale details
    - Stiff
    - Oddo
    - Probable Mineral Composition
    - mix
  - Corrosion
    - Theory
      - Uniform
      - Galvanic
      - Crevice
      - Hydrogen Damage
      - EIC

General Information About: Sample 386			
Section/ Township/Range	12 / 24S / 27E	Lat/Long	32.2319/-104.1435
Elevation	3100	Depth	
Date Collected	9/3/1997 12:00:00 AM	Chlorides	30
Collector / Point of Collection	SEO/YT	Use	
Formation		TDS	

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

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00365			ED	2	4	1	17	24S	28E	583791	3565226*	238	26	212
C 00648		C	ED	2	2	2	17	24S	28E	584593	3565644*	96	58	38

Average Depth to Water: **42 feet**

Minimum Depth: **26 feet**

Maximum Depth: **58 feet**

Record Count: 2

PLSS Search:

Section(s): 17-19 Township: 24S Range: 28E

***UTM location was derived from PLSS - see Help**

8/14/17 2:26 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

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.)

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(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00342	C	C	ED		4	1	13	24S	27E	580432	3565080*	2565		
C 00347			ED		1	1	13	24S	27E	580010	3565479*	60	30	30
C 01943		C	ED			1	13	24S	27E	580221	3565275*	30	25	5
C 03145		C	ED	3	1	4	13	24S	27E	580749	3564579*	103	40	63

Average Depth to Water: **31 feet**

Minimum Depth: **25 feet**

Maximum Depth: **40 feet**

Record Count: 4

PLSS Search:

Section(s): 13, 24 Township: 24S Range: 27E

***UTM location was derived from PLSS - see Help**

8/14/17 2:27 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

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

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number		POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02976		C	ED	4	2	3	12	24S	27E	580519	3566195*	57	27	30
C 03037		C	ED	4	3	4	12	24S	27E	580930	3565795*	116	25	91
C 03147		C	ED	3	3	3	12	24S	27E	579885	3565715	140		
C 03260 POD1		C	ED	3	3	3	12	24S	27E	579995	3565935	80	56	24
C 03260 POD2	O	C	ED	1	3	3	12	24S	27E	580100	3565984	80	56	24
C 03740 POD1		C	ED	4	4	4	12	24S	27E	581283	3565795	340		

Average Depth to Water: **41 feet**

Minimum Depth: **25 feet**

Maximum Depth: **56 feet**

Record Count: 6

PLSS Search:

Section(s): 12 **Township:** 24S **Range:** 27E

***UTM location was derived from PLSS - see Help**

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00342	C	C	ED	4	1		13	24S	27E	580432	3565080*	2565		
C 00347			ED	1	1		13	24S	27E	580010	3565479*	60	30	30
C 01943		C	ED			1	13	24S	27E	580221	3565275*	30	25	5
C 03145		C	ED	3	1	4	13	24S	27E	580749	3564579*	103	40	63

Average Depth to Water: **31 feet**

Minimum Depth: **25 feet**

Maximum Depth: **40 feet**

Record Count: 4

PLSS Search:

Section(s): 13 **Township:** 24S **Range:** 27E

***UTM location was derived from PLSS - see Help**

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

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00361	C	C	ED	3	3		08	24S	28E	583283	3565926*	2575		
C 00406		C	ED	1	1		08	24S	28E	583270	3567142*	78	50	28

Average Depth to Water: **50 feet**

Minimum Depth: **50 feet**

Maximum Depth: **50 feet**

Record Count: 2

PLSS Search:

Section(s): 8 **Township:** 24S **Range:** 28E

***UTM location was derived from PLSS - see Help**

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

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00513	C	ED	2	2	2	20	24S	28E	584605	3564021	212	48	164

Average Depth to Water: **48 feet**

Minimum Depth: **48 feet**

Maximum Depth: **48 feet**

Record Count: 1

PLSS Search:

Section(s): 20 **Township:** 24S **Range:** 28E

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00365		ED	2	4	1	17	24S	28E	583791	3565226*	238	26	212
C 00648	C	ED	2	2	2	17	24S	28E	584593	3565644*	96	58	38

Average Depth to Water: **42 feet**

Minimum Depth: **26 feet**

Maximum Depth: **58 feet**

Record Count: 2

PLSS Search:

Section(s): 17 **Township:** 24S **Range:** 28E

***UTM location was derived from PLSS - see Help**

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

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00232	C	ED	1	3	2	07	24S	28E	582362	3566826*	160		

Average Depth to Water: --

Minimum Depth: --

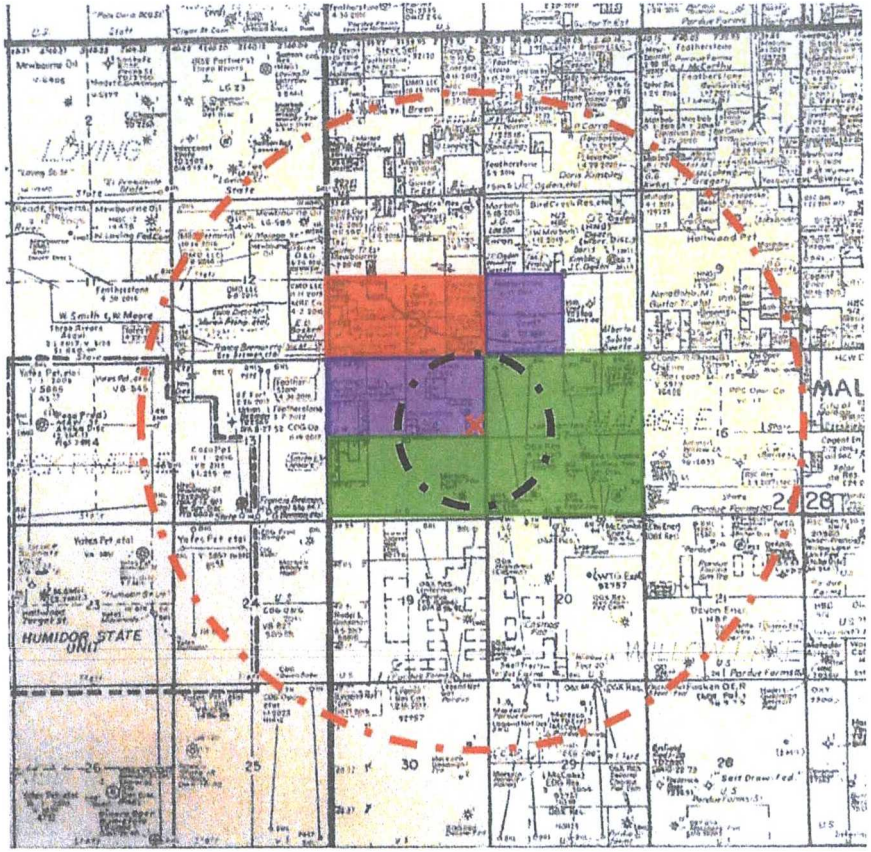
Maximum Depth: --

Record Count: 1

PLSS Search:

Section(s): 7 **Township:** 24S **Range:** 28E

***UTM location was derived from PLSS - see Help**



0.5 Mile radius

2 Mile radius

Fikes SWD #1

Matador Production Company

COG Operating LLC

Mewbourne Oil Company

Delaware Energy, L.L.C.
3001 W. Loop 250 N., Suite C-105-318
Midland, TX 79705
Office: (432) 312-5251

July 24, 2017

Surface Owner / Offset Operators

Re: Notification of Application for Authorization to Inject
Fikes SWD No 1 Well

Ladies and Gentlemen:

Delaware Energy, LLC is seeking administrative approval to utilize the proposed Fikes SWD No 1 as a Salt Water Disposal well. As required by the New Mexico Oil Conservation Division Rules, we are notifying you of the following proposed salt water disposal well. This letter is a notice only. No action is required unless you have questions or objections.

Well:	Fikes SWD No 1
Proposed Disposal Zone:	Devonian Formation (from 13,650'- 14,650')
Location:	2325' FNL & 325' FEL, Sec.18, UL H, T24S, R28E, Eddy Co., NM
Applicants Name:	Delaware Energy, L.L.C.
Applicants Address:	3001 W. Loop 250 N., Suite C-105-318, Midland, TX 79705

This application for water disposal well will be filed with the New Mexico Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. And their phone number is 505-476-3460.

Please call Mike McCurdy with Delaware Energy, LLC if you have any questions at (432)-312-5251.

Sincerely,

Mike McCurdy

DISTRIBUTION LIST

Affected Lease Operators:

Larry Fikes
8710 Grassbur Road
Bryan, TX 77808-5127

Concho
600 W. Illinois Ave.,
Midland, TX 79701

Mewbourne
500 W. Texas Ave.,
Suite 1020
Midland, TX 79701

Matador Resources Company
5400 Lyndon B. Johnson Fwy.,
Dallas, TX 75240

New Mexico OCD:

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

New Mexico Oil Conservation Division - District 2 Artesia
811 S. First St.
Artesia, NM 88210

Surface Owner:

Larry Fikes
8710 Grassbur Road
Bryan, TX 77808-5127

LEGAL NOTICE

Delaware Energy, L.L.C., 3001 W. Loop 250N, Suite C-105-318, Midland, TX 79705, has filed a form C-108 (Application for Authorization to Inject) with the Oil Conservation Division seeking administrative approval to utilize the proposed Fikes SWD No 1 (API – 30-015-XXXXX) as a Salt Water Disposal well.

The Fikes SWD No 1 will be located at 2325' FNL and 325' FEL, Unit Letter H, Section 18, Township 24 South, Range 28 East, Eddy County, New Mexico. The well will dispose of water produced from oil and gas wells into the Devonian Formation from 13,650' to 14,650' at a maximum rate of 25,000 barrels of water per day at a maximum pressure of 2,730 psi.

Interested parties must file objections or requests for hearing with the Oil Conservations Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

Additional information can be obtained by contacting Delaware Energy, L.L.C., at (432) 312-5251.

Fikes SWD No 1
API#: 30-015-
Location: Sec. 18, T-24S, R-28E, UL H

Formation Tops

Rustler	783'
Top of Salt	955'
Bottom of Salt	2,307'
Bell Canyon	2,512'
Cherry Canyon	3,358'
Brushy Canyon	5,044'
Bone Spring Lime	6,050'
Wolfcamp	9,532'
Lower Strawn	11,324'
Atoka	11,565'
Morrow	12,399'
Mississippi	13,225'
Woodford Shale	13,550'
Devonian	13,650'

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DALLAS, TX 75240

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☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.24
$	
Total Postage and Fees	$8.34
$	

0702 02

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JUL 25 2017

07/25/2017

Sent To Matador

Fikes

Street and Apt. No., or PO Box No.

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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MIDLAND, TX 79701

OFFICIAL USE

Certified Mail Fee	$3.35
$	$2.75
Extra Services & Fees *(check box, add fee as appropriate)*	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.24
$	
Total Postage and Fees	$8.34
$	

0702 02

Postmark Here

JUL 25 2017

07/25/2017

Sent To Mewbourne

Fikes

Street and Apt. No., or PO Box No.

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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MIDLAND, TX 79701

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$	$2.75
Extra Services & Fees *(check box, add fee as appropriate)*	
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☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.24
$	
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PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.24
$	
Total Postage and Fees	$8.34
$	

0702 02

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JUL 25 2017

07/25/2017

Sent To Larry Fikes

Fikes

Street and Apt. No., or PO Box No.

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

LEGAL NOTICE

Delaware Energy, L.L.C., 3001 W. Loop 250N, Suite C-105-318, Midland, TX 79705, has filed a form C-108 (Application for Authorization to Inject) with the Oil Conservation Division seeking administrative approval to utilize the proposed Fikes SWD No 1 (API - 30-015-XXXXX) as a Salt Water Disposal well.

The Fikes SWD No 1 will be located at 2325' FNL and 325' FEL, Unit Letter H, Section 18, Township 24 South, Range 28 East, Eddy County, New Mexico. The well will dispose of water produced from oil and gas wells into the Devonian Formation from 13,650' to 14,650' at a maximum rate of 25,000 barrels of water per day at a maximum pressure of 2,730 psi. Interested parties must file objections or requests for hearing with the Oil Conservations Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

Additional information can be obtained by contacting Delaware Energy, L.L.C., at (432) 312-5251.

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

Danny Fletcher, being first duly sworn, on oath says:

That he is the Publisher of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

July 27 2017

That the cost of publication is **$62.15** and that payment thereof has been made and will be assessed as court costs.

Subscribed and sworn to before me this 28 day of July, 2017

Cynthia Arredondo

My commission Expires on 2/13/21

Notary Public

OFFICIAL SEAL
CYNTHIA ARREDONDO
Notary Public
State of New Mexico
My Comm. Expires 2/13/21

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C-108 Review Checklist: Received 7/27/2017 Add. Request: 7/28/2017 Reply Date: 7/28/17 Suspended: [Ver 15]

ORDER TYPE: WFX / PMX / SWD Number: _____ Order Date: _____ Legacy Permits/Orders: _____

Well No. 1 Well Name(s): Fikes

API : 30-0 15-pending Spud Date: TBD New or Old: N (UIC Class II Primacy 03/07/1982)

Footages 2325 FNL 325 FEL Lot ___ or Unit H Sec 16 Tsp 24S Rge 28E County Eddy

General Location: 23 miles SW/Malaga Pool: SWD; Devonian Pool No.: 96101

BLM 100K Map: Carlsbad Operator: Delaware Energy, LLC OGRID: 371195 Contact: Mike McCurdy, Engineer

COMPLIANCE RULE 5.9: Total Wells: 2 Inactive: 0 Fincl Assur: OK Compl. Order? N/A IS 5.9 OK? Y Date: 8-15-2017

WELL FILE REVIEWED ◯ Current Status: Proposed

WELL DIAGRAMS: NEW: Proposed ◯ or **RE-ENTER:** Before Conv. ◯ After Conv. ◯ Logs in Imaging: N/A

Planned Rehab Work to Well: _____

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	500		550	Surface/Visual
Planned __or Existing __ Interm/Prod	12 1/4 / 9 5/8	1000		1000	Surface/Visual
Planned __or Existing __ Interm/Prod	8 3/4 / 7"	13600		2200	Surface/Visual
Planned __or Existing __ Prod/Liner					
Planned __or Existing __ Liner					
Planned __or Existing __ OH / PERF	13650/14650		Inj Length 1000		

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

Completion/Operation Details:

Drilled TD 14650 PBTD _____

NEW TD _____ NEW PBTD _____

NEW Open Hole ✓ or NEW Perfs ◯

Tubing Size 4 1/2 in. Inter Coated? Y

Proposed Packer Depth 13600 ft

Min. Packer Depth 13550 (100-ft limit)

Proposed Max. Surface Press. 2730 psi

Admin. Inj. Press. 2730 (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P N/A Noticed? ___ BLM Sec Ord ◯ WIPP ◯ Noticed? ___ Salt/Salado T: 455 B: 2317 **NW:** Cliff House fm ___

FRESH WATER: Aquifer Quaternary Max Depth 206 **HYDRO AFFIRM STATEMENT** By Qualified Person ✓

NMOSE Basin: Carlsbad CAPITAN REEF: thru adj NA No. Wells within 1-Mile Radius? 2 FW Analysis Y

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

Disposal Int: Inject Rate (Avg/Max BWPD): 20K/28K Protectable Waters? N/A Source: _____ System: Closed or Open

HC Potential: Producing Interval? N/A Formerly Producing? _____ Method: Logs/DST/P&A/Other regional 2-Mile Radius Pool Map ◯

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

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

Penetrating Wells: No. P&A Wells 0 Num Repairs? ___ on which well(s)? _____ Diagrams? _____

NOTICE: Newspaper Date July 23 2017 Mineral Owner _____ Surface Owner Larry Fikes N. Date July 25, 2017

RULE 26.7(A): Identified Tracts? Y Affected Persons: Matador, COG, Melbourne N. Date July 25, 2017

Order Conditions: Issues: Circulate All Casings/Surface

Add Order Cond:

OCD Permitting

Section : 18-24S-28E

Type: Normal

Total Acres: 639.2

County: Eddy (15)

D (1) Federal [1] Fee [2] (15) 39.68	C (C) Fee [1] Fee [2] (15) 40	B (B) Fee [1] Fee [2] (15) 40	A (A) Fee [1] Fee [2] (15) 40
E (2) Federal [1] Fee [2] (15) 39.76	F (F) Federal [1] Federal [2] (15) 40	G (G) Fee [1] Fee [2] (15) 40	H (H) Fee [1] Fee [2] (15) 40
L (3) Federal [1] Fee [2] (15) 39.84	K (K) Federal [1] Federal [2] (15) 40	J (J) Federal [1] Federal [2] (15) 40	I (I) Federal [1] Federal [2] (15) 40
M (4) Federal [1] Federal [2] (15) 39.92	N (N) Federal [1] Federal [2] (15) 40	O (O) Federal [1] Federal [2] (15) 40	P (P) Federal [1] Federal [2] (15) 40

Note [1] = Surface Owner Rights

Note [2] = Sub-Surface Mineral Rights

Land Restrictions

No land restrictions found for this section.

Return to Search