SUSPENSE

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V16/2015

PMAM1501651904

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
T	THIS CHECKLIST IS M	IANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE
Appli	cation Acronym	s:
		ndard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication] Inhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
	-	pol 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-Qua	lified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]
[1]	TYPE OF AI	PPLICATION - Check Those Which Apply for [A]
	[A]	PPLICATION - Check Those Which Apply for [A] Location - Spacing Unit - Simultaneous Dedication NSL NSP SD NSL SD NSP SD
	Check	Cone Only for [B] or [C]
	[B]	Cone Only for [B] or [C] Commingling - Storage - Measurement DHC CTB PLC PC OLS OLM - Well - Rattle Snake 1650
	[C]	Injection - Disposal - Pressure Increase - Enhanced Oil Recovery ☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR
	[D]	Other: Specify Other: Specify TON RECOURED TO: - Check Those Which Apply or Does Not Apply 97803
[2]	NOTIFICAT [A]	ION REQUIRED TO: - Check Those Which Apply, or □ Does Not Apply □ 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]		CURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE ATION INDICATED ABOVE.
	val is accurate a	TION: I hereby certify that the information submitted with this application for administrative and complete to the best of my knowledge. I also understand that no action will be taken on this quired information and notifications are submitted to the Division.
	Note	Statement must be completed by an individual with managerial and/or supervisory capacity.
	ie A. Porter or Type Name	Signature Production Technician Date Date
		Stephanie.Porter@dvn.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:Devon Energy Production Company, LP	
	ADDRESS:333 West Sheridan Avenue, Oklahoma City, Oklahoma 73102-5010	
	CONTACT PARTY:Stephanie A. PorterPHONE: _405-552-7802	
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 identifies the well's area of review.	cle
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:	
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjecte produced water; and, If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attac chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, near wells, etc.). 	ch a
*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 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 resubmit	ted)
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of an injection or disposal well showing location of wells and dates samples were taken.	ıy
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 knowled and belief. NAME:Stephanie A. Porter	lge
*	E-MAIL ADDRESS: Stephanie.Porter@dvn.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:	

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.

Casing Size: 7-5/8", 47.1#, @ 18773" Casing Size: 9-5/8", 47#, @ 12485' Casing Size: 13-3/8", 68#, @ 5300' Method Determined: Circ. cement_ Method Determined: Circ. cement Method Determined: Calc TOC_ Method Determined: _Calc TOC_ RANGE Casing Size: 20",94# @ 750" R34E WELL CONSTRUCTION DATA (Perforated or Open Hole; indicate which) 20560 TOWNSHIP Injection Interval (Open Hole) 2nd Intermediate Casing 1st Intermediate Casing Production Casing Surface Casing or or or or 5 **T26S** 18773 SECTION SX. SX. Pop of Cement: _TOC @ 11485' 16 SX. SX. Surface Surface 1850 3700 440 12-1/4" Top of Cement: 4800' 8-1/2" 20560 Cemented with: 1730 17-1/2" 26" Sec Cemented with: Cemented with: Top of Cement: Top of Cement: Cemented with: Total Depth: Hole Size: UNIT LETTER Hole Size: Hole Size: Hole Size: 口 PROPOSED 4-1/2", 11.6#, P-110 IPC tubing 7-5/8" Nickel Coated Arrow-set packer set @ 18,723' 10,541 10,688 11,093 11,508 12,127 12,127 14,602 14,602 14,602 14,602 17,529 16,926 17,884 17 RATTLESNAKE 16 SWD #1 706' 1,173' 3,460' 5,040' 5,360' 6,412' 7,882' PROPOSED INJECTION INTERVAL DEVONIAN/FUSSELMAN/MONTOYA 18,773' - 20,560' Devon Energy Production Company, LP State NM Compl Date: 2nd Bone Spring Lime 2nd Bone Spring Sand Bone Spring Lime Bone Spring Sand st Bone Spring Sand erry Canyon ushy Canyon FOOTAGE LOCATION ase of Salt III Canyon 2375' FNL & 210' FWL DEVON ENERGY PRODUCTION COMPANY LP Field: GAUCHO
County: LEA
Spud Date:
Date: 1/14/15 **WELLBORE SCHEMATIC** 20,560' TD Well Name RATTLESNAKE 16 SWD 1 Location: Sec 16 - T265-R34E; 2,375' FNL & 210' FWL Elevation: 3,337.30' 6L WELL NAME & NUMBER: WELL LOCATION: 6-1/8" Open Hole 18,733 - 20,560 17-1/2" hole 13-3/8", 68#, HCP-110, BTC, @ 3,700' Cement w/3,700 sx to surface 8-1/2" Hole 7-5/8", 47.14, P-110, BTC.@ 18,773 Cement w/600 sx Proposed TOC @ 11,985 12-1/4" hole 9-5/8", 47#, P-110, BTC @ 12,486' Cement w/1 850 sx Proposed TOC @ 4,800' Proposed SWD Conversion ACID 40,000 GAL 15% HCL PROPOSED SWD NEW DRILL 26" hole 20", 94#, J55, BTC, @ 750' Cement w/1,730 sx to surface OPERATOR:

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Side 2

INJECTION WELL DATA SHEET

(
$\frac{\Gamma}{2}$	Type of Packer: 7-5/8" Nickel Coated Arrowset Packer	
Pa	Packer Setting Depth: +/- 18723	
O <u>T</u>	Other Type of Tubing/Casing Seal (if applicable):	
	Additional Data	
Ξ.	Is this a new well drilled for injection? $\overline{\text{Yes}}$	
	If no, for what purpose was the well originally drilled?	
5	Name of the Injection Formation:Devonian/Silurian/Ordovician	
33	Name of Field or Pool (if applicable):(to be assigned)	
4.	Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.	
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed in this area:	

Delaware 5320 (Oil); Bell Canyon 5360 (Oil); Cherry Canyon 6412 (Oil); Brushy Canyon 7882 (Oil); Bone Spring 9617 Fresh Water 180; Rustler 706 (Barren); Top of Salt 1173 (Barren); Castile 3460 (Barren); Base of Salt 5040 (Barren);

(Oil/Gas); 1st Bone Spring Sd 10541 (Oil/Gas); 2nd Bone Spring Lm 10688 (Oil/Gas); 2nd Bone Spring Sd 11093

(Barren); Mississipian Lime 17599 (Barren); Woodford 17884 (Barren); Devonian 18773 (Barren); Fusselman 19648

(Barren); Montoya 20140 (Barren); Simpson 20581 (Barren); Ellenburger 21121 (Barren)

Pennsylvanian 14602 (Oil/Gas); Strawn 14013 (Oil/Gas); Atoka 14683 (Gas); Morrow 15529 (Gas); Barnett 16926 (Oil/Gas); 3rd Bone Spring Lm 11508 (Oil/Gas); 3rd Bone Spring Sd 12127 (Oil/Gas); Wolfcamp 12502 (Oil/Gas);

Proposed Injection Well: Rattlesnake SWD 1

API: 30-025-

APPLICATION FOR INJECTION

Form C-108 Section III

III. Well Data--On Injection Well

A. Injection Well Information

(1) Lease Rattlesnake 16 SWD

Well No #1

 Location
 2375' FNL & 210' FWL

 Sec,Twn,Rnge
 Sec 16-T26S-R34E

 Cnty, State
 Lea County, NM

(2) Casing 20", 94#, J55, BTC, @ 750'

Cmt'd w/1750 sx, circ cmt to surf

13-3/8", 68#, HCP-110, BTC, @ 5300' Cmt'd w/3700 sx, circ cmt to surf

9-5/8", 47#, HCP-110, BTC @ 12,485' Cmt'd w/1850 sx, proposed toc @ 4800'

7-5/8", 47.1#, P110, BTC @ 18773' Cmt w/440 sx, prop toc @ 11485'

(3) Injection Tubing 4 -1/2" 11.6# L-80 IPC injection tubing

(4) Packer 7-5/8" Nickel Coated Arrowset Packer @ +/- 18723'

B. Other Well Information

(1) Injection Formation:

Devonian/Silurian/Ordovician

Field Name:

(to be assigned)

(2) Injection Interval:

18773 - 20560'

(3) Original Purpose of Wellbore:

Drill and convert to SWD

(4) Other perforated intervals:

n/a

(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.

Fresh Water 180; Rustler 706 (Barren); Top of Salt 1173 (Barren); Castile 3460 (Barren); Base of Salt 5040 (Barren); Delaware 5320 (Oil); Bell Canyon 5360 (Oil); Cherry Canyon 6412 (Oil); Brushy Canyon 7882 (Oil); Bone Spring 9617 (Oil/Gas); 1st Bone Spring Sd 10541 (Oil/Gas); 2nd Bone Spring Lm 10688 (Oil/Gas); 2nd Bone Spring Sd 11093 (Oil/Gas); 3rd Bone Spring Lm 11508 (Oil/Gas); 3rd Bone Spring Sd 12127 (Oil/Gas); Wolfcamp 12502 (Oil/Gas); Pennsylvanian 14602 (Oil/Gas); Strawn 14013 (Oil/Gas); Atoka 14683 (Gas); Morrow 15529 (Gas); Barnett 16926 (Barren); Mississipian Lime 17599 (Barren); Woodford 17884 (Barren); Devonian 18773 (Barren); Fusselman 19648 (Barren); Montoya 20140 (Barren); Simpson 20581 (Barren); Ellenburger 21121 (Barren)

Proposed Injection Well: Rattlesnake 16 SWD #1

API: 30-025-

APPLICATION FOR INJECTION Form C-108 Section VII to XIII

VII Attach data on the proposed operation, including:

(1) Proposed average injection rate:

10000 BWPD

Proposed maximum injection rate:

20000 BWPD

- (2) The system will be a closed system.
- (3) Proposed average injection pressure:

1877 psi

Proposed max injection pressure:

3754 psi

- (4) The injection fluid will be produced water from area wells producing from the Bone Spring and/or Delaware formation that will be injected into the Devonian/Silurian formation.
- (5) A representative water analysis is submitted for the Delaware & Bone Spring formation(s).

VIII Geologic Injection Zone Data

The injection zone is the Devonian/Silurian/Ordivician formation from 18773' to 20560'. The gross injection interval is 1787' thick. The average depth to fresh water is 180' in this area.

IX Proposed Stimulation

Based on injectivity results this interval could be acid stimulated.

X Log Data

Logs will be submitted to the OCD.

XI Fresh Water Analysis

No water wells were found in this area.

XII Geologic / Engineering Statement

An examination of this area has determined there are no open faults or other hydrologic connection between the disposal zone and any underground drinking water.

See supporting documentation and summary next 4 pages.

Carl Burdick, Geologist

Direct #: (405)-228-7711 Cell #: (405)-626-2369 1-/3-/5 Date:

XIII Proof of Notice

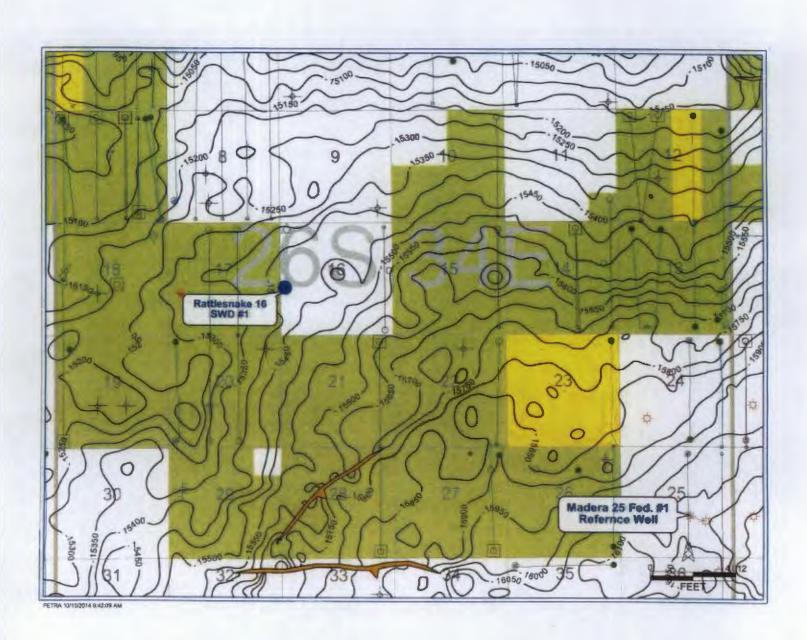
Proof of notice to surface owner, and public legal notification are attached.

/ell Name: RATTLESNAKE 16 SWD 1	Field: GAUCH	-10	
ocation: Sec 16 -T265-R34E; 2,375' FNL & 210' FW		State: NA	Λ
levation: 3,337.30' <i>G</i> L	Spud Date:	Compl Date:	
PI#: 30-025- Prepared by: Jeremy Wiedenm			
17. 33 323 Tropared by: Vereiny Wiedering	Date: 1/14/19	n nov.	
PROPOSED SWD NEW DRILL			
	11 11 3	Formation To	ns T
26" hole		i omaton to	, p3
20", 94#, J55, BTC, @ 750'		Rustler	706′
Cement w/1,730 sx to surface		Top of Salt	1,173'
å		Castile	3,460'
Ž.		Base of Salt	5,040'
<u> </u>		Delaware Bell Canyon	5,320' 5,360'
17-1/2" hole		Cherry Canyon	6,412'
13-3/8", 68#, HCP-110, BTC, @ 3,700'		Brushy Canyon	7.882'
Cement w/3,700 sx to surface		Bone Spring	9,617'
*		1st Bone Spring Sand	10,541'
]	2nd Bone Spring Lime	10,688'
		2nd Bone Spring Sand	11,093'
3		3rd Bone Spring Lime	11,508'
*		3rd Bone Spring Sand	12,127'
Š		Wolfcamp Strawn	12,502' 14,013'
2		Pennsylvanian	14,602'
i i		Atoka	14,683'
9		Morrow	15,529'
		Barnett	16,926'
		Mississippian Lime	17,599'
12-1/4" hole		Woodford	17,884′
9-5/8", 47#, P-110, BTC @ 12,485"		Devonian	18,773'
Cement w/1,850 sx		Fusselman	19,648'
Proposed TOC @ 4,800'		Montoya Simpson	20,140' 20,581'
		Ellenburger	21,121'
Proposed SWD Conversion ACID 40,000 GAL 15% HCL			
ACID 40,000 GAL 13% HCL		PROPOSED	
		4-1/2", 11.6#, P-110 IPC tubing	
		7-5/8" Nickel Coated Arrow-set pack	er set @ 18,723'
	3		
8-1/2" Hole	9		
7-5/8", 47.1#, P-110, BTC @ 18,773' Cement w/600 sx	- 5		
Proposed TOC @ 11,985') (
		PROPOSED INJECTION I	
6-1/8" Open Hole	\	DEVONIAN/FUSSELMAN/	
18,733'- 20,560'		18,773' - 20,560	,

The proposed Rattlesnake 16 SWD #1 is a Siluro-Devonian injection well that will target injecting produced water into the Devonian, Fusselman, and Montoya Formations. Attached in Figure 1 is a top of Devonian structure map (in feet Mean Sea Level) that shows the location of the Rattlesnake SWD #1 in Section 16 of 26S-34E, in the central part of the Rattlesnake area. There is a mapped fault at a distance of 8,775' to the southeast of the proposed Rattlesnake 16 SWD #1 which penetrates the Devonian through to basement, as well as a second fault which 13,225' to the south and also penetrates the Devonian through to basement. However, these two faults are believed to be too far away from the Rattlesnake 16 SWD #1 to be in communication with it.

Attached in Figures 2a and 2b are the logs for the Madera 25 Fed. #1 reference well (~4 miles to the southeast), which was split in two over the proposed injection zone for ease of viewing. To the left of the depth track is gamma ray, with porosity and resistivity to the right, respectively. Figure 2a shows the top of the Devonian to the top of the Montoya Formations, and Figure 2b shows the top of the Montoya well into the Ellenburger Formation, to a log depth of 22,480′ in the Madera 25 Fed. #1. It should be noted that the proposed Rattlesnake 16 SWD #1 will only penetrate to the base of the Montoya Formation and will not enter the Simpson Formation, which is approximately 430′ thick (hence the Rattlesnake 16 SWD #1 will TD approximately 450′ above the top of the Ellenburger).

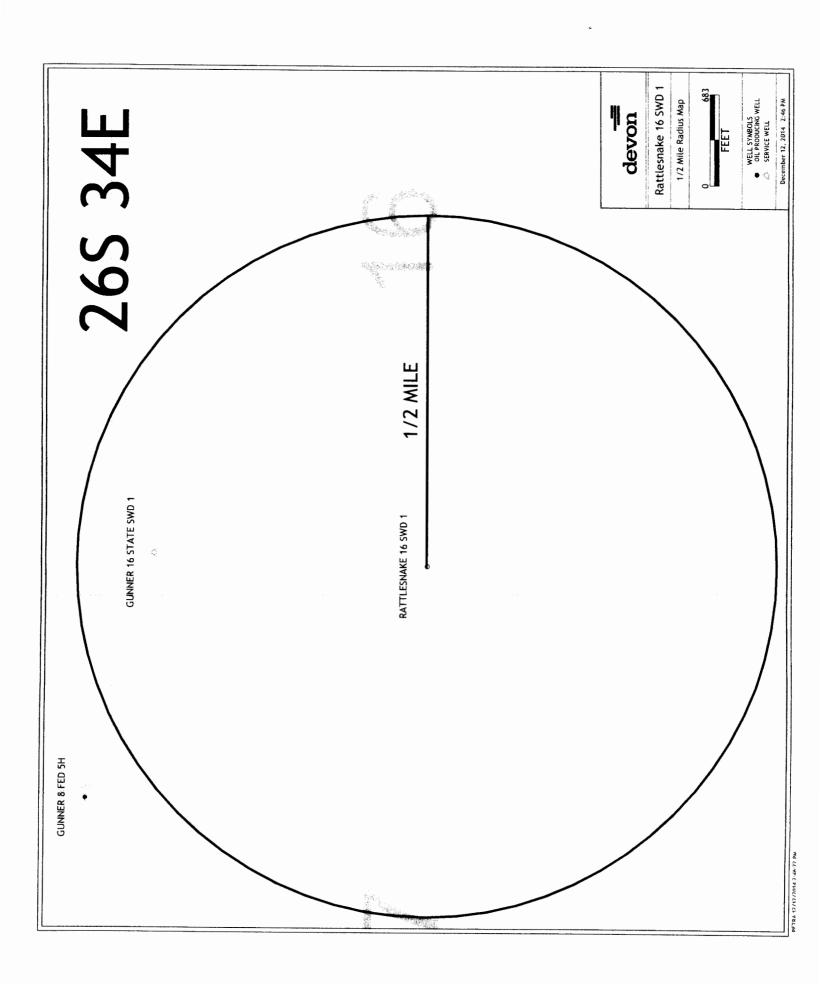
The lithology of the proposed injection interval for the Rattlesnake 16 SWD #1 is predominately limestone and dolomite, with fractures providing the main porosity and permeability that will take injection water. The proposed injection interval is ~1,787 feet (18,773′-20,560′) in the Rattlesnake #1 SWD, which is through the Montoya Formation but not into the Simpson or Ellenburger. These depths may be modified based on drilling results or log data that indicate high porosity zones in limestone or dolomite due to fractures.

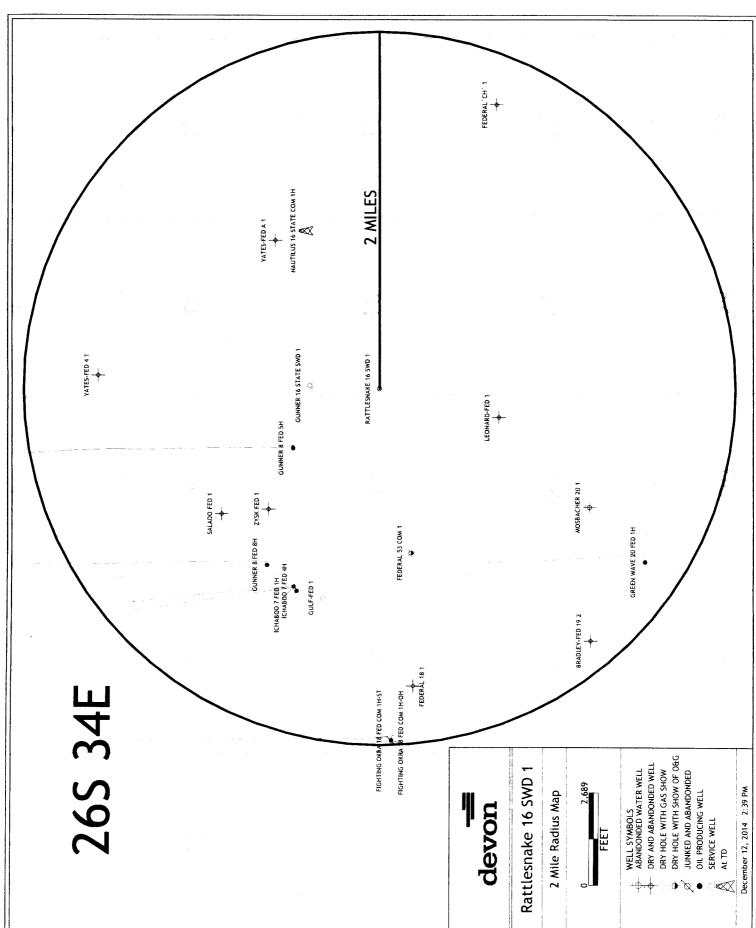


	MADERA 25' FED 1	
	MADERA 25° FED 1 T26S R34E S25	
opth(fi) 6000 -	DPHIPONI 3	Subse Depth 160
16000 -	DR (GAP) NANI PONTI RESULCAMMI	Depth 160
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Permian Basin - Southeast New Mexico Master Database

Subsea	MADERA 25' FED 1 T26S R34E S25	Subs
apth(ft) 17300 -		Deptt173
17400 -	MONTOYA	174
17500 -		175
17600 -		176
7700 -		17
7800 -		17
7900 -	SIMPSON	17
8000 -		18
8100 -		18
8200 -		18
8300 -		18
18400 -	ELLENBURGE	18
8500 -		18
8600 -		18
8700 -		18
8800 -		18
8900 -		18
9000		18
19100 -		19
19200 -		19
19300 -		19





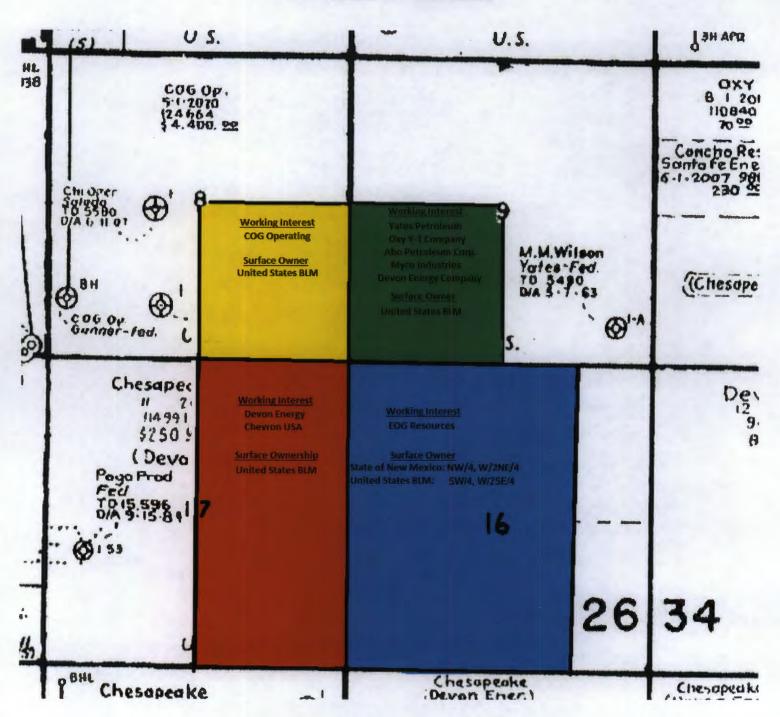
PFTR& 17/17/7014 7-19-46 PM

C108 ITEM VIWell Tabulation in 1/2 Mile Review Area	1/2 Mile Review Area										-				
Devon Energy Production Company, LP	any, LP														
Proposed Formation:	Devonian/Silurian/Ordovician				-	-	1			-					
Proposed Interval:	18,773 - 20,560							:	·b						
		AP		Surf				Spud	Comp			Сотр	Comp	Casing	
Operator	Well Name	ON.	County	County Location Sec Twn Rnge Type Status	Sec Twn	Rnge Type	e Status	Date	Date	10	PBTD		Interval-Ft	Program	Cement / TOC
Devon Energy Production Company, LP	Rattlesnake 16 SWD 1 (Proposed)	APD Submitted to NMOCD	Lea	2375' FNL & 210' FWL	L	16 26S 34E Inj	To Be Drilled	To Be Drilled	To Be Drilled	21000	21000	Devonian	18733 - 21000	20" 94#, @ 750' 13-3/8", 46#, @ 320' 9-5/8", 40#, @ 2950' 7", 29#, @ 12535'	1730 sx / surface 3700 sx / surface 1850 sx /4800 prop TOC 440 sx /11485 prop TOC
COG OPERATING	Gunner 16 State SWD 1	30-025-40890 Lea		330' FNL 330' FWL	16 26S	6 26S 34E	1	Active 6/26/2013 8/7/2013	8/7/2013				0069 - 0009	13-3/8", 54.5#, @ 855' 9-5/8", 40#, @ 5282' 7", 26#, @ 7015'	700 sx /surface 1800 sx / surface 625 sx /980 cbi



P.O. Box 2691 88202-2691 1510 W. Second Street Roswell, NM 88201 Telephone (575) 625-8807 Fax (575) 625-8827

Prospect Name: <u>Rattlesnake SWD</u> Section 8, 9, 16, 17 Township 26 South Range 34 East Survey NMPM County Lea State New Mexico



Date: Remarks: 1/6/2015

marks: Section 8: SE4

Section 9: SW4

Section 16: W2, W2E2

Section 17: E2



P.O. BOX 2691 1510 West Second Street Roswell, NM 88201 Telephone (575)625-8807 • Fax (575)625-8827

PROSPECT: Rattlesnake 16 SWD TRACT: 1

Township 26 South, Range 34 East, NMPM
Section 8: SE/4
Section 9: SW/4
Section 16: W/2, W/2E/2
Section 17: E2
Lea County, New Mexico

Record Date: 12/12/2014 (County) 01/06/2015 (Federal)

We have determined the following individuals and/or companies are probable working interest owners and/or operators, based solely from a cursory check:

Section 8: SE/4 Lease NM 124664, dated 6/1/2010

(1.)

COG Operating, LLC 600 W. Illinois Ave. Midland, TX 79701

The following is the surface owner:

United States of America Bureau of Land Management P.O. Box 27115 Santa Fe, NM 87502-0115

<u>Section 9: SW/4</u> <u>Lease NM-66927, dated 11/01/1986</u>

(1.)

Yates Petroleum Corporation 105 S. Fourth St. Artesia, NM 88210

(2.)

Oxy Y-1 Company P.O. Box 27570 Houston, TX 77227

(3.)

Abo Petroleum Corporation 105 S. Fourth St. Artesia, NM 88210

Section 9 continued:

(4.)

Myco Industries, Inc. 105 S. Fourth St. Artesia, NM 88210

(5.)

Devon Energy Production Company, LP (Operator of the Rattlesnake Federal Unit) 333 West Sheridan Ave.
Oklahoma City, OK 73102

The following is the surface owner:

United State of America Bureau of Land Management P.O. Box 27115 Santa Fe, NM 87502

Section 16: W/2, W/2E/2

<u>Lease V-8570, dated 10/1/2009 covers N2</u> <u>Lease V-8571, dated 10/1/2009 covers S2</u>

(1.)

EOG Resources, Inc. P.O. Box 2267 Midland, TX 79705

The following are the surface owners:

N2 State of New Mexico P.O. Box 1148 Santa Fe, NM 87504

S2 United States of America Bureau of Land Management P.O. Box 27115 Santa Fe, NM 87502-0115

*All of the minerals for this tract are owned by the State of New Mexico. The United States of America only owns the surface in the S2.

<u>Section 17: E/2</u> Lease NM-114991, dated 12/01/2005

(1.)

Devon Energy Production Company, LP 333 West Sheridan Ave. Oklahoma City, OK 73102

(2.)

Chevron USA, Inc. 1400 Smith Street Houston, TX 77002 The following is the surface owner:

United State of America Bureau of Land Management P.O. Box 27115 Santa Fe, NM 87502 Section XIV--Proof of Notice to Leasehold Operators Devon Energy Prod Co LP

C108 Application For Injection

Proposed Well: Rattlesnake 16 SWD 1

Proof of Notice to Leasehold Operators within 1/2 mile of Rattlesnake SWD #1

Yates Petroleum Corporation 105 S. Fourth Street Artesia, New Mexico 88210

Certified receipt No. 7008 1830 0002 7421 9543

Abo Petroleum Corporation 105 S. Fourth St. Artesia, New Mexico 88210

Certified receipt No. 7008-1830-0002-7421-9611

Myco Industries, Inc. 105 S. Fourth St. Artesia, New Mexico 88210 Certified receipt No. 7008-1830-0002-7421-9604

Oxy Y-1 Company P.O. Box 4294 Houston, Texas 77210 Certified receipt No. 7008-1830-0002-7421-9598

COG Operating, LLC 600 W. Illinois Avenue Midland, Texas 79701

Certified receipt No. 7008-1830-0003-1986-3397

Chevron U.S.A Inc. 1400 Smith Street Houston, Texas 77002 Certified receipt No. 7008-1830-0002-7421-9574

EOG Resources, Inc. P.O. Box 2267 Midland, Texas 79705 Certified receipt No. 7008-1830-0002-7421-9567

Bureau of Land Management Carlsbad Field Office 620 East Greene Street Carlsbad, New Mexico 88220 Certified receipt No. 7008-1830-0002-7421-9581

A copy of this application has been mailed to the above leasehold operators by certified mail, pertaining to Devon Energy's application for salt water disposal in the Rattlesnake 16 SWD #1.

Date Mailed:

Signature:

Stephanie A. Porter, Operations Technician Devon Energy Production Co., L.P. 333 West Sheridan Avenue

Oklahoma City, OK 73102

Section XIV--Proof of Notice to Surface Land Owner Devon Energy Prod Co LP C108 Application For Injection

Proposed Well: Rattlesnake 16 SWD 1

Proof of Notice to Surface Land Owner of well location site.

New Mexico State Land Office

Attn: Donald Martinez - Surface Division

310 Old Santa Fe Trail

Santa Fe, New Mexico 87501

Certified receipt No. 7008 1830 0002 7421 9550

A copy of this application has been mailed to the above surface land owner by certified mail, pertaining to Devon Energy's application for salt water disposal in the Rattlesnake 16 SWD #1.

Date Mailed:

Signature:

Stephanie A. Porter, Operations Technician

Devon Energy Production Co., L.P.

333 West Sheridan Avenue Oklahoma City, OK 73102 Rattlesnake SWD 1
C108 Application for Injection
Injection Water Analysis
Bone Spring Formation
Devon Energy Production Co LP

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

Water Analysis Report by Baker Petrolite

Company: DEVON ENERGY CORPORATION Sales RDT: 33521.1

Region: PERMIAN BASIN Account Manager: GENE ROGERS (575) 910-1022

Area: ARTESIA, NM Sample #: 578322

Lease/Platform: ICHABOB 7 FED Analysis ID #: 119387

Entity (or well #): 1 H Analysis Cost: \$90.00

Formation: UNKNOWN

WELLHEAD

Sample Point:

Analysis of Sample 578322 @ 75 F Summary mg/l meq/l Sampling Date: 04/04/12 Cations mg/l Anions meq/l **Analysis Date:** 04/22/12 71749.9 125645.0 3543.99 Sodium: 3120.95 Chloride: Analyst: STACEY SMITH 17.2 Magnesium: 1291.0 106.2 Bicarbonate: 1049.2 Carbonate: 0.0 0. Calcium: 7064.0 352.5 TDS (mg/l or g/m3): 211246.6 Sulfate: 2840.0 59.13 Strontium: 426.0 9.72 Density (g/cm3, tonne/m3): 1.138 Barium: Phosphate: 0.5 0.01 Anion/Cation Ratio: Borate: Iron: 68.0 2.48 Potassium: Silicate: 1111.0 28.41 Aluminum: Carbon Dioxide: 50 PPM Chromium: Hydrogen Sulfide: 0 Oxygen: Copper: pH at time of sampling: 6.7 Lead: Comments: pH at time of analysis: Manganese: 2.000 0.07 Nickel: pH used in Calculation: 6.7

Cond	itions		Values C	alculated	at the Give	n Conditi	ons - Amou	nts of Sc	ale in lb/10	00 bbl		
Temp	Gauge Press.	1	alcite aCO ₃		sum		ydrite aSO ₄		estite		rite ISO 4	CO ₂ Press
F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	1.34	151.28	0.22	569.17	0.25	501.24	0.63	202.66	0.81	0.29	1.43
100	0	1.40	159.85	0.14	387.63	0.24	479.26	0.61	198.10	0.61	0.29	1.8
120	0	1.45	168.13	0.07	210.09	0.25	497.53	0.59	195.53	0.43	0.29	2.24
140	0	1.50	176.69	0.01	40.82	0.28	548.91	0.58	194.39	0.27	0.00	2.73

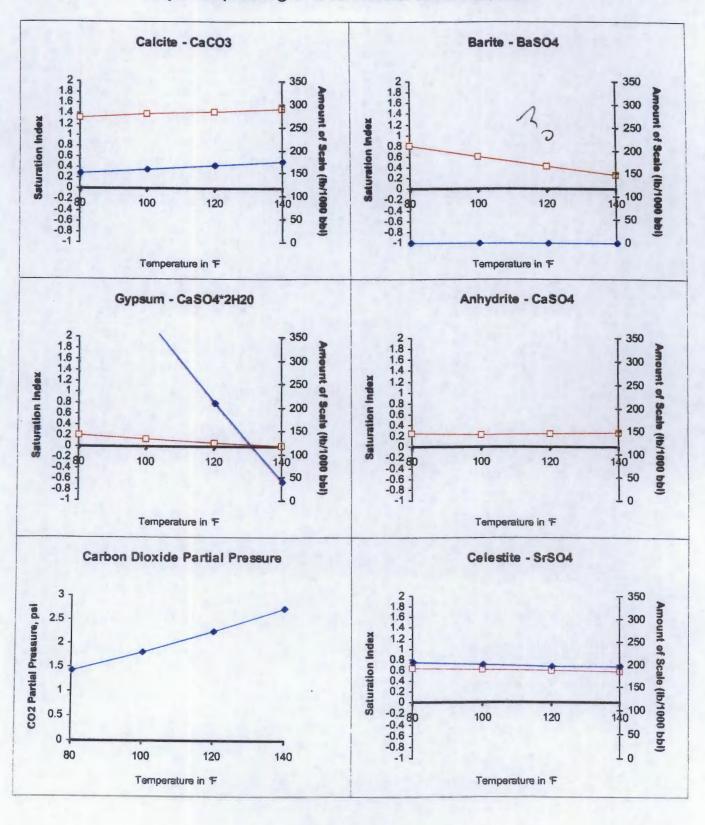
Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

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 578322 @ 75 F for DEVON ENERGY CORPORATION, 04/22/12



Rattlesnake SWD 1 C108 Application for Injection **Injection Water Analysis** Delaware Formation \ **Devon Energy Production Co LP**

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

Water Analysis Report by Baker Petrolite

Company: **DEVON ENERGY CORPORATION** Sales RDT:

Sample #:

Analysis ID #:

33512

Region:

PERMIAN BASIN

Account Manager: WAYNE PETERSON (575) 910-9389

Area:

JAL, NM

578350

Lease/Platform:

RATTLESNAKE UNIT

Entity (or well #):

119388

Sample Point:

FEDERAL 6

Analysis Cost:

\$90.00

Formation: UNKNOWN

WELLHEAD

Summary		An	alysis of Sar	mple 578350 @ 75	F	
Sampling Date: 04/04/12	Anions	mg/l	meq/i	Cations	mg/l	meq/I
Analysis Date: 04/22/12 Analyst: STACEY SMITH TDS (mg/l or g/m3): 261471.6 Density (g/cm3, tonne/m3): 1.187 Anion/Cation Ratio: 1	Chloride: Bicarbonate: Carbonate: Sulfate: Phosphate: Borate: Silicate:	161186.0 24.4 0.0 1252.0	4546.47 0.4 0. 26.07	Sodium: Magnesium: Calcium: Strontium: Barium: tron: Potassium: Aluminum:	66907.2 4104.0 25146.0 1169.0 1.5 42.0 1631.0	2910.3 337.61 1254.79 26.68 0.02 1.52 41.71
Carbon Dioxide: 30 PPM Oxygen: Comments:	Hydrogen Sulfide: pH at time of sampling: pH at time of analysis: pH used in Calculation		0 6	Chromium: Copper: Lead: Manganese: Nickel:	8.500	0.31

Cond	itions		Values C	alculated	at the Give	n Conditi	ons - Amou	ints of Sc	ale in lb/10	30 bbl		
Temp	Gauge Press.	1	alcite aCO ₃	-	sum 42H ₂ 0		ydrite aSO 4	-	stite SO ₄		rite ISO 4	CO ₂ Press
F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.53	0.00	0.30	329.32	0.35	287.24	0.54	330.96	0.73	0.55	0.12
100	0	-0.45	0.00	0.23	267.56	0.34	282.59	0.52	322.22	0.54	0.55	0.14
120	0	-0.37	0.00	0.17	208.53	0.36	292.43	0.51	319.76	0.38	0.55	0.16
140	0	-0.29	0.00	0.12	153.59	0.40	313.47	0.52	322.76	0.23	0.27	0.18

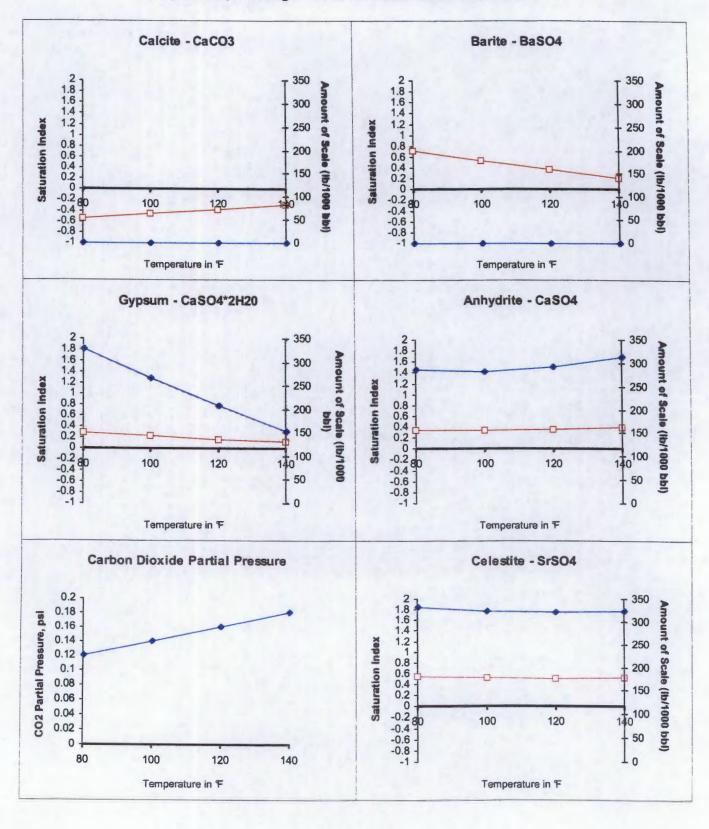
Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

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 578350 @ 75 F for DEVON ENERGY CORPORATION, 04/22/12



Porter, Stephanie

From:

Sent: Thursday, December 11, 2014 2:27 PM

To: 'classifieds@hobbsnews.com'; 'bookkeeping@hobbsnews.com'

Wiedenmann, Jeremy

Subject: Legal Notice: Rattlesnake 16 SWD 1

Attachments: Rattlesnake 16 SWD 1 Newspaper Legal Notice.doc

Good Afternoon,

Please run the attached legal notice for the Rattlesnake 16 SWD 1 in the Hobbs News Sun for one day only.

Please send affidavit of publication to Jeremy Wiedenmann at the address below:

Devon Energy Production Company, LP Attn: Jeremy Wiedenmann – CT 28.413F 333 West Sheridan Drive Oklahoma City, OK 73102-5010

Send billing to the attention of "Accounts Payable".

Devon Energy Corporation Attn: DVNOKC98 - DVNART22 P.O. Box 3198 Oklahoma City, OK 73101-3198

Can you please let me know the date this will run in the paper?

If possible please add somewhere to the invoice: "SWD public notice on Rattlesnake 16 SWD 1; foreman Merle Lewis – DVNART22."

Thank you.

Jeremy Wiedenmann Production Technologist- Delaware Basin

Devon Energy Corporation 333 West Sheridan Ave Oklahoma City, OK 73102 Office: 405 228 8845 Cell: 405 209 4518 Jeremy.Wiedenmann@dvn.com



Legal Notice

Devon Energy Production Company, LP, 333 West Sheridan Avenue, Oklahoma City, OK 73102-8260 has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The proposed well, the Rattlesnake16 SWD 1 will be a new drill; proposed location is 2,375' FNL & 210' FWL, Section 16, Township 26 South, Range 34 East, in Lea County, New Mexico. Disposal water will be sourced from area wells producing from the Bone Spring and/or Delaware formations. The disposal water will be injected into the Devonian/Silurian/Ordovician formation at a depth of 18,773 to 20,560', open hole, at a maximum surface pressure of 3,755 psi and a maximum rate of 20,000 BWPD. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within (15) days of this notice. Any interested party with questions or comments may contact Josh Bruening at Devon Energy Corporation, 333 West Sheridan Avenue, Oklahoma City, OK 73102-8260, or call (405) 552-5069.

Porter, Stephanie

From: Amity Hipp-Ter1 <ter1@hobbsnews.com>

Sent: Friday, December 12, 2014 1:08 PM

To: Wiedenmann, Jeremy
Subject: Legal notice 29636

Attachments: th.jpeg; ATT00001.htm; 29636 devon bill.pdf; ATT00002.htm; 29636 devon notice.pdf;

ATT00003.htm

Jeremy,

Attached is proof and bill statement for Legal Notice 29636. It is set to publish December 16, 2014. Please review and let me know if all is well to publish. Thank you.

Amity Hipp

Classified/Legal Department
Hobbs News Sun
201 N. Thorp, Hobbs, New Mexico 88240
(P) 575.391.5417 (F) 575.397.0610
ter1@hobbsnews.com

LEGAL NOTICE December 16, 2014

Devon Energy Production Company, LP, 333 West Sheridan Avenue, Oklahoma City, OK 73102-8260 has slied form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The proposed well, the Rattlesnake 16 SWD 1 will be a new drill; proposed location is 2,375' FNL & 210' FWL, Section 16, Township 26 South, Range 34 East, in Lea County, New Mexico. Disposal water will be sourced from area wells producing from the Bone Spring and/or Delaware formations. The disposal water will be injected into the Devonian/Silurian/Ordovicia n formation at a depth of 18,773 to 20,560', open hole, at a maximum surface pressure of 3,755 psi and a maximum rate of 20,000 BWPD. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within (15) days of this notice. Any interested party with questions or comments may contact Josh Bruening at Devon Energy Corporation, 33 West Sheridan Avenue, Oklahoma City, OK 73102-8260, or call (405) 552-5069.

District I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 <u>District II</u> 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

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

District IV

State of New Mexico

Form C-101 Revised December 16, 2011

Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Permit

AP	PLICA	TION I	OR	PERMI	т то	DRI	LL, RE-	ENTER	, DEEP	EN, PI	UGBA	CK, OR	ADD A ZONE
	DEZ	ON ENE	•	PRODUC			PANY, L.P				'(OGRID Num 613	
			333	WEST SH ITY, OKL	ERID.	AN		•		-		API Numb	
	O.	KLAHOP	VIA C	III, OKL	AHON	IA 13.	102-3010						
⁴ Prope	erty Code				ı	RATTI	Property Nat LESNAKE	ne 16 SWD				0 4	Well No.
						7	Surface	Locatio	n				
UL - Lot E	Section 16	Township 26S		Range 34E	Loi	Idn	Feet from 2375		VS Line ORTH	Feet F 21		E/W Line WEST	County LEA
	<u> </u>	J.,			l	8	Pool Inf	ormatic	n				
SWD: Dev-Fus-	Mon-Sünp												98109
					A	Addit	ional We			12		13.00	
1	k Type W			Well Type SWD			11 Cable/Rota	ary		12 Lease Type STATE		1 G	round Level Elevation 3337.3
	ultiple		15 Pr	oposed Depth			16 Formatio	n		17 Contracto			18 Spud Date
Depth to Grou	and water			21,000'	noo from	- nogrant	Simpso fresh water w				Distance to r	earest surfa	6/10/2015
Depin to Grot	mu water								. , , , , , , , , , , , , , , , , , , ,		Distance to 1	icarest surra	ce water
					Prop	osed	Casing a	nd Cen	ent Pro	gram			
Туре	Hol	e Size	Cas	ing Size	Ca	sing We	eight/ft	Settir	ng Depth		Sacks of Cen	nent	Estimated TOC
Surf		6"		20"		94#			50'		1730 s		Surface
Int 1		1/2"		3/8"		68#			300'	_	3700 s		Surface
Int 2 Prod		1/2"		5/8" 5/8"		<u>47</u> #			485' 733'		1850 st 440sx		4800' 11485'
		/8"		OH.		4/.1	#		'-21000'	,	7-1054		11707
					ıg/Ce	ment	Progran				ıts		
71.4 % FW, cf/sx; TOC 9-5/8" 2 nd	Interme , 12.9 ppg @ surfac Intermed	diate Lea g, H2O: 9 e. liate Lead	id w/2 .81 ga l w/12	2750sx (65 il/sx, Yld. 1 260sx (65:3	:35) Cl L.85 cf, 35) Cl (C Cmt /sx. Pu C Cmt:	:: Poz (Fly A mp Tail w/ Poz (Fly As	(sh): 6% B 950sx Cl (h): 6% BV	WOC Ben C Cmt + 63 VOC Bent	nt + 5% B 3.5% FW + 5% BV	WOW Nac , 14.8 ppg VOW NaCl	CL + 0.125 , H2O: 6.3 L + 0.125	5 #/sx Poly-E-Flake + 32 gal/sx, Yld. 1.33 #/sx Poly-E-Flake + lalad-9 + 0.2%
BWOC HR-7-5/8" Drill	800 + 64. ling Liner . 12.5 ppg 3 + 0.2%	7% FW, 1 Lead w/2 g, H2O: 1 bwoc HR-	14.4 p 270sx 0.86 g -601 +	pg, H2O: 5 (65:35) Cl gal/sx, Yld. - 2% bwoc	5.75 ga H Cmt 1.96 c	l/sx, Yl :: Poz (l f/sx; Ta	d. 1.24 cf/s Fly Ash) + 6 ail w/170s>	sx; TOC @ 5% BWOC ((50:50) (9 4800'. : Bent + 0. ::I H Cmt: I	.25% BW Poz (Fly	OC HR-60 Ash) + 0.5	1 + 0.125 % bwoc H	#/sx Poly-E-Flake + IALAD-344 + 0.25%
Injection In See attache					details	5.							

Proposed Blowout Prevention Program

Туре	Working Pressure	Test Pressure	Manufacturer
Annular	2000	2000	
Double Ram	3000	3000	
Double Ram	5000	5000	
Double Ram	10000	10000	

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines, a general permit, or an (attached) alternative OCD-approved plan Signature:		OIL CONSERVATION DIVISION			
		Approved By:			
Printed name: David H. Cook		Title:			
Title: Regulatory Specialist		Approved Date:	Expiration Date:		
E-mail Address: david.cook@dvn.com					
Date: 12/22/2014	Phone: (405) 552-7848	Conditions of Approval Attache	d		

Disturst.1
1625 N. French Dr., Hobbs. NM 88240
Phome: (575) 393-6161 Fax. (575) 393-0720
Distart.11
811 S. First St., Artesia, NM 88210
Phone: (375) 748-1283 Fax: (575) 748-9720
Distrist.111
000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 374-6170
District.1V
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (305) 476-3460 Fax: (505) 476-3462

40

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

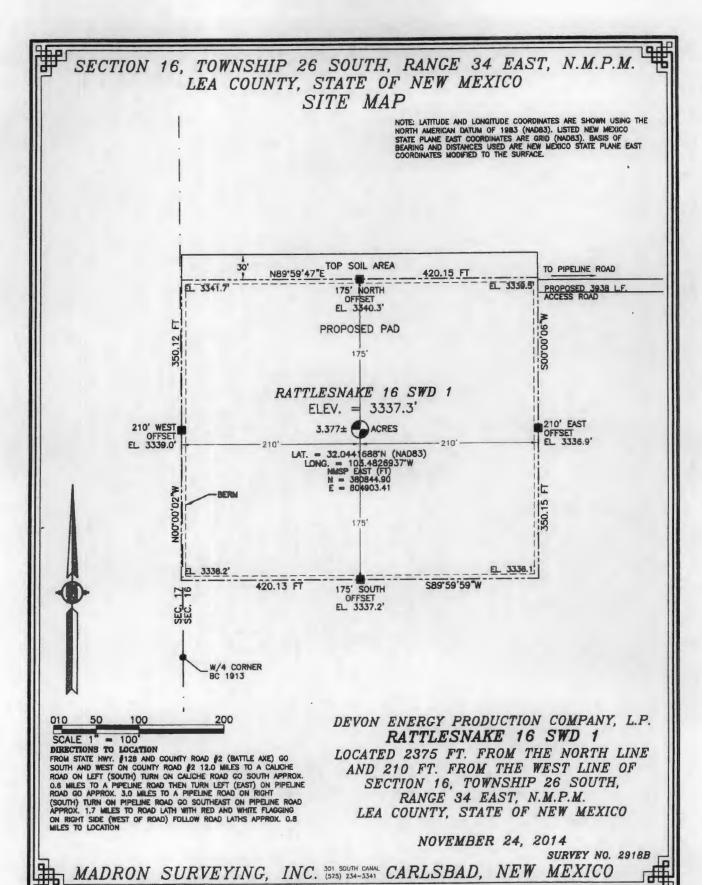
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

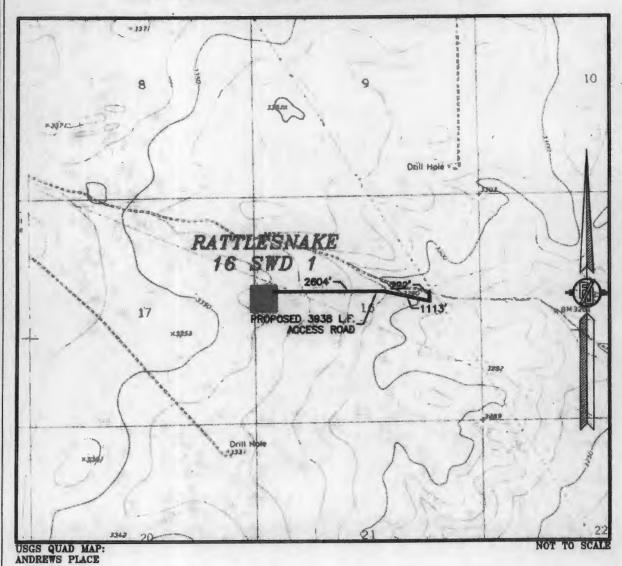
•	API Numbe	r		⁴ Pool Code 98109		SWD: DEV-FUS-MON-SIMP				
² Property	Code	5 Property Name					Property Name 6 Well Number			
			RATTLESNAKE 16 SWD					1		
OGRID	No.		Operator Name "Elevation					" Elevation		
6137			DEV	ON ENEF	RGY PRODUC	RODUCTION COMPANY, L.P. 3337.3				3337.3
¹⁰ Surface Location										
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	st line	County
E	16	26 S	34 E		2375	NORTH	210	WES	ST	LEA
" 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/We	st line	County
2 Dedicated Agree 12 Joint or 1981 4 Convolidation Code 15 Owder 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

N89°20'36"	2644.89 FT N89'29'36"E	2644.89 FT	"OPERATOR CERTIFICATION
NW CORNER SEC. 1		NE CORNER SEC. 16	I hereby certify that the information contained herein is true and complete
LAT. = 32.050695	4	LAT. = 32.0507085'N	to the best of my knowledge and belief, and that this organization either
LONG. = 103.483373	8'W ;	LONG. = 103.4663040'W	owns a working interest or unleased nuneral interest in the land including
NMSP EAST (FT)		NMSP EAST (FT) N = 383264.37	the proposed bottom hale location or has a right to drill this well at this
$ \begin{array}{c cccc} N & = & 383217.60 \\ \hline E & = & 804673.98 \\ \end{array} $	1	E = 809962.75	location prostunt to a contract with an owner of such a mineral or working
0.2	,	0:30	interest, or to a voluntary pooling agreement of a compulsory pooling
28'1		30'16	order here: fore curred by the arm ion.
RATTLESNAKE	16 SWD 1	67E	order heren tore emered by our arrayon.
FIG 7777	1	226	12/22/2014
(AT. = 32.0441		2639.93	Signature Date
LAT. = 32.0441 CO LONG. = 103.4 NMSP EAST (FT		9.3	
א = 380844 90			David H. Cook Regulatory Specialist
E = 804903.41			Printed Name
7		F (1 500)/50 550 10	david.cook@dvn.com
210' SURFACE		E/4 CORNER SEC. 16 LAT. = 32.0434531'N	E-mail Address
LOCATION		LONG. = 103.4662973'W	
W/4 CORNER SEC. 16	appear of the control	NMSP EAST (FT)	OUD VEVOD OF DETICATION
LAT. = 32.0434438'N		N = 380624.94 E = 809985.99	*SURVEYOR CERTIFICATION
LONG. = 103.4833711'W NMSP EAST (FT)		2 - 663383.33	I hereby certify that the well location shown on this
N = 380579.49		10	plat was platted from field notes of actual surveys
E = 804695.60	NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983	S00'30'07"E	made by me mader amouper vision, and that the
)31	(NAD83). USTED NEW MEXICO STATE PLANE EAST	30	same is true and correct to the Desk of invibelief.
09	COORDINATES ARE GRID (NADB3), BASIS OF BEARING , AND DISTANCES USED ARE NEW MEXICO STATE PLANE	07	
≰	EAST COORDINATES MODIFIED TO THE SURFACE		NOVEMBER 24. 2011 2797)
26		2641.	Date of Survey
44	t ·	1000	and the state of t
68		78	1 80 4 600 2
T SW CORNER SEC. 16	S/4 CORNER SEC. 16	SE CORNER SEC. 16]	
LAT. = 32.0361753'N LONG. = 103.4833609'W	LAT. = 32¦0361857'N LONG. = 103.4748110'W	LONG. = 103.4662911"W	Signature and Seal of Propesional Surgeror
NMSP EAST (FT)	NMSP EAST (FT)	NMSP EAST (FT)	Certificate Number FILIMON F, LARAMILLO, PLS 12797
N = 377935.32	N = 377960.09	N = 377983.66	SURVEY NO. 2918B
E = 804719.56	E = 307368.98	E = 810009.13	3000 21 100. 29188
S89*27'52"V	7 2649.93 FT \$89'29'19"W		



SECTION 16, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO LOCATION VERIFICATION MAP



DEVON ENERGY PRODUCTION COMPANY, L.P. RATTLESNAKE 16 SWD 1

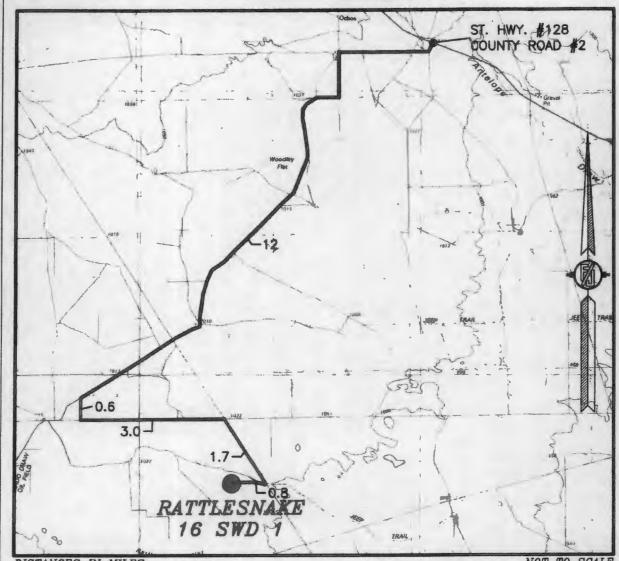
LOCATED 2375 FT. FROM THE NORTH LINE AND 210 FT. FROM THE WEST LINE OF SECTION 16, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

NOVEMBER 24, 2014

SURVEY NO. 2918B

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION
FROM STATE HWY. #128 AND COUNTY ROAD #2 (BATTLE AXE) GO
SOUTH AND WEST ON COUNTY ROAD #2 12.0 MILES TO A CALICHE
ROAD ON LEFT (SOUTH) TURN ON CALICHE ROAD GO SOUTH APPROX.
0.8 MILES TO A PIPELINE ROAD THEN TURN LEFT (EAST) ON PIPELINE
ROAD GO APPROX. 3.0 MILES TO A PIPELINE ROAD ON RIGHT
(SOUTH) TURN ON PIPELINE ROAD GO SOUTHEAST ON PIPELINE ROAD
APPROX. 1.7 MILES TO ROAD LATH WITH RED AND WHITE FLAGGING
ON RIGHT SIDE (WEST OF ROAD) FOLLOW ROAD LATHS APPROX. 0.8
MILES TO LOCATION

DEVON ENERGY PRODUCTION COMPANY, L.P.
RATTLESNAKE 16 SWD 1
LOCATED 2375 FT. FROM THE NORTH LINE

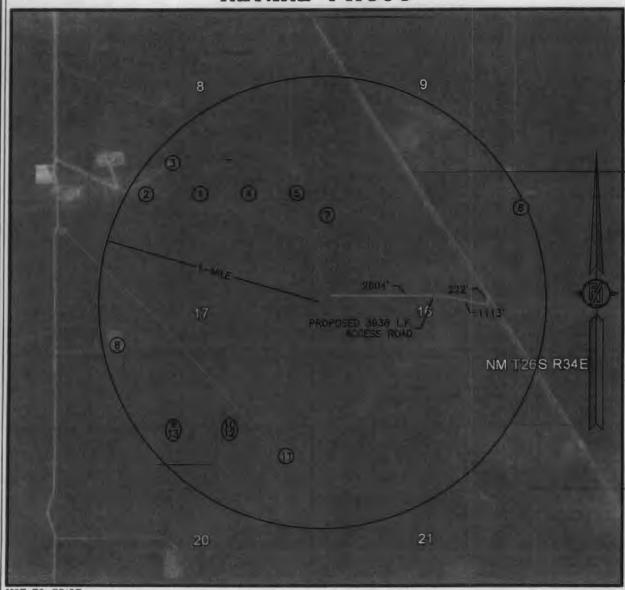
LOCATED 2375 FT. FROM THE NORTH LINE AND 210 FT. FROM THE WEST LINE OF SECTION 16, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

NOVEMBER 24, 2014

SURVEY NO. 2918B

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE AERIAL PHOTO: GOOGLE EARTH APR. 2013

DEVON ENERGY PRODUCTION COMPANY, L.P. RATTLESNAKE 16 SWD 1

LOCATED 2375 FT. FROM THE NORTH LINE AND 210 FT. FROM THE WEST LINE OF SECTION 16, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

NOVEMBER 24, 2014

SURVEY NO. 2918B

MADRON SURVEYING, INC. 301 SOUTH CARLSBAD, NEW MEXICO

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO WELLS WITHIN 1-MILE OF WELL

	API	Well	Туре	Status	ULSTR	Current Operator
1	30-025-41181	GUNNER 8 FEDERAL #006H	Type Oil	New	N-08-265-34E	[229137] COG OPERATING LLC
2	30-025-41211	GUNNER 8 FEDERAL #007H	Oil	New	N-08-26S-34E	[229137] COG OPERATING LLC
3	30-025-28650		Oll	Plugged	N-08-26S-34E	[214263] PRE-ONGARD WELL OPERATOR
4	30-025-41180	GUNNER 8 FEDERAL #005H	Oil Oil	Active	0-08-26S-34E	[229137] COG OPERATING LLC
5	30-025-41187		Oil	New	P-08-26S-34E	[229137] COG OPERATING LLC
6	30-025-41649		Oil	New	A-16-26S-34E	7377] EOG RESOURCES INC
-	30 020 11010	TO STATE OF THE ST	Salt Water			
7	30-025-40890	GUNNER 16 STATE SWD #001	Disposal	Active	D-16-26S-34E	[229137] COG OPERATING LLC
8	30-025-28402		Oil	Plugged	L-17-26S-34E	214263 PRE-ONGARD WELL OPERATOR
9	30-025-41232	GREEN WAVE 17 FEDERAL #001H	OII	New	N-17-26S-34E	[6137] DEVON ENERGY PRODUCTION COMPANY, LP
10	30-025-41233	GREEN WAVE 17 FEDERAL 1002H	Oil	New	0-17-26S-34E	6137 DEVON ENERGY PRODUCTION COMPANY, LP
11	30-025-20440	PRE-ONGARD WELL #001	OH	Plugged	A-20-26S-34E	[214263] PRE-ONGARD WELL OPERATOR
12	30-025-41235			New	8-20-26S-34E	[8137] DEVON ENERGY PRODUCTION COMPANY, LP
13	30-025-41234		Oil	New	C-20-26S-34E	[6137] DEVON ENERGY PRODUCTION COMPANY, LP
.5	50 020 41254	SILLIF WITE 20 1 COCIOL WOOZII	Oil	Inom	0 20 200 012	fereig ameni menti i incessi ameni meni meni meni meni meni meni meni

DEVON ENERGY PRODUCTION COMPANY, L.P. RATTLESNAKE 16 SWD 1

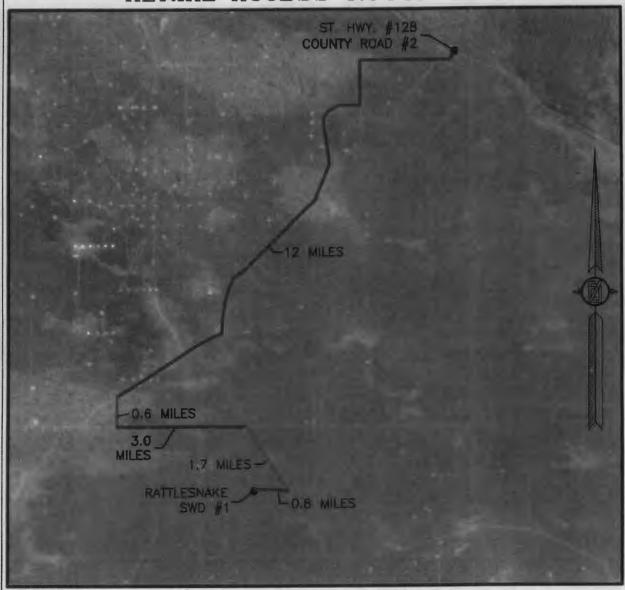
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NOVEMBER 24, 2014

SURVEY NO. 2918B

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO AERIAL ACCESS ROUTE MAP



NOT TO SCALE AERIAL PHOTO: GOOGLE EARTH APR. 2013

DEVON ENERGY PRODUCTION COMPANY, L.P. RATTLESNAKE 16 SWD 1

LOCATED 2375 FT. FROM THE NORTH LINE AND 210 FT. FROM THE WEST LINE OF SECTION 16, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

NOVEMBER 24, 2014

SURVEY NO. 2918B

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

DRILLING PROGRAM

Devon Energy Production Company, L.P. Rattlesnake 16 SWD 1

1. Geologic Name of Surface Formation: Quaternary

2. Estimated Tops of Geological Markers & Depths of Anticipated FW, Oil, or Gas:

FORMATION NAME	TVD	Water, Oil/Gas
Rustler	706	
Top of Salt	1,173	
Castile	3,460	
Base of Salt	5,040	
Delaware	5,320	Oil
Bell Canyon	5,360	Oil
Cherry Canyon	6,412	Oil
Brushy Canyon	7,882	Oil
Bone Spring	9,617	Oil / Gas
1st Bone Spring Sand	10,541	Oil / Gas
2nd Bone Spring Lime	10,688	Oil / Gas
2nd Bone Spring Sand	11,093	Oil / Gas
3rd Bone Spring Lime	11,508	Oil / Gas
3rd Bone Spring Sand	12,127	Oil / Gas
Wolfcamp	12,502	Oil / Gas
Pennsylvanian	14,602	Oil / Gas
Strawn	14,013	Oil / Gas
Atoka	14,683	Gas
Morrow	15,529	Gas
Barnett	16,926	
Mississippian Lime	17,599	
Woodford	17,884	
Devonian	18,773	
Fusselman	19,648	
Montoya	20,140	
Simpson	20,581	
Ellenburger	21,121	
Estimated well Total Depth	TVD: 21,000	MD:

Pressure Control Equipment:

The BOP system used to drill the 17-1/2" hole will consist of a 20" 2M Annular preventer. The BOP system will be tested as a 2M system per BLM Onshore Oil and Gas Order 2 prior to drilling out the casing shoe.

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the first intermediate hole section. The BOP system will be tested as a 3M system per BLM Onshore Oil and Gas Order 2 prior to drilling out the casing shoe.

A 5M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the second intermediate hole section. The BOP system will be tested as a 5M system per BLM Onshore Oil and Gas Order 2 prior to drilling out the casing shoe.

A 10M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the third intermediate and open/injection hole sections. The BOP system will be tested as a 10M system per BLM Onshore Oil and Gas Order 2 prior to drilling out the casing shoe.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 10,000 psi WP.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line); **if an H&P rig drills this well. Otherwise no flex line is needed**. The line will be kept as straight as possible with minimal turns.

Auxiliary Well Control and Monitoring Equipment:

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

3. Casing Program:

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight (lb/ft)	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
26"	0 - 750′	20"	0 - 750'	94	втс	J-55	1.41	5.71	20.16
17-1/2"	750-5300′	13-3/8"	0-5300′	68	втс	HCP-110	1.09	1.25	3.16
12-1/4"	5300-12485'	9-5/8"	0-12485'	47	ВТС	HCP-110	1.22	1.45	2.56
8-1/2"	12485-18733′	7-5/8"	11985- 18733'	47.1	втс	P-110	1.10	1.05	1.75
6-1/8"	18733-21000'	O' Open hole							

Casing Notes:

- All casing is new and API approved
- Casing will never be completely evacuated

Maximum TVD: 21000'

4. Proposed mud Circulations System:

Depth	Mud Weight	Viscosity	Fluid Loss	Type System
0 - 750′	8.3	30-34	N/C	FW
750-5300′	10.0	28-32	N/C	Brine
5300-12485'	10	28-32	N/C	FW
12485-18733'	12.2-15.5	28-32	N/C	FW
18733-21000'	8.3-8.6	28-32	N/C	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume. If abnormal pressures are encountered, electronic/mechanical mud monitoring equipment will be installed.

5. Cementing Table:

Cementing rable.							
String	Number of sx	Weight lbs/gal	Water Volume gal/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description	
20" Surface	1730	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water	
13-3/8" 1st	2750	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 Ibs/sack Poly-E-Flake + 71.4 % Fresh Water	
Intermediate	950	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water	
9-5/8" 2 nd	1260	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 71.4 % Fresh Water	
Intermediate	590	14.4	5.75	1.24	Tail	50% Premium H / 50% PozMix + 0.2% BWOC Halad-9 + 0.2% BWOC HR-800 + 64.7% Fresh Water	
7-5/8" Drilling	270	12.5	10.86	1.96	Lead	(65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water	
Liner	170	14.5	5.31	1.21	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.25% bwoc CFR-3 + 0.2% bwoc HR- 601 + 2% bwoc Bentonite + 58.8% Fresh Water	

TOC for all Strings:

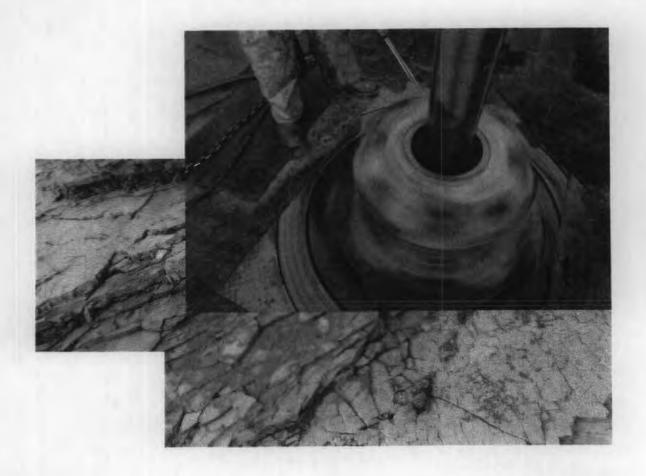
Surface	@	0'
Intermediate I	@	0'
Intermediate II	@	4800'
Production	@	11485'

Notes:

- Cement volumes Surface 100%, 1st Intermediate 75%, 2nd Intermediate 50% and 3rd Intermediate based on at least 25% excess.
- Actual cement volumes will be adjusted based on fluid caliper and/or caliper log data

devon

Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems June 2010

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

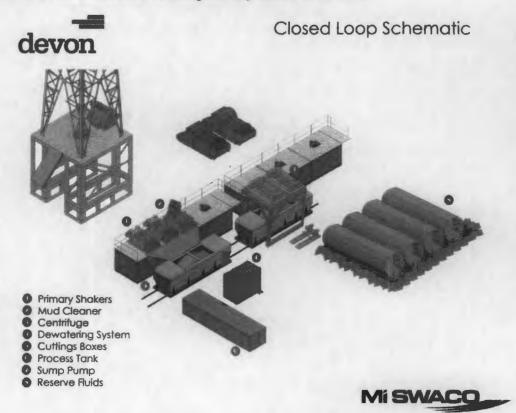
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

Jones, William V, EMNRD

From: Jones, William V, EMNRD

Sent: Thursday, February 12, 2015 2:16 PM

To: 'Porter, Stephanie'

Subject: Devon's proposed Rattlesnake 16 SWD Well No. 1 30-025-42355

Hey Stephanie, Hope all is well.

I am almost through evaluating and all looks good (except for that bond item).

Question:

At this time, do you anticipate taking non-Devon operated waters into this well?

Thanks, Will



William V. Jones, P.E., District IV Supervisor

Oil Conservation Division http://www.emnrd.state.nm.us/ocd/1220 South St. Francis Drive, Santa Fe, NM 87505
P: 505.476.3477 C: 505.419.1995

Jones, William V, EMNRD

From:

Jones, William V, EMNRD

Sent:

Thursday, February 12, 2015 3:32 PM

To: Cc: Sharp, Karen, EMNRD; 'Porter, Stephanie' Sanchez, Daniel J., EMNRD

Subject:

RE: 2/12/15 Inactive Wells

Karen,

I have this ready but will wait to release SWD until Stephanie tells me it is OK and does not appear as a "Y" on the extreme right column when you click:

https://wwwapps.emnrd.state.nm.us/OCD/OCDPermitting/Reporting/Compliance/InactiveWellFinancialAssuranceReport.aspx?Operator=6137

Stephanie, would you please let me know?

Will

From: Sharp, Karen, EMNRD

Sent: Thursday, February 12, 2015 3:13 PM

To: Jones, William V, EMNRD

Subject: RE: 2/12/15 Inactive Wells

I just spoke with Erin Workman: she is currently working on paperwork we have requested, the completion for the Bogle being a part of that "stack". Should have it by mid-week next week. Thanks, Will!!

Karen Sharp

Business Operations Specialist-Advanced

NMOCD / ARTESIA / DISTRICT II Office: (575) 748-1283 x 109 Fax: (575) 748-9720

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Confining Unit: Litho. Struc. Por.	17884	WOODFORD	V		or NEW Perfs
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Proposed Inj Interval BOTTOM:		AYOTUOM TOTA			epth <u>18,723</u> ft
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