BEFORE THE OIL CONSERVATION DIVISION EXAMINER HEARING SEPTEMBER 19, 2019

CASE No. 20723

NOLAN RYAN G NO. 2 WELL

LEA COUNTY, NEW MEXICO



DATEIN	SUSPENSE	ENGINEER	LOGGEDIN	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

-		TID INITIO I I I I I I			
		WHICH REQUIRE P	TRATIVE APPLICATIONS FOR EXC PROCESSING AT THE DIVISION LE	CEPTIONS TO DIVISION RULES AND REGI EVEL IN SANTA FE	JLATIONS
Applica	[DHC-Down [PC-Poo	dard Location] [NSP-No hole Commingling] [0	CTB-Lease Commingling] 3 - Off-Lease Storage] [sion] [PMX-Pressure Ma isposal] [IPI-Injection P] [SD-Simultaneous Dedication] [PLC-Pool/Lease Commingling OLM-Off-Lease Measurement] aintenance Expansion] ressure Increase] PR-Positive Production Response	
[1]	TYPE OF AP	PLICATION - Check The Location - Spacing Uni	hose Which Apply for [A] it - Simultaneous Dedicatio	n	
	Check [B]	One Only for [B] or [C] Commingling - Storage DHC CTB	e - Measurement	OLS OLM	
	[C]	Injection - Disposal - P	ressure Increase - Enhance	d Oil Recovery BOR PPR	
	[D]	Other: Specify			
[2]	NOTIFICATI	ION REQUIRED TO: - Working, Royalty	Check Those Which Apply or Overriding Royalty Inte	y, or Does Not Apply rest Owners	
	[B]	X Offset Operators,	Leaseholders or Surface O	wner	
	[C]	X Application is One	e Which Requires Publishe	d Legal Notice	
	[D]	Notification and/o	or Concurrent Approval by ement - Commissioner of Public Lands, St	BLM or SLO late Land Office	
	[E]	X For all of the above	ve, Proof of Notification or	Publication is Attached, and/or,	
	[F]	☐ Waivers are Attac	hed		
[3]		CURATE AND COMP.		REQUIRED TO PROCESS TH	E TYPE
[4] approv applica	al is accurate ar	nd complete to the best of	hat the information submitt of my knowledge. I also un otifications are submitted t	ted with this application for adminderstand that no action will be taken the Division.	istrative ken on this
Nate	Note: Alleman	Statement must be complete),	rial and/or supervisory capacity. Regulatory Specialist - ALL Consulting	6/28/2019
	Type Name	Signature		Title	Date
		ONSERVATION DIVISION		nalleman@all-llc.com	
		e, New Mexico nibit No. 1	Ī	Date e-mail Address	
		Goodnight Midstream	EXHIBIT A		1

Hearing Date: September 19, 2019 Case No. 20723

STATE OF NEW MEXICO STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL

DESCRIPTION OF DEPARTMENT

PERCURPOSE DEPARTMENT

South St. Francis Dr.

South St. Francis Dr. RESOURCES DEPARTMENT

Oil Conservation Division 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: Goodnight Midstream Permian, LLC
	ADDRESS: 5910 N Central Expressway, Suite 850, Dallas, TX 75206
	CONTACT PARTY: Grant Adams PHONE: 214-444-7388(0)
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project? Yes X No If yes, give the Division order number authorizing the project:
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
VII.	Attach data on the proposed operation, including:
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
*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: Worther Aller Specialist - ALL Consulting
	SIGNATURE: Nate Alleman DATE: 06/28/2019
	E-MAIL ADDRESS: nalleman@all-llc.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.

Application for Authorization to Inject

Well Name: Nolan Ryan G 2

III - Well Data (The Wellbore Diagram is included as Attachment 1)

A.

(1) General Well Information:

Operator: Goodnight Midstream Permian, LLC (OGRID No. 372311)

Lease Name & Well Number: Nolan Ryan G 2 Location Footage Calls: 785' FSL & 1,605' FEL Legal Location: Unit Letter O, S13 T21S R36E

Ground Elevation: 3,547'

Proposed Injection Interval: 5,200' - 5,600'

County: Lea

(2) Casing Information:

Туре	Hole Size	Casing Size	Casing Weight	Setting Depth	Sacks of Cement	Estimated TOC	Method Determined
Surface	12-1/4"	9-5/8"	40.0 lb/ft	1,350'	425	Surface	Circulation
Intermediate 1	8-3/4"	7"	26.0 lb/ft	5,650′	850	Surface	Circulation/ CBL
Tubing	6-3/11"	4-1/2"	20.0 lb/ft	5,180'	N/A	N/A	N/A

(3) Tubing Information:

4-1/2" (composite weight string) of fiberglass-coated tubing with setting depth of 5,180'

(4) Packer Information: Lok-set or equivalent packer set at 5,180'

В.

(1) Injection Formation Name: Glorieta

Pool Name: SWD; GLORIETA

Pool Code: 91606

- (2) Injection Interval: Perforated injection between 5,200' 5,600'
- (3) Drilling Purpose: New Drill for Salt Water Disposal
- (4) Other Perforated Intervals: No other perforated intervals exist.
- (5) Overlying Oil and Gas Zones: Below are the approximate formation tops for known oil and gas producing zones in the area.
 - Grayburg (3,780')

Underlying Oil and Gas Zones: Below are the approximate formation tops for known oil and gas producing zones in the area.

• Tubb (6,250')

V – Well and Lease Maps

The following maps are included in **Attachment 2**:

- 2-mile Oil & Gas Well Map
- 2-mile Lease Map
- 1/2-mile Well Detail List w/ Casing Information for the Penetrating Well
- Potash Lease Map

VI – AOR Well List

A list of the wells within the 1/2-mile AOR is included in Attachment 2.

There is one well that penetrates the injection zone, and it has been properly cased and cemented to isolate the injection zone. Additionally, there is a proposed well that will penetrate the injection zone, and, based on application information, it will be properly cased and cemented to isolate the injection zone. The casing & cementing information for both wells are also included in *Attachment 2*.

VII – Proposed Operation

- (1) Proposed Maximum Injection Rate: 20,000 bpd Proposed Average Injection Rate: 12,500 bpd
- (2) A closed system will be used.
- (3) Proposed Maximum Injection Pressure: 1,040 psi (surface)
 Proposed Average Injection Pressure: approximately 520 psi (surface)
- (4) Source Water Analysis: It is expected that the injectate will consist of produced water from production wells completed in the Wolfcamp and Bone Springs formations. Analysis of water from these formations is included in *Attachment 3*.
- (5) Injection Formation Water Analysis: The proposed SWD will be injecting water into the Glorieta formation which is a non-productive zone known to be compatible with formation water from the Wolfcamp and Bone Springs formations. Water analyses from the Glorieta formation in the area are included in *Attachment 4*.

VIII - Geologic Description

The proposed injection interval includes the Glorieta formations from 5,200 - 5,600 feet. This formation consists of interbedded carbonate rocks including dolomites, siltstones, and sands. Several thick intervals of porous and permeable rock capable of taking water are present within the subject formation in the area.

The freshwater formation is the Rustler at a depth of approximately 1,325 feet. Water well depths in the area range from approximately 95 - 143 feet below ground surface.

IX – Proposed Stimulation Program

A small cleanup acid job may be used to remove mud and drill cuttings from the formation. However, no other formation stimulation is currently planned.

X - Logging and Test Data

Logs will be submitted to the Division upon completion of the well.

XI – Fresh Groundwater Samples

Based on a review of data from the New Mexico Office of the State Engineer, 7 groundwater wells are located within 1 mile of the proposed SWD location; however, state water well data and previously submitted Goodnight Midstream Permian, LLC injection applications have revealed that two wells (CP-00446 POD 2 & CP-00472 POD 2) were previously sampled. A water sample was collected for both wells on 01/28/2019.

A water well map, details of water wells within 1-mile, and any associated water analyses are included in **Attachment 5**.

XII – No Hydrologic Connection Statement

No faulting is present in the area that would provide a hydrologic connection between the injection interval and overlying USDWs. Additionally, the casing program has been designed to ensure there will be no hydrologic connection between the injection interval and overlying USDWs.

XIII - Proof of Notice

A Public Notice was filed with the Hobbs News-Sun newspaper and an affidavit is included in **Attachment 6**.

A copy of the application was mailed to the OCD District Office, landowner, and leasehold operators within 1/2-mile of the proposed SWD location. A list of the recipients, as well as delivery confirmations, are included in **Attachment 6**.

Attachments

Attachment 1: Wellbore Diagram

Attachment 2: Area of Review Information:

- 2-mile Oil & Gas Well Map
- 2-mile Lease Map
- 1/2-mile Well Detail List w/ Casing Information for the Penetrating Well
- Potash Lease Map

Attachment 3: Source Water Analyses

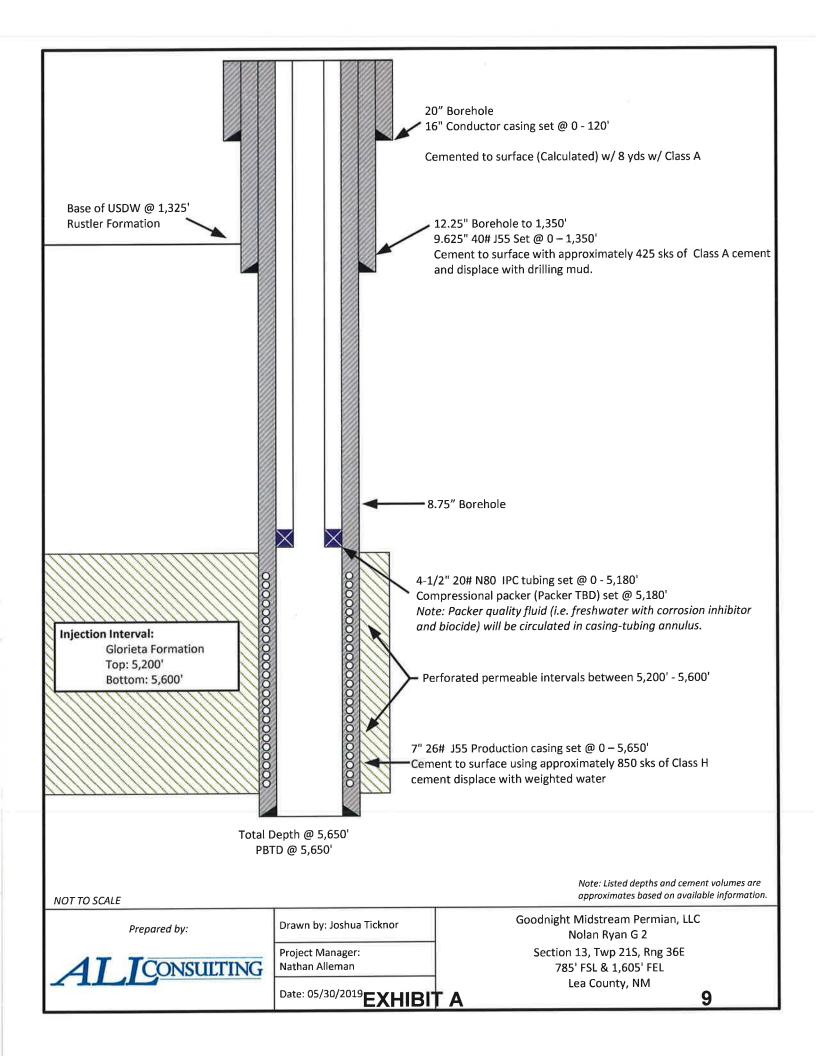
Attachment 4: Injection Formation Water Analyses

Attachment 5: Water Well Map and Well Data

Attachment 6: Public Notice Affidavit and Notice of Application Confirmations

Attachment 1

Wellbore Diagram



A-3 and AL-2 LOK-SET Retrievable Casing Packers

Product Family No. H64630 and H64628

APPLICATION

The A-3[™] LOK-SET[™] packer combines advantages of a retrievable packer with the features of a permanent packer. An ability to lock down tubing forces makes the A-3 suitable for a broad range of applications, including production, injection, zone isolation, and remedial operations. The AL-2[™] LOK-SET packer is similar to the A-3, and has a larger bore.

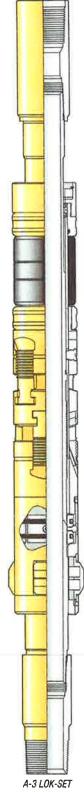
Advantages

- Holds pressure from above and below, without relying on set-down weight, tubing tension, or hydraulic hold down
- Provides tubing anchoring with tension applied, suitable for pumping wells or injection, controlling tubing forces related to change fluid temperatures
- Opposed, non-transferring, dovetail slips prevent packer movement associated with changing differential pressures, while allowing the landing of the tubing in tension, neutral or compression
- Right-hand tubing rotation controls setting and releasing
- Packing element compression locks in by ratcheting action of lock segments, which restricts rotation to one direction

Accessories

To provide a simple and reliable injection system for retrieving an injection string without having to unseat the packer:

L-10 or L-316 on-off sealing connectors, Product Family Nos. H68420 and H68422. Baker Hughes blanking plug can be used in the seating nipple profile of the on-off sealing connector to provide a means of plugging the lower zone while the tubing is being pulled.



A-3 LUK-SET Retrievable Casing Packer Product Family No. H64630

SPECIFICATION GUIDES

A-3™ LOK-SET Retrievable Casing Packer, Product Family No. H64630

	Caalng				Packer		
01	D	Weight •	Size	Ноп	10	Max 6 Ring	
in.	mm	lb/ft		In.	mm	in.	mm
4	101.6	9.5-12.9	41A2	1,500	38.1	3.244	82.4
4-1/2	144.3	21.6-23.6	41A2	1,500	38.1	3.244	82.4
4	101.6	9,5	41A4	1.500	38.1	3,423	112.4
		18.8	41A4	1.500	38.1	3.423	112.4
		13.5-17.7	41B	1.500	30.1	3.578	90.9
4-1/2	114.3	11.6-13.5	43A2	4.070	50.2	3.786	96.2
		9.5-10.5	43A4	1.978	50.2	3.786	96.2
		15-18	43B	4.070	50.2	4.140	105.2
5	127.0	11.5-15	43C	1.978	50.2	4.265	108.3
		26	43C			4 265	108.3
		20-23	45A2	1.070	50.0	4.515	114.7
5-1/2	139.7	15.5 -20	45A4	1,978	50.2	4.656	118,3
		13-15.5	45B	1		4.796	121.8
		26	458			4,796	121.8
6	152.4	20-23	45C	1.978	50.2	5.078	129.0
ų.	102.1	15-18	45D	1		5.171	131.3
		34	45E			5.421	137.7
	1	24-32	45F	1.978	50.2	5.499	139.7
6-5/8	168.3	24	47A2	2.441	62.0	5.671	144.0
0 0.0	,,,,,,	17-24	45G	1.978	50.2	5.796	147.2
		17-20	47A4	2.441	62.0	5.827	148.0
		38	47A2			5.671	144.0
		32-35	47A4			5.827	148.0
7	177.8	26-29	47B2	2.441	62.0	5.983	152.0
		23-26	47B4	1		6.093	154.8
		17-20	4702	1		6.281	159.5
	1	33.7-39	47C4			6.468	164.3
7-5/8	193.7	24-29.7	47D2	2.441	62.0	6.687	169.5
		20-24	4704	1		6.827	173.4
		44-49	49A2			7.327	186.1
8-5/8	219.1	32-40	49A4	3,500	88.9	7.546	191.7
		20-28	49B			7.796	198.0
		47-53.5	51A2			8.234	209.
9-5/8	244.5	40-47	51A4	3.500	88.9	8.452	214.7
		29.3-36	518			8.608	218.6

AL-2" Large Bore LOK-SET Retrievable Casing Packer Product Family No. H94628

Cas	ing				Pac	ker			
0	D	Weight =	Size	Non	n ID	Max Gap	Ring OD	Max Dia: Compressed	
ĮU.	mm	lb/ft		In.	mm	ln.	mm	ln.	mm
		20	45A2 x 2-3/8			4.562	115.9	4.592	116.6
5-1/2	139.7	15.5-17	45A4 x 2-3/8	2.375	60.3	4.656	118.3	4.750	120.7
		13	458 x 2-3/8			4.796	121.8	4.902	124.5
6	152.4	26	45B x 2-3/8	2.375	60.3	4.796	121.8	4.902	124.5

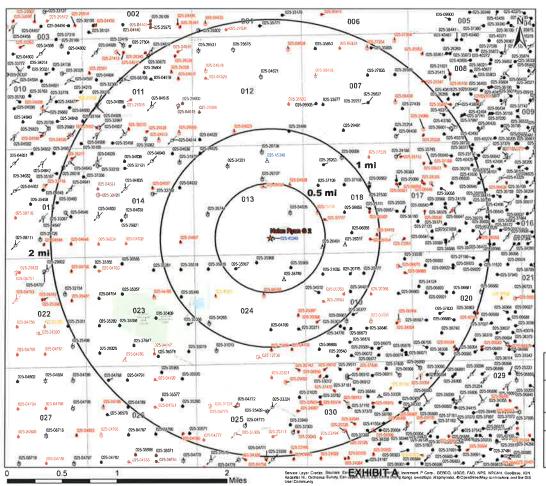
When selecting a packer for a casing weight common to two weight ranges (same OD), choose the packer size shown for the lighter of the two weight
ranges. Example: for 7-in. (177.8 mm) OD 26 lb/ft casing use packer size 4784. Under certain circumstances the other packer size may be run, such
as when running in mixed casing strings.

Repair kits, including such items as packing elements, seal rings, etc., are available for redressing Baker Retrievable Packers. Contact your Baker Hughes representative. Use only Baker Hughes repair parts.

Attachment 2

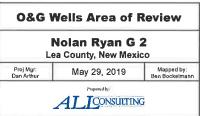
Area of Review Information:

- 2-mile Oil & Gas Well Map
- 2-mile Lease Map
- 1/2-mile Well Detail List w/ Casing Information for the Penetrating Well
- Potash Lease Map

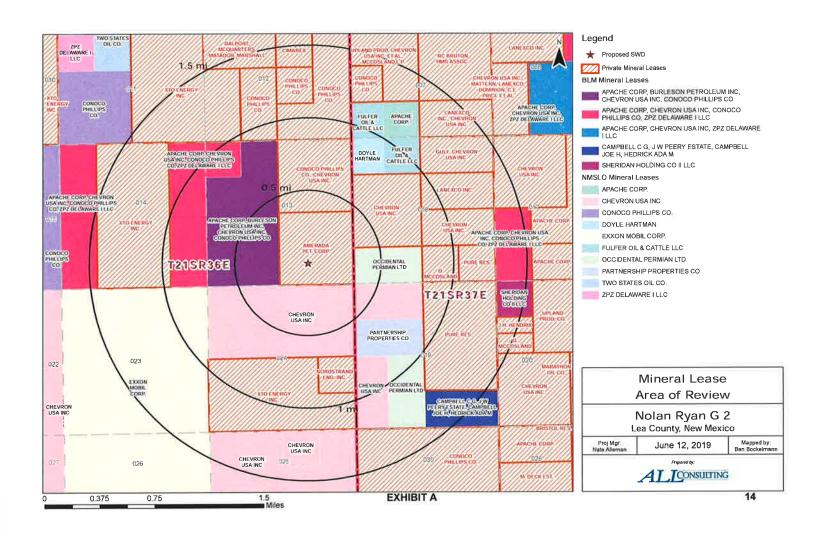


Legend

- ★ Proposed SWD
- # Gas, Active (68)
- Gas, Plugged (37)
- ✓ Injection, Active (75)
- / Injection, Plugged (3)
- Oil, Active (341)
- Oil, Plugged (130)
- o Oil, Temporarily Abondoned (6)
- △ Salt Water Injection, Active (4)
- △ Salt Water Injection, New (2)
- Salt Water Injection, Plugged (2)



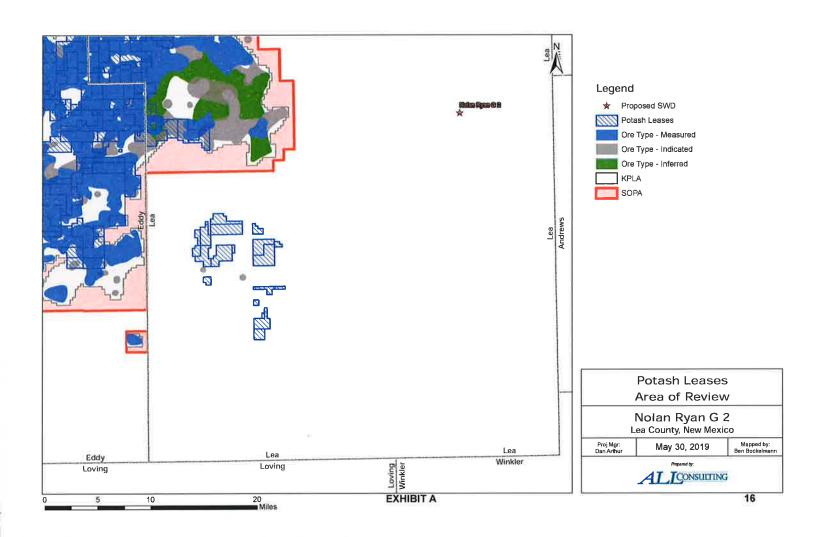
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Well Name	APIN	Well Type	Operator	Spud Date	(Sec., Tn., Rng.)	Total Vertical Depth (feet)	Penetrate Inj. Zone?
MARSHALL #001	30-025-04626	G	ZACHARY OIL OPERATING CO	12/91/1954	I-13-215-36E	3705	No
LEONARD STATE #003	90-025-95968	0	HORSESHOE OPERATING INC.	1/17/2004	B-24-215-96E	3875	No
LEONARD STATE #002	30-025-35967	o	HORSESHOE OPERATING INC.	10/15/2002	C-24-215-35E	5650	No
LEONARD STATE #004	90-025-95969	o	HORSESHOE OPERATING INC.	5/6/2004	A-24-215-36E	3968	No
H T MATTERN NCT C COM 8003	30-025-06659	Plugged	XTO ENERGY,	9/3/1944	3-18-215-37E	Plugged (3846)	No
PENROC STATE E TR 27 #002	90-025-26491	s	GOODNIGHT MIDSTREAM PERMIAN, LLC	10/19/1979	4-18-215-37E	6900	Yes
NOLAN RYAN #001	30-025-45349	5	GOODNIGHT MIDSTREAM PERMIAN, LLC	Not Drilled	A-24-215-36E	Proposed (5,700)	Yes
PARKER ENERGY SWD #005	30-025-38789	s	PARKER ENERGY SUPPORT SERVICES INC.	8/31/2008	A-24-215-36E	4675	No
PRE-ONGARD WELL 8001 (Tidewater Associated Oil Company)	30-025-04627	Plugged	PRE-ONGARD WELL OPERATOR	3/5/1937	G-13-215-36E	Plugged (4005)	No

	Surface Casing					Intermediate Casing								Pro	oduction Casi	ng		Tubing			Pa	cker	
Well Name	Set Depth	Casing Size	тос	TOC Method Determined	Sks of Cement	Hole size	Set Depth	Casing Size	тос	TOC Method Determined	1155555560	Hole Size	Set Depth	Casing Size	27,000	TOC Method Determined	Sks of Cement	Hole Size	Set Depth	Tubing Size	Lining Material	Packer	Packer Set Depth
PENHOC STATE E TR 27 MOOZ	1230	9 5/8	G.S.	RECORDS	300, 150	12 1/4	N/A	N/A	N/A	N/A	N/A	N/A	6900	7	5'	RECORDS	1400, 350, 450	83/4	3855	27/8	N/A	NIA	3860
NOLAN RYAN MOD1*	1350	95/8	G.S.	RECORDS	860	12 1/4	N/A	N/A	N/A	N/A	N/A	N/A	5700	ÿ	G.S.	RECORDS	725	83/4	N/A	N/A	N/A	N/A	N/A

ineria.



Attachment 3

Source Water Analyses

PRDUCED WATER FROM BONE SPRING, DELAWARE, DEVONIAN, WOLFCAMP

API	SECTION	TOWNSHIP	RANGE	FORMATION	tds mgL	chloride mgL	bicarbonate mgL	sulfate mgL
3002502424	11	205	34E	BONE SPRING	29436	16720	634	1142
3002502427	12	205	34E	BONE SPRING	15429			
3002502427	12	20\$	34E	BONE SPRING	180701	108300	1016	670
3002502429	12	205	34E	BONE SPRING	202606	118100	5196	992
3002502429	12	205	34E	BONE SPRING	121800			
3002502431	12	205	34E	BONE SPRING	147229	89640	108	1038
3002531696	2	205	34E	DELAWARE	152064	102148	404	691
3002532105	2	20S	34E	DELAWARE	296822	215237	143	294
3002532466	2	205	34E	DELAWARE	340838	245270	229	147
3002502427	12	205	34E	DELAWARE	214787	132700	208	1816
3002502431	12	205	34E	DEVONIAN	33414	18570	227	1961
3002502432	13	205	34E	DEVONIAN	45778	26440	1145	729
3002501912	16	165	34E	WOLFCAMP	164004	102500	4204	1249
3002501922	20	165	34E	WOLFCAMP	104541	64290	280	541
3002501922	20	165	34E	WOLFCAMP	104033	64080	268	515
3002501922	20	165	34E	WOLFCAMP	105175	65570	207	192
3002501925	21	165	34E	WOLFCAMP	86355	51800	610	665
3002501928	21	165	34E	WOLFCAMP	119102	73300	227	454
3002501928	21	165	34E	WOLFCAMP	35422	19170	979	1949
3002501930	22	165	34E	WOLFCAMP	30015	14800	750	3300
3002501931	22	165	34E	WOLFCAMP	87680	53000	301	681
3002501933	28	165	34E	WOLFCAMP	59960	35100	515	1500
3002501933	28	165	34E	WOLFCAMP	60309	35350	586	1297
3002501940	30	165	34E	WOLFCAMP	82422	49890	361	787
3002501944	30	165	34E	WOLFCAMP	83960	51410	418	641
3002520222	27	165	34E	WOLFCAMP	85457	51020	544	1201
3001542895	2	235	31E	WOLFCAMP	119472	73173		1036

EXHIBIT F

Attachment 4

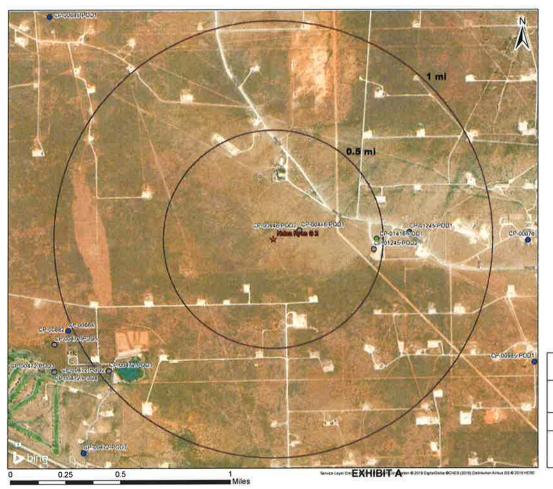
Injection Formation Water Analyses

								Injection Fo	ormation W	ater Analy	słs .							
	. =				***************************************		Goodnight	Midstream	Permian, I	LLC - Giorle	ta Formati	ion						
Wellname	API	Latitude	Longitude	Section	Township	Range	Unit	Figns	Fignw	County	State	Company	field	Formation	Tds_mgL	Chloride_mgt.	Bicarbonate_mgt.	Sulfate_mgi
V M HENDERSON HOOZ	3002506908	32.4553299	-103.1957474	30	215	37E	Α.	660N	660E	LEA	NM.	81	LINEBRY	GLORIETA	138153	81510	744	2735
APACHE STATE Q #001	3002506116	32.5712776	-103-255394	16	205	37£	1	19805	2310E	TEA	NM	M	ONUMENT	GLORIETA	19087	8250	430	3400
C M IMETE A BOOZ	3002506023	32.5050103	-103 211/0//	12	205	975	-	10855	EGNIN	IEA	949.6	16	CACAC	CHARGETA	135630	20600	1690	3100

EXHIBIT A 20

Attachment 5

Water Well Map and Well Data



Legend

★ Proposed SWD NMOSE PODs

Status

- Active (7)
 - Pending (1)
- Unknown (8)

Water Wells Area of Review

Nolan Ryan G 2 LEA County, New Mexico

Proj Mgr: Dan Arthur May 28, 2019

Mapped by: Ben Bockelmann

ALICONSULTING

22

				Vell Sampling Rationale		
SWD	Water Wells	Owner	Available Contact Information	am Permian, LLC - Nolan Ryan G 2 Use	Sampling Required	Notes
Nolan Ryan G 2	CP-00472 POD 1	City of Eunice	Bret Phone: 575-441-9112	Irrigation	No No	Already sampling two wells within the AOR
Nolan Ryan G 2	CP-00472 POD 2	City of Eunice	Bret Phone: 575-441-9112	Irrigation	Yes	Sampled on 01-28-2019. Results are shown below.
Nolan Ryan G 2🛭	CP-01245 POD1	Piper Energy, LLC	Charles Briggs Phone: 505-730-9170 Address: 7011 Rio Grande NW Los Ranchos, NM 87107	Commercial	No	Already sampling two wells within the AOR
Nolan Ryan G 2	CP-01245 POD2	Piper Energy, LLC	Charles Briggs Phone: 505-730-9170 Address: 7011 Rio Grande NW Los Ranchos, NM 87107	Commercial	No	Already sampling two wells within the AOR
Nolan Ryan G 2⑰	CP-00446 POD 1	W.J. McCasland & Dorothy Jo McCasland	P.O. Box 156 Eunice, NM 88231 Phone: 505-369-7945	Irrigation, Livestock, Domestic	No	Already sampling two wells within the AOR
Nolan Ryan G 2	CP-00446 POD 2	W.J. McCasland & Dorothy Jo McCasland	P.O. Box 156 Eunice, NM 88231 Phone: 505-369-7945	Irrigation, Livestock, Domestic	Yes	Sampled on 01-28-2019. Results are shown below.
Nolan Ryan G 2	CP-01416 POD 1	Piper Energy, LLC Charles R. Briggs	Charles Briggs Phone: 505-730-9170 Address: 7011 Rio Grande NW Los Ranchos, NM 87107	Commercial	No	Already sampling two wells within the AOR

EXHIBIT A 23

Analysis for CP00472-POD 2 - Attachment XI-3



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

Analytical Results For:

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington NM, 88260

Project: GOODNIGHT MIDSTREAM

Project Number: NONE GIVEN

Project Manager: LANCE CRENSHAW

Fax To: (575) 396-1429

Reported:

05-Feb-19 17:18

CP00472-POD2 11900304-07 (Wnter) Sampled: January 28th, 2019

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Butch	Analyst	Analyzed	Method	Note
			Cardin	ınl Laborate	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	273		5,00	mg/L	1	9012407	AC	30-Jan-19	310.1	
Alkalinity, Carbonate	<1.00		1,00	mg/L	1	9012407	AC	30-Jan-19	310.1	
Chloride*	108		4.00	mg/L	1	9012811	AC	31-Jan-19	4500-CI-B	
Conductivity*	880		1.00	uS/cm	.1	9013002	AC	30-Jan-19	120.1	
pH*	8.33		0.100	pH Units	1	9013002	AC	30-Jnn-19	150.1	
Resistivity	11.4			Olms/m	1	9013002	AC	30-Jan-19	120.1	
Specific Gravity @ 60° F	0.9997		0.000	[blunk]	1	9013007	AC	30-Jun-19	SM 2710F	
Sulfate*	92.5		25,0	mg/L	2,5	9013006	AC	30-Jun-19	375.4	
TDS*	394		5.00	mg/L	1	9013005	AC	01-Feb-19	160.1	
Alkulinity, Total*	224		4.00	mg/L	£	9012407	AC	30-Jan-19	310.1	
			Green Ana	lytical Labo	oratories					
Total Recoverable Metals by	ICP (E200.7)									
Barlum*	0.130		0.050	mg/L	1	B901226	AES	04-Feb-19	EPA200.7	
Calcium*	55,5		0.100	mg/L	1	B901226	AES	04-l7cb-19	EPA200.7	
Iron*	0.074		0.050	mg/L	1	D901226	AES	04-Pcb-19	EPA200.7	
Magnesium*	20,5		0.100	mg/L	1	B901226	AES	04-Peh-19	EPA200.7	
Potassium*	5.88		1,00	mg/L	1	13901226	AES	04-Feb-19	EPA200.7	
Sodium*	94,5		1.00	mg/L	1	13901226	AES	04-Feb-19	EPA200.7	

Cardinal Laboratories

*=Accredited Analyte

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Analysis for CP00446-POD 2 - Attachment XI-2



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

Analytical Results For:

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington NM, 88260

Project: GOODNIGHT MIDSTREAM

Project Number: NONE GIVEN

Project Manager: LANCE CRENSHAW

Fax To: (575) 396-1429

CP00446 -CP0046-POD2

H900304-06 (Water)

Sampled: January 28th, 2019

Reported:

05-Feb-19 17:18

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Butch	Analyst	Anulyzed	Method	Notes
			Cardin	nl Laborate	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	215		5.00	mg/L	1	9012407	AC	30-Jan-19	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	9012407	AC	30-Jan-19	310.1	
Chloride*	76.0		4.00	mg/L	1	9012811	AC	31-Jan-19	4500-CI-B	
Conductivity*	729		1.00	u9/em	1	9013002	AC'	30-Jnn-19	120.1	
){{1}*	8.65		0.100	pH Units	1	9013002	۸C	30-Jan-19	150.1	
Resistivity	13.7			Olmis/m	1	9013002	ΛC	30-Jan-19	120.1	
pecific Gravity @ 60° F	0.9972		0.000	[blunk]	1	9013007	AC	30-Jan-19	SM 2710F	
iulfate*	100		25.0	mg/L	2,5	9013006	AC	30-Jun-19	375.4	
l'DS*	368		5,00	mg/L	1	9012801	AC	01-Feh-19	160.1	
Alkalinity, Total*	176		4.00	mg/L	1	9012407	AC	30-Jan-19	310.1	
			Green Anai	lytical Labo	ratorles					
Total Recoverable Metals by	ICP (E200.7)									
3arium*	<0.050		0.050	mg/L	1	B901226	AES	04-Feb-19	EPA200.7	
Calcium*	36.1		0.100	mg/L	(i)	B901226	AES	04-Feb-19	EPA200,7	
ron*	0.067		0.050	mg/L	1	B901226	AES	04-Feb-19	EPA200.7	
Angnesium*	20.3		0.100	mg/L	1	B901226	AES	04-Feb-19	EPA200.7	
otnsslum*	5.22		1.00	mg/L	3	13901226	AES	04-Feb-19	BPA200.7	
odlum*	83.7		1.00	mg/L	1	B901226	AUS	04-Feb-19	EPA200.7	

Cardinal Laboratories

*=Accredited Analyte

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Clay 2 time

Attachment 6

Public Notice Affidavit and Notice of Application Confirmations

Affidavit of Publication

STATE OF NEW MEXICO COUNTY OF LEA

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

> Beginning with the issue dated June 05, 2019 and ending with the issue dated June 05, 2019.

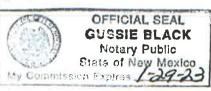
Sworn and subscribed to before me this 5th day of June 2019.

see Black **Business Manager**

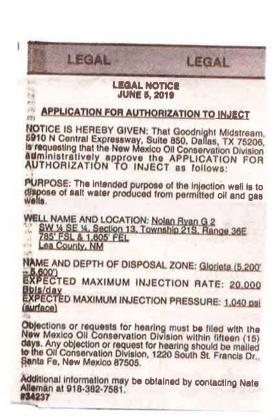
My commission expires Commercial State of the Concession of

January 29, 2023

(Seal)



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



67115320

00229211

DANIEL ARTHUR ALL CONSULTING 1718 S. CHEYENNE AVE. TULSA, OK 74119

Nolar	Ryan G 2 - Notice of Application Recipients			
Entity	Address	City	State	Zip Code
	Landowner			
Dasco Cattle Company (Atlee Snyder)	P.O. Box 727	Hobbs	NM	88241
	OCD District			
NMOCD District 1	1625 N. French Drive	Hobbs	NM	88240
	Leasehold Operators			
Amerada Pet. Corp.	P.O. Box 591	Midland	TX	79702
Apache Corporation	303 Vet Airpark Lane, Suite 3000	Midland	TX	79705
Bureau of Land Management - Carlsbad Field Office	620 E. Greene St.	Carlsbad	NM	88220-6292
Burleson Petroleum Inc	P.O. Box 2479	Midland	TX	79702
Chevron USA Inc.	6301 Deauville	Midland	TX	79706
Commision of Public Lands - State Land Office	310 Old Santa Fe Trail	Santa Fe	NM	87501
Conoco Phillips	P.O. Box 7500	Bartlesville	ОК	74005
Goodnight Midstream Permian, LLC	5910 N. Central Expressway, Suite 850	Dallas	TX	75206
Horseshoe Operating Inc.	110 W. Louisiana Ave Suite 200	Midland	TX	79701
Occidental Permian LTD	5 Greenway Plaza, Suite 110	Houston	TX	77046
Parker Energy Support Services Inc.	P.O. Box 1957	Eunice	NM	88231
Zachary Oil Operating Co	P.O. Box 1969	Eunice	NM	88231
Notes:				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

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Apache Corporation 303 Vet Airpark Lane, Suite 3000 Midland TX 79705-4561 ALL Consulting 1718 S. Cheyenne Ave. Tulsa, OK 74119

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EXHIBIT A

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Horseshoe Operating Inc. 110 W. Louisiana Ave Suite 200 Midland TX 79701-3414

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Commission of Public Lands State Land Office 310 Old Santa Fe Trail Santa Fe NM 87501-2708

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Zachary Oil Operating Co P.O. Box 1969 Eunice NM 88231-1969

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

APPLICATION OF GOODNIGHT MIDSTREAM PERMIAN, LLC FOR APPROVAL OF A SALT WATER DISPOSAL WELL, LEA COUNTY NEW MEXICO.

CASE NO. 20723

<u>AFFIDAVIT</u>

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

Adam G. Rankin, attorney in fact and authorized representative of Goodnight Midstream Permian, LLC -, the Applicant herein, being first duly sworn, upon oath, states that the abovereferenced Applications have been provided under the notice letters and proof of receipts attached hereto.

Adam G. Rankin

SUBSCRIBED AND SWORN to before me this 18th day of September, 2019 by Adam G. Rankin.

My Commission Expires:

Towary 25, 2003

NOTARY PUBLIC - STATE OF NEW MEXICO

Notary Public

My Commission Expires:

BEFORE THE OIL CONSERVATION DIVISION Santa Fe, New Mexico



Adam G. Rankin Phone (505) 988-4421 Fax (505) 983-6043 agrankin@hollandhart.com

August 16, 2019

VIA CERTIFIED MAIL CERTIFIED RECEIPT REQUESTED

TO: AFFECTED PARTIES

Re: Ar

Application of Goodnight Midstream Permian, LLC for Approval of a Salt

Water Disposal Well, Lea County, New Mexico.

Nolan Ryan G No. 2 Well

Ladies & Gentlemen!

This letter is to advise you that Goodnight Midstream Permian, LLC has filed the enclosed application with the New Mexico Oil Conservation Division. A hearing has been requested before a Division Examiner on September 5, 2019 and the status of the hearing can be monitored through the Division's website at http://www.emnrd.state.nm.us/ocd/. Division hearings will commence at 8:15 a.m. in Porter Hall at the Oil Conservation Division's Santa Fe Offices located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Parties appearing in cases are required by Division Rule 19.15.4.13.B to file a Pre-hearing Statement four business days in advance of a scheduled hearing. This statement must be filed at the Division's Santa Fe office at the above specified address and should include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

If you have any questions about this matter please contact ALL Consulting, LLC, at (918) 382-7581 or nalleman@all-llc.com.

Sincerely,

Adam G. Rankin

ATTORNEY FOR GOODNIGHT MIDSTREAM

PERMIAN, LLC

Postal Delivery Report Goodnight Midstream - Beltre, Noal Ryan, Pudge, Sosa Case Nos. 20720-20723

TrackingNo ToName

PO Box 1148 9402810898 New Mexico State Land Office

7650415470

DeliveryAddress City

State Zip

USPS_Status

Santa Fe NM 87504-1148 Your item was delivered at 6:57 am on

August 19, 2019 in SANTA FE, NM 87501.

Tidewater Marshall #1D Goodnight Midstream Nolan Ryan #2G Gulf Leonard #1 30-025-04628 H 13-21S-36E 30-025-00000 O 13-21S-36E 30-025-23397 | 24-21S-36E DF: 3535 TD: 7081 GR: 3547 TD: 5650 2019 1947 KB 3535 TD: 6770 Grayburg 300ft tight rock barrier 300ft tight rock barrier San Andres 100ft tight rock barrier 400ft tight rock barrier 100ft tight rock barrier 600ft tight rock barrier 100ft tight rock barrier Salt water zone. Non producing Paddock 5650 275ft tight rock barrier Blinebry 500ft tight rock barrier Tubb porosity zone 250ft tight rock barrier **BEFORE THE OIL CONSERVATION DIVISION** Santa Fe, New Mexico Drinkard porosity zone Exhibit No. 3 Submitted by: Goodnight Midstream Hearing Date: September 19, 2019

Case No. 20723



Steve Drake V.P. Geology and Reservoir Engineering Goodnight Midstream, LLC 5910 North Central Expressway, Suite 850 Dallas, Texas 75206

RE: Goodnight Midstream, LLC Nolan Ryan SWD Glorieta well permit

Lot O, Section 13, Township 21S Range 36E Lea County, New Mexico

Goodnight Midstream conducted a hydrogeologic investigation related to the proposed injection well. The scope of the investigation was to determine if there is any hydrologic connection between the proposed injection interval and any sources of underground drinking water.

Goodnight geologist performed an analysis of subsurface well log data. It is our conclusion that there is no evidence of faulting in the data we evaluated at the depths that are being considered. There are small scale flexures which may or may not be associated with small scale faults. None of these flexures extend above the Wolfcamp unconformity and are not seen in the Leonard intervals.

Goodnight acquired and evaluated 3D seismic covering the lands to the west of the proposed salt water disposal well. This data does not cover the proposed location but it does show the geologic setting in the nearby area. No faults are seen in the Artesia Group, San Andres, Glorieta, or Leonard series.

We see no evidence of faulting that would extend to or form a connection between the injection zone and any underground sources of drinking water.

Steve Drake

V.P. Geology and Reservoir Engineering

Goodnight Mldstream, LLC

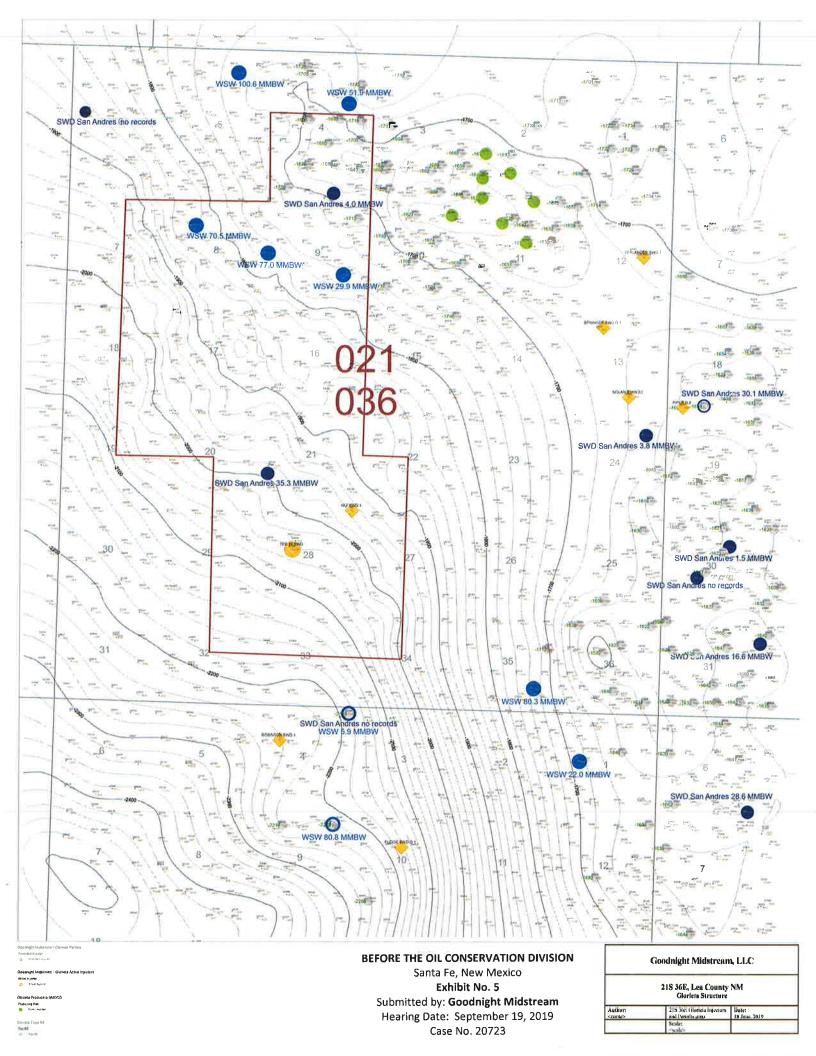
Date

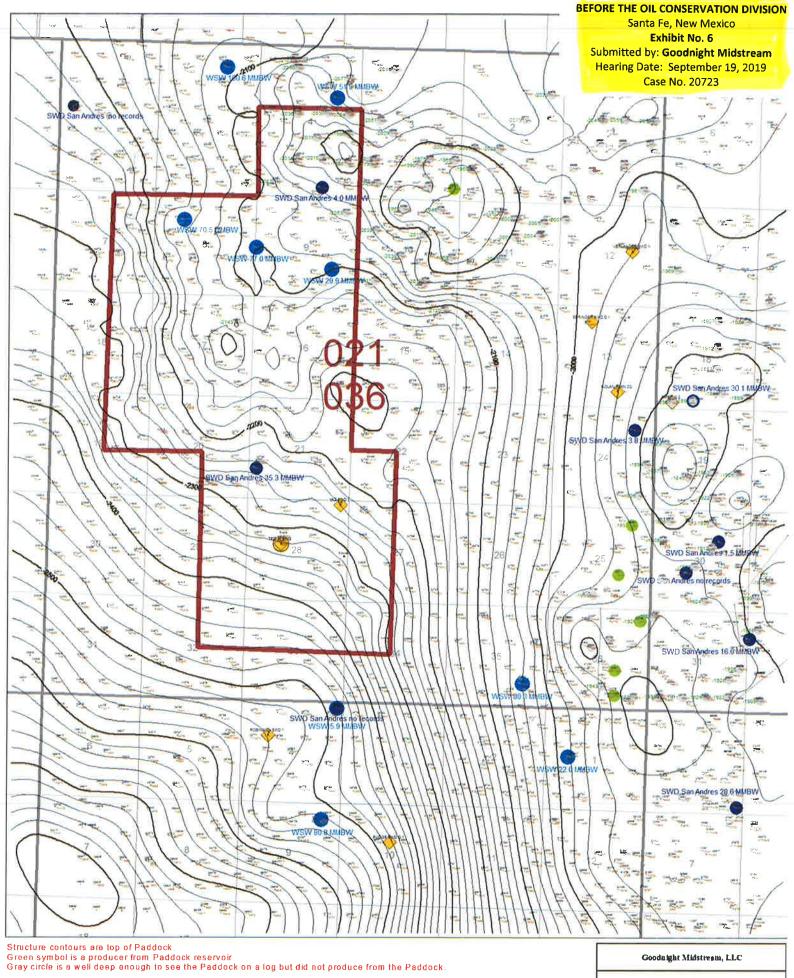
9-17-2019

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico
Exhibit No. 4
Submitted by: Goodnight Midstream
Hearing Date: September 19, 2019

Case No. 20723





Dark blue is San Andres SWD w injection cumulative in millions of barrels.

Light blue is a San Andres saline water supply well used for Grayburg waterfloods.

Gold symbols are wells operated by Goodnight Midstream and Goodnight Midstream permit applications.