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

APPLICATION OF NGL WATER SOLUTIONS PERMIAN, LLC FOR APPROVAL OF SALT WATER DISPOSAL WELL IN LEA COUNTY, NEW MEXICO

Case No. 20896 [Original Case No. 16507]

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Exhibit 1

Application and C-108 Documents

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

APPLICATION OF NGL WATER SOLUTIONS PERMIAN, LLC FOR APPROVAL OF SALT WATER DISPOSAL WELL IN LEA COUNTY, NEW MEXICO

Case No. 20896 [Original Case No. 16507]

AMENDED APPLICATION

NGL Water Solutions Permian, LLC ("NGL"), OGRID No. 372338, through its undersigned attorneys, hereby makes this application to the Oil Conservation Division pursuant to the provisions of NMSA 1978, Section 70-2-12, for an order approving drilling of a salt water disposal well in Lea County, New Mexico. In support of this application, NGL states as follows:

- 1. NGL originally submitted its application proposing to drill the Moab SWD #1 in October of 2018. The original application was assigned OCD Case No. 16507.
- 2. NGL is providing this amended application to update the proposed location for drilling the well.
- 3. NGL proposes to drill the Moab SWD #1 well at a surface location 892 feet from the North line and 150 feet from the West line of Section 25, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well.
- 4. NGL is proposing this change in location to accommodate the operations of an offset oil and gas operator.
- 5. A revised plat, revised map of the area of review, and a revised list of wells and operators within the one-mile area of review are attached hereto as Exhibit A. These materials were provided to the Division by letter dated June 3, 2019.

6. NGL seeks authority to inject salt water into the Devonian-Silurian formation at a depth of 16,900' to 18,600'. A revised C-108 form and supporting documents reflecting the

changes to the injection interval are included as Exhibit B.

7. Apart from the change in location of the well and the change to the depth of the injection interval, NGL makes no further changes to the application currently on file with the

Division in Case No. 16507, a copy of which is attached hereto as Exhibit C.

8. The granting of this application will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

9. Case No. 16507 is currently set on the October 17, 2019 continuance docket.

10. NGL requests that this amended application be consolidated with, and relate back to, the original application and pleadings in Case No. 16507, and that the cases be heard on the

November 14, 2019 hearing docket.

WHEREFORE, NGL requests that this application be set for hearing before an Examiner of the Oil Conservation Division on November 14, 2019; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

ABADIE & SCHILL, P.C.

By: /s/ Lara Katz

Lara Katz
Darin C. Savage
214 McKenzie Street
Santa Fe, New Mexico 87501
(970) 385-4401
lara@abadieschill.com
darin@abadieschill.com

Attorneys for NGL Water Solutions Permian, LLC

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CASE NO. _____ [Original Case No. 16507]: Amended Application of NGL Water Solutions Permian, LLC for approval of salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving disposal into the Silurian-Devonian formation through the Moab SWD #1 well at a surface location 892 feet from the North line and 150 feet from the West line of Section 25, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well. NGL seeks authority to inject salt water into the Silurian-Devonian formation at a depth of 16,900' – 18,600'. NGL further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said location is approximately 22 miles west of Jal, New Mexico.

LONQUIST & CO. LLC

PETROLEUM **ENGINEERS**

ENERGY **ADVISORS**

AUSTIN - HOUSTON - WICHITA - DENVER - CALGARY

June 3, 2019

New Mexico Energy, Minerals, and Natural Resources Department Oil Conservation Division District IV 1220 South St. Francis Drive Santa Fe. New Mexico 87505 (505) 476-3440

RE: MOAB SWD NO. 1 AUTHORIZATION TO INJECT

UPDATED 1-MILE AOR and NOTICE PARTY DETERMINATION

NGL WATER SOLUTIONS PERMIAN, LLC

Dear Mr. Goetze:

The proposed Moab SWD No. 1 well location has been relocated from Unit N, Section 24-T24S-R33E to Unit D, Section 25-T24S-R33E to accommodate the operations of an offset oil and gas operator. The new location is shown in the attached C-102.

The 1-Mile AOR evaluated for offset wellbores penetrating the injection formation and to determine notice parties as part of the C-108 Application has been updated for the new location. The revised maps and list are attached. Relocation of the proposed wellbore did not result in any material changes in the AOR.

Any questions can be directed towards NGL Water Solutions Permian, LLC's agent Lonquist & Co., LLC.

Regards,

John A. Moltz Petroleum Engineer Lonquist & Co., LLC

(720) 221-8654 john.moltz@lonquist.com District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico Energy, Minerals & 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

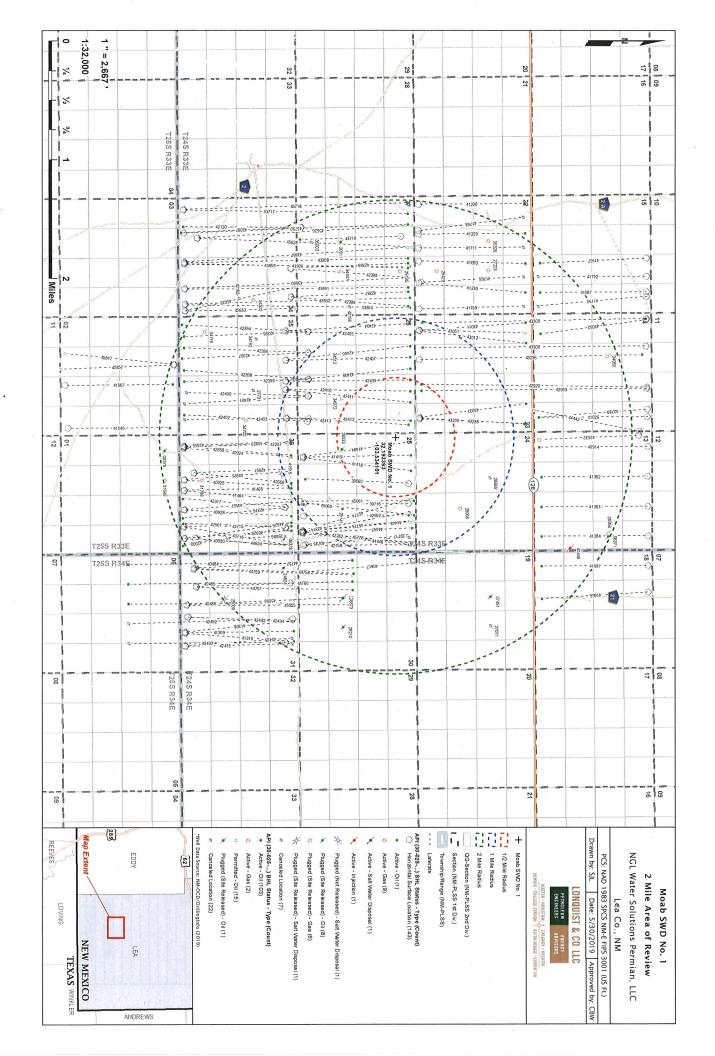
✓ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number			² Pool Code	e	³ Pool Name						
				97869	William I	re Maria	SWD; Devonian	-Silurian			
⁴ Property C	ode			⁵ Property Name MOAB SWD				. 6	Well Number 1		
⁷ OGRID N 372338				NGL W	⁸ Operator /ATER SOLUTIO	Name NS PERMIAN, LLC	0			Elevation 572.00'±	
372336		¹⁰ Surface Locat									
					"Surface	Location					
UL or lot no. D	Section 25	Township 24 S	Range 33 E	Lot Idn N/A	Feet from the 892'	North/South line NORTH	Feet from the 150'	Eas WES	t/West line ST	LEA	County
¹¹ 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	Eas	t/West line		County
				9					-		
12 Dedicated Acres	¹³ Joint o	r Infill 14 Co	onsolidation	Code 15 Or	rder No.						

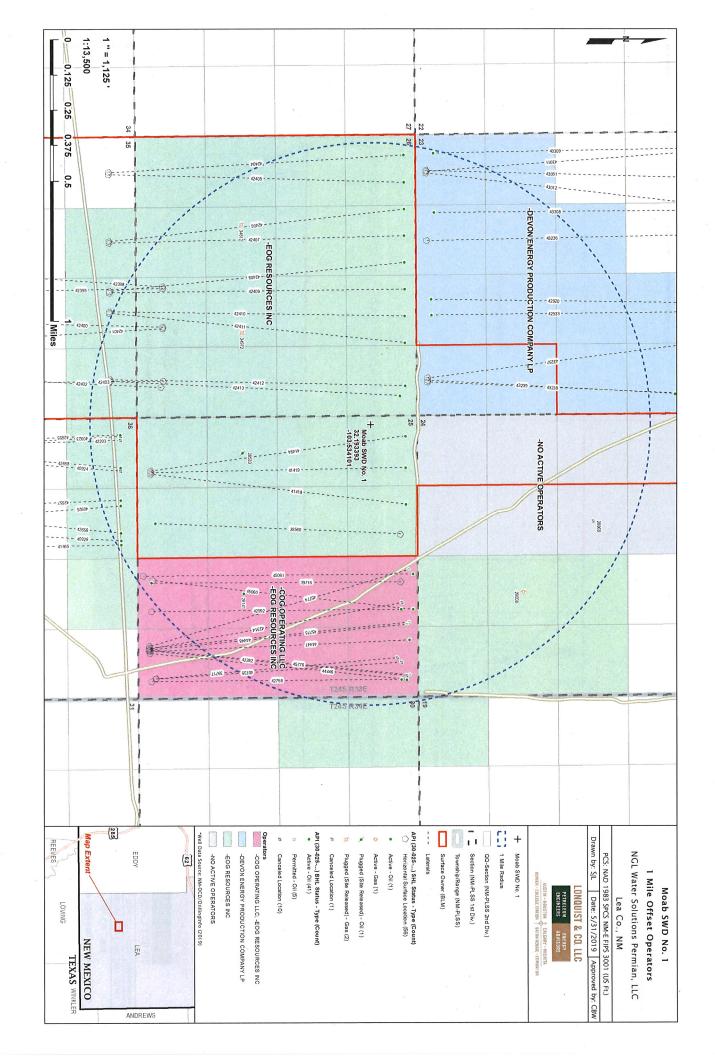
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

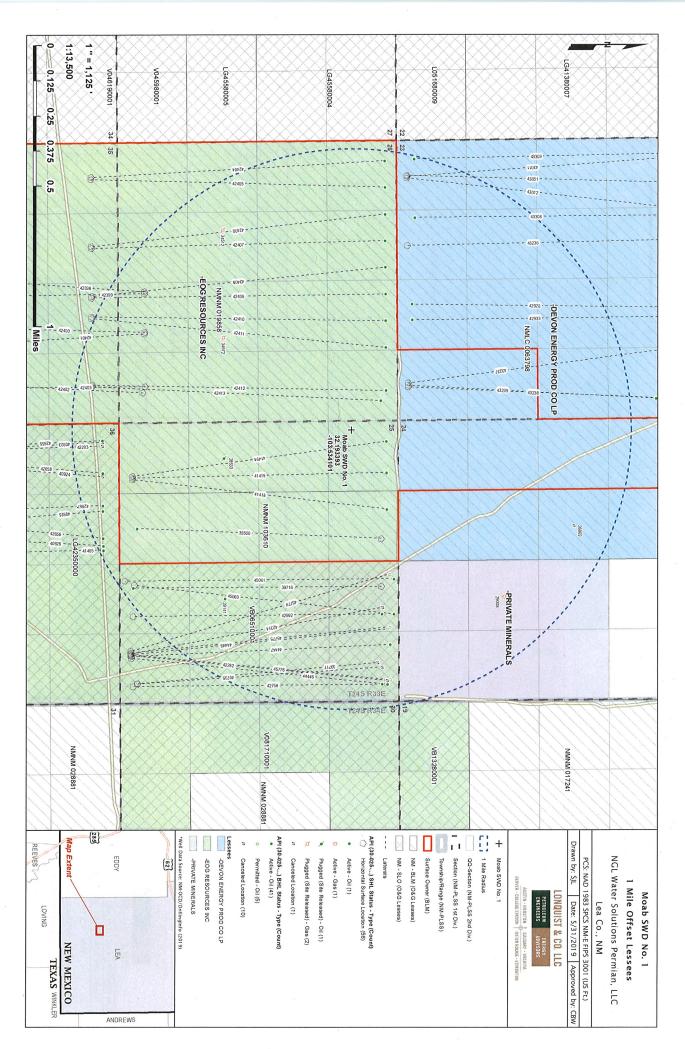
16 , 28 , 86 , 88 , 150'			17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
	PROPOSED MOAB SWD 1 NMSP-E (NAD27) N: 434,951.21' E: 747,387.09' NMSP-E (NAD83) N: 435,009.69' E: 788,571.92' Lat: N32'11'36.22" Long: W103'32'02.76"		Signature Date John Moltz Printed Name john.moltz@lonquist.com E-mail Address
		SECTION 25	*SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief: 05/22/19 Date of Survey
			Signature and Seal of Professional States of MEXICO 25114 Certificate Number Signature and Seal of Professional States of MEXICO 25104 Certificate Number

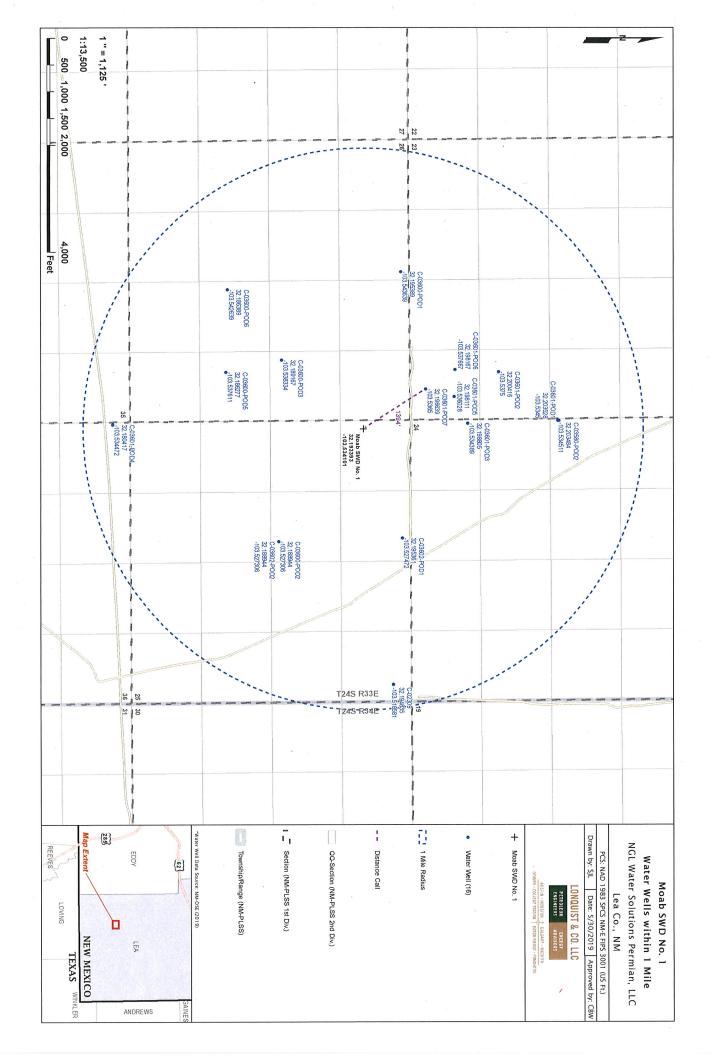


Moab SWD No. 1 1 Mile Area of Review List

-103.520727900	
-103.5207279	5
1000	77000
-103.52	4982100
-103.5247	18400
-103.520515000	500
-103.52030	250
-103.550904	200
-103.5469697	700
-103.5367198	8
-103.536622800	
-103.536861200	
-103.545243200	
103 5/95/95/00	
103.549444800	
-105.52283770	
-103.540843200	
-103.54100470	
-103.5185720	8
-103.5329213	8
-103.52917319	8
-103.5290757	61
-103.53301740	8
-103.536820200	8
-103.536917700	
-103.54097628	ľ
-103.541073700	
-103.542220120	
-103.542317540	
-103.545243380	
-103.545340810	0
-103.549413330	
-103.54954390	
-103.53679560X	
-103.536417800	
-103.540010350	
103 540107790	1
-103.542560130	
-103.520564060	
-103.520466616	
-103.532862018	
-103.531356800	
-103.526702900	
-103.531257600	
-103.531158400	
-103.528099100	
-103 52819820	
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-103.5327759C	٥
-103.518728927	
-103.51873867	ω
-103.524513200	
-103.527412400	
-103.539733900	
-103.546302800	
-103.523864700	
-103.523864700	1
-103.528132144	
-103.532424900	







XII. Affirmative Statement of Examination of Geologic and Engineering Data

Based on the available engineering and geologic data we find no evidence of open faults or any other hydrologic connection between the disposal zone (in the proposed Moab SWD #1) and any underground sources of drinking water.

NAME: Todd Reynolds SIGNATURE: Markey 18 TITLE: Consulting Geologist/Geophysicist

DATE: 1/-13-19

					Revised March 23, 201
RECEIVED:	REVIEWER:	TYPE:		APP NO:	
		ico oil conse	ring Burec	DIVISION	
THIS CHECKI	IS! IS MANDATORY FOR	TRATIVE APPLIC ALL ADMINISTRATIVE AP REQUIRE PROCESSING A	PLICATIONS FOR	EXCEPTIONS TO	DIVISION RULES AND
pplicant: NGL WATER SO		.L.(OGRID	Number: 372338
Vell Name: MOAB SWD &				API: TBI	
		INDICATED B	ELOW		ode: 96101 IE TYPE OF APPLICATION
A. Location - Spo	ıcing Unit – Simu	Itaneous Dedica	r [A] ition NSPiprobation	ONET) SC)
LJDHC	ng – Storage – A CTB Disposal – Press	PLC PC [ure Increase – Er	hanced C	OLM il Recovery I PPR	FOR OCD ONLY
C. Application D. Notification E. Notification F. Surface own	ators or lease ho erriding royalty o requires publish and/or concurr and/or concurr ner above, proof o	Iders wners, revenue ed notice ent approval by ent approval by	owners SLO BLM	is attache	Notice Complete Application Content Complete
CERTIFICATION: I her administrative appro- understand that no notifications are sub-	oval is accurate a action will be tal	and complete to ken on this appli	the hest o	of my know	ledge Lako
Note: State	ment must be comple	ted by an individual w	ith manageria	and/or supervi	sory capacity.
Hard Miles Carre			09/25/2	018	**************************************
HRIS WEYAND		The second secon	Date		
nt or Type Name			512-600	L 1264	
Con had			Phone	Number	
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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? Yes No							
II.	OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC							
	ADDRESS: 1509 W WALL ST // STE 306 // MIDLAND, TX 79701							
	CONTACT PARTY: <u>SARAH JORDAN</u> PHONE: <u>(432)</u> 685-0005 x1989							
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: Christopher B Weyand TITLE: Consulting Engineer							
	SIGNATURE: DATE: DATE: DATE: DATE: DATE:							
*	E-MAIL ADDRESS: chris@lonquist.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.

INJECTION WELL DATA SHEET

OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC

WELL NAME & NUMBER: MOAB SWD #1

WELL LOCATION: <u>892' FNL & 150' FWL</u> FOOTAGE LOCATION

UNIT LETTER

SECTION

24S TOWNSHIP 33E RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: <u>24.000</u>"

Casing Size: 20.000"

Cemented with: 1,602 sx.

or _____ f

Top of Cement: Surface

Method Determined: Circulation

1st Intermediate Casing

Hole Size: 17.500"

Casing Size: <u>13.375</u>"

Cemented with: 3,113 sx.

or _____ ft

Top of Cement: Surface

Method Determined: Circulation

2nd Intermediate Casing

Hole Size: 12.250"

Casing Size: <u>9.625</u>"

Cemented with: 3,268 sx.

or ft

Top of Cement: Surface

Method Determined: Circulation

Production Liner

Hole Size: <u>8.500"</u>	Casing Size: <u>7.625</u> "	
Cemented with: 350 sx.	or	ft ³
Top of Cement: <u>11,900'</u>	Method Determined: Calculation	
Total Depth: <u>18,600'</u>		
Injection In	<u>iterval</u>	
<u>16,900</u> feet to <u>1</u>	8,600 feet	
(Open He	ole)	

INJECTION WELL DATA SHEET

	bing Size: 7", 26 lb/ft, P-110, TCPC from 0'- 11,800' and 5.500", 17 lb/ft, P-110 TCPC from 11,800' - 16,850 ing Material: Duoline
Тур	be of Packer: 7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel
Pac	ker Setting Depth: 16,850'
Oth	er Type of Tubing/Casing Seal (if applicable):
	Additional Data
1.	Is this a new well drilled for injection?YesNo
	If no, for what purpose was the well originally drilled? N/A
2.	Name of the Injection Formation: <u>Devonian</u> , <u>Silurian</u> , <u>Fusselman and Montoya (Top 100')</u>
3.	Name of Field or Pool (if applicable): SWD; Devonian-Silurian
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. No, new drill.
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Bone Spring: 9,205' Wolfcamp: 12,187' Atoka: 13,984' Morrow: 14,470'

	Mosh SWD	Les County NM	TD: 18600	Directions to Site	Directions to Site - Travel 23.2 miles from Jal NM along NM 128W.	ng NM 128W.
Energy Partners LP Vertical In	Vertical Injection - Devonian, Silurian, Fusselman, Montoya	, Fusselman, Montoya	GL/KB: 3572	Turn South at Vac 103° 32' 2.76"	Turn South at Vaca Lane onto locations. Lat/Long $$ - $$ 32 $^\circ$ 11 $^\prime$ 36.22 $^\circ$, 103 $^\circ$ 32 $^\prime$ 2.76 $^\circ$	2° 11' 36.22'', -
Geologic Tops (MD ft)		Section	Casing	Logging	Cement (HOLD)	Injection String
Rustler 1248 Surface TD - 1260		Surface Drill 24" 0' - 1260 Set and Cement 20" Casing	1260' of 20" 94# J55 BTC Centralizers - bottom 2 joints and every 3rd jt thereafter, Cement basket 5th jt from surface	No Logs	Lead - 685sx of HES Extenda Cem, 13.7ppg, 4.5hrs TT Tail - 917sx of Halcem 3hr TT 25% Excess 1000psi CSD after 10hrs	
Salado 1,814' Delaware 5278 1st Int TD - 5225		1st Intermediate Drill 3965' of 17-1/2" Hole 1260' - 5225' Set and Cement 13-3/8" Casing	5M A Section Casing Bowl 5225' of 13-3/8" 68# L80 BTC Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing	Mudlogger on site by 1250'	Lead - 1659 sx of Neocem 12.9ppg, 5hr TT Tail - 1454sx of Halcem, 14.8ppg 15% Excess 1000psi CSD after 10 hrs Cement to Surface	11,800' of 7" P110 26# TCPC
ECP DV Tool - 5200 Cherry Canyon - 6311		2nd Intermediate	12400' of 9-5/8" 53.5# HCL80 BTC Special Drift to 8.535"		Stage 3: 0% Excess Lead 773sx Neocem 12.9 ppg Tail 397sx Halcem 14.8ppg 1000psi CSD after 10 hrs Cement to Surface	5050' of 5-1/2" P110 17# TCPC Duoline
Brushy Canyon - 7972 DV Tool - 9000 Bone Spring - 9205	•	Drill 7175' of 12-1/4" Hole 5225' - 12400' Set 9-5/8" Intermediate Casing and Cement in 3	Between DV Tools DV tool at at 9000' ECP DV Tool 15' Inside Previous Casing	MWD GR Triple combo + CBL of 13-3/8" Casing	Stage 2: 25% Excess Lead 779sx Neocem 12.9 ppg Tail 295sx Halcem 14.8ppg 1000psi CSD after 10 hrs	Internally Coated Injection Tubing
3rd Int Liner Top - 11,900 Wolfcamp - 12187 2nd Int TD - 12,400		Stages	Centralizers - bottom jt, 100' aside of DV tool, every 3rd joint in open hole and 5 within the surface rasing		Stage 1: 25% Excess Lead 553xx Neocem 12.9 ppg Tail 471sx Halcem 14.8ppg. 1000psi CSD after 10hrs	
Strawn - 13788 Atoka - 13984 Morrow - 14470 Miss Lst - 16143 Woodford - 16796 Perm Packer - 16850 3rd Int TD - 16900	9	3rd Intermediate Drill 4000' of 8-1/2" Hole 12400' - 16400' Set 7-5/8" Liner and Cement in Single Stage	4500' of 7-5/8" 39# Q125 - DTL (FJ4) FJ (Gas Tight) VersaFlex Packer Hanger Centralizers on and 1 jt above shoe jt and then every 2nd jt.	MWD GR Triple combo, CBL of 9- 5/8" Casing	Lead 90sx Neocem 12.9 ppg Tail 260sx Halcem 14.8ppg. 1000psi CSD after 10hrs 8hr TT 10% Excess 1000psi CSD after 10hrs	7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp
Devonian - 17,015 Fusselman - 17997 Montoya - 18,500' TD - 18,600		Injection Interval Drill 1700' of 6-1/2" hole 16900' - 18600'	Openhole completion	MWD GR Triple Combo with FMI, CBL of 7-5/8"	Displace with 3% KCI (or heavier brine if necessary)	Elastomer and full Inconel 925 trim

NGL Water Solutions Permian, LLC

Moab SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well	information		
Lease Name	Moab SWD		
Well No.	1		
Location	S-25 T-24S R-33E		
Footage Location	892' FNL & 150' FWL		

2.

a. Wellbore Description

		Casing Inform	nation	
Туре	Surface	Intermediate	Production	Liner
OD	20"	13.375"	9.625"	7.625"
WT	0.438"	0.480"	0.545"	0.500"
ID	19.124"	12.415"	8.535"	6.625"
Drift ID	18.937"	12.259"	8.535"	6.500"
COD	21.00"	14.375"	10.625"	7.625"
Weight	94 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55	L80	HCL-80	Q-125
Hole Size	24"	17.5"	12.25"	8.5"
Depth Set	1,260'	5,225'	12,400'	16,900'

b. Cementing Program

		Cement Infor	mation	
Casing String	Surface	Intermediate	Production	Liner
Lead Cement	С	С	H,H,C	Н
Lead Cement Volume	685	1,659	Stage 1: 553 sks Stage 2: 779 sks Stage 3: 773 sks	90
Tail Cement	С	С	H,H,C	Н
Tail Cement Volume	917	1,454	Stage 1: 471 sks Stage 2: 295 sks Stage 3: 397 sks	260
Cement Excess	25%	15%	25%, 25%, 0%	10%
тос	Surface	Surface	Surface	11,900′
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3. Tubing Description

ubing Informati	on
7"	5.5"
0.362"	0.304"
6.276"	4.892"
7.875"	6.050"
6.151"	4.767"
26 lb/ft	17 lb/ft
P-110 TCPC	P-110 TCPC
0'-11,800'	11,800'- 16,850'
	7" 0.362" 6.276" 7.875" 6.151" 26 lb/ft P-110 TCPC

Tubing will be lined with Duoline.

4. Packer Description

7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel

B. Completion Information

1. Injection Formation: Devonian, Silurian, Fusselman, Montoya (Top 100')

2. Gross Injection Interval: 16,900' – 18,600'

Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Bone Spring	9,205'
Wolfcamp	12,187'
Atoka	13,984'
Morrow	14,470'

VI. Area of Review

No wells within the area of review penetrate the proposed injection zone.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

Average Volume: 40,000 BPD Maximum Volume: 50,000 BPD

- 2. Closed System
- 3. Anticipated Injection Pressure:

Average Injection Pressure: 2,460 PSI (surface pressure) Maximum Injection Pressure: 3,380 PSI (surface pressure)

- 4. The injection fluid is to be locally produced water. Attached are produced water sample analyses taken from the closest wells that feature samples from the Atoka, Bone Spring, Delaware, and Wolfcamp formations. Water is expected to be predominantly sourced from the Bone Spring and Wolfcamp formations.
- 5. The disposal interval is non-productive. No water samples are available from the surrounding area.

VIII. Geological Data

The Devonian formation is a dolomitic ramp carbonate that occurs below the Woodford shale and above the Fusselman formation. Strata found in the Devonian formation include two major groups, the Wristen Buildups and the Thirtyone Deepwater Chert, with the Wristen being more abundant. The Wristen Groups is composed of mixed limestone and dolomites with mudstone to grainstone and boundstone textures. Porosity in the Wristen group is a result of both primary and secondary development. Present are moldic, vugular, karstic (including collapse breccia) features that allow for higher porosities and permeabilities. The Thirtyone Formation contains two end-member reservoir facies, skeletal packstones/grainstones and spiculitic chert, with most of the porosity and permeability found in the coarsely crystalline cherty dolomite. These particular characteristics allow for this formation to be a tremendous Salt Water Disposal horizon.

A. Injection Zone: Siluro-Devonian Formation

Formation	Depth
Rustler	1,248′
Salado	1,814'
Delaware	5,278′
Bone Spring	9,205′
Wolfcamp	12,187'
Strawn	13,788'
Atoka	13,984'
Morrow	14,470'
Mississippian Lime	16,431'
Woodford	16,796'
Devonian	17,015′
Fusselman	17,997′

B. Underground Sources of Drinking Water

Within 1-mile of the proposed Moab SWD #1 location, there are multiple water wells with depths ranging from 95 ft to 550 ft (average 360 ft) and water depths ranging from 81 ft to 575 ft (average 229 ft). These wells are generally producing from the Santa Rosa formation, but the upper Rustler formation may be another USDW, which will be protected.

IX. Proposed Stimulation Program

Stimulate with up to 50,000 gallons of acid.

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

There are multiple water wells that exist within one mile of the well location, but none of the wells are active and available for sampling. A map and Water Right Summaries from the New Mexico Office of the State Engineer are attached for wells C-03600 POD 1,2,3 and C-03601-POD 1.

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720

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

Title: Consulting Engineer

Date: 11/13/2019

E-mail Address: chris@lonquist.com

Phone: (512) 600-1764

District III
1000 Rio Brazos Road, Aztec, NM 87410

State of New Mexico

Form C-101 Revised July 18, 2013

Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St Francis Dr

to the

Phone: (505) 334-6	178 Fax: (505	5) 334-6170			1220 Sou	m St. Fra	incis Di	•	vocation	1 0 Cusing
<u>District IV</u> 1220 S. St. Francis Phone: (505) 476-3	460 Fax: (505	3) 476-3462				Fe, NM 8				Program
APPLI	CATIC	N FOR			L, RE-EN	TER, DE	EPEN,	PLUGBA		DD A ZONE
		NGI	I. Operator Nam WATER SOLUTION		ПС				² OGRID N 37233	
		NGL	1509 W WALL MIDLAND,	ST, STE 306	LLC				^{3.} API Nur TBD	
4. Prope	rty Code				 Property Na MOAB SW 					^{6.} Well No.
				7.	Surface Loc	cation				
UL - Lot	Section	Township	Range	Lot Idn	Feet fro	m N	S Line	Feet From	E/W Line	e County
D	25	24S	33E	N/A	892'	N	ORTH	150'	WEST	LEA
				8. Prop	osed Botton	Hole Loc	ation			
UL - Lot	Section	Township	Range	Lot Idn	Feet fro	m N	S Line	Feet From	E/W Line	e County
					Dool Inform		150		- VF-	
					Pool Inform	iauon				Pool Code
					ilurian-Devonian					96101
				Additi	ional Well I	nformation				
11. Wor	k Type		12. Well Type	Additi	13. Cable/Ro			14. Lease Type	1:	5. Ground Level Elevation
J	30		SWD		R			3,572'		
	16. Multiple 17. Proposed Depth 18. Formation 19. Contractor N 18,600' Siluro-Devonian TBD			^{20.} Spud Date ASAP						
Depth	to Ground wa	ater		Distance f	from nearest fresh				Distance to nearest surface water	
	229`				718'				> 1 mile	
We will be	e using a	closed-loop	system in lieu	of lined pits						
			}	n. Proposed	Casing and	Cement Pr	ogram			
Туре	Hol	e Size	Casing Size	1	Weight/ft	I	g Depth	Sacks of	of Cement	Estimated TOC
Surface	2	24"	20"		lb/ft		200'	1	,602	Surface
Intermediate	1	7.5"	13.375"	68	lb/ft	5,	200'	3	,113	Surface
Production	12	2.25"	9.625"	53.	5 lb/ft	12	,400'	3	,268	Surface
Prod. Liner	8	3.5"	7.625"	39	lb/ft	16	,900'	350 11,900		11,900'
			Cas	ing/Cement	Program: A	dditional	Commen	ts		
See attached sch	ematic.									
				2. Proposed	Blowout Pre	evention Pr	ogram			
	Туре			Working Press				Manufacturer		
Double	Hydrualic/Bl	linds, Pipe		10,000 psi		8,000 psi TBD – Schaffer/Cameron				
23. Lhereby ce	rtify that th	ne informatio	on given above is	true and comple	ete to the best		VICENSES NA	20.00 (20.00) (20.00 (
of my knowle	dge and be	lief.					OIL	CONSERV	ATION DI	VISION
I further cert 19.15.14.9 (B			ied with 19.15.1	4.9 (A) NMAC	and/or	Approved B	y:			
Signature:	MAC	△, ii applic	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			ov tra•a• notice 1 Colores (Colores	Pend			
	11	\sim $^{\prime}$								
Printed name:	Christophe	er B. Wevan	d V			Title:				

Approved Date:

Conditions of Approval Attached

Expiration Date:

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

APPLICATION OF NGL WATER SOLUTIONS PERMIAN, LLC TO APPROVE SALT WATER DISPOSAL WELL IN LEA COUNTY, NEW MEXICO.

CASE NO. 16507

APPLICATION

NGL Water Solutions Permian, LLC ("NGL"), OGRID No. 372338, through its undersigned attorneys, hereby makes this application to the Oil Conservation Division pursuant to the provisions of N.M. Stat. Ann. § 70-2-12, for an order approving drilling of a salt water disposal well in Lea County, New Mexico. In support of this application, NGL states as follows:

- (1) NGL proposes to drill the Moab SWD #1 well at a surface location 255 feet from the South line and 1,538 feet from the West line of Section 24, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well.
- (2) NGL seeks authority to inject salt water into the Siluro-Devonian formation at a depth of $16,400^{\circ} 18,004^{\circ}$.
- (3) NGL further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day.
- (4) NGL anticipates using an average pressure of 2,460 psi for this well, and it requests that a maximum pressure of 3,280 psi be approved for the well.
 - (5) A proposed C-108 for the subject well is attached hereto in Attachment A.

EXHIBIT

C

(6) The granting of this application will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

WHEREFORE, NGL requests that this application be set for hearing before an Examiner of the Oil Conservation Division on November 1, 2018; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.

Lowerifor Day

Deana Bennett

Post Office Box 2168

Bank of America Centre

500 Fourth Street NW, Suite 1000

Albuquerque, New Mexico 87103-2168

Telephone: 505.848.1800 Attorneys for Applicant

CASE NO. Less Application of NGL Water Solutions Permian, LLC for approval of salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving disposal into the Siluro-Devonian formation through the Moab SWD #1 well at a surface location 255 feet from the South line and 1,538 feet from the West line of Section 24, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well. The target injection interval is the Siluro-Devonian formation at a depth of 16,400° – 18,004°. NGL further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said area is located approximately 22 miles west of Jal, New Mexico.

				Revised March 23, 2
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ell Name: MOAB ol: SWD; SILURIAN			API: TBD	
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CERTIFICATION:	I hereby certify that the	ne information subn	nitted with this appl	ication for
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or Type Name				
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1 - h	4		Phone Number	
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STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

1.	PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage Application qualifies for administrative approval? X Yes No
П.	OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC
	ADDRESS: 1509 W WALL ST // STE 306 // MIDLAND, TX 79701
	CONTACT PARTY: SARAH JORDAN PHONE: (432) 685-0005 x 1989
Ш.	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: Christopher B. Weyand TITLE: Consulting Engineer
	SIGNATURE: DATE: 9 24 2018
*	E-MAIL ADDRESS: chris@longuist.com If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

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

Side 2

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name: Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each easing 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.

INJECTION WELL DATA SHEET

OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC

Side 1

WELL NAME & NUMBER: $\overline{\text{MOAB SWD } \# 1}$

WELL LOCATION: 255 FSL & 1,538' FWL	Z	24	24S	33 <u>E</u>
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
WELLBORE SCHEMATIC		WELL CONSTR Surface Casing	WELL CONSTRUCTION DATA Surface Casing	
	Holc Size: <u>24.000"</u>		Casing Size: <u>20.000"</u>	
	Cemented with: 1,602 sx.		or	ft ³
	Top of Cement: Surface		Method Determined: Circulation	Circulation
		1st Intermediate Casing	te Casing	
	Hole Size: 17.500"		Casing Size: 13.375"	
	Cemented with: 3,113 sx.		OF.	ft.3
	Top of Cement: Surface		Method Determined: Circulation	Circulation
		2 nd Intermediate Casing	itc Casing	
	Hole Size: 12.250"		Casing Size: <u>9.625"</u>	
	Cemented with: 3,268 sx.		or	- E
	Top of Cement: Surface		Method Determined: Circulation	Circulation

Production Liner

Casing Size: 7.625"	or ft.	Method Determined: <u>Calculation</u>		Injection Interval	16,400 feet to 18,004 feet	(Open Hole)
Hole Size: 8.500"	Cemented with: 318 sx.	Top of Cement: 11,900	Total Depth: 18.004			

INJECTION WELL DATA SHEET

Tubing Size: 7., 26 lb/fi, P-110, TCPC from 0'-11,800° and 5,500°, 17 lb/ft, P-110 TCPC from 11,800° - 16,380° Lining Material: Duoline

Type of Packer: 7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel

Packer Setting Depth: 16.380

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

Additional Data

Is this a new well drilled for injection?

X Yes

If no, for what purpose was the well originally drilled? N/A

- Name of the Injection Formation: <u>Devonian, Silurian, Fusselman and Montova (Top 100</u>°)
- Name of Field or Pool (if applicable): SWD; Silurian-Devonian
- intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No. new drill. Has the well ever been perforated in any other zone(s)? List all such perforated
- Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area. ś

Bone Spring: 9,205

Wolfcamp: 12,1877

Atoka: 13,984' Morrow: 14,470'

NGL Water Solutions Permian, LLC

Moab SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information				
Lease Name	Moab SWD			
Well No.	1			
Location	S-24 T-24S R-33E			
Footage Location	255' FSL & 1,538' FWL			

2.

a. Wellbore Description

Casing Information						
Туре	Surface	Intermediate	Production	Liner		
OD	20"	13.375"	9.625"	7.625"		
WT	0.438"	0.480"	0.545"	0.500"		
ID	19.124"	12.415"	8.535"	6.625"		
Drift ID	18.937"	12.259"	8.535"	6.500"		
COD	21.00"	14.375"	10.625"	7.625"		
Weight	94 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft		
Grade	J-55	L80	HCL-80	Q-125		
Hole Size	24"	17.5"	12.25"	8.5"		
Depth Set	1,260'	5,225'	12,400′	16,400'		

b. Cementing Program

Cement Information					
Casing String	Surface	Intermediate	Production	Liner	
Lead Cement	С	С	Н,Н,С	Н	
Lead Cement Volume	685	1,659	Stage 1: 553 sks Stage 2: 779 sks Stage 3: 773 sks	81	
Tail Cement	. c	С	н,н,с	Н	
Tail Cement Volume	917	1,454	Stage 1: 471 sks Stage 2: 295 sks Stage 3: 397 sks	237	
Cement Excess	25%	15%	25%, 25%, 0%	10%	
TOC	Surface	Surface	Surface	11,900'	
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged	

3. Tubing Description

Tubing Information					
OD	7"	5.5"			
WT	0.362"	0.304"			
iD	6.276"	4.892"			
Drift ID	7.875"	6.050"			
COD	6.151"	4.767"			
Weight	26 lb/ft	17 lb/ft			
Grade	P-110 TCPC	P-110 TCPC			
Depth Set	0'-11,800'	11,800'-			
Deptil Set	0-11,800	16,380'			

Tubing will be lined with Duoline.

4. Packer Description

 $7-5/8" \times 5-1/2"$ TCPC Permanent Packer with High Temp Elastomer and Full Inconel

B. Completion Information

- 1. Injection Formation: Devonian, Silurian, Fusselman, Montoya (Top 100')
- 2. Gross Injection Interval: 16,400' 18,004'

Completion Type: Open Hole

- 3. Drilled for injection.
- 4. See the attached wellbore schematic.
- 5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Bone Spring	9,205'
Wolfcamp	12,187′
Atoka	13,984'
Morrow	14,470′

VI. Area of Review

No wells within the area of review penetrate the proposed injection zone.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

Average Volume: 40,000 BPD Maximum Volume: 50,000 BPD

- 2. Closed System
- 3. Anticipated Injection Pressure:

Average Injection Pressure: 2,460 PSI (surface pressure)
Maximum Injection Pressure: 3,280 PSI (surface pressure)

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- 5. The disposal interval is non-productive. No water samples are available from the surrounding area.

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A. Injection Zone: Siluro-Devonian Formation

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Delaware	5,278′	
Bone Spring	9,205'	***********
Wolfcamp	12,187′	
Strawn	13,788′	***************************************
Atoka	13,984′	
Morrow	14,470′	
Mississippian Lime	15,760′	
Woodford	16,165′	
Devonian	16,380′	

B. Underground Sources of Drinking Water

Within 1-mile of the proposed Moab SWD #1 location, there are multiple water wells with depths ranging from 95 ft to 550 ft (average 360 ft) and water depths ranging from 81 ft to 575 ft (average 229 ft). These wells are generally producing from the Santa Rosa formation, but the upper Rustler formation may be another USDW, which will be protected.

IX. Proposed Stimulation Program

Stimulate with up to 50,000 gallons of acid.

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

There are multiple water wells that exist within one mile of the well location, but none of the wells are active and available for sampling. A map and Water Right Summaries from the New Mexico Office of the State Engineer are attached for wells C-03600 POD 1,2,3 and C-03601-POD 1.

District.1
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax (575) 393-0720
District.18
811 S. First St., Aitesia, NM 88210
Phone (575) 748-1283 Fax (575) 748-9720

State of New Mexico

Form C-101 Revised July 18, 2013

Energy Minerals and Natural Resources

Oil Con					iservation Division				☐AMENDED REPO		
1000 Rio Brazos Road, Azter, NAI \$7410 Phone (505) 334-6178 Fax (505) 334-6170						outh St. Francis Dr.					
<u>District IV</u> 1220 S. St. Franci Thone (505) 476-					Santa	n Fe, NM	87505				
APPL	CATIO	ON FOR I	PERMIT TO	O DRII	LL, RE-EN	TER, DI	EEPEN,	PLUGBACK			
			Operator Name ar						OGRID Numl 372338	ber	
NGL WATER SOLUTIONS PERMIAN, LLC 1509 W WALL ST, STE 306									API Numbe	T	
1 Prope	rty Code		MIDLAND, TX	79701	Property N	V			TBD	Vell No	
					MOAB SY	VD			, n	1	
		·	· · · · · · · · · · · · · · · · · · ·		^{7.} Surface Lo	cation					
UL - Lot	Section	Township	Range	Lot Idn				Feet From	E/W Line	County	
N.	24	248	33E	3E N/A 25			OUTH	1,538	WEST LEA		
Ul Lot	Section	Township	Range	Lot Idn	posed Bottor		S Line	Feet From	E/W Line	T County	
V	-	-	rouge 4	201 1011	rvet ne	u, ,	·	rect From	iow cane	County	
					. Pool Inform	nation					
			*****		Pool Name		····			Pool Code	
				SWD;	Silurian-Devonian					96101	
				Addi	tional Well I	nformation	l				
11 Wor	к Туре		Well Type		13 Cable/R	lotary 14 Lease		Lease Type Private			
		- -	Proposed Depth	SWD R Proposed Depth 11 Format						3,570° ≥ Spud Date	
16 Multiple 17 Proposed Depth 11 Form N 18,004 Siluro-Di								Contractor TBD		ASAP	
Depth	to Ground wa	iter		Distance	from nearest fresh	water well	<u> </u>	Dis	ance to nearest su	rface water	
	229				718'				> 1 mile		
	using a c	rosed-tooh sy	stem in lieu of l	•	Casing and	Cement Pr	ogram				
Турс	Holo	Size (Casing Size	Casing	g Weight/ft	Setting Depth		Sacks of Cement		Estimated TOC	
Surface	2	4"	20"	9	4 lb/fl	1,260'		1,602		Surface	
Intermediate		.5"	13.375"	6	8 16/ft	5,225'		3,113		Surface	
Production		25"	9.625"	53	.5 lb/fl	12,400		3,268		Surface	
Prod. Liner		5"	7.625"	39 lb/fl		16,400'		318		11,900`	
Tubing		/A	7'	26 lb/R		0'-11,800'		N/A		N/A	
Tubing	N	/A	5.5"		7 lb/ft	11,800° – 16,380° N/A				N/A	
			Casing	/Cement	Program: A	Additional C	Comments				
ice attached scho	anatic.										
			" P	roposed	Blowout Pro	evention Pr	ogram				
	Туре		W	orking Pres	sure		Test Pressi	ıre	Manufacturer		
Double !	Hydrualic/Blu	nds, Pipe	1	10,000 psi		 	8,000 psi		TBD - Schaffer Cameron		
						1					
J. 1 hereby cer	tifs: that the	information o	iven above is true	and comple	ata to the best						
23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have compiled with 19.15.14.9 (A) NMAC and/or 19.15.14.9 (B) NMAC stiff applicable.					OIL CONSERVATION DIVISION						
					Approved By						
9.15.14.9 (B) fignature:	AVIACI	a it applicabl	c.								
`	<u>// '</u>	$\sim \mathcal{T}$							*****		
Printed name Christopher B Weyand						Title:			····		
Title Consulting Engineer					Approved Date: Expiration Date.						
-mail Addres	s. <u>chris û lo</u>	nquist com									
Date 9/20/2018 Phone, (512) 600-1764					Conditions of Approval Attached						
					Date 9/20/2018 Phone. (512) 600-1764						

District I
1625 N French Dr., Hobbs, NM \$8240
Phone: (579) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Artice, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-10 Revised August I 201 Submit one copy to appropriat District Offic

☐ AMENDED REPOR

Frianc. (202) 4 10-340) FBX: (242) 4/6		ELL LO	CATION	I AND ACRE	EAGE DEDICA	TION PLAT				
API Number			T	² Pool Code 96101		³ Pool Name SWD; Silurian-Devonian					
⁴ Property			⁵ Property Name MOAB SWD					* Well Number			
¹оски 37233									Elevation 570.00"±		
					" Surface Lo	ocation					
UL or lat no. N	Section 24	Township 24 S	Range 33 E	Lot Idn N/A	Feet from the 255	North/South line SOUTH	Feet from the 1538'	East/West line WEST	County LEA		
			"Bo	ttom Hol	e Location If	Different From	Surface	······································			
UL or lot no.	Section	Township	Range	Lot Ids	Feet from the	North/South line	Feet from the	East/West line	County		
12 Dedicated Acre	5 O Joint o	r Infül 14 Co	osolidation (Code 15 Ord	er No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

			"OPERATOR CERTIFICATION I hereby certify that the information contained here in its true and complet the best of my knowledge and belief, and that this organization either own worlding interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this locat, pursuant to a contract with an owner of such a mineral or working intere- or to a voluntary pooling egreement or a compulsory pooling order hyptofore antered by the dipicify
	SECTION 24		Signature 9/24/2012 Chris Weyand Printed Name chris@lonquist.com E-mail Address
		PROPOSEO MOAB SWD 1 NMSP-E (NAD27) N: 436,175.08' E: 748,910.40' NMSP-E (NAD83) N: 436,233.59' E: 790,095.18' Lat: N32'11'48.21' Long: W103'31'44.93"	"SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat we plotted from field notes of actual surveys made by nie or under my supervision, and that the same is true and correct to the hest of my helief
1538'	2255		Signature and Seasof Professional Services 2 (23001) Certificate Number



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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag POD Number C 03600 POD1

Q64 Q16 Q4 Sec Tws Rng 2 2 1 26 24S 33E

X

637275 3563023

Driller License: 1186

Driller Company: ENVIRO-DRILL, INC.

Driller Name:

RODNEY HAMMER

Drill Start Date: 01/07/2013

Drill Finish Date:

01/07/2013

Plug Date:

Log File Date:

01/30/2013

PCW Rcv Date:

Source:

Shallow

POD SUMMARY - C 03600 POD1

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

Depth Water:



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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag

POD Number C 03600 POD2 Q64 Q16 Q4 Sec Tws Rng

X

1 25 24S 33E

638824 3562329

Driller License: 1186

Driller Company: ENVIRO-DRILL, INC.

Driller Name:

RODNEY HAMMER

Drill Start Date: 01/07/2013 Log File Date:

01/30/2013

Drill Finish Date:

01/08/2013

Plug Date:

PCW Rcv Date:

Source:

Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: Depth Water:

Casing Size:

Depth Well:



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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag

POD Number

Q64 Q16 Q4 Sec Tws Rng

X

C 03600 POD3

4 2 26 24S 33E

637784 3562340 🍪

Driller License: 1186

Driller Company: ENVIRO-DRILL, INC.

Driller Name:

RODNEY HAMMER

Drill Start Date: 01/16/2013

Drill Finish Date:

01/16/2013

Plug Date:

Log File Date:

01/30/2013

PCW Rcv Date:

Source:

Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

Depth Water:



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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag

POD Number

Q64 Q16 Q4 Sec Tws Rng

Х

C 03601 POD1

2 23 24S 33E

638124 3563937

Driller License: 1186

Driller Company: ENVIRO-DRILL, INC.

Driller Name:

RODNEY HAMMER

Drill Start Date: 12/21/2012

Drill Finish Date:

12/21/2012

Plug Date:

Log File Date:

01/08/2013

PCW Rcv Date:

Source:

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Shallow

Casing Size: Depth Well:

Depth Water: