Additional

Information

McMillan, Michael, EMNRD

From: Tyler Moehlman <tyler.moehlman@lonquist.com>
Sent: Monday, July 29, 2019 1:00 PM
To: McMillan, Michael, EMNRD
Cc: Ramona Hovey
Subject: [EXT] BLM Notice - Cordell Fed SWD No. 1
Attachments: Cordell Fed No.1_BLM_Notice Package.pdf

Michael,

Attached is proof of delivery to the Bureau of Land Management at the correct address in Carlsbad for the Cordell Fed SWD No. 1. I am submitting this attachment to deem our application complete. Should you have any questions or concerns please contact Ramona or myself.

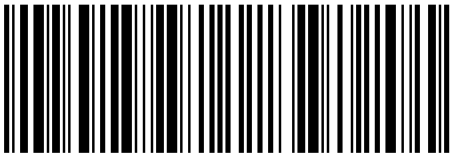
Tyler F. Moehlman,
Petroleum Engineer

LONQUIST & CO. LLC
PETROLEUM ENGINEERS | ENERGY ADVISORS

Office: 713-987-4144 Cell: 713-494-0340
1001 McKinney, Suite 1650, Houston, Texas, 77002
tyler.moehlman@lonquist.com · www.lonquist.com

AUSTIN · HOUSTON · CALGARY · WICHITA · BATON ROUGE · DENVER · COLLEGE STATION

Ramona Hovey
Lonquist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002



9314 8699 0430 0061 6038 00

RETURN RECEIPT (ELECTRONIC)

Total Postage: $6.55

Bureau of Land Management
620 E GREENE STREET
CARLSBAD, NM 88220

Reference Number: 2008-CORDELL FED SWD#1

July 26, 2019

BUREAU OF LAND MANAGEMENT
620 E GREENE STREET
CARLSBAD, NM 88220

Subject: **Cordell Fed SWD No. 1 Authorization to Inject**

To Whom It May Concern:

Attached for your review is Form C-108, Application for Authorization to Inject, and its supplemental documents prepared for Solaris Water Midstream LLC's Cordell Fed SWD No. 1 well. Section XIV of Form C-108 requires that the surface land owner on which the well is located and each leasehold operator within a one-half mile radius of the proposed well location be furnished with the application. The notice of application has been extended to a one-mile radius.

According to the New Mexico Oil Conservation Division, surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date in which this application was mailed to them.

Any questions should be directed towards Solaris Water Midstream LLC's agent, Lonquist & Co., LLC.

Regards,

Ramona K. Hovey
Sr. Petroleum Engineer
Lonquist & Co., LLC

(512) 600-1777
ramona@lonquist.com

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance ___X___Disposal _____Storage
Application qualifies for administrative approval? ___X___Yes _____No

II. OPERATOR: Solaris Water Midstream, LLC

ADDRESS: 701 Tradewinds Blvd., Suite C, Midland, TX 79706

CONTACT PARTY: Whitney McKee PHONE: 432-203-9020

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

IV. Is this an expansion of an existing project? _____Yes ___X___No
If yes, give the Division order number authorizing the project: _____

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

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

VII. Attach data on the proposed operation, including:

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

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

IX. Describe the proposed stimulation program, if any.

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

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

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

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

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

NAME: Ramona Hovey TITLE: Consulting Engineer – Agent for Solaris Water Midstream

SIGNATURE: Ramona Hovey DATE: 7/25/2019

E-MAIL ADDRESS: ramona@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: _____

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

Side 2

III. WELL DATA

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

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

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

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

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

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

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

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

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

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

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

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

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

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Solaris Water Midstream, LLC

WELL NAME & NUMBER: Trivette Fed SWD No. 1

WELL LOCATION: 990’ FNL 215’ FWL (FOOTAGE LOCATION) | D (UNIT LETTER) | 23 (SECTION) | 26S (TOWNSHIP) | 30E (RANGE)

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 18.125”

Cemented with: 946 sx.

Top of Cement: surface

Casing Size: 16.00”

or _____ ft^3

Method Determined: circulation

Intermediate Casing

Hole Size: 14.750”

Cemented with: 914 sx.

Top of Cement: surface

Casing Size: 13.375”

or _____ ft^3

Method Determined: circulation

Production Casing

Hole Size: 12.250”

Cemented with: 2924 sx.

Top of Cement: surface

Casing Size: 9.625”

or _____ ft^3

Method Determined: circulation

Liner

Hole Size: 8.500”

Cemented with: 485 sx.

Top of Cement: 12,026’

Total Depth: 18,333’

Casing Size: 7.625”

or _____ ft^3

Method Determined: calculation

Injection Interval

16,533 feet to 18,333 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 5.5", 20 lb/ft, HCL-80, BTC from 0' – 11,826' and 5", 18 lb/ft, HCL-80, LTC from 11,826' – 16,483'
Lining Material: Duoline

Type of Packer: Nickel Plated Double Grip Retrievable Packer or Equivalent

Packer Setting Depth: 16,483'

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

Additional Data

1. Is this a new well drilled for injection? ___X___Yes _____No

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

2. Name of the Injection Formation: Devonian, Fusselman

3. Name of Field or Pool (if applicable): SWD; Devonian-Silurian 97869_____

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:

   Bell Canyon: 3,721'
   Cherry Canyon: 4,627'
   Brushy Canyon: 5,877'
   Bone Spring: 7,574'
   Wolfcamp: 12,126'
   Strawn: 13,544'
   Atoka: 13,679'
   Morrow: 14,354'

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	97869	Devonian-Silurian

Property Code	Property Name	Well Number
	TRIVETTE FED SWD	1

OGRID No.	Operator Name	Elevation
371643	SOLARIS WATER MIDSTREAM	3096'

Surface Location

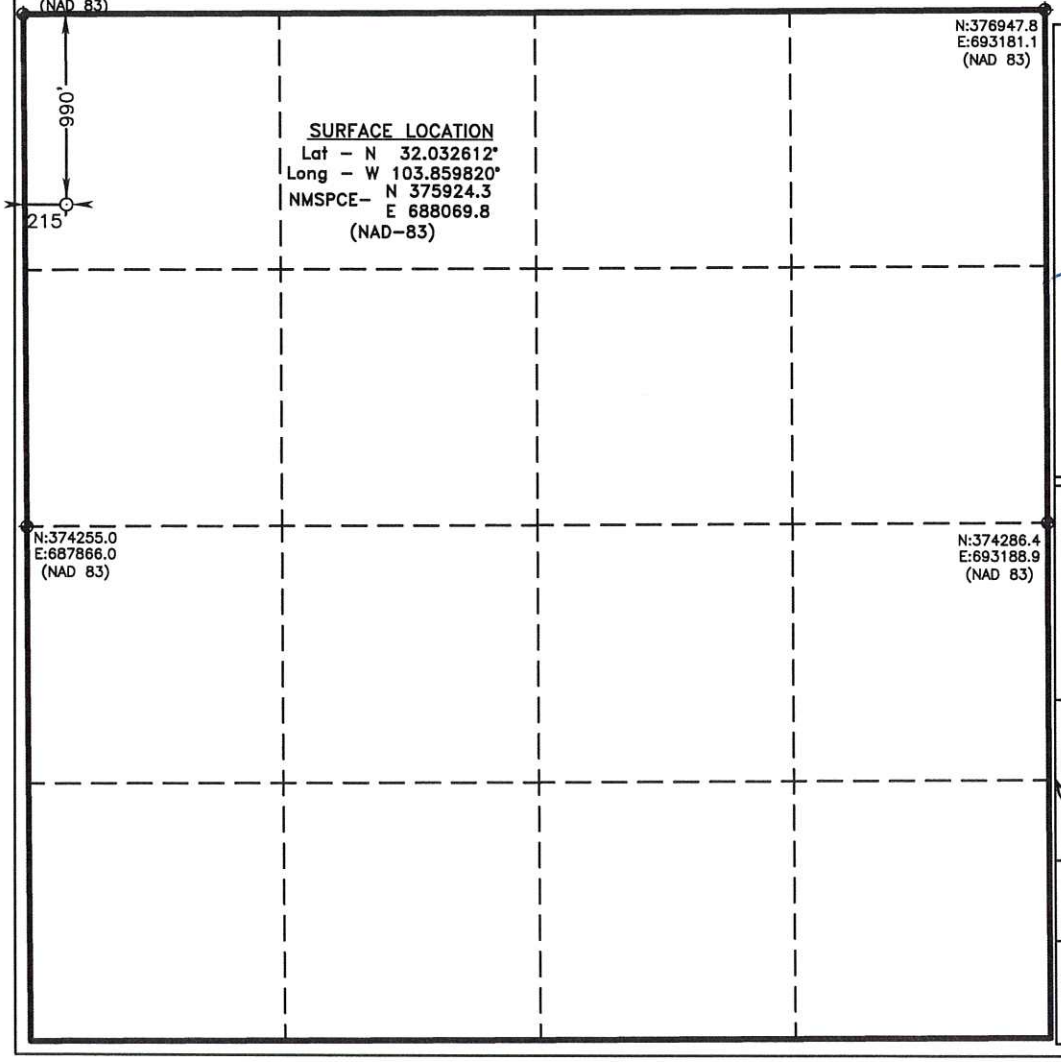
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	23	26 S	30 E		990	NORTH	215	WEST	EDDY

Bottom Hole Location If Different From Surface

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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



OPERATOR CERTIFICATION

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

Ramona K Hovey 7/25/19
Signature Date

RAMONA K. HOVEY
Printed Name

ramona@longrist.com
Email Address

SURVEYOR CERTIFICATION

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

JUNE 22, 2019
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977
BASIN SURVEYS

0' 500' 1000' 1500' 2000' N
SCALE: 1" = 1000'
WO Num.: 34645

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
SOLARIS WATER MIDSTREAM, LLC 701 TRADEWINDS BLVD., SUITE C MIDLAND, TX 79706	371643
	3. API Number TBD

4. Property Code	5. Property Name	6. Well No.
	TRIVETTE FED SWD	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	23	26 S	30 E		990	N	215	W	EDDY

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
	-	-	-		-	-	-	-	-

9. Pool Information

Pool Name	Pool Code
SWD; Devonian-Silurian	97869

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
N	SWD	R	Private	3096'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	18,333'	Devonian-Silurian	TBD	ASAP

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water
226'	1.5 miles	>1 mile

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	18.125"	16"	84 lb/ft	1,239'	946	Surface
Intermediate	14.75"	13.375"	68 lb/ft	3,718'	914	Surface
Production	12.25"	9.625"	53.5 lb/ft	12,226'	2924	Surface
Liner	8.5"	7.625"	39 lb/ft	12,026' – 16,533'	485	12,026'
Tubing		5.5" & 5"	20 lb/ft & 18 lb/ft	0' – 11,826' & 11,826' – 16,483'	N/A	

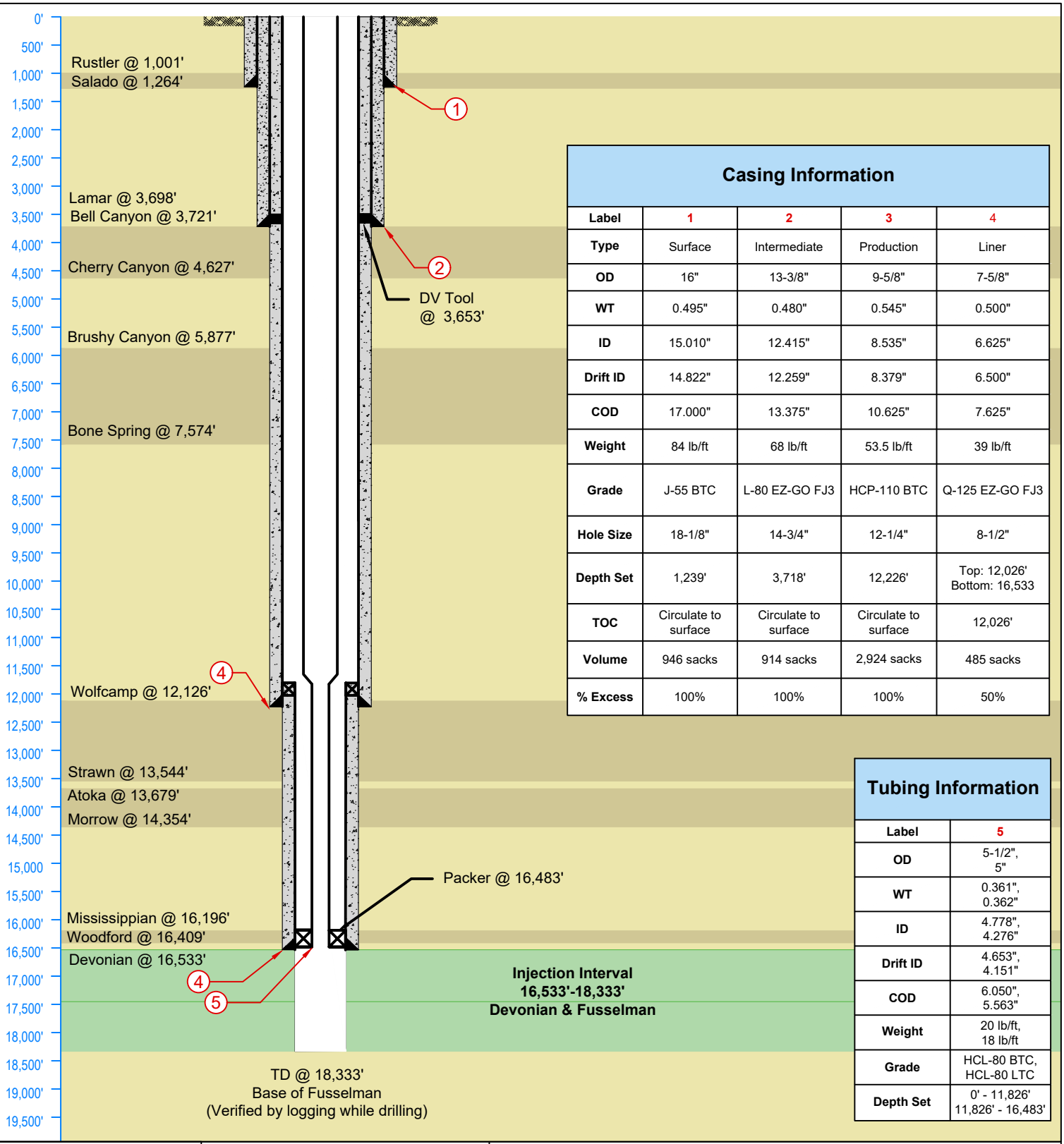
Casing/Cement Program: Additional Comments

See attached schematic.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Hydrualic/Blinds, Pipe	8,000 psi	10,000 psi	TBD – Schaffer/Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.	OIL CONSERVATION DIVISION
I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒, if applicable. Signature: Ramona Hovey	Approved By:
Printed name: Ramona Hovey	Title:
Title: Consulting Engineer	Approved Date: / Expiration Date:
E-mail Address: ramona@lonquist.com	
Date: July 25, 2019 / Phone: 512-600-1777	Conditions of Approval Attached



Casing Information

Label	1	2	3	4
Type	Surface	Intermediate	Production	Liner
OD	16"	13-3/8"	9-5/8"	7-5/8"
WT	0.495"	0.480"	0.545"	0.500"
ID	15.010"	12.415"	8.535"	6.625"
Drift ID	14.822"	12.259"	8.379"	6.500"
COD	17.000"	13.375"	10.625"	7.625"
Weight	84 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55 BTC	L-80 EZ-GO FJ3	HCP-110 BTC	Q-125 EZ-GO FJ3
Hole Size	18-1/8"	14-3/4"	12-1/4"	8-1/2"
Depth Set	1,239'	3,718'	12,226'	Top: 12,026' Bottom: 16,533
TOC	Circulate to surface	Circulate to surface	Circulate to surface	12,026'
Volume	946 sacks	914 sacks	2,924 sacks	485 sacks
% Excess	100%	100%	100%	50%

Tubing Information

Label	5
OD	5-1/2", 5"
WT	0.361", 0.362"
ID	4.778", 4.276"
Drift ID	4.653", 4.151"
COD	6.050", 5.563"
Weight	20 lb/ft, 18 lb/ft
Grade	HCL-80 BTC, HCL-80 LTC
Depth Set	0' - 11,826' 11,826' - 16,483'

LONQUIST & CO. LLC
PETROLEUM ENGINEERS | ENERGY ADVISORS
HOUSTON | CALGARY
AUSTIN | WICHITA | DENVER

Texas License F-9147

12912 Hill Country Blvd. Ste F-200
Austin, Texas 78738
Tel: 512.732.9812
Fax: 512.732.9816

Solaris Water Midstream, LLC

Trivette Fed SWD No. 1

Country: USA	**State/Province:** New Mexico	**County/Parish:** Eddy
Location:	**Site:** 990' FNL & 215' FWL	**Survey:** S23-T26S-R30E
API No: NA	**Field:** Silurian-Devonian (Code: 97869)	**Well Type/Status:** SWD
NMOCD District No: 2	**Project No:** 1917	**Date:** 7/24/2019
Drawn: TFM	**Reviewed:**	**Approved:**
Rev No: 1	**Notes:**	

DETERMINATION AND NOTICE OF AFFECTED PARTIES – NEW MEXICO

If an operator or mineral lessee has legal acreage or leases within one mile of the proposed salt water disposal well, their contact information is collected for notification purposes. Legal acreage of offset operators is gathered from the New Mexico Oil Conservation District's Permitting website. Minerals leased from the federal government are determined by referencing the Bureau of Land Management's Land and Mineral System Reports database. Minerals leased from the state government are determined by referencing the New Mexico State Land Office's Data Access database. Contact information for the affected parties is then extracted from the reports that were filed with the appropriate regulatory agency. Should any private minerals that are not public information fall within the one-mile radius, a title search was performed to discover the current lessee of those minerals or identifying the mineral owner of the acreage.

Notices were sent for the Trivette Fed SWD No. 1 application by mailing them a copy of Form C-108 on 7/25/2019. The individual tracking numbers are attached in the following pages of this application. Receipt of each application will be monitored and presented to the Oil Conservation Division upon request.

Tyler Moehlman
Petroleum Engineer

Project: Solaris Water Midstream, LLC
Trivette Fed SWD No. 1

GEOLOGIC AFFIRMATION

I have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and underground sources of drinking water.

Parker Jessee
Geologist

Project: Solaris Water Midstream, LLC
Trivette Fed #1

Solaris Water Midstream, LLC

Trivette Fed SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Trivette Fed SWD
Well No.	1
Location	S-23 T-26S R-30E
Footage Location	990’ FNL & 215’ FWL

2.

a. Wellbore Description

Casing Information				
Type	Surface	Intermediate	Production	Liner
OD	16”	13.375”	9.625”	7.625”
WT	0.495”	0.480”	0.545”	0.500”
ID	15.010”	12.415”	8.535”	6.625”
Drift ID	14.822”	12.259”	8.379”	6.500”
COD	17.000”	13.375”	10.625”	7.625”
Weight	84 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55 BTC	L-80, EZ-GO FJ3	HCP-110 BTC	Q-125 EZ-GO FJ3
Hole Size	18.125”	14.75"	12.25”	8.5”
Depth Set	1378’	3,718’	12,226’	12,026’ – 16,533’

b. Cementing Program

Cement Information				
Casing String	Surface	Intermediate	Production	Liner
Lead Cement	HALCEM™	HALCEM™	NEOCEM™ IL2	NEOCEM™
Lead Cement Volume (sacks)	635	628	Stage 1: 1725 Stage 2: 342	-
Lead Cement Density (ft3/sack)	1.664	1.664	Stage 1: 2.731 Stage 2: 2.732	-
Tail Cement	HALCEM™	HALCEM™	NEOCEM™/HALCEM™	VERSACEM™
Tail Cement Volume (sacks)	311	286	Stage 1: 623 Stage 2: 233	485
Tail Cement Density (ft3/sack)	1.332	1.332	Stage 1: 1.056 Stage 2: 1.336	1.223
Cement Excess	100%	100%	100%, 0%	50%
Total Sacks	946	914	2,924	485
TOC	Surface	Surface	Surface	8,300’
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3. Tubing Description

Tubing Information	
OD	5.5” 5.0”
WT	0.361” 0.362”
ID	4.778” 4.276”
Drift ID	4.653” 4.151”
COD	6.050” 5.563”
Weight	20 lb/ft 18 lb/ft
Grade	HCL-80 BTC HCL-80 LTC
Depth Set	0’ – 11,826’ 11,826’ – 16,483’

Tubing will be lined with Duoline.

4. Packer Description

Nickel Plated Double Grip Retrievable Packer or Equivalent

B. Completion Information

1. Injection Formation: Devonian, Fusselman

2. Gross Injection Interval: 16,533'-18,333'

   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
Bell Canyon	3,721'
Cherry Canyon	4,627'
Brushy Canyon	5,877'
Bone Spring	7,574'
Wolfcamp	12,126'
Strawn	13,544'
Atoka	13,679'
Morrow	14,354'

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 Injected:

   Average Volume: 30,000 BPD
   Maximum Volume: 40,000 BPD

2. Closed System

3. Anticipated Injection Pressure:

   Average Injection Pressure: 2,480 PSI (surface pressure)
   Maximum Injection Pressure: 3,307 PSI (surface pressure)

4. The injection fluid is to be locally produced water. It is expected that the source water will predominantly be from the Avalon, Bone Spring, and Delaware formations. Attached are produced water sample analyses taken from the closest wells that feature samples from the Avalon, Bone Spring, Delaware, Morrow, and Wolfcamp.

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

VIII. Geological Data

Devonian Formation Lithology:

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.

Fusselman Formation Lithology:

The Silurian/Ordovician Fusselman Formation is stratigraphically below the Wristen Group and is above and separated from the Montoya Formation by the Sylvan Shale. The Sylvan Shale is the lower confining layer for the proposed Trivette Fed SWD No. 1 well. Fusselman facies include a laminated skeletal wackestone in the upper part and a buildup complex in the lower part composed of ooid and bryozoan grainstones. These grainstones can also be potentially prolific zones for disposal.

A. Injection Zone: Devonian-Silurian Formation

Formation	Depth
Rustler	1,001’
Salado (Top of Salt)	1,264’
Lamar	3,698’
Bell Canyon	3,721’
Cherry Canyon	4,627’
Brushy Canyon	5,877’
Bone Spring	7,574’
Wolfcamp	12,126’
Strawn	13,544’
Atoka	13,679’
Morrow	14,354’
Mississippian Lime	16,196’
Woodford	16,409’
Devonian	16,533’

B. Underground Sources of Drinking Water

No water wells exist within a one-mile radius of the proposed well. Water wells outside a one-mile radius in the surrounding area have an average depth of 635 feet and an average water depth of 226 feet generally producing from the Carlsbad Basin. The upper Rustler may also be another USDW and will be isolated from the Salado by setting 16” surface casing at 1,239 feet.

IX. Proposed Stimulation Program

50,000 gallon acid job

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

Because there are no water wells that exist within a one-mile radius of the proposed well, chemical analysis of fresh water wells were not retrieved for the proposed well.