

AE Order Number Banner

Application Number: pEG2527240121

Initial Application Part I

SWD-2666

SOLARIS WATER MIDSTREAM, LLC [371643]

Received: 9/27/2025



September 26, 2025

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

Subject: Solaris Water Midstream, LLC
Application for Authorization to Inject
MD NM L1 S21 SWD #1

OCD Director,

Solaris Water Midstream, LLC (Solaris) is applying for administrative approval of the attached Application for Authorization to Inject (Form C-108) for their proposed MD NM L1 S21 SWD #1. The application is requesting authorization to dispose of saltwater from oil and gas production in the area via commercial disposal into the San Andres & Glorietta Formation in Lea County, NM.

Questions regarding this application or the included materials can be directed to Nate Alleman (Solaris Regulator Advisor Contractor) via telephone at 918-237-0559 or via email at nate.alleman@aceadvisors.com.

Sincerely,

A handwritten signature in black ink that reads "Nathan Alleman".

Nate Alleman
Chief Regulatory Advisor
Ace Energy Advisors

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: Solaris Water Midstream **OGRID Number:** 371643
Well Name: MD NM L1 S21 SWD #1 **API:** 30-015-xxxxx
Pool: SWD; San Andres-Glorieta **Pool Code:** 96127

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

1) TYPE OF APPLICATION: Check those which apply for [A]

A. Location – Spacing Unit – Simultaneous Dedication

☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]

[I] Commingling – Storage – Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery

☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

2) NOTIFICATION REQUIRED TO: Check those which apply.

- A. ☒ Offset operators or lease holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☒ Application requires published notice
 D. ☐ Notification and/or concurrent approval by SLO
 E. ☒ Notification and/or concurrent approval by BLM
 F. ☒ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

- ☐ Notice Complete
☐ Application Content Complete

3) CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Nathan Alleman

Print or Type Name

09/26/2025

Date

918-237-0559

Phone Number

nate.alleman@aceadvisors.com

e-mail Address


Signature

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: 907 Tradewinds Blvd, Midland, TX 79706
CONTACT PARTY: Ace Energy Advisors - Nate Alleman PHONE: (918) 237-0559
- 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: Nate Alleman TITLE: Regulatory Consultant
SIGNATURE:  DATE: 09/26/2025
E-MAIL ADDRESS: nate.alleman@aceadvisors.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.

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.**

Operator: Solaris Water Midstream, LLC (OGRID# 371643)

Lease/Well Name & Number: MD NM L1 S21 SWD #1

Legal Location: 2,378' FSL & 401' FWL - Unit L – Section 21 T19S R38E – Lea County

Coordinates: 32.64504065, -103.16076291

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

Casing String	Hole Size (in)	Casing Size (in)	Casing Depth (ft)	Sacks Cement (sx)	Top of Cement (ft)	Method Determined
Surface	17-1/2	13-3/8	1,633	1,480	0	Circulation
Production	12-1/4	9-5/8	5,868	1,650	0	Circulation

A wellbore diagram is included in **Attachment 1**.

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

7" fiberglass-coated tubing set at 4,158'

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

Arrowset AS-1X Retrievable Packer (or equivalent) set at 4,158'

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.**

Injection Formation Name - San Andres & Glorieta

Pool Name - SWD; San Andres-Glorieta

Pool Code – 96127

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

Cased-hole injection between 4,258' - 5,868'

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

New drill for injection

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

None

- (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.**

- **Overlying**
 - Yates (2,878')
 - Seven Rivers (3,135')
- **Underlying**
 - Yeso/Paddock (6,081')
 - Abo (7,269')

V. AOR Maps

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.

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

- 0.5-Mile and 2.0-Mile Well Map
- 0.5-Mile Well List
- 0.5-Mile and 2.0-Mile Lease Map
- 0.5-Mile Surface Ownership Map
- 0.5-Mile Mineral Ownership Map

VI. AOR List

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.

Details of the wells within the 0.5-mle AOR are included in **Attachment 2**. No wells within the 0.5-mle AOR penetrate the top of the proposed injection zone.

VII. Operational Information

Attach data on the proposed operation, including:

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

Maximum: 25,000 bpd
Average: 15,000 bpd

(2) Whether the system is open or closed;

The system will be closed.

(3) Proposed average and maximum injection pressure;

Maximum: 851 psi (surface)
Average: approx. 600 psi (surface)

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

It is anticipated that produced water from Bone Spring & Wolfcamp production wells in the area will be injected into the proposed SWD. Therefore, water analysis from these formations was obtained and is included in **Attachment 3**.

(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.).

The proposed injection interval for this SWD is the San Andres & Glorieta formation, which is a non-productive zone known to be compatible with formation water from the Bone Spring & Wolfcamp formations. Water analyses of samples collected from the proposed injection formation in the area were obtained and are included in **Attachment 4**.

VIII. Geologic Description

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

The proposed injection interval between depths of 4,258 and 5,868 feet below ground level will span the San Andres Formation and the Glorieta Member of the Yeso Formation. The San Andres consists of cyclically interbedded carbonates (limestone and dolomite), with variable minor proportions of anhydrite. The Glorieta consists of siliciclastics (sandstone and siltstone) intercalated with carbonates. Locally, near the subject well, the carbonates are dolomitic based on density porosity and photoelectric log responses.

The base of the lowermost Underground Source of Drinking Water (USDW), identified as the top of the first anhydrite, has been determined to occur at the top of the Rustler Formation, at a depth of 1,608 feet below ground level. The total thickness separating the lowermost USDW and the upper injection interval is anticipated to be approximately 2,650 feet.

Upper confinement is provided by the overlying Artesia Group. At the subject well, the Artesia Group is expected to be 1,522 feet thick. In the project area, the Queen Formation will be a strong barrier to flow as it is approximately 563 feet thick with overall low (<2%) neutron porosity. Examination of local logs indicates the Queen Formation is a dolomite with anhydrite, based on the suppressed density porosity (negative DPHI on a limestone matrix), elevated bulk density (2.6 to 2.98 g/cc), and elevated photoelectric response (>4 b/e).

The injection interval is further isolated from the overlying USDW by the Ochoan evaporite formations of the Salado and Rustler. In aggregate, the Ochoan evaporites, composed primarily of halite and anhydrite, are expected to be approximately 1,128 feet thick.

Lower confinement will be ensured by multiple 50- to 100-foot-thick packages of low-porosity and high-resistivity dolomite in the upper portion of the Yeso Formation (underlying the Glorieta and overlying the Tubb Sand).

All stated depths and thicknesses are estimates, derived from mapping, utilizing offset logs that have penetrated the San Andres and Glorieta. If conditions allow a full set of open-hole wireline logs will be collected from the subject well, including, but not limited to, gamma-ray, resistivity, and neutron-density porosity.

The base of the lowermost Underground Source of Drinking Water (USDW), identified as the top of the first anhydrite, was determined to occur at the top of the Rustler formation at a depth of 1,608'. Water wells in the area for domestic/livestock use are drilled to a depth of approximately 40' - 400'.

IX. Proposed Stimulation Program

Describe the proposed stimulation program, if any.

A minor acid job utilizing 15-20% hydrochloric acid may be used to cleanup the wellbore.

X. Logging and Test Data

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

Logs will be run and submitted to the Division once the well is completed.

XI. Groundwater Wells

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.

Based on data obtained from the New Mexico Office of the State Engineer (OSE), a total of 4 groundwater wells are located within 1 mile of the proposed SWD location. Two wells were sampled and the resulting analyses are attached.

Attachment 5 includes a table with details of the water wells within 1-mile, a water well map and water analyses of two wells.

XII. No Hydrologic Connection Statement

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.

A geologic review conducted on offset wireline log data and published regional studies did not identify any faulting in the vicinity of the proposed locations that would allow for the hydraulic communication between the injection interval and overlying USDWs. The base of the lowermost Underground Source of Drinking Water (USDW), identified as the top of the first anhydrite, was determined to occur at the top of the Rustler formation at a depth of 1,608'.

Attachment 6 includes a signed statement.

XIII. Proof of Notice

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

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.

A copy of the application was mailed to the Affected Persons, including the OCD District Office, surface owner, leasehold operators within the AOR, and BLM/SLO if they own minerals within the AOR. **Attachment 7** includes a list of the Affected Persons receiving notice of the application and the associated certified mailing receipts (green sheets).

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.

A Public Notice was published in the Hobbs NewsSun, a newspaper of general circulation in the area, and the associated affidavit is included in **Attachment 7**.

Attachment 1

Santa Fe Main Office Phone: (505) 476-3441 Fax: (55) 476-3462 General Information Phone: (505) 629-6116 Online Phone Directory Visit: https://www.emnrd.nm.gov/ocd/contact-us/	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	C-102 Revised July 9, 2024 Submit Electronically via OCD Permitting <table border="1" style="width: 100%;"><tr><td rowspan="3" style="width: 20%;">Submittal Type:</td><td><input type="checkbox"/> Initial Submittal</td></tr><tr><td><input type="checkbox"/> Amended Report</td></tr><tr><td><input type="checkbox"/> As Drilled</td></tr></table>	Submittal Type:	<input type="checkbox"/> Initial Submittal	<input type="checkbox"/> Amended Report	<input type="checkbox"/> As Drilled
Submittal Type:	<input type="checkbox"/> Initial Submittal					
	<input type="checkbox"/> Amended Report					
	<input type="checkbox"/> As Drilled					

WELL LOCATION INFORMATION

API Number	Pool Code 96127	Pool Name SWD; San Andres-Glorieta
Property Code	Property Name MD NM L1 S21 SWD	Well Number #1
OGRID No. 371643	Operator Name SOLARIS WATER MIDSTREAM, LLC.	Ground Level Elevation 3592'
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL L	Section 21	Township 19-S	Range 38-E	Lot	Ft. from N/S 2,378 FSL	Ft. from E/W 401 FWL	Latitude 32.64504065° N	Longitude 103.16076291° W	County LEA
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Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
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Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
Order Numbers.			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
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First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
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Last Take Point (LTP)


UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
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Unitized Area or Area of Uniform Interest	Spacing Unit Type <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation:
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OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

**02-10-2025**

Signature

Date

Nathan Alleman

Printed Name

nate.alleman@aceadvisors.com

Email Address

SURVEYOR CERTIFICATIONS

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.

Signature and Seal of Professional Surveyor



Certificate Number

29786

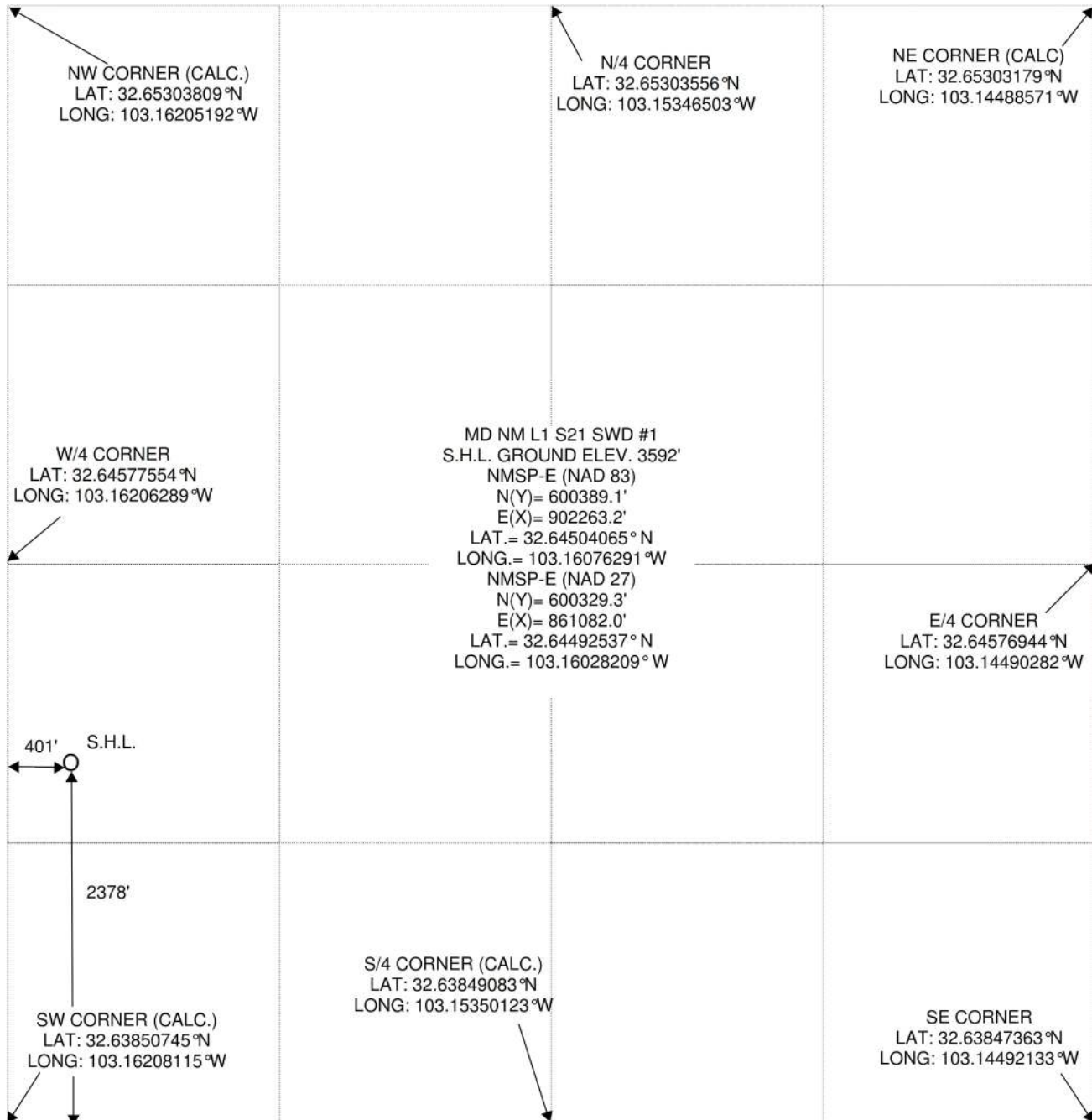
Date of Survey

6-27-2024, Revised 8-20-2024

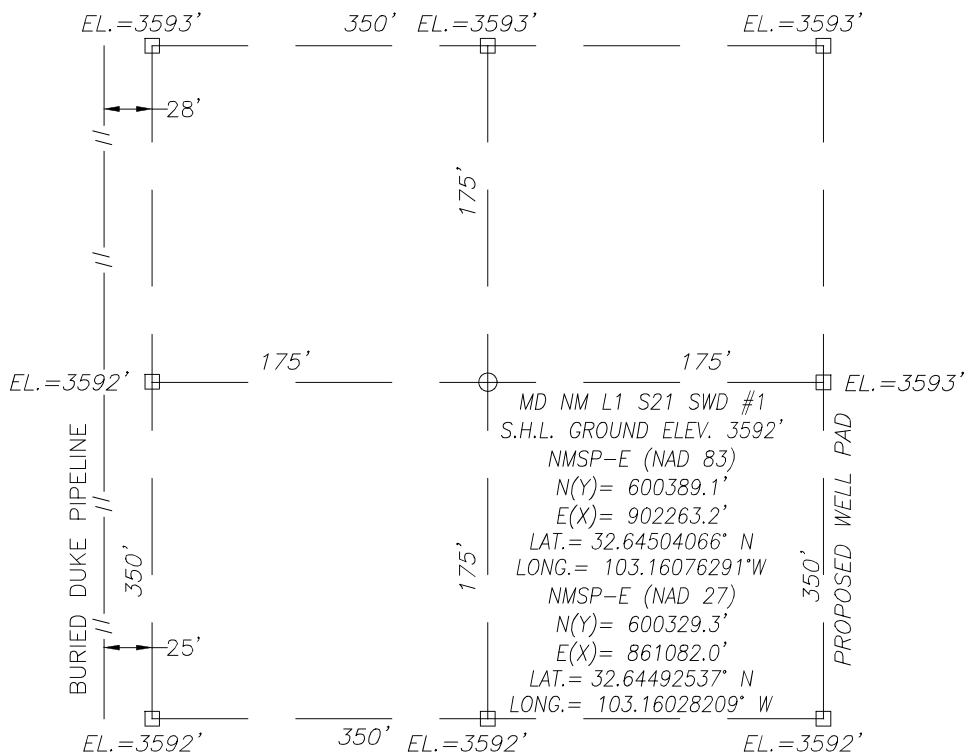
Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



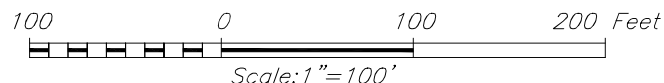
SECTION 21, TOWNSHIP 19 SOUTH, RANGE 38 EAST, N.M.P.M.,
LEA COUNTY NEW MEXICO



DIRECTIONS TO LOCATION:

BEGINNING IN HOBBS, NEW MEXICO AT THE INTERSECTION OF HWY. 62/180 AND STATE HWY. 18 HEAD SOUTH ON STATE HWY. 18 ± 4.0 MILES. TURN RIGHT AND HEAD WEST ON COUNTY ROAD 42 ± 2.0 MILES. THE WELL STAKED LOCATION FLAG IS NORTH ± 2360 FEET.

ELEVATIONS SHOWN WERE DERIVED FROM STATIC GPS AND ARE IN N.A.V.D. 1988 DATUM.



DOWNTOWN DESIGN SERVICES, INC.
16 EAST 16th STREET, SUITE 400
TULSA, OK 74119
Tel: 918-592-3374 Fax: 918-221-3940
www.ddsiglobal.com

SOLARIS WATER MIDSTREAM, LLC.

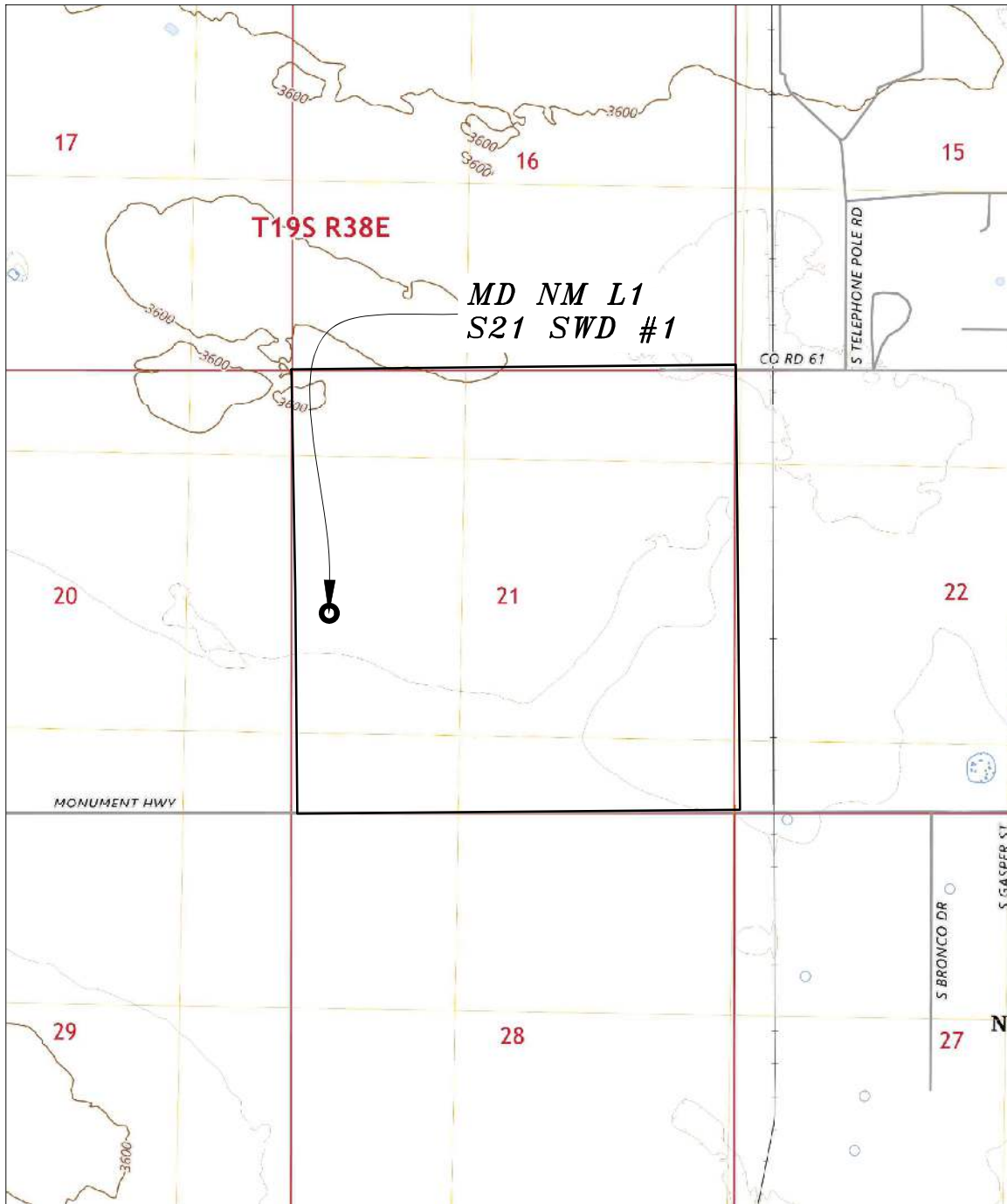
MD NM L1 S21 SWD #1
LOCATED 2378 FEET FROM THE SOUTH LINE
AND 401 FEET FROM THE WEST LINE OF SECTION 21,
TOWNSHIP 19 SOUTH, RANGE 38 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

SURVEY DATE: JUNE 27, 2024	PAGE: 1 OF 1
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DRAFTING DATE: JUNE 28, 2024

FILE: MD NM L1 S21 SWD #1

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 21 TWP. 19-S RGE. 38-E
 SURVEY N.M.P.M.
 COUNTY LEA STATE NEW MEXICO
 DESCRIPTION 2,378' F.S.L. & 401' F.W.L.
 N.A.V.D. 88 ELEVATION 3592'
 OPERATOR SOLARIS WATER MIDSTREAM, LLC.
 LEASE MD NM L1 S21 SWD #1
 U.S.G.S. TOPOGRAPHIC MAP
LEA, N.M.

ELEVATIONS SHOWN WERE DERIVED FROM
 STATIC GPS AND ARE IN N.A.V.D 1988 DATUM.

SOLARIS WATER MIDSTREAM, LLC.

SURVEY DATE: JUNE 27, 2024	PAGE: 1 OF 1
DRAFTING DATE: JUNE 28, 2024	
APPROVED BY: CEC	DRAWN BY: TJA
FILE: MD NM L1 S21 SWD#1	

VICINITY MAP



SEC. 21 TWP. 19-S RGE. 38-E
 SURVEY N.M.P.M.
 COUNTY LEA STATE NEW MEXICO
 DESCRIPTION 2,378' F.S.L. & 401' F.W.L.
 N.A.V.D. 88 ELEVATION 3592'
 OPERATOR SOLARIS WATER MIDSTREAM, LLC.
 LEASE MD NM L1 S21 SWD #1
 U.S.G.S. TOPOGRAPHIC MAP
LEA, N.M.

SCALE: 1" = 2000'

ELEVATIONS SHOWN WERE DERIVED FROM
 STATIC GPS AND ARE IN N.A.V.D 1988 DATUM.

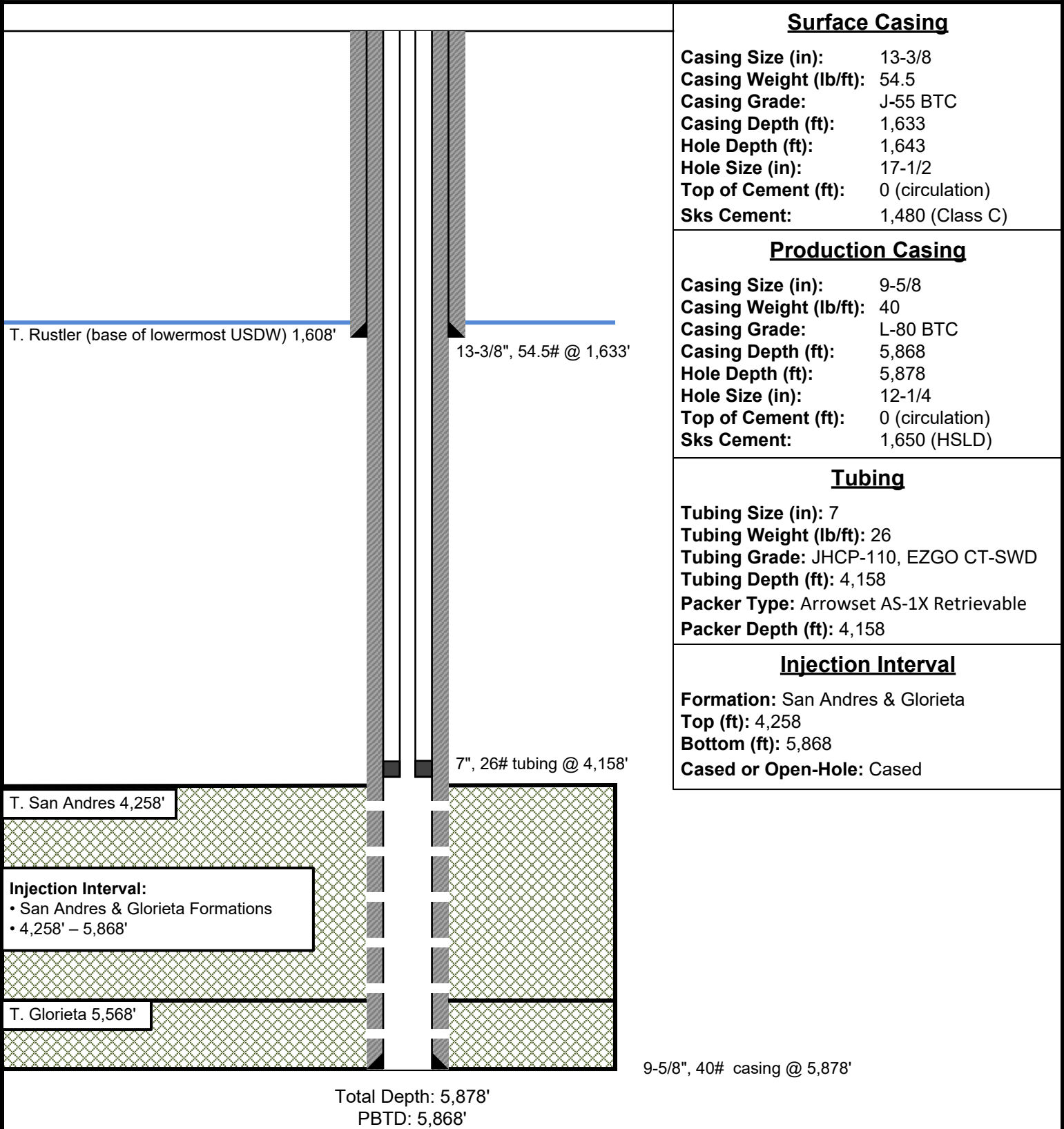
SOLARIS WATER MIDSTREAM, LLC.

SURVEY DATE: JUNE 27, 2024	PAGE: 1 OF 1
DRAFTING DATE: JUNE 28, 2024	
APPROVED BY: CEC	DRAWN BY: TJA
FILE: MD NM L1 S21 SWD#1	

Solaris Water Midstream, LLC

MD NM L1 S21 SWD #1

Wellbore Diagram



**Weatherford®**

Packer Systems

Arrowset I-X, I-X 10K, and I-X HP Mechanical Packers

Weatherford's Arrowset I-X, I-X 10K, and I-X HP mechanical packers are versatile, field-proven retrievable double-grip packers for most production, stimulation, and injection. The packers can be set with tension or compression.

A large internal bypass reduces the swabbing effect during run-in and retrieval and closes securely when the packer is set. During release, the bypass is opened to equalize the pressure before the upper slips are released. A patented upper-slip releasing system reduces the force required to release the packer. A nondirectional slip is released first, making it easier to release the other slips.

The I-X 10K packer has all the features of the I-X packer and can withstand 10,000 psi (69 MPa) of differential pressure above or below. The I-X HP packer can withstand 7,500 psi (52 MPa) of differential pressure above or below.

Applications

- Production
- Pumping
- Injection
- Fiberglass tubing
- Zonal isolation

Features, Advantages and Benefits

- The design holds high differential pressure from above or below, enabling the packer to meet most production, stimulation, and injection needs.
- The packer can be set with compression, tension, or wireline, enabling deployment in shallow and deep applications.
- The packer can be set and released with only a one-quarter turn of the tubing.
- The bypass valve is below the upper slips so that debris is washed from the slips when the valve is opened, reducing the times for circulation and total retrieval.
- The full opening enables unrestricted flow and the passage of wireline tools and other packer systems.
- The packer can be run with Weatherford's T-2 on-off tool, which enables the tubing to be disconnected and retrieved without retrieving the packer.



Attachment 2



PREPARED BY:

ACE 
Energy Advisors

NATE.ALLEMAN@ACEADVISORS.COM
918.237.0559

DATA SOURCES: NMOC, BLM, SLO, ENVERUS

LEGEND

-  PRIVATE MINERAL LEASE
-  FEDERAL (BLM) MINERAL LEASE
-  STATE (SLO) MINERAL LEASE
-  2-MILE RADIUS
-  1/2-MILE RADIUS
-  PROPOSED SWD

LEASEHOLDER MAP**MD NM L1 S21 SWD #1**

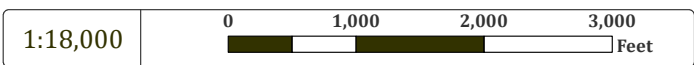
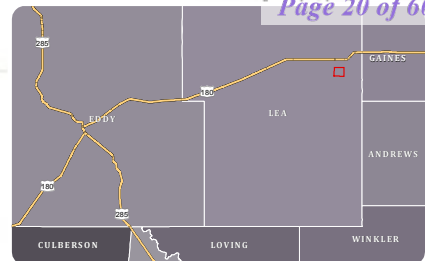
SECTION 21 T19S R38E

PREPARED FOR:
SOLARIS WATER MIDSTREAM, LLC



SURFACE OWNERSHIP MAP

SECTION 21, TOWNSHIP 19 SOUTH, RANGE 38 EAST, LEA COUNTY, NEW MEXICO



Project Managed By:

(918) 237-0559
nate.alleman@aceadvisors.com

Map Prepared By:

(432) 631-4738
info@coosaconsulting.com

Coordinate System:
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 541,337.5000
False Northing: 0.0000
Central Meridian: -104.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Foot US

Legend

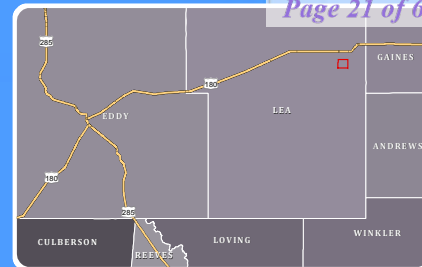
- Proposed SWD
- 1/2 Mile Buffer
- Federal Land
- State of NM Land
- Private Land

MD NM L1 S21 SWD #1

OPERATOR:
SOLARIS WATER MIDSTREAM, LLC.

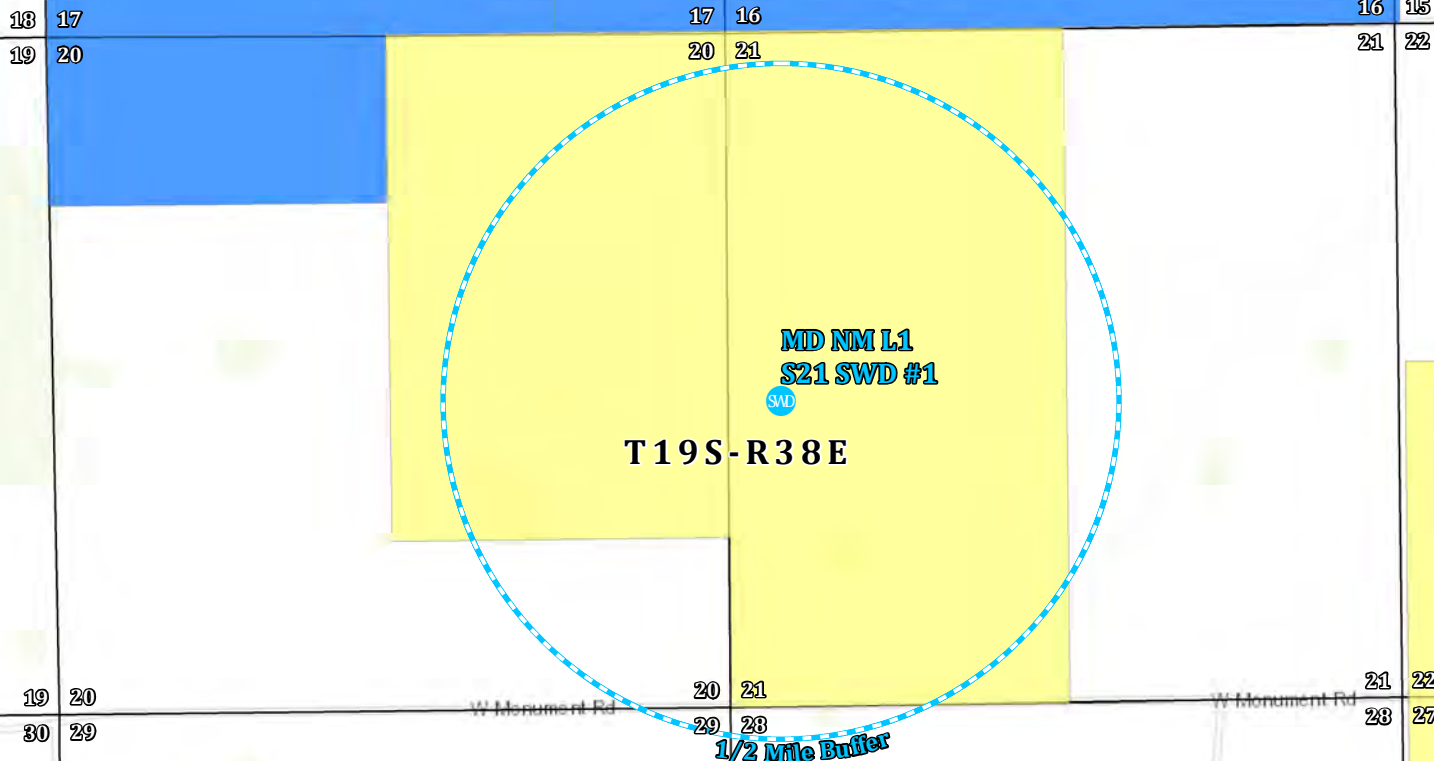
MINERAL OWNERSHIP MAP

SECTION 21, TOWNSHIP 19 SOUTH, RANGE 38 EAST, LEA COUNTY, NEW MEXICO



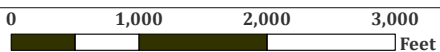
S Telephone Pole Rd

W Arco



1/2 Mile Buffer

1:18,000

**Legend**

- Proposed SWD
- 1/2 Mile Buffer
- Subsurface minerals (NMSLO)
- All minerals are owned by U.S. (BLM)
- Private minerals

MD NM L1 S21 SWD #1**OPERATOR:
SOLARIS WATER MIDSTREAM, LLC.**

Project Managed By:
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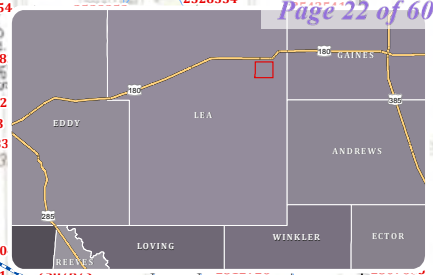
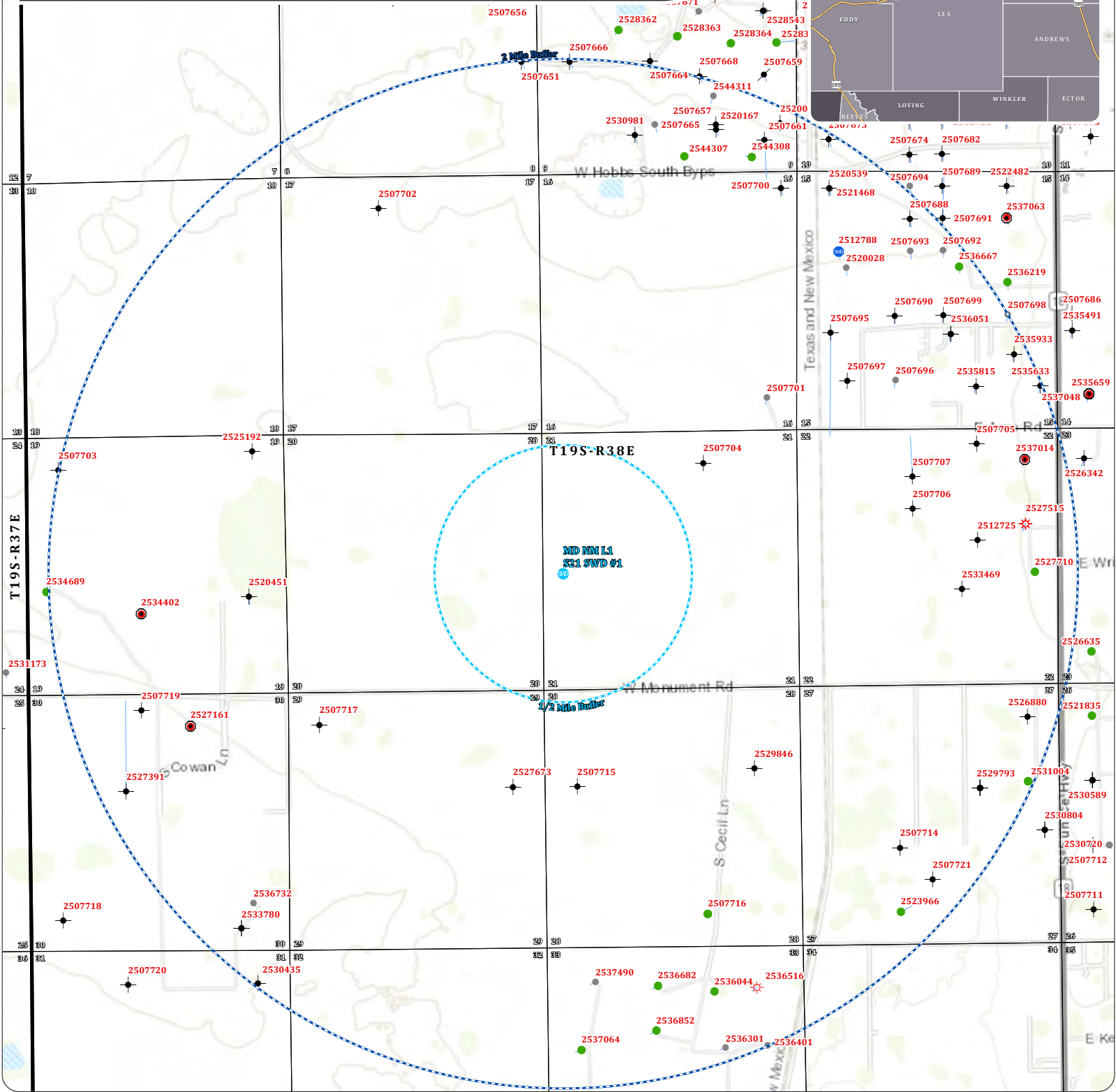
Map Prepared By:
(432) 631-4738
info@coosaconsulting.com

Coordinate System:
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 541,337.5000
False Northing: 0.0000
Central Meridian: -104.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Foot US



WELL MAP

SECTION 21, TOWNSHIP 19 SOUTH, RANGE 38 EAST, LEA COUNTY, NEW MEXICO



1:33,000

0 2,000 4,000 6,000 Feet

Legend

- Proposed SWD
- 1/2 Well Buffer
- 2 Mile Buffer
- Other
- Oil
- Gas
- Disposal
- Drilling
- Permitted
- Cancelled/Expired Permit
- P/A
- TA

MD NM L1 S21 SWD #1

OPERATOR:
SOLARIS WATER MIDSTREAM, LLC.



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Coordinate System:
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 541,337.5000
False Northing: 0.0000
Central Meridian: -104.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Foot US



0.5-mile Well List (Top of Injection Interval: 4,258')								
Well Name	API#	Well Type	Operator	Status	Spud Date	Location (Sec., Tn., Rng.)	Total Vertical Depth (feet)	Penetrate Inj. Zone?
N/A								
Notes: - No wells are present within the AOR; therefore, no wells penetrate the injection interval within the AOR. - ** Operator of active, drilled well within AOR and will receive notification of this application.								

Horizontal Well w/ Surface Location Outside the 0.5-mile AOR							
Well Name	API#	Well Type	Operator	Field	Status	Depth	
N/A							
Notes: - No horizontal wellbores intersect the AOR radius. - ** Operator of active, drilled well within AOR and will receive notification of this application.							

Attachment 3

Source Formation Water Analysis																							
Well Name	API	Latitude	Longitude	Section	Township	Range	Unit	Ftgs	Ftgw	County	State	Formation	Sampled	PH	TDS (Mg/L)	Sodium (Mg/L)	Calcium (MG/L)	Iron (MG/L)	Magnesium (MG/L)	Manganese (MG/L)	Chloride (MG/L)	Bicarbonate (MG/L)	Sulfate (MG/L)
STATE NPA #001	30-025-03156	32.6879654	-103.5031815	6	19S	35E	L	1980S	660W	LEA	NM	BONE SPRING	1960	7.7	25800						14100	830	1120
SHOOTING STAR STATE SWD #001	30-025-29805	32.7594261	-103.4270935	11	18S	35E	J	1650S	2310E	LEA	NM	BONE SPRING	2001	6.2			15600	3	982		148248	244	650
SINCLAIR STATE #002	30-025-03123	32.7386246	-103.4561005	21	18S	35E	A	660N	660E	LEA	NM	WOLFCAMP	1960	7.1	60950						33568	1087	3049
IRONHOUSE 19 STATE COM #001H	30-025-40676	32.7266121	-103.499527	19	18S	35E	N	200S	1800W	Lea	NM	BONE SPRING 2ND SAND	2014	6.4	182864	58171	4944	49	1893	1	113954	195	0
IRONHOUSE 19 STATE COM #004H	30-025-41245	32.7264938	-103.5014343	19	18S	35E	M	150S	1215W	Lea	NM	BONE SPRING 2ND SAND	2014	6.2	189029	64016	5319	39	2044	2	113566	159	0
IRONHOUSE 19 STATE COM #002H	30-025-41094	32.7271118	-103.4903336	19	18S	35E	P	410S	630E	Lea	NM	BONE SPRING 2ND SAND	2014	6.0	205332	72646	4828	39	2316	2	130450	488	1503
IRONHOUSE 20 STATE COM #001	30-025-40611	32.7265129	-103.4774857	20	18S	35E	O	200S	1980E	Lea	NM	BONE SPRING 2ND SAND	2014	6.1	186865	65638	4698	16	1700	1	116510	1098	1804
IRONHOUSE 20 STATE #002H	30-025-40748	32.7265129	-103.4731903	20	18S	35E	P	200S	660E	Lea	NM	BONE SPRING 2ND SAND	2014	6.6	196865	66738	4631	23	1790	1	116580	1298	1894
IRONHOUSE 19 STATE COM #003H	30-025-41050	32.7264977	-103.4941711	19	18S	35E	O	175S	1810E	Lea	NM	BONE SPRING 2ND SAND	2014	6.2	178457	56874	6125	22	1457	1	125412	845	849
HAMON STATE #001	30-025-03140	32.7175827	-103.4464035	27	18S	35E	K	2310S	2310W	LEA	NM	BONE SPRING			154510						96360	430	1210
LEA 403 STATE #001	30-025-03126	32.7386093	-103.4518051	22	18S	35E	D	660N	660W	LEA	NM	BONE SPRING	1958	6.7	255451						156699	327	779
LEA 403 STATE #001	30-025-03126	32.7386093	-103.4518051	22	18S	35E	D	660N	660W	LEA	NM	BONE SPRING			255451						156699	327	779
HAMON STATE #001	30-025-03140	32.7175827	-103.4464035	27	18S	35E	K	2310S	2310W	LEA	NM	BONE SPRING			154510						96360	430	1210
SHOOTING STAR STATE SWD #001	30-025-29805	32.7594261	-103.4270935	11	18S	35E	J	1650S	2310E	LEA	NM	BONE SPRING									148248	244	650
STATE NPA #001	30-025-03156	32.6879654	-103.5031815	6	19S	35E	L	1980S	660W	LEA	NM	BONE SPRING			195200						118000	220	1030
APPLESEED FEDERAL COM #001	30-025-20377	32.5750008	-103.4730377	17	20S	35E	H	1980N	660E	LEA	NM	BONE SPRING			173141						93660	5174	7916
ALPHABET AQR STATE #001	30-025-21342	32.4806519	-103.4940796	17	21S	34E	F	1980N	1980W	LEA	NM	BONE SPRING									95978	391	400
HUNT APO STATE #001	30-025-27135	32.5070038	-103.4812317	4	21S	34E	T	2310S	660W	LEA	NM	BONE SPRING									154965	146	350
BERRY APN STATE #001	30-025-27250	32.5060349	-103.4983444	5	21S	34E	L	1980S	660W	LEA	NM	BONE SPRING			128117						82351	567	1723
H L VINSON #001	30-025-03587	33.5251312	-103.237999	22	09S	36E	A	660N	660E	Lea	NM	WOLFCAMP									66400	187	690
PHILLIPS STATE #001	30-025-03659	33.3458824	-103.2939529	22	11S	36E	N	660S	1980W	LEA	NM	WOLFCAMP			78885						47400	354	875
STATE CA #001	30-025-03743	32.902153	-103.3229828	23	16S	36E	O	660S	1980E	LEA	NM	WOLFCAMP			167968						102800	61	623
SINCLAIR STATE #002	30-025-03123	32.7386246	-103.4561005	21	18S	35E	A	660N	660E	LEA	NM	WOLFCAMP			60950						33568	1087	3049

Attachment 4

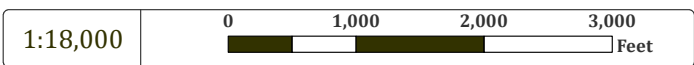
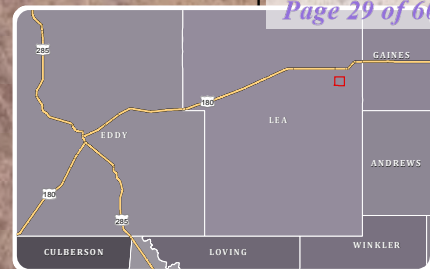
Injection Formation Water Analysis															
Well Name	API	TVD ft)	Latitude	Longitude	Section	Township	Range	Unit	Formation	Date Sampled	PH	TDS (Mg/L)	Chloride (MG/L)	Bicarbonate (MG/L)	Sulfate (MG/L)
BORDAGES #001	30-025-07707	8,268	32.6503105	-103.1374054	22	19S	38E	C	GRAYBURG/SAN ANDRES	Unknown	Unknown	36,794	19,180	641	3,283
BORDAGES #001	30-025-07707	8,268	32.6503105	-103.1374054	22	19S	38E	C	GRAYBURG/SAN ANDRES	Unknown	Unknown	135,439	84,420	746	1,436
BORDAGES #001	30-025-07707	8,268	32.6503105	-103.1374054	22	19S	38E	C	GRAYBURG/SAN ANDRES	Unknown	Unknown	139,766	83,600	396	5,280
BORDAGES #001	30-025-07707	8,268	32.6503105	-103.1374054	22	19S	38E	C	GRAYBURG/SAN ANDRES	Unknown	Unknown	142,865	89,070	546	2,022

Source: New Mexcio Tech; Go-Tech Produced Water Quality Data Search (<https://gotech.nmt.edu/gotech/Water/producedwater.aspx>)

Attachment 5

WATER WELL MAP

SECTION 21, TOWNSHIP 19 SOUTH, RANGE 38 EAST, LEA COUNTY, NEW MEXICO



Project Managed By:

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Map Prepared By:

(432) 631-4738
info@coosaconsulting.com

Coordinate System:
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 541,337.5000
False Northing: 0.0000
Central Meridian: -104.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Foot US

Legend

- Proposed SWD
- 1 Mile Buffer
- NMOSE Points of Diversion**
- Active
- Pending
- Changed Location of Well
- Inactive
- Capped
- Plugged
- Unknown

MD NM L1 S21 SWD #1

OPERATOR:
SOLARIS WATER MIDSTREAM, LLC.

Water Well Sampling Table							
Water Well ID	OSE Status	Owner	Available Contact Information	Use	Latitude	Longitude	Notes
L-03424	Plugged	S P Yates Drilling Company	Carper Building, Aretesia, NM	Prospecting	32.651169	-103.151374	Not considered sampling candidate based on status.
L-04568	Unknown	Ruth T Furneaux	101 West Tycksen, Farmington, NM	Irrigation	32.63664	-103.147121	Sample collected 01-15-2025
L-10309	Pending	Patricia Patterson	P. O. Box 1522, Hobbs, NM 88240	Domestic	32.653877	-103.167501	
L-08446	Active	Jerry L Brothers	506 W Copper, Hobbs, NM 88240	Domestic	32.635723	-103.163235	Sample collected 12-05-2024

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

December 17, 2024

CHAD GALLAGHER

ARIS WATER SOLUTIONS

9811 KATY FWY

HOUSTON, TX 77024

RE: MC NEIL SWD

Enclosed are the results of analyses for samples received by the laboratory on 12/05/24 14:41.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at

www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024Project: MC NEIL SWD
Project Number: NONE GIVEN
Project Manager: CHAD GALLAGHER
Fax To: NAReported:
17-Dec-24 12:13

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L - 01372	H247409-01	Water	05-Dec-24 00:00	05-Dec-24 14:41
L - 10466	H247409-02	Water	05-Dec-24 00:00	05-Dec-24 14:41
L - 08446	H247409-03	Water	05-Dec-24 00:00	05-Dec-24 14:41

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: NONE GIVEN
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
17-Dec-24 12:13

L - 01372**H247409-01 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories**Inorganic Compounds**

Alkalinity, Bicarbonate	244		5.00	mg/L	1	4120601	AC	06-Dec-24	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	4120601	AC	06-Dec-24	310.1	
Chloride*	64.0		4.00	mg/L	1	4120519	CT	05-Dec-24	4500-Cl-B	
Conductivity*	784		1.00	umhos/cm @ 25°C	1	4120521	AC	05-Dec-24	120.1	
pH*	6.64		0.100	pH Units	1	4120510	AC	05-Dec-24	150.1	
Temperature °C	19.6			pH Units	1	4120510	AC	05-Dec-24	150.1	
Resistivity	12.8			Ohms/m	1	4120521	AC	05-Dec-24	120.1	
Sulfate*	107		25.0	mg/L	2.5	4120614	HM	06-Dec-24	375.4	
TDS*	520		5.00	mg/L	1	4120515	HM	06-Dec-24	160.1	
Alkalinity, Total*	200		4.00	mg/L	1	4120601	AC	06-Dec-24	310.1	
TSS*	<2.00		2.00	mg/L	1	4120522	AC	06-Dec-24	160.2	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Barium*	0.046	0.008	0.050	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	J
Calcium*	79.6	0.115	0.200	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Hardness as CaCO3	256		0.911	mg/L	1	[CALC]	AWG	12-Dec-24	2340 B	
Iron*	0.037	0.026	0.050	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	J
Magnesium*	14.0	0.038	0.100	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Potassium*	2.98	0.106	1.00	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Sodium*	63.8	0.254	1.00	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Strontium*	0.809	0.014	0.100	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: NONE GIVEN
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
17-Dec-24 12:13

L - 10466
H247409-02 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories**Inorganic Compounds**

Alkalinity, Bicarbonate	210		5.00	mg/L	1	4120601	AC	06-Dec-24	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	4120601	AC	06-Dec-24	310.1	
Chloride*	56.0		4.00	mg/L	1	4120519	CT	05-Dec-24	4500-Cl-B	
Conductivity*	627		1.00	umhos/cm @ 25°C	1	4120521	AC	05-Dec-24	120.1	
pH*	6.82		0.100	pH Units	1	4120510	AC	05-Dec-24	150.1	
Temperature °C	19.4			pH Units	1	4120510	AC	05-Dec-24	150.1	
Resistivity	15.9			Ohms/m	1	4120521	AC	05-Dec-24	120.1	
Sulfate*	95.8		25.0	mg/L	2.5	4120614	HM	06-Dec-24	375.4	
TDS*	430		5.00	mg/L	1	4120515	HM	06-Dec-24	160.1	
Alkalinity, Total*	172		4.00	mg/L	1	4120601	AC	06-Dec-24	310.1	
TSS*	<2.00		2.00	mg/L	1	4120522	AC	06-Dec-24	160.2	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Barium*	0.035	0.008	0.050	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	J
Calcium*	56.0	0.115	0.200	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Hardness as CaCO3	200		0.911	mg/L	1	[CALC]	AWG	12-Dec-24	2340 B	
Iron*	0.046	0.026	0.050	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	J
Magnesium*	14.7	0.038	0.100	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Potassium*	2.48	0.106	1.00	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Sodium*	51.9	0.254	1.00	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Strontium*	0.711	0.014	0.100	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: NONE GIVEN
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
17-Dec-24 12:13

L - 08446**H247409-03 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Alkalinity, Bicarbonate	234		5.00	mg/L	1	4120601	AC	06-Dec-24	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	4120601	AC	06-Dec-24	310.1	
Chloride*	60.0		4.00	mg/L	1	4120519	CT	05-Dec-24	4500-Cl-B	
Conductivity*	707		1.00	umhos/cm @ 25°C	1	4120521	AC	05-Dec-24	120.1	
pH*	6.70		0.100	pH Units	1	4120510	AC	05-Dec-24	150.1	
Temperature °C	19.4			pH Units	1	4120510	AC	05-Dec-24	150.1	
Resistivity	14.1			Ohms/m	1	4120521	AC	05-Dec-24	120.1	
Sulfate*	84.8		25.0	mg/L	2.5	4120614	HM	06-Dec-24	375.4	
TDS*	482		5.00	mg/L	1	4120515	HM	09-Dec-24	160.1	
Alkalinity, Total*	192		4.00	mg/L	1	4120601	AC	06-Dec-24	310.1	
TSS*	<2.00		2.00	mg/L	1	4120522	AC	06-Dec-24	160.2	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Barium*	0.041	0.008	0.050	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	J
Calcium*	64.8	0.115	0.200	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Hardness as CaCO3	213		0.911	mg/L	1	[CALC]	AWG	12-Dec-24	2340 B	
Iron*	<0.026	0.026	0.050	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Magnesium*	12.4	0.038	0.100	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Potassium*	2.04	0.106	1.00	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Sodium*	63.2	0.254	1.00	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	
Strontium*	0.652	0.014	0.100	mg/L	1	B243628	AWG	12-Dec-24	EPA 200.7	

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: NONE GIVEN
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
17-Dec-24 12:13

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4120510 - General Prep - Wet Chem**LCS (4120510-BS1)**

Prepared & Analyzed: 05-Dec-24

pH	6.88		pH Units	7.00		98.3	90-110			
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Duplicate (4120510-DUP1)

Source: H247397-01

Prepared & Analyzed: 05-Dec-24

pH	7.19	0.100	pH Units	7.15		0.558	20			
Temperature °C	20.4		pH Units	20.4		0.00	200			

Batch 4120515 - Filtration**Blank (4120515-BLK1)**

Prepared: 10-Dec-24 Analyzed: 11-Dec-24

TDS	ND	5.00	mg/L							
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LCS (4120515-BS1)

Prepared: 05-Dec-24 Analyzed: 06-Dec-24

TDS	804		mg/L	1000		80.4	80-120			
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Duplicate (4120515-DUP1)

Source: H247395-01

Prepared: 06-Dec-24 Analyzed: 09-Dec-24

TDS	1280	5.00	mg/L	1250		2.76	20			
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Batch 4120519 - General Prep - Wet Chem**Blank (4120519-BLK1)**

Prepared & Analyzed: 05-Dec-24

Chloride	ND	4.00	mg/L							
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LCS (4120519-BS1)

Prepared & Analyzed: 05-Dec-24

Chloride	116	4.00	mg/L	100		116	80-120			
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LCS Dup (4120519-BSD1)

Prepared & Analyzed: 05-Dec-24

Chloride	112	4.00	mg/L	100		112	80-120	3.51	20	
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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: NONE GIVEN
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
17-Dec-24 12:13

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4120521 - General Prep - Wet Chem**LCS (4120521-BS1)**

Prepared & Analyzed: 05-Dec-24

Conductivity	473		uS/cm	500		94.6	80-120			
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Duplicate (4120521-DUP1)

Source: H247409-01

Prepared & Analyzed: 05-Dec-24

Conductivity	788	1.00	umhos/cm @ 25°C		784			0.509	20	
Resistivity	12.7		Ohms/m		12.8			0.509	20	

Batch 4120522 - Filtration**Blank (4120522-BLK1)**

Prepared: 05-Dec-24 Analyzed: 06-Dec-24

TSS	ND	2.00	mg/L							
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LCS (4120522-BS1)

Prepared: 05-Dec-24 Analyzed: 06-Dec-24

TSS	96.0		mg/L	100		96.0	80-120			
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Duplicate (4120522-DUP1)

Source: H247340-04

Prepared: 05-Dec-24 Analyzed: 06-Dec-24

TSS	5.00	2.00	mg/L		5.40			7.69	52.7	
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Batch 4120601 - General Prep - Wet Chem**Blank (4120601-BLK1)**

Prepared & Analyzed: 06-Dec-24

Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							

LCS (4120601-BS1)

Prepared & Analyzed: 06-Dec-24

Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	318	12.5	mg/L				80-120			
Alkalinity, Total	260	10.0	mg/L	250		104	80-120			

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: NONE GIVEN
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
17-Dec-24 12:13

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4120601 - General Prep - Wet Chem**LCS Dup (4120601-BSD1)**

Prepared & Analyzed: 06-Dec-24

Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	330	12.5	mg/L				80-120	3.86	20	
Alkalinity, Total	270	10.0	mg/L	250		108	80-120	3.77	20	

Batch 4120614 - General Prep - Wet Chem**Blank (4120614-BLK1)**

Prepared & Analyzed: 06-Dec-24

Sulfate	ND	10.0	mg/L							
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LCS (4120614-BS1)

Prepared & Analyzed: 06-Dec-24

Sulfate	16.1	10.0	mg/L	20.0		80.4	80-120			
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LCS Dup (4120614-BSD1)

Prepared & Analyzed: 06-Dec-24

Sulfate	16.5	10.0	mg/L	20.0		82.6	80-120	2.76	20	
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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: NONE GIVEN
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
17-Dec-24 12:13

Total Recoverable Metals by ICP (E200.7) - Quality Control**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B243628 - Total Recoverable by ICP**Blank (B243628-BLK1)**

Prepared: 11-Dec-24 Analyzed: 12-Dec-24

Magnesium	ND	0.100	mg/L							
Barium	ND	0.050	mg/L							
Strontium	ND	0.100	mg/L							
Calcium	ND	0.200	mg/L							
Sodium	ND	1.00	mg/L							
Iron	ND	0.050	mg/L							
Potassium	ND	1.00	mg/L							

LCS (B243628-BS1)

Prepared: 11-Dec-24 Analyzed: 12-Dec-24

Strontium	1.95	0.100	mg/L	2.00		97.6	85-115			
Sodium	1.60	1.00	mg/L	1.62		99.1	85-115			
Potassium	3.95	1.00	mg/L	4.00		98.9	85-115			
Magnesium	10.0	0.100	mg/L	10.0		100	85-115			
Iron	2.00	0.050	mg/L	2.00		100	85-115			
Calcium	1.97	0.200	mg/L	2.00		98.6	85-115			
Barium	0.972	0.050	mg/L	1.00		97.2	85-115			

LCS Dup (B243628-BSD1)

Prepared: 11-Dec-24 Analyzed: 12-Dec-24

Magnesium	10.1	0.100	mg/L	10.0		101	85-115	1.10	20	
Strontium	1.95	0.100	mg/L	2.00		97.5	85-115	0.0861	20	
Potassium	3.98	1.00	mg/L	4.00		99.6	85-115	0.722	20	
Calcium	1.98	0.200	mg/L	2.00		99.0	85-115	0.389	20	
Sodium	1.61	1.00	mg/L	1.62		99.2	85-115	0.151	20	
Barium	0.976	0.050	mg/L	1.00		97.6	85-115	0.376	20	
Iron	2.01	0.050	mg/L	2.00		100	85-115	0.193	20	

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "C. D. Keene", written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: ARLIS WATER (SOUTHERN)						P.O. #:		BILL TO							
Project Manager: CHAD GALLAGHER								ANALYSIS REQUEST							
Address: 3305 BOYD DR															
City: CHARLESTON															
State: NM Zip: 88220															
Phone #: (575) 444-9786 Fax #:															
Project #: HETTER SUD Project Owner: ARLIS															
Project Name: MCNEIL SUD															
Project Location: HOBBS															
Sample Name:						Fax #:									
FOR LAB USE ONLY															
Lab I.D.						(G)RAB OR (C)OMP.									
Sample I.D.						# CONTAINERS									
H247409						GROUNDWATER									
1 L - 01372						WASTEWATER									
3 L - 10466						SOIL									
3 L - 08446						OIL									
						SLUDGE									
						OTHER :									
						ACID/BASE:									
						ICE / COOL									
						OTHER :									
						DATE									
						TIME									
						TOTAL METALS - Ba Sr *									
						CATIONS									
						ANIONS									
						RESISTIVITY									
						TSS									
						TDS									



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

January 30, 2025

CHAD GALLAGHER

ARIS WATER SOLUTIONS

9811 KATY FWY

HOUSTON, TX 77024

RE: MC NEIL SWD

Enclosed are the results of analyses for samples received by the laboratory on 01/15/25 15:51.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at

www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024Project: MC NEIL SWD
Project Number: 1/9/25
Project Manager: CHAD GALLAGHER
Fax To: NAReported:
30-Jan-25 12:46

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L1 L - 04568	H250219-01	Water	15-Jan-25 11:20	15-Jan-25 15:51
L4 L - 01989	H250219-02	Water	15-Jan-25 10:30	15-Jan-25 15:51
L6 / L7 L - 05789	H250219-03	Water	15-Jan-25 12:00	15-Jan-25 15:51

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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: 1/9/25
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
30-Jan-25 12:46

L1 L - 04568**H250219-01 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Alkalinity, Bicarbonate	244		5.00	mg/L	1	5011511	CT	17-Jan-25	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	5011511	CT	17-Jan-25	310.1	
Chloride*	56.0		4.00	mg/L	1	5011902	AC	20-Jan-25	4500-Cl-B	
Conductivity*	712		1.00	umhos/cm @ 25°C	1	5011615	CT	16-Jan-25	120.1	
pH*	6.92		0.100	pH Units	1	5011615	CT	16-Jan-25	150.1	PH-HT
Temperature °C	21.1			pH Units	1	5011615	CT	16-Jan-25	150.1	PH-HT
Resistivity	14.0			Ohms/m	1	5011615	CT	16-Jan-25	120.1	
Sulfate*	92.6		25.0	mg/L	2.5	5011740	CT	20-Jan-25	375.4	
TDS*	429		5.00	mg/L	1	5011635	CT	20-Jan-25	160.1	
Alkalinity, Total*	200		4.00	mg/L	1	5011511	CT	17-Jan-25	310.1	
TSS*	<2.00		2.00	mg/L	1	5011658	CT	20-Jan-25	160.2	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Barium*	<0.250		0.250	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Calcium*	71.8		1.00	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Hardness as CaCO3	236		4.56	mg/L	5	[CALC]	AWG	28-Jan-25	2340 B	
Iron*	<0.250		0.250	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Magnesium*	13.7		0.500	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Potassium*	<5.00		5.00	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Sodium*	65.8		5.00	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Strontium*	0.611		0.500	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: 1/9/25
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
30-Jan-25 12:46

L4 L - 01989
H250219-02 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Alkalinity, Bicarbonate	215		5.00	mg/L	1	5011511	CT	17-Jan-25	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	5011511	CT	17-Jan-25	310.1	
Chloride*	72.0		4.00	mg/L	1	5011902	AC	20-Jan-25	4500-Cl-B	
Conductivity*	788		1.00	umhos/cm @ 25°C	1	5011615	CT	16-Jan-25	120.1	
pH*	7.05		0.100	pH Units	1	5011615	CT	16-Jan-25	150.1	PH-HT
Temperature °C	20.8			pH Units	1	5011615	CT	16-Jan-25	150.1	PH-HT
Resistivity	12.7			Ohms/m	1	5011615	CT	16-Jan-25	120.1	
Sulfate*	154		25.0	mg/L	2.5	5011740	CT	20-Jan-25	375.4	
TDS*	496		5.00	mg/L	1	5011635	CT	20-Jan-25	160.1	
Alkalinity, Total*	176		4.00	mg/L	1	5011511	CT	17-Jan-25	310.1	
TSS*	36.3		2.00	mg/L	1	5011658	CT	20-Jan-25	160.2	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Barium*	<0.250		0.250	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Calcium*	67.2		1.00	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Hardness as CaCO3	231		4.56	mg/L	5	[CALC]	AWG	28-Jan-25	2340 B	
Iron*	0.537		0.250	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Magnesium*	15.3		0.500	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Potassium*	<5.00		5.00	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Sodium*	83.1		5.00	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Strontium*	0.704		0.500	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: 1/9/25
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
30-Jan-25 12:46

L6 / L7 L - 05789**H250219-03 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Alkalinity, Bicarbonate	224		5.00	mg/L	1	5011511	CT	17-Jan-25	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	5011511	CT	17-Jan-25	310.1	
Chloride*	100		4.00	mg/L	1	5011902	AC	20-Jan-25	4500-Cl-B	
Conductivity*	861		1.00	umhos/cm @ 25°C	1	5011615	CT	16-Jan-25	120.1	
pH*	6.90		0.100	pH Units	1	5011615	CT	16-Jan-25	150.1	PH-HT
Temperature °C	20.4			pH Units	1	5011615	CT	16-Jan-25	150.1	PH-HT
Resistivity	11.6			Ohms/m	1	5011615	CT	16-Jan-25	120.1	
Sulfate*	171		25.0	mg/L	2.5	5011740	CT	20-Jan-25	375.4	
TDS*	546		5.00	mg/L	1	5011635	CT	20-Jan-25	160.1	
Alkalinity, Total*	184		4.00	mg/L	1	5011511	CT	17-Jan-25	310.1	
TSS*	<2.00		2.00	mg/L	1	5011658	CT	20-Jan-25	160.2	

Green Analytical Laboratories**Total Recoverable Metals by ICP (E200.7)**

Barium*	<0.250	0.250	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Calcium*	82.0	1.00	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Hardness as CaCO3	285	4.56	mg/L	5	[CALC]	AWG	28-Jan-25	2340 B	
Iron*	<0.250	0.250	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Magnesium*	19.5	0.500	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Potassium*	<5.00	5.00	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Sodium*	72.4	5.00	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	
Strontium*	0.910	0.500	mg/L	5	B250208	AWG	28-Jan-25	EPA 200.7	

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: 1/9/25
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
30-Jan-25 12:46

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5011511 - General Prep - Wet Chem**Blank (5011511-BLK1)**

Prepared & Analyzed: 15-Jan-25

Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							

LCS (5011511-BS1)

Prepared & Analyzed: 15-Jan-25

Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	318	12.5	mg/L				80-120			
Alkalinity, Total	260	10.0	mg/L	250		104	80-120			

LCS Dup (5011511-BSD1)

Prepared & Analyzed: 15-Jan-25

Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	305	12.5	mg/L				80-120	4.02	20	
Alkalinity, Total	250	10.0	mg/L	250		100	80-120	3.92	20	

Batch 5011615 - General Prep - Wet Chem**LCS (5011615-BS1)**

Prepared & Analyzed: 16-Jan-25

Conductivity	480		uS/cm	500		96.0	80-120			
pH	7.11		pH Units	7.00		102	90-110			

Duplicate (5011615-DUP1)

Source: H250219-01

Prepared & Analyzed: 16-Jan-25

pH	6.94	0.100	pH Units		6.92			0.289	20	
Conductivity	704	1.00	umhos/cm @ 25°C		712			1.13	20	
Resistivity	14.2		Ohms/m		14.0			1.13	20	
Temperature °C	21.0		pH Units		21.1			0.475	200	

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Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: 1/9/25
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
30-Jan-25 12:46

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5011635 - Filtration**Blank (5011635-BLK1)**

Prepared: 16-Jan-25 Analyzed: 20-Jan-25

TDS	ND	5.00	mg/L							
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LCS (5011635-BS1)

Prepared: 16-Jan-25 Analyzed: 20-Jan-25

TDS	910		mg/L	1000		91.0	80-120			
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Duplicate (5011635-DUP1)

Source: H250219-02

Prepared: 16-Jan-25 Analyzed: 20-Jan-25

TDS	465	5.00	mg/L		496			6.45	20	
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Batch 5011658 - Filtration**Blank (5011658-BLK1)**

Prepared: 16-Jan-25 Analyzed: 21-Jan-25

TSS	ND	2.00	mg/L							
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LCS (5011658-BS1)

Prepared: 16-Jan-25 Analyzed: 21-Jan-25

TSS	9.00		mg/L	10.0		90.0	80-120			
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Duplicate (5011658-DUP1)

Source: H250189-02

Prepared: 16-Jan-25 Analyzed: 21-Jan-25

TSS	3.40	2.00	mg/L		3.00			12.5	52.7	
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Batch 5011740 - General Prep - Wet Chem**Blank (5011740-BLK1)**

Prepared: 17-Jan-25 Analyzed: 20-Jan-25

Sulfate	ND	10.0	mg/L							
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LCS (5011740-BS1)

Prepared: 17-Jan-25 Analyzed: 20-Jan-25

Sulfate	20.9	10.0	mg/L	20.0		105	80-120			
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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: 1/9/25
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
30-Jan-25 12:46

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5011740 - General Prep - Wet Chem**LCS Dup (5011740-BSD1)**

Prepared: 17-Jan-25 Analyzed: 20-Jan-25

Sulfate	21.3	10.0	mg/L	20.0		106	80-120	1.85	20	
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Batch 5011902 - General Prep - Wet Chem**Blank (5011902-BLK1)**

Prepared: 19-Jan-25 Analyzed: 20-Jan-25

Chloride	ND	4.00	mg/L							
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LCS (5011902-BS1)

Prepared: 19-Jan-25 Analyzed: 20-Jan-25

Chloride	108	4.00	mg/L	100		108	80-120			
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LCS Dup (5011902-BSD1)

Prepared: 19-Jan-25 Analyzed: 20-Jan-25

Chloride	112	4.00	mg/L	100		112	80-120	3.64	20	
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Analytical Results For:

ARIS WATER SOLUTIONS
9811 KATY FWY
HOUSTON TX, 77024

Project: MC NEIL SWD
Project Number: 1/9/25
Project Manager: CHAD GALLAGHER
Fax To: NA

Reported:
30-Jan-25 12:46

Total Recoverable Metals by ICP (E200.7) - Quality Control**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B250208 - Total Recoverable by ICP**Blank (B250208-BLK1)**

Prepared: 27-Jan-25 Analyzed: 28-Jan-25

Strontium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Iron	ND	0.050	mg/L							
Barium	ND	0.050	mg/L							
Sodium	ND	1.00	mg/L							
Magnesium	ND	0.100	mg/L							
Calcium	ND	0.200	mg/L							

LCS (B250208-BS1)

Prepared: 27-Jan-25 Analyzed: 28-Jan-25

Potassium	4.26	1.00	mg/L	4.00		107	85-115			
Strontium	2.05	0.100	mg/L	2.00		102	85-115			
Sodium	1.82	1.00	mg/L	1.62		112	85-115			
Magnesium	10.5	0.100	mg/L	10.0		105	85-115			
Barium	1.03	0.050	mg/L	1.00		103	85-115			
Iron	2.12	0.050	mg/L	2.00		106	85-115			
Calcium	2.10	0.200	mg/L	2.00		105	85-115			

LCS Dup (B250208-BSD1)

Prepared: 27-Jan-25 Analyzed: 28-Jan-25

Magnesium	10.6	0.100	mg/L	10.0		106	85-115	0.114	20	
Potassium	4.19	1.00	mg/L	4.00		105	85-115	1.80	20	
Barium	1.02	0.050	mg/L	1.00		102	85-115	1.34	20	
Calcium	2.07	0.200	mg/L	2.00		104	85-115	1.02	20	
Sodium	1.76	1.00	mg/L	1.62		109	85-115	3.53	20	
Strontium	2.01	0.100	mg/L	2.00		101	85-115	1.59	20	
Iron	2.08	0.050	mg/L	2.00		104	85-115	1.85	20	

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Notes and Definitions

PH-HT	Analyzed outside the EPA recommended hold time of 15 minutes.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: ALLS WATER		BILL TO		ANALYSIS REQUEST	
Project Manager: CHAD GALLAGHER		P.O. #:			
Address: 3305 BOYD DRIVE		Company: SCA ARIS			
City: CALISBACH		Attn: CHAD GALLAGHER			
State: NM Zip: 88220		Address: 3305 BOYD DR			
Phone #: (575) 444-9786 Fax #:		City: CALISBACH			
Project #: 119125 119125 Project Owner: ACE ENVIRAL		State: NM Zip: 88220			
Project Location: HOBBS		Phone #: (575) 444-9786			
Sample Name: CHAD GALLAGHER		Fax #:			
FOR LAB USE ONLY					
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.			
		# CONTAINERS			
		MATRIX			
		PRESERV.			
		SAMPLING			
		DATE			
		TIME			
		TOTAL METALS			
		CATIONS			
		ANIONS			
		RESISTIVITY			
		TSS			
		TDS			

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Relinquished By: Chad Gallagher	Date: 1-5-25	Received By: Speed Riquery	Date: 1-5-25
Relinquished By:	Date:	Received By:	Date:
Delivered By: (Circle One)	Observed Temp. °C: 17.4	Sample Condition: Cool Intact	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	Corrected Temp. °C: 14.8	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
REMARKS: Customer advised that he will receive a copy of his report for samples being not. + NO			
Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>			
Thermometer ID #140 <input type="checkbox"/> Bacteria (only) <input type="checkbox"/>			
Correction Factor -0.6°C <input type="checkbox"/> Cool Intact <input type="checkbox"/>			
Corrected Temp. °C:			

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

Attachment 6



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

**Re: Geology Statement
 Solaris Water Midstream, LLC
 MD NM L1 S21 SWD #1
 Section 21, T. 19S, R. 38E
 Lea County, New Mexico**

To whom it may concern:

Publicly available geologic and engineering data in the area of the proposed well have been thoroughly reviewed, and no evidence for open faults or any other hydrologic connection between the proposed injection zone (San Andres and Glorieta formations) and any underground sources of drinking water have been found.

Sincerely,

A handwritten signature in black ink that reads "Patrick Ryan" with a stylized flourish at the end.

Patrick Ryan
Sr. Geologist

Attachment 7

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher 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
October 30, 2024
and ending with the issue dated
October 30, 2024.



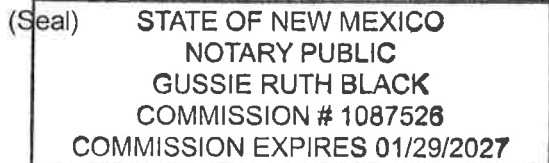
Publisher

Sworn and subscribed to before me this
30th day of October 2024.



Business Manager

My commission expires
January 29, 2027



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 publication has been made.

LEGAL	LEGAL
LEGAL NOTICE October 30, 2024	
<p>Solaris Water Midstream, LLC, 907 Tradewinds Blvd, Midland, TX 79706, (OGRID# 331374), is filing Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for commercial saltwater injection into its MD NM L1 S21 SWD #1. This will be a new well located 2,378' FSL & 401' FWL in Section 21 Township 19S Range 38E in Lea County, NM, which is approximately 4.1 miles Southwest of Hobbs, NM. The purpose of the well is to inject produced water from permitted oil and gas wells in the area for commercial disposal into the San Andres & Glorieta formations at depths of 4,258' - 5,868' at a maximum surface injection pressure of 851 psi and a maximum injection rate of 25,000 barrels of water per day.</p> <p>Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objection or request for hearing should be mailed to the Oil Conservation Division, 1220 South St. Francis Dr. Additional information may be obtained by contacting the operator contact, Nate Alleman, at (918) 237-0559 or info@aceadvisors.com. #00295583</p>	

67117907

00295583

NATE ALLEMAN
ACE ENERGY ADVISORS
501 E. FRANK PHILLIPS BLVD.
SUITE 201
BARTLESVILLE, OK 74006

Statement of Affected Person Notification

A copy of the C-108 application has been provided to the following Affected Persons as notification of the subject Application for Authorization to Inject (C-108).

Entity Name	Entity Address	Mailing Date
Site Surface Owner		
Solaris Water Midstream LLC	9651 Katy Fwy Ste 400 Houston, TX 77024-1590	09/26/2025
Applicable Mineral Owners		
Bureau of Land Management	Oil and Gas Division 620 E Greene St. Carlsbad, NM 88220	09/26/2025
OCD District Office		
OCD – District 1	1625 N. French Drive Hobbs, NM 88240	09/26/2025
Leaseholders within 0.5-mile AOR		
DOH LLC	1209 Mountain Road PI NE, Ste N, Albuquerque, NM 87110	09/26/2025
Magnum Producing, LP	500 N Shoreline Blvd Suite 322 Corpus Cristi, TX 78401	09/26/2025
Riley Exploration Oper. Co., LLC	2008 N Council Blanchard, OK 73010	09/26/2025
Well Operators within AOR		
None	N/A	N/A

Nathan Alleman
 Ace Energy Advisors
 501 Se Fph Blvd Ste 201
 BARTLESVILLE OK 74003-3931



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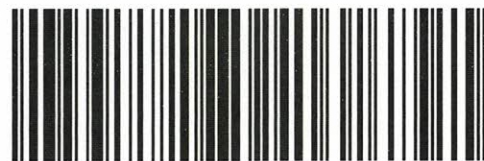
Solaris Water Midstream LLC
 9651 Katy Fwy Ste 400
 Houston TX 77024-1590

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Bureau of Land Management
 Oil and Gas Division
 620 E Greene St
 Carlsbad NM 88220-6292

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 501 Se Fph Blvd Ste 201
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OCD – District 1
 1625 N French Dr
 Hobbs NM 88240-9273

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 501 Se Fph Blvd Ste 201
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DOH LLC
 1209 Mountain Road Pl Ne Ste N
 Albuquerque NM 87110-7845

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501 Se Fph Blvd Ste 201
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Corp Christi TX 78401-0313

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Riley Exploration Oper. Co., LLC
2008 N Council Ave
Blanchard OK 73010-8038

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Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 509839

CONDITIONS

Operator: SOLARIS WATER MIDSTREAM, LLC 9651 Katy Fwy Houston, TX 77024	OGRID: 371643
	Action Number: 509839
	Action Type: [C-108] Fluid Injection Well (C-108)

CONDITIONS

Created By	Condition	Condition Date
erica.gordan	None	9/29/2025