State of New Mexico
Oil Conservation Division

Incident ID	nAPP2321440405
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☑ Detailed description of proposed remediation technique
- ☑ Scaled sitemap with GPS coordinates showing delineation points
- ☑ Estimated volume of material to be remediated
- ☑ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☑ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Rob Kirk Title: Vice President, Environmental Compliance

Signature: Date: 11/2/2023

email: Rob.Kirk@ariswater.com Telephone: O 432-203-9020 C 469-978-5620

OCD Only

Received by: Shelly Wells Date: 11/2/2023

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Nelson Velez Date: 02/21/2024

Remediation plan approved under the following conditions;

1. Chloride background determination approved to 2500 mg/Kg.
2. Wetland riverine determined to be a significant watercourse.
3. OCD determined that the estimated depth to water between 51-100 ft. below grade; therefore, sampling frequency of 500 square feet per one (1) five (5)-point composite sample is approved.
4. Remediation Due date updated to May 21, 2024 for submittal of the appropriate and/or final remediation closure report.

ENSOLUM

October 23, 2023

Solaris Water, LLC
3305 Boyd Dr.
Carlsbad, NM 88220
Attn: Mr. Rob Kirk

Re: Remediation Work Plan
Fez Carnival NexGen Line
Off Hwy 128
32.157425 ° N, 103.364361° W
Lea County, New Mexico
Incident ID: nAPP2321440405
Ensolum Project No. 03B2359002

Dear Mr. Kirk:

Ensolum, LLC (Ensolum), appreciates the opportunity to submit this Remediation Work Plan to perform environmental consulting services at the Fez Carnival NexGen Line, referred to hereinafter as the "Site". This proposal is based on communications between Hydro Environmental, Solaris Water, LLC and Ensolum personnel to-date.

I. SITE DESCRIPTION & BACKGROUND

Operator:	Solaris Water, LLC
Site Name:	Fez Carnival NexGen Line
Location:	32.157425° N, 103.364361° W Lea County, New Mexico
Property:	Private
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

The Site is located in Unit L, Section 4, Township 25S, Range 35E in Lea County, New Mexico (32.157425° N, 103.364361° W) and is associated with oil and gas production operations on private land.

On August 3, 2023, approximately 480 barrels (bbls) of produced water was released from a 16-inch lay flat line into Antelope Draw, with none recovered. Produced water flowed approximately 3,400 feet southeast within Antelope Draw before terminating. The release impacted an area of approximately 40,188 feet^2. The spill was confined to Antelope Draw excluding an area near the source where the release flowed west across a lease road. A site map indicating the overall area of the release is included as **Attachment A**.

On August 11th, 2023 Ensolum arrived on-Site with a stainless steel hand auger and collected 20 soil samples from 6 locations (HA-1, HA-6 through HA-9 and BG-1) at one-foot intervals down to refusal depth.

On August 15th, 2023 Ensolum utilized a Geoprobe© to collect 31 soil samples from 3 locations (GP-2, GP-3, and GP-4) at one-foot enterval down to refusal depth and/or termination based on field screenings.

On August 17th Ensolum returned to the site and utilized a Geoprobe© and stainless steel hand auger to collect 53 soil samples from 8 locations (GP-1, GP-5, GP-6, GP-7, HA-8 and HA-9) at one-foot enterval down to refusal depth and/or termination based on field screenings. In addition, 17 background soil samples were collected from 2 locations (BG-1 and BG-2) at one-foot enterval down to refusal depth and/or termination based on field screenings.

It was determined that background sampling utilizing a Geoprobe® was required due to the possibility of high levels of chloride present in the area. The NMOCD states that background samples be obtained by grab, not composite, in areas no closer than 50 feet and no farther than 100 feet outside of the lateral and horizontal extents of the release's impact area. The background samples must also be representative of the entirety of the release per NMAC 19.15.29 *Releases*. Soil boring logs are included in **Attachment B**.

Based on analytical results, it was determined that the concentrations of naturally occurring chloride present in the surrounding soil, no closer than 50 and no farther than 100 feet from the Site, ranged from 117 milligrams per killogram (mg/kg) to 5,720 mg/kg with a 95% Upper Confidence Limit (UCL) of 2,611 mg/kg and a 95% Upper Tolerance Limit (UTL) of 6,742 mg/kg. The UTL value of 6,742 mg/kg can be utilized as the new Closure Criteria for chlorides per the NMAC Rule 19.15.29. Closure Criteria calculations are included in **Table 1** in **Attachment C** and supporting documentation in **Attachment D.**

The spill is considered a major release by the New Mexico Oil Conservation Division (NMOCD) due to the fluid volume exceeding 25 bbls. The volume of produced water released exceeds 200 bbls and the released occurreed within a Riverine, according to National Wetlands Inventory (NWI). Therefore, the New Mexico Administrative Code (NMAC) 19.15.29 Releases Table I: Closure Criteria for Soils Impacted by a Release (≤ 50 feet) values must be utilized.

II. CLOSURE CRITERIA

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. In order to address activities related to exempt oil and gas releases, the New Mexico EMNRD OCD references NMAC 19.15.29 *Releases,* which establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action. Ensolum utilized information provided by Hydro Environmental, Solaris, Water, LLC, the general site characteristics, and information available from the New Mexico Office of the State Engineer (OSE) and the New Mexico EMNRD OCD Imaging database to determine the appropriate closure criteria for the Site.

- The Site is not located within 300 feet of a New Mexico ENMRD OCD-defined continuously flowing watercourse or any other significant watercourse.
- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.
- The Site is not located within 300 feet from an occupied permanent residence, school, hospital, institution, or church.
- According to the OSE WRSS database there are no private, domestic freshwater wells used by less than five (5) households for domestic or stock water purposes identified within 500 feet of the Site.

- According to the OSE WRSS database there are no freshwater wells identified within 1,000 feet of the Site as declared in the previous bullet.
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3.
- The Site **is** located within 300 feet of a wetland, per the NWI.
- Based on information identified on the New Mexico Mining and Minerals Division's GIS, Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.
- Based on the Karst Occurrence Potential (.kmz) provided by the BLM, the Site is not located within an unstable area.
- The Site is not located within an area of flood hazard.

Based on the identified siting criteria, cleanup goals for soils remaining in place at the Site include:

Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
≤ 50 feet	Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg or Background
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

III. SCOPE OF SERVICES

A. Health and Safety Plan

Ensolum will develop a Site-specific Health and Safety Plan (H&SP) for the performance of the scope of services described in this proposal. For the purposes of this H&SP, it is assumed that chemicals of concern (COCs) include petroleum hydrocarbons and chlorides. For the purposes of this proposal, it is assumed that the scope of services can be conducted under modified Level D personal protective equipment (PPE), which will include fire retardant clothing (FRC), a hard hat, steel-toed boots, protective eyewear and gloves. Should the need arise to upgrade PPE (e.g. respiratory protection), the client will be notified, and the H&SP will be modified accordingly. Although it is not anticipated at this time, it should be noted that a PPE upgrade will constitute a change in scope of work, requiring a change order.

B. Excavation Activities

The Site will be excavated by a third-party contractor to remove impacted soils in the release area based on laboratory analytical data, olfactory and/or visual evidence of impairment. Based on current analytical data taken at the Site, HA-1/GP-1 will be excavated down to a minimum of five feet below ground surface (bgs) and HA-6 will be excavated down to a minimum of two feet bgs. The proposed area of excavation is exhibited in **Attachment A**.

At this time, an estimated 1,458 cubic yards will be excavated from the release area. The excavated impacted soil will be placed on plastic on-Site and will be taken off-Site for proper disposal upon receipt of laboratory analytical results. Remediation activities will be completed within 90 days from the approval of this Remediation Work Plan by the NMOCD.

C. Confirmation Composite Soil Sampling Program

Once excavation activities are complete, Ensolum will collect confirmation composite soil samples from the floor and sidewalls of the spill area. Based on the narrow width of Antelope Draw documented concentrations of naturally occurring chloride present in the surrounding soil, Ensolum would like to request a sampling variance of 500 square feet. Confirmation composite soil samples will be collected based on the following criteria:

- Prior composite floor soil sample exceedance;
- Highest photoionization detector (PID) reading;
- Highest electrical conductivity reading; or
- Change in lithology.

D. Laboratory Analytical Program

The soil samples collected from the excavation soil sample locations will be analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) utilizing Environmental Protection Agency (EPA) SW-846 Method 8021B, total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO) and motor oil range organics (MRO) utilizing Environmental Protection Agency (EPA) SW-846 Method 8015M and chloride utilizing EPA SW-846 Method SM4500 Cl B under the NMOCD Closure Criteria for Soils Impacted by a Release (≤ 50 feet).

IV. REPORTING

Subsequent to the completion of Site activities, a Closure Report will be prepared by Ensolum to document completed site investigation and remediation activities as well as any corrective action at the Site, if needed.

V. DELIVERABLES

The results, findings, conclusions and recommendations, which will be provided in the Closure Report, will be based solely on the conditions which are observed during the site investigation and the information reviewed by Ensolum. No warranties or representations, expressed or implied, will be made as to the condition of the Site beyond that observed by Ensolum during its site investigation.

We appreciate the opportunity to provide this Remediation Work Plan and look forward to working with you on this project. If you should have any questions or comments regarding this Remediation Work Plan, please contact either of the undersigned.

Sincerely,
Ensolum, LLC

Georgiana McSwane
Project Manager

Beaux Jennings
Senior Project Manager

Attachments:

Attachment A

Attachment A1 – Topographic Map

Attachment A2 – Soil Boring Location Map

Attachment A3 – Closure Criteria Map

Attachment B – Soil Boring Logs

Attachment C – Tables

Attachment D – Supporting Documentation

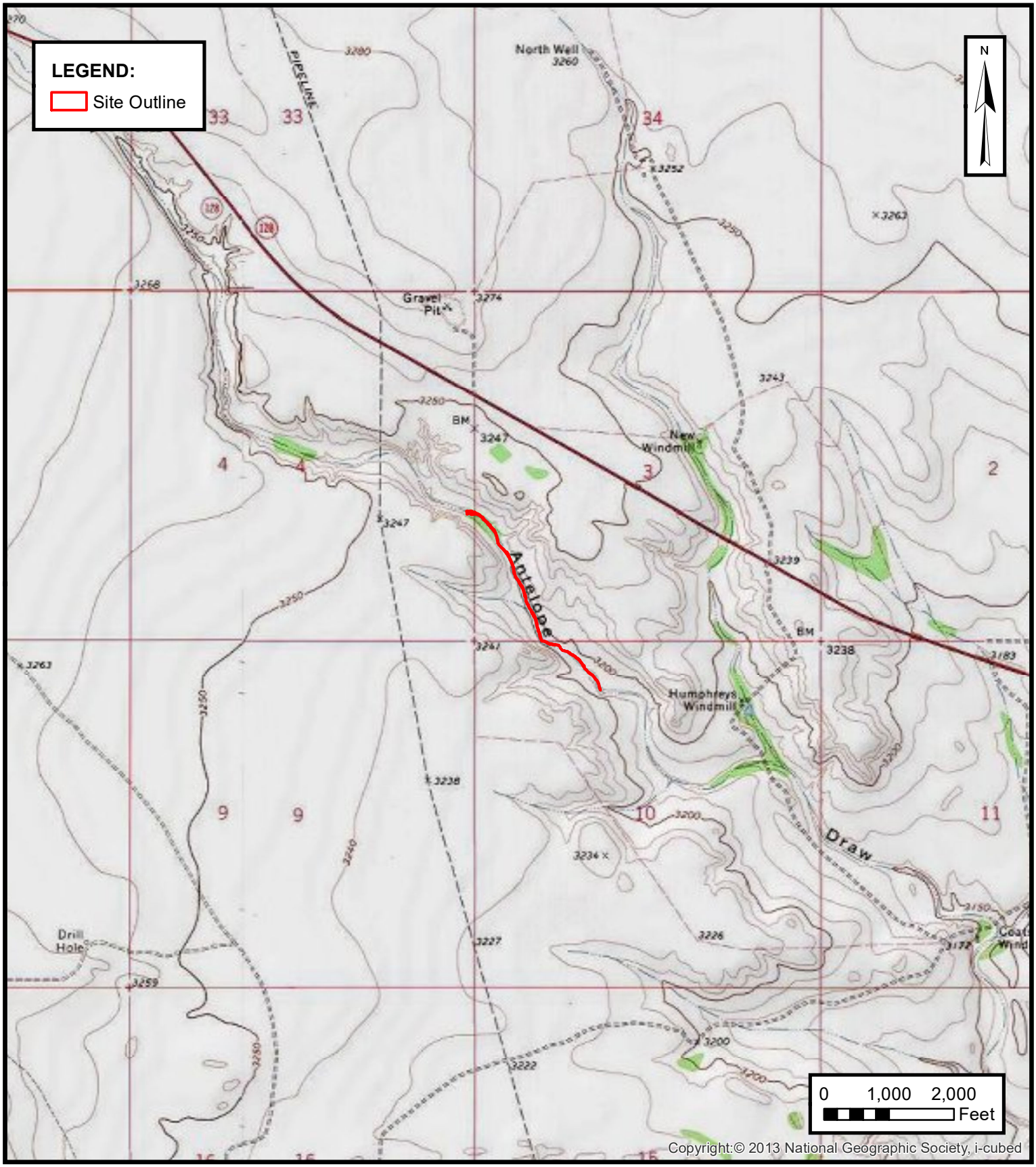
Attachment E – Laboratory Report & Chain-of-Custody Documentation

Attachment F – C-141

ENSOLUM

ATTACHMENT A

Figures



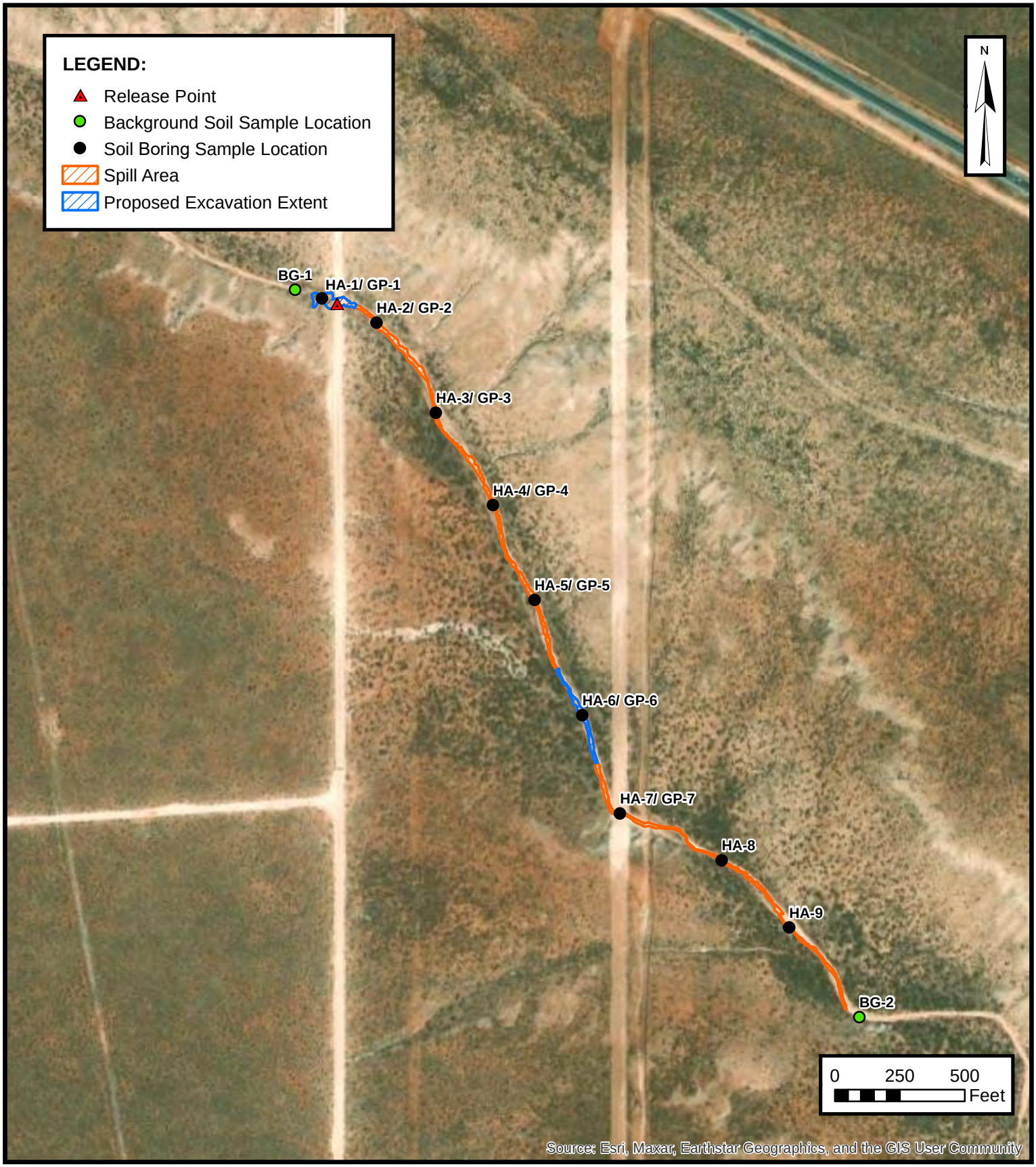
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

TOPOGRAPHIC MAP

SOLARIS WATER, LLC
FEZ CARNIVAL NEXGEN LINE
Lea County, New Mexico
32.157425° N, 103.364361° W

PROJECT NUMBER: 03B2359002

ATTACHMENT
A1



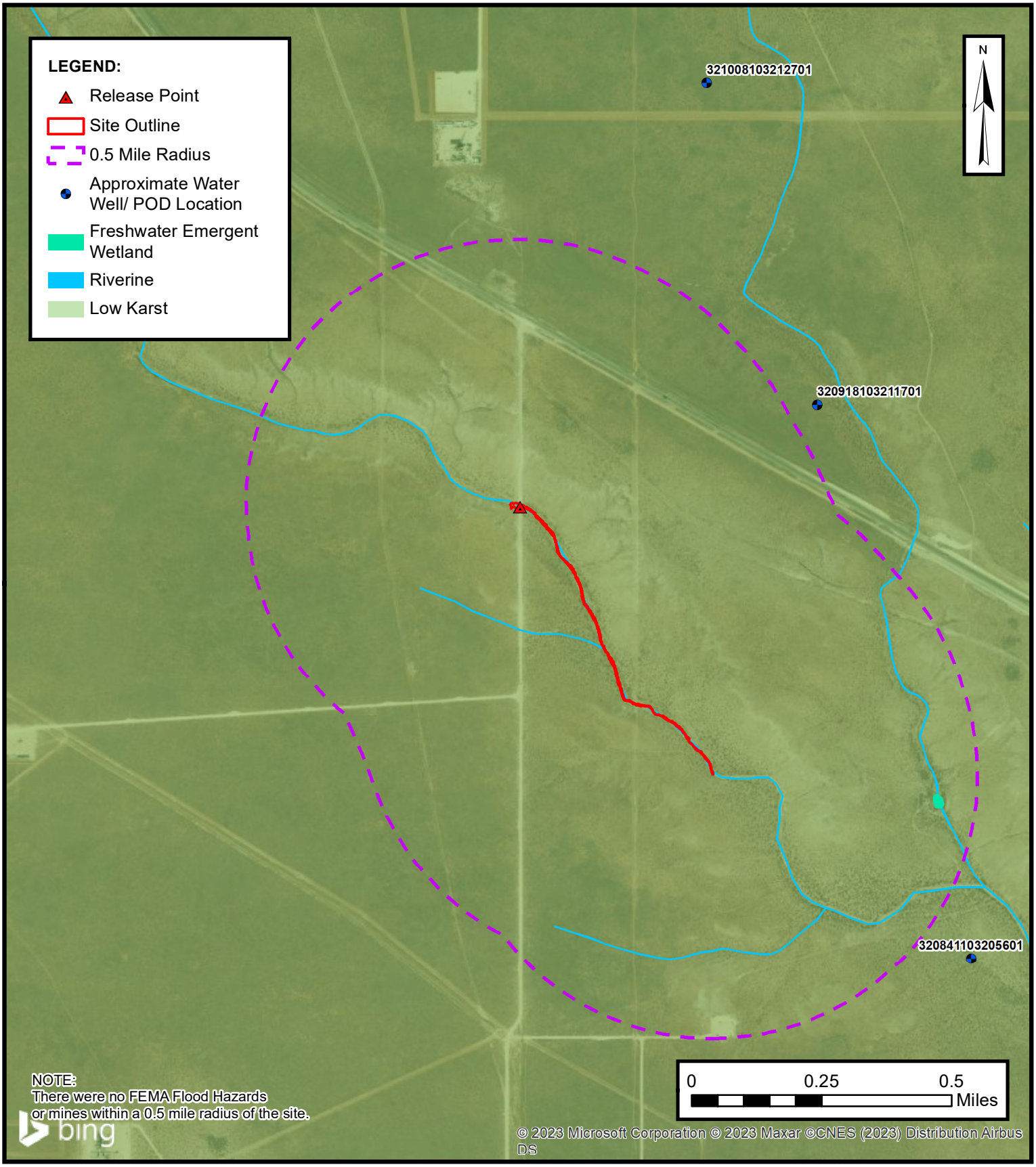
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SOIL BORING LOCATION MAP

SOLARIS WATER, LLC
FEZ CARNIVAL NEXGEN LINE
Lea County, New Mexico
32.157425° N, 103.364361° W

PROJECT NUMBER: 03B2359002

ATTACHMENT
A2



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

CLOSURE CRITERIA MAP

SOLARIS WATER, LLC
FEZ CARNIVAL NEXGEN LINE
Lea County, New Mexico
32.157425° N, 103.364361° W

PROJECT NUMBER: 03B2359002

ATTACHMENT

A3

ENSOLUM

ATTACHMENT B

Soil Boring Logs

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/17/2023
Date Completed: 08/17/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez
Geologist: Leah Nunez
Boring Method: GP
Sampler Type: CB
Bore Hole Diameter: 2.5"
Casing Diameter: N/A
Well Materials: N/A
Surface Completion: N/A

Soil Boring / Well Number: BG-1
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings
Sampler: Leah Nunez
Logged By: Leah Nunez
Screen: N/A
Total Depth: 12'

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-12' - Silty sand, light brown, slightly moist, no odor		5					8,307	
								10,944	
								5,619	
								4,774	
			10					7,629	
								2,272	
								5,293	
			15					4,550	
								4,096	
								3,859	
			20					3,674	
	12' - Total Depth							2,381	
			25						
			30						
			35						

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/17/2023
Date Completed: 08/17/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez

Soil Boring / Well Number: BG-2
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings

Geologist: Leah Nunez
Sampler: Leah Nunez
Boring Method: GP
Logged By: Leah Nunez
Sampler Type: CB
Bore Hole Diameter: 2.5"
Screen: N/A
Casing Diameter: N/A
Total Depth: 4'
Well Materials: N/A
Surface Completion: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-4' - Silty sand, light brown, slightly moist, no odor 4' -Total Depth NR - No Recovery		5 10 15 20 25 30 35					2,765 1,542 594 NA	

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/11/2023
Date Completed: 08/11/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez
Geologist: Leah Nunez
Boring Method: GP
Sampler Type: CB
Bore Hole Diameter: 2.5"
Casing Diameter: N/A
Well Materials: N/A
Surface Completion: N/A

Soil Boring / Well Number: HA-1
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings
Sampler: Leah Nunez
Logged By: Leah Nunez
Screen: N/A
Total Depth: 10'

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-10' - Silty sand, light brown, slightly moist, no odor		5					6,810	
								6,690	
								5,360	
								4,360	
								4,520	
			10					2,980	
								2,150	
								2,470	
			15					2,290	
	10' - Total Depth							2,840	
			20						
			25						
			30						
			35						

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Soil Boring / Well Number: HA-6
Project #: 03B2359002
Date Started: 08/11/2023
Drawn By: Kaoru Shimada
Date Completed: 08/11/2023
Approved By: Beaux Jennings
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez
Geologist: Leah Nunez
Sampler: Leah Nunez
Boring Method: GP
Logged By: Leah Nunez
Sampler Type: CB
Bore Hole Diameter: 2.5"
Screen: N/A
Casing Diameter: N/A
Total Depth: 2'
Well Materials: N/A
Surface Completion: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-2' - Silty sand, light brown, slightly moist, no odor 2' - Total Depth		5 10 15 20 25 30 35					1,702 82	

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/11/2023
Date Completed: 08/11/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez

Soil Boring / Well Number: HA-7
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings

Geologist: Leah Nunez
Sampler: Leah Nunez
Boring Method: GP
Logged By: Leah Nunez
Sampler Type: CB
Bore Hole Diameter: 2.5"
Screen: N/A
Casing Diameter: N/A
Total Depth: 2'
Well Materials: N/A
Surface Completion: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-2' - Silty sand, light brown, slightly moist, no odor 2' - Total Depth		5 10 15 20 25 30 35					3,699 274	

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Soil Boring / Well Number: HA-8
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings

Date Started: 08/11/2023
Date Completed: 08/17/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez

Geologist: Leah Nunez
Sampler: Leah Nunez
Boring Method: GP
Logged By: Leah Nunez
Sampler Type: CB
Bore Hole Diameter: 2.5"
Screen: N/A
Casing Diameter: N/A
Total Depth: 5'
Well Materials: N/A
Surface Completion: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-5' - Silty sand, light brown, slightly moist, no odor 5' - Total Depth NR - No Recovery		5 10 15 20 25 30 35					5,619 2,125 1,261 591 1,542	

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/11/2023
Date Completed: 08/17/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez

Soil Boring / Well Number: HA-9
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings

Geologist: Leah Nunez
Sampler: Leah Nunez
Boring Method: GP
Logged By: Leah Nunez
Sampler Type: CB
Bore Hole Diameter: 2.5"
Screen: N/A
Casing Diameter: N/A
Total Depth: 3'
Well Materials: N/A
Surface Completion: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-3' - Silty sand, light brown, slightly moist, no odor 3' - Total Depth		5 10 15 20 25 30 35					3,699 755 315	

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/17/2023
Date Completed: 08/17/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez
Geologist: Leah Nunez
Sampler: Leah Nunez
Boring Method: GP
Logged By: Leah Nunez
Sampler Type: CB
Bore Hole Diameter: 2.5"
Screen: N/A
Casing Diameter: N/A
Total Depth: 12'
Well Materials: N/A
Surface Completion: N/A

Soil Boring / Well Number: GP-1
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-12' - Silty sand, light brown, slightly moist, no odor		5					5,894	
								7,174	
								6,259	
								4,634	
			10					12,358	
								4,192	
								3,021	
			15					2,592	
								3,040	
								1,185	
			20					374	
	12' - Total Depth							308	
			25						
			30						
			35						

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Soil Boring / Well Number: GP-2
Project #: 03B2359002
Date Started: 08/15/2023
Drawn By: Kaoru Shimada
Date Completed: 08/15/2023
Approved By: Beaux Jennings
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez
Geologist: Leah Nunez
Sampler: Leah Nunez
Boring Method: GP
Logged By: Leah Nunez
Sampler Type: CB
Bore Hole Diameter: 2.5"
Screen: N/A
Casing Diameter: N/A
Total Depth: 14'
Well Materials: N/A
Surface Completion: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-14' - Silty sand, light brown, slightly moist, no odor		5					4,045	
								43	
								2,400	
								65	
			10					129	
								25	
								19	
								47	
			15					51	
								1,517	
								917	
			20					192	
								204.8	
	14' -Total Depth							51.3	
			25						
			30						
			35						

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/15/2023
Date Completed: 08/15/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez

Soil Boring / Well Number: GP-3
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings

Geologist: Leah Nunez
Sampler: Leah Nunez
Boring Method: GP
Logged By: Leah Nunez
Sampler Type: CB
Bore Hole Diameter: 2.5"
Screen: N/A
Casing Diameter: N/A
Total Depth: 8'
Well Materials: N/A
Surface Completion: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-8' - Silty sand, light brown, slightly moist, no odor 8' - Total Depth		5 10 15 20 25 30 35					48 12 19 56 5 25 7 9	

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/15/2023
Date Completed: 08/15/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez
Geologist: Leah Nunez
Boring Method: GP
Sampler Type: CB
Bore Hole Diameter: 2.5"
Casing Diameter: N/A
Well Materials: N/A
Surface Completion: N/A
Sampler: Leah Nunez
Logged By: Leah Nunez
Screen: N/A
Total Depth: 9'

Soil Boring / Well Number: GP-4
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-9' - Silty sand, light brown, slightly moist, no odor		5					1,167	
								3,693	
								1,766	
								326	
								160	
			10					213	
								110	
								138	
	9' - Total Depth		15					118	
			20						
			25						
			30						
			35						

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/17/2023
Date Completed: 08/17/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez

Soil Boring / Well Number: GP-5
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings

Geologist: Leah Nunez
Sampler: Leah Nunez
Boring Method: GP
Logged By: Leah Nunez
Sampler Type: CB
Bore Hole Diameter: 2.5"
Screen: N/A
Casing Diameter: N/A
Total Depth: 16'
Well Materials: N/A
Surface Completion: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-16' - Silty sand, light brown, slightly moist, no odor		5					4109	
								3648	
								616	
								212	
			10					3168	
								235	
								131	
								166	
			15					3149	
								68	
								1293	
			20					51	
								113	
								488	
			25					116	
	16' - Total Depth							81	
			30						
			35						

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/17/2023
Date Completed: 08/17/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez
Geologist: Leah Nunez
Boring Method: GP
Sampler Type: CB
Bore Hole Diameter: 2.5"
Casing Diameter: N/A
Well Materials: N/A
Surface Completion: N/A

Soil Boring / Well Number: GP-6
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings
Sampler: Leah Nunez
Logged By: Leah Nunez
Screen: N/A
Total Depth: 10'

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-10' - Silty sand, light brown, slightly moist, no odor		5					3,584	
								2,790	
								2,176	
								422	
								5,318	
								147	
			10					102	
								182	
								2,592	
	10'-Total Depth							116	
			15						
			20						
			25						
			30						
			35						

NR - No Recovery

ENSOLUM

Client: Solaris Water, LLC
Project Name: Fez Carnival NexGen Line
Project Location: Lea County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMATION

Date Started: 08/17/2023
Date Completed: 08/17/2023
Drilling Company: Lighthouse Environmental Services, Inc.
Driller: Luis Ramirez

Soil Boring / Well Number: GP-7
Project #: 03B2359002
Drawn By: Kaoru Shimada
Approved By: Beaux Jennings

Geologist: Leah Nunez
Sampler: Leah Nunez
Boring Method: GP
Logged By: Leah Nunez
Sampler Type: CB
Bore Hole Diameter: 2.5"
Screen: N/A
Casing Diameter: N/A
Total Depth: 3'
Well Materials: N/A
Surface Completion: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	Electrical Conductivity (EC) Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0'-10' - Silty sand, light brown, slightly moist, no odor 3'-Total Depth		5 10 15 20 25 30 35					3,021 157 114	

NR - No Recovery

ENSOLUM

ENSOLUM

ATTACHMENT C

Tables

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Fez Carnival NexGen Line
Solaris Water, LLC
Lea County, New Mexico
Ensolum Project No. 03B2359002

Sample Designation	Date	Depth (feet bgs)	Conductivity Field Screening (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)				10	NE	NE	NE	50	NE	NE	NE	100	600
95th Upper Tolerance Limit Calculation				NE									6,742
Hand Auger Soil Sample Analytical Results													
HA-1	08/11/2023	0-1	6,810	**0.000894 J**	<0.000456	<0.000565	<0.00101	<0.00101	**44.1 J**	**60.6**	<14.9	**105**	**9,780**
		1-2	6,690	NA									
		2-3	5,360	NA									
		3-4	4,360	NA									
		4-5	4,520	NA									
		5-6	2,980	NA									
		6-7	2,150	NA									
		7-8	2,470	NA									
		7-9	2,290	NA									
		9-10	2,840	**0.000880 J**	<0.000454	<0.000563	<0.00101	<0.00101	**47.5 J**	**48.2 J**	<14.9	**95.7**	**727**
HA-6	08/11/2023	0-1	1,702	**0.000899 J**	<0.000460	<0.000570	<0.00102	<0.00102	**42.6 J**	<14.9	<14.9	**42.6 J**	**4,760**
		1-2	82	**0.000864 J**	<0.000453	<0.000562	<0.00100	<0.00100	**43.0 J**	**59.6**	<14.9	**103**	**2,060**
		2		Refusal									
HA-7	08/11/2023	0-1	3,699	**0.000909 J**	<0.000451	<0.000559	<0.00100	<0.00100	**34.9 J**	<15.1	<15.1	**34.9 J**	**4,710**
		1-2	274	**0.000895 J**	<0.000459	<0.000568	<0.00102	<0.00102	**43.7 J**	**37.9 J**	<15.1	**81.6**	**1,350**
		2		Refusal									
HA-8	08/11/2023	0-1	2,214	**0.000897 J**	<0.000454	<0.000563	<0.00101	<0.00101	**42.0 J**	**39.5 J**	<14.9	**81.5**	**1,210**
	08/17/2023	0-1	5,619	<0.000389	<0.000461	<0.000571	<0.00102	<0.00102	**19.9 J**	**22.5 J**	<15.0	**42.4 J**	**993**
		1-2	2,125	**0.000892 J**	<0.000456	<0.000565	<0.00101	<0.00101	**42.6 J**	<14.9	<14.9	**42.6 J**	**1,790**
		2-3	1,261	NA									**320**
		3-4	591	NA									
		4-5	1,542	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	**20.8 J**	**23.3 J**	<15.1	**44.1 J**	**260**
		5		Refusal									
HA-9	08/11/2023	0-1	1,824	**0.000914 J**	<0.000457	<0.000566	<0.00101	<0.00101	**39.6 J**	**45.5 J**	<15.1	**85.1**	**3,390**
	08/17/2023	0-1	3,699	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	**25.7 J**	**22.0 J**	<15.1	**47.7 J**	**873**
	08/11/2023	1-2	755	NA									
		2-3	315	**0.000892 J**	<0.000455	<0.000564	<0.00101	<0.00101	**40.5 J**	<15.1	<15.1	**40.5 J**	**1,120**
	08/17/2023	2-3	1,453	<0.000388	<0.000460	<0.000570	<0.00102	<0.00102	**22.1 J**	**28.0 J**	<15.0	**50.1 J**	**406**
		3		Refusal									

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Fez Carnival NexGen Line
Solaris Water, LLC
Lea County, New Mexico
Ensolum Project No. 03B2359002

Sample Designation	Date	Depth (feet bgs)	Conductivity Field Screening (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)				10	NE	NE	NE	50	NE	NE	NE	100	600
95th Upper Tolerance Limit Calculation				NE									6,742
Geoprobe Soil Sample Analytical Results													
GP-1	08/17/2023	0-1	5,894	NA									
		1-2	7,174	NA									1,760
		2-3	6,259	NA									4,000
		3-4	4,634	NA									
		4-5	12,358	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	**20.8 J**	**15.3 J**	<15.1	**36.1 J**	14,500
		5-6	4,192	NA									
		6-7	3,021	NA									
		7-8	2,592	NA									1,150
		8-9	3,040	NA									
		9-10	1,185	NA									
		10-11	374	NA									
		11-12	308	<0.000382	<0.000452	<0.000561	<0.00100	<0.00100	**19.2 J**	**23.1 J**	<14.9	**42.3 J**	113
GP-2	08/15/2023	0-1	4,045	<0.00381	<0.000451	<0.000559	<0.00100	<0.00100	**31.3 J**	**37.2 J**	<15.1	**68.5**	2,310
		1-2	43	NA									113
		2-3	2,400	NA									
		3-4	65	NA									
		4-5	129	NA									
		5-6	25	NA									
		6-7	19	NA									
		7-8	47	NA									
		8-9	51	NA									
		9-10	1,517	NA									
		10-11	917	NA									
		11-12	192	NA									
		12-13	205	NA									
		13-14	51	<0.000387	<0.000458	<0.000567	<0.00101	<0.00101	**34.6 J**	**25.2 J**	<15.0	**59.8**	112
GP-3	08/15/2023	0-1	48	<0.000388	<0.000460	<0.000570	<0.00102	<0.00102	**33.1 J**	**19.7 J**	<15.1	**52.8**	364
		1-2	12	NA									
		2-3	19	NA									
		3-4	56	NA									
		4-5	5	NA									
		5-6	25	NA									
		6-7	7	NA									
		7-8	9	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	<15.2	**23.6 J**	<15.2	**23.6**	57.1
		8		Refusal									

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Fez Carnival NexGen Line
Solaris Water, LLC
Lea County, New Mexico
Ensolum Project No. 03B2359002

Sample Designation	Date	Depth (feet bgs)	Conductivity Field Screening (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)				**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100**	**600**
95th Upper Tolerance Limit Calculation				**NE**									**6,742**
GP-4	08/15/2023	0-1	1,167	NA									
		1-2	3,693	<0.000382	<0.000452	<0.000561	<0.00100	<0.00100	**47.2 J**	**24.1 J**	<15.0	**71.3**	**5,640**
		2-3	1,766	NA									
		3-4	326	NA									**260**
		4-5	160	NA									
		5-6	213	NA									
		6-7	110	NA									
		7-8	138	NA									
		8-9	118	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	<14.9	**24.7 J**	<14.9	**24.7 J**	**171**
		9	Refusal										
GP-5	08/17/2023	0-1	4,109	NA									
		1-2	3,648	NA									
		2-3	616	NA									**309**
		3-4	212	NA									
		4-5	3,168	<0.000381	<0.000452	<0.000559	<0.00100	<0.00100	**33.7 J**	**20.9 J**	<15.1	**54.6 J**	**1,240**
		5-6	235	NA									
		6-7	131	NA									
		7-8	166	NA									
		8-9	3,149	NA									
		9-10	68	NA									
		10-11	1,293	NA									
		11-12	51	NA									
		12-13	113	NA									
		13-14	488	NA									
		14-15	116	NA									
		15-16	81	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	**36.3 J**	**22.4 J**	<15.1	**58.7 J**	**86.0**
GP-6	08/17/2023	0-1	3,584	NA									
		1-2	2,790	NA									**1,560**
		2-3	2,176	NA									
		3-4	422	NA									
		4-5	5,318	<0.000388	<0.000460	<0.000570	<0.00102	<0.00102	**47.9 J**	**31.3 J**	<15.0	**79.2 J**	**262**
		5-6	147	NA									
		6-7	102	NA									
		7-8	182	NA									
		8-9	2,592	NA									
		9-10	116	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	**36.6 J**	**22.0 J**	<15.1	**58.6 J**	**105**
GP-7	08/17/2023	0-1	3,021	<0.000385	<0.000456	<0.000565	<0.00101	<0.00101	<14.9	**23.3 J**	<14.9	**23.3 J**	**56.3**
		1-2	157	NA									
		2-3	114	<0.000381	<0.000451	<0.000559	<0.00100	<0.00100	**23.4 J**	**23.0 J**	<15.0	**46.4 J**	**792**

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Fez Carnival NexGen Line
Solaris Water, LLC
Lea County, New Mexico
Ensolum Project No. 03B2359002

Sample Designation	Date	Depth (feet bgs)	Conductivity Field Screening (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)				**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100**	**600**
95th Upper Tolerance Limit Calculation				**NE**									**6,742**
Background Soil Sample Analytical Results													
BG-1	08/11/2023	0-1	2	**0.000990 J**	<0.000458	<0.000567	<0.00101	<0.00101	**36.8 J**	**61.2**	<15.0	**98.0**	**117**
	08/17/2023	0-1	8,307	NA									**2,560**
		1-2	10,944										**747**
		2-3	5,619										**2,090**
		3-4	4,774										**2,160**
		4-5	7,629										**2,010**
		5-6	2,272										**1,070**
		6-7	5,293										**5,490**
		7-8	4,550										**5,720**
		8-9	4,096										**3,890**
		9-10	3,859										**327**
		10-11	3,674										**238**
		11-12	2,381										**1,100**
BG-2	08/17/2023	0-1	2,765	NA									**1,110**
		1-2	1,542										**789**
		2-3	594										**125**
		3-4	NA										**2,100**
		4	Refusal										

*Concentrations in **bold** and yellow exceed the New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)*
*Concentrations in **bold** and orange exceed the 95th Upper Tolerance Limit Calculation*
bgs: below ground surface
mg/kg: milligrams per kilogram
NA: Not Analyzed
NE: Not Established
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
MRO: Motor Oil/Lube Oil Range Organics
TPH: Total Petroleum Hydrocarbon

ENSOLUM

ATTACHMENT D

Supporting Documentation

ENSOLUM

BACKGROUND SOIL SAMPLE ANALYTICAL RESULTS
Fez Carnival NexGen Line
Solaris Water, LLC
Lea County, New Mexico
Ensolum Project No. 03B2359002

Sample Designation	Depth (feet bgs)	Conductivity Field Screening (ppm)	Chloride (mg/kg)
Background Soil Sample Analytical Results			
BG-1	0-1	2	**117**
	0-1	8,307	**2,560**
	1-2	10,944	**747**
	2-3	5,619	**2,090**
	3-4	4,774	**2,160**
	4-5	7,629	**2,010**
	5-6	2,272	**1,070**
	6-7	5,293	**5,490**
	7-8	4,550	**5,720**
	8-9	4,096	**3,890**
	9-10	3,859	**327**
	10-11	3,674	**238**
	11-12	2,381	**1,100**
BG-2	0-1	2,765	**1,110**
	1-2	1,542	**789**
	2-3	594	**125**
	3-4	NA	**2,100**
ARITHMETIC MEAN			**1,861**

95th Upper Confidence Limit CALCULATION

BG-1@0-1	=	117
BG-1@0-1	=	2,560
BG-1@1-2	=	747
BG-1@2-3	=	2,090
BG-1@3-4	=	2,160
BG-1@4-5	=	2,010
BG-1@5-6	=	1,070
BG-1@6-7	=	5,490
BG-1@7-8		5,720
BG-1@8-9		3,890
BG-1@9-10		327
BG-1@10-11		238
BG-1@11-12		1,100
BG-2@0-1	=	1,110
BG-2@1-2	=	789
BG-2@2-3	=	125
BG-2@3-4	=	2,100

1733.667101	=	Standard Deviation
17	=	Sample Size (i.e. 12 samples collected within a 1/4 acre area).
1.78228	=	Student-t Statistic
Normal	=	Distribution Type
1861.353	=	Arithmetic Mean
2610.759	=	95% UCL

$$UCL = \bar{x} + t\left(s/\sqrt{n}\right)$$

Where: $\bar{x}$ = mean of untransformed data

s= standard deviation of untransformed data $s = \frac{n(\bar{x}^{\,2})-(\bar{x})^{\,2}}{n(n-1)}$

t = student-t statistic

n= number of samples

95th Upper Tolerance Limit Calculation

BG-1@0-1	=	117
BG-1@0-1	=	2,560
BG-1@1-2	=	747
BG-1@2-3	=	2,090
BG-1@3-4	=	2,160
BG-1@4-5	=	2,010
BG-1@5-6	=	1,070
BG-1@6-7	=	5490
BG-1@7-8		5,720
BG-1@8-9		3,890
BG-1@9-10		327
BG-1@10-11		238
BG-1@11-12		1,100
BG-2@0-1	=	1,110
BG-2@1-2	=	789
BG-2@2-3	=	125
BG-2@3-4	=	2,100

1733.667101	=	Standard Deviation
17	=	Sample Size (i.e. 12 samples collected within a 1/4 acre area).
2.815	=	One-sided tolerance factor
1861.353	=	Arithmetic Mean
6741.626	=	95% UTL

UTL = x + kS

Where: x = Mean

k = One-sided tolerance factor

S = Standard Deviation

ENSOLUM

ATTACHMENT E

Laboratory Analytical Reports & Chain-of-Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Beaux Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 8/14/2023 9:29:51 PM

JOB DESCRIPTION

Nexgen Produced Water Release
SDG NUMBER Lea Co, NM

JOB NUMBER

880-31966-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

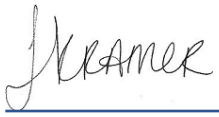
Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 880-31966-1
Project/Site: Nexgen Produced Water Release SDG: Lea Co, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
SDL	Sample Detection Limit
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Job ID: 880-31966-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-31966-1

Receipt
The samples were received on 8/11/2023 2:23 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: HA-1 (880-31966-1), HA-1 (880-31966-2), BG-1 (880-31966-3), HA-9 (880-31966-4), HA-9 (880-31966-5), HA-8 (880-31966-6), HA-8 (880-31966-7), HA-7 (880-31966-8), HA-7 (880-31966-9), HA-6 (880-31966-10) and HA-6 (880-31966-11).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: HA-1 (880-31966-1), HA-1 (880-31966-2), HA-9 (880-31966-5), HA-8 (880-31966-7) and HA-6 (880-31966-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The method blank for preparation batch 880-59927 and 880-59953 and analytical batch 880-59940 contained Benzene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60037/31), (CCV 880-60037/47) and (CCV 880-60037/58). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (880-31964-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: HA-1 (880-31966-1) and HA-1 (880-31966-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BG-1 (880-31966-3), HA-9 (880-31966-4), HA-9 (880-31966-5), HA-8 (880-31966-6), HA-8 (880-31966-7), HA-7 (880-31966-8), HA-7 (880-31966-9), HA-6 (880-31966-10) and HA-6 (880-31966-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-1

Lab Sample ID: 880-31966-1
Matrix: Solid
Date Collected: 08/11/23 09:15
Date Received: 08/11/23 14:23
Sample Depth: 0-1'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000894**	**J B**	0.00200	0.000385	mg/Kg		08/11/23 14:48	08/12/23 05:54	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/11/23 14:48	08/12/23 05:54	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/11/23 14:48	08/12/23 05:54	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/11/23 14:48	08/12/23 05:54	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/11/23 14:48	08/12/23 05:54	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/11/23 14:48	08/12/23 05:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*08/11/23 14:48*	*08/12/23 05:54*	*1*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*08/11/23 14:48*	*08/12/23 05:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/14/23 14:44	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**105**		50.0	14.9	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**44.1**	**J**	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 00:59	1
Diesel Range Organics (Over C10-C28)	**60.6**		50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 00:59	1
OII Range Organics (Over C28-C36)	<14.9	U	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 00:59	1
Total TPH	**105**		50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 00:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*135*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 00:59*	*1*
o-Terphenyl	*137*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 00:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9780**		5.00	3.94	mg/Kg			08/12/23 08:52	10

Client Sample ID: HA-1

Lab Sample ID: 880-31966-2
Matrix: Solid
Date Collected: 08/11/23 10:00
Date Received: 08/11/23 14:23
Sample Depth: 9-10'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000880**	**J B**	0.00200	0.000383	mg/Kg		08/11/23 14:48	08/12/23 06:15	1
Toluene	<0.000454	U	0.00200	0.000454	mg/Kg		08/11/23 14:48	08/12/23 06:15	1
Ethylbenzene	<0.000563	U	0.00200	0.000563	mg/Kg		08/11/23 14:48	08/12/23 06:15	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/11/23 14:48	08/12/23 06:15	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		08/11/23 14:48	08/12/23 06:15	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/11/23 14:48	08/12/23 06:15	1

Client Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-1

Lab Sample ID: 880-31966-2
Matrix: Solid
Date Collected: 08/11/23 10:00
Date Received: 08/11/23 14:23
Sample Depth: 9-10'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*08/11/23 14:48*	*08/12/23 06:15*	*1*
1,4-Difluorobenzene (Surr)	*60*	*S1-*	*70 - 130*	*08/11/23 14:48*	*08/12/23 06:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/14/23 14:44	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**95.7**		50.0	14.9	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**47.5**	**J**	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 01:21	1
Diesel Range Organics (Over C10-C28)	**48.2**	**J**	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 01:21	1
Oil Range Organics (Over C28-C36)	<14.9	U	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 01:21	1
Total TPH	**95.7**		50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 01:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*130*		*70 - 130*	*08/12/23 18:22*	*08/14/23 01:21*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 01:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**727**		5.00	0.397	mg/Kg			08/12/23 09:23	1

Client Sample ID: BG-1

Lab Sample ID: 880-31966-3
Matrix: Solid
Date Collected: 08/11/23 10:10
Date Received: 08/11/23 14:23
Sample Depth: 0-1'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000990**	**J B**	0.00200	0.000387	mg/Kg		08/11/23 14:48	08/12/23 07:58	1
Toluene	<0.000458	U	0.00200	0.000458	mg/Kg		08/11/23 14:48	08/12/23 07:58	1
Ethylbenzene	<0.000567	U	0.00200	0.000567	mg/Kg		08/11/23 14:48	08/12/23 07:58	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/11/23 14:48	08/12/23 07:58	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		08/11/23 14:48	08/12/23 07:58	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/11/23 14:48	08/12/23 07:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*08/11/23 14:48*	*08/12/23 07:58*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*08/11/23 14:48*	*08/12/23 07:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/14/23 14:44	1

Client Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: BG-1

Lab Sample ID: 880-31966-3
Matrix: Solid
Date Collected: 08/11/23 10:10
Date Received: 08/11/23 14:23
Sample Depth: 0-1'

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**98.0**		50.0	15.0	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**36.8**	**J**	50.0	15.0	mg/Kg		08/12/23 18:22	08/14/23 02:03	1
Diesel Range Organics (Over C10-C28)	**61.2**		50.0	15.0	mg/Kg		08/12/23 18:22	08/14/23 02:03	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/12/23 18:22	08/14/23 02:03	1
Total TPH	**98.0**		50.0	15.0	mg/Kg		08/12/23 18:22	08/14/23 02:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*142*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 02:03*	*1*
o-Terphenyl	*130*		*70 - 130*	*08/12/23 18:22*	*08/14/23 02:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**117**		5.00	0.396	mg/Kg			08/12/23 09:34	1

Client Sample ID: HA-9

Lab Sample ID: 880-31966-4
Matrix: Solid
Date Collected: 08/11/23 09:15
Date Received: 08/11/23 14:23
Sample Depth: 0-1 ft

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000914**	**J B**	0.00200	0.000386	mg/Kg		08/11/23 14:48	08/12/23 08:18	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		08/11/23 14:48	08/12/23 08:18	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		08/11/23 14:48	08/12/23 08:18	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/11/23 14:48	08/12/23 08:18	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		08/11/23 14:48	08/12/23 08:18	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/11/23 14:48	08/12/23 08:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*08/11/23 14:48*	*08/12/23 08:18*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*08/11/23 14:48*	*08/12/23 08:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/14/23 14:44	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**85.1**		50.0	15.1	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**39.6**	**J**	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 02:24	1
Diesel Range Organics (Over C10-C28)	**45.5**	**J**	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 02:24	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 02:24	1

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Client Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-9

Lab Sample ID: 880-31966-4
Matrix: Solid
Date Collected: 08/11/23 09:15
Date Received: 08/11/23 14:23
Sample Depth: 0-1 ft

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**85.1**		50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 02:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*136*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 02:24*	*1*
o-Terphenyl	*126*		*70 - 130*	*08/12/23 18:22*	*08/14/23 02:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3390**		5.00	1.97	mg/Kg			08/12/23 09:44	5

Client Sample ID: HA-9

Lab Sample ID: 880-31966-5
Matrix: Solid
Date Collected: 08/11/23 09:25
Date Received: 08/11/23 14:23
Sample Depth: 2-3 ft

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000892**	**J B**	0.00200	0.000384	mg/Kg		08/11/23 14:48	08/12/23 08:39	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		08/11/23 14:48	08/12/23 08:39	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		08/11/23 14:48	08/12/23 08:39	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/11/23 14:48	08/12/23 08:39	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		08/11/23 14:48	08/12/23 08:39	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/11/23 14:48	08/12/23 08:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*08/11/23 14:48*	*08/12/23 08:39*	*1*
1,4-Difluorobenzene (Surr)	*61*	*S1-*	*70 - 130*	*08/11/23 14:48*	*08/12/23 08:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/14/23 14:44	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**40.5**	**J**	50.0	15.1	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**40.5**	**J**	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 02:45	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 02:45	1
OII Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 02:45	1
Total TPH	**40.5**	**J**	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 02:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*150*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 02:45*	*1*
o-Terphenyl	*140*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 02:45*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-9

Lab Sample ID: 880-31966-5
Matrix: Solid
Date Collected: 08/11/23 09:25
Date Received: 08/11/23 14:23
Sample Depth: 2-3 ft

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1120**		5.00	0.395	mg/Kg			08/12/23 09:55	1

Client Sample ID: HA-8

Lab Sample ID: 880-31966-6
Matrix: Solid
Date Collected: 08/11/23 09:45
Date Received: 08/11/23 14:23
Sample Depth: 0-1 ft

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000897**	**J B**	0.00200	0.000383	mg/Kg		08/11/23 14:48	08/12/23 09:00	1
Toluene	<0.000454	U	0.00200	0.000454	mg/Kg		08/11/23 14:48	08/12/23 09:00	1
Ethylbenzene	<0.000563	U	0.00200	0.000563	mg/Kg		08/11/23 14:48	08/12/23 09:00	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/11/23 14:48	08/12/23 09:00	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		08/11/23 14:48	08/12/23 09:00	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/11/23 14:48	08/12/23 09:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*08/11/23 14:48*	*08/12/23 09:00*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*08/11/23 14:48*	*08/12/23 09:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/14/23 14:44	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**81.5**		50.0	14.9	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**42.0**	**J**	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 03:07	1
Diesel Range Organics (Over C10-C28)	**39.5**	**J**	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 03:07	1
OII Range Organics (Over C28-C36)	<14.9	U	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 03:07	1
Total TPH	**81.5**		50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*142*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 03:07*	*1*
o-Terphenyl	*142*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 03:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1210**		5.00	0.395	mg/Kg			08/12/23 10:05	1

Client Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-8

Lab Sample ID: 880-31966-7
Matrix: Solid
Date Collected: 08/11/23 09:50
Date Received: 08/11/23 14:23
Sample Depth: 1-2 ft

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000892**	**J B**	0.00200	0.000385	mg/Kg		08/11/23 14:48	08/12/23 09:20	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/11/23 14:48	08/12/23 09:20	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/11/23 14:48	08/12/23 09:20	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/11/23 14:48	08/12/23 09:20	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/11/23 14:48	08/12/23 09:20	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/11/23 14:48	08/12/23 09:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*08/11/23 14:48*	*08/12/23 09:20*	*1*
1,4-Difluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*08/11/23 14:48*	*08/12/23 09:20*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/14/23 14:44	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**42.6**	**J**	50.0	14.9	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**42.6**	**J**	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 03:28	1
Diesel Range Organics (Over C10-C28)	<14.9	U	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 03:28	1
OII Range Organics (Over C28-C36)	<14.9	U	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 03:28	1
Total TPH	**42.6**	**J**	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*160*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 03:28*	*1*
o-Terphenyl	*162*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 03:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1790**		5.00	1.99	mg/Kg			08/12/23 10:15	5

Client Sample ID: HA-7

Lab Sample ID: 880-31966-8
Matrix: Solid
Date Collected: 08/11/23 10:05
Date Received: 08/11/23 14:23
Sample Depth: 0-1 ft

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000909**	**J B**	0.00200	0.000381	mg/Kg		08/11/23 14:48	08/12/23 09:41	1
Toluene	<0.000451	U	0.00200	0.000451	mg/Kg		08/11/23 14:48	08/12/23 09:41	1
Ethylbenzene	<0.000559	U	0.00200	0.000559	mg/Kg		08/11/23 14:48	08/12/23 09:41	1
m-Xylene & p-Xylene	<0.00100	U	0.00400	0.00100	mg/Kg		08/11/23 14:48	08/12/23 09:41	1
o-Xylene	<0.000341	U	0.00200	0.000341	mg/Kg		08/11/23 14:48	08/12/23 09:41	1
Xylenes, Total	<0.00100	U	0.00200	0.00100	mg/Kg		08/11/23 14:48	08/12/23 09:41	1

Client Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-7

Lab Sample ID: 880-31966-8
Matrix: Solid
Date Collected: 08/11/23 10:05
Date Received: 08/11/23 14:23
Sample Depth: 0-1 ft

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*08/11/23 14:48*	*08/12/23 09:41*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*08/11/23 14:48*	*08/12/23 09:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/Kg			08/14/23 14:44	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**34.9**	**J**	50.0	15.1	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**34.9**	**J**	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 03:49	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 03:49	1
OII Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 03:49	1
Total TPH	**34.9**	**J**	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 03:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*170*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 03:49*	*1*
o-Terphenyl	*153*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 03:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4710**		5.00	1.96	mg/Kg			08/12/23 10:46	5

Client Sample ID: HA-7

Lab Sample ID: 880-31966-9
Matrix: Solid
Date Collected: 08/11/23 10:13
Date Received: 08/11/23 14:23
Sample Depth: 1-2 ft

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000895**	**J B**	0.00200	0.000387	mg/Kg		08/11/23 14:48	08/12/23 10:01	1
Toluene	<0.000459	U	0.00200	0.000459	mg/Kg		08/11/23 14:48	08/12/23 10:01	1
Ethylbenzene	<0.000568	U	0.00200	0.000568	mg/Kg		08/11/23 14:48	08/12/23 10:01	1
m-Xylene & p-Xylene	<0.00102	U	0.00400	0.00102	mg/Kg		08/11/23 14:48	08/12/23 10:01	1
o-Xylene	<0.000346	U	0.00200	0.000346	mg/Kg		08/11/23 14:48	08/12/23 10:01	1
Xylenes, Total	<0.00102	U	0.00200	0.00102	mg/Kg		08/11/23 14:48	08/12/23 10:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*08/11/23 14:48*	*08/12/23 10:01*	*1*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*08/11/23 14:48*	*08/12/23 10:01*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00200	0.00102	mg/Kg			08/14/23 14:44	1

Client Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-7

Lab Sample ID: 880-31966-9
Matrix: Solid
Date Collected: 08/11/23 10:13
Date Received: 08/11/23 14:23
Sample Depth: 1-2 ft

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**81.6**		50.0	15.1	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**43.7**	**J**	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 04:11	1
Diesel Range Organics (Over C10-C28)	**37.9**	**J**	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 04:11	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 04:11	1
Total TPH	**81.6**		50.0	15.1	mg/Kg		08/12/23 18:22	08/14/23 04:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*131*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 04:11*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 04:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1350**		5.00	0.392	mg/Kg			08/12/23 10:57	1

Client Sample ID: HA-6

Lab Sample ID: 880-31966-10
Matrix: Solid
Date Collected: 08/11/23 10:25
Date Received: 08/11/23 14:23
Sample Depth: 0-1 ft

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000899**	**J B**	0.00200	0.000388	mg/Kg		08/11/23 14:48	08/12/23 10:22	1
Toluene	<0.000460	U	0.00200	0.000460	mg/Kg		08/11/23 14:48	08/12/23 10:22	1
Ethylbenzene	<0.000570	U	0.00200	0.000570	mg/Kg		08/11/23 14:48	08/12/23 10:22	1
m-Xylene & p-Xylene	<0.00102	U	0.00400	0.00102	mg/Kg		08/11/23 14:48	08/12/23 10:22	1
o-Xylene	<0.000347	U	0.00200	0.000347	mg/Kg		08/11/23 14:48	08/12/23 10:22	1
Xylenes, Total	<0.00102	U	0.00200	0.00102	mg/Kg		08/11/23 14:48	08/12/23 10:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*08/11/23 14:48*	*08/12/23 10:22*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*08/11/23 14:48*	*08/12/23 10:22*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00200	0.00102	mg/Kg			08/14/23 14:44	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**42.6**	**J**	50.0	14.9	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**42.6**	**J**	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 04:32	1
Diesel Range Organics (Over C10-C28)	<14.9	U	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 04:32	1
Oil Range Organics (Over C28-C36)	<14.9	U	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 04:32	1

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Client Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-6

Lab Sample ID: 880-31966-10
Matrix: Solid
Date Collected: 08/11/23 10:25
Date Received: 08/11/23 14:23
Sample Depth: 0-1 ft

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**42.6**	**J**	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 04:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 04:32*	*1*
o-Terphenyl	*129*		*70 - 130*	*08/12/23 18:22*	*08/14/23 04:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4760**		5.00	1.98	mg/Kg			08/12/23 11:28	5

Client Sample ID: HA-6

Lab Sample ID: 880-31966-11
Matrix: Solid
Date Collected: 08/11/23 10:30
Date Received: 08/11/23 14:23
Sample Depth: 1-2 ft

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000864**	**J B**	0.00200	0.000383	mg/Kg		08/11/23 14:48	08/12/23 10:42	1
Toluene	<0.000453	U	0.00200	0.000453	mg/Kg		08/11/23 14:48	08/12/23 10:42	1
Ethylbenzene	<0.000562	U	0.00200	0.000562	mg/Kg		08/11/23 14:48	08/12/23 10:42	1
m-Xylene & p-Xylene	<0.00100	U	0.00400	0.00100	mg/Kg		08/11/23 14:48	08/12/23 10:42	1
o-Xylene	<0.000342	U	0.00200	0.000342	mg/Kg		08/11/23 14:48	08/12/23 10:42	1
Xylenes, Total	<0.00100	U	0.00200	0.00100	mg/Kg		08/11/23 14:48	08/12/23 10:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*08/11/23 14:48*	*08/12/23 10:42*	*1*
1,4-Difluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*08/11/23 14:48*	*08/12/23 10:42*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/Kg			08/14/23 14:44	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**103**		50.0	14.9	mg/Kg			08/14/23 22:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**43.0**	**J**	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 06:42	1
Diesel Range Organics (Over C10-C28)	**59.6**		50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 06:42	1
OII Range Organics (Over C28-C36)	<14.9	U	50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 06:42	1
Total TPH	**103**		50.0	14.9	mg/Kg		08/12/23 18:22	08/14/23 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*153*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 06:42*	*1*
o-Terphenyl	*146*	*S1+*	*70 - 130*	*08/12/23 18:22*	*08/14/23 06:42*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-6

Date Collected: 08/11/23 10:30
Date Received: 08/11/23 14:23
Sample Depth: 1-2 ft

Lab Sample ID: 880-31966-11

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2060		5.00	1.98	mg/Kg			08/12/23 11:38	5

Surrogate Summary

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-31966-1	HA-1	110	68 S1-
880-31966-2	HA-1	88	60 S1-
880-31966-3	BG-1	84	72
880-31966-4	HA-9	90	83
880-31966-5	HA-9	91	61 S1-
880-31966-6	HA-8	92	75
880-31966-7	HA-8	114	69 S1-
880-31966-8	HA-7	77	76
880-31966-9	HA-7	119	73
880-31966-10	HA-6	108	88
880-31966-11	HA-6	88	67 S1-
LCS 880-59953/1-A	Lab Control Sample	114	122
LCSD 880-59953/2-A	Lab Control Sample Dup	114	122
MB 880-59927/5-A	Method Blank	73	78
MB 880-59953/5-A	Method Blank	70	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-31966-1	HA-1	135 S1+	137 S1+
880-31966-2	HA-1	130	133 S1+
880-31966-3	BG-1	142 S1+	130
880-31966-4	HA-9	136 S1+	126
880-31966-5	HA-9	150 S1+	140 S1+
880-31966-6	HA-8	142 S1+	142 S1+
880-31966-7	HA-8	160 S1+	162 S1+
880-31966-8	HA-7	170 S1+	153 S1+
880-31966-9	HA-7	131 S1+	131 S1+
880-31966-10	HA-6	137 S1+	129
880-31966-11	HA-6	153 S1+	146 S1+
LCS 880-60026/2-A	Lab Control Sample	118	121
LCSD 880-60026/3-A	Lab Control Sample Dup	116	122
MB 880-60026/1-A	Method Blank	122	123

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-59927/5-A
Matrix: Solid
Analysis Batch: 59940

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 59927

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0009483	J	0.00200	0.000385	mg/Kg		08/11/23 10:59	08/11/23 16:30	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/11/23 10:59	08/11/23 16:30	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/11/23 10:59	08/11/23 16:30	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/11/23 10:59	08/11/23 16:30	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/11/23 10:59	08/11/23 16:30	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/11/23 10:59	08/11/23 16:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*70 - 130*	*08/11/23 10:59*	*08/11/23 16:30*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*08/11/23 10:59*	*08/11/23 16:30*	*1*

Lab Sample ID: MB 880-59953/5-A
Matrix: Solid
Analysis Batch: 59940

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 59953

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0009547	J	0.00200	0.000385	mg/Kg		08/11/23 14:48	08/12/23 03:09	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/11/23 14:48	08/12/23 03:09	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/11/23 14:48	08/12/23 03:09	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/11/23 14:48	08/12/23 03:09	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/11/23 14:48	08/12/23 03:09	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/11/23 14:48	08/12/23 03:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*	*08/11/23 14:48*	*08/12/23 03:09*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*08/11/23 14:48*	*08/12/23 03:09*	*1*

Lab Sample ID: LCS 880-59953/1-A
Matrix: Solid
Analysis Batch: 59940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 59953

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09686		mg/Kg		97	70 - 130		
Toluene			0.100	0.1015		mg/Kg		102	70 - 130		
Ethylbenzene			0.100	0.1001		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.2165		mg/Kg		108	70 - 130		
o-Xylene			0.100	0.1070		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*

Lab Sample ID: LCSD 880-59953/2-A
Matrix: Solid
Analysis Batch: 59940

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 59953

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09754		mg/Kg		98	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-59953/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 59940 — **Prep Batch: 59953**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09962		mg/Kg		100	70 - 130	2	35
Ethylbenzene			0.100	0.1004		mg/Kg		100	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2178		mg/Kg		109	70 - 130	1	35
o-Xylene			0.100	0.1073		mg/Kg		107	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-60026/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 60037 — **Prep Batch: 60026**

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		08/12/23 18:22	08/13/23 20:13	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		08/12/23 18:22	08/13/23 20:13	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/12/23 18:22	08/13/23 20:13	1
Total TPH	<15.0	U	50.0	15.0	mg/Kg		08/12/23 18:22	08/13/23 20:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*08/12/23 18:22*	*08/13/23 20:13*	*1*
o-Terphenyl	*123*		*70 - 130*	*08/12/23 18:22*	*08/13/23 20:13*	*1*

Lab Sample ID: LCS 880-60026/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 60037 — **Prep Batch: 60026**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	978.3		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)			1000	940.2		mg/Kg		94	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*121*		*70 - 130*

Lab Sample ID: LCSD 880-60026/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 60037 — **Prep Batch: 60026**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	912.6		mg/Kg		91	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	887.0		mg/Kg		89	70 - 130	6	20

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	122		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-59960/1-A
Matrix: Solid
Analysis Batch: 60025

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			08/12/23 07:19	1

Lab Sample ID: LCS 880-59960/2-A
Matrix: Solid
Analysis Batch: 60025

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	271.8		mg/Kg		109	90 - 110		

Lab Sample ID: LCSD 880-59960/3-A
Matrix: Solid
Analysis Batch: 60025

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	272.6		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 880-31966-7 MS
Matrix: Solid
Analysis Batch: 60025

Client Sample ID: HA-8
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1790		1260	3146		mg/Kg		108	90 - 110		

Lab Sample ID: 880-31966-7 MSD
Matrix: Solid
Analysis Batch: 60025

Client Sample ID: HA-8
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1790		1260	3147		mg/Kg		108	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

GC VOA

Prep Batch: 59927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-59927/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 59940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31966-1	HA-1	Total/NA	Solid	8021B	59953
880-31966-2	HA-1	Total/NA	Solid	8021B	59953
880-31966-3	BG-1	Total/NA	Solid	8021B	59953
880-31966-4	HA-9	Total/NA	Solid	8021B	59953
880-31966-5	HA-9	Total/NA	Solid	8021B	59953
880-31966-6	HA-8	Total/NA	Solid	8021B	59953
880-31966-7	HA-8	Total/NA	Solid	8021B	59953
880-31966-8	HA-7	Total/NA	Solid	8021B	59953
880-31966-9	HA-7	Total/NA	Solid	8021B	59953
880-31966-10	HA-6	Total/NA	Solid	8021B	59953
880-31966-11	HA-6	Total/NA	Solid	8021B	59953
MB 880-59927/5-A	Method Blank	Total/NA	Solid	8021B	59927
MB 880-59953/5-A	Method Blank	Total/NA	Solid	8021B	59953
LCS 880-59953/1-A	Lab Control Sample	Total/NA	Solid	8021B	59953
LCSD 880-59953/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	59953

Prep Batch: 59953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31966-1	HA-1	Total/NA	Solid	5035	
880-31966-2	HA-1	Total/NA	Solid	5035	
880-31966-3	BG-1	Total/NA	Solid	5035	
880-31966-4	HA-9	Total/NA	Solid	5035	
880-31966-5	HA-9	Total/NA	Solid	5035	
880-31966-6	HA-8	Total/NA	Solid	5035	
880-31966-7	HA-8	Total/NA	Solid	5035	
880-31966-8	HA-7	Total/NA	Solid	5035	
880-31966-9	HA-7	Total/NA	Solid	5035	
880-31966-10	HA-6	Total/NA	Solid	5035	
880-31966-11	HA-6	Total/NA	Solid	5035	
MB 880-59953/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-59953/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-59953/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 60121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31966-1	HA-1	Total/NA	Solid	Total BTEX	
880-31966-2	HA-1	Total/NA	Solid	Total BTEX	
880-31966-3	BG-1	Total/NA	Solid	Total BTEX	
880-31966-4	HA-9	Total/NA	Solid	Total BTEX	
880-31966-5	HA-9	Total/NA	Solid	Total BTEX	
880-31966-6	HA-8	Total/NA	Solid	Total BTEX	
880-31966-7	HA-8	Total/NA	Solid	Total BTEX	
880-31966-8	HA-7	Total/NA	Solid	Total BTEX	
880-31966-9	HA-7	Total/NA	Solid	Total BTEX	
880-31966-10	HA-6	Total/NA	Solid	Total BTEX	
880-31966-11	HA-6	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

GC Semi VOA

Prep Batch: 60026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31966-1	HA-1	Total/NA	Solid	8015NM Prep	
880-31966-2	HA-1	Total/NA	Solid	8015NM Prep	
880-31966-3	BG-1	Total/NA	Solid	8015NM Prep	
880-31966-4	HA-9	Total/NA	Solid	8015NM Prep	
880-31966-5	HA-9	Total/NA	Solid	8015NM Prep	
880-31966-6	HA-8	Total/NA	Solid	8015NM Prep	
880-31966-7	HA-8	Total/NA	Solid	8015NM Prep	
880-31966-8	HA-7	Total/NA	Solid	8015NM Prep	
880-31966-9	HA-7	Total/NA	Solid	8015NM Prep	
880-31966-10	HA-6	Total/NA	Solid	8015NM Prep	
880-31966-11	HA-6	Total/NA	Solid	8015NM Prep	
MB 880-60026/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60026/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60026/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 60037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31966-1	HA-1	Total/NA	Solid	8015B NM	60026
880-31966-2	HA-1	Total/NA	Solid	8015B NM	60026
880-31966-3	BG-1	Total/NA	Solid	8015B NM	60026
880-31966-4	HA-9	Total/NA	Solid	8015B NM	60026
880-31966-5	HA-9	Total/NA	Solid	8015B NM	60026
880-31966-6	HA-8	Total/NA	Solid	8015B NM	60026
880-31966-7	HA-8	Total/NA	Solid	8015B NM	60026
880-31966-8	HA-7	Total/NA	Solid	8015B NM	60026
880-31966-9	HA-7	Total/NA	Solid	8015B NM	60026
880-31966-10	HA-6	Total/NA	Solid	8015B NM	60026
880-31966-11	HA-6	Total/NA	Solid	8015B NM	60026
MB 880-60026/1-A	Method Blank	Total/NA	Solid	8015B NM	60026
LCS 880-60026/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60026
LCSD 880-60026/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60026

Analysis Batch: 60224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31966-1	HA-1	Total/NA	Solid	8015 NM	
880-31966-2	HA-1	Total/NA	Solid	8015 NM	
880-31966-3	BG-1	Total/NA	Solid	8015 NM	
880-31966-4	HA-9	Total/NA	Solid	8015 NM	
880-31966-5	HA-9	Total/NA	Solid	8015 NM	
880-31966-6	HA-8	Total/NA	Solid	8015 NM	
880-31966-7	HA-8	Total/NA	Solid	8015 NM	
880-31966-8	HA-7	Total/NA	Solid	8015 NM	
880-31966-9	HA-7	Total/NA	Solid	8015 NM	
880-31966-10	HA-6	Total/NA	Solid	8015 NM	
880-31966-11	HA-6	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 59960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31966-1	HA-1	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

HPLC/IC (Continued)

Leach Batch: 59960 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31966-2	HA-1	Soluble	Solid	DI Leach	
880-31966-3	BG-1	Soluble	Solid	DI Leach	
880-31966-4	HA-9	Soluble	Solid	DI Leach	
880-31966-5	HA-9	Soluble	Solid	DI Leach	
880-31966-6	HA-8	Soluble	Solid	DI Leach	
880-31966-7	HA-8	Soluble	Solid	DI Leach	
880-31966-8	HA-7	Soluble	Solid	DI Leach	
880-31966-9	HA-7	Soluble	Solid	DI Leach	
880-31966-10	HA-6	Soluble	Solid	DI Leach	
880-31966-11	HA-6	Soluble	Solid	DI Leach	
MB 880-59960/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-59960/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-59960/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-31966-7 MS	HA-8	Soluble	Solid	DI Leach	
880-31966-7 MSD	HA-8	Soluble	Solid	DI Leach	

Analysis Batch: 60025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31966-1	HA-1	Soluble	Solid	300.0	59960
880-31966-2	HA-1	Soluble	Solid	300.0	59960
880-31966-3	BG-1	Soluble	Solid	300.0	59960
880-31966-4	HA-9	Soluble	Solid	300.0	59960
880-31966-5	HA-9	Soluble	Solid	300.0	59960
880-31966-6	HA-8	Soluble	Solid	300.0	59960
880-31966-7	HA-8	Soluble	Solid	300.0	59960
880-31966-8	HA-7	Soluble	Solid	300.0	59960
880-31966-9	HA-7	Soluble	Solid	300.0	59960
880-31966-10	HA-6	Soluble	Solid	300.0	59960
880-31966-11	HA-6	Soluble	Solid	300.0	59960
MB 880-59960/1-A	Method Blank	Soluble	Solid	300.0	59960
LCS 880-59960/2-A	Lab Control Sample	Soluble	Solid	300.0	59960
LCSD 880-59960/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	59960
880-31966-7 MS	HA-8	Soluble	Solid	300.0	59960
880-31966-7 MSD	HA-8	Soluble	Solid	300.0	59960

Lab Chronicle

Client: Ensolum
Job ID: 880-31966-1
Project/Site: Nexgen Produced Water Release
SDG: Lea Co, NM

Client Sample ID: HA-1
Lab Sample ID: 880-31966-1
Date Collected: 08/11/23 09:15
Matrix: Solid
Date Received: 08/11/23 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 05:54
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 00:59
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		10	60025	SMC	EET MID	08/12/23 08:52

Client Sample ID: HA-1
Lab Sample ID: 880-31966-2
Date Collected: 08/11/23 10:00
Matrix: Solid
Date Received: 08/11/23 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 06:15
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 01:21
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		1	60025	SMC	EET MID	08/12/23 09:23

Client Sample ID: BG-1
Lab Sample ID: 880-31966-3
Date Collected: 08/11/23 10:10
Matrix: Solid
Date Received: 08/11/23 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 07:58
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 02:03
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		1	60025	SMC	EET MID	08/12/23 09:34

Client Sample ID: HA-9
Lab Sample ID: 880-31966-4
Date Collected: 08/11/23 09:15
Matrix: Solid
Date Received: 08/11/23 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 08:18
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44

Eurofins Midland

Lab Chronicle

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-9
Date Collected: 08/11/23 09:15
Date Received: 08/11/23 14:23

Lab Sample ID: 880-31966-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 02:24
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		5	60025	SMC	EET MID	08/12/23 09:44

Client Sample ID: HA-9
Date Collected: 08/11/23 09:25
Date Received: 08/11/23 14:23

Lab Sample ID: 880-31966-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 08:39
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 02:45
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		1	60025	SMC	EET MID	08/12/23 09:55

Client Sample ID: HA-8
Date Collected: 08/11/23 09:45
Date Received: 08/11/23 14:23

Lab Sample ID: 880-31966-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 09:00
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 03:07
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		1	60025	SMC	EET MID	08/12/23 10:05

Client Sample ID: HA-8
Date Collected: 08/11/23 09:50
Date Received: 08/11/23 14:23

Lab Sample ID: 880-31966-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 09:20
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 03:28

Lab Chronicle

Client: Ensolum
Job ID: 880-31966-1
Project/Site: Nexgen Produced Water Release
SDG: Lea Co, NM

Client Sample ID: HA-8
Lab Sample ID: 880-31966-7
Date Collected: 08/11/23 09:50
Matrix: Solid
Date Received: 08/11/23 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		5	60025	SMC	EET MID	08/12/23 10:15

Client Sample ID: HA-7
Lab Sample ID: 880-31966-8
Date Collected: 08/11/23 10:05
Matrix: Solid
Date Received: 08/11/23 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 09:41
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 03:49
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		5	60025	SMC	EET MID	08/12/23 10:46

Client Sample ID: HA-7
Lab Sample ID: 880-31966-9
Date Collected: 08/11/23 10:13
Matrix: Solid
Date Received: 08/11/23 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 10:01
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 04:11
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		1	60025	SMC	EET MID	08/12/23 10:57

Client Sample ID: HA-6
Lab Sample ID: 880-31966-10
Date Collected: 08/11/23 10:25
Matrix: Solid
Date Received: 08/11/23 14:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 10:22
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 04:32
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		5	60025	SMC	EET MID	08/12/23 11:28

Lab Chronicle

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Client Sample ID: HA-6

Date Collected: 08/11/23 10:30
Date Received: 08/11/23 14:23

Lab Sample ID: 880-31966-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			59953	EL	EET MID	08/11/23 14:48
Total/NA	Analysis	8021B		1	59940	SM	EET MID	08/12/23 10:42
Total/NA	Analysis	Total BTEX		1	60121	SM	EET MID	08/14/23 14:44
Total/NA	Analysis	8015 NM		1	60224	SM	EET MID	08/14/23 22:11
Total/NA	Prep	8015NM Prep			60026	TKC	EET MID	08/12/23 18:22
Total/NA	Analysis	8015B NM		1	60037	SM	EET MID	08/14/23 06:42
Soluble	Leach	DI Leach			59960	KS	EET MID	08/11/23 15:19
Soluble	Analysis	300.0		5	60025	SMC	EET MID	08/12/23 11:38

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: Nexgen Produced Water Release

Job ID: 880-31966-1
SDG: Lea Co, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-31966-1	HA-1	Solid	08/11/23 09:15	08/11/23 14:23	0-1'
880-31966-2	HA-1	Solid	08/11/23 10:00	08/11/23 14:23	9-10'
880-31966-3	BG-1	Solid	08/11/23 10:10	08/11/23 14:23	0-1'
880-31966-4	HA-9	Solid	08/11/23 09:15	08/11/23 14:23	0-1 ft
880-31966-5	HA-9	Solid	08/11/23 09:25	08/11/23 14:23	2-3 ft
880-31966-6	HA-8	Solid	08/11/23 09:45	08/11/23 14:23	0-1 ft
880-31966-7	HA-8	Solid	08/11/23 09:50	08/11/23 14:23	1-2 ft
880-31966-8	HA-7	Solid	08/11/23 10:05	08/11/23 14:23	0-1 ft
880-31966-9	HA-7	Solid	08/11/23 10:13	08/11/23 14:23	1-2 ft
880-31966-10	HA-6	Solid	08/11/23 10:25	08/11/23 14:23	0-1 ft
880-31966-11	HA-6	Solid	08/11/23 10:30	08/11/23 14:23	1-2 ft

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392 7550, Carlsbad, NM (575) 988-3199

Wor 880-31966 Chain of Custody

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Project Manager:	Bacus Jennings	Bill to: (if different)	
Company Name:	Ensolum LLC	Company Name:	
Address:	601 Marienfeld #400	Address:	
City, State ZIP:	MIDLAND TX 79701	City, State ZIP:	
Phone:	432 230 3344	Email	bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☒ Superfund ☐
State of Project:
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables. EDD ☐ ADaPT ☐ Other

Project Name:	NEXGEN Produced Water Release	Turn Around	
Project Number:	03B2359002	☐ Routine ☒ Rush	
Project Location	Lea Co. NM	Due Date	24 hrs
Sampler's Name:	Shane Diller	TAT starts the day received by the lab, if received by 4.30pm	
PO #	03B2359002		

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR8
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-.30
Sample Custody Seals.	Yes No (N/A)	Temperature Reading	3.9
Total Containers:		Corrected Temperature:	3.6

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015	Chlorides	Sample Comments
HA-1	S	8-11-23	0915	0-1'	G	1		X	X	X	
HA-1	S	8-11-23	1000	9-10'	G	1		X	X	X	
BG-1	S	8-11-23	1010	0-1'	G	1		X	X	X	
NFE		8/11/23									

Preservative Codes

None NO DI Water H_2O
Cool Cool MeOH Me
HCL HC HNO_3 HN
H_2SO_4 H_2 NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245.1 / 7470 / 7471

	Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1			8/11/23 1102	2		8/11/23 1423
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392 7550 Carlsbad, NM (575) 988-3199

Work Order No: 2

Loc: 880
31966

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Project Manager	Beaux Jennings	Bill to (if different)	
Company Name	Ensolum, LLC	Company Name	
Address	601 N Marienfeld St Suite 400	Address	
City, State ZIP	Midland TX 79701	City, State ZIP	
Phone	210-219-8858	Email	BJennings@ensolum.com

Work Order Comments

Program UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☒ Superfund ☐
State of Project:
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables EDD ☐ ADaPT ☐ Other:

Project Name	NexGen Produced Water Release	Turn Around	☐ Routine ☒ Rush
Project Number	03B2359002	Due Date	24 hrs
Project Location	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name	SAM / LN		
PO #	03B2359002		

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth Feet	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015 M	Chlorides	NFE
HA-9	S	8/11/23	0915	0-1	G	1		X	X	X	
HA-9	S	8/11/23	0925	2-3	G	1		X	X	X	
HA-8	S	8/11/23	0945	0-1	G	1		X	X	X	
HA-8	S	8/11/23	0950	1-2	G	1		X	X	X	
HA-7	S	8/11/23	1005	0-1	G	1		X	X	X	
HA-7	S	8/11/23	1013	1-2	G	1		X	X	X	
HA-6	S	8/11/23	1025	0-1	G	1		X	X	X	
HA-6	S	8/11/23	1030	1-2	G	1		X	X	X	

8/11/23 Sam

Preservative Codes

None NO DI Water H_2O
Cool Cool MeOH Me
HCL HC HNO_3 HN
H_2SO_4 H_2 NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		8/11/23 1423	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-31966-1
SDG Number: Lea Co, NM

Login Number: 31966
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Beaux Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 8/24/2023 9:23:23 AM Revision 1

JOB DESCRIPTION

NexGen Produced Water Release
SDG NUMBER Lea County NM

JOB NUMBER

880-32127-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

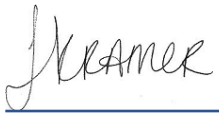
Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
8/24/2023 9:23:23 AM
Revision 1

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
SDL	Sample Detection Limit
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Job ID: 880-32127-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-32127-1

REVISION

The report being provided is a revision of the original report sent on 8/18/2023. The report (revision 1) is being revised due to Per client email added chlorides to samples.

Receipt
The samples were received on 8/16/2023 9:31 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-60364 and analytical batch 880-60348 was outside the upper control limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-60348 recovered below the lower control limit for o-Xylene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-60348/33).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (CCV 880-60420/5). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-60398 and analytical batch 880-60420 was outside control limits. Sample non-homogeneity is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-60362 and analytical batch 880-60399 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.The associated samples are: GP-2 (880-32127-14), GP-3 (880-32127-15), GP-4 (880-32127-24), GP-4 (880-32127-31), (880-32127-A-1-E MS) and (880-32127-A-1-F MSD).

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-60393 and analytical batch 880-60415 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.The associated sample is: GP-3 (880-32127-22).

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-60393 and analytical batch 880-60415 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.The associated samples are: (880-32136-A-1-B), (880-32136-A-1-C MS) and (880-32136-A-1-D MSD).

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-60841 and analytical batch 880-60882 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Case Narrative

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Job ID: 880-32127-1 (Continued)

Laboratory: Eurofins Midland (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Client Sample ID: GP-2

Date Collected: 08/15/23 11:00
Date Received: 08/16/23 09:31
Sample Depth: 0 - 1

Lab Sample ID: 880-32127-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000381	U	0.00200	0.000381	mg/Kg		08/16/23 13:22	08/17/23 03:24	1
Toluene	<0.000451	U	0.00200	0.000451	mg/Kg		08/16/23 13:22	08/17/23 03:24	1
Ethylbenzene	<0.000559	U	0.00200	0.000559	mg/Kg		08/16/23 13:22	08/17/23 03:24	1
m-Xylene & p-Xylene	<0.00100	U	0.00400	0.00100	mg/Kg		08/16/23 13:22	08/17/23 03:24	1
o-Xylene	<0.000341	U	0.00200	0.000341	mg/Kg		08/16/23 13:22	08/17/23 03:24	1
Xylenes, Total	<0.00100	U	0.00200	0.00100	mg/Kg		08/16/23 13:22	08/17/23 03:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*70 - 130*	*08/16/23 13:22*	*08/17/23 03:24*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*08/16/23 13:22*	*08/17/23 03:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/Kg			08/17/23 10:00	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**68.5**		50.0	15.1	mg/Kg			08/18/23 09:32	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**31.3**	**J F2**	50.0	15.1	mg/Kg		08/16/23 17:18	08/17/23 10:49	1
Diesel Range Organics (Over C10-C28)	**37.2**	**J**	50.0	15.1	mg/Kg		08/16/23 17:18	08/17/23 10:49	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/16/23 17:18	08/17/23 10:49	1
Total TPH	**68.5**		50.0	15.1	mg/Kg		08/16/23 17:18	08/17/23 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*08/16/23 17:18*	*08/17/23 10:49*	*1*
o-Terphenyl	*91*		*70 - 130*	*08/16/23 17:18*	*08/17/23 10:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2310**	**F1**	5.00	1.98	mg/Kg			08/16/23 17:36	5

Client Sample ID: GP-2

Date Collected: 08/15/23 11:04
Date Received: 08/16/23 09:31
Sample Depth: 1 - 2

Lab Sample ID: 880-32127-2
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**113**		5.00	0.397	mg/Kg			08/23/23 12:30	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Client Sample ID: GP-2

Lab Sample ID: 880-32127-14
Matrix: Solid
Date Collected: 08/15/23 12:00
Date Received: 08/16/23 09:31
Sample Depth: 13 - 14

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00200	0.000387	mg/Kg		08/16/23 13:22	08/17/23 03:45	1
Toluene	<0.000458	U	0.00200	0.000458	mg/Kg		08/16/23 13:22	08/17/23 03:45	1
Ethylbenzene	<0.000567	U	0.00200	0.000567	mg/Kg		08/16/23 13:22	08/17/23 03:45	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/16/23 13:22	08/17/23 03:45	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		08/16/23 13:22	08/17/23 03:45	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/16/23 13:22	08/17/23 03:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*08/16/23 13:22*	*08/17/23 03:45*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*08/16/23 13:22*	*08/17/23 03:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/17/23 10:00	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**59.8**		50.0	15.0	mg/Kg			08/18/23 09:32	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**34.6**	**J**	50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 11:59	1
Diesel Range Organics (Over C10-C28)	**25.2**	**J**	50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 11:59	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 11:59	1
Total TPH	**59.8**		50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 11:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*08/16/23 17:18*	*08/17/23 11:59*	*1*
o-Terphenyl	*102*		*70 - 130*	*08/16/23 17:18*	*08/17/23 11:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**112**		5.00	0.397	mg/Kg			08/16/23 17:57	1

Client Sample ID: GP-3

Lab Sample ID: 880-32127-15
Matrix: Solid
Date Collected: 08/15/23 12:14
Date Received: 08/16/23 09:31
Sample Depth: 0 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00200	0.000388	mg/Kg		08/16/23 13:22	08/17/23 04:05	1
Toluene	<0.000460	U	0.00200	0.000460	mg/Kg		08/16/23 13:22	08/17/23 04:05	1
Ethylbenzene	<0.000570	U	0.00200	0.000570	mg/Kg		08/16/23 13:22	08/17/23 04:05	1
m-Xylene & p-Xylene	<0.00102	U	0.00400	0.00102	mg/Kg		08/16/23 13:22	08/17/23 04:05	1
o-Xylene	<0.000347	U	0.00200	0.000347	mg/Kg		08/16/23 13:22	08/17/23 04:05	1
Xylenes, Total	<0.00102	U	0.00200	0.00102	mg/Kg		08/16/23 13:22	08/17/23 04:05	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Client Sample ID: GP-3
Date Collected: 08/15/23 12:14
Date Received: 08/16/23 09:31
Sample Depth: 0 - 1

Lab Sample ID: 880-32127-15
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*08/16/23 13:22*	*08/17/23 04:05*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*08/16/23 13:22*	*08/17/23 04:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00200	0.00102	mg/Kg			08/17/23 10:00	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**52.8**		50.0	15.1	mg/Kg			08/18/23 09:32	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**33.1**	**J**	50.0	15.1	mg/Kg		08/16/23 17:18	08/17/23 12:24	1
Diesel Range Organics (Over C10-C28)	**19.7**	**J**	50.0	15.1	mg/Kg		08/16/23 17:18	08/17/23 12:24	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/16/23 17:18	08/17/23 12:24	1
Total TPH	**52.8**		50.0	15.1	mg/Kg		08/16/23 17:18	08/17/23 12:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*80*		*70 - 130*	*08/16/23 17:18*	*08/17/23 12:24*	*1*
o-Terphenyl	*89*		*70 - 130*	*08/16/23 17:18*	*08/17/23 12:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**364**		5.00	0.394	mg/Kg			08/16/23 18:04	1

Client Sample ID: GP-3
Date Collected: 08/15/23 12:30
Date Received: 08/16/23 09:31
Sample Depth: 7 - 8

Lab Sample ID: 880-32127-22
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		08/16/23 13:22	08/17/23 04:25	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		08/16/23 13:22	08/17/23 04:25	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		08/16/23 13:22	08/17/23 04:25	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/16/23 13:22	08/17/23 04:25	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		08/16/23 13:22	08/17/23 04:25	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/16/23 13:22	08/17/23 04:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*08/16/23 13:22*	*08/17/23 04:25*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*08/16/23 13:22*	*08/17/23 04:25*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/17/23 10:00	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Client Sample ID: GP-3

Lab Sample ID: 880-32127-22
Matrix: Solid
Date Collected: 08/15/23 12:30
Date Received: 08/16/23 09:31
Sample Depth: 7 - 8

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**23.6**	**J**	50.0	15.2	mg/Kg			08/18/23 09:32	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.2	U	50.0	15.2	mg/Kg		08/16/23 17:18	08/17/23 12:48	1
Diesel Range Organics (Over C10-C28)	**23.6**	**J**	50.0	15.2	mg/Kg		08/16/23 17:18	08/17/23 12:48	1
Oil Range Organics (Over C28-C36)	<15.2	U	50.0	15.2	mg/Kg		08/16/23 17:18	08/17/23 12:48	1
Total TPH	**23.6**	**J**	50.0	15.2	mg/Kg		08/16/23 17:18	08/17/23 12:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*08/16/23 17:18*	*08/17/23 12:48*	*1*
o-Terphenyl	*123*		*70 - 130*	*08/16/23 17:18*	*08/17/23 12:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.1**		5.00	0.393	mg/Kg			08/16/23 22:15	1

Client Sample ID: GP-4

Lab Sample ID: 880-32127-24
Matrix: Solid
Date Collected: 08/15/23 13:03
Date Received: 08/16/23 09:31
Sample Depth: 1 - 2

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000382	U	0.00200	0.000382	mg/Kg		08/16/23 13:22	08/17/23 04:46	1
Toluene	<0.000452	U	0.00200	0.000452	mg/Kg		08/16/23 13:22	08/17/23 04:46	1
Ethylbenzene	<0.000561	U	0.00200	0.000561	mg/Kg		08/16/23 13:22	08/17/23 04:46	1
m-Xylene & p-Xylene	<0.00100	U	0.00400	0.00100	mg/Kg		08/16/23 13:22	08/17/23 04:46	1
o-Xylene	<0.000341	U	0.00200	0.000341	mg/Kg		08/16/23 13:22	08/17/23 04:46	1
Xylenes, Total	<0.00100	U	0.00200	0.00100	mg/Kg		08/16/23 13:22	08/17/23 04:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*70 - 130*	*08/16/23 13:22*	*08/17/23 04:46*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*08/16/23 13:22*	*08/17/23 04:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/Kg			08/17/23 10:00	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**71.3**		50.0	15.0	mg/Kg			08/18/23 09:32	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**47.2**	**J**	50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 13:11	1
Diesel Range Organics (Over C10-C28)	**24.1**	**J**	50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 13:11	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 13:11	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Client Sample ID: GP-4
Lab Sample ID: 880-32127-24
Date Collected: 08/15/23 13:03
Matrix: Solid
Date Received: 08/16/23 09:31
Sample Depth: 1 - 2

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	71.3		50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*08/16/23 17:18*	*08/17/23 13:11*	*1*
o-Terphenyl	*108*		*70 - 130*	*08/16/23 17:18*	*08/17/23 13:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5640		5.00	3.99	mg/Kg			08/16/23 18:11	10

Client Sample ID: GP-4
Lab Sample ID: 880-32127-26
Date Collected: 08/15/23 13:05
Matrix: Solid
Date Received: 08/16/23 09:31
Sample Depth: 3 - 4

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	260		5.00	0.397	mg/Kg			08/23/23 12:36	1

Client Sample ID: GP-4
Lab Sample ID: 880-32127-31
Date Collected: 08/15/23 14:00
Matrix: Solid
Date Received: 08/16/23 09:31
Sample Depth: 8 - 9

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00200	0.000387	mg/Kg		08/16/23 13:22	08/17/23 05:06	1
Toluene	<0.000459	U	0.00200	0.000459	mg/Kg		08/16/23 13:22	08/17/23 05:06	1
Ethylbenzene	<0.000568	U	0.00200	0.000568	mg/Kg		08/16/23 13:22	08/17/23 05:06	1
m-Xylene & p-Xylene	<0.00102	U	0.00400	0.00102	mg/Kg		08/16/23 13:22	08/17/23 05:06	1
o-Xylene	<0.000346	U	0.00200	0.000346	mg/Kg		08/16/23 13:22	08/17/23 05:06	1
Xylenes, Total	<0.00102	U	0.00200	0.00102	mg/Kg		08/16/23 13:22	08/17/23 05:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*08/16/23 13:22*	*08/17/23 05:06*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*08/16/23 13:22*	*08/17/23 05:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00200	0.00102	mg/Kg			08/17/23 10:00	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	24.7	J	50.0	14.9	mg/Kg			08/18/23 09:32	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	50.0	14.9	mg/Kg		08/16/23 17:18	08/17/23 13:35	1
Diesel Range Organics (Over C10-C28)	24.7	J	50.0	14.9	mg/Kg		08/16/23 17:18	08/17/23 13:35	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Client Sample ID: GP-4

Date Collected: 08/15/23 14:00
Date Received: 08/16/23 09:31
Sample Depth: 8 - 9

Lab Sample ID: 880-32127-31

Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<14.9	U	50.0	14.9	mg/Kg		08/16/23 17:18	08/17/23 13:35	1
Total TPH	**24.7**	**J**	50.0	14.9	mg/Kg		08/16/23 17:18	08/17/23 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*08/16/23 17:18*	*08/17/23 13:35*	*1*
o-Terphenyl	*114*		*70 - 130*	*08/16/23 17:18*	*08/17/23 13:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**171**		5.00	0.398	mg/Kg			08/16/23 18:18	1

Surrogate Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-32127-1	GP-2	73	93
880-32127-1 MS	GP-2	98	88
880-32127-1 MSD	GP-2	98	88
880-32127-14	GP-2	83	98
880-32127-15	GP-3	80	94
880-32127-22	GP-3	76	95
880-32127-24	GP-4	73	100
880-32127-31	GP-4	89	112
LCS 880-60386/1-A	Lab Control Sample	105	85
LCSD 880-60386/2-A	Lab Control Sample Dup	91	93
MB 880-60364/5-A	Method Blank	100	134 S1+
MB 880-60386/5-A	Method Blank	94	117

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-32127-1	GP-2	85	91
880-32127-1 MS	GP-2	109	104
880-32127-1 MSD	GP-2	93	89
880-32127-14	GP-2	94	102
880-32127-15	GP-3	80	89
880-32127-22	GP-3	115	123
880-32127-24	GP-4	102	108
880-32127-31	GP-4	105	114
LCS 880-60398/2-A	Lab Control Sample	89	91
LCSD 880-60398/3-A	Lab Control Sample Dup	83	85
MB 880-60398/1-A	Method Blank	105	114

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-60364/5-A
Matrix: Solid
Analysis Batch: 60348

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60364

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		08/16/23 09:58	08/16/23 14:42	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/16/23 09:58	08/16/23 14:42	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/16/23 09:58	08/16/23 14:42	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/16/23 09:58	08/16/23 14:42	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/16/23 09:58	08/16/23 14:42	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/16/23 09:58	08/16/23 14:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*08/16/23 09:58*	*08/16/23 14:42*	*1*
1,4-Difluorobenzene (Surr)	*134*	*S1+*	*70 - 130*	*08/16/23 09:58*	*08/16/23 14:42*	*1*

Lab Sample ID: MB 880-60386/5-A
Matrix: Solid
Analysis Batch: 60348

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60386

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		08/16/23 13:22	08/17/23 02:55	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		08/16/23 13:22	08/17/23 02:55	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		08/16/23 13:22	08/17/23 02:55	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/16/23 13:22	08/17/23 02:55	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		08/16/23 13:22	08/17/23 02:55	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/16/23 13:22	08/17/23 02:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*08/16/23 13:22*	*08/17/23 02:55*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*08/16/23 13:22*	*08/17/23 02:55*	*1*

Lab Sample ID: LCS 880-60386/1-A
Matrix: Solid
Analysis Batch: 60348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60386

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08546		mg/Kg		85	70 - 130		
Toluene			0.100	0.08596		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.09135		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1799		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.08588		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: LCSD 880-60386/2-A
Matrix: Solid
Analysis Batch: 60348

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60386

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08361		mg/Kg		84	70 - 130	2	35

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-60386/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 60348 — **Prep Batch: 60386**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08451		mg/Kg		85	70 - 130	2	35
Ethylbenzene			0.100	0.08379		mg/Kg		84	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.1651		mg/Kg		83	70 - 130	9	35
o-Xylene			0.100	0.07664		mg/Kg		77	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 880-32127-1 MS — **Client Sample ID: GP-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 60348 — **Prep Batch: 60386**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.000381	U	0.0994	0.08878		mg/Kg		89	70 - 130
Toluene	<0.000451	U	0.0994	0.09204		mg/Kg		93	70 - 130
Ethylbenzene	<0.000559	U	0.0994	0.08891		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00100	U	0.199	0.1794		mg/Kg		90	70 - 130
o-Xylene	<0.000341	U	0.0994	0.08356		mg/Kg		84	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: 880-32127-1 MSD — **Client Sample ID: GP-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 60348 — **Prep Batch: 60386**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.000381	U	0.100	0.09141		mg/Kg		91	70 - 130	3	35
Toluene	<0.000451	U	0.100	0.09192		mg/Kg		92	70 - 130	0	35
Ethylbenzene	<0.000559	U	0.100	0.09221		mg/Kg		92	70 - 130	4	35
m-Xylene & p-Xylene	<0.00100	U	0.200	0.1841		mg/Kg		92	70 - 130	3	35
o-Xylene	<0.000341	U	0.100	0.08584		mg/Kg		86	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-60398/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 60420 — **Prep Batch: 60398**

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 08:08	1

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-60398/1-A
Matrix: Solid
Analysis Batch: 60420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60398

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 08:08	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 08:08	1
Total TPH	<15.0	U	50.0	15.0	mg/Kg		08/16/23 17:18	08/17/23 08:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*08/16/23 17:18*	*08/17/23 08:08*	*1*
o-Terphenyl	*114*		*70 - 130*	*08/16/23 17:18*	*08/17/23 08:08*	*1*

Lab Sample ID: LCS 880-60398/2-A
Matrix: Solid
Analysis Batch: 60420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60398

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	809.0		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	828.9		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: LCSD 880-60398/3-A
Matrix: Solid
Analysis Batch: 60420

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60398

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	827.6		mg/Kg		83	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	812.6		mg/Kg		81	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*83*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

Lab Sample ID: 880-32127-1 MS
Matrix: Solid
Analysis Batch: 60420

Client Sample ID: GP-2
Prep Type: Total/NA
Prep Batch: 60398

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	31.3	J F2	994	1007		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	37.2	J	994	930.7		mg/Kg		90	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-32127-1 MS
Matrix: Solid
Analysis Batch: 60420

Client Sample ID: GP-2
Prep Type: Total/NA
Prep Batch: 60398

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*104*		*70 - 130*

Lab Sample ID: 880-32127-1 MSD
Matrix: Solid
Analysis Batch: 60420

Client Sample ID: GP-2
Prep Type: Total/NA
Prep Batch: 60398

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	31.3	J F2	994	813.0	F2	mg/Kg		79	70 - 130	21	20
Diesel Range Organics (Over C10-C28)	37.2	J	994	791.8		mg/Kg		76	70 - 130	16	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-60362/1-A
Matrix: Solid
Analysis Batch: 60399

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			08/16/23 17:14	1

Lab Sample ID: LCS 880-60362/2-A
Matrix: Solid
Analysis Batch: 60399

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	252.8		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-60362/3-A
Matrix: Solid
Analysis Batch: 60399

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	253.7		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 880-32127-1 MS
Matrix: Solid
Analysis Batch: 60399

Client Sample ID: GP-2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2310	F1	1260	3843	F1	mg/Kg		122	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-32127-1 MSD
Matrix: Solid
Analysis Batch: 60399

Client Sample ID: GP-2
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2310	F1	1260	3869	F1	mg/Kg		124	90 - 110	1	20

Lab Sample ID: MB 880-60393/1-A
Matrix: Solid
Analysis Batch: 60415

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			08/16/23 20:42	1

Lab Sample ID: LCS 880-60393/2-A
Matrix: Solid
Analysis Batch: 60415

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.8		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-60393/3-A
Matrix: Solid
Analysis Batch: 60415

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	256.0		mg/Kg		102	90 - 110	0	20

Lab Sample ID: MB 880-60841/1-A
Matrix: Solid
Analysis Batch: 60882

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			08/23/23 08:48	1

Lab Sample ID: LCS 880-60841/2-A
Matrix: Solid
Analysis Batch: 60882

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-60841/3-A
Matrix: Solid
Analysis Batch: 60882

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	251.0		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

GC VOA

Analysis Batch: 60348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-1	GP-2	Total/NA	Solid	8021B	60386
880-32127-14	GP-2	Total/NA	Solid	8021B	60386
880-32127-15	GP-3	Total/NA	Solid	8021B	60386
880-32127-22	GP-3	Total/NA	Solid	8021B	60386
880-32127-24	GP-4	Total/NA	Solid	8021B	60386
880-32127-31	GP-4	Total/NA	Solid	8021B	60386
MB 880-60364/5-A	Method Blank	Total/NA	Solid	8021B	60364
MB 880-60386/5-A	Method Blank	Total/NA	Solid	8021B	60386
LCS 880-60386/1-A	Lab Control Sample	Total/NA	Solid	8021B	60386
LCSD 880-60386/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60386
880-32127-1 MS	GP-2	Total/NA	Solid	8021B	60386
880-32127-1 MSD	GP-2	Total/NA	Solid	8021B	60386

Prep Batch: 60364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-60364/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 60386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-1	GP-2	Total/NA	Solid	5035	
880-32127-14	GP-2	Total/NA	Solid	5035	
880-32127-15	GP-3	Total/NA	Solid	5035	
880-32127-22	GP-3	Total/NA	Solid	5035	
880-32127-24	GP-4	Total/NA	Solid	5035	
880-32127-31	GP-4	Total/NA	Solid	5035	
MB 880-60386/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60386/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60386/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-32127-1 MS	GP-2	Total/NA	Solid	5035	
880-32127-1 MSD	GP-2	Total/NA	Solid	5035	

Analysis Batch: 60448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-1	GP-2	Total/NA	Solid	Total BTEX	
880-32127-14	GP-2	Total/NA	Solid	Total BTEX	
880-32127-15	GP-3	Total/NA	Solid	Total BTEX	
880-32127-22	GP-3	Total/NA	Solid	Total BTEX	
880-32127-24	GP-4	Total/NA	Solid	Total BTEX	
880-32127-31	GP-4	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 60398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-1	GP-2	Total/NA	Solid	8015NM Prep	
880-32127-14	GP-2	Total/NA	Solid	8015NM Prep	
880-32127-15	GP-3	Total/NA	Solid	8015NM Prep	
880-32127-22	GP-3	Total/NA	Solid	8015NM Prep	
880-32127-24	GP-4	Total/NA	Solid	8015NM Prep	
880-32127-31	GP-4	Total/NA	Solid	8015NM Prep	
MB 880-60398/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 60398 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-60398/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60398/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-32127-1 MS	GP-2	Total/NA	Solid	8015NM Prep	
880-32127-1 MSD	GP-2	Total/NA	Solid	8015NM Prep	

Analysis Batch: 60420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-1	GP-2	Total/NA	Solid	8015B NM	60398
880-32127-14	GP-2	Total/NA	Solid	8015B NM	60398
880-32127-15	GP-3	Total/NA	Solid	8015B NM	60398
880-32127-22	GP-3	Total/NA	Solid	8015B NM	60398
880-32127-24	GP-4	Total/NA	Solid	8015B NM	60398
880-32127-31	GP-4	Total/NA	Solid	8015B NM	60398
MB 880-60398/1-A	Method Blank	Total/NA	Solid	8015B NM	60398
LCS 880-60398/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60398
LCSD 880-60398/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60398
880-32127-1 MS	GP-2	Total/NA	Solid	8015B NM	60398
880-32127-1 MSD	GP-2	Total/NA	Solid	8015B NM	60398

Analysis Batch: 60549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-1	GP-2	Total/NA	Solid	8015 NM	
880-32127-14	GP-2	Total/NA	Solid	8015 NM	
880-32127-15	GP-3	Total/NA	Solid	8015 NM	
880-32127-22	GP-3	Total/NA	Solid	8015 NM	
880-32127-24	GP-4	Total/NA	Solid	8015 NM	
880-32127-31	GP-4	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 60362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-1	GP-2	Soluble	Solid	DI Leach	
880-32127-14	GP-2	Soluble	Solid	DI Leach	
880-32127-15	GP-3	Soluble	Solid	DI Leach	
880-32127-24	GP-4	Soluble	Solid	DI Leach	
880-32127-31	GP-4	Soluble	Solid	DI Leach	
MB 880-60362/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60362/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60362/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-32127-1 MS	GP-2	Soluble	Solid	DI Leach	
880-32127-1 MSD	GP-2	Soluble	Solid	DI Leach	

Leach Batch: 60393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-22	GP-3	Soluble	Solid	DI Leach	
MB 880-60393/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60393/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60393/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

HPLC/IC

Analysis Batch: 60399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-1	GP-2	Soluble	Solid	300.0	60362
880-32127-14	GP-2	Soluble	Solid	300.0	60362
880-32127-15	GP-3	Soluble	Solid	300.0	60362
880-32127-24	GP-4	Soluble	Solid	300.0	60362
880-32127-31	GP-4	Soluble	Solid	300.0	60362
MB 880-60362/1-A	Method Blank	Soluble	Solid	300.0	60362
LCS 880-60362/2-A	Lab Control Sample	Soluble	Solid	300.0	60362
LCSD 880-60362/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60362
880-32127-1 MS	GP-2	Soluble	Solid	300.0	60362
880-32127-1 MSD	GP-2	Soluble	Solid	300.0	60362

Analysis Batch: 60415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-22	GP-3	Soluble	Solid	300.0	60393
MB 880-60393/1-A	Method Blank	Soluble	Solid	300.0	60393
LCS 880-60393/2-A	Lab Control Sample	Soluble	Solid	300.0	60393
LCSD 880-60393/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60393

Leach Batch: 60841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-2	GP-2	Soluble	Solid	DI Leach	
880-32127-26	GP-4	Soluble	Solid	DI Leach	
MB 880-60841/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60841/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60841/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 60882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32127-2	GP-2	Soluble	Solid	300.0	60841
880-32127-26	GP-4	Soluble	Solid	300.0	60841
MB 880-60841/1-A	Method Blank	Soluble	Solid	300.0	60841
LCS 880-60841/2-A	Lab Control Sample	Soluble	Solid	300.0	60841
LCSD 880-60841/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60841

Lab Chronicle

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Client Sample ID: GP-2
Date Collected: 08/15/23 11:00
Date Received: 08/16/23 09:31

Lab Sample ID: 880-32127-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60386	EL	EET MID	08/16/23 13:22
Total/NA	Analysis	8021B		1	60348	SM	EET MID	08/17/23 03:24
Total/NA	Analysis	Total BTEX		1	60448	SM	EET MID	08/17/23 10:00
Total/NA	Analysis	8015 NM		1	60549	SM	EET MID	08/18/23 09:32
Total/NA	Prep	8015NM Prep			60398	TKC	EET MID	08/16/23 17:18
Total/NA	Analysis	8015B NM		1	60420	SM	EET MID	08/17/23 10:49
Soluble	Leach	DI Leach			60362	SMC	EET MID	08/16/23 09:46
Soluble	Analysis	300.0		5	60399	SMC	EET MID	08/16/23 17:36

Client Sample ID: GP-2
Date Collected: 08/15/23 11:04
Date Received: 08/16/23 09:31

Lab Sample ID: 880-32127-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60841	CH	EET MID	08/23/23 11:00
Soluble	Analysis	300.0		1	60882	CH	EET MID	08/23/23 12:30

Client Sample ID: GP-2
Date Collected: 08/15/23 12:00
Date Received: 08/16/23 09:31

Lab Sample ID: 880-32127-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60386	EL	EET MID	08/16/23 13:22
Total/NA	Analysis	8021B		1	60348	SM	EET MID	08/17/23 03:45
Total/NA	Analysis	Total BTEX		1	60448	SM	EET MID	08/17/23 10:00
Total/NA	Analysis	8015 NM		1	60549	SM	EET MID	08/18/23 09:32
Total/NA	Prep	8015NM Prep			60398	TKC	EET MID	08/16/23 17:18
Total/NA	Analysis	8015B NM		1	60420	SM	EET MID	08/17/23 11:59
Soluble	Leach	DI Leach			60362	SMC	EET MID	08/16/23 09:46
Soluble	Analysis	300.0		1	60399	SMC	EET MID	08/16/23 17:57

Client Sample ID: GP-3
Date Collected: 08/15/23 12:14
Date Received: 08/16/23 09:31

Lab Sample ID: 880-32127-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60386	EL	EET MID	08/16/23 13:22
Total/NA	Analysis	8021B		1	60348	SM	EET MID	08/17/23 04:05
Total/NA	Analysis	Total BTEX		1	60448	SM	EET MID	08/17/23 10:00
Total/NA	Analysis	8015 NM		1	60549	SM	EET MID	08/18/23 09:32
Total/NA	Prep	8015NM Prep			60398	TKC	EET MID	08/16/23 17:18
Total/NA	Analysis	8015B NM		1	60420	SM	EET MID	08/17/23 12:24
Soluble	Leach	DI Leach			60362	SMC	EET MID	08/16/23 09:46
Soluble	Analysis	300.0		1	60399	SMC	EET MID	08/16/23 18:04

Lab Chronicle

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Client Sample ID: GP-3
Date Collected: 08/15/23 12:30
Date Received: 08/16/23 09:31

Lab Sample ID: 880-32127-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60386	EL	EET MID	08/16/23 13:22
Total/NA	Analysis	8021B		1	60348	SM	EET MID	08/17/23 04:25
Total/NA	Analysis	Total BTEX		1	60448	SM	EET MID	08/17/23 10:00
Total/NA	Analysis	8015 NM		1	60549	SM	EET MID	08/18/23 09:32
Total/NA	Prep	8015NM Prep			60398	TKC	EET MID	08/16/23 17:18
Total/NA	Analysis	8015B NM		1	60420	SM	EET MID	08/17/23 12:48
Soluble	Leach	DI Leach			60393	SMC	EET MID	08/16/23 16:20
Soluble	Analysis	300.0		1	60415	SMC	EET MID	08/16/23 22:15

Client Sample ID: GP-4
Date Collected: 08/15/23 13:03
Date Received: 08/16/23 09:31

Lab Sample ID: 880-32127-24
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60386	EL	EET MID	08/16/23 13:22
Total/NA	Analysis	8021B		1	60348	SM	EET MID	08/17/23 04:46
Total/NA	Analysis	Total BTEX		1	60448	SM	EET MID	08/17/23 10:00
Total/NA	Analysis	8015 NM		1	60549	SM	EET MID	08/18/23 09:32
Total/NA	Prep	8015NM Prep			60398	TKC	EET MID	08/16/23 17:18
Total/NA	Analysis	8015B NM		1	60420	SM	EET MID	08/17/23 13:11
Soluble	Leach	DI Leach			60362	SMC	EET MID	08/16/23 09:46
Soluble	Analysis	300.0		10	60399	SMC	EET MID	08/16/23 18:11

Client Sample ID: GP-4
Date Collected: 08/15/23 13:05
Date Received: 08/16/23 09:31

Lab Sample ID: 880-32127-26
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60841	CH	EET MID	08/23/23 11:00
Soluble	Analysis	300.0		1	60882	CH	EET MID	08/23/23 12:36

Client Sample ID: GP-4
Date Collected: 08/15/23 14:00
Date Received: 08/16/23 09:31

Lab Sample ID: 880-32127-31
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60386	EL	EET MID	08/16/23 13:22
Total/NA	Analysis	8021B		1	60348	SM	EET MID	08/17/23 05:06
Total/NA	Analysis	Total BTEX		1	60448	SM	EET MID	08/17/23 10:00
Total/NA	Analysis	8015 NM		1	60549	SM	EET MID	08/18/23 09:32
Total/NA	Prep	8015NM Prep			60398	TKC	EET MID	08/16/23 17:18
Total/NA	Analysis	8015B NM		1	60420	SM	EET MID	08/17/23 13:35
Soluble	Leach	DI Leach			60362	SMC	EET MID	08/16/23 09:46
Soluble	Analysis	300.0		1	60399	SMC	EET MID	08/16/23 18:18

Lab Chronicle

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32127-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-32127-1	GP-2	Solid	08/15/23 11:00	08/16/23 09:31	0 - 1
880-32127-2	GP-2	Solid	08/15/23 11:04	08/16/23 09:31	1 - 2
880-32127-14	GP-2	Solid	08/15/23 12:00	08/16/23 09:31	13 - 14
880-32127-15	GP-3	Solid	08/15/23 12:14	08/16/23 09:31	0 - 1
880-32127-22	GP-3	Solid	08/15/23 12:30	08/16/23 09:31	7 - 8
880-32127-24	GP-4	Solid	08/15/23 13:03	08/16/23 09:31	1 - 2
880-32127-26	GP-4	Solid	08/15/23 13:05	08/16/23 09:31	3 - 4
880-32127-31	GP-4	Solid	08/15/23 14:00	08/16/23 09:31	8 - 9

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: 32127

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Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N Marienfeld St. Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858	Email:	Bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☒ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NexGen Produced Water Release	Turn Around	Routine ☒ Rush
Project Number:	03B2359002	Due Date:	24 HRS
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	SAM / LN		
PO #:	03B2359002		

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	T129
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0.3
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	1.3
Total Containers:		Corrected Temperature:	1.6

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3: HN
H_2SO_4: H_2 — NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Grab/ Comp	# of Cont	BTEX 8021 B	TPH 8015 M	Chlorides 300.0	Sample Comments
GP- 2	S	8/15/23	1100	0-1	G	1	X	X	X	[redacted]
GP- 2	S	8/15/23	1104	1-2	G	1	X	X	X	Hold
GP- 2	S	8/15/23	1106	2-3	G	1	X	X	X	Hold
GP- 2	S	8/15/23	1108	3-4	G	1	X	X	X	Hold
GP- 2	S	8/15/23	1114	4-5	G	1	X	X	X	Hold
GP- 2	S	8/15/23	1116	5-6	G	1	X	X	X	Hold
GP- 2	S	8/15/23	1118	6-7	G	1	X	X	X	Hold
GP- 2	S	8/15/23	1120	7-8	G	1	X	X	X	Hold
GP- 2	S	8/15/23	1138	8-9	G	1	X	X	X	Hold
GP- 2	S	8/15/23	1140	9-10	G	1	X	X	X	Hold

UFF 8/16/23 Sam

880-32127 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/16/23 931	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 2 of 4

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N Marienfeld St. Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858	Email:	Bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NexGen Produced Water Release	Turn Around	Routine ☒ Rush
Project Number:	03B2359002	Due Date:	24 HRS
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	SAM / LN		
PO #:	03B2359002		

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021 B	TPH 8015 M	Chlorides 300.0	Sample Comments
GP- 2	S	8/15/23	1154	10-11	G	1		X	X	X	Hold
GP- 2	S	8/15/23	1156	11-12	G	1		X	X	X	Hold
GP- 2	S	8/15/23	1158	12-13	G	1		X	X	X	Hold
GP- 2	S	8/15/23	1200	13-14	G	1		X	X	X	[redacted]
GP- 3	S	8/15/23	1214	0-1	G	1		X	X	X	[redacted]
GP- 3	S	8/15/23	1216	1-2	G	1		X	X	X	Hold
GP- 3	S	8/15/23	1218	2-3	G	1		X	X	X	Hold
GP- 3	S	8/15/23	1220	3-4	G	1		X	X	X	Hold
GP- 3	S	8/15/23	1224	4-5	G	1		X	X	X	Hold
GP- 3	S	8/15/23	1226	5-6	G	1		X	X	X	Hold

JFE 8/16/23 Sam

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 3 of 4

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N Marienfeld St. Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858	Email:	Bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NexGen Produced Water Release	Turn Around	
Project Number:	03B2359002	Routine ☒ Rush	
Project Location:	Lea County, NM	Due Date:	24 HRS
Sampler's Name:	SAM / LN	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	03B2359002		

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021 B	TPH 8015 M	Chlorides 300.0	Sample Comments
GP-3	S	8/15/23	1228	6-7	G	1		X	X	X	Hold
GP-3	S	8/15/23	1230	7-8	G	1		X	X	X	[redacted]
GP-4	S	8/15/23	1302	0-1	G	1		X	X	X	Hold
GP-4	S	8/15/23	1303	1-2	G	1		X	X	X	[redacted]
GP-4	S	8/15/23	1304	2-3	G	1		X	X	X	Hold
GP-4	S	8/15/23	1305	3-4	G	1		X	X	X	Hold
GP-4	S	8/15/23	1324	4-5	G	1		X	X	X	Hold
GP-4	S	8/15/23	1326	5-6	G	1		X	X	X	Hold
GP-4	S	8/15/23	1328	6-7	G	1		X	X	X	Hold
GP-4	S	8/15/23	1330	7-8	G	1		X	X	X	Hold

NEE 8/16/23 Sam

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 4 of 4

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N Marienfeld St. Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858	Email:	Bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☒ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NexGen Produced Water Release	Turn Around	Routine ☒ Rush
Project Number:	03B2359002	Due Date:	24 HRS
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	SAM / LN		
PO #:	03B2359002		

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes	No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021 B	TPH 8015 M	Chlorides 300.0	Sample Comments
GP-4	S	8/15/23	1400	8-9	G	1		X	X	X	

NFE 8/16/23 Sam

NFE 8/16/23 Sam

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed — TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U — Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Sam			2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-32127-1
SDG Number: Lea County NM

Login Number: 32127
List Number: 1
Creator: Kramer, Jessica

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Beaux Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 8/23/2023 4:38:52 PM

JOB DESCRIPTION

NexGen Produced Water Release
SDG NUMBER Lea Co NM

JOB NUMBER

880-32303-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

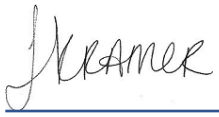
Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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8/23/2023 4:38:52 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release SDG: Lea Co NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
SDL	Sample Detection Limit
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Job ID: 880-32303-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-32303-1

Receipt
The samples were received on 8/18/2023 3:56 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-60677/5-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-60604 and analytical batch 880-60630 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: GP-5 (880-32303-21), GP-5 (880-32303-32), GP-6 (880-32303-37), GP-6 (880-32303-42), GP-7 (880-32303-43), GP-7 (880-32303-45), HA-8 (880-32303-46), HA-8 (880-32303-50), HA-9 (880-32303-51), HA-9 (880-32303-53), GP-1 (880-32303-65), (880-32303-A-21-C MS) and (880-32303-A-21-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60630/31), (CCV 880-60630/47), (CCV 880-60630/58) and (LCSD 880-60604/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-60604 and analytical batch 880-60630 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-60604 and analytical batch 880-60630 was outside control limits. Sample non-homogeneity is suspected.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-60741 and analytical batch 880-60776 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-5126-A-1-D) and (890-5126-A-1-E MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60776/20) and (CCV 880-60776/5). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-60590 and 880-60590 and analytical batch 880-60668 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-60841 and analytical batch 880-60882 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Case Narrative

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Job ID: 880-32303-1 (Continued)

Laboratory: Eurofins Midland (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release
SDG: Lea Co NM

Client Sample ID: BG-1
Lab Sample ID: 880-32303-1
Date Collected: 08/17/23 18:55
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 0 - 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2560	F1	5.00	1.97	mg/Kg			08/20/23 01:10	5

Client Sample ID: BG-1
Lab Sample ID: 880-32303-2
Date Collected: 08/17/23 18:57
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 1 - 2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	747		5.00	0.392	mg/Kg			08/20/23 01:30	1

Client Sample ID: BG-1
Lab Sample ID: 880-32303-3
Date Collected: 08/17/23 18:59
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2090		5.00	1.98	mg/Kg			08/20/23 01:36	5

Client Sample ID: BG-1
Lab Sample ID: 880-32303-4
Date Collected: 08/17/23 19:01
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 3 - 4

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2160		5.00	1.98	mg/Kg			08/20/23 01:43	5

Client Sample ID: BG-1
Lab Sample ID: 880-32303-5
Date Collected: 08/17/23 19:04
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 4 - 5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2010		5.00	1.96	mg/Kg			08/20/23 01:50	5

Client Sample ID: BG-1
Lab Sample ID: 880-32303-6
Date Collected: 08/17/23 19:06
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 5 - 6

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1070		5.00	0.393	mg/Kg			08/20/23 02:10	1

Client Sample Results

Client: Ensolum
Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release
SDG: Lea Co NM

Client Sample ID: BG-1
Lab Sample ID: 880-32303-7
Date Collected: 08/17/23 19:08
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 6 - 7

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5490		5.00	3.97	mg/Kg			08/20/23 02:16	10

Client Sample ID: BG-1
Lab Sample ID: 880-32303-8
Date Collected: 08/17/23 19:10
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 7 - 8

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5720		5.00	3.99	mg/Kg			08/20/23 02:23	10

Client Sample ID: BG-1
Lab Sample ID: 880-32303-9
Date Collected: 08/17/23 19:12
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 8 - 9

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3890		5.00	1.99	mg/Kg			08/20/23 02:29	5

Client Sample ID: BG-1
Lab Sample ID: 880-32303-10
Date Collected: 08/17/23 19:14
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 9 - 10

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	327		5.00	0.397	mg/Kg			08/20/23 02:36	1

Client Sample ID: BG-1
Lab Sample ID: 880-32303-11
Date Collected: 08/17/23 19:16
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 10 - 11

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	238		5.00	0.395	mg/Kg			08/20/23 02:43	1

Client Sample ID: BG-1
Lab Sample ID: 880-32303-12
Date Collected: 08/17/23 19:18
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 11 - 12

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100		5.00	0.393	mg/Kg			08/20/23 03:02	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: BG-2
Lab Sample ID: 880-32303-13
Matrix: Solid
Date Collected: 08/17/23 14:56
Date Received: 08/18/23 15:56
Sample Depth: 0 - 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1110		5.00	0.391	mg/Kg			08/20/23 03:09	1

Client Sample ID: BG-2
Lab Sample ID: 880-32303-14
Matrix: Solid
Date Collected: 08/17/23 15:10
Date Received: 08/18/23 15:56
Sample Depth: 1 - 2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	789		5.00	0.392	mg/Kg			08/20/23 03:29	1

Client Sample ID: BG-2
Lab Sample ID: 880-32303-15
Matrix: Solid
Date Collected: 08/17/23 15:20
Date Received: 08/18/23 15:56
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	125		5.00	0.394	mg/Kg			08/20/23 03:36	1

Client Sample ID: BG-2
Lab Sample ID: 880-32303-16
Matrix: Solid
Date Collected: 08/17/23 15:30
Date Received: 08/18/23 15:56
Sample Depth: 3 - 4

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100		5.00	1.99	mg/Kg			08/20/23 03:42	5

Client Sample ID: GP-5
Lab Sample ID: 880-32303-19
Matrix: Solid
Date Collected: 08/17/23 08:44
Date Received: 08/18/23 15:56
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	309	F1	5.00	0.396	mg/Kg			08/23/23 12:41	1

Client Sample ID: GP-5
Lab Sample ID: 880-32303-21
Matrix: Solid
Date Collected: 08/17/23 08:50
Date Received: 08/18/23 15:56
Sample Depth: 4 - 5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000381	U	0.00200	0.000381	mg/Kg		08/21/23 10:39	08/21/23 12:41	1
Toluene	<0.000451	U	0.00200	0.000451	mg/Kg		08/21/23 10:39	08/21/23 12:41	1
Ethylbenzene	<0.000559	U	0.00200	0.000559	mg/Kg		08/21/23 10:39	08/21/23 12:41	1
m-Xylene & p-Xylene	<0.00100	U	0.00400	0.00100	mg/Kg		08/21/23 10:39	08/21/23 12:41	1
o-Xylene	<0.000341	U	0.00200	0.000341	mg/Kg		08/21/23 10:39	08/21/23 12:41	1
Xylenes, Total	<0.00100	U	0.00200	0.00100	mg/Kg		08/21/23 10:39	08/21/23 12:41	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: GP-5

Lab Sample ID: 880-32303-21
Matrix: Solid
Date Collected: 08/17/23 08:50
Date Received: 08/18/23 15:56
Sample Depth: 4 - 5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*08/21/23 10:39*	*08/21/23 12:41*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/21/23 10:39*	*08/21/23 12:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/Kg			08/22/23 10:20	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**54.6**		50.0	15.1	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**33.7**	**J B F2**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 20:41	1
Diesel Range Organics (Over C10-C28)	**20.9**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 20:41	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 20:41	1
Total TPH	**54.6**	**B F2**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 20:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*148*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 20:41*	*1*
o-Terphenyl	*164*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 20:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1240**		5.00	0.399	mg/Kg			08/20/23 03:49	1

Client Sample ID: GP-5

Lab Sample ID: 880-32303-32
Matrix: Solid
Date Collected: 08/17/23 10:05
Date Received: 08/18/23 15:56
Sample Depth: 15 - 16

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		08/21/23 10:39	08/21/23 13:07	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		08/21/23 10:39	08/21/23 13:07	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		08/21/23 10:39	08/21/23 13:07	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/21/23 10:39	08/21/23 13:07	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		08/21/23 10:39	08/21/23 13:07	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/21/23 10:39	08/21/23 13:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*08/21/23 10:39*	*08/21/23 13:07*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*08/21/23 10:39*	*08/21/23 13:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/22/23 10:20	1

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Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: GP-5

Lab Sample ID: 880-32303-32
Matrix: Solid
Date Collected: 08/17/23 10:05
Date Received: 08/18/23 15:56
Sample Depth: 15 - 16

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**58.7**		50.0	15.1	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**36.3**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 21:49	1
Diesel Range Organics (Over C10-C28)	**22.4**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 21:49	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 21:49	1
Total TPH	**58.7**	**B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*132*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 21:49*	*1*
o-Terphenyl	*147*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 21:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**86.0**		5.00	0.397	mg/Kg			08/20/23 03:56	1

Client Sample ID: GP-6

Lab Sample ID: 880-32303-34
Matrix: Solid
Date Collected: 08/17/23 10:57
Date Received: 08/18/23 15:56
Sample Depth: 1 - 2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1560**		5.00	1.97	mg/Kg			08/23/23 13:16	5

Client Sample ID: GP-6

Lab Sample ID: 880-32303-37
Matrix: Solid
Date Collected: 08/17/23 11:11
Date Received: 08/18/23 15:56
Sample Depth: 4 - 5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00200	0.000388	mg/Kg		08/21/23 10:39	08/21/23 13:33	1
Toluene	<0.000460	U	0.00200	0.000460	mg/Kg		08/21/23 10:39	08/21/23 13:33	1
Ethylbenzene	<0.000570	U	0.00200	0.000570	mg/Kg		08/21/23 10:39	08/21/23 13:33	1
m-Xylene & p-Xylene	<0.00102	U	0.00400	0.00102	mg/Kg		08/21/23 10:39	08/21/23 13:33	1
o-Xylene	<0.000347	U	0.00200	0.000347	mg/Kg		08/21/23 10:39	08/21/23 13:33	1
Xylenes, Total	<0.00102	U	0.00200	0.00102	mg/Kg		08/21/23 10:39	08/21/23 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*08/21/23 10:39*	*08/21/23 13:33*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*08/21/23 10:39*	*08/21/23 13:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00200	0.00102	mg/Kg			08/22/23 10:20	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: GP-6
Lab Sample ID: 880-32303-37
Matrix: Solid
Date Collected: 08/17/23 11:11
Date Received: 08/18/23 15:56
Sample Depth: 4 - 5

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**79.2**		50.0	15.0	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**47.9**	**J B**	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 22:11	1
Diesel Range Organics (Over C10-C28)	**31.3**	**J B**	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 22:11	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 22:11	1
Total TPH	**79.2**	**B**	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*142*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 22:11*	*1*
o-Terphenyl	*154*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 22:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**262**		5.00	0.397	mg/Kg			08/20/23 04:02	1

Client Sample ID: GP-6
Lab Sample ID: 880-32303-42
Matrix: Solid
Date Collected: 08/17/23 11:42
Date Received: 08/18/23 15:56
Sample Depth: 9 - 10

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		08/21/23 10:39	08/21/23 13:59	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		08/21/23 10:39	08/21/23 13:59	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		08/21/23 10:39	08/21/23 13:59	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/21/23 10:39	08/21/23 13:59	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		08/21/23 10:39	08/21/23 13:59	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/21/23 10:39	08/21/23 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*08/21/23 10:39*	*08/21/23 13:59*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/21/23 10:39*	*08/21/23 13:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/22/23 10:20	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**58.6**		50.0	15.1	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**36.6**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 22:33	1
Diesel Range Organics (Over C10-C28)	**22.0**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 22:33	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 22:33	1

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Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: GP-6

Lab Sample ID: 880-32303-42
Matrix: Solid
Date Collected: 08/17/23 11:42
Date Received: 08/18/23 15:56
Sample Depth: 9 - 10

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**58.6**	**B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*131*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 22:33*	*1*
o-Terphenyl	*144*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 22:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**105**		5.00	0.397	mg/Kg			08/20/23 04:09	1

Client Sample ID: GP-7

Lab Sample ID: 880-32303-43
Matrix: Solid
Date Collected: 08/17/23 12:15
Date Received: 08/18/23 15:56
Sample Depth: 0 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		08/21/23 10:39	08/21/23 14:25	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/21/23 10:39	08/21/23 14:25	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/21/23 10:39	08/21/23 14:25	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/21/23 10:39	08/21/23 14:25	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/21/23 10:39	08/21/23 14:25	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/21/23 10:39	08/21/23 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*08/21/23 10:39*	*08/21/23 14:25*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*08/21/23 10:39*	*08/21/23 14:25*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/22/23 10:20	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**23.3**	**J**	50.0	14.9	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	50.0	14.9	mg/Kg		08/18/23 18:11	08/20/23 22:54	1
Diesel Range Organics (Over C10-C28)	**23.3**	**J B**	50.0	14.9	mg/Kg		08/18/23 18:11	08/20/23 22:54	1
OII Range Organics (Over C28-C36)	<14.9	U	50.0	14.9	mg/Kg		08/18/23 18:11	08/20/23 22:54	1
Total TPH	**23.3**	**J B**	50.0	14.9	mg/Kg		08/18/23 18:11	08/20/23 22:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 22:54*	*1*
o-Terphenyl	*145*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 22:54*	*1*

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: GP-7
Lab Sample ID: 880-32303-43
Date Collected: 08/17/23 12:15
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 0 - 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56.3**		5.00	0.398	mg/Kg			08/19/23 15:11	1

Client Sample ID: GP-7
Lab Sample ID: 880-32303-45
Date Collected: 08/17/23 12:19
Matrix: Solid
Date Received: 08/18/23 15:56
Sample Depth: 2 - 3

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000381	U	0.00200	0.000381	mg/Kg		08/21/23 10:39	08/21/23 14:50	1
Toluene	<0.000451	U	0.00200	0.000451	mg/Kg		08/21/23 10:39	08/21/23 14:50	1
Ethylbenzene	<0.000559	U	0.00200	0.000559	mg/Kg		08/21/23 10:39	08/21/23 14:50	1
m-Xylene & p-Xylene	<0.00100	U	0.00400	0.00100	mg/Kg		08/21/23 10:39	08/21/23 14:50	1
o-Xylene	<0.000341	U	0.00200	0.000341	mg/Kg		08/21/23 10:39	08/21/23 14:50	1
Xylenes, Total	<0.00100	U	0.00200	0.00100	mg/Kg		08/21/23 10:39	08/21/23 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*08/21/23 10:39*	*08/21/23 14:50*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*08/21/23 10:39*	*08/21/23 14:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/Kg			08/22/23 10:20	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**46.4**	**J**	50.0	15.0	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**23.4**	**J B**	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 23:15	1
Diesel Range Organics (Over C10-C28)	**23.0**	**J B**	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 23:15	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 23:15	1
Total TPH	**46.4**	**J B**	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 23:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*08/18/23 18:11*	*08/20/23 23:15*	*1*
o-Terphenyl	*136*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 23:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**792**		5.00	0.393	mg/Kg			08/19/23 15:33	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: HA-8

Lab Sample ID: 880-32303-46
Matrix: Solid
Date Collected: 08/17/23 12:50
Date Received: 08/18/23 15:56
Sample Depth: 0 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000389	U	0.00200	0.000389	mg/Kg		08/21/23 10:39	08/21/23 15:16	1
Toluene	<0.000461	U	0.00200	0.000461	mg/Kg		08/21/23 10:39	08/21/23 15:16	1
Ethylbenzene	<0.000571	U	0.00200	0.000571	mg/Kg		08/21/23 10:39	08/21/23 15:16	1
m-Xylene & p-Xylene	<0.00102	U	0.00400	0.00102	mg/Kg		08/21/23 10:39	08/21/23 15:16	1
o-Xylene	<0.000347	U	0.00200	0.000347	mg/Kg		08/21/23 10:39	08/21/23 15:16	1
Xylenes, Total	<0.00102	U	0.00200	0.00102	mg/Kg		08/21/23 10:39	08/21/23 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*08/21/23 10:39*	*08/21/23 15:16*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*08/21/23 10:39*	*08/21/23 15:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00200	0.00102	mg/Kg			08/22/23 10:20	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**42.4**	**J**	50.0	15.0	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**19.9**	**J B**	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 23:36	1
Diesel Range Organics (Over C10-C28)	**22.5**	**J B**	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 23:36	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 23:36	1
Total TPH	**42.4**	**J B**	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*08/18/23 18:11*	*08/20/23 23:36*	*1*
o-Terphenyl	*136*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 23:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**993**		5.00	0.391	mg/Kg			08/19/23 15:40	1

Client Sample ID: HA-8

Lab Sample ID: 880-32303-48
Matrix: Solid
Date Collected: 08/17/23 12:55
Date Received: 08/18/23 15:56
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**320**		5.00	0.394	mg/Kg			08/23/23 13:22	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: HA-8

Lab Sample ID: 880-32303-50
Matrix: Solid
Date Collected: 08/17/23 13:17
Date Received: 08/18/23 15:56
Sample Depth: 4 - 5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		08/21/23 10:39	08/21/23 16:00	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		08/21/23 10:39	08/21/23 16:00	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		08/21/23 10:39	08/21/23 16:00	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/21/23 10:39	08/21/23 16:00	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		08/21/23 10:39	08/21/23 16:00	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/21/23 10:39	08/21/23 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*08/21/23 10:39*	*08/21/23 16:00*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*08/21/23 10:39*	*08/21/23 16:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/22/23 10:20	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**44.1**	**J**	50.0	15.1	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**20.8**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 23:58	1
Diesel Range Organics (Over C10-C28)	**23.3**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 23:58	1
OII Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 23:58	1
Total TPH	**44.1**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/20/23 23:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*08/18/23 18:11*	*08/20/23 23:58*	*1*
o-Terphenyl	*142*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 23:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**260**		5.00	0.397	mg/Kg			08/19/23 15:47	1

Client Sample ID: HA-9

Lab Sample ID: 880-32303-51
Matrix: Solid
Date Collected: 08/17/23 14:27
Date Received: 08/18/23 15:56
Sample Depth: 0 - 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00200	0.000387	mg/Kg		08/21/23 10:39	08/21/23 16:26	1
Toluene	<0.000459	U	0.00200	0.000459	mg/Kg		08/21/23 10:39	08/21/23 16:26	1
Ethylbenzene	<0.000568	U	0.00200	0.000568	mg/Kg		08/21/23 10:39	08/21/23 16:26	1
m-Xylene & p-Xylene	<0.00102	U	0.00400	0.00102	mg/Kg		08/21/23 10:39	08/21/23 16:26	1
o-Xylene	<0.000346	U	0.00200	0.000346	mg/Kg		08/21/23 10:39	08/21/23 16:26	1
Xylenes, Total	<0.00102	U	0.00200	0.00102	mg/Kg		08/21/23 10:39	08/21/23 16:26	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: HA-9

Lab Sample ID: 880-32303-51
Matrix: Solid
Date Collected: 08/17/23 14:27
Date Received: 08/18/23 15:56
Sample Depth: 0 - 1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*08/21/23 10:39*	*08/21/23 16:26*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*08/21/23 10:39*	*08/21/23 16:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00200	0.00102	mg/Kg			08/22/23 10:20	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**47.7**	**J**	50.0	15.1	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**25.7**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/21/23 00:19	1
Diesel Range Organics (Over C10-C28)	**22.0**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/21/23 00:19	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/18/23 18:11	08/21/23 00:19	1
Total TPH	**47.7**	**J B**	50.0	15.1	mg/Kg		08/18/23 18:11	08/21/23 00:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*125*		*70 - 130*	*08/18/23 18:11*	*08/21/23 00:19*	*1*
o-Terphenyl	*138*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/21/23 00:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**873**		5.00	0.398	mg/Kg			08/19/23 15:54	1

Client Sample ID: HA-9

Lab Sample ID: 880-32303-53
Matrix: Solid
Date Collected: 08/17/23 14:35
Date Received: 08/18/23 15:56
Sample Depth: 2 - 3

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00200	0.000388	mg/Kg		08/21/23 10:39	08/21/23 16:51	1
Toluene	<0.000460	U	0.00200	0.000460	mg/Kg		08/21/23 10:39	08/21/23 16:51	1
Ethylbenzene	<0.000570	U	0.00200	0.000570	mg/Kg		08/21/23 10:39	08/21/23 16:51	1
m-Xylene & p-Xylene	<0.00102	U	0.00400	0.00102	mg/Kg		08/21/23 10:39	08/21/23 16:51	1
o-Xylene	**0.000419**	**J**	0.00200	0.000347	mg/Kg		08/21/23 10:39	08/21/23 16:51	1
Xylenes, Total	<0.00102	U	0.00200	0.00102	mg/Kg		08/21/23 10:39	08/21/23 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*08/21/23 10:39*	*08/21/23 16:51*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*08/21/23 10:39*	*08/21/23 16:51*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00200	0.00102	mg/Kg			08/22/23 10:20	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: HA-9

Lab Sample ID: 880-32303-53
Matrix: Solid
Date Collected: 08/17/23 14:35
Date Received: 08/18/23 15:56
Sample Depth: 2 - 3

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	50.1		50.0	15.0	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	22.1	J B	50.0	15.0	mg/Kg		08/18/23 18:11	08/21/23 00:40	1
Diesel Range Organics (Over C10-C28)	28.0	J B	50.0	15.0	mg/Kg		08/18/23 18:11	08/21/23 00:40	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/18/23 18:11	08/21/23 00:40	1
Total TPH	50.1	B	50.0	15.0	mg/Kg		08/18/23 18:11	08/21/23 00:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*08/18/23 18:11*	*08/21/23 00:40*	*1*
o-Terphenyl	*145*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/21/23 00:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	406		5.00	0.393	mg/Kg			08/19/23 16:16	1

Client Sample ID: GP-1

Lab Sample ID: 880-32303-55
Matrix: Solid
Date Collected: 08/17/23 17:37
Date Received: 08/18/23 15:56
Sample Depth: 1 - 2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1760		5.00	1.98	mg/Kg			08/19/23 16:23	5

Client Sample ID: GP-1

Lab Sample ID: 880-32303-56
Matrix: Solid
Date Collected: 08/17/23 17:39
Date Received: 08/18/23 15:56
Sample Depth: 2 - 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4000		5.00	1.99	mg/Kg			08/19/23 16:30	5

Client Sample ID: GP-1

Lab Sample ID: 880-32303-58
Matrix: Solid
Date Collected: 08/17/23 18:00
Date Received: 08/18/23 15:56
Sample Depth: 4 - 5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00200	0.000383	mg/Kg		08/22/23 13:09	08/23/23 10:39	1
Toluene	<0.000454	U	0.00200	0.000454	mg/Kg		08/22/23 13:09	08/23/23 10:39	1
Ethylbenzene	<0.000563	U	0.00200	0.000563	mg/Kg		08/22/23 13:09	08/23/23 10:39	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/22/23 13:09	08/23/23 10:39	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		08/22/23 13:09	08/23/23 10:39	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/22/23 13:09	08/23/23 10:39	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: GP-1

Lab Sample ID: 880-32303-58
Matrix: Solid
Date Collected: 08/17/23 18:00
Date Received: 08/18/23 15:56
Sample Depth: 4 - 5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	08/22/23 13:09	08/23/23 10:39	1
1,4-Difluorobenzene (Surr)	94		70 - 130	08/22/23 13:09	08/23/23 10:39	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00200	0.00101	mg/Kg			08/23/23 12:26	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**36.1**	**J**	50.0	15.1	mg/Kg			08/23/23 11:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**20.8**	**J**	50.0	15.1	mg/Kg		08/21/23 14:10	08/22/23 12:38	1
Diesel Range Organics (Over C10-C28)	**15.3**	**J**	50.0	15.1	mg/Kg		08/21/23 14:10	08/22/23 12:38	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/21/23 14:10	08/22/23 12:38	1
Total TPH	**36.1**	**J**	50.0	15.1	mg/Kg		08/21/23 14:10	08/22/23 12:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130	08/21/23 14:10	08/22/23 12:38	1
o-Terphenyl	116		70 - 130	08/21/23 14:10	08/22/23 12:38	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14500**		5.00	7.90	mg/Kg			08/21/23 14:29	20

Client Sample ID: GP-1

Lab Sample ID: 880-32303-61
Matrix: Solid
Date Collected: 08/17/23 18:06
Date Received: 08/18/23 15:56
Sample Depth: 7 - 8

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1150**		5.00	0.394	mg/Kg			08/23/23 13:39	1

Client Sample ID: GP-1

Lab Sample ID: 880-32303-65
Matrix: Solid
Date Collected: 08/17/23 18:26
Date Received: 08/18/23 15:56
Sample Depth: 11 - 12

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000382	U	0.00200	0.000382	mg/Kg		08/21/23 10:39	08/21/23 19:00	1
Toluene	<0.000452	U	0.00200	0.000452	mg/Kg		08/21/23 10:39	08/21/23 19:00	1
Ethylbenzene	<0.000561	U	0.00200	0.000561	mg/Kg		08/21/23 10:39	08/21/23 19:00	1
m-Xylene & p-Xylene	<0.00100	U	0.00400	0.00100	mg/Kg		08/21/23 10:39	08/21/23 19:00	1
o-Xylene	<0.000341	U	0.00200	0.000341	mg/Kg		08/21/23 10:39	08/21/23 19:00	1
Xylenes, Total	<0.00100	U	0.00200	0.00100	mg/Kg		08/21/23 10:39	08/21/23 19:00	1

Client Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: GP-1

Date Collected: 08/17/23 18:26
Date Received: 08/18/23 15:56
Sample Depth: 11 - 12

Lab Sample ID: 880-32303-65

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*08/21/23 10:39*	*08/21/23 19:00*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*08/21/23 10:39*	*08/21/23 19:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00200	0.00100	mg/Kg			08/22/23 10:20	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**42.3**	**J**	50.0	14.9	mg/Kg			08/21/23 14:40	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**19.2**	**J B**	50.0	14.9	mg/Kg		08/18/23 18:11	08/21/23 01:44	1
Diesel Range Organics (Over C10-C28)	**23.1**	**J B**	50.0	14.9	mg/Kg		08/18/23 18:11	08/21/23 01:44	1
OII Range Organics (Over C28-C36)	<14.9	U	50.0	14.9	mg/Kg		08/18/23 18:11	08/21/23 01:44	1
Total TPH	**42.3**	**J B**	50.0	14.9	mg/Kg		08/18/23 18:11	08/21/23 01:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*144*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/21/23 01:44*	*1*
o-Terphenyl	*162*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/21/23 01:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**113**		5.00	0.394	mg/Kg			08/19/23 16:37	1

Surrogate Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-32303-21	GP-5	102	103
880-32303-21 MS	GP-5	95	84
880-32303-21 MSD	GP-5	115	88
880-32303-32	GP-5	114	102
880-32303-37	GP-6	122	100
880-32303-42	GP-6	114	103
880-32303-43	GP-7	130	112
880-32303-45	GP-7	115	98
880-32303-46	HA-8	121	100
880-32303-50	HA-8	111	115
880-32303-51	HA-9	112	78
880-32303-53	HA-9	111	88
880-32303-58	GP-1	86	94
880-32303-65	GP-1	117	82
LCS 880-60677/1-A	Lab Control Sample	98	98
LCS 880-60818/1-A	Lab Control Sample	87	95
LCSD 880-60677/2-A	Lab Control Sample Dup	98	118
LCSD 880-60818/2-A	Lab Control Sample Dup	99	86
MB 880-60677/5-A	Method Blank	68 S1-	91
MB 880-60732/5-A	Method Blank	99	119
MB 880-60818/5-A	Method Blank	102	107

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-32303-21	GP-5	148 S1+	164 S1+
880-32303-21 MS	GP-5	134 S1+	134 S1+
880-32303-21 MSD	GP-5	155 S1+	150 S1+
880-32303-32	GP-5	132 S1+	147 S1+
880-32303-37	GP-6	142 S1+	154 S1+
880-32303-42	GP-6	131 S1+	144 S1+
880-32303-43	GP-7	137 S1+	145 S1+
880-32303-45	GP-7	125	136 S1+
880-32303-46	HA-8	123	136 S1+
880-32303-50	HA-8	128	142 S1+
880-32303-51	HA-9	125	138 S1+
880-32303-53	HA-9	112	145 S1+
880-32303-58	GP-1	130	116
880-32303-65	GP-1	144 S1+	162 S1+
LCS 880-60604/2-A	Lab Control Sample	104	116
LCS 880-60741/2-A	Lab Control Sample	107	91
LCSD 880-60604/3-A	Lab Control Sample Dup	128	143 S1+
LCSD 880-60741/3-A	Lab Control Sample Dup	123	106

Surrogate Summary

Client: Ensolum Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release SDG: Lea Co NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
MB 880-60604/1-A	Method Blank	137 S1+	155 S1+								
MB 880-60741/1-A	Method Blank	187 S1+	168 S1+								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-60677/5-A
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60677

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		08/21/23 10:39	08/21/23 12:15	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/21/23 10:39	08/21/23 12:15	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/21/23 10:39	08/21/23 12:15	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/21/23 10:39	08/21/23 12:15	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/21/23 10:39	08/21/23 12:15	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/21/23 10:39	08/21/23 12:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*08/21/23 10:39*	*08/21/23 12:15*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*08/21/23 10:39*	*08/21/23 12:15*	*1*

Lab Sample ID: LCS 880-60677/1-A
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60677

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08736		mg/Kg		87	70 - 130		
Toluene			0.100	0.08968		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.08992		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1814		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.08870		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-60677/2-A
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60677

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09978		mg/Kg		100	70 - 130	13	35
Toluene			0.100	0.09625		mg/Kg		96	70 - 130	7	35
Ethylbenzene			0.100	0.09968		mg/Kg		100	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2024		mg/Kg		101	70 - 130	11	35
o-Xylene			0.100	0.09817		mg/Kg		98	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

Lab Sample ID: 880-32303-21 MS
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: GP-5
Prep Type: Total/NA
Prep Batch: 60677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.000381	U	0.0996	0.08648		mg/Kg		87	70 - 130		
Toluene	<0.000451	U	0.0996	0.09397		mg/Kg		94	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-32303-21 MS
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: GP-5
Prep Type: Total/NA
Prep Batch: 60677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.000559	U	0.0996	0.08940		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00100	U	0.199	0.1849		mg/Kg		93	70 - 130
o-Xylene	<0.000341	U	0.0996	0.08761		mg/Kg		88	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: 880-32303-21 MSD
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: GP-5
Prep Type: Total/NA
Prep Batch: 60677

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.000381	U	0.0994	0.09971		mg/Kg		100	70 - 130	14	35
Toluene	<0.000451	U	0.0994	0.1090		mg/Kg		110	70 - 130	15	35
Ethylbenzene	<0.000559	U	0.0994	0.1054		mg/Kg		106	70 - 130	16	35
m-Xylene & p-Xylene	<0.00100	U	0.199	0.2144		mg/Kg		108	70 - 130	15	35
o-Xylene	<0.000341	U	0.0994	0.1060		mg/Kg		107	70 - 130	19	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: MB 880-60732/5-A
Matrix: Solid
Analysis Batch: 60782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60732

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		08/21/23 12:45	08/22/23 16:38	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/21/23 12:45	08/22/23 16:38	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/21/23 12:45	08/22/23 16:38	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/21/23 12:45	08/22/23 16:38	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/21/23 12:45	08/22/23 16:38	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/21/23 12:45	08/22/23 16:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*08/21/23 12:45*	*08/22/23 16:38*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*08/21/23 12:45*	*08/22/23 16:38*	*1*

Lab Sample ID: MB 880-60818/5-A
Matrix: Solid
Analysis Batch: 60782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60818

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		08/22/23 13:09	08/23/23 04:15	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/22/23 13:09	08/23/23 04:15	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/22/23 13:09	08/23/23 04:15	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/22/23 13:09	08/23/23 04:15	1

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-60818/5-A
Matrix: Solid
Analysis Batch: 60782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60818

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/22/23 13:09	08/23/23 04:15	1
Xylenes, Total	<0.00101	U	0.00200	0.00101	mg/Kg		08/22/23 13:09	08/23/23 04:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*08/22/23 13:09*	*08/23/23 04:15*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*08/22/23 13:09*	*08/23/23 04:15*	*1*

Lab Sample ID: LCS 880-60818/1-A
Matrix: Solid
Analysis Batch: 60782

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60818

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09278		mg/Kg		93	70 - 130		
Toluene			0.100	0.09141		mg/Kg		91	70 - 130		
Ethylbenzene			0.100	0.09066		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1692		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.07807		mg/Kg		78	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-60818/2-A
Matrix: Solid
Analysis Batch: 60782

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60818

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08368		mg/Kg		84	70 - 130	10	35
Toluene			0.100	0.08323		mg/Kg		83	70 - 130	9	35
Ethylbenzene			0.100	0.07555		mg/Kg		76	70 - 130	18	35
m-Xylene & p-Xylene			0.200	0.1427		mg/Kg		71	70 - 130	17	35
o-Xylene			0.100	0.07783		mg/Kg		78	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-60604/1-A
Matrix: Solid
Analysis Batch: 60630

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60604

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	17.32	J	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 19:33	1
Diesel Range Organics (Over C10-C28)	21.80	J	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 19:33	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 19:33	1

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-60604/1-A
Matrix: Solid
Analysis Batch: 60630

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60604

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	39.12	J	50.0	15.0	mg/Kg		08/18/23 18:11	08/20/23 19:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 19:33*	*1*
o-Terphenyl	*155*	*S1+*	*70 - 130*	*08/18/23 18:11*	*08/20/23 19:33*	*1*

Lab Sample ID: LCS 880-60604/2-A
Matrix: Solid
Analysis Batch: 60630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60604

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1056		mg/Kg		106	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1002		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Lab Sample ID: LCSD 880-60604/3-A
Matrix: Solid
Analysis Batch: 60630

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60604

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1024		mg/Kg		102	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1053		mg/Kg		105	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*128*		*70 - 130*
o-Terphenyl	*143*	*S1+*	*70 - 130*

Lab Sample ID: 880-32303-21 MS
Matrix: Solid
Analysis Batch: 60630

Client Sample ID: GP-5
Prep Type: Total/NA
Prep Batch: 60604

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	33.7	J B F2	994	904.1		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)	20.9	J B	994	1089		mg/Kg		107	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*134*	*S1+*	*70 - 130*
o-Terphenyl	*134*	*S1+*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-32303-21 MSD
Matrix: Solid
Analysis Batch: 60630

Client Sample ID: GP-5
Prep Type: Total/NA
Prep Batch: 60604

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	33.7	J B F2	994	1226	F2	mg/Kg		120	70 - 130	30	20
Diesel Range Organics (Over C10-C28)	20.9	J B	994	1247		mg/Kg		123	70 - 130	14	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*155*	*S1+*	*70 - 130*
o-Terphenyl	*150*	*S1+*	*70 - 130*

Lab Sample ID: MB 880-60741/1-A
Matrix: Solid
Analysis Batch: 60776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60741

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		08/21/23 14:10	08/22/23 08:13	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		08/21/23 14:10	08/22/23 08:13	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/21/23 14:10	08/22/23 08:13	1
Total TPH	<15.0	U	50.0	15.0	mg/Kg		08/21/23 14:10	08/22/23 08:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*187*	*S1+*	*70 - 130*	*08/21/23 14:10*	*08/22/23 08:13*	*1*
o-Terphenyl	*168*	*S1+*	*70 - 130*	*08/21/23 14:10*	*08/22/23 08:13*	*1*

Lab Sample ID: LCS 880-60741/2-A
Matrix: Solid
Analysis Batch: 60776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60741

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	938.0		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	881.7		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: LCSD 880-60741/3-A
Matrix: Solid
Analysis Batch: 60776

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60741

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1012		mg/Kg		101	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	995.8		mg/Kg		100	70 - 130	12	20

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-60741/3-A
Matrix: Solid
Analysis Batch: 60776

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60741

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	123		70 - 130
o-Terphenyl	106		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-60590/1-A
Matrix: Solid
Analysis Batch: 60668

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			08/20/23 00:50	1

Lab Sample ID: LCS 880-60590/2-A
Matrix: Solid
Analysis Batch: 60668

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.7		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-60590/3-A
Matrix: Solid
Analysis Batch: 60668

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	260.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-32303-1 MS
Matrix: Solid
Analysis Batch: 60668

Client Sample ID: BG-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2560	F1	1250	3944	F1	mg/Kg		111	90 - 110		

Lab Sample ID: 880-32303-1 MSD
Matrix: Solid
Analysis Batch: 60668

Client Sample ID: BG-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2560	F1	1250	3968	F1	mg/Kg		113	90 - 110	1	20

Lab Sample ID: 880-32303-11 MS
Matrix: Solid
Analysis Batch: 60668

Client Sample ID: BG-1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	238		250	489.3		mg/Kg		100	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-32303-11 MSD — **Client Sample ID: BG-1**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 60668

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	238		250	488.9		mg/Kg		100	90 - 110	0	20

Lab Sample ID: MB 880-60591/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 60675

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			08/19/23 14:50	1

Lab Sample ID: LCS 880-60591/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 60675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	252.1		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-60591/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 60675

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	252.9		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 880-32303-43 MS — **Client Sample ID: GP-7**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 60675

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	56.3		252	314.9		mg/Kg		103	90 - 110

Lab Sample ID: 880-32303-43 MSD — **Client Sample ID: GP-7**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 60675

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	56.3		252	315.8		mg/Kg		103	90 - 110	0	20

Lab Sample ID: MB 880-60724/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 60729

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			08/21/23 12:56	1

Lab Sample ID: LCS 880-60724/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 60729

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	252.7		mg/Kg		101	90 - 110

QC Sample Results

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-60724/3-A
Matrix: Solid
Analysis Batch: 60729

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	253.2		mg/Kg		101	90 - 110	0	20

Lab Sample ID: MB 880-60841/1-A
Matrix: Solid
Analysis Batch: 60882

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			08/23/23 08:48	1

Lab Sample ID: LCS 880-60841/2-A
Matrix: Solid
Analysis Batch: 60882

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-60841/3-A
Matrix: Solid
Analysis Batch: 60882

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	251.0		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 880-32303-19 MS
Matrix: Solid
Analysis Batch: 60882

Client Sample ID: GP-5
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	309	F1	251	523.0	F1	mg/Kg		86	90 - 110		

Lab Sample ID: 880-32303-19 MSD
Matrix: Solid
Analysis Batch: 60882

Client Sample ID: GP-5
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	309	F1	251	518.1	F1	mg/Kg		84	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

GC VOA

Analysis Batch: 60643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-21	GP-5	Total/NA	Solid	8021B	60677
880-32303-32	GP-5	Total/NA	Solid	8021B	60677
880-32303-37	GP-6	Total/NA	Solid	8021B	60677
880-32303-42	GP-6	Total/NA	Solid	8021B	60677
880-32303-43	GP-7	Total/NA	Solid	8021B	60677
880-32303-45	GP-7	Total/NA	Solid	8021B	60677
880-32303-46	HA-8	Total/NA	Solid	8021B	60677
880-32303-50	HA-8	Total/NA	Solid	8021B	60677
880-32303-51	HA-9	Total/NA	Solid	8021B	60677
880-32303-53	HA-9	Total/NA	Solid	8021B	60677
880-32303-65	GP-1	Total/NA	Solid	8021B	60677
MB 880-60677/5-A	Method Blank	Total/NA	Solid	8021B	60677
LCS 880-60677/1-A	Lab Control Sample	Total/NA	Solid	8021B	60677
LCSD 880-60677/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60677
880-32303-21 MS	GP-5	Total/NA	Solid	8021B	60677
880-32303-21 MSD	GP-5	Total/NA	Solid	8021B	60677

Prep Batch: 60677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-21	GP-5	Total/NA	Solid	5035	
880-32303-32	GP-5	Total/NA	Solid	5035	
880-32303-37	GP-6	Total/NA	Solid	5035	
880-32303-42	GP-6	Total/NA	Solid	5035	
880-32303-43	GP-7	Total/NA	Solid	5035	
880-32303-45	GP-7	Total/NA	Solid	5035	
880-32303-46	HA-8	Total/NA	Solid	5035	
880-32303-50	HA-8	Total/NA	Solid	5035	
880-32303-51	HA-9	Total/NA	Solid	5035	
880-32303-53	HA-9	Total/NA	Solid	5035	
880-32303-65	GP-1	Total/NA	Solid	5035	
MB 880-60677/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60677/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60677/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-32303-21 MS	GP-5	Total/NA	Solid	5035	
880-32303-21 MSD	GP-5	Total/NA	Solid	5035	

Prep Batch: 60732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-60732/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 60782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-58	GP-1	Total/NA	Solid	8021B	60818
MB 880-60732/5-A	Method Blank	Total/NA	Solid	8021B	60732
MB 880-60818/5-A	Method Blank	Total/NA	Solid	8021B	60818
LCS 880-60818/1-A	Lab Control Sample	Total/NA	Solid	8021B	60818
LCSD 880-60818/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60818

Analysis Batch: 60798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-21	GP-5	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

GC VOA (Continued)

Analysis Batch: 60798 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-32	GP-5	Total/NA	Solid	Total BTEX	
880-32303-37	GP-6	Total/NA	Solid	Total BTEX	
880-32303-42	GP-6	Total/NA	Solid	Total BTEX	
880-32303-43	GP-7	Total/NA	Solid	Total BTEX	
880-32303-45	GP-7	Total/NA	Solid	Total BTEX	
880-32303-46	HA-8	Total/NA	Solid	Total BTEX	
880-32303-50	HA-8	Total/NA	Solid	Total BTEX	
880-32303-51	HA-9	Total/NA	Solid	Total BTEX	
880-32303-53	HA-9	Total/NA	Solid	Total BTEX	
880-32303-58	GP-1	Total/NA	Solid	Total BTEX	
880-32303-65	GP-1	Total/NA	Solid	Total BTEX	

Prep Batch: 60818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-58	GP-1	Total/NA	Solid	5035	
MB 880-60818/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60818/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60818/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 60604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-21	GP-5	Total/NA	Solid	8015NM Prep	
880-32303-32	GP-5	Total/NA	Solid	8015NM Prep	
880-32303-37	GP-6	Total/NA	Solid	8015NM Prep	
880-32303-42	GP-6	Total/NA	Solid	8015NM Prep	
880-32303-43	GP-7	Total/NA	Solid	8015NM Prep	
880-32303-45	GP-7	Total/NA	Solid	8015NM Prep	
880-32303-46	HA-8	Total/NA	Solid	8015NM Prep	
880-32303-50	HA-8	Total/NA	Solid	8015NM Prep	
880-32303-51	HA-9	Total/NA	Solid	8015NM Prep	
880-32303-53	HA-9	Total/NA	Solid	8015NM Prep	
880-32303-65	GP-1	Total/NA	Solid	8015NM Prep	
MB 880-60604/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60604/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60604/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-32303-21 MS	GP-5	Total/NA	Solid	8015NM Prep	
880-32303-21 MSD	GP-5	Total/NA	Solid	8015NM Prep	

Analysis Batch: 60630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-21	GP-5	Total/NA	Solid	8015B NM	60604
880-32303-32	GP-5	Total/NA	Solid	8015B NM	60604
880-32303-37	GP-6	Total/NA	Solid	8015B NM	60604
880-32303-42	GP-6	Total/NA	Solid	8015B NM	60604
880-32303-43	GP-7	Total/NA	Solid	8015B NM	60604
880-32303-45	GP-7	Total/NA	Solid	8015B NM	60604
880-32303-46	HA-8	Total/NA	Solid	8015B NM	60604
880-32303-50	HA-8	Total/NA	Solid	8015B NM	60604
880-32303-51	HA-9	Total/NA	Solid	8015B NM	60604

QC Association Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

GC Semi VOA (Continued)

Analysis Batch: 60630 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-53	HA-9	Total/NA	Solid	8015B NM	60604
880-32303-65	GP-1	Total/NA	Solid	8015B NM	60604
MB 880-60604/1-A	Method Blank	Total/NA	Solid	8015B NM	60604
LCS 880-60604/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60604
LCSD 880-60604/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60604
880-32303-21 MS	GP-5	Total/NA	Solid	8015B NM	60604
880-32303-21 MSD	GP-5	Total/NA	Solid	8015B NM	60604

Prep Batch: 60741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-58	GP-1	Total/NA	Solid	8015NM Prep	
MB 880-60741/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60741/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60741/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 60747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-21	GP-5	Total/NA	Solid	8015 NM	
880-32303-32	GP-5	Total/NA	Solid	8015 NM	
880-32303-37	GP-6	Total/NA	Solid	8015 NM	
880-32303-42	GP-6	Total/NA	Solid	8015 NM	
880-32303-43	GP-7	Total/NA	Solid	8015 NM	
880-32303-45	GP-7	Total/NA	Solid	8015 NM	
880-32303-46	HA-8	Total/NA	Solid	8015 NM	
880-32303-50	HA-8	Total/NA	Solid	8015 NM	
880-32303-51	HA-9	Total/NA	Solid	8015 NM	
880-32303-53	HA-9	Total/NA	Solid	8015 NM	
880-32303-58	GP-1	Total/NA	Solid	8015 NM	
880-32303-65	GP-1	Total/NA	Solid	8015 NM	

Analysis Batch: 60776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-58	GP-1	Total/NA	Solid	8015B NM	60741
MB 880-60741/1-A	Method Blank	Total/NA	Solid	8015B NM	60741
LCS 880-60741/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60741
LCSD 880-60741/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60741

HPLC/IC

Leach Batch: 60590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-1	BG-1	Soluble	Solid	DI Leach	
880-32303-2	BG-1	Soluble	Solid	DI Leach	
880-32303-3	BG-1	Soluble	Solid	DI Leach	
880-32303-4	BG-1	Soluble	Solid	DI Leach	
880-32303-5	BG-1	Soluble	Solid	DI Leach	
880-32303-6	BG-1	Soluble	Solid	DI Leach	
880-32303-7	BG-1	Soluble	Solid	DI Leach	
880-32303-8	BG-1	Soluble	Solid	DI Leach	
880-32303-9	BG-1	Soluble	Solid	DI Leach	
880-32303-10	BG-1	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

HPLC/IC (Continued)

Leach Batch: 60590 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-11	BG-1	Soluble	Solid	DI Leach	
880-32303-12	BG-1	Soluble	Solid	DI Leach	
880-32303-13	BG-2	Soluble	Solid	DI Leach	
880-32303-14	BG-2	Soluble	Solid	DI Leach	
880-32303-15	BG-2	Soluble	Solid	DI Leach	
880-32303-16	BG-2	Soluble	Solid	DI Leach	
880-32303-21	GP-5	Soluble	Solid	DI Leach	
880-32303-32	GP-5	Soluble	Solid	DI Leach	
880-32303-37	GP-6	Soluble	Solid	DI Leach	
880-32303-42	GP-6	Soluble	Solid	DI Leach	
MB 880-60590/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60590/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60590/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-32303-1 MS	BG-1	Soluble	Solid	DI Leach	
880-32303-1 MSD	BG-1	Soluble	Solid	DI Leach	
880-32303-11 MS	BG-1	Soluble	Solid	DI Leach	
880-32303-11 MSD	BG-1	Soluble	Solid	DI Leach	

Leach Batch: 60591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-43	GP-7	Soluble	Solid	DI Leach	
880-32303-45	GP-7	Soluble	Solid	DI Leach	
880-32303-46	HA-8	Soluble	Solid	DI Leach	
880-32303-50	HA-8	Soluble	Solid	DI Leach	
880-32303-51	HA-9	Soluble	Solid	DI Leach	
880-32303-53	HA-9	Soluble	Solid	DI Leach	
880-32303-55	GP-1	Soluble	Solid	DI Leach	
880-32303-56	GP-1	Soluble	Solid	DI Leach	
880-32303-65	GP-1	Soluble	Solid	DI Leach	
MB 880-60591/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60591/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60591/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-32303-43 MS	GP-7	Soluble	Solid	DI Leach	
880-32303-43 MSD	GP-7	Soluble	Solid	DI Leach	

Analysis Batch: 60668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-1	BG-1	Soluble	Solid	300.0	60590
880-32303-2	BG-1	Soluble	Solid	300.0	60590
880-32303-3	BG-1	Soluble	Solid	300.0	60590
880-32303-4	BG-1	Soluble	Solid	300.0	60590
880-32303-5	BG-1	Soluble	Solid	300.0	60590
880-32303-6	BG-1	Soluble	Solid	300.0	60590
880-32303-7	BG-1	Soluble	Solid	300.0	60590
880-32303-8	BG-1	Soluble	Solid	300.0	60590
880-32303-9	BG-1	Soluble	Solid	300.0	60590
880-32303-10	BG-1	Soluble	Solid	300.0	60590
880-32303-11	BG-1	Soluble	Solid	300.0	60590
880-32303-12	BG-1	Soluble	Solid	300.0	60590
880-32303-13	BG-2	Soluble	Solid	300.0	60590
880-32303-14	BG-2	Soluble	Solid	300.0	60590

QC Association Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

HPLC/IC (Continued)

Analysis Batch: 60668 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-15	BG-2	Soluble	Solid	300.0	60590
880-32303-16	BG-2	Soluble	Solid	300.0	60590
880-32303-21	GP-5	Soluble	Solid	300.0	60590
880-32303-32	GP-5	Soluble	Solid	300.0	60590
880-32303-37	GP-6	Soluble	Solid	300.0	60590
880-32303-42	GP-6	Soluble	Solid	300.0	60590
MB 880-60590/1-A	Method Blank	Soluble	Solid	300.0	60590
LCS 880-60590/2-A	Lab Control Sample	Soluble	Solid	300.0	60590
LCSD 880-60590/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60590
880-32303-1 MS	BG-1	Soluble	Solid	300.0	60590
880-32303-1 MSD	BG-1	Soluble	Solid	300.0	60590
880-32303-11 MS	BG-1	Soluble	Solid	300.0	60590
880-32303-11 MSD	BG-1	Soluble	Solid	300.0	60590

Analysis Batch: 60675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-43	GP-7	Soluble	Solid	300.0	60591
880-32303-45	GP-7	Soluble	Solid	300.0	60591
880-32303-46	HA-8	Soluble	Solid	300.0	60591
880-32303-50	HA-8	Soluble	Solid	300.0	60591
880-32303-51	HA-9	Soluble	Solid	300.0	60591
880-32303-53	HA-9	Soluble	Solid	300.0	60591
880-32303-55	GP-1	Soluble	Solid	300.0	60591
880-32303-56	GP-1	Soluble	Solid	300.0	60591
880-32303-65	GP-1	Soluble	Solid	300.0	60591
MB 880-60591/1-A	Method Blank	Soluble	Solid	300.0	60591
LCS 880-60591/2-A	Lab Control Sample	Soluble	Solid	300.0	60591
LCSD 880-60591/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60591
880-32303-43 MS	GP-7	Soluble	Solid	300.0	60591
880-32303-43 MSD	GP-7	Soluble	Solid	300.0	60591

Leach Batch: 60724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-58	GP-1	Soluble	Solid	DI Leach	
MB 880-60724/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60724/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60724/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 60729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-58	GP-1	Soluble	Solid	300.0	60724
MB 880-60724/1-A	Method Blank	Soluble	Solid	300.0	60724
LCS 880-60724/2-A	Lab Control Sample	Soluble	Solid	300.0	60724
LCSD 880-60724/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60724

Leach Batch: 60841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-19	GP-5	Soluble	Solid	DI Leach	
880-32303-34	GP-6	Soluble	Solid	DI Leach	
880-32303-48	HA-8	Soluble	Solid	DI Leach	
880-32303-61	GP-1	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

HPLC/IC (Continued)

Leach Batch: 60841 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-60841/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60841/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60841/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-32303-19 MS	GP-5	Soluble	Solid	DI Leach	
880-32303-19 MSD	GP-5	Soluble	Solid	DI Leach	

Analysis Batch: 60882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-32303-19	GP-5	Soluble	Solid	300.0	60841
880-32303-34	GP-6	Soluble	Solid	300.0	60841
880-32303-48	HA-8	Soluble	Solid	300.0	60841
880-32303-61	GP-1	Soluble	Solid	300.0	60841
MB 880-60841/1-A	Method Blank	Soluble	Solid	300.0	60841
LCS 880-60841/2-A	Lab Control Sample	Soluble	Solid	300.0	60841
LCSD 880-60841/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60841
880-32303-19 MS	GP-5	Soluble	Solid	300.0	60841
880-32303-19 MSD	GP-5	Soluble	Solid	300.0	60841

Lab Chronicle

Client: Ensolum
Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release
SDG: Lea Co NM

Client Sample ID: BG-1
Lab Sample ID: 880-32303-1
Date Collected: 08/17/23 18:55
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		5	60668	CH	EET MID	08/20/23 01:10

Client Sample ID: BG-1
Lab Sample ID: 880-32303-2
Date Collected: 08/17/23 18:57
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 01:30

Client Sample ID: BG-1
Lab Sample ID: 880-32303-3
Date Collected: 08/17/23 18:59
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		5	60668	CH	EET MID	08/20/23 01:36

Client Sample ID: BG-1
Lab Sample ID: 880-32303-4
Date Collected: 08/17/23 19:01
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		5	60668	CH	EET MID	08/20/23 01:43

Client Sample ID: BG-1
Lab Sample ID: 880-32303-5
Date Collected: 08/17/23 19:04
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		5	60668	CH	EET MID	08/20/23 01:50

Client Sample ID: BG-1
Lab Sample ID: 880-32303-6
Date Collected: 08/17/23 19:06
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 02:10

Lab Chronicle

Client: Ensolum
Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release
SDG: Lea Co NM

Client Sample ID: BG-1
Lab Sample ID: 880-32303-7
Date Collected: 08/17/23 19:08
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		10	60668	CH	EET MID	08/20/23 02:16

Client Sample ID: BG-1
Lab Sample ID: 880-32303-8
Date Collected: 08/17/23 19:10
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		10	60668	CH	EET MID	08/20/23 02:23

Client Sample ID: BG-1
Lab Sample ID: 880-32303-9
Date Collected: 08/17/23 19:12
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		5	60668	CH	EET MID	08/20/23 02:29

Client Sample ID: BG-1
Lab Sample ID: 880-32303-10
Date Collected: 08/17/23 19:14
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 02:36

Client Sample ID: BG-1
Lab Sample ID: 880-32303-11
Date Collected: 08/17/23 19:16
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 02:43

Client Sample ID: BG-1
Lab Sample ID: 880-32303-12
Date Collected: 08/17/23 19:18
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 03:02

Lab Chronicle

Client: Ensolum
Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release
SDG: Lea Co NM

Client Sample ID: BG-2
Lab Sample ID: 880-32303-13
Date Collected: 08/17/23 14:56
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 03:09

Client Sample ID: BG-2
Lab Sample ID: 880-32303-14
Date Collected: 08/17/23 15:10
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 03:29

Client Sample ID: BG-2
Lab Sample ID: 880-32303-15
Date Collected: 08/17/23 15:20
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 03:36

Client Sample ID: BG-2
Lab Sample ID: 880-32303-16
Date Collected: 08/17/23 15:30
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		5	60668	CH	EET MID	08/20/23 03:42

Client Sample ID: GP-5
Lab Sample ID: 880-32303-19
Date Collected: 08/17/23 08:44
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60841	CH	EET MID	08/23/23 11:00
Soluble	Analysis	300.0		1	60882	CH	EET MID	08/23/23 12:41

Client Sample ID: GP-5
Lab Sample ID: 880-32303-21
Date Collected: 08/17/23 08:50
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 12:41
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/20/23 20:41

Lab Chronicle

Client: Ensolum
Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release
SDG: Lea Co NM

Client Sample ID: GP-5
Lab Sample ID: 880-32303-21
Date Collected: 08/17/23 08:50
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 03:49

Client Sample ID: GP-5
Lab Sample ID: 880-32303-32
Date Collected: 08/17/23 10:05
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 13:07
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/20/23 21:49
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 03:56

Client Sample ID: GP-6
Lab Sample ID: 880-32303-34
Date Collected: 08/17/23 10:57
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60841	CH	EET MID	08/23/23 11:00
Soluble	Analysis	300.0		5	60882	CH	EET MID	08/23/23 13:16

Client Sample ID: GP-6
Lab Sample ID: 880-32303-37
Date Collected: 08/17/23 11:11
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 13:33
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/20/23 22:11
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 04:02

Lab Chronicle

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Client Sample ID: GP-6
Date Collected: 08/17/23 11:42
Date Received: 08/18/23 15:56

Lab Sample ID: 880-32303-42
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 13:59
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/20/23 22:33
Soluble	Leach	DI Leach			60590	SMC	EET MID	08/18/23 16:42
Soluble	Analysis	300.0		1	60668	CH	EET MID	08/20/23 04:09

Client Sample ID: GP-7
Date Collected: 08/17/23 12:15
Date Received: 08/18/23 15:56

Lab Sample ID: 880-32303-43
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 14:25
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/20/23 22:54
Soluble	Leach	DI Leach			60591	SMC	EET MID	08/18/23 16:45
Soluble	Analysis	300.0		1	60675	CH	EET MID	08/19/23 15:11

Client Sample ID: GP-7
Date Collected: 08/17/23 12:19
Date Received: 08/18/23 15:56

Lab Sample ID: 880-32303-45
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 14:50
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/20/23 23:15
Soluble	Leach	DI Leach			60591	SMC	EET MID	08/18/23 16:45
Soluble	Analysis	300.0		1	60675	CH	EET MID	08/19/23 15:33

Client Sample ID: HA-8
Date Collected: 08/17/23 12:50
Date Received: 08/18/23 15:56

Lab Sample ID: 880-32303-46
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 15:16
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20

Lab Chronicle

Client: Ensolum
Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release
SDG: Lea Co NM

Client Sample ID: HA-8
Lab Sample ID: 880-32303-46
Date Collected: 08/17/23 12:50
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/20/23 23:36
Soluble	Leach	DI Leach			60591	SMC	EET MID	08/18/23 16:45
Soluble	Analysis	300.0		1	60675	CH	EET MID	08/19/23 15:40

Client Sample ID: HA-8
Lab Sample ID: 880-32303-48
Date Collected: 08/17/23 12:55
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60841	CH	EET MID	08/23/23 11:00
Soluble	Analysis	300.0		1	60882	CH	EET MID	08/23/23 13:22

Client Sample ID: HA-8
Lab Sample ID: 880-32303-50
Date Collected: 08/17/23 13:17
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 16:00
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/20/23 23:58
Soluble	Leach	DI Leach			60591	SMC	EET MID	08/18/23 16:45
Soluble	Analysis	300.0		1	60675	CH	EET MID	08/19/23 15:47

Client Sample ID: HA-9
Lab Sample ID: 880-32303-51
Date Collected: 08/17/23 14:27
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 16:26
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/21/23 00:19
Soluble	Leach	DI Leach			60591	SMC	EET MID	08/18/23 16:45
Soluble	Analysis	300.0		1	60675	CH	EET MID	08/19/23 15:54

Lab Chronicle

Client: Ensolum
Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release
SDG: Lea Co NM

Client Sample ID: HA-9
Lab Sample ID: 880-32303-53
Date Collected: 08/17/23 14:35
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 16:51
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/21/23 00:40
Soluble	Leach	DI Leach			60591	SMC	EET MID	08/18/23 16:45
Soluble	Analysis	300.0		1	60675	CH	EET MID	08/19/23 16:16

Client Sample ID: GP-1
Lab Sample ID: 880-32303-55
Date Collected: 08/17/23 17:37
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60591	SMC	EET MID	08/18/23 16:45
Soluble	Analysis	300.0		5	60675	CH	EET MID	08/19/23 16:23

Client Sample ID: GP-1
Lab Sample ID: 880-32303-56
Date Collected: 08/17/23 17:39
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60591	SMC	EET MID	08/18/23 16:45
Soluble	Analysis	300.0		5	60675	CH	EET MID	08/19/23 16:30

Client Sample ID: GP-1
Lab Sample ID: 880-32303-58
Date Collected: 08/17/23 18:00
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60818	EL	EET MID	08/22/23 13:09
Total/NA	Analysis	8021B		1	60782	AJ	EET MID	08/23/23 10:39
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/23/23 12:26
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/23/23 11:00
Total/NA	Prep	8015NM Prep			60741	TKC	EET MID	08/21/23 14:10
Total/NA	Analysis	8015B NM		1	60776	SM	EET MID	08/22/23 12:38
Soluble	Leach	DI Leach			60724	SMC	EET MID	08/21/23 12:15
Soluble	Analysis	300.0		20	60729	SMC	EET MID	08/21/23 14:29

Lab Chronicle

Client: Ensolum
Job ID: 880-32303-1
Project/Site: NexGen Produced Water Release
SDG: Lea Co NM

Client Sample ID: GP-1
Lab Sample ID: 880-32303-61
Date Collected: 08/17/23 18:06
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			60841	CH	EET MID	08/23/23 11:00
Soluble	Analysis	300.0		1	60882	CH	EET MID	08/23/23 13:39

Client Sample ID: GP-1
Lab Sample ID: 880-32303-65
Date Collected: 08/17/23 18:26
Matrix: Solid
Date Received: 08/18/23 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			60677	EL	EET MID	08/21/23 10:39
Total/NA	Analysis	8021B		1	60643	SM	EET MID	08/21/23 19:00
Total/NA	Analysis	Total BTEX		1	60798	SM	EET MID	08/22/23 10:20
Total/NA	Analysis	8015 NM		1	60747	SM	EET MID	08/21/23 14:40
Total/NA	Prep	8015NM Prep			60604	TKC	EET MID	08/18/23 18:11
Total/NA	Analysis	8015B NM		1	60630	SM	EET MID	08/21/23 01:44
Soluble	Leach	DI Leach			60591	SMC	EET MID	08/18/23 16:45
Soluble	Analysis	300.0		1	60675	CH	EET MID	08/19/23 16:37

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: NexGen Produced Water Release

Job ID: 880-32303-1
SDG: Lea Co NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-32303-1	BG-1	Solid	08/17/23 18:55	08/18/23 15:56	0 - 1
880-32303-2	BG-1	Solid	08/17/23 18:57	08/18/23 15:56	1 - 2
880-32303-3	BG-1	Solid	08/17/23 18:59	08/18/23 15:56	2 - 3
880-32303-4	BG-1	Solid	08/17/23 19:01	08/18/23 15:56	3 - 4
880-32303-5	BG-1	Solid	08/17/23 19:04	08/18/23 15:56	4 - 5
880-32303-6	BG-1	Solid	08/17/23 19:06	08/18/23 15:56	5 - 6
880-32303-7	BG-1	Solid	08/17/23 19:08	08/18/23 15:56	6 - 7
880-32303-8	BG-1	Solid	08/17/23 19:10	08/18/23 15:56	7 - 8
880-32303-9	BG-1	Solid	08/17/23 19:12	08/18/23 15:56	8 - 9
880-32303-10	BG-1	Solid	08/17/23 19:14	08/18/23 15:56	9 - 10
880-32303-11	BG-1	Solid	08/17/23 19:16	08/18/23 15:56	10 - 11
880-32303-12	BG-1	Solid	08/17/23 19:18	08/18/23 15:56	11 - 12
880-32303-13	BG-2	Solid	08/17/23 14:56	08/18/23 15:56	0 - 1
880-32303-14	BG-2	Solid	08/17/23 15:10	08/18/23 15:56	1 - 2
880-32303-15	BG-2	Solid	08/17/23 15:20	08/18/23 15:56	2 - 3
880-32303-16	BG-2	Solid	08/17/23 15:30	08/18/23 15:56	3 - 4
880-32303-19	GP-5	Solid	08/17/23 08:44	08/18/23 15:56	2 - 3
880-32303-21	GP-5	Solid	08/17/23 08:50	08/18/23 15:56	4 - 5
880-32303-32	GP-5	Solid	08/17/23 10:05	08/18/23 15:56	15 - 16
880-32303-34	GP-6	Solid	08/17/23 10:57	08/18/23 15:56	1 - 2
880-32303-37	GP-6	Solid	08/17/23 11:11	08/18/23 15:56	4 - 5
880-32303-42	GP-6	Solid	08/17/23 11:42	08/18/23 15:56	9 - 10
880-32303-43	GP-7	Solid	08/17/23 12:15	08/18/23 15:56	0 - 1
880-32303-45	GP-7	Solid	08/17/23 12:19	08/18/23 15:56	2 - 3
880-32303-46	HA-8	Solid	08/17/23 12:50	08/18/23 15:56	0 - 1
880-32303-48	HA-8	Solid	08/17/23 12:55	08/18/23 15:56	2 - 3
880-32303-50	HA-8	Solid	08/17/23 13:17	08/18/23 15:56	4 - 5
880-32303-51	HA-9	Solid	08/17/23 14:27	08/18/23 15:56	0 - 1
880-32303-53	HA-9	Solid	08/17/23 14:35	08/18/23 15:56	2 - 3
880-32303-55	GP-1	Solid	08/17/23 17:37	08/18/23 15:56	1 - 2
880-32303-56	GP-1	Solid	08/17/23 17:39	08/18/23 15:56	2 - 3
880-32303-58	GP-1	Solid	08/17/23 18:00	08/18/23 15:56	4 - 5
880-32303-61	GP-1	Solid	08/17/23 18:06	08/18/23 15:56	7 - 8
880-32303-65	GP-1	Solid	08/17/23 18:26	08/18/23 15:56	11 - 12

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Chain of Custody

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Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

880-32303 Chain of Custody

www.xenco.com Page 1 of 7

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N. Marienfeld Street, Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858	Email:	bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NexGen Produced Water Release	Turn Around	
Project Number:	03B2359002	☐ Routine ☑ Rush	
Project Location:	Lea Co. NM	Due Date:	24 Hrs
Sampler's Name:	Beaux Jennings	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	03B2359002		

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	176
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.3
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	1.9
Total Containers:		Corrected Temperature:	1.6

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: BTEX 8021B	TPH 8015M	CHLORIDES	HOLD	Sample Comments
BG-1	S	8/17/2023	1855	0-1'	Grab	1			X		
BG-1	S	8/17/2023	1857	1-2'	Grab	1			X		
BG-1	S	8/17/2023	1859	2-3'	Grab	1			X		
BG-1	S	8/17/2023	1901	3-4'	Grab	1			X		
BG-1	S	8/17/2023	1904	4-5'	Grab	1			X		
BG-1	S	8/17/2023	1906	5-6'	Grab	1			X		
BG-1	S	8/17/2023	1908	6-7'	Grab	1			X		
BG-1	S	8/17/2023	1910	7-8'	Grab	1			X		
BG-1	S	8/17/2023	1912	8-9'	Grab	1			X		
BG-1	S	8/17/2023	1914	9-10'	Grab	1			X		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/18/23 1356	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 2 of 7

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N. Marienfeld Street, Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858	Email:	bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NexGen Produced Water Release	Turn Around	
Project Number:	03B2359002	☐ Routine ☑ Rush	
Project Location:	Lea Co. NM	Due Date:	24 Hrs
Sampler's Name:	Beaux Jennings	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	03B2359002		

SAMPLE RECEIPT				
Samples Received Intact:	Yes No	Temp Blank:	Yes No	Wet Ice: Yes No
Cooler Custody Seals:	Yes No N/A	Thermometer ID:		
Sample Custody Seals:	Yes No N/A	Correction Factor:		
Total Containers:		Temperature Reading:		
		Corrected Temperature:		

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters	BTEX 8021B	TPH 8015M	CHLORIDES	HOLD	Sample Comments
BG-1	S	8/17/2023	1916	10-11'	Grab	1					X		
BG-1	S	8/17/2023	1918	11-12'	Grab	1					X		
BG-2	S	8/17/2023	1456	0-1'	Grab	1					X		
BG-2	S	8/17/2023	1510	1-2'	Grab	1					X		
BG-2	S	8/17/2023	1520	2-3'	Grab	1					X		
BG-2	S	8/17/2023	1530	3.5'	Grab	1					X		
GP-5	S	8/17/2023	0840	0-1'	Grab	1						X	
GP-5	S	8/17/2023	0842	1-2'	Grab	1						X	
GP-5	S	8/17/2023	0844	2-3'	Grab	1						X	
GP-5	S	8/17/2023	0845	3-4'	Grab	1						X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		5/18/23	2		
3			4		
5			6		

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 3 of 7

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N. Marienfeld Street, Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858	Email:	bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NexGen Produced Water Release	Turn Around	
Project Number:	03B2359002	☐ Routine ☑ Rush	
Project Location:	Lea Co. NM	Due Date:	24 Hrs
Sampler's Name:	Beaux Jennings	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	03B2359002		

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX 8021B	TPH 8015M	CHLORIDES	HOLD	Sample Comments
GP-5	S	8/17/2023	0850	4-5'	Grab	1		X	X	X		
GP-5	S	8/17/2023	0852	5-6'	Grab	1					X	
GP-5	S	8/17/2023	0854	6-7'	Grab	1					X	
GP-5	S	8/17/2023	0856	7-8'	Grab	1					X	
GP-5	S	8/17/2023	0915	8-9'	Grab	1					X	
GP-5	S	8/17/2023	0917	9-10'	Grab	1					X	
GP-5	S	8/17/2023	0930	10-11'	Grab	1					X	
GP-5	S	8/17/2023	0932	11-12'	Grab	1					X	
GP-5	S	8/17/2023	0958	12-13'	Grab	1					X	
GP-5	S	8/17/2023	1000	13-14'	Grab	1					X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/18/23	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N. Marienfeld Street, Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858	Email:	biennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NexGen Produced Water Release	Turn Around	
Project Number:	03B2359002	☐ Routine ☑ Rush	
Project Location:	Lea Co. NM	Due Date:	24 Hrs
Sampler's Name:	Beaux Jennings	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	03B2359002		

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015M	CHLORIDES	HOLD	Sample Comments
GP-5	S	8/17/2023	1002	14-15'	Grab	1					X	
GP-5	S	8/17/2023	1005	15-16'	Grab	1		X	X	X		
GP-6	S	8/17/2023	1055	0-1'	Grab	1					X	
GP-6	S	8/17/2023	1057	1-2'	Grab	1					X	
GP-6	S	8/17/2023	1059	2-3'	Grab	1					X	
GP-6	S	8/17/2023	1100	3-4'	Grab	1					X	
GP-6	S	8/17/2023	1111	4-5'	Grab	1		X	X	X		
GP-6	S	8/17/2023	1113	5-6'	Grab	1					X	
GP-6	S	8/17/2023	1115	6-7'	Grab	1					X	
GP-6	S	8/17/2023	1117	7-8'	Grab	1					X	
GP-6	S	8/17/2023	1140	8-9'	Grab	1					X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		81863	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 5 of 7

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N. Marienfeld Street, Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858	Email:	bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NexGen Produced Water Release	Turn Around	☐ Routine ☑ Rush
Project Number:	03B2359002	Due Date:	24 Hrs
Project Location:	Lea Co. NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Beaux Jennings		
PO #:	03B2359002		

SAMPLE RECEIPT					
Temp Blank:	Yes No	Wet Ice:	Yes No		
Samples Received Intact:	Yes No	Thermometer ID:			
Cooler Custody Seals:	Yes No N/A	Correction Factor:			
Sample Custody Seals:	Yes No N/A	Temperature Reading:			
Total Containers:		Corrected Temperature:			

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015M	CHLORIDES	HOLD	Sample Comments
GP-6	S	8/17/2023	1142	9-10'	Grab	1		X	X	X		
GP-7	S	8/17/2023	1215	0-1'	Grab	1		X	X	X		
GP-7	S	8/17/2023	1217	1-2'	Grab	1					X	
GP-7	S	8/17/2023	1219	2-3'	Grab	1		X	X	X		
HA-8	S	8/17/2023	1250	0-1'	Grab	1		X	X	X		
HA-8	S	8/17/2023	1252	1-2'	Grab	1					X	
HA-8	S	8/17/2023	1255	2-3'	Grab	1					X	
HA-8	S	8/17/2023	1315	3-4'	Grab	1					X	
HA-8	S	8/17/2023	1317	4-5'	Grab	1		X	X	X		
HA-9	S	8/17/2023	1427	0-1'	Grab	1		X	X	X		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/18/23	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page ___6___ of ___7___

Project Manager:	Beaux Jennings	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N. Marienfeld Street, Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858 Email: bjennings@ensolum.com		

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	NexGen Produced Water Release	Turn Around	☐ Routine ☑ Rush
Project Number:	03B2359002	Due Date:	24 Hrs
Project Location:	Lea Co. NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Beaux Jennings		
PO #:	03B2359002		

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3: HN
H_2S0_4: H_2 — NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX 8021B	TPH 8015M	CHLORIDES	HOLD	Sample Comments
HA-9	S	8/17/2023	1430	1-2'	Grab	1					X	
HA-9	S	8/17/2023	1435	2-3'	Grab	1		X	X	X		
GP-1	S	8/17/2023	1735	0-1'	Grab	1						
GP-1	S	8/17/2023	1737	1-2'	Grab	1		X	X	X		
GP-1	S	8/17/2023	1739	2-3'	Grab	1					X	
GP-1	S	8/17/2023	1741	3-4'	Grab	1					X	
GP-1	S	8/17/2023	1800	4-5'	Grab	1					X	
GP-1	S	8/17/2023	1802	5-6'	Grab	1					X	
GP-1	S	8/17/2023	1804	6-7'	Grab	1					X	
GP-1	S	8/17/2023	1806	7-8'	Grab	1					X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/18/23	2		
3			4		
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Revised Date: 08/25/2020 Rev. 2020.2

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Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
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Work Order No: _____

www.xenco.com Page 7 of 7

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Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N. Marienfeld Street, Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	210-219-8858	Email:	bjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
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SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015M	CHLORIDES	HOLD	Sample Comments
GP-1	S	8/17/2023	1820	8-9'	Grab	1					X	
GP-1	S	8/17/2023	1822	9-10'	Grab	1					X	
GP-1	S	8/17/2023	1824	10-11'	Grab	1					X	
GP-1	S	8/17/2023	1826	11-12'	Grab	1		X	X	X		

NFE CN 8/18/23

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8/18/23	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-32303-1
SDG Number: Lea Co NM

Login Number: 32303
List Number: 1
Creator: Kramer, Jessica

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

ENSOLUM

ATTACHMENT F

C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2321440405
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Solaris Water, LLC	OGRID 371643
Contact Name Rob Kirk	Contact Telephone O 432-203-9020 C 469-978-5620
Contact email Rob.Kirk@ariswater.com	Incident # *(assigned by OCD)* nAPP2321440405
Contact mailing address 3305 Boyd Dr, Carlsbad NM 88220	

Location of Release Source

Latitude 32.158630 Longitude -103.363991
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Fez Carnival NexGen Line	Site Type Layflat Water Line
Date Release Discovered 1 Aug 2023	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
I	04	25S	35E	Lea

Surface Owner: ☐ State ☑ Federal ☐ Tribal ☐ Private (*Name:* BLM)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☑ Produced Water	Volume Released (bbls) 480	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☑ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
A third-party, 3 R Trucking LLC working for Sun Belt Rentals, ran into a lay flat line that NexGen was using to pump treated Produce Water to Franklin Mountain Energy for a frac. Workers on site saw the incident and turned off the pumps.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2321440405
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☑ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The volume of produced water released

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
NMOCD web portal NOR completed by Rob Kirk, email to NMOCD

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☑ The source of the release has been stopped.
☑ The impacted area has been secured to protect human health and the environment.
☑ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☑ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Rob Kirk
Title: Vice President, Environmental Compliance
Signature: 
Date: 7 Aug 2023
email: Rob.Kirk@ariswater.com
Telephone: O 432-203-9020 C 469-978-5620

OCD Only

Received by: _____ Date: _____

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) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 282049

CONDITIONS

Operator: SOLARIS WATER MIDSTREAM, LLC 907 Tradewinds Blvd, Suite B Midland, TX 79706	OGRID: 371643
	Action Number: 282049
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Remediation plan approved under the following conditions; 1. Chloride background determination approved to 2500 mg/Kg. 2. Wetland riverine determined to be a significant watercourse. 3. OCD determined that the estimated depth to water between 51-100 ft. below grade; therefore, sampling frequency of 500 square feet per one (1) five (5)-point composite sample is approved. 4. Remediation Due date updated to May 21, 2024 for submittal of the appropriate and/or final remediation closure report.	2/21/2024