



March 19, 2025

**New Mexico Oil Conservation Division**

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

**Re: Deferral Request Addendum  
Young Deep SWD  
Incident Number nAPP2412026782  
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Matador Production Company (Matador), has prepared this *Deferral Request Addendum* (DRA) to document excavation and soil sampling activities performed at the Young Deep SWD (Site). The purpose of the excavation and soil sampling activities was to address impacts to soil following a release of produced water onto the well pad. Based on field observations following excavation, field screening activities, and soil sample laboratory analytical results, Matador is submitting this *DRA*, describing Site assessment and excavation activities that have occurred and requesting deferral of final remediation for Incident Number nAPP2412026782 until the Site is reconstructed and/or the booster pad is abandoned.

On February 3, 2025, Ensolum submitted a *Deferral Request* (DR) to the New Mexico Oil Conservation Division (NMOCD); however, the DR was denied by the NMOCD for the following reasons:

*Deferral denied. After careful review of all the data provided, FS40 exceeds the reclamation requirements at 2', is in an area not reasonably needed for production and required remediation prior to deferral approval. Submit updated deferral request to the OCD by 4/10/25.*

This DRA addresses NMOCD's concerns regarding additional sampling in the off-pad area at sample point FS40.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit D, Section 10, Township 18 South, Range 32 East, in Lea County, New Mexico (32.7665°, -103.76103°) and is associated with oil and gas exploration and production operations on Private Land.

On April 28, 2024, the load line connecting produced water storage tanks began leaking, which resulted in the release of 117 barrels (bbls) of produced water; 70 bbls were recovered. The earthen containment on-pad overflowed, impacting an off-pad area approximately 1,803 square feet in size. The impacted area on-pad area measured approximately 2,945 square feet in size. Matador reported the release to the NMOCD via web portal on April 29, 2024. The release was assigned Incident Number nAPP2412026782.

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## SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on the initial C-141 application subsection, Site Characterization. Potential Site receptors are identified on Figure 1.

The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) dry well CP 2001 POD 1, with depth to groundwater greater than 55 feet below ground surface (bgs) (groundwater not observed or measured). The dry well was a soil boring drilled to assess depth to groundwater near the Site and was advanced approximately 690 feet southwest of the release area and was measured on July 16, 2024. All wells used to establish depth to groundwater are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermittent dry wash, located approximately 0.82 miles southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified in Figure 1.

Based on the results of the Site Characterization, specifically the depth to groundwater, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

Per 19.15.29.13 NMAC, reclamation of the off-pad release area will meet the requirement for a minimum of 4 feet of non-waste containing, uncontaminated earthen material with TPH concentrations less than 100 mg/kg and chloride concentrations less than 600 mg/kg. The release extent and well pad are depicted on Figure 2.

## ADDITIONAL EXCAVATION AND CONFIRMATION SOIL SAMPLING ACTIVITIES

Following the DR denial, Ensolum personnel were on the Site on February 19, 2025, to complete excavation and confirmation soil sampling. Ensolum personnel collected one, 5-point composite soil sample (FS40), at a depth of 4 feet bgs, representing up to 400 square feet of the excavation floor. Ensolum personnel returned on March 05, 2025, to collect one 5-point composite wall soil sample (SW26), at a depth ranging from 2 feet to 4 feet bgs. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Confirmation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Envirotech Laboratory Analysis (Envirotech) in Farmington, New Mexico, for analysis of the following constituents of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and

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chloride following EPA Method 300.0. The excavation extent and excavation soil sample locations are presented on Figure 3.

## LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for confirmation floor soil sample FS40 and sidewall soil sample SW26 indicated all COCs were in compliance with the Site Closure Criteria at a depth of 4 feet bgs, confirming compliance with the reclamation requirement in the top 4 feet.

## DEFERRAL REQUEST

Matador is requesting deferral of final remediation due to the presence of active production equipment, process piping, the supports beneath them, preventing full excavation of impacted soil. The estimated area of remaining impacted soil measures approximately 5,004 square feet, and assuming a depth of up to 4 feet bgs under the salt water pumphouse and produced water storage tanks, a total of approximately 741 cubic yards of impacted soil remains in place. Soil in the vicinity of excavation floor samples FS38, FS39, FS41, and FS56 are included in this deferral request due to the proximity of production equipment and safety concerns of excavating deeper, which has the potential to destabilize the equipment and harm workers and/or the environment. The area of request deferral and delineation soil sample locations are depicted on Figure 4.

Excavation of accessible impacted soil was completed to the maximum extent practicable (MEP). Residually impacted soil is limited to the area beneath active production equipment, where remediation would require a major facility deconstruction. The release extent has been laterally defined by delineation soil samples SS01 through SS11A, collected at ground surface, and by sidewall soil samples SW01 through SW09, SW11 through SW18, and SW20 through SW25, collected at depths ranging from ground surface to 12 feet bgs, and vertically delineated by boreholes BH01 at 24 feet bgs, BH02 at 18 feet bgs, BH03 at 2 feet bgs, and BH04 at 10.5 feet bgs and by potholes PH01, PH02, and PH05 at 2 feet bgs, 1-foot bgs in pothole PH03, at 3 feet bgs in pothole PH04. Vertical delineation to the strictest Closure Criteria was not achieved in pothole PH06; however, vertical delineation in the area was achieved to 24 feet bgs in BH01 and a similar COC concentration decrease can be observed in BH01. Areas adjacent to PH06 within the excavation area extent met the strictest closure criteria were achieved at a maximum depth of 20 feet bgs.

Confirmation floor sample FS40 has been excavated to a depth of 4 feet bgs, removing waste-containing soil in an area that NMOCD had determined to not reasonably be needed for production. Laboratory analytical results confirmed sample area FS40 is within the Site Closure Criteria at 4 feet bgs.

Matador does not believe deferral will result in imminent risk to human health, the environment, or groundwater. Depth to groundwater was determined to be greater than 55 feet bgs, and all accessible impacted soil was removed to the MEP during excavation activities. Any gross impacts were removed via scraping of the ground surface where accessible. Based on the presence of active production equipment within the release area and the complete lateral and vertical delineation of impacted soil remaining in place, Matador requests deferral of final remediation for Incident Number nAPP2412026782 until final reclamation of the well pad or major construction, whichever comes first.

If you have any questions or comments, please contact Ms. Ashley Giovengo at (575) 988-0055 or [agiovengo@ensolum.com](mailto:agiovengo@ensolum.com).

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Sincerely,  
**Ensolum, LLC**



Ashley Giovengo  
Senior Scientist



Daniel R. Moir, PG (licensed in WY & TX)  
Senior Managing Geologist

cc: Jason Touchet, Matador Production Company

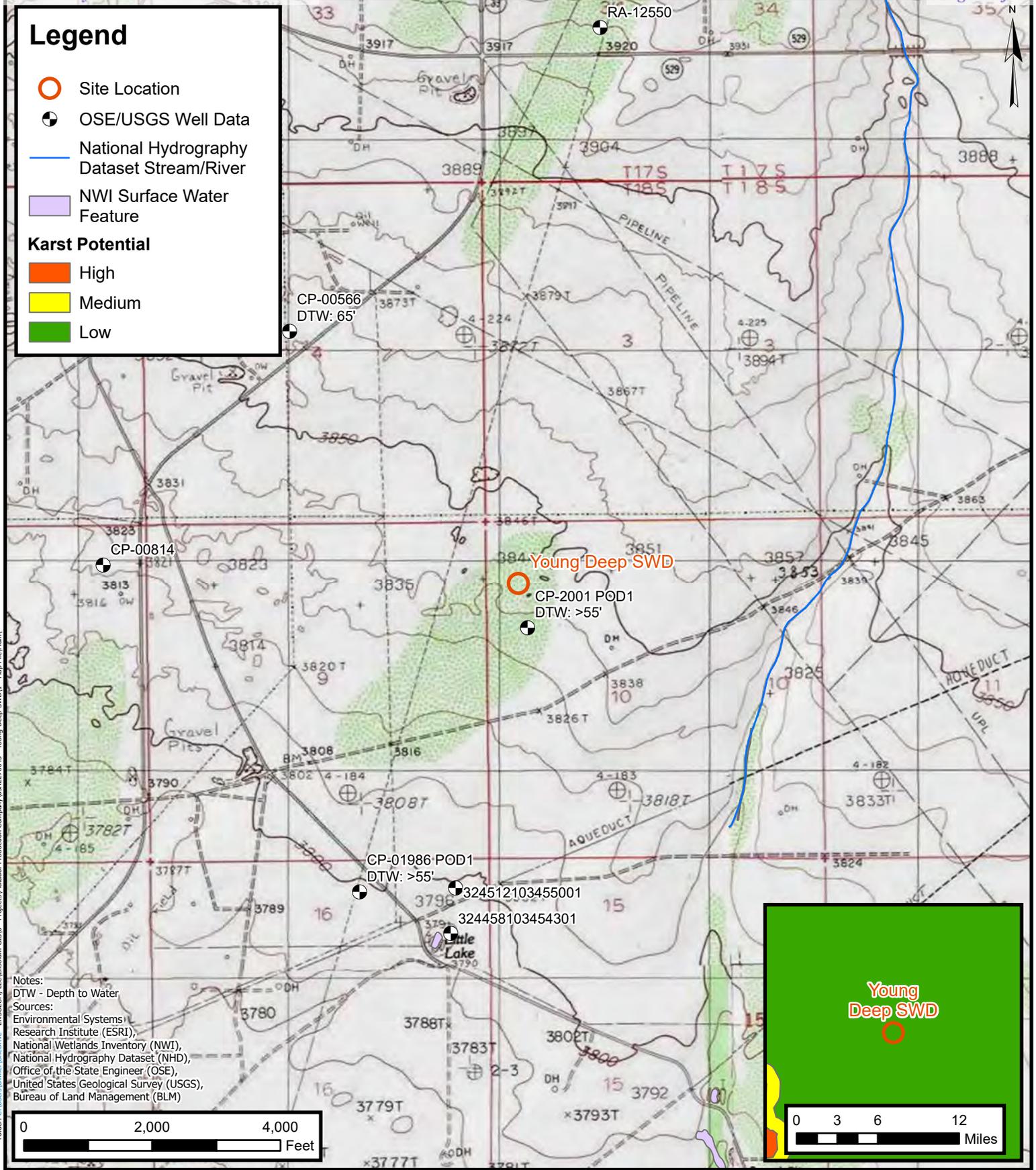
Appendices:

- Figure 1 Site Receptor Map
- Figure 2 Delineation Soil Sample Locations
- Figure 3 Excavation Soil Sample Locations
- Figure 4 Area of Requested Deferral
- Table 1 Delineation Soil Sample Analytical Results
- Table 2 Excavation Soil Sample Analytical Results
- Appendix A Well Log and Record
- Appendix B Lithologic Soil Sampling Logs
- Appendix C Photographic Log
- Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation
- Appendix E NMOCD Correspondence



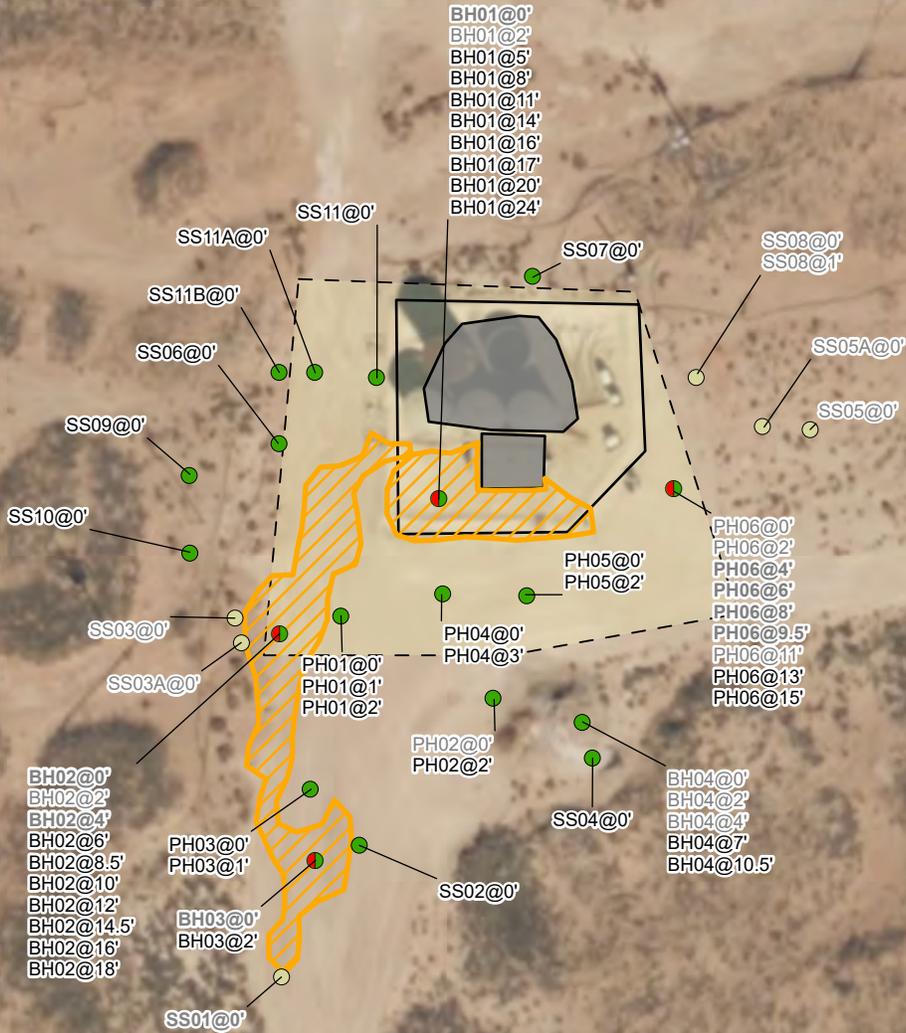
FIGURES



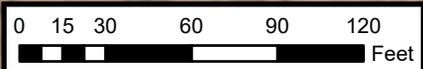


### Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Delineation Soil Sample - Removed
- Release Extent
- Earthen Berm
- Production Equipment
- On Pad Area



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable closure criteria.  
 Grey text indicate soil sample was removed during excavation activities.



Sources: Environmental Systems Research Institute (ESRI)

## Delineation Soil Sample Locations

Matador Production Company  
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 Incident Number: nAPP2412026782  
 Unit L, Section 10, Township 18S, Range 32E  
 Lea County, New Mexico

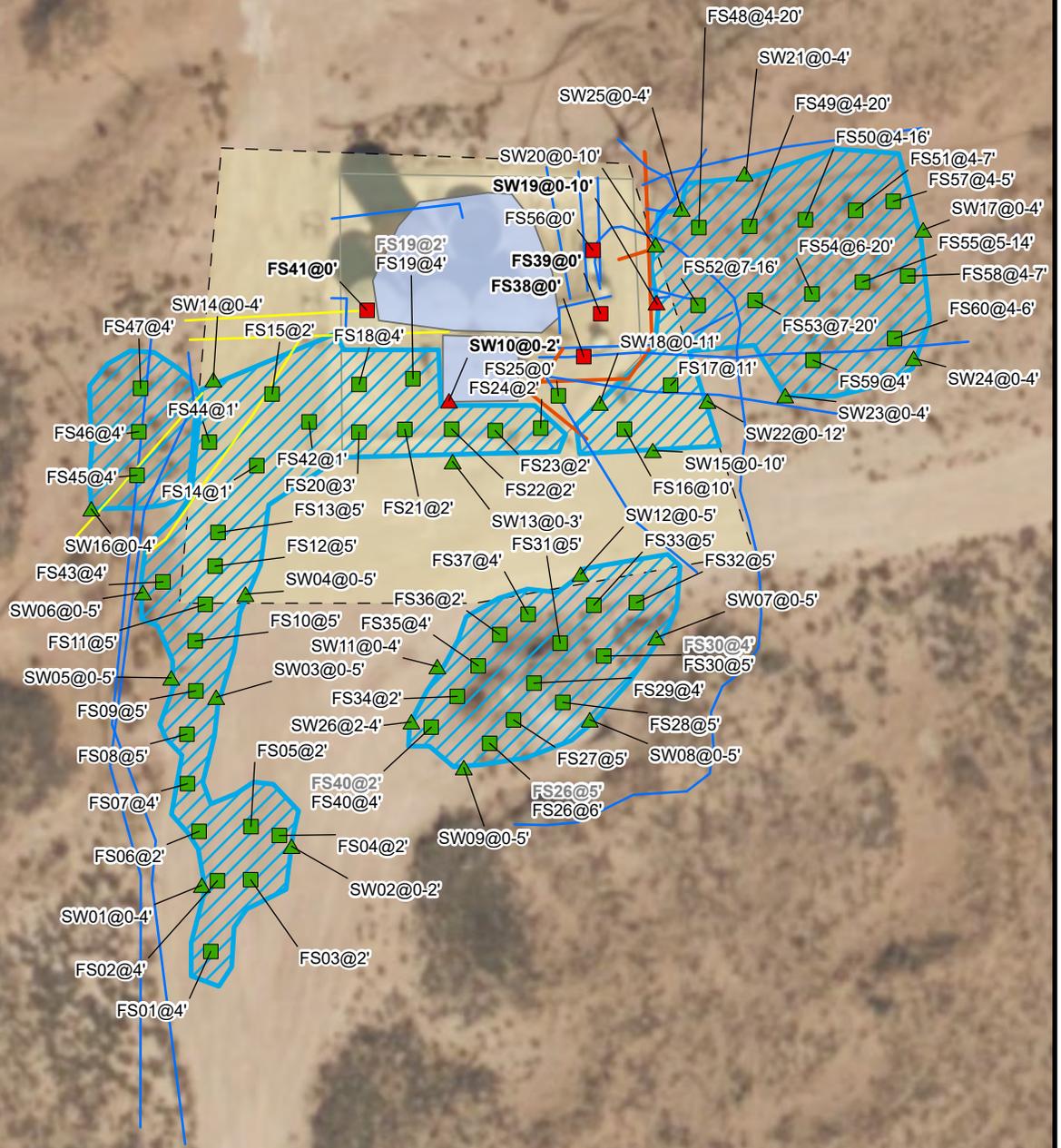
### FIGURE

# 2

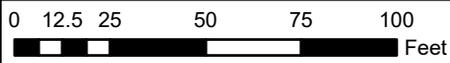


### Legend

- Excavation Floor Sample in Compliance with Closure Criteria
- ▲ Excavation Sidewall Sample in Compliance with Closure Criteria
- Excavation Floor Sample with Concentrations Exceeding Closure Criteria
- ▲ Excavation Floor Sample with Concentrations Exceeding Closure Criteria
- Electric Utility Line
- Oil and Gas Utility Line
- Water Utility Line
- Production Equipment
- Boundary
- Earthen Berm
- Excavation Extent



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable closure criteria.  
 Grey text indicate soil sample was removed during excavation activities.



Sources: Environmental Systems Research Institute (ESRI)

## Confirmation Soil Sample Locations

Matador Production Company  
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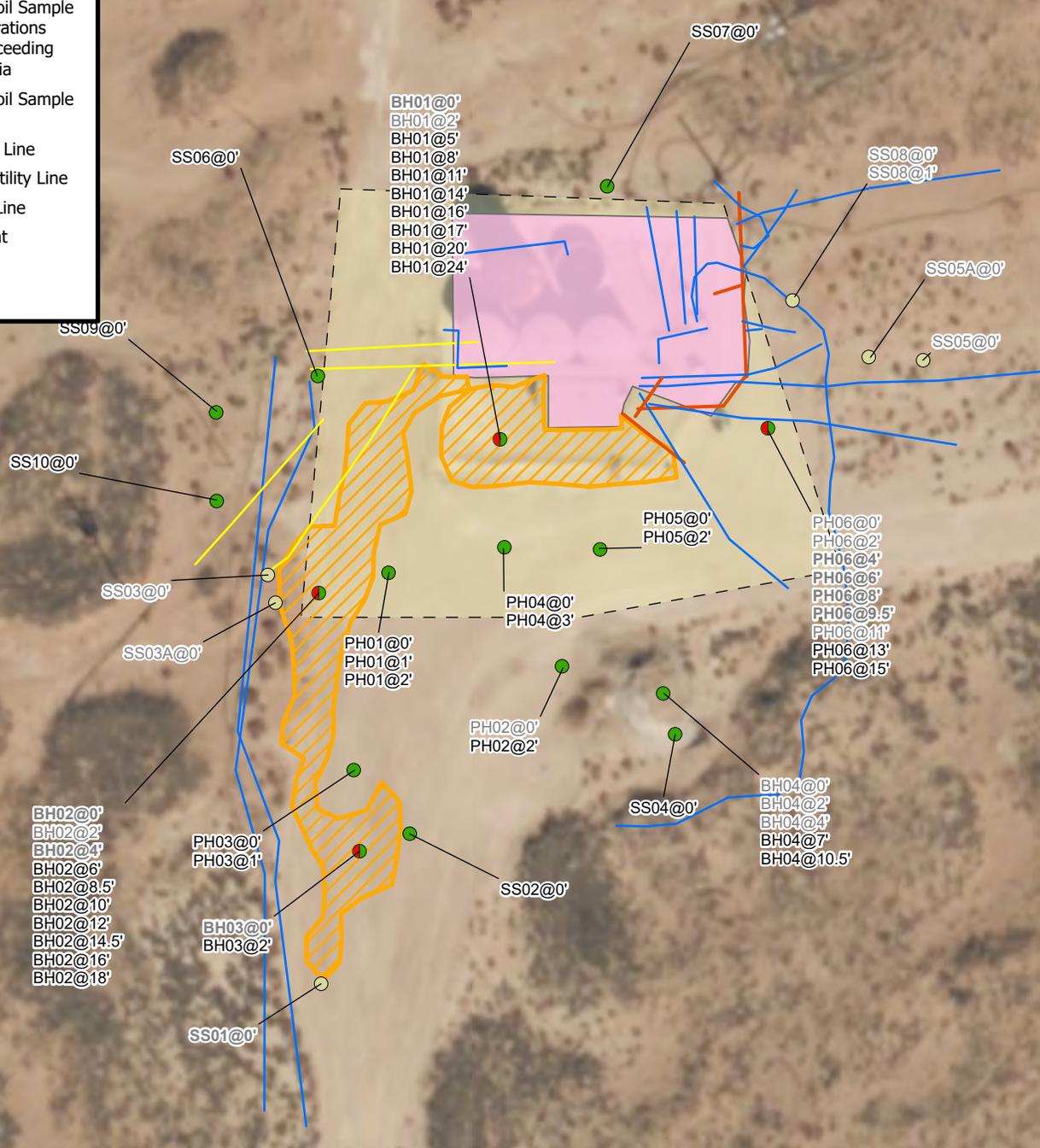
### FIGURE

# 3



### Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Delineation Soil Sample - Removed
- Electric Utility Line
- Oil and Gas Utility Line
- Water Utility Line
- Release Extent
- Deferral Area
- Boundary



Notes:  
 Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)

## Area of Requested Deferral

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 Lea County, New Mexico

# FIGURE 4



TABLES

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**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Young Deep SWD  
 Matador Production Company  
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Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCDC Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>10,000</b>
<b>Delineation Soil Samples</b>										
SS01	5/15/2024	0	<0.0250	<0.0250	<20.0	1,310	1,260	1,310	2,570	81.8
SS02	5/15/2024	0	<0.0250	<0.0250	<20.0	33.9	<50.0	33.9	33.9	34.2
SS03	5/15/2024	0	<0.0250	<0.0250	<20.0	243	437	243	680	38.1
SS03A	6/17/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	<20.0
SS04	5/15/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	<20.0
SS05	5/15/2024	0	<0.0250	<0.0250	<20.0	56.6	128	56.6	184.6	480
SS05A	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	224
SS06	10/29/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	123
SS07	10/30/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	37.2
SS08	11/6/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	<20.0
SS08	11/6/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	125
SS09	11/7/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	<20.0
SS10	11/7/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	<20.0
SS11	1/20/2025	0	<0.0250	<0.0500	<20.0	47.2	107	47.2	154.2	6,060
SS11A	1/20/2025	0	<0.0250	<0.0500	<20.0	57.5	125	57.5	182.5	454
SS11B	1/20/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	<20.0
BH01	5/16/2024	0	0.839	1.83	<20.0	121	70.0	121	191	22,500
BH01	5/16/2024	2	<0.0250	<0.0250	<20.0	257	<50.0	257	257	1,420
BH01	5/16/2024	5	<0.0250	<0.0250	<20.0	45.2	<50.0	45.2	45.2	1,880
BH01	5/16/2024	8	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	3,530
BH01	5/16/2024	11	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	4,720
BH01	5/16/2024	14	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	4,420
BH01	5/16/2024	16	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	4,670
BH01	6/17/2024	17	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	625
BH01	6/17/2024	20	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	1,230
BH01	7/10/2024	24	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	102
BH02	5/16/2024	0	<0.0250	<0.0500	<20.0	8,300	5,800	8,300	14,100	4,160
BH02	5/16/2024	2	<0.0250	<0.0500	<20.0	757	1,390	757	2,147	57
BH02	6/17/2024	4	<0.0250	<0.0500	<20.0	2,024	1,710	2,040	3,734	584
BH02	6/17/2024	6	<0.0250	<0.0500	<20.0	89.9	119	89.9	209	388
BH02	6/17/2024	8.5	<0.0250	<0.0500	<20.0	54.0	56.0	54.0	110	434
BH02	6/17/2024	10	<0.0250	<0.0500	<20.0	83.6	156	83.6	240	686
BH02	6/17/2024	12	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<20.0	593
BH02	6/17/2024	14.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<20.0	509
BH02	6/17/2024	16	<0.0250	<0.0500	<20.0	88.0	95.6	88.0	184	892

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Young Deep SWD  
 Matador Production Company  
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCDC Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>10,000</b>
<b>Delineation Soil Samples</b>										
BH02	6/17/2024	18	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	332
BH03	5/16/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	24,800
BH03	5/16/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	<20.0
BH04	9/27/2024	0	<0.0250	<0.0500	<20.0	624	1,250	624	1,874	525
BH04	9/27/2024	2	<0.0250	<0.0500	<20.0	151	282	151	433	43.4
BH04	9/27/2024	4	<0.0250	<0.0500	<20.0	426	837	426	1,263	195
BH04	9/27/2024	7	<0.0250	<0.0500	<20.0	356	701	356	1,057	150
BH04	9/27/2024	10.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	136
PH01	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	3,490
PH01	9/27/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<20.0	317
PH01	9/27/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	300
PH02	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	874
PH02	9/27/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	38.4
PH03	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	104
PH03	9/27/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	47.3
PH04	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	3,820
PH04	9/27/2024	3	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	263
PH05	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	5,410
PH05	9/27/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	275
PH06	9/27/2024	0	<0.0250	<0.0500	<20.0	303	566	303	869	115
PH06	9/27/2024	2	<0.0250	<0.0500	<20.0	691	578	691	1,269	665
PH06	9/27/2024	4	<0.0250	<0.0500	<20.0	4,250	2,220	4,250	6,470	444
PH06	9/27/2024	6	<0.0250	0.107	<20.0	4,830	2,260	4,830	7,090	1,020

<b>TABLE 1</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> Young Deep SWD Matador Production Company Lea County, New Mexico										
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCDC Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>10,000</b>
Delineation Soil Samples										
PH06	9/27/2024	8	<0.0250	<0.0500	<20.0	1,880	1,090	1,880	2,970	3,350
PH06	9/27/2024	9.5	<0.0250	<0.0500	<20.0	8,970	4,190	8,970	13,160	6,240
PH06	9/27/2024	11	<0.0250	<0.0500	<20.0	623	360	623	983	6,650
PH06	9/27/2024	13	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	6,240
PH06	9/27/2024	15	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	5,140

**Notes:**

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCDC: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Grey text represents samples that have been excavated

"<": Laboratory Analytical result is less than reporting limit

Concentrations in **bold** exceed the NMOCDC Table I Closure Criteria or reclamation standard where applicable.

\* Indicates sample was collected in area to be reclaimed after remediation is complete; reclamation for chloride in the top 4 feet is 600 mg/kg and total TPH is 100 mg/kg.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

NA: Not Analyzed

**TABLE 2**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Young Deep SWD  
 Matador Production Company  
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
<b>Excavation Floor Soil Samples</b>										
FS01	10/31/2024	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	1,200
FS02	10/31/2024	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	107
FS03	10/30/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	568
FS04	10/30/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	350
FS05	10/30/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	295
FS06	10/30/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	43.1
FS07	10/31/2024	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	103
FS08	10/30/2024	5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	623
FS09	10/30/2024	5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	1,870
FS10	10/30/2024	5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	2,130
FS11	10/30/2024	5	<0.0250	<0.0250	<20.0	59.4	75.0	59.4	134	1,770
FS12	10/30/2024	5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	582
FS13	10/30/2024	5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	364
FS14	11/6/2024	1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	266
FS15	11/5/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	722
FS16	11/7/2024	10	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	3,340
FS17	11/7/2024	11	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	4,910
FS18	11/5/2024	4	<0.0250	<0.0250	<20.0	436	466	436	902	656
FS19	11/4/2024	2	NA	NA	31.2	1,030	528	1,061.2	1,589.2	NA
FS19	11/7/2024	4	<0.0250	<0.0250	<20.0	429	182	429	611	469
FS20	11/5/2024	3	<0.0250	<0.0250	<20.0	61.6	74.8	61.6	136.4	524
FS21	11/4/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	1,090
FS22	11/1/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	220
FS23	11/1/2024	2	<0.0250	<0.0500	<20.0	305	285	305	590	1,430
FS24	11/1/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	219
FS25	11/1/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	33.5

**TABLE 2**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Young Deep SWD  
 Matador Production Company  
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCDC Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>10,000</b>
<b>Excavation Floor Soil Samples</b>										
FS26	11/1/2024	5	<0.0250	0.4682	<20.0	8,090	3,990	8,090	12,080	4,940
FS26	11/7/2024	6	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	708
FS27	11/1/2024	5	<0.0250	<0.0500	<20.0	223	579	223	802	119
FS28	11/1/2024	5	<0.0250	<0.0500	<20.0	284	706	284	990	165
FS29	11/5/2024	4	<0.0250	<0.0500	<20.0	64.0	114	64.0	178	43.1
FS30	10/31/2024	4	<0.0250	<0.0500	<20.0	40.4	83.8	40.4	124.0	<20.0
FS30	11/1/2024	5	<0.0250	<0.0500	<20.0	145	370	145	515	45.1
FS31	11/4/2024	5	<0.0250	<0.0500	<20.0	75.7	113	75.7	188.7	60.5
FS32	11/1/2024	5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
FS33	11/4/2024	5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	41.5
FS34	11/4/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	30.5
FS35	11/4/2024	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	46.2
FS36	11/4/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	57.6
FS37	11/4/2024	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	53.2
FS38	11/1/2024	0	<0.0250	<0.0500	<20.0	2,410	1,700	<b>2,410</b>	<b>4,110</b>	4,840
FS39	11/1/2024	0	<0.0250	<0.0500	<20.0	3,730	2,490	<b>3,730</b>	<b>6,220</b>	<b>11,500</b>
FS40	11/4/2024	2	<0.0250	<0.0250	<20.0	225	547	225	772	45.2
FS40	2/19/2025	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	22.0
FS41	11/5/2024	0	<0.0250	<0.0250	<20.0	1,360	1,100	<b>1,360</b>	2,460	233
FS42	11/5/2024	1	<0.0250	<0.0250	<20.0	30.0	82.9	30.0	113	693
FS43	11/5/2024	4	<0.0250	<0.0250	<20.0	163	245	163	408	281
FS44	11/7/2024	1	<0.0250	<0.0250	<20.0	106	267	106	373	120
FS45	11/12/2024	4	<0.0250	<0.0250	<20.0	53.2	150	53.2	203.2	22.8
FS46	11/12/2024	4	<0.0250	<0.0250	<20.0	70.3	154	70.3	224.3	26.5
FS47	12/2/2024	4	<0.0250	<0.0250	<20.0	<25.0	102.0	<25.0	102	<20.0
FS48	11/14/2024	4-20	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	112
FS49	11/14/2024	4-20	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	477

**TABLE 2**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Young Deep SWD  
 Matador Production Company  
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
<b>Excavation Floor Soil Samples</b>										
FS50	11/14/2024	4-16	<0.0250	<0.0250	<20.0	72.5	50.5	72.5	123	22.4
FS51	11/19/2024	4-7	<0.0250	<0.0250	<20.0	141	204	141	345	120
FS52	11/19/2024	7-16	<0.0250	<0.0250	<20.0	201	236.0	201	437	2,210
FS53	11/19/2024	7-20	<0.0250	<0.0250	<20.0	420	176	420	596	686
FS54	11/19/2024	6-20	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	934
FS55	11/19/2024	5-14	<0.0250	<0.0250	<20.0	315	177	315	492	840
FS56	11/14/2024	0	<0.0250	<0.0250	<20.0	1,440	2,060	<b>1,440</b>	<b>3,500</b>	5,310
FS57	11/15/2024	4-5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	28.1
FS58	11/19/2024	4-7	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	165
FS59	11/15/2024	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	47.2
FS60	11/15/2024	4-6	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	50.6

**Notes:**

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Grey text represents samples that have been excavated

"<": Laboratory Analytical result is less than reporting limit

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

\* Indicates sample was collected in area to be reclaimed after remediation is complete; reclamation for chloride in the top 4 feet is 600 mg/kg and total TPH is 100 mg/kg.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

NA: Not Analyzed

**TABLE 3**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Young Deep SWD  
 Matador Production Company  
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>10,000</b>
<b>Sidewall Soil Samples</b>										
SW01	11/1/2024	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	97.3
SW02	10/30/2024	0-2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	141
SW03	10/30/2024	0-5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	106
SW04	10/30/2024	0-5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	344
SW05	10/30/2024	0-5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW06	11/5/2024	0-5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	42.6
SW07	10/31/2024	0-5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW08	11/4/2024	0-5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	<20.0
SW09	11/1/2024	0-5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	52.8
SW10	11/4/2024	0-2	<0.0250	0.6975	30.3	3,890	2,220	<b>3,920.3</b>	<b>6,120.3</b>	9,730
SW11	11/4/2024	0-4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW12	11/5/2024	0-5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	30.6
SW13	11/5/2024	0-3	<0.0250	<0.0500	<20.0	263	203	263	466	802
SW14	11/13/2024	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	44.6
SW15	11/7/2024	0-10	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	323
SW16	11/7/2024	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	<20.0
SW17	11/15/2024	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	<20.0
SW18	11/12/2024	0-11	<0.0250	<0.0500	<20.0	239	181	239	420	291
SW19	11/12/2024	0-10	<0.0250	<0.0500	<20.0	3,200	5,420	<b>3,200</b>	<b>8,620</b>	1,490
SW20	11/12/2024	0-10	<0.0250	<0.0500	<20.0	705	784	705	1,489	216
SW21	11/13/2024	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	<20.0



**TABLE 3**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Young Deep SWD  
 Matador Production Company  
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
<b>Sidewall Soil Samples</b>										
SW22	11/15/2024	0-12	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	107
SW23	11/15/2024	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	85.3
SW24	11/15/2024	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	<20.0
SW25	1/20/2025	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	<20.0
SW26	3/5/2025	2-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	21.6

**Notes:**

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Grey text represents samples that have been excavated

"<": Laboratory Analytical result is less than reporting limit

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

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DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

NA: Not Analyzed



## APPENDIX A

### Well Log and Record

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File No. CP-01986 POD1



## NEW MEXICO OFFICE OF THE STATE ENGINEER



### WR-07 APPLICATION FOR PERMIT TO DRILL

#### A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose:	<input type="checkbox"/> Pollution Control And/Or Recovery	<input type="checkbox"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well*(Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input type="checkbox"/> Other(Describe):
<input checked="" type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	
<p>A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.</p> <p>*New Mexico Environment Department-Drinking Water Bureau (NMED-DWB) will be notified if a proposed exploratory well is used for public water supply.</p>		
<input checked="" type="checkbox"/> Temporary Request - Requested Start Date: 1/10/24		Requested End Date: 2/10/24
Plugging Plan of Operations Submitted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

### 1. APPLICANT(S)

Name: Coterra Energy Co.	Name:
Contact or Agent: <input checked="" type="checkbox"/> check here if Agent James Hawley	Contact or Agent: <input type="checkbox"/> check here if Agent
Mailing Address: P.O. Box 3641	Mailing Address:
City: Hobbs	City:
State: NM      Zip Code: 88241	State:      Zip Code:
Phone: <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell Phone (Work): 575-605-3471	Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work):
E-mail (optional): jhawley@H-R-ENTERPRISES.com	E-mail (optional):

OCD DT JAN 10 2024 PM 12:53

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 07/12/22

File No.: CP-01986	Trn. No.: 755205	Receipt No.: 2-46510
Trans Description (optional):		
Sub-Basin: CP	PCW/LOG Due Date: 1/22/25	

2. WELL(S) Describe the well(s) applicable to this application.

**Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).**  
**District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.**

NM State Plane (NAD83) (Feet)       UTM (NAD83) (Meters)       Lat/Long (WGS84) (to the nearest 1/10<sup>th</sup> of second)  
 NM West Zone       Zone 12N  
 NM East Zone       Zone 13N  
 NM Central Zone

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves , Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
CP-01986 POD1	103 46' 9.37" W	32 45' 11.79" N	NW NE 1/4 S-16 T-18S R-32E

**NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)**  
 Additional well descriptions are attached:  Yes  No      If yes, how many \_\_\_\_\_

Other description relating well to common landmarks, streets, or other:  
 1.4 miles East of CR126A

Well is on land owned by: ~~BLM~~ NMJLO

**Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached?**  Yes  No  
 If yes, how many \_\_\_\_\_

Approximate depth of well (feet): 105'	Outside diameter of well casing (inches): 2"
Driller Name: James Hawley/H&R Enterprises, LLC.	Driller License Number: WD-1862

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

One exploratory borehole will be drilled to determine the depth of groundwater at the Coterra (Cimarex) Young 16 State #1 remediation site. The borehole will be drilled until groundwater is reached or to a maximum depth of 105'. Two inch casing will be inserted into the borehole and left for 72 hours. After Casing is gauged, it will be pulled and the borehole will be plugged pursuant to NMOSE guidelines. No pump will be installed.

OCD Q11 JAN 10 2024 PM 12:53

FOR OSE INTERNAL USE      Application for Permit, Form WR-07 Version 07/12/22

File No.: CP-01986 POD1	Trn No.: 755205
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**4. SPECIFIC REQUIREMENTS:** The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

<p><b>Exploratory:</b> Is proposed well a future public water supply well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NO If Yes, an application must be filed with NMED-DWB, concurrently. <input checked="" type="checkbox"/> Include a description of the requested pump test if applicable.</p> <p><b>Monitoring</b> <input checked="" type="checkbox"/> The reason and duration of the monitoring is required.</p>	<p><b>Pollution Control and/or Recovery:</b> <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.</p>	<p><b>Construction De-Watering:</b> <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.</p> <p><b>Ground Source Heat Pump:</b> <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.</p>	<p><b>Mine De-Watering:</b> <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water. <input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.</p>
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**ACKNOWLEDGEMENT**

I, We (name of applicant(s)), James Hawley

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

[Signature]  
Applicant Signature

Applicant Signature

**ACTION OF THE STATE ENGINEER**

This application is:

approved  partially approved  denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 23<sup>rd</sup> day of January 20 24, for the State Engineer.

OSE OIT JAN 10 2024 PM 12:59

Mike A. Hamman, P.E., State Engineer

By: K. Parekh  
Signature

Kashyap Parekh  
Print

Title: Water Resource Manager I  
Print



FOR OSE INTERNAL USE

Application for Permit, Form WR-07 Version 07/12/22

File No.: CP-01986 POD1 Trn No.: 755205

**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL**

- 17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.
- 17-1A Depth of the well shall not exceed the thickness of the valley fill.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: CP 01986 POD1

File Number: CP 01986

Trn Number: 755205

**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL (Continued)**

- 17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- 17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- 17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record. The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.
- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

Trn Desc: CP 01986 POD1

File Number: CP 01986

Trn Number: 755205

**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL (Continued)**

LOG The Point of Diversion CP 01986 POD1 must be completed and the Well Log filed on or before 01/22/2025.

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

**ACTION OF STATE ENGINEER**

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 01/10/2024	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 23 day of Jan A.D., 2024

Mike A. Hamman, P.E. \_\_\_\_\_, State Engineer

By: K. Parekh  
KASHYAP PAREKH



Trn Desc: CP 01986 POD1

File Number: CP 01986

Trn Number: 755205

**Chavez, Rodolfo, OSE**

---

**From:** Knight, Tami C. <tknight@slo.state.nm.us>  
**Sent:** Monday, January 22, 2024 11:43 AM  
**To:** Chavez, Rodolfo, OSE  
**Subject:** [EXTERNAL] RE: Remediation Monitoring Well - Approved

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good Morning Rudy

NMSLO-ECO has confirmed that the planned boring location is on State Trust Land that is under an active lease. The operator has permission to install the temporary soil boring.

Thank you

Tami Knight, CHMM  
Environmental Specialist  
SRD-Environmental  
Compliance Office (ECO)  
505.670.1638  
New Mexico State Land Office  
1300 W. Broadway Avenue, Suite A  
Bloomfield, NM 87413  
tknight@slo.state.nm.us  
nmstatelands.org

PLEASE SUBMIT WORKPLANS AND REPORTS TO ECO@SLO.STATE.NM.US

.....  
CONFIDENTIALITY NOTICE - This e-mail transmission, including all documents, files, or previous e-mail messages attached hereto, may contain confidential and/or legally privileged information. If you are not the intended recipient, or a person responsible for delivering it to the intended recipient, you are hereby notified that you must not read this transmission and that any disclosure, copying, printing, distribution, or use of any of the information contained in and/or attached to this transmission is STRICTLY PROHIBITED. If you have received this transmission in error, please immediately notify the sender and delete the original transmission and its attachments without reading or saving in any manner. Thank you.

-----Original Message-----

From: Chavez, Rodolfo, OSE <Rodolfo.Chavez@ose.nm.gov>  
Sent: Monday, January 22, 2024 11:35 AM  
To: SLO Spills <spills@slo.state.nm.us>  
Subject: [EXTERNAL] Remediation Monitoring Well

Good morning,

Please review the attached application for Coterra Energy Co which falls on NMSLU. If you have any questions, don't hesitate to reach out.

Thank You,

Rudy Chavez  
Engineering Tech. II  
OSE-D2  
Roswell, NM  
575 622-6521

**Chavez, Rodolfo, OSE**

---

**From:** Jim Hawley <JHawley@H-R-Enterprises.com>  
**Sent:** Monday, January 22, 2024 11:25 AM  
**To:** Chavez, Rodolfo, OSE  
**Subject:** [EXTERNAL] FW: Mitchell St. #002, Mitchell St. #004, and Young St. #001 Groundwater Determination Bore

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Rodolfo, this is the response we received from the NMSLO, this monitor well will be associated with a remediation project that the NMSLO is managing, let me know if you need anything else, thanks.

**From:** Michael Collier <mcollier@H-R-Enterprises.com>  
**Sent:** Monday, January 22, 2024 11:18 AM  
**To:** Jim Hawley <JHawley@H-R-Enterprises.com>  
**Subject:** FW: Mitchell St. #002, Mitchell St. #004, and Young St. #001 Groundwater Determination Bore



**Michael Collier**  
H&R Enterprises, LLC  
575-909-0326  
[MCollier@H-R-Enterprises.com](mailto:MCollier@H-R-Enterprises.com)

**From:** Knight, Tami C. <tknight@slo.state.nm.us>  
**Sent:** Monday, January 22, 2024 11:13 AM  
**To:** Michael Collier <mcollier@H-R-Enterprises.com>  
**Subject:** RE: Mitchell St. #002, Mitchell St. #004, and Young St. #001 Groundwater Determination Bore

Michael

We have an arrangement with OSE that they are suppose to be emailing us the application information in order to obtain our permission. On the OSE application if you list us as the land owner and provide me as the contact with the [eco@slo.state.nm.us](mailto:eco@slo.state.nm.us) address, they should be emailing me.

This is for borings that are related to remediation projects.

If they are associated at all in any aspect with the Water Bureau, then the OSE would contact Lisa Henne or David Gallegos from NMSLO.

Tami

**From:** Michael Collier <[mcollier@H-R-Enterprises.com](mailto:mcollier@H-R-Enterprises.com)>

**Sent:** Monday, January 22, 2024 10:15 AM

**To:** Knight, Tami C. <[tknight@slo.state.nm.us](mailto:tknight@slo.state.nm.us)>

**Subject:** [EXTERNAL] Mitchell St. #002, Mitchell St. #004, and Young St. #001 Groundwater Determination Bore

Good morning Tami,

We have submitted a permit to the NMOSE to drill a groundwater determination bore to use/prove depth of depth of groundwater for the Mitchell St. #002, #004, and the Young 16 St. #001 reclamation projects. The NMOSE has requested an authorization letter from the NMSLO and we aren't sure what we need to do or email to get that authorization. This bore is not a monitoring well. It will be a bore to 55-feet BGS to prove groundwater depth is below that since there is no current data within the 0.5-mile radius. I have included the permit we submitted to NMOSE for your reference. I don't know if this is your department but if you could direct us to the right person it would be greatly appreciated.

Thank you,

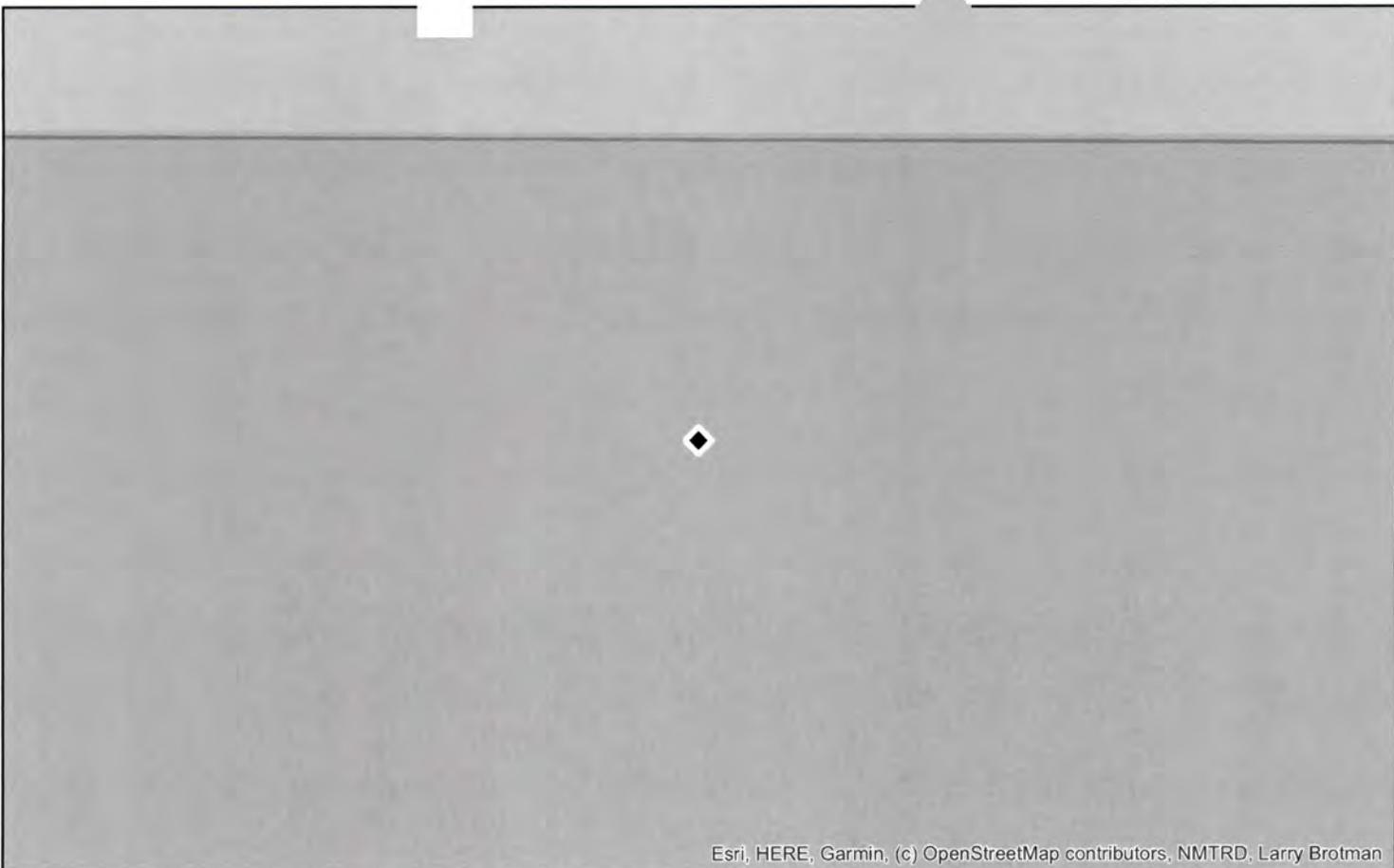


**Michael Collier**

H&R Enterprises, LLC

575-909-0326

[MCollier@H-R-Enterprises.com](mailto:MCollier@H-R-Enterprises.com)



Esri, HERE, Garmin, (c) OpenStreetMap contributors, NMTRD, Larry Brotman

**Coordinates**

UTM - NAD 83 (m) - Zone 13  
 Easting 615293.218  
 Northing 3624604.924

State Plane - NAD 83 (f) - Zone E  
 Easting 714749.971  
 Northing 638233.143

Degrees Minutes Seconds  
 Latitude 32 : 45 : 11.790000  
 Longitude -103 : 46 : 9.370000  
 Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514

N



1/22/2024



Responsible efforts have been made by the New Mexico Office of the State Engineer (OSE) to verify that these maps accurately interpret the source data used in their preparation. However, a degree of error is inherent in all maps, and these maps may contain omissions and errors in scale, resolution, registration, coordinate accuracy, development methodology, interpretation of source data, and other circumstances. These maps are distributed "as is" without warranty of any kind.

**Spatial Information**  
 Land Grant: Not in Land Grant  
 County: Lea  
 Groundwater Basin: Capitan  
 Abstract Area: Capitan

**Regulation Area:**  
 Carlsbad/Capitan/Lea Closure  
**PLSS Description**  
 SENWNWNE Qtr of Sec 16 of 018S 032E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

**Parcel Information**  
 UPC/DocNum:  
 Parcel Owner:  
 Address:null null null

**Legal:**

**POD Information**  
 Owner:  
 File Number:  
 POD Status: NoData  
 Permit Status: NoData  
 Permit Use: NoData  
 Purpose:

- Coord Search Location
- Catron County Parcels 2023
- Dofia Ana County Parcels 2023
- Lea County Parcels 2023
- Otero County Parcels 2023
- San Juan County Parcels 2023
- Taos County Parcels 2023
- Water Right Regulations**
- Chaves County Parcels 2023
- Eddy County Parcels 2023
- Lincoln County Parcels 2023
- Quay County Parcels 2023
- San Miguel County Parcels 2023
- Torrance County Parcels 2023
- Closure Area
- Cibola County Parcels 2023
- Grant County Parcels 2023
- Los Alamos County Parcels 2023
- Rio Arriba County Parcels 2023
- Santa Fe County Parcels 2023
- Union County Parcels 2023
- OSE District Boundary
- Colfax County Parcels 2023
- Luna County Parcels 2023
- Roosevelt County Parcels 2023
- Santa Fe County Parcels 2023
- Valencia County Parcels 2023
- New Mexico State Trust Lands**
- Curry County Parcels 2023
- Guadalupe County Parcels 2023
- McKinley County Parcels 2023
- Santa Fe County Parcels 2023
- Sierra County Parcels 2023
- Both Estates
- De Baca County Parcels 2023
- Harding County Parcels 2023
- Sandoval County Parcels 2023
- Socorro County Parcels 2023
- Bernalillo County Parcels 2023
- Hidalgo County Parcel 2023
- Mora County Parcels 2023

Mike A. Hamman, P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 755205  
File Nbr: CP 01986

Jan. 23, 2024

JAMES HAWLEY  
COTERRA ENERGY CO.  
P.O. BOX 3641  
HOBBS, NM 88241

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- \* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- \* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- \* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- \* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website [www.ose.state.nm.us](http://www.ose.state.nm.us).

Sincerely,

Rodolfo Chavez  
(575) 622-6521

Enclosure

explore



## APPENDIX B

# Lithologic Soil Sampling Logs

---

					Sample Name: BH01		Date: 5/16/24	
					Site Name: Young Deep SWD			
					Incident Number: nAPP2412026782			
					Job Number: 03A2270043			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: Israel Estrella		Method: Hand Auger	
Coordinates: 32.76656, -103.76105					Hole Diameter: 3'		Total Depth: 24'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
W			Y	BH01	0	0	CCHE	Pad Caliche - Wet, Stained
M			N	BH01	1	1	SP-SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Wet, Non-Plastic, Noncohesive, Massive, Non-Uniform
M	1948		N	BH01	2	2	SP- SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform
M	1954		N	BH01	3	3		
M	1954		N	BH01	4	4		
M	2391		N	BH01	5	5		
M	2564		N	BH01	6	6		
M	2744		N	BH01	7	7		
M	3399		N	BH01	8	8		
M	3399		N	BH01	9	9	CCHE	Indurated Caliche - White to tan some light pink, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Uniform
M	3399		N	BH01	10	10		
M	3399		N	BH01	11	11		
M	3399		N	BH01	12	12		

								Sample Name: BH01	Date: 5/16/24
								Site Name: Young Deep SWD	
								Incident Number: nAPP2412026782	
								Job Number: 03A2270043	
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Israel Estrella	Method: Hand Auger
Coordinates: 32.76656, -103.76105								Hole Diameter: 3'	Total Depth: 24'
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
M	3399		N	BH01	13	13	CCHE	Indurated Caliche - White to tan some light pink, Medium to fine grain size, M, Non-Plastic, Noncohesive, Massive, Uniform	
M	3399		N	BH01	14	14	SC	Clayey Sand/Caliche Mix - Light brown/tan to pink, Medium to fine w/ very fine grain size, Moist, Non-Plastic, Noncohesive, Uniform Alluvial, Gradational  Refusal achieved for hand auger at 16 ft bgs. Borehole was continued with trackhoe after 16 ft.	
M	3399		N	BH01	15	15			
M	3399		N	BH01	16	16			
M	633		N	BH01	17	17			
M	3,612		N	BH01	18	18			
M	913		N	BH01	19	19	SC	Clayey Sand/Caliche Mix - Dark Red to pink, Medium to fine w/ very fine grain size, Moist, Non-Plastic, Noncohesive, Uniform, Alluvial  Refusal achieved for trackhoe at 20 ft bgs. Borehole was continued with trailer-mounted drill after 20 ft.	
M	1,165		N	BH01	20	20			
M			N	BH01	21	21			
M			N	BH01	22	22			
M			N	BH01	23	23			
M			N	BH01	24	24	Total Depth @ 24 ft bgs.		

					Sample Name: BH02		Date: 5/16/24	
					Site Name: Young Deep SWD			
					Incident Number: nAPP2412026782			
					Job Number: 03A2270043			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: Israel Estrella		Method: Hand Auger	
Coordinates: 32.76643, -103.76123					Hole Diameter: 3'		Total Depth: 19'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D			N	BH02	0	0	CCHE	Pad Caliche - Dry, no stain
M			N	BH02	1	1	SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial  Borehole was continued with trackhoe after 2 ft bgs.
M	ND		N	BH02	2	2		
M	1,798		Y		3	3		
M	700		Y		4	4		
M	1,456		Y		5	5		
M	632		N		6	6	SM	Silty Sand w/ Caliche Gravel- Loose, Medium to Dark Brown w/ White, Medium to fine grain size w/ some small gravel, Moist, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial
M	1,674		N		7	7	SM	Silty Sand w/ trace Caliche Gravel- Loose, Medium to Dark Brown w/ White, Medium to fine grain size w/ some small gravel, Moist, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial
						8		
D	409	285	N		8.5	8.5	CCHE	Indurated Caliche - 8.5-9 ft bgs: White to tan some light pink, Medium to fine grain size, D, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial 9-13.5 ft bgs: Pink, Medium to fine grain size, D, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial
D	515		N		9	9		
D	634		N		10	10		
D	634		N		11	11		
	634				12	12		

							Sample Name: BH02		Date: 5/16/24	
							Site Name: Young Deep SWD			
							Incident Number: nAPP2412026782			
							Job Number: 03A2270043			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>							Logged By: Israel Estrella		Method: Hand Auger	
Coordinates: 32.76643, -103.76123							Hole Diameter: 3"		Total Depth: 2'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.										
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
M	633		N	BH02	13.5	13.5	SC	Clayey Sand Caliche Mix w/ trace Gravel - Pink to Red, med to fine w/ some very fine and trace small gravel, M, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial		
M	633		N	BH02	14.5	14.5				
M	515		N	BH02	15	15				
M	1,075		N	BH02	16	16	SC	Silty Sand Caliche Mix w/ trace Gravel - Medium Brown to Red, med to fine w/ some very fine and trace small gravel, M, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial		
M	2,055		N	BH02	17	17	SC	Clayey Sand Caliche Mix w/ some Gravel - Red, med to fine w/ some very fine and some small gravel, M, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial		
M	459		N	BH02	18	18				
M			N	BH02	19	19				
Total Depth @ 19 ft bgs.										

					Sample Name: BH03		Date: 5/16/24	
					Site Name: Young Deep SWD			
					Incident Number: nAPP2412026782			
					Job Number: 03A2270043			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: Israel Estrella		Method: Hand Auger	
Coordinates: 32.76621, -103.76119					Hole Diameter: 3"		Total Depth: 2'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D			N	BH03	0	0	CCHE	Pad Caliche - Dry, no stain
M			N	BH03	1	1	SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial
M	ND		N	BH03	2	2	SM	
Total Depth @ 2 ft bgs.								

					Sample Name: BH04		Date: 9/27/2024	
					Site Name: Young Deep SWD			
					Incident Number: nAPP2412026782			
					Job Number: 03A2270043			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: Chad Hamilton		Method: Backhoe	
Coordinates: 32.766344, -103.760888					Hole Diameter: 2'		Total Depth: 10.5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	459		Y	BH04	0	0	SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Dry, Non-Plastic, Noncohesive, Massive, Non-Uniform
M	168	>2,500	Y	BH04	1	1	SM	Silty Sand - Loose, Medium to Dark Brown, Stained, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform  Borehole was continued with backhoe after 3 ft bgs.
M	ND	>2,500	Y	BH04	2	2		
M	ND	>2,500	Y	BH04	3	3		
M		>2,500	Y	BH04	4	4		
M			Y	BH04	5	5		
M			Y	BH04	6	6		
M		>2,500	Y	BH04	7	7		
M			Y	BH04	8	8		
M			Y	BH04	9	9		
M	150	12	N	BH04	10.5	10		
Total Depth @ 10.5 ft bgs.								

					Sample Name: BH05		Date: 11/12/24	
					Site Name: Young Deep SWD			
					Incident Number: nAPP2412026782			
					Job Number: 03A2270043			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: Bowan Simmons		Method: Hand Auger	
Coordinates: 32.766668, -103.760829					Hole Diameter: 3"		Total Depth: 7.5'	
Comments: Field screening conducted with HACH Chloride Test Strips and Petroflag for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	3494		N	BH05	0	0	SP-SM	Dry, No Staining, Poorly graded brown sand with silt and medium gravel, Non-Pliable, Non-Plastic
D	2144		N	BH05	1	1		
D	1400		N	BH05	2	2		
D	1870		N	BH05	3	3		
D	2004		N	BH05	4	4		
D	2301		N	BH05	5	5		
D	2632		N	BH05	6	6		
D	>3494		N	BH05	7	7		
D	---		N	BH05	7.5	7.5		
Total Depth - 7.5'								



## APPENDIX C

### Photographic Log

---



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 1 Date: 5/9/2024  
Description: Release Area  
View: Southwest



Photograph 2 Date: 5/9/2024  
Description: Release Area  
View: West



Photograph 3 Date: 5/9/2024  
Description: Release Area  
View: North



Photograph 4 Date: 5/16/2024  
Description: Vertical Delineation (BH01)  
View: Northeast



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 5 Date: 5/16/2024  
Description: Vertical Delineation (BH02)  
View: Northeast

Photograph 6 Date: 5/16/2024  
Description: Vertical Delineation (BH03)  
View: Northeast

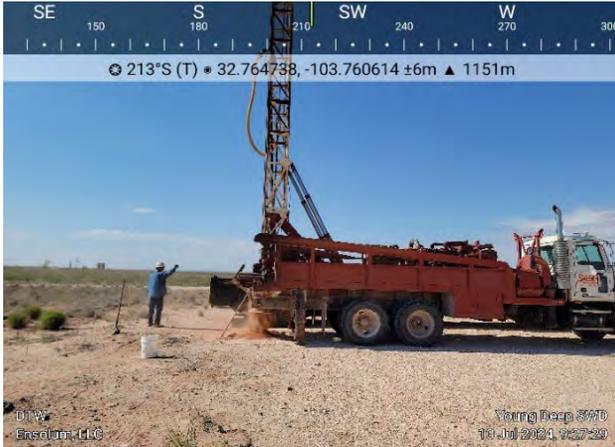


Photograph 7 Date: 6/17/2024  
Description: Vertical Delineation (BH01)  
View: Southeast

Photograph 8 Date: 7/10/2024  
Description: Vertical Delineation (BH01)  
View: South



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 9 Date: 7/10/2024  
Description: Depth to Water Boring  
View: Southwest



Photograph 10 Date: 9/27/2024  
Description: Vertical Delineation (BH04)  
View: East



Photograph 11 Date: 9/27/2024  
Description: Vertical Delineation (PH01)  
View: Northeast



Photograph 12 Date: 9/27/2024  
Description: Vertical Delineation (PH02)  
View: North



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 13 Date: 9/27/2024  
Description: Vertical Delineation (PH04)  
View: Northeast

Photograph 14 Date: 9/27/2024  
Description: Vertical Delineation (PH05)  
View: North



Photograph 15 Date: 9/27/2024  
Description: Vertical Delineation (PH06)  
View: South

Photograph 16 Date: 9/27/2024  
Description: Vertical Delineation (PH06)  
View: South



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 17 Date: 10/28/2024  
Description: Hydrovac  
View: Northwest

Photograph 18 Date: 10/28/2024  
Description: Daylighted Lines  
View: West



Photograph 19 Date: 10/29/2024  
Description: Excavation  
View: North

Photograph 20 Date: 10/29/2024  
Description: Excavation  
View: Northwest



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 21 Date: 10/30/2024  
Description: Excavation  
View: North



Photograph 22 Date: 10/30/2024  
Description: Daylighted Lines  
View: Northeast



Photograph 23 Date: 10/30/2024  
Description: Excavation  
View: Southwest



Photograph 24 Date: 10/30/2024  
Description: Excavation  
View: Northeast



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 25  
Description: Excavation  
View: South

Date: 10/31/2024

Photograph 26  
Description: Excavation  
View: Southwest

Date: 10/31/2024



Photograph 27  
Description: Excavation  
View: Southwest

Date: 10/31/2024

Photograph 28  
Description: Excavation  
View: Northeast

Date: 10/31/2024



**Photographic Log**  
 Matador Production Company  
 Young Deep SWD  
 nAPP2412026875



Photograph 29  
 Description: Excavation  
 View: Northwest

Date: 11/01/2024



Photograph 30  
 Description: Excavation  
 View: North

Date: 11/01/2024



Photograph 31  
 Description: Excavation  
 View: Southwest

Date: 11/01/2024



Photograph 32  
 Description: Excavation  
 View: South

Date: 11/01/2024



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 33 Date: 11/04/2024  
Description: Excavation  
View: Northeast

Photograph 34 Date: 11/04/2024  
Description: Excavation  
View: Northwest



Photograph 35 Date: 11/04/2024  
Description: Excavation  
View: Northeast

Photograph 36 Date: 11/04/2024  
Description: Excavation  
View: Northeast



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 37 Date: 11/05/2024  
Description: Excavation  
View: Northwest



Photograph 38 Date: 11/05/2024  
Description: Excavation  
View: Southwest



Photograph 39 Date: 11/06/2024  
Description: Excavation  
View: Northeast



Photograph 40 Date: 11/06/2024  
Description: Excavation  
View: East



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 41  
Description: Excavation  
View: Southeast

Date: 11/6/2024

Photograph 42  
Description: Excavation  
View: East

Date: 11/6/2024



Photograph 43  
Description: Excavation  
View: Northeast

Date: 11/6/2024

Photograph 44  
Description: Excavation  
View: Southeast

Date: 11/6/2024



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 45  
Description: Excavation  
View: Northwest

Date: 11/7/2024

Photograph 46  
Description: Excavation  
View: Northeast

Date: 11/7/2024



Photograph 47  
Description: Excavation  
View: North

Date: 11/7/2024

Photograph 48  
Description: Excavation  
View: Northeast

Date: 11/7/2024



Photographic Log  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 49  
Description: Excavation  
View: Northeast

Date: 11/11/2024

Photograph 50  
Description: Excavation  
View: Northeast

Date: 11/11/2024



Photograph 51  
Description: Excavation  
View: South

Date: 11/12/2024

Photograph 52  
Description: Excavation  
View: Northeast

Date: 11/12/2024



Photographic Log  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 53  
Description: Excavation  
View: Southeast

Date: 11/13/2024



Photograph 54  
Description: Excavation  
View: Northeast

Date: 11/13/2024



Photograph 55  
Description: Excavation  
View: Northeast

Date: 11/14/2024



Photograph 56  
Description: Excavation  
View: Southwest

Date: 11/14/2024



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 57  
Description: Excavation  
View: East

Date: 11/14/2024

Photograph 58  
Description: Excavation  
View: Southwest

Date: 11/14/2024



Photograph 59  
Description: Excavation  
View: Southwest

Date: 11/19/24

Photograph 60  
Description: Excavation  
View: Southeast

Date: 11/19/24



Photographic Log  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



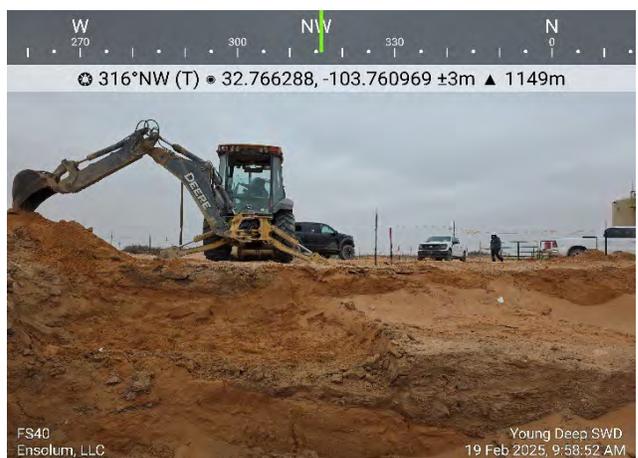
Photograph 61 Date: 1/20/2025  
Description: SW25  
View: Southwest



Photograph 62 Date: 1/20/2025  
Description: SS11  
View: East



Photograph 63 Date: 2/19/2025  
Description: FS40  
View: South



Photograph 64 Date: 2/19/2025  
Description: FS40  
View: Northwest



**Photographic Log**  
Matador Production Company  
Young Deep SWD  
nAPP2412026875



Photograph 65  
Description: SW26  
View: Northwest

Date: 3/5/2025



## APPENDIX D

# Laboratory Analytical Reports & Chain-of-Custody Documentation

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Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E405245

Job Number: 23003-0002

Received: 5/17/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
5/29/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 5/29/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E405245  
Date Received: 5/17/2024 7:45:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/17/2024 7:45:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
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[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 05/29/24 14:36
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01 - 0'	E405245-01A	Soil	05/15/24	05/17/24	Glass Jar, 2 oz.
SS02 - 0'	E405245-02A	Soil	05/15/24	05/17/24	Glass Jar, 2 oz.
SS03 - 0'	E405245-03A	Soil	05/15/24	05/17/24	Glass Jar, 2 oz.
SS04 - 0'	E405245-04A	Soil	05/15/24	05/17/24	Glass Jar, 2 oz.
SS05 - 0'	E405245-05A	Soil	05/15/24	05/17/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/29/2024 2:36:31PM
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**SS01 - 0'**

**E405245-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: BA		Batch: 2421053
Benzene	ND	0.0250	1	05/21/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/21/24	05/25/24	
Toluene	ND	0.0250	1	05/21/24	05/25/24	
o-Xylene	ND	0.0250	1	05/21/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/21/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.8 %	70-130	05/21/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: BA		Batch: 2421053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		105 %	70-130	05/21/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: KM		Batch: 2421079
Diesel Range Organics (C10-C28)	1310	500	20	05/22/24	05/26/24	
Oil Range Organics (C28-C36)	1260	1000	20	05/22/24	05/26/24	
<i>Surrogate: n-Nonane</i>		111 %	50-200	05/22/24	05/26/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2421098
Chloride	81.8	20.0	1	05/22/24	05/23/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/29/2024 2:36:31PM
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**SS02 - 0'**

**E405245-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2421053
Benzene	ND	0.0250	1	05/21/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/21/24	05/25/24	
Toluene	ND	0.0250	1	05/21/24	05/25/24	
o-Xylene	ND	0.0250	1	05/21/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/21/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.9 %	70-130	05/21/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2421053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		106 %	70-130	05/21/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2421079
Diesel Range Organics (C10-C28)	33.9	25.0	1	05/22/24	05/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/22/24	05/26/24	
<i>Surrogate: n-Nonane</i>		107 %	50-200	05/22/24	05/26/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421098
Chloride	34.2	20.0	1	05/22/24	05/23/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/29/2024 2:36:31PM
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**SS03 - 0'**

**E405245-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2421053
Benzene	ND	0.0250	1	05/21/24	05/26/24	
Ethylbenzene	ND	0.0250	1	05/21/24	05/26/24	
Toluene	ND	0.0250	1	05/21/24	05/26/24	
o-Xylene	ND	0.0250	1	05/21/24	05/26/24	
p,m-Xylene	ND	0.0500	1	05/21/24	05/26/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/26/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.7 %	70-130	05/21/24	05/26/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2421053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/26/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		106 %	70-130	05/21/24	05/26/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2421079
Diesel Range Organics (C10-C28)	243	50.0	2	05/22/24	05/28/24	
Oil Range Organics (C28-C36)	437	100	2	05/22/24	05/28/24	
<i>Surrogate: n-Nonane</i>		104 %	50-200	05/22/24	05/28/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421098
Chloride	38.1	20.0	1	05/22/24	05/23/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/29/2024 2:36:31PM
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**SS04 - 0'**

**E405245-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2421053
Benzene	ND	0.0250	1	05/21/24	05/26/24	
Ethylbenzene	ND	0.0250	1	05/21/24	05/26/24	
Toluene	ND	0.0250	1	05/21/24	05/26/24	
o-Xylene	ND	0.0250	1	05/21/24	05/26/24	
p,m-Xylene	ND	0.0500	1	05/21/24	05/26/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/26/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		93.8 %	70-130	05/21/24	05/26/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2421053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/26/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		106 %	70-130	05/21/24	05/26/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2421079
Diesel Range Organics (C10-C28)	ND	25.0	1	05/22/24	05/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/22/24	05/26/24	
<i>Surrogate: n-Nonane</i>		107 %	50-200	05/22/24	05/26/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421098
Chloride	ND	20.0	1	05/22/24	05/23/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/29/2024 2:36:31PM
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**SS05 - 0'**

**E405245-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2421053
Benzene	ND	0.0250	1	05/21/24	05/26/24	
Ethylbenzene	ND	0.0250	1	05/21/24	05/26/24	
Toluene	ND	0.0250	1	05/21/24	05/26/24	
o-Xylene	ND	0.0250	1	05/21/24	05/26/24	
p,m-Xylene	ND	0.0500	1	05/21/24	05/26/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/26/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		93.6 %	70-130	05/21/24	05/26/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2421053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/26/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		105 %	70-130	05/21/24	05/26/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2421079
Diesel Range Organics (C10-C28)	56.6	25.0	1	05/22/24	05/28/24	
Oil Range Organics (C28-C36)	128	50.0	1	05/22/24	05/28/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	05/22/24	05/28/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421098
Chloride	480	20.0	1	05/22/24	05/23/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/29/2024 2:36:31PM
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#### Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2421053-BLK1)**

Prepared: 05/21/24 Analyzed: 05/25/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.35		8.00		91.9	70-130			

**LCS (2421053-BS1)**

Prepared: 05/21/24 Analyzed: 05/25/24

Benzene	5.19	0.0250	5.00		104	70-130			
Ethylbenzene	4.89	0.0250	5.00		97.8	70-130			
Toluene	5.11	0.0250	5.00		102	70-130			
o-Xylene	4.99	0.0250	5.00		99.8	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.1	0.0250	15.0		100	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.42		8.00		92.8	70-130			

**LCS Dup (2421053-BSD1)**

Prepared: 05/21/24 Analyzed: 05/25/24

Benzene	4.75	0.0250	5.00		95.0	70-130	8.90	20	
Ethylbenzene	4.51	0.0250	5.00		90.1	70-130	8.19	20	
Toluene	4.70	0.0250	5.00		94.0	70-130	8.46	20	
o-Xylene	4.60	0.0250	5.00		92.1	70-130	8.08	20	
p,m-Xylene	9.31	0.0500	10.0		93.1	70-130	7.96	20	
Total Xylenes	13.9	0.0250	15.0		92.7	70-130	8.00	20	
Surrogate: 4-Bromochlorobenzene-PID	7.45		8.00		93.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/29/2024 2:36:31PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2421053-BLK1)**

Prepared: 05/21/24 Analyzed: 05/25/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.66		8.00		108	70-130			

**LCS (2421053-BS2)**

Prepared: 05/21/24 Analyzed: 05/28/24

Gasoline Range Organics (C6-C10)	48.2	20.0	50.0		96.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.64		8.00		108	70-130			

**LCS Dup (2421053-BSD2)**

Prepared: 05/21/24 Analyzed: 05/28/24

Gasoline Range Organics (C6-C10)	54.5	20.0	50.0		109	70-130	12.1	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.79		8.00		110	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/29/2024 2:36:31PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2421079-BLK1)**

Prepared: 05/22/24 Analyzed: 05/25/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	54.2		50.0		108	50-200			

**LCS (2421079-BS1)**

Prepared: 05/22/24 Analyzed: 05/25/24

Diesel Range Organics (C10-C28)	248	25.0	250		99.3	38-132			
Surrogate: <i>n</i> -Nonane	52.8		50.0		106	50-200			

**LCS Dup (2421079-BSD1)**

Prepared: 05/22/24 Analyzed: 05/25/24

Diesel Range Organics (C10-C28)	259	25.0	250		103	38-132	4.13	20	
Surrogate: <i>n</i> -Nonane	53.1		50.0		106	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/29/2024 2:36:31PM
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#### Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2421098-BLK1)**

Prepared: 05/22/24 Analyzed: 05/22/24

Chloride ND 20.0

**LCS (2421098-BS1)**

Prepared: 05/22/24 Analyzed: 05/22/24

Chloride 250 20.0 250 100 90-110

**LCS Dup (2421098-BSD1)**

Prepared: 05/22/24 Analyzed: 05/22/24

Chloride 251 20.0 250 101 90-110 0.426 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 05/29/24 14:36
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Matador Production Company		<b>Bill To</b>		Lab Use Only				TAT			EPA Program		
Project: Young Deep SWD		Attention: Ensolum LLC		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Ashley Giovengo		Address: on file		E 405 245		23003-0002					x		
Address: 3122 National Parks Hwy		City, State, Zip:		Analysis and Method									RCRA
City, State, Zip: Carlsbad NM, 88220		Phone: 575-988-0055		TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TCEQ TPH	BGDOC NM	GDOC TX	State	
Phone: 575-988-0055		Email: agiovengo@ensolum.com										NM	CO
Email: agiovengo@ensolum.com		Report due by:											

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TCEQ TPH	BGDOC NM	GDOC TX	Remarks
11:42	5/15/2024	Soil	1	SS01 - 0'	1							X		
11:45	5/15/2024	Soil	1	SS02 - 0'	2							X		
11:46	5/15/2024	Soil	1	SS03 - 0'	3							X		
15:03	5/15/2024	Soil	1	SS04 - 0'	4							X		
15:22	5/15/2024	Soil	1	SS05 - 0'	5							X		

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, ehaft@ensolum.com, iestrella@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. **Sampled by:** \_\_\_\_\_

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature) <i>[Signature]</i>	Date 5/16/24	Time 8:15	Received by: (Signature) <i>[Signature]</i>	Date 5-16-24	Time 1140	Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature) <i>[Signature]</i>	Date 5-16-24	Time 1600	Received by: (Signature) <i>[Signature]</i>	Date 5-16-24	Time 1830	
Relinquished by: (Signature) <i>[Signature]</i>	Date 5-16-24	Time 2400	Received by: (Signature) <i>[Signature]</i>	Date 5/17/24	Time 0745	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 5/17/2024 12:31:09PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 05/17/24 07:45 Work Order ID: E405245
Phone: (972) 371-5200 Date Logged In: 05/17/24 08:51 Logged In By: Angelina Pineda
Email: agiovnngo@ensolum.com Due Date: 05/23/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Comments/Resolution

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? Yes

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E405259

Job Number: 23003-0002

Received: 5/20/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
5/30/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 5/30/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E405259  
Date Received: 5/20/2024 9:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/20/2024 9:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
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[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
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Field Offices:

**Southern New Mexico Area**

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**Michelle Golzales**  
Client Representative  
Office: 505-421-LABS(5227)  
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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 05/30/24 13:59
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01-0'	E405259-01A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-2'	E405259-02A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-5'	E405259-03A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-8'	E405259-04A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-11'	E405259-05A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-14'	E405259-06A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-16'	E405259-07A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH02-0'	E405259-08A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH02-2'	E405259-09A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH03-0'	E405259-10A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH03-2'	E405259-11A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.

### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH01-0'**  
**E405259-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	<b>0.606</b>	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	<b>0.233</b>	0.0250	1	05/23/24	05/25/24	
Toluene	<b>0.703</b>	0.0250	1	05/23/24	05/25/24	
o-Xylene	<b>0.0843</b>	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	<b>0.204</b>	0.0500	1	05/23/24	05/25/24	
Total Xylenes	<b>0.288</b>	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		94.5 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		96.9 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	<b>121</b>	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	<b>70.0</b>	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>						
		95.0 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	<b>22500</b>	1000	50	05/23/24	05/26/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH01-2'**  
**E405259-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.3 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		96.4 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	257	125	5	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	250	5	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>		103 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	1420	40.0	2	05/23/24	05/26/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH01-5'**  
**E405259-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.3 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.4 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	45.2	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>		98.3 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	1880	40.0	2	05/23/24	05/26/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH01-8'**  
**E405259-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.1 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		96.8 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>		120 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	3530	40.0	2	05/23/24	05/26/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH01-11'**

**E405259-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		91.7 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		96.8 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>		105 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	4720	40.0	2	05/23/24	05/26/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH01-14'**

**E405259-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.3 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		96.5 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>		96.4 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	4420	40.0	2	05/23/24	05/26/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH01-16'**

**E405259-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.9 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.5 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	30.6	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>		81.3 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	4670	40.0	2	05/23/24	05/26/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH02-0'**  
**E405259-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		86.0 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.6 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	<b>8300</b>	500	20	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	<b>5800</b>	1000	20	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	<b>4160</b>	40.0	2	05/23/24	05/26/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH02-2'**  
**E405259-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.1 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.2 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	757	500	20	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	1390	1000	20	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	57.0	20.0	1	05/23/24	05/26/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH03-0'**  
**E405259-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.9 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.3 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>		98.6 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	24800	400	20	05/23/24	05/26/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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**BH03-2'**

**E405259-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.0 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.7 %	70-130	05/23/24	05/25/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KM		Batch: 2422012
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>		101 %	50-200	05/28/24	05/29/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2421137
Chloride	ND	20.0	1	05/23/24	05/26/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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#### Volatile Organics by EPA 8021B

Analyst: EG

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2421133-BLK1)

Prepared: 05/23/24 Analyzed: 05/25/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.19		8.00		89.9	70-130			

#### LCS (2421133-BS1)

Prepared: 05/23/24 Analyzed: 05/25/24

Benzene	5.07	0.0250	5.00		101	70-130			
Ethylbenzene	4.90	0.0250	5.00		98.0	70-130			
Toluene	4.99	0.0250	5.00		99.8	70-130			
o-Xylene	4.86	0.0250	5.00		97.2	70-130			
p,m-Xylene	9.94	0.0500	10.0		99.4	70-130			
Total Xylenes	14.8	0.0250	15.0		98.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.22		8.00		90.2	70-130			

#### LCS Dup (2421133-BSD1)

Prepared: 05/23/24 Analyzed: 05/25/24

Benzene	5.03	0.0250	5.00		101	70-130	0.912	20	
Ethylbenzene	4.86	0.0250	5.00		97.3	70-130	0.764	20	
Toluene	4.95	0.0250	5.00		99.0	70-130	0.797	20	
o-Xylene	4.81	0.0250	5.00		96.3	70-130	1.00	20	
p,m-Xylene	9.85	0.0500	10.0		98.5	70-130	0.820	20	
Total Xylenes	14.7	0.0250	15.0		97.8	70-130	0.880	20	
Surrogate: 4-Bromochlorobenzene-PID	7.25		8.00		90.6	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: EG

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2421133-BLK1)**

Prepared: 05/23/24 Analyzed: 05/25/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.74		8.00		96.8	70-130			

**LCS (2421133-BS2)**

Prepared: 05/23/24 Analyzed: 05/25/24

Gasoline Range Organics (C6-C10)	52.6	20.0	50.0		105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		8.00		96.3	70-130			

**LCS Dup (2421133-BSD2)**

Prepared: 05/23/24 Analyzed: 05/25/24

Gasoline Range Organics (C6-C10)	52.4	20.0	50.0		105	70-130	0.378	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.80		8.00		97.5	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2422012-BLK1)**

Prepared: 05/28/24 Analyzed: 05/29/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	55.0		50.0		110	50-200			

**LCS (2422012-BS1)**

Prepared: 05/28/24 Analyzed: 05/29/24

Diesel Range Organics (C10-C28)	270	25.0	250		108	38-132			
Surrogate: <i>n</i> -Nonane	55.6		50.0		111	50-200			

**LCS Dup (2422012-BSD1)**

Prepared: 05/28/24 Analyzed: 05/29/24

Diesel Range Organics (C10-C28)	282	25.0	250		113	38-132	4.40	20	
Surrogate: <i>n</i> -Nonane	56.8		50.0		114	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 5/30/2024 1:59:31PM
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#### Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2421137-BLK1)**

Prepared: 05/23/24 Analyzed: 05/26/24

Chloride	ND	20.0							
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**LCS (2421137-BS1)**

Prepared: 05/23/24 Analyzed: 05/26/24

Chloride	249	20.0	250		99.6	90-110			
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**LCS Dup (2421137-BSD1)**

Prepared: 05/23/24 Analyzed: 05/26/24

Chloride	249	20.0	250		99.4	90-110	0.205	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 05/30/24 13:59
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Matador Production Company Project: Young Deep SWD Project Manager: Ashley Giovengo Address: 3122 National Parks Hwy City, State, Zip: Carlsbad NM, 88220 Phone: 575-988-0055 Email: agiovengo@ensolum.com Report due by:		<b>Bill To</b> Attention: Ensolum LLC Address: on file City, State, Zip: Phone: 575-988-0055 Email: agiovengo@ensolum.com		Lab Use Only				TAT			EPA Program			
				Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA	
				E405259		23003-0002					x			
				Analysis and Method										RCRA
				State										

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TCEQ TPH	BGDOC NM	GDOC TX	Remarks
9:21	5/16/2024	Soil	1	BH01 - 0'	1							x		
9:27	5/16/2024	Soil	1	BH01 - 2'	2							x		
9:58	5/16/2024	Soil	1	BH01 - 5'	3							x		
10:21	5/16/2024	Soil	1	BH01 - 8'	4							x		
10:54	5/16/2024	Soil	1	BH01 - 11'	5							x		
11:32	5/16/2024	Soil	1	BH01 - 14'	6							x		
11:38	5/16/2024	Soil	1	BH01 - 16'	7							x		

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, ehaft@ensolum.com, iestrella@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Sampled by:						Lab Use Only					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N					
	5/17/24	9:45		5.17.24	1112						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 _____ T2 _____ T3 _____					
	5.17.24	1730		5/20/24	0930						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	AVG Temp °C <u>4</u>					
						Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA					

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_  
 Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Client: Matador Production Company		<b>Bill To</b>		Lab Use Only				TAT			EPA Program						
Project: Young Deep SWD		Attention: Ensolum LLC		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA				
Project Manager: Ashley Giovengo		Address: on file		E 405259		23003-0002					x						
Address: 3122 National Parks Hwy		City, State, Zip:		Analysis and Method									RCRA				
City, State, Zip: Carlsbad NM, 88220		Phone: 575-988-0055															
Phone: 575-988-0055		Email: agiovengo@ensolum.com															
Email: agiovengo@ensolum.com		Report due by:															
													State				
													NM	CO	UT	AZ	TX
													x				

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TCEQ TPH	BGDOC NM	GDOC TX	Remarks
9:15	5/16/2024	Soil	1	BH02 - 0'	8							X		
9:19	5/16/2024	Soil	1	BH02 - 2'	9							X		
9:09	5/16/2024	Soil	1	BH03 - 0'	10							X		
9:13	5/16/2024	Soil	1	BH03 - 2'	11							X		

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, ehaft@ensolum.com, iestrella@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.				Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.			
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time
		5/17/24	9:45			5/17/24	1112
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time
		5/17/24	17:30			5/20/24	0930
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

### Envirotech Analytical Laboratory

Printed: 5/22/2024 10:24:49AM

#### Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 05/20/24 09:30	Work Order ID: E405259
Phone: (972) 371-5200	Date Logged In: 05/17/24 18:46	Logged In By: Alexa Michaels
Email: agiovnngo@ensolum.com	Due Date: 05/27/24 17:00 (5 day TAT)	

#### Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

#### Comments/Resolution

#### Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

#### Sample Cooler

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

#### Sample Container

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

#### Field Label

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

#### Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

#### Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

#### Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

#### Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E406163

Job Number: 23003-0002

Received: 6/19/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
6/21/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 6/21/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E406163  
Date Received: 6/19/2024 7:00:32AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/19/2024 7:00:32AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
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Office: 505-421-LABS(5227)  
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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 06/21/24 14:30
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01 - 20'	E406163-01A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 4'	E406163-02A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 6'	E406163-03A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 8.5'	E406163-04A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 10'	E406163-05A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 12'	E406163-06A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 14.5'	E406163-07A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 16'	E406163-08A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 18'	E406163-09A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
SS03A - 0'	E406163-10A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.

### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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**BH01 - 20'**

**E406163-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		113 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91.5 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		113 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91.5 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/19/24	
<i>Surrogate: n-Nonane</i>		105 %	50-200	06/19/24	06/19/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	1230	20.0	1	06/19/24	06/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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**BH02 - 4'**

**E406163-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		108 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.8 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		108 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.8 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	<b>2040</b>	250	10	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	<b>1710</b>	500	10	06/19/24	06/20/24	
<i>Surrogate: n-Nonane</i>		103 %	50-200	06/19/24	06/20/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	<b>584</b>	20.0	1	06/19/24	06/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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**BH02 - 6'**  
**E406163-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		112 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91.3 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		112 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91.3 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	<b>89.9</b>	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	<b>119</b>	50.0	1	06/19/24	06/20/24	
<i>Surrogate: n-Nonane</i>		79.5 %	50-200	06/19/24	06/20/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	<b>388</b>	20.0	1	06/19/24	06/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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**BH02 - 8.5'**

**E406163-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		89.1 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		89.1 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	54.0	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	56.0	50.0	1	06/19/24	06/20/24	
<i>Surrogate: n-Nonane</i>		94.5 %	50-200	06/19/24	06/20/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	434	20.0	1	06/19/24	06/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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**BH02 - 10'**

**E406163-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		90.8 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		90.8 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	<b>83.6</b>	50.0	2	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	<b>156</b>	100	2	06/19/24	06/20/24	
<i>Surrogate: n-Nonane</i>		101 %	50-200	06/19/24	06/20/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	<b>686</b>	20.0	1	06/19/24	06/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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**BH02 - 12'**

**E406163-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.1 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.1 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/20/24	
<i>Surrogate: n-Nonane</i>		81.6 %	50-200	06/19/24	06/20/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	593	20.0	1	06/19/24	06/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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**BH02 - 14.5'**

**E406163-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		108 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.8 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		108 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.8 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/20/24	
<i>Surrogate: n-Nonane</i>		98.1 %	50-200	06/19/24	06/20/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	509	20.0	1	06/19/24	06/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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**BH02 - 16'**

**E406163-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		108 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.7 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		108 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.7 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	<b>88.0</b>	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	<b>95.6</b>	50.0	1	06/19/24	06/20/24	
<i>Surrogate: n-Nonane</i>		89.9 %	50-200	06/19/24	06/20/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	<b>892</b>	20.0	1	06/19/24	06/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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**BH02 - 18'**

**E406163-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.1 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.1 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/20/24	
<i>Surrogate: n-Nonane</i>		102 %	50-200	06/19/24	06/20/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	332	20.0	1	06/19/24	06/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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**SS03A - 0'**

**E406163-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		104 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.3 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		94.3 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		104 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.3 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		94.3 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/20/24	
<i>Surrogate: n-Nonane</i>		101 %	50-200	06/19/24	06/20/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	ND	20.0	1	06/19/24	06/19/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2425047-BLK1)

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.562		0.500		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.444		0.500		88.7	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

#### LCS (2425047-BS1)

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.04	0.0250	2.50		81.7	70-130			
Ethylbenzene	2.20	0.0250	2.50		88.0	70-130			
Toluene	2.18	0.0250	2.50		87.0	70-130			
o-Xylene	2.29	0.0250	2.50		91.7	70-130			
p,m-Xylene	4.56	0.0500	5.00		91.2	70-130			
Total Xylenes	6.85	0.0250	7.50		91.4	70-130			
Surrogate: Bromofluorobenzene	0.567		0.500		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.495		0.500		98.9	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

#### Matrix Spike (2425047-MS1)

Source: E406163-07

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.24	0.0250	2.50	ND	89.7	48-131			
Ethylbenzene	2.40	0.0250	2.50	ND	95.9	45-135			
Toluene	2.37	0.0250	2.50	ND	94.8	48-130			
o-Xylene	2.55	0.0250	2.50	ND	102	43-135			
p,m-Xylene	5.08	0.0500	5.00	ND	102	43-135			
Total Xylenes	7.63	0.0250	7.50	ND	102	43-135			
Surrogate: Bromofluorobenzene	0.573		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.8	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

#### Matrix Spike Dup (2425047-MSD1)

Source: E406163-07

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.30	0.0250	2.50	ND	91.9	48-131	2.42	23	
Ethylbenzene	2.45	0.0250	2.50	ND	98.0	45-135	2.25	27	
Toluene	2.41	0.0250	2.50	ND	96.5	48-130	1.80	24	
o-Xylene	2.58	0.0250	2.50	ND	103	43-135	1.40	27	
p,m-Xylene	5.17	0.0500	5.00	ND	103	43-135	1.62	27	
Total Xylenes	7.75	0.0250	7.50	ND	103	43-135	1.55	27	
Surrogate: Bromofluorobenzene	0.575		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.7	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2425047-BLK1)**

Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.562		0.500		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.444		0.500		88.7	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

**LCS (2425047-BS2)**

Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	56.4	20.0	50.0		113	70-130			
Surrogate: Bromofluorobenzene	0.571		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.1	70-130			
Surrogate: Toluene-d8	0.522		0.500		104	70-130			

**Matrix Spike (2425047-MS2)**

Source: E406163-07

Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	57.6	20.0	50.0	ND	115	70-130			
Surrogate: Bromofluorobenzene	0.579		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.476		0.500		95.2	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

**Matrix Spike Dup (2425047-MSD2)**

Source: E406163-07

Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	56.1	20.0	50.0	ND	112	70-130	2.65	20	
Surrogate: Bromofluorobenzene	0.570		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.460		0.500		91.9	70-130			
Surrogate: Toluene-d8	0.529		0.500		106	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2425052-BLK1)**

Prepared: 06/19/24 Analyzed: 06/19/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	49.7		50.0		99.3	50-200			

**LCS (2425052-BS1)**

Prepared: 06/19/24 Analyzed: 06/19/24

Diesel Range Organics (C10-C28)	309	25.0	250		124	38-132			
Surrogate: n-Nonane	51.5		50.0		103	50-200			

**Matrix Spike (2425052-MS1)**

Source: E406163-05

Prepared: 06/19/24 Analyzed: 06/19/24

Diesel Range Organics (C10-C28)	362	50.0	250	83.6	112	38-132			
Surrogate: n-Nonane	49.7		50.0		99.3	50-200			

**Matrix Spike Dup (2425052-MSD1)**

Source: E406163-05

Prepared: 06/19/24 Analyzed: 06/19/24

Diesel Range Organics (C10-C28)	348	50.0	250	83.6	106	38-132	4.14	20	
Surrogate: n-Nonane	47.2		50.0		94.4	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:30:27PM
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#### Anions by EPA 300.0/9056A

Analyst: WF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2425053-BLK1)**

Prepared: 06/19/24 Analyzed: 06/19/24

Chloride ND 20.0

**LCS (2425053-BS1)**

Prepared: 06/19/24 Analyzed: 06/19/24

Chloride 248 20.0 250 99.1 90-110

**Matrix Spike (2425053-MS1)**

Source: E406163-06

Prepared: 06/19/24 Analyzed: 06/19/24

Chloride 825 20.0 250 593 92.9 80-120

**Matrix Spike Dup (2425053-MSD1)**

Source: E406163-06

Prepared: 06/19/24 Analyzed: 06/19/24

Chloride 800 20.0 250 593 82.7 80-120 3.15 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 06/21/24 14:30
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E406163		23003-0002					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA				
Compliance																					
11:28	6/17/2024	S	1	BH01 - 20'		1						X									
9:21	6/17/2024	S	1	BH02 - 4'		2						X									
9:50	6/17/2024	S	1	BH02 - 6'		3						X									
14:55	6/17/2024	S	1	BH02 - 8.5'		4						X									
15:24	6/17/2024	S	1	BH02 - 10'		5						X									
15:55	6/17/2024	S	1	BH02 - 12'		6						X									
16:11	6/17/2024	S	1	BH02 - 14.5'		7						X									
16:20	6/17/2024	S	1	BH02 - 16'		8						X									
16:32	6/17/2024	S	1	BH02 - 18'		9						X									
14:08	6/17/2024	S	1	SS03A - 0'		10						X									

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Chad Hamilton, Brandon Deal

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="radio"/> / N T1 _____ T2 _____ T3 _____ AVG Temp °C 4
<i>[Signature]</i>	6/18/24	7:51	<i>Michelle Gonzales</i>	6-18-24	0751	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<i>Michelle Gonzales</i>	6/18/24	0630	<i>Keyshia R Heiler</i>	6-19-24	0700	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 6/19/2024 11:06:53AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 06/19/24 07:00 Work Order ID: E406163
Phone: (972) 371-5200 Date Logged In: 06/18/24 15:42 Logged In By: Jessica Liesse
Email: agiovnngo@ensolum.com Due Date: 06/25/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Couier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Comments/Resolution

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? Yes

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for client instruction.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E406164

Job Number: 23003-0002

Received: 6/19/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
6/21/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 6/21/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E406164  
Date Received: 6/19/2024 7:00:32AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/19/2024 7:00:32AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**

**Lynn Jarboe**  
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**Michelle Golzales**  
Client Representative  
Office: 505-421-LABS(5227)  
Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 06/21/24 14:29
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01-17'	E406164-01A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:29:15PM
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**BH01-17'**

**E406164-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		96.5 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	06/18/24	06/20/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	70-130	06/18/24	06/20/24	
<i>Surrogate: Toluene-d8</i>		96.5 %	70-130	06/18/24	06/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/20/24	
<i>Surrogate: n-Nonane</i>		99.6 %	50-200	06/19/24	06/20/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: WF		Batch: 2425053
Chloride	625	20.0	1	06/19/24	06/19/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:29:15PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2425047-BLK1)**

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.562		0.500		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.444		0.500		88.7	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

**LCS (2425047-BS1)**

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.04	0.0250	2.50		81.7	70-130			
Ethylbenzene	2.20	0.0250	2.50		88.0	70-130			
Toluene	2.18	0.0250	2.50		87.0	70-130			
o-Xylene	2.29	0.0250	2.50		91.7	70-130			
p,m-Xylene	4.56	0.0500	5.00		91.2	70-130			
Total Xylenes	6.85	0.0250	7.50		91.4	70-130			
Surrogate: Bromofluorobenzene	0.567		0.500		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.495		0.500		98.9	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

**Matrix Spike (2425047-MS1)**

Source: E406163-07

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.24	0.0250	2.50	ND	89.7	48-131			
Ethylbenzene	2.40	0.0250	2.50	ND	95.9	45-135			
Toluene	2.37	0.0250	2.50	ND	94.8	48-130			
o-Xylene	2.55	0.0250	2.50	ND	102	43-135			
p,m-Xylene	5.08	0.0500	5.00	ND	102	43-135			
Total Xylenes	7.63	0.0250	7.50	ND	102	43-135			
Surrogate: Bromofluorobenzene	0.573		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.8	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

**Matrix Spike Dup (2425047-MSD1)**

Source: E406163-07

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.30	0.0250	2.50	ND	91.9	48-131	2.42	23	
Ethylbenzene	2.45	0.0250	2.50	ND	98.0	45-135	2.25	27	
Toluene	2.41	0.0250	2.50	ND	96.5	48-130	1.80	24	
o-Xylene	2.58	0.0250	2.50	ND	103	43-135	1.40	27	
p,m-Xylene	5.17	0.0500	5.00	ND	103	43-135	1.62	27	
Total Xylenes	7.75	0.0250	7.50	ND	103	43-135	1.55	27	
Surrogate: Bromofluorobenzene	0.575		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.7	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:29:15PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2425047-BLK1)**

Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.562		0.500		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.444		0.500		88.7	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

**LCS (2425047-BS2)**

Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	56.4	20.0	50.0		113	70-130			
Surrogate: Bromofluorobenzene	0.571		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.1	70-130			
Surrogate: Toluene-d8	0.522		0.500		104	70-130			

**Matrix Spike (2425047-MS2)**

Source: E406163-07

Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	57.6	20.0	50.0	ND	115	70-130			
Surrogate: Bromofluorobenzene	0.579		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.476		0.500		95.2	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

**Matrix Spike Dup (2425047-MSD2)**

Source: E406163-07

Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	56.1	20.0	50.0	ND	112	70-130	2.65	20	
Surrogate: Bromofluorobenzene	0.570		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.460		0.500		91.9	70-130			
Surrogate: Toluene-d8	0.529		0.500		106	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:29:15PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2425052-BLK1)**

Prepared: 06/19/24 Analyzed: 06/19/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	49.7		50.0		99.3	50-200			

**LCS (2425052-BS1)**

Prepared: 06/19/24 Analyzed: 06/19/24

Diesel Range Organics (C10-C28)	309	25.0	250		124	38-132			
Surrogate: <i>n</i> -Nonane	51.5		50.0		103	50-200			

**Matrix Spike (2425052-MS1)**

Source: E406163-05

Prepared: 06/19/24 Analyzed: 06/19/24

Diesel Range Organics (C10-C28)	362	50.0	250	83.6	112	38-132			
Surrogate: <i>n</i> -Nonane	49.7		50.0		99.3	50-200			

**Matrix Spike Dup (2425052-MSD1)**

Source: E406163-05

Prepared: 06/19/24 Analyzed: 06/19/24

Diesel Range Organics (C10-C28)	348	50.0	250	83.6	106	38-132	4.14	20	
Surrogate: <i>n</i> -Nonane	47.2		50.0		94.4	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 6/21/2024 2:29:15PM
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#### Anions by EPA 300.0/9056A

Analyst: WF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2425053-BLK1)**

Prepared: 06/19/24 Analyzed: 06/19/24

Chloride ND 20.0

**LCS (2425053-BS1)**

Prepared: 06/19/24 Analyzed: 06/19/24

Chloride 248 20.0 250 99.1 90-110

**Matrix Spike (2425053-MS1)**

Source: E406163-06

Prepared: 06/19/24 Analyzed: 06/19/24

Chloride 825 20.0 250 593 92.9 80-120

**Matrix Spike Dup (2425053-MSD1)**

Source: E406163-06

Prepared: 06/19/24 Analyzed: 06/19/24

Chloride 800 20.0 250 593 82.7 80-120 3.15 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 06/21/24 14:29
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



# Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State						
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX			
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E406164		23003-002					X	X						
Project Manager: Ashley Gioveno				City, State, Zip: Carlsbad NM, 88220																		
Address: 3122 National Parks Hwy				Phone: 575-988-0055																		
City, State, Zip: Carlsbad NM, 88220				Email: agioveno@ensolum.com																		
Phone: 575-988-0055				Miscellaneous:																		
Email: agioveno@ensolum.com																						
Sample Information										Analysis and Method						EPA Program						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	Compliance	Y	or	N	
10:03	6/17/2024	S	1	BH01 - 17'		1						X										
Additional Instructions: Please CC: cburton@ensolum.com, agioveno@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com																						
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																						
Sampled by: _____ Chad Hamilton, Brandon Deal																						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.						Lab Use Only										
<i>[Signature]</i>	6/18/24	7:51	<i>Michelle Gonzales</i>	6-18-24	0751							Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N										
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time							T1 _____ T2 _____ T3 _____										
<i>Michelle Gonzales</i>	6/18/24	0630	<i>Kaylyn K. Hill</i>	6-19-24	0700							AVG Temp °C <u>4</u>										
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____																
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																						

Page 11 of 21

Page 129 of 690



Envirotech Analytical Laboratory

Printed: 6/19/2024 11:27:36AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 06/19/24 07:00 Work Order ID: E406164
Phone: (972) 371-5200 Date Logged In: 06/18/24 15:49 Logged In By: Jessica Liesse
Email: agiovnngo@ensolum.com Due Date: 06/25/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Couier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? Yes

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for Client Instruction

Comments/Resolution

Large empty box for Comments/Resolution

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E407072

Job Number: 23003-0002

Received: 7/11/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
7/16/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 7/16/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E407072  
Date Received: 7/11/2024 10:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/11/2024 10:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 07/16/24 09:52
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01-24'	E407072-01A	Soil	07/10/24	07/11/24	Glass Jar, 2 oz.
BH01-26'	E407072-02A	Soil	07/10/24	07/11/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 7/16/2024 9:52:08AM
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**BH01-24'**  
**E407072-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2428074
Benzene	ND	0.0250	1	07/11/24	07/12/24	
Ethylbenzene	ND	0.0250	1	07/11/24	07/12/24	
Toluene	ND	0.0250	1	07/11/24	07/12/24	
o-Xylene	ND	0.0250	1	07/11/24	07/12/24	
p,m-Xylene	ND	0.0500	1	07/11/24	07/12/24	
Total Xylenes	ND	0.0250	1	07/11/24	07/12/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.9 %	70-130	07/11/24	07/12/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2428074
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/24	07/12/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.0 %	70-130	07/11/24	07/12/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: KM		Batch: 2428080
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/24	07/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/24	07/12/24	
<i>Surrogate: n-Nonane</i>		115 %	50-200	07/11/24	07/12/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: JM		Batch: 2428083
Chloride	102	20.0	1	07/11/24	07/11/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 7/16/2024 9:52:08AM
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#### Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2428074-BLK1)

Prepared: 07/11/24 Analyzed: 07/11/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.12		8.00		89.0	70-130			

#### LCS (2428074-BS1)

Prepared: 07/11/24 Analyzed: 07/11/24

Benzene	4.77	0.0250	5.00		95.4	70-130			
Ethylbenzene	4.55	0.0250	5.00		90.9	70-130			
Toluene	4.68	0.0250	5.00		93.6	70-130			
o-Xylene	4.54	0.0250	5.00		90.8	70-130			
p,m-Xylene	9.21	0.0500	10.0		92.1	70-130			
Total Xylenes	13.8	0.0250	15.0		91.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.01		8.00		87.6	70-130			

#### Matrix Spike (2428074-MS1)

Source: E407073-03

Prepared: 07/11/24 Analyzed: 07/12/24

Benzene	4.69	0.0250	5.00	ND	93.8	54-133			
Ethylbenzene	4.52	0.0250	5.00	ND	90.4	61-133			
Toluene	4.64	0.0250	5.00	ND	92.7	61-130			
o-Xylene	4.51	0.0250	5.00	ND	90.3	63-131			
p,m-Xylene	9.19	0.0500	10.0	ND	91.9	63-131			
Total Xylenes	13.7	0.0250	15.0	ND	91.4	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.46		8.00		93.2	70-130			

#### Matrix Spike Dup (2428074-MSD1)

Source: E407073-03

Prepared: 07/11/24 Analyzed: 07/12/24

Benzene	4.90	0.0250	5.00	ND	98.0	54-133	4.36	20	
Ethylbenzene	4.72	0.0250	5.00	ND	94.4	61-133	4.40	20	
Toluene	4.83	0.0250	5.00	ND	96.7	61-130	4.21	20	
o-Xylene	4.71	0.0250	5.00	ND	94.2	63-131	4.19	20	
p,m-Xylene	9.60	0.0500	10.0	ND	96.0	63-131	4.32	20	
Total Xylenes	14.3	0.0250	15.0	ND	95.4	63-131	4.28	20	
Surrogate: 4-Bromochlorobenzene-PID	7.46		8.00		93.3	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 7/16/2024 9:52:08AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2428074-BLK1)**

Prepared: 07/11/24 Analyzed: 07/11/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.70		8.00		96.3	70-130			

**LCS (2428074-BS2)**

Prepared: 07/11/24 Analyzed: 07/12/24

Gasoline Range Organics (C6-C10)	44.8	20.0	50.0		89.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		8.00		96.3	70-130			

**Matrix Spike (2428074-MS2)**

Source: E407073-03

Prepared: 07/11/24 Analyzed: 07/12/24

Gasoline Range Organics (C6-C10)	44.6	20.0	50.0	ND	89.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.94		8.00		99.2	70-130			

**Matrix Spike Dup (2428074-MSD2)**

Source: E407073-03

Prepared: 07/11/24 Analyzed: 07/12/24

Gasoline Range Organics (C6-C10)	51.1	20.0	50.0	ND	102	70-130	13.7	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.86		8.00		98.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 7/16/2024 9:52:08AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2428080-BLK1)**

Prepared: 07/11/24 Analyzed: 07/11/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	54.9		50.0		110	50-200			

**LCS (2428080-BS1)**

Prepared: 07/11/24 Analyzed: 07/11/24

Diesel Range Organics (C10-C28)	300	25.0	250		120	38-132			
Surrogate: n-Nonane	61.8		50.0		124	50-200			

**Matrix Spike (2428080-MS1)**

Source: E407068-02

Prepared: 07/11/24 Analyzed: 07/11/24

Diesel Range Organics (C10-C28)	297	25.0	250	ND	119	38-132			
Surrogate: n-Nonane	61.5		50.0		123	50-200			

**Matrix Spike Dup (2428080-MSD1)**

Source: E407068-02

Prepared: 07/11/24 Analyzed: 07/11/24

Diesel Range Organics (C10-C28)	289	25.0	250	ND	116	38-132	2.66	20	
Surrogate: n-Nonane	59.6		50.0		119	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 7/16/2024 9:52:08AM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2428083-BLK1)**

Prepared: 07/11/24 Analyzed: 07/11/24

Chloride	ND	20.0							
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**LCS (2428083-BS1)**

Prepared: 07/11/24 Analyzed: 07/11/24

Chloride	250	20.0	250		100	90-110			
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**Matrix Spike (2428083-MS1)**

Source: E407066-02

Prepared: 07/11/24 Analyzed: 07/11/24

Chloride	542	20.0	250	300	97.1	80-120			
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**Matrix Spike Dup (2428083-MSD1)**

Source: E407066-02

Prepared: 07/11/24 Analyzed: 07/11/24

Chloride	545	20.0	250	300	98.2	80-120	0.510	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 07/16/24 09:52
---	--	------------------------------------

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client Information				Invoice Information				Lab Use Only				TAT				State				
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX	
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E 407072		23003-0002					X	X				
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220																
Address: 3122 National Parks Hwy				Phone: 575-988-0055																
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com																
Phone: 575-988-0055				Miscellaneous:																
Email: agiovengo@ensolum.com																				
Sample Information										Analysis and Method						EPA Program				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ.1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	Compliance	PWSID #	
9:45	7/10/2024	S	1	BH01 - 24'		1						X						Y		
9:47	7/10/2024	S	1	BH01 - 26'		2						X								
Do not run unless BH01 - 24' is > 600Cl or 100 TPH																				
Remarks																				
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, bdeal@ensolum.com, chamilton@ensolum.com																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																				
Sampled by: Cole Burton																				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time													
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other										Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA										
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																				

Envirotech Analytical Laboratory

Printed: 7/11/2024 3:05:01PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 07/11/24 10:30	Work Order ID: E407072
Phone: (972) 371-5200	Date Logged In: 07/10/24 16:50	Logged In By: Alexa Michaels
Email: agiovnngo@ensolum.com	Due Date: 07/17/24 17:00 (4 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Couier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Comments/Resolution**

COC Remarks on sample 2: Do not run unless BH01-24 is > 600Cl or 100 TPH

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E409294

Job Number: 23003-0002

Received: 10/1/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
10/7/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 10/7/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E409294  
Date Received: 10/1/2024 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/1/2024 8:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/07/24 05:52
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
PH06-0'	E409294-01A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-2'	E409294-02A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-4'	E409294-03A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-6'	E409294-04A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-8'	E409294-05A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-9.5'	E409294-06A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-11'	E409294-07A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-13'	E409294-08A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-15'	E409294-09A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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**PH06-0'**

**E409294-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.6 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	303	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	566	100	2	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		117 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440049
Chloride	115	20.0	1	10/02/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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**PH06-2'**  
**E409294-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.2 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	691	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	578	100	2	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		113 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440049
Chloride	665	20.0	1	10/02/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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**PH06-4'**  
**E409294-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Benzene	ND	0.0500	2	10/01/24	10/02/24	
Ethylbenzene	ND	0.0500	2	10/01/24	10/02/24	
Toluene	ND	0.0500	2	10/01/24	10/02/24	
o-Xylene	ND	0.0500	2	10/01/24	10/02/24	
p,m-Xylene	ND	0.100	2	10/01/24	10/02/24	
Total Xylenes	ND	0.0500	2	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		109 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/01/24	10/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		94.4 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	4250	250	10	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	2220	500	10	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>						
		109 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2440049
Chloride	444	20.0	1	10/02/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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**PH06-6'**  
**E409294-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Benzene	ND	0.0500	2	10/01/24	10/02/24	
Ethylbenzene	ND	0.0500	2	10/01/24	10/02/24	
Toluene	ND	0.0500	2	10/01/24	10/02/24	
o-Xylene	ND	0.0500	2	10/01/24	10/02/24	
p,m-Xylene	<b>0.107</b>	0.100	2	10/01/24	10/02/24	
Total Xylenes	<b>0.107</b>	0.0500	2	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		113 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/01/24	10/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.7 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	<b>4830</b>	250	10	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	<b>2260</b>	500	10	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		115 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440049
Chloride	<b>1020</b>	20.0	1	10/02/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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**PH06-8'**

**E409294-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		110 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.9 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	1880	500	20	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	1090	1000	20	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		126 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440049
Chloride	3350	40.0	2	10/02/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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**PH06-9.5'**

**E409294-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Benzene	ND	0.125	5	10/01/24	10/02/24	
Ethylbenzene	ND	0.125	5	10/01/24	10/02/24	
Toluene	ND	0.125	5	10/01/24	10/02/24	
o-Xylene	ND	0.125	5	10/01/24	10/02/24	
p,m-Xylene	ND	0.250	5	10/01/24	10/02/24	
Total Xylenes	ND	0.125	5	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		109 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Gasoline Range Organics (C6-C10)	ND	100	5	10/01/24	10/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.6 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	8970	500	20	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	4190	1000	20	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		125 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440049
Chloride	6240	100	5	10/02/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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**PH06-11'**

**E409294-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		96.4 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	623	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	360	100	2	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		116 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440049
Chloride	6650	100	5	10/02/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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**PH06-13'**  
**E409294-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		99.5 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		95.8 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>						
		124 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2440049
Chloride	6240	100	5	10/02/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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**PH06-15'**

**E409294-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440031
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.3 %	70-130	10/01/24	10/02/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		118 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440049
Chloride	5140	100	5	10/02/24	10/02/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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#### Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2440031-BLK1)

Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.24		8.00		103	70-130			

#### LCS (2440031-BS1)

Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	5.05	0.0250	5.00		101	70-130			
Ethylbenzene	4.83	0.0250	5.00		96.6	70-130			
Toluene	4.95	0.0250	5.00		99.0	70-130			
o-Xylene	4.85	0.0250	5.00		97.0	70-130			
p,m-Xylene	9.80	0.0500	10.0		98.0	70-130			
Total Xylenes	14.7	0.0250	15.0		97.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.36		8.00		104	70-130			

#### Matrix Spike (2440031-MS1)

Source: E409294-05

Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	5.76	0.0250	5.00	ND	115	54-133			
Ethylbenzene	5.52	0.0250	5.00	ND	110	61-133			
Toluene	5.65	0.0250	5.00	ND	113	61-130			
o-Xylene	5.63	0.0250	5.00	ND	113	63-131			
p,m-Xylene	11.2	0.0500	10.0	ND	112	63-131			
Total Xylenes	16.9	0.0250	15.0	ND	112	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.82		8.00		110	70-130			

#### Matrix Spike Dup (2440031-MSD1)

Source: E409294-05

Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	5.80	0.0250	5.00	ND	116	54-133	0.629	20	
Ethylbenzene	5.54	0.0250	5.00	ND	111	61-133	0.390	20	
Toluene	5.68	0.0250	5.00	ND	114	61-130	0.426	20	
o-Xylene	5.66	0.0250	5.00	ND	113	63-131	0.587	20	
p,m-Xylene	11.3	0.0500	10.0	ND	113	63-131	0.415	20	
Total Xylenes	16.9	0.0250	15.0	ND	113	63-131	0.473	20	
Surrogate: 4-Bromochlorobenzene-PID	8.90		8.00		111	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

**Blank (2440031-BLK1)**

Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.72		8.00		96.4	70-130			

**LCS (2440031-BS2)**

Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	46.5	20.0	50.0		93.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.76		8.00		97.0	70-130			

**Matrix Spike (2440031-MS2)**

Source: E409294-05

Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	57.6	20.0	50.0	ND	115	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.73		8.00		96.6	70-130			

**Matrix Spike Dup (2440031-MSD2)**

Source: E409294-05

Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	56.2	20.0	50.0	ND	112	70-130	2.41	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.79		8.00		97.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2440052-BLK1)**

Prepared: 10/01/24 Analyzed: 10/03/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	65.0		50.0		130	50-200			

**LCS (2440052-BS1)**

Prepared: 10/01/24 Analyzed: 10/04/24

Diesel Range Organics (C10-C28)	305	25.0	250		122	38-132			
Surrogate: n-Nonane	59.2		50.0		118	50-200			

**Matrix Spike (2440052-MS1)**

Source: E409281-01

Prepared: 10/01/24 Analyzed: 10/04/24

Diesel Range Organics (C10-C28)	333	25.0	250	33.7	120	38-132			
Surrogate: n-Nonane	60.2		50.0		120	50-200			

**Matrix Spike Dup (2440052-MSD1)**

Source: E409281-01

Prepared: 10/01/24 Analyzed: 10/04/24

Diesel Range Organics (C10-C28)	334	25.0	250	33.7	120	38-132	0.241	20	
Surrogate: n-Nonane	60.6		50.0		121	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:52:03AM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2440049-BLK1)**

Prepared: 10/02/24 Analyzed: 10/02/24

Chloride ND 20.0

**LCS (2440049-BS1)**

Prepared: 10/02/24 Analyzed: 10/02/24

Chloride 252 20.0 250 101 90-110

**Matrix Spike (2440049-MS1)**

Source: E409294-03

Prepared: 10/02/24 Analyzed: 10/02/24

Chloride 702 20.0 250 444 103 80-120

**Matrix Spike Dup (2440049-MSD1)**

Source: E409294-03

Prepared: 10/02/24 Analyzed: 10/02/24

Chloride 698 20.0 250 444 102 80-120 0.605 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/07/24 05:52
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

<b>Client Information</b>		<b>Invoice Information</b>		<b>Lab Use Only</b>				<b>TAT</b>				<b>State</b>			
Client: Matador Production Company		Company: Ensolum LLC		Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: <u>Young Park SW D</u>		Address: 3122 National Parks Hwy		E409294		23003-0002					X	X			
Project Manager: Ashley Giovengo		City, State, Zip: Carlsbad NM, 88220		Phone: 575-988-0055											
Address: 3122 National Parks Hwy		Email: agiovengo@ensolum.com		Miscellaneous:											
City, State, Zip: Carlsbad NM, 88220															
Phone: 575-988-0055															
Email: agiovengo@ensolum.com															

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA				
1047	9/27/24	S	1	PH06-0'		1															
1050				PH06-2'		2															
1108				PH06-4		3															
1114				PH06-6'		4															
1126				PH06-8'		5															
1137				PH06-9.5'		6															
1202				PH06-11'		7															
1215				PH06-13'		8															
1227				PH06-15'		9															

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bdeal@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Chad Hamilton Cole Burton

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
	9-30-24	1445		9-30-24	1445	
	9-30-24	1600		9-30-24	1730	
	9-30-24	2400		10-1-24	8:00	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

02 jo 61 ebaD

Page 161 of 170



Envirotech Analytical Laboratory

Printed: 10/1/2024 11:09:54AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 10/01/24 08:00 Work Order ID: E409294
Phone: (972) 371-5200 Date Logged In: 09/30/24 16:17 Logged In By: Raina Schwanz
Email: agiovnngo@ensolum.com Due Date: 10/07/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? Yes

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for client instruction.

Comments/Resolution

Large empty box for comments/resolution.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E409296

Job Number: 23003-0002

Received: 10/1/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
10/7/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 10/7/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E409296  
Date Received: 10/1/2024 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/1/2024 8:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
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[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/07/24 13:08
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS05A-0'	E409296-01A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH01-0'	E409296-02A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH01-1'	E409296-03A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH01-2'	E409296-04A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH02-0'	E409296-05A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH02-2'	E409296-06A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH03-0'	E409296-07A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH03-1'	E409296-08A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH04-0'	E409296-09A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH04-3'	E409296-10A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH05-0'	E409296-11A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH05-2'	E409296-12A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.

### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**SS05A-0'**  
**E409296-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
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<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	

<i>Surrogate: Bromofluorobenzene</i>	97.5 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	97.9 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>	101 %	70-130	10/01/24	10/03/24	

<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>	97.5 %	70-130	10/01/24	10/03/24		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	97.9 %	70-130	10/01/24	10/03/24		
<i>Surrogate: Toluene-d8</i>	101 %	70-130	10/01/24	10/03/24		

<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>	116 %	50-200	10/01/24	10/04/24		

<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	224	20.0	1	10/01/24	10/02/24	

### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH01-0'**  
**E409296-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		97.7 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.1 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		100 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		97.7 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.1 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		100 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		114 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	3490	40.0	2	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH01-1'**  
**E409296-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		99.3 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		99.3 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		127 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	317	20.0	1	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH01-2'**  
**E409296-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		97.9 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		98.6 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		97.9 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		98.6 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		113 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	300	20.0	1	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH02-0'**  
**E409296-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		97.5 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		97.5 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	533	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	557	100	2	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		116 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	874	20.0	1	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH02-2'**  
**E409296-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		97.8 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		99.5 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		97.8 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		99.5 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		122 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	38.4	20.0	1	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH03-0'**

**E409296-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		98.6 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		98.6 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		126 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	104	20.0	1	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH03-1'**  
**E409296-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		98.3 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: Bromofluorobenzene</i>		98.3 %	70-130	10/01/24	10/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	70-130	10/01/24	10/03/24	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	47.3	20.0	1	10/01/24	10/02/24	

### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH04-0'**  
**E409296-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/04/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/04/24	
Toluene	ND	0.0250	1	10/01/24	10/04/24	
o-Xylene	ND	0.0250	1	10/01/24	10/04/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/04/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/04/24	
<i>Surrogate: Bromofluorobenzene</i>		97.6 %	70-130	10/01/24	10/04/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	10/01/24	10/04/24	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	10/01/24	10/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
<i>Surrogate: Bromofluorobenzene</i>		97.6 %	70-130	10/01/24	10/04/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	10/01/24	10/04/24	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	10/01/24	10/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		99.8 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	3820	40.0	2	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH04-3'**  
**E409296-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/04/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/04/24	
Toluene	ND	0.0250	1	10/01/24	10/04/24	
o-Xylene	ND	0.0250	1	10/01/24	10/04/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/04/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/04/24	
<i>Surrogate: Bromofluorobenzene</i>		94.0 %	70-130	10/01/24	10/04/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	10/01/24	10/04/24	
<i>Surrogate: Toluene-d8</i>		98.0 %	70-130	10/01/24	10/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
<i>Surrogate: Bromofluorobenzene</i>		94.0 %	70-130	10/01/24	10/04/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	10/01/24	10/04/24	
<i>Surrogate: Toluene-d8</i>		98.0 %	70-130	10/01/24	10/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		120 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	263	20.0	1	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH05-0'**

**E409296-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/04/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/04/24	
Toluene	ND	0.0250	1	10/01/24	10/04/24	
o-Xylene	ND	0.0250	1	10/01/24	10/04/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/04/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/04/24	
<i>Surrogate: Bromofluorobenzene</i>		98.6 %	70-130	10/01/24	10/04/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	70-130	10/01/24	10/04/24	
<i>Surrogate: Toluene-d8</i>		98.7 %	70-130	10/01/24	10/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
<i>Surrogate: Bromofluorobenzene</i>		98.6 %	70-130	10/01/24	10/04/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	70-130	10/01/24	10/04/24	
<i>Surrogate: Toluene-d8</i>		98.7 %	70-130	10/01/24	10/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		95.9 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	5410	40.0	2	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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**PH05-2'**  
**E409296-12**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Benzene	ND	0.0250	1	10/01/24	10/04/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/04/24	
Toluene	ND	0.0250	1	10/01/24	10/04/24	
o-Xylene	ND	0.0250	1	10/01/24	10/04/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/04/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/04/24	
<i>Surrogate: Bromofluorobenzene</i>		98.1 %	70-130	10/01/24	10/04/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	10/01/24	10/04/24	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	10/01/24	10/04/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
<i>Surrogate: Bromofluorobenzene</i>		98.1 %	70-130	10/01/24	10/04/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	10/01/24	10/04/24	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	10/01/24	10/04/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440043
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		94.4 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440050
Chloride	275	20.0	1	10/01/24	10/02/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2440032-BLK1)

Prepared: 10/01/24 Analyzed: 10/03/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.3	70-130			

#### LCS (2440032-BS1)

Prepared: 10/01/24 Analyzed: 10/03/24

Benzene	2.02	0.0250	2.50		80.7	70-130			
Ethylbenzene	2.16	0.0250	2.50		86.4	70-130			
Toluene	2.19	0.0250	2.50		87.7	70-130			
o-Xylene	2.34	0.0250	2.50		93.8	70-130			
p,m-Xylene	4.66	0.0500	5.00		93.2	70-130			
Total Xylenes	7.00	0.0250	7.50		93.4	70-130			
Surrogate: Bromofluorobenzene	0.489		0.500		97.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.7	70-130			

#### Matrix Spike (2440032-MS1)

Source: E409296-04

Prepared: 10/01/24 Analyzed: 10/03/24

Benzene	2.12	0.0250	2.50	ND	84.6	48-131			
Ethylbenzene	2.26	0.0250	2.50	ND	90.5	45-135			
Toluene	2.30	0.0250	2.50	ND	92.2	48-130			
o-Xylene	2.39	0.0250	2.50	ND	95.8	43-135			
p,m-Xylene	4.76	0.0500	5.00	ND	95.3	43-135			
Total Xylenes	7.16	0.0250	7.50	ND	95.4	43-135			
Surrogate: Bromofluorobenzene	0.484		0.500		96.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.4	70-130			

#### Matrix Spike Dup (2440032-MSD1)

Source: E409296-04

Prepared: 10/01/24 Analyzed: 10/03/24

Benzene	2.09	0.0250	2.50	ND	83.5	48-131	1.28	23	
Ethylbenzene	2.26	0.0250	2.50	ND	90.2	45-135	0.332	27	
Toluene	2.29	0.0250	2.50	ND	91.7	48-130	0.544	24	
o-Xylene	2.45	0.0250	2.50	ND	97.9	43-135	2.17	27	
p,m-Xylene	4.87	0.0500	5.00	ND	97.4	43-135	2.19	27	
Total Xylenes	7.32	0.0250	7.50	ND	97.6	43-135	2.18	27	
Surrogate: Bromofluorobenzene	0.487		0.500		97.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2440032-BLK1)**

Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.3	70-130			

**LCS (2440032-BS2)**

Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	40.4	20.0	50.0		80.9	70-130			
Surrogate: Bromofluorobenzene	0.494		0.500		98.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		98.0	70-130			
Surrogate: Toluene-d8	0.503		0.500		101	70-130			

**Matrix Spike (2440032-MS2)**

Source: E409296-04

Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	46.3	20.0	50.0	ND	92.7	70-130			
Surrogate: Bromofluorobenzene	0.497		0.500		99.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.504		0.500		101	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			

**Matrix Spike Dup (2440032-MSD2)**

Source: E409296-04

Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	43.4	20.0	50.0	ND	86.8	70-130	6.56	20	
Surrogate: Bromofluorobenzene	0.480		0.500		96.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.515		0.500		103	70-130			
Surrogate: Toluene-d8	0.505		0.500		101	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2440043-BLK1)**

Prepared: 10/01/24 Analyzed: 10/03/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.8		50.0		112	50-200			

**LCS (2440043-BS1)**

Prepared: 10/01/24 Analyzed: 10/03/24

Diesel Range Organics (C10-C28)	277	25.0	250		111	38-132			
Surrogate: n-Nonane	57.6		50.0		115	50-200			

**Matrix Spike (2440043-MS1)**

Source: E409295-02

Prepared: 10/01/24 Analyzed: 10/04/24

Diesel Range Organics (C10-C28)	259	25.0	250	ND	104	38-132			
Surrogate: n-Nonane	56.2		50.0		112	50-200			

**Matrix Spike Dup (2440043-MSD1)**

Source: E409295-02

Prepared: 10/01/24 Analyzed: 10/04/24

Diesel Range Organics (C10-C28)	258	25.0	250	ND	103	38-132	0.302	20	
Surrogate: n-Nonane	57.5		50.0		115	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 1:08:28PM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2440050-BLK1)**

Prepared: 10/01/24 Analyzed: 10/01/24

Chloride ND 20.0

**LCS (2440050-BS1)**

Prepared: 10/01/24 Analyzed: 10/01/24

Chloride 257 20.0 250 103 90-110

**Matrix Spike (2440050-MS1)**

Source: E409296-06

Prepared: 10/01/24 Analyzed: 10/02/24

Chloride 297 20.0 250 38.4 103 80-120

**Matrix Spike Dup (2440050-MSD1)**

Source: E409296-06

Prepared: 10/01/24 Analyzed: 10/02/24

Chloride 297 20.0 250 38.4 104 80-120 0.129 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/07/24 13:08
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

<b>Client Information</b>		<b>Invoice Information</b>		<b>Lab Use Only</b>		<b>TAT</b>		<b>State</b>					
Client: Matador Production Company		Company: Ensolum LLC		Lab WO#	Job Number	1D	2D	3D	Std	NM	CO	UT	TX
Project: <u>Young Deep SWD</u>		Address: 3122 National Parks Hwy		E4092910 23003-0002					X	X			
Project Manager: Ashley Giovengo		City, State, Zip: Carlsbad NM, 88220		Phone: 575-988-0055									
Address: 3122 National Parks Hwy		Email: agiovengo@ensolum.com		Miscellaneous:									
City, State, Zip: Carlsbad NM, 88220													
Phone: 575-988-0055													
Email: agiovengo@ensolum.com													

Sample Information										Analysis and Method								EPA Program		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NIM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA		
0929	9/12/24	S	1	SS05A - 0'			1						X							
0835				PH01 - 0'			2						X							
0841				PH01 - 1'			3						X							
0845				PH01 - 2'			4						X							
0906				PH02 - 0'			5						X							
0912				PH02 - 2'			6						X							
0927				PH03 - 0'			7						X							
0929				PH03 - 1'			8						X							
0946				PH04 - 0'			9						X							
1005				PH04 - 3'			10						X							

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bdeal@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Chad Hamilton, Cole Burton

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.  Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N  T1 _____ T2 _____ T3 _____  AVG Temp °C <u>4</u>
	9.30.24	1445		9.30.24	1445	
	9.30.24	1610		9.30.24	1730	
	9.30.24	2400		10.1.24	8:00	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

42 Jo 22 age 2

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### Envirotech Analytical Laboratory

Printed: 10/1/2024 11:16:36AM

#### Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 10/01/24 08:00	Work Order ID: E409296
Phone: (972) 371-5200	Date Logged In: 09/30/24 16:28	Logged In By: Raina Schwanz
Email: agiovnngo@ensolum.com	Due Date: 10/07/24 17:00 (4 day TAT)	

#### Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

#### Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

#### Sample Cooler

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

#### Sample Container

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

#### Field Label

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

#### Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

#### Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

#### Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

#### Comments/Resolution

#### Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E410002

Job Number: 23003-0002

Received: 10/1/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
10/7/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 10/7/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E410002  
Date Received: 10/1/2024 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/1/2024 8:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/07/24 05:55
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH04-0'	E410002-01A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
BH04-2'	E410002-02A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
BH04-4'	E410002-03A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
BH04-7'	E410002-04A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
BH04-10.5'	E410002-05A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:55:59AM
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**BH04-0'**

**E410002-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		94.7 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		94.2 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	624	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	1250	100	2	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>						
		114 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2440048	
Chloride	525	20.0	1	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:55:59AM
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**BH04-2'**  
**E410002-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440028
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.3 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440028
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.6 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	151	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	282	100	2	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		118 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440048
Chloride	43.4	20.0	1	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:55:59AM
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**BH04-4'**  
**E410002-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440028
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		95.5 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440028
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		94.8 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	426	250	10	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	837	500	10	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>						
		115 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2440048
Chloride	195	20.0	1	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:55:59AM
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**BH04-7'**

**E410002-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440028
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		95.3 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440028
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.5 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	356	250	10	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	701	500	10	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		118 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440048
Chloride	150	20.0	1	10/01/24	10/02/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:55:59AM
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**BH04-10.5'**

**E410002-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440028
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.2 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2440028
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.8 %	70-130	10/01/24	10/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>		118 %	50-200	10/01/24	10/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2440048
Chloride	136	20.0	1	10/01/24	10/02/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:55:59AM
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#### Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2440028-BLK1)**

Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.87		8.00		98.4	70-130			

**LCS (2440028-BS1)**

Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	4.59	0.0250	5.00		91.7	70-130			
Ethylbenzene	4.37	0.0250	5.00		87.3	70-130			
Toluene	4.48	0.0250	5.00		89.6	70-130			
o-Xylene	4.36	0.0250	5.00		87.2	70-130			
p,m-Xylene	8.87	0.0500	10.0		88.7	70-130			
Total Xylenes	13.2	0.0250	15.0		88.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.98		8.00		99.7	70-130			

**Matrix Spike (2440028-MS1)**

Source: E409291-06

Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	5.12	0.0250	5.00	ND	102	54-133			
Ethylbenzene	4.91	0.0250	5.00	ND	98.2	61-133			
Toluene	5.01	0.0250	5.00	ND	100	61-130			
o-Xylene	4.90	0.0250	5.00	ND	98.0	63-131			
p,m-Xylene	9.94	0.0500	10.0	ND	99.4	63-131			
Total Xylenes	14.8	0.0250	15.0	ND	99.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.13		8.00		102	70-130			

**Matrix Spike Dup (2440028-MSD1)**

Source: E409291-06

Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	5.56	0.0250	5.00	ND	111	54-133	8.35	20	
Ethylbenzene	5.31	0.0250	5.00	ND	106	61-133	7.89	20	
Toluene	5.45	0.0250	5.00	ND	109	61-130	8.25	20	
o-Xylene	5.33	0.0250	5.00	ND	107	63-131	8.46	20	
p,m-Xylene	10.7	0.0500	10.0	ND	107	63-131	7.70	20	
Total Xylenes	16.1	0.0250	15.0	ND	107	63-131	7.95	20	
Surrogate: 4-Bromochlorobenzene-PID	8.18		8.00		102	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:55:59AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2440028-BLK1)**

Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		8.00		95.1	70-130			

**LCS (2440028-BS2)**

Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	44.0	20.0	50.0		87.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.78		8.00		97.3	70-130			

**Matrix Spike (2440028-MS2)**

Source: E409291-06

Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	41.1	20.0	50.0	ND	82.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.78		8.00		97.3	70-130			

**Matrix Spike Dup (2440028-MSD2)**

Source: E409291-06

Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	41.7	20.0	50.0	ND	83.4	70-130	1.45	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		8.00		96.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:55:59AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2440052-BLK1)**

Prepared: 10/01/24 Analyzed: 10/03/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	65.0		50.0		130	50-200			

**LCS (2440052-BS1)**

Prepared: 10/01/24 Analyzed: 10/04/24

Diesel Range Organics (C10-C28)	305	25.0	250		122	38-132			
Surrogate: <i>n</i> -Nonane	59.2		50.0		118	50-200			

**Matrix Spike (2440052-MS1)**

Source: E409281-01

Prepared: 10/01/24 Analyzed: 10/04/24

Diesel Range Organics (C10-C28)	333	25.0	250	33.7	120	38-132			
Surrogate: <i>n</i> -Nonane	60.2		50.0		120	50-200			

**Matrix Spike Dup (2440052-MSD1)**

Source: E409281-01

Prepared: 10/01/24 Analyzed: 10/04/24

Diesel Range Organics (C10-C28)	334	25.0	250	33.7	120	38-132	0.241	20	
Surrogate: <i>n</i> -Nonane	60.6		50.0		121	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/7/2024 5:55:59AM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2440048-BLK1)**

Prepared: 10/01/24 Analyzed: 10/01/24

Chloride	ND	20.0							
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**LCS (2440048-BS1)**

Prepared: 10/01/24 Analyzed: 10/01/24

Chloride	253	20.0	250		101	90-110			
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**Matrix Spike (2440048-MS1)**

Source: E409291-04

Prepared: 10/01/24 Analyzed: 10/01/24

Chloride	260	20.0	250	ND	104	80-120			
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**Matrix Spike Dup (2440048-MSD1)**

Source: E409291-04

Prepared: 10/01/24 Analyzed: 10/01/24

Chloride	259	20.0	250	ND	104	80-120	0.224	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 10/07/24 05:55
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: <u>Young Deep SWD</u>				Address: 3122 National Parks Hwy				<u>E410002</u>		<u>23003-0002</u>					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: <u>agiovengo@ensolum.com</u>															
Phone: 575-988-0055				Miscellaneous:															
Email: <u>agiovengo@ensolum.com</u>																			

Sample Information										Analysis and Method								EPA Program		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA			
0853	9/27/24	S	1	BH04-0'		1						X								
0858	9/27/24	S	1	BH04-2'		2						X								
1302	9/27/24	S	1	BH04-4'		3						X								
1309	9/27/24	S	1	BH04-7'		4						X								
1321	9/27/24	S	1	BH04-10.5'		5						X								
			8																	

Additional Instructions: Please CC: [cburton@ensolum.com](mailto:cburton@ensolum.com), [agiovengo@ensolum.com](mailto:agiovengo@ensolum.com), [chamilton@ensolum.com](mailto:chamilton@ensolum.com), [iestrella@ensolum.com](mailto:iestrella@ensolum.com), [bdeal@ensolum.com](mailto:bdeal@ensolum.com), [bsimmons@ensolum.com](mailto:bsimmons@ensolum.com)

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Chad Hamilton, Cole Burton

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
	9.30.24	1445		9.30.24	1445	
	9.30.24	1600		9.30.24	1730	
	9.30.24	2400		10.1.24	8:00	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

91 fo 51 e69d

Page 201 of 690



Envirotech Analytical Laboratory

Printed: 10/1/2024 11:21:42AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 10/01/24 08:00 Work Order ID: E410002
Phone: (972) 371-5200 Date Logged In: 10/01/24 09:22 Logged In By: Caitlin Mars
Email: agiovnngo@ensolum.com Due Date: 10/07/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? Yes

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for Client Instruction

Comments/Resolution

Large empty box for Comments/Resolution

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E410372

Job Number: 23003-0002

Received: 10/31/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/5/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/5/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E410372  
Date Received: 10/31/2024 6:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/31/2024 6:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/05/24 15:32
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS06-0'	E410372-01A	Soil	10/29/24	10/31/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/5/2024 3:32:22PM
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**SS06-0'**

**E410372-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: RKS		Batch: 2444114
Benzene	ND	0.0250	1	10/30/24	11/01/24	
Ethylbenzene	ND	0.0250	1	10/30/24	11/01/24	
Toluene	ND	0.0250	1	10/30/24	11/01/24	
o-Xylene	ND	0.0250	1	10/30/24	11/01/24	
p,m-Xylene	ND	0.0500	1	10/30/24	11/01/24	
Total Xylenes	ND	0.0250	1	10/30/24	11/01/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.8 %	70-130	10/30/24	11/01/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: RKS		Batch: 2444114
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/30/24	11/01/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		86.0 %	70-130	10/30/24	11/01/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2444145
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/01/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/01/24	
<i>Surrogate: n-Nonane</i>		98.0 %	50-200	11/01/24	11/01/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445022
Chloride	123	20.0	1	11/04/24	11/04/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/5/2024 3:32:22PM
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#### Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2444114-BLK1)**

Prepared: 10/30/24 Analyzed: 11/01/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.92		8.00		99.0	70-130			

**LCS (2444114-BS1)**

Prepared: 10/30/24 Analyzed: 11/01/24

Benzene	5.52	0.0250	5.00		110	70-130			
Ethylbenzene	5.40	0.0250	5.00		108	70-130			
Toluene	5.49	0.0250	5.00		110	70-130			
o-Xylene	5.40	0.0250	5.00		108	70-130			
p,m-Xylene	11.0	0.0500	10.0		110	70-130			
Total Xylenes	16.4	0.0250	15.0		109	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.85		8.00		98.1	70-130			

**LCS Dup (2444114-BSD1)**

Prepared: 10/30/24 Analyzed: 11/01/24

Benzene	5.40	0.0250	5.00		108	70-130	2.21	20	
Ethylbenzene	5.29	0.0250	5.00		106	70-130	1.91	20	
Toluene	5.37	0.0250	5.00		107	70-130	2.07	20	
o-Xylene	5.30	0.0250	5.00		106	70-130	1.81	20	
p,m-Xylene	10.8	0.0500	10.0		108	70-130	1.85	20	
Total Xylenes	16.1	0.0250	15.0		107	70-130	1.84	20	
Surrogate: 4-Bromochlorobenzene-PID	7.89		8.00		98.7	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/5/2024 3:32:22PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2444114-BLK1)**

Prepared: 10/30/24 Analyzed: 11/01/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.94		8.00		86.8	70-130			

**LCS (2444114-BS2)**

Prepared: 10/30/24 Analyzed: 11/01/24

Gasoline Range Organics (C6-C10)	46.2	20.0	50.0		92.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.06		8.00		88.3	70-130			

**LCS Dup (2444114-BSD2)**

Prepared: 10/30/24 Analyzed: 11/01/24

Gasoline Range Organics (C6-C10)	44.9	20.0	50.0		89.9	70-130	2.79	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.09		8.00		88.6	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/5/2024 3:32:22PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2444145-BLK1)**

Prepared: 11/01/24 Analyzed: 11/01/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.5		50.0		91.0	50-200			

**LCS (2444145-BS1)**

Prepared: 11/01/24 Analyzed: 11/01/24

Diesel Range Organics (C10-C28)	231	25.0	250		92.3	38-132			
Surrogate: n-Nonane	45.2		50.0		90.4	50-200			

**LCS Dup (2444145-BSD1)**

Prepared: 11/01/24 Analyzed: 11/01/24

Diesel Range Organics (C10-C28)	251	25.0	250		100	38-132	8.23	20	
Surrogate: n-Nonane	47.3		50.0		94.6	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/5/2024 3:32:22PM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445022-BLK1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Chloride	ND	20.0							
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**LCS (2445022-BS1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Chloride	255	20.0	250		102	90-110			
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**LCS Dup (2445022-BSD1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Chloride	256	20.0	250		103	90-110	0.671	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/05/24 15:32
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

21 of 11 pages

Client Information				Invoice Information				Lab Use Only				TAT				State				
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX	
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E410372		230030002					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220																
Address: 3122 National Parks Hwy				Phone: 575-988-0055																
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com																
Phone: 575-988-0055				Miscellaneous:																
Email: agiovengo@ensolum.com																				
Sample Information										Analysis and Method						EPA Program				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 900.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	Compliance	Y or N	
13:23	10/29/24	Soil	1	SS06-0		1						X								
Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, bdeal@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																				
Sampled by: Bowan Simmons																				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.												
<i>[Signature]</i>		10/30/24	1115	Michelle Gonzales		10/30/24	1115													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time													
<i>[Signature]</i>		10/30/24	1600	<i>[Signature]</i>		10/30/24	1630													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>												
<i>[Signature]</i>		10/30/24	2345	Caitie Man		10/31/24	6:30													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time													
<i>[Signature]</i>				<i>[Signature]</i>																
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other										Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA										
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																				

### Envirotech Analytical Laboratory

Printed: 10/31/2024 7:23:17AM

#### Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 10/31/24 06:30	Work Order ID: E410372
Phone: (972) 371-5200	Date Logged In: 10/30/24 13:13	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 11/06/24 17:00 (4 day TAT)	

#### Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

#### Comments/Resolution

#### Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

#### Sample Cooler

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

#### Sample Container

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

#### Field Label

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

#### Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

#### Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

#### Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

#### Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E410392

Job Number: 23003-0002

Received: 11/1/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/7/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/7/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E410392  
Date Received: 11/1/2024 7:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2024 7:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Chain of Custody etc.

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/07/24 14:57
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS03 - 2'	E410392-01A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
FS04 - 2'	E410392-02A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
FS05 - 2'	E410392-03A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
FS06 - 2'	E410392-04A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
FS08 - 5'	E410392-05A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
FS09 - 5'	E410392-06A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
FS10 - 5'	E410392-07A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
FS11 - 5'	E410392-08A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
FS12 - 5'	E410392-09A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
FS13 - 5'	E410392-10A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
SW02 - 0-2'	E410392-11A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
SW03 - 0-5'	E410392-12A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
SW04 - 0-5'	E410392-13A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.
SW05 - 0-5'	E410392-14A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.

### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**FS03 - 2'**  
**E410392-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		91.2 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		92.7 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/04/24	
<i>Surrogate: n-Nonane</i>						
		97.8 %	50-200	11/01/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	568	20.0	1	11/04/24	11/04/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**FS04 - 2'**  
**E410392-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		90.1 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		92.3 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/04/24	
<i>Surrogate: n-Nonane</i>						
		95.9 %	50-200	11/01/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2445023
Chloride	350	20.0	1	11/04/24	11/04/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**FS05 - 2'**  
**E410392-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.7 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.4 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/04/24	
<i>Surrogate: n-Nonane</i>		95.7 %	50-200	11/01/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445023
Chloride	295	20.0	1	11/04/24	11/04/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**FS06 - 2'**  
**E410392-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.5 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.2 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/04/24	
<i>Surrogate: n-Nonane</i>		93.8 %	50-200	11/01/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	43.1	20.0	1	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**FS08 - 5'**

**E410392-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.7 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.5 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/04/24	
<i>Surrogate: n-Nonane</i>		96.5 %	50-200	11/01/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	623	20.0	1	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**FS09 - 5'**

**E410392-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		91.7 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.8 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/04/24	
<i>Surrogate: n-Nonane</i>		101 %	50-200	11/01/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	1870	20.0	1	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**FS10 - 5'**

**E410392-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		91.0 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.3 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/04/24	
<i>Surrogate: n-Nonane</i>		112 %	50-200	11/01/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	2130	40.0	2	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**FS11 - 5'**  
**E410392-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.4 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.8 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	59.4	25.0	1	11/01/24	11/05/24	
Oil Range Organics (C28-C36)	75.0	50.0	1	11/01/24	11/05/24	
<i>Surrogate: n-Nonane</i>		103 %	50-200	11/01/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445023
Chloride	1770	40.0	2	11/04/24	11/05/24	



### Sample Data

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**FS12 - 5'**  
**E410392-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		90.0 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		92.8 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/05/24	
<i>Surrogate: n-Nonane</i>						
		99.3 %	50-200	11/01/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	582	20.0	1	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**FS13 - 5'**  
**E410392-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.1 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.6 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/05/24	
<i>Surrogate: n-Nonane</i>		98.3 %	50-200	11/01/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	364	20.0	1	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**SW02 - 0-2'**

**E410392-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		90.5 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		93.9 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/05/24	
<i>Surrogate: n-Nonane</i>						
		96.1 %	50-200	11/01/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	141	20.0	1	11/04/24	11/05/24	



### Sample Data

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**SW03 - 0-5'**

**E410392-12**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		88.9 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.7 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/05/24	
<i>Surrogate: n-Nonane</i>		95.8 %	50-200	11/01/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	106	20.0	1	11/04/24	11/05/24	



### Sample Data

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**SW04 - 0-5'**

**E410392-13**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		89.0 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.4 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/05/24	
<i>Surrogate: n-Nonane</i>		99.6 %	50-200	11/01/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	344	20.0	1	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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**SW05 - 0-5'**

**E410392-14**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		89.8 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.5 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444147
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/05/24	
<i>Surrogate: n-Nonane</i>		101 %	50-200	11/01/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	ND	20.0	1	11/04/24	11/05/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2444150-BLK1)**

Prepared: 11/01/24 Analyzed: 11/05/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.29		8.00		91.1	70-130			

**LCS (2444150-BS1)**

Prepared: 11/01/24 Analyzed: 11/05/24

Benzene	4.80	0.0250	5.00		96.0	70-130			
Ethylbenzene	4.78	0.0250	5.00		95.7	70-130			
Toluene	4.84	0.0250	5.00		96.8	70-130			
o-Xylene	4.79	0.0250	5.00		95.8	70-130			
p,m-Xylene	9.74	0.0500	10.0		97.4	70-130			
Total Xylenes	14.5	0.0250	15.0		96.8	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.29		8.00		91.2	70-130			

**LCS Dup (2444150-BSD1)**

Prepared: 11/01/24 Analyzed: 11/05/24

Benzene	4.72	0.0250	5.00		94.3	70-130	1.72	20	
Ethylbenzene	4.70	0.0250	5.00		94.0	70-130	1.78	20	
Toluene	4.76	0.0250	5.00		95.2	70-130	1.69	20	
o-Xylene	4.72	0.0250	5.00		94.4	70-130	1.49	20	
p,m-Xylene	9.56	0.0500	10.0		95.6	70-130	1.80	20	
Total Xylenes	14.3	0.0250	15.0		95.2	70-130	1.70	20	
Surrogate: 4-Bromochlorobenzene-PID	7.26		8.00		90.8	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2444150-BLK1)**

Prepared: 11/01/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.49		8.00		93.7	70-130			

**LCS (2444150-BS2)**

Prepared: 11/01/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	40.4	20.0	50.0		80.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.36		8.00		92.0	70-130			

**LCS Dup (2444150-BSD2)**

Prepared: 11/01/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	40.9	20.0	50.0		81.7	70-130	1.11	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.46		8.00		93.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2444147-BLK1)**

Prepared: 11/01/24 Analyzed: 11/04/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	51.6		50.0		103	50-200			

**LCS (2444147-BS1)**

Prepared: 11/01/24 Analyzed: 11/04/24

Diesel Range Organics (C10-C28)	265	25.0	250		106	38-132			
Surrogate: n-Nonane	50.5		50.0		101	50-200			

**LCS Dup (2444147-BSD1)**

Prepared: 11/01/24 Analyzed: 11/04/24

Diesel Range Organics (C10-C28)	264	25.0	250		106	38-132	0.262	20	
Surrogate: n-Nonane	53.5		50.0		107	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 2:57:37PM
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#### Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445023-BLK1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Chloride	ND	20.0							
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**LCS (2445023-BS1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Chloride	259	20.0	250		104	90-110			
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**LCS Dup (2445023-BSD1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Chloride	255	20.0	250		102	90-110	1.53	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/07/24 14:57
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E410392		23003-0002					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			
Sample Information										Analysis and Method				EPA Program					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 900.0	BGDOC - NM	TCEQ.1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	
10:12	10/30/2024	S	1	FS03 - 2'			1						X						
10:13	10/30/2024	S	1	FS04 - 2'			2						X						
10:14	10/30/2024	S	1	FS05 - 2'			3						X						
10:13	10/30/2024	S	1	FS06 - 2'			4						X						
10:20	10/30/2024	S	1	FS08 - 5'			5						X						
10:23	10/30/2024	S	1	FS09 - 5'			6						X						
13:56	10/30/2024	S	1	FS10 - 5'			7						X						
13:56	10/30/2024	S	1	FS11 - 5'			8						X						
13:57	10/30/2024	S	1	FS12 - 5'			9						X						
13:59	10/30/2024	S	1	FS13 - 5'			10						X						
Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																			
Sampled by: Bowan Simmons																			
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>							
<i>[Signature]</i>				10/31/24	1107	<i>Michelle Gonzales</i>				10-31-24	1107								
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time								
<i>Michelle Gonzales</i>				10-31-24	1615	<i>[Signature]</i>				10-31-24	1700								
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time								
<i>[Signature]</i>				10-31-24	2400	<i>Cathy Ma</i>				11-1-24	7:00								
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time								
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____										Container type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____									
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			



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Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State				
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX	
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E410392		23003-0002					X	X				
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220																
Address: 3122 National Parks Hwy				Phone: 575-988-0055																
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com																
Phone: 575-988-0055				Miscellaneous:																
Email: agiovengo@ensolum.com																				
Sample Information										Analysis and Method						EPA Program				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ.1008 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	Compliance	PWSID #	
10:20	10/30/2024	S	1	SW02 - 0-2'		11						X						Y	or	N
14:03	10/30/2024	S	1	SW03 - 0-5'		12						X								
14:04	10/30/2024	S	1	SW04 - 0-5'		13						X								
14:06	10/30/2024	S	1	SW05 - 0-5'		14						X								
Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																				
Sampled by: Bowan Simmons																				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>												
<i>BS</i>		10/31/24	1107	<i>Michelle Gonzales</i>		10-31-24	1107													
<i>Michelle Gonzales</i>		10-31-24	1615	<i>[Signature]</i>		10-31-24	1700													
<i>[Signature]</i>		10-31-24	2400	<i>Carth Mar</i>		11-1-24	7:00													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time													
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____										Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____										
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																				



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Envirotech Analytical Laboratory

Printed: 11/1/2024 9:21:09AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/01/24 07:00 Work Order ID: E410392
Phone: (972) 371-5200 Date Logged In: 10/31/24 15:55 Logged In By: Noe Soto
Email: agiovengo@ensolum.com Due Date: 11/07/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for Client Instruction

Comments/Resolution

Large empty box for Comments/Resolution

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411001

Job Number: 23003-0002

Received: 11/1/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/6/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/6/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411001  
Date Received: 11/1/2024 7:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2024 7:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**

**Lynn Jarboe**  
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Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**Michelle Gonzales**  
Client Representative  
Office: 505-421-LABS(5227)  
Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/06/24 14:14
---	--	------------------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS07-0'	E411001-01A	Soil	10/30/24	11/01/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 2:14:06PM
---	--	---

**SS07-0'**

**E411001-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Benzene	ND	0.0250	1	11/01/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/01/24	11/05/24	
Toluene	ND	0.0250	1	11/01/24	11/05/24	
o-Xylene	ND	0.0250	1	11/01/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/01/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/01/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		89.6 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2444150
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		93.8 %	70-130	11/01/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2444148
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/02/24	
<i>Surrogate: n-Nonane</i>						
		109 %	50-200	11/01/24	11/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445023
Chloride	37.2	20.0	1	11/04/24	11/05/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 2:14:06PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2444150-BLK1)**

Prepared: 11/01/24 Analyzed: 11/05/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.29		8.00		91.1	70-130			

**LCS (2444150-BS1)**

Prepared: 11/01/24 Analyzed: 11/05/24

Benzene	4.80	0.0250	5.00		96.0	70-130			
Ethylbenzene	4.78	0.0250	5.00		95.7	70-130			
Toluene	4.84	0.0250	5.00		96.8	70-130			
o-Xylene	4.79	0.0250	5.00		95.8	70-130			
p,m-Xylene	9.74	0.0500	10.0		97.4	70-130			
Total Xylenes	14.5	0.0250	15.0		96.8	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.29		8.00		91.2	70-130			

**LCS Dup (2444150-BSD1)**

Prepared: 11/01/24 Analyzed: 11/05/24

Benzene	4.72	0.0250	5.00		94.3	70-130	1.72	20	
Ethylbenzene	4.70	0.0250	5.00		94.0	70-130	1.78	20	
Toluene	4.76	0.0250	5.00		95.2	70-130	1.69	20	
o-Xylene	4.72	0.0250	5.00		94.4	70-130	1.49	20	
p,m-Xylene	9.56	0.0500	10.0		95.6	70-130	1.80	20	
Total Xylenes	14.3	0.0250	15.0		95.2	70-130	1.70	20	
Surrogate: 4-Bromochlorobenzene-PID	7.26		8.00		90.8	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 2:14:06PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2444150-BLK1)**

Prepared: 11/01/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.49		8.00		93.7	70-130			

**LCS (2444150-BS2)**

Prepared: 11/01/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	40.4	20.0	50.0		80.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.36		8.00		92.0	70-130			

**LCS Dup (2444150-BSD2)**

Prepared: 11/01/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	40.9	20.0	50.0		81.7	70-130	1.11	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.46		8.00		93.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 2:14:06PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2444148-BLK1)**

Prepared: 11/01/24 Analyzed: 11/02/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	56.1		50.0		112	50-200			

**LCS (2444148-BS1)**

Prepared: 11/01/24 Analyzed: 11/02/24

Diesel Range Organics (C10-C28)	253	25.0	250		101	38-132			
Surrogate: <i>n</i> -Nonane	50.3		50.0		101	50-200			

**LCS Dup (2444148-BSD1)**

Prepared: 11/01/24 Analyzed: 11/02/24

Diesel Range Organics (C10-C28)	262	25.0	250		105	38-132	3.72	20	
Surrogate: <i>n</i> -Nonane	53.2		50.0		106	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 2:14:06PM
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#### Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445023-BLK1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Chloride ND 20.0

**LCS (2445023-BS1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Chloride 259 20.0 250 104 90-110

**LCS Dup (2445023-BSD1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Chloride 255 20.0 250 102 90-110 1.53 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/06/24 14:14
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





### Envirotech Analytical Laboratory

Printed: 11/1/2024 8:34:05AM

#### Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 11/01/24 07:00	Work Order ID: E411001
Phone: (972) 371-5200	Date Logged In: 11/01/24 08:22	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 11/07/24 17:00 (4 day TAT)	

#### Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

#### Comments/Resolution

#### Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

#### Sample Cooler

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

#### Sample Container

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

#### Field Label

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

#### Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

#### Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

#### Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

#### Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411014

Job Number: 23003-0002

Received: 11/4/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/8/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/8/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E411014  
Date Received: 11/4/2024 7:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/4/2024 7:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
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[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/08/24 13:19
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS01-4'	E411014-01A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.
FS02-4'	E411014-02A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.
FS07-4'	E411014-03A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.
FS30-4'	E411014-04A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.
SW07- 0-5'	E411014-05A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 1:19:36PM
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**FS01-4'**

**E411014-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445007
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
<i>Surrogate: Bromofluorobenzene</i>		114 %	70-130	11/04/24	11/05/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.0 %	70-130	11/04/24	11/05/24	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	11/04/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445007
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
<i>Surrogate: Bromofluorobenzene</i>		114 %	70-130	11/04/24	11/05/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.0 %	70-130	11/04/24	11/05/24	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	11/04/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2445005
Diesel Range Organics (C10-C28)	ND	25.0	1	11/04/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/04/24	11/04/24	
<i>Surrogate: n-Nonane</i>		105 %	50-200	11/04/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: DT		Batch: 2445025
Chloride	1200	20.0	1	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 1:19:36PM
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**FS02-4'**

**E411014-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445007
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
<i>Surrogate: Bromofluorobenzene</i>		114 %	70-130	11/04/24	11/05/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.6 %	70-130	11/04/24	11/05/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/04/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445007
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
<i>Surrogate: Bromofluorobenzene</i>		114 %	70-130	11/04/24	11/05/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.6 %	70-130	11/04/24	11/05/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/04/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2445005
Diesel Range Organics (C10-C28)	ND	25.0	1	11/04/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/04/24	11/04/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	11/04/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: DT		Batch: 2445025
Chloride	107	20.0	1	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 1:19:36PM
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**FS07-4'**

**E411014-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445007
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
<i>Surrogate: Bromofluorobenzene</i>		113 %	70-130	11/04/24	11/05/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91.3 %	70-130	11/04/24	11/05/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/04/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445007
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
<i>Surrogate: Bromofluorobenzene</i>		113 %	70-130	11/04/24	11/05/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91.3 %	70-130	11/04/24	11/05/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/04/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2445005
Diesel Range Organics (C10-C28)	ND	25.0	1	11/04/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/04/24	11/04/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	11/04/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: DT		Batch: 2445025
Chloride	103	20.0	1	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 1:19:36PM
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**FS30-4'**

**E411014-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445007
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
<i>Surrogate: Bromofluorobenzene</i>		112 %	70-130	11/04/24	11/05/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.3 %	70-130	11/04/24	11/05/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/04/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445007
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
<i>Surrogate: Bromofluorobenzene</i>		112 %	70-130	11/04/24	11/05/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.3 %	70-130	11/04/24	11/05/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/04/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2445005
Diesel Range Organics (C10-C28)	<b>40.4</b>	25.0	1	11/04/24	11/05/24	
Oil Range Organics (C28-C36)	<b>83.8</b>	50.0	1	11/04/24	11/05/24	
<i>Surrogate: n-Nonane</i>		107 %	50-200	11/04/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2445025
Chloride	ND	20.0	1	11/04/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 1:19:36PM
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**SW07- 0-5'**

**E411014-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445007
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
<i>Surrogate: Bromofluorobenzene</i>		111 %	70-130	11/04/24	11/05/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.2 %	70-130	11/04/24	11/05/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/04/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445007
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
<i>Surrogate: Bromofluorobenzene</i>		111 %	70-130	11/04/24	11/05/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.2 %	70-130	11/04/24	11/05/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/04/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2445005
Diesel Range Organics (C10-C28)	ND	25.0	1	11/04/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/04/24	11/05/24	
<i>Surrogate: n-Nonane</i>		103 %	50-200	11/04/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2445025
Chloride	ND	20.0	1	11/04/24	11/05/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 1:19:36PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445007-BLK1)**

Prepared: 11/04/24 Analyzed: 11/05/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.574		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.470		0.500		94.0	70-130			
Surrogate: Toluene-d8	0.536		0.500		107	70-130			

**LCS (2445007-BS1)**

Prepared: 11/04/24 Analyzed: 11/05/24

Benzene	2.59	0.0250	2.50		104	70-130			
Ethylbenzene	2.60	0.0250	2.50		104	70-130			
Toluene	2.62	0.0250	2.50		105	70-130			
o-Xylene	2.67	0.0250	2.50		107	70-130			
p,m-Xylene	5.34	0.0500	5.00		107	70-130			
Total Xylenes	8.01	0.0250	7.50		107	70-130			
Surrogate: Bromofluorobenzene	0.586		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.489		0.500		97.7	70-130			
Surrogate: Toluene-d8	0.541		0.500		108	70-130			

**LCS Dup (2445007-BSD1)**

Prepared: 11/04/24 Analyzed: 11/05/24

Benzene	2.49	0.0250	2.50		99.6	70-130	3.99	23	
Ethylbenzene	2.52	0.0250	2.50		101	70-130	2.95	27	
Toluene	2.55	0.0250	2.50		102	70-130	2.98	24	
o-Xylene	2.55	0.0250	2.50		102	70-130	4.96	27	
p,m-Xylene	5.09	0.0500	5.00		102	70-130	4.77	27	
Total Xylenes	7.63	0.0250	7.50		102	70-130	4.83	27	
Surrogate: Bromofluorobenzene	0.567		0.500		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.471		0.500		94.2	70-130			
Surrogate: Toluene-d8	0.546		0.500		109	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 1:19:36PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445007-BLK1)**

Prepared: 11/04/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.574		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.470		0.500		94.0	70-130			
Surrogate: Toluene-d8	0.536		0.500		107	70-130			

**LCS (2445007-BS2)**

Prepared: 11/04/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	41.9	20.0	50.0		83.8	70-130			
Surrogate: Bromofluorobenzene	0.579		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.463		0.500		92.6	70-130			
Surrogate: Toluene-d8	0.553		0.500		111	70-130			

**LCS Dup (2445007-BSD2)**

Prepared: 11/04/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	42.5	20.0	50.0		84.9	70-130	1.36	20	
Surrogate: Bromofluorobenzene	0.560		0.500		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.4	70-130			
Surrogate: Toluene-d8	0.546		0.500		109	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 1:19:36PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445005-BLK1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	51.9		50.0		104	50-200			

**LCS (2445005-BS1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Diesel Range Organics (C10-C28)	269	25.0	250		107	38-132			
Surrogate: <i>n</i> -Nonane	54.3		50.0		109	50-200			

**LCS Dup (2445005-BSD1)**

Prepared: 11/04/24 Analyzed: 11/04/24

Diesel Range Organics (C10-C28)	265	25.0	250		106	38-132	1.54	20	
Surrogate: <i>n</i> -Nonane	54.0		50.0		108	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 1:19:36PM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445025-BLK1)**

Prepared: 11/04/24 Analyzed: 11/05/24

Chloride	ND	20.0							
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**LCS (2445025-BS1)**

Prepared: 11/04/24 Analyzed: 11/05/24

Chloride	250	20.0	250		99.9	90-110			
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**LCS Dup (2445025-BSD1)**

Prepared: 11/04/24 Analyzed: 11/05/24

Chloride	251	20.0	250		100	90-110	0.369	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/08/24 13:19
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Received by OCD: 3/20/2025 7:10:34 AM

<b>Client Information</b>				<b>Invoice Information</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>State</b>			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411014		23003-0002					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ.1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA				
12:54	10/31/2024	S	1	FS01 - 4'		1						X									
12:54	10/31/2024	S	1	FS02 - 4'		2						X									
10:24	10/31/2024	S	1	FS07 - 4'		3						X									
11:41	10/31/2024	S	1	FS30 - 4'		4						X									
12:47	10/31/2024	S	1	SW07 - 0-5'		5						X									

Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Bowan Simmons

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="radio"/> / N T1 _____ T2 _____ T3 _____ AVG Temp °C 4
<i>[Signature]</i>	11/1/24	11:45	Michelle Gonzales	11-1-24	1145	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<i>[Signature]</i>	11-1-24	1725	<i>[Signature]</i>	11.1.24	1730	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<i>[Signature]</i>	11.1.24	2406	Noe Soto	11-4-24	0730	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Released to Imaging: 3/21/2025 4:52:05 PM

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Envirotech Analytical Laboratory

Printed: 11/4/2024 8:11:09AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/04/24 07:30 Work Order ID: E411014
Phone: (972) 371-5200 Date Logged In: 11/04/24 08:06 Logged In By: Noe Soto
Email: agiovengo@ensolum.com Due Date: 11/12/24 17:00 (6 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for client instruction.

Comments/Resolution

Large empty box for comments/resolution.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411030

Job Number: 23003-0002

Received: 11/5/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/6/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/6/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411030  
Date Received: 11/5/2024 7:45:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/5/2024 7:45:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**

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**Michelle Gonzales**  
Client Representative  
Office: 505-421-LABS(5227)  
Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/06/24 15:34
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS23-2'	E411030-01A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
FS27-5'	E411030-02A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
FS28-5'	E411030-03A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
SW01- 0-4'	E411030-04A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 3:34:34PM
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**FS23-2'**

**E411030-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445031
Benzene	ND	0.0250	1	11/05/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/05/24	
Toluene	ND	0.0250	1	11/05/24	11/05/24	
o-Xylene	ND	0.0250	1	11/05/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.9 %	70-130	11/05/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445031
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.4 %	70-130	11/05/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445037
Diesel Range Organics (C10-C28)	305	50.0	2	11/05/24	11/05/24	
Oil Range Organics (C28-C36)	285	100	2	11/05/24	11/05/24	
<i>Surrogate: n-Nonane</i>		97.0 %	50-200	11/05/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445042
Chloride	1430	20.0	1	11/05/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 3:34:34PM
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**FS27-5'**

**E411030-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445031
Benzene	ND	0.0250	1	11/05/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/05/24	
Toluene	ND	0.0250	1	11/05/24	11/05/24	
o-Xylene	ND	0.0250	1	11/05/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.7 %	70-130	11/05/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445031
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		86.3 %	70-130	11/05/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445037
Diesel Range Organics (C10-C28)	223	125	5	11/05/24	11/05/24	
Oil Range Organics (C28-C36)	579	250	5	11/05/24	11/05/24	
<i>Surrogate: n-Nonane</i>		95.0 %	50-200	11/05/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445042
Chloride	119	20.0	1	11/05/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 3:34:34PM
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**FS28-5'**

**E411030-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2445031
Benzene	ND	0.0250	1	11/05/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/05/24	
Toluene	ND	0.0250	1	11/05/24	11/05/24	
o-Xylene	ND	0.0250	1	11/05/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		95.0 %	70-130	11/05/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2445031
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		86.2 %	70-130	11/05/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2445037
Diesel Range Organics (C10-C28)	<b>284</b>	125	5	11/05/24	11/05/24	
Oil Range Organics (C28-C36)	<b>706</b>	250	5	11/05/24	11/05/24	
<i>Surrogate: n-Nonane</i>						
		93.3 %	50-200	11/05/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2445042
Chloride	<b>165</b>	20.0	1	11/05/24	11/05/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 3:34:34PM
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**SW01- 0-4'**

**E411030-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445031
Benzene	ND	0.0250	1	11/05/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/05/24	
Toluene	ND	0.0250	1	11/05/24	11/05/24	
o-Xylene	ND	0.0250	1	11/05/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/05/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.2 %	70-130	11/05/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445031
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/05/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.4 %	70-130	11/05/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445037
Diesel Range Organics (C10-C28)	ND	25.0	1	11/05/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/05/24	11/05/24	
<i>Surrogate: n-Nonane</i>		93.2 %	50-200	11/05/24	11/05/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445042
Chloride	97.3	20.0	1	11/05/24	11/05/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 3:34:34PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445031-BLK1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.30		8.00		91.3	70-130			

**LCS (2445031-BS1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Benzene	4.78	0.0250	5.00		95.5	70-130			
Ethylbenzene	4.86	0.0250	5.00		97.3	70-130			
Toluene	4.89	0.0250	5.00		97.7	70-130			
o-Xylene	4.86	0.0250	5.00		97.2	70-130			
p,m-Xylene	9.89	0.0500	10.0		98.9	70-130			
Total Xylenes	14.7	0.0250	15.0		98.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.18		8.00		89.8	70-130			

**LCS Dup (2445031-BSD1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Benzene	4.76	0.0250	5.00		95.1	70-130	0.429	20	
Ethylbenzene	4.85	0.0250	5.00		97.0	70-130	0.238	20	
Toluene	4.87	0.0250	5.00		97.4	70-130	0.360	20	
o-Xylene	4.86	0.0250	5.00		97.2	70-130	0.0278	20	
p,m-Xylene	9.87	0.0500	10.0		98.7	70-130	0.231	20	
Total Xylenes	14.7	0.0250	15.0		98.2	70-130	0.164	20	
Surrogate: 4-Bromochlorobenzene-PID	7.23		8.00		90.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 3:34:34PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445031-BLK1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		8.00		94.1	70-130			

**LCS (2445031-BS2)**

Prepared: 11/05/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	42.6	20.0	50.0		85.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		8.00		95.2	70-130			

**LCS Dup (2445031-BSD2)**

Prepared: 11/05/24 Analyzed: 11/05/24

Gasoline Range Organics (C6-C10)	41.4	20.0	50.0		82.7	70-130	2.98	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		8.00		94.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 3:34:34PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445037-BLK1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	49.7		50.0		99.5	50-200			

**LCS (2445037-BS1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Diesel Range Organics (C10-C28)	268	25.0	250		107	38-132			
Surrogate: <i>n</i> -Nonane	51.2		50.0		102	50-200			

**Matrix Spike (2445037-MS1)**

Source: E411029-02

Prepared: 11/05/24 Analyzed: 11/05/24

Diesel Range Organics (C10-C28)	282	25.0	250	ND	113	38-132			
Surrogate: <i>n</i> -Nonane	49.8		50.0		99.5	50-200			

**Matrix Spike Dup (2445037-MSD1)**

Source: E411029-02

Prepared: 11/05/24 Analyzed: 11/05/24

Diesel Range Organics (C10-C28)	289	25.0	250	ND	115	38-132	2.49	20	
Surrogate: <i>n</i> -Nonane	51.9		50.0		104	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/6/2024 3:34:34PM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445042-BLK1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Chloride	ND	20.0							
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**LCS (2445042-BS1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Chloride	256	20.0	250		102	90-110			
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**LCS Dup (2445042-BSD1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Chloride	255	20.0	250		102	90-110	0.383	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/06/24 15:34
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411030		23003-0002		X				X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA				
12:24	11/1/2024	S	1	FS23 - 2'		1						X						If TPH > 2500 or GRO+DRO > 1000 do not run other tests			
12:11	11/1/2024	S	1	FS27 - 5'		2						X						If TPH > 2500 or GRO+DRO > 1000 do not run other tests			
12:13	11/1/2024	S	1	FS28 - 5'		3						X						If TPH > 2500 or GRO+DRO > 1000 do not run other tests			
12:02	11/1/2024	S	1	SW01 - 0-4'		4						X						If TPH > 100 do not run other tests			

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, bdeal@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com **RUSH TPH ONLY**

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Cole Burton

Relinquished by: (Signature) <i>[Signature]</i>	Date 11/4/24	Time 10:50	Received by: (Signature) <i>Michelle Gonzales</i>	Date 11-4-24	Time 1050	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.  Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N  T1 _____ T2 _____ T3 _____  AVG Temp °C <u>4</u>
Relinquished by: (Signature) <i>Michelle Gonzales</i>	Date 11-4-24	Time 1545	Received by: (Signature) <i>[Signature]</i>	Date 11-4-24	Time 1730	
Relinquished by: (Signature) <i>[Signature]</i>	Date 11-4-24	Time 2345	Received by: (Signature) <i>Cathy Man</i>	Date 11-5-24	Time 7:45	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

51 fo 41 epgd

Page 283 of 690

Released to Imaging: 3/21/2025 4:52:05 PM



### Envirotech Analytical Laboratory

Printed: 11/5/2024 8:29:08AM

#### Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 11/05/24 07:45	Work Order ID: E411030
Phone: (972) 371-5200	Date Logged In: 11/04/24 14:51	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 11/05/24 17:00 (0 day TAT)	

#### Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

#### Comments/Resolution

#### Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

#### Sample Cooler

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

#### Sample Container

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

#### Field Label

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

#### Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

#### Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

#### Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

#### Client Instruction

Client Comments: Samples 1-3 state if TPH or GRO+DRO>1000 do not run other tests. Sample 4 states if TPH.100 do not run other tests.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411032

Job Number: 23003-0002

Received: 11/5/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/8/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/8/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411032  
Date Received: 11/5/2024 7:45:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/5/2024 7:45:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**

**Lynn Jarboe**  
Laboratory Technical Representative  
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Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**Michelle Gonzales**  
Client Representative  
Office: 505-421-LABS(5227)  
Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Chain of Custody etc.	19

### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/08/24 17:04
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS22 - 2'	E411032-01A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
FS24 - 2'	E411032-02A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
FS26 - 5'	E411032-03A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
FS30 - 5'	E411032-04A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
FS32 - 5'	E411032-05A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
FS25 - 0'	E411032-06A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
FS38 - 0'	E411032-07A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
FS39 - 0'	E411032-08A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.
SW09 - 0-5'	E411032-09A	Soil	11/01/24	11/05/24	Glass Jar, 2 oz.

### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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**FS22 - 2'**

**E411032-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Benzene	ND	0.0250	1	11/05/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/07/24	
Toluene	ND	0.0250	1	11/05/24	11/07/24	
o-Xylene	ND	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.1 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445047
Diesel Range Organics (C10-C28)	ND	25.0	1	11/05/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/05/24	11/06/24	
<i>Surrogate: n-Nonane</i>		79.5 %	50-200	11/05/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445050
Chloride	220	40.0	2	11/05/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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**FS24 - 2'**

**E411032-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Benzene	ND	0.0250	1	11/05/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/07/24	
Toluene	ND	0.0250	1	11/05/24	11/07/24	
o-Xylene	ND	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		98.9 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		88.8 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2445047
Diesel Range Organics (C10-C28)	ND	25.0	1	11/05/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/05/24	11/06/24	
<i>Surrogate: n-Nonane</i>						
		83.5 %	50-200	11/05/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2445050
Chloride	219	20.0	1	11/05/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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**FS26 - 5'**

**E411032-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Benzene	ND	0.0250	1	11/05/24	11/07/24	
Ethylbenzene	<b>0.0602</b>	0.0250	1	11/05/24	11/07/24	
Toluene	ND	0.0250	1	11/05/24	11/07/24	
o-Xylene	<b>0.159</b>	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	<b>0.250</b>	0.0500	1	11/05/24	11/07/24	
Total Xylenes	<b>0.408</b>	0.0250	1	11/05/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		120 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.5 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445047
Diesel Range Organics (C10-C28)	<b>8090</b>	125	5	11/05/24	11/06/24	
Oil Range Organics (C28-C36)	<b>3990</b>	250	5	11/05/24	11/06/24	
<i>Surrogate: n-Nonane</i>		86.4 %	50-200	11/05/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445050
Chloride	<b>4940</b>	40.0	2	11/05/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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**FS30 - 5'**

**E411032-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Benzene	ND	0.0250	1	11/05/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/07/24	
Toluene	ND	0.0250	1	11/05/24	11/07/24	
o-Xylene	<b>0.0491</b>	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/07/24	
Total Xylenes	<b>0.0491</b>	0.0250	1	11/05/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.8 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445047
Diesel Range Organics (C10-C28)	<b>145</b>	125	5	11/05/24	11/06/24	
Oil Range Organics (C28-C36)	<b>370</b>	250	5	11/05/24	11/06/24	
<i>Surrogate: n-Nonane</i>		88.4 %	50-200	11/05/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445050
Chloride	<b>45.1</b>	20.0	1	11/05/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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**FS32 - 5'**

**E411032-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Benzene	ND	0.0250	1	11/05/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/07/24	
Toluene	ND	0.0250	1	11/05/24	11/07/24	
o-Xylene	ND	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.7 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445047
Diesel Range Organics (C10-C28)	ND	25.0	1	11/05/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/05/24	11/06/24	
<i>Surrogate: n-Nonane</i>		83.7 %	50-200	11/05/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445050
Chloride	ND	20.0	1	11/05/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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**FS25 - 0'**

**E411032-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Benzene	ND	0.0250	1	11/05/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/07/24	
Toluene	ND	0.0250	1	11/05/24	11/07/24	
o-Xylene	ND	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.6 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445047
Diesel Range Organics (C10-C28)	ND	25.0	1	11/05/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/05/24	11/06/24	
<i>Surrogate: n-Nonane</i>		87.5 %	50-200	11/05/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445050
Chloride	33.5	20.0	1	11/05/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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**FS38 - 0'**

**E411032-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Benzene	ND	0.0250	1	11/05/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/07/24	
Toluene	ND	0.0250	1	11/05/24	11/07/24	
o-Xylene	ND	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.1 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445047
Diesel Range Organics (C10-C28)	2410	50.0	2	11/05/24	11/08/24	
Oil Range Organics (C28-C36)	1700	100	2	11/05/24	11/08/24	
<i>Surrogate: n-Nonane</i>		91.5 %	50-200	11/05/24	11/08/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445050
Chloride	4840	40.0	2	11/05/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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**FS39 - 0'**

**E411032-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Benzene	ND	0.0250	1	11/05/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/07/24	
Toluene	ND	0.0250	1	11/05/24	11/07/24	
o-Xylene	ND	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		99.1 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		88.8 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2445047
Diesel Range Organics (C10-C28)	3730	125	5	11/05/24	11/06/24	
Oil Range Organics (C28-C36)	2490	250	5	11/05/24	11/06/24	
<i>Surrogate: n-Nonane</i>						
		91.6 %	50-200	11/05/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2445050
Chloride	11500	200	10	11/05/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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**SW09 - 0-5'**

**E411032-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Benzene	ND	0.0250	1	11/05/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/05/24	11/07/24	
Toluene	ND	0.0250	1	11/05/24	11/07/24	
o-Xylene	ND	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/05/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2445032
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.3 %	70-130	11/05/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445047
Diesel Range Organics (C10-C28)	ND	25.0	1	11/05/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/05/24	11/06/24	
<i>Surrogate: n-Nonane</i>		87.7 %	50-200	11/05/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445050
Chloride	52.8	20.0	1	11/05/24	11/06/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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#### Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445032-BLK1)**

Prepared: 11/05/24 Analyzed: 11/07/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.90		8.00		98.7	70-130			

**LCS (2445032-BS1)**

Prepared: 11/05/24 Analyzed: 11/07/24

Benzene	5.41	0.0250	5.00		108	70-130			
Ethylbenzene	5.23	0.0250	5.00		105	70-130			
Toluene	5.34	0.0250	5.00		107	70-130			
o-Xylene	5.24	0.0250	5.00		105	70-130			
p,m-Xylene	10.7	0.0500	10.0		107	70-130			
Total Xylenes	15.9	0.0250	15.0		106	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.97		8.00		99.7	70-130			

**LCS Dup (2445032-BSD1)**

Prepared: 11/05/24 Analyzed: 11/07/24

Benzene	5.31	0.0250	5.00		106	70-130	1.89	20	
Ethylbenzene	5.13	0.0250	5.00		103	70-130	2.00	20	
Toluene	5.24	0.0250	5.00		105	70-130	1.86	20	
o-Xylene	5.16	0.0250	5.00		103	70-130	1.53	20	
p,m-Xylene	10.5	0.0500	10.0		105	70-130	1.82	20	
Total Xylenes	15.6	0.0250	15.0		104	70-130	1.73	20	
Surrogate: 4-Bromochlorobenzene-PID	7.93		8.00		99.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445032-BLK1)**

Prepared: 11/05/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.06		8.00		88.3	70-130			

**LCS (2445032-BS2)**

Prepared: 11/05/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	44.5	20.0	50.0		89.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.20		8.00		90.0	70-130			

**LCS Dup (2445032-BSD2)**

Prepared: 11/05/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	47.2	20.0	50.0		94.4	70-130	5.75	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.34		8.00		91.8	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445047-BLK1)**

Prepared: 11/05/24 Analyzed: 11/06/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	46.0		50.0		92.0	50-200			

**LCS (2445047-BS1)**

Prepared: 11/05/24 Analyzed: 11/06/24

Diesel Range Organics (C10-C28)	250	25.0	250		100	38-132			
Surrogate: n-Nonane	47.5		50.0		95.0	50-200			

**Matrix Spike (2445047-MS1)**

Source: E411032-07

Prepared: 11/05/24 Analyzed: 11/08/24

Diesel Range Organics (C10-C28)	4180	50.0	250	2410	711	38-132			M4
Surrogate: n-Nonane	47.0		50.0		94.0	50-200			

**Matrix Spike Dup (2445047-MSD1)**

Source: E411032-07

Prepared: 11/05/24 Analyzed: 11/08/24

Diesel Range Organics (C10-C28)	2550	50.0	250	2410	58.4	38-132	48.4	20	R3
Surrogate: n-Nonane	44.8		50.0		89.6	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:04:43PM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445050-BLK1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Chloride	ND	20.0							
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**LCS (2445050-BS1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Chloride	253	20.0	250		101	90-110			
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**LCS Dup (2445050-BSD1)**

Prepared: 11/05/24 Analyzed: 11/05/24

Chloride	254	20.0	250		102	90-110	0.381	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/08/24 17:04
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M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.

R3 The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

<b>Client Information</b>				<b>Invoice Information</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>State</b>													
Client: Matador Production Company				Company: Ensolum LLC				Lab W/O#		Job Number		1D		2D		3D		Std		NM		CO		UT		TX			
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411032		230530002								X		X									
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220																									
Address: 3122 National Parks Hwy				Phone: 575-988-0055																									
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com																									
Phone: 575-988-0055				Miscellaneous:																									
Email: agiovengo@ensolum.com																													

Sample Information											Analysis and Method								EPA Program						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 TX	RCRA 8 Metals	SDWA	CWA	RCRA	Compliance	Y	or	N	PWSID #	Remarks	
12:25	11/1/2024	S	1	FS22 - 2'			1						X												
12:23	11/1/2024	S	1	FS24 - 2'			2						X												
12:08	11/1/2024	S	1	FS26 - 5'			3						X												
12:12	11/1/2024	S	1	FS30 - 5'			4						X												
12:15	11/1/2024	S	1	FS32 - 5'			5						X												
13:41	11/1/2024	S	1	FS25 - 0'			6						X												
13:41	11/1/2024	S	1	FS38 - 0'			7						X												
13:43	11/1/2024	S	1	FS39 - 0'			8						X												
12:16	11/1/2024	S	1	SW09 - 0-5'			9						X												

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, bdeal@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Cole Burton

Relinquished by: (Signature) <i>[Signature]</i>	Date 11/1/24	Time 10:50	Received by: (Signature) <i>Michelle Gonzales</i>	Date 11-4-24	Time 1050	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.  Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N  T1 _____ T2 _____ T3 _____  AVG Temp °C <u>4</u>
Relinquished by: (Signature) <i>Michelle Gonzales</i>	Date 11-4-24	Time 1545	Received by: (Signature) <i>[Signature]</i>	Date 11-4-24	Time 1730	
Relinquished by: (Signature) <i>[Signature]</i>	Date 11-4-24	Time 2345	Received by: (Signature) <i>Cathy Man</i>	Date 11-5-24	Time 7:45	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



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### Envirotech Analytical Laboratory

Printed: 11/5/2024 8:27:08AM

#### Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 11/05/24 07:45	Work Order ID: E411032
Phone: (972) 371-5200	Date Logged In: 11/04/24 15:02	Logged In By: Noe Soto
Email: agiovengo@ensolum.com	Due Date: 11/13/24 17:00 (6 day TAT)	

#### Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

#### Comments/Resolution

#### Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

#### Sample Cooler

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

#### Sample Container

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

#### Field Label

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

#### Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

#### Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

#### Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

#### Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411039

Job Number: 23003-0002

Received: 11/6/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/7/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/7/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E411039  
Date Received: 11/6/2024 7:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/6/2024 7:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/07/24 13:09
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW08 - 0-5'	E411039-01A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.
FS19-2'	E411039-02A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 1:09:51PM
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**SW08 - 0-5'**

**E411039-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445057
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	ND	0.0250	1	11/06/24	11/06/24	
Toluene	ND	0.0250	1	11/06/24	11/06/24	
o-Xylene	ND	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	ND	0.0500	1	11/06/24	11/06/24	
Total Xylenes	ND	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.9 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445057
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.8 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445058
Diesel Range Organics (C10-C28)	ND	25.0	1	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		88.9 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445073
Chloride	ND	20.0	1	11/06/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 1:09:51PM
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**FS19-2'**

**E411039-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2445057	
Gasoline Range Organics (C6-C10)	<b>31.2</b>	20.0	1	11/06/24	11/06/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		98.4 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2445058	
Diesel Range Organics (C10-C28)	<b>1030</b>	50.0	2	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	<b>528</b>	100	2	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		94.9 %	50-200	11/06/24	11/06/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 1:09:51PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445057-BLK1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.28		8.00		91.0	70-130			

**LCS (2445057-BS1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Benzene	4.32	0.0250	5.00		86.3	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.57	0.0250	5.00		91.4	70-130			
o-Xylene	4.64	0.0250	5.00		92.8	70-130			
p,m-Xylene	9.38	0.0500	10.0		93.8	70-130			
Total Xylenes	14.0	0.0250	15.0		93.5	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.18		8.00		89.7	70-130			

**LCS Dup (2445057-BSD1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Benzene	4.42	0.0250	5.00		88.4	70-130	2.38	20	
Ethylbenzene	4.78	0.0250	5.00		95.5	70-130	3.54	20	
Toluene	4.71	0.0250	5.00		94.2	70-130	3.06	20	
o-Xylene	4.79	0.0250	5.00		95.9	70-130	3.27	20	
p,m-Xylene	9.73	0.0500	10.0		97.3	70-130	3.60	20	
Total Xylenes	14.5	0.0250	15.0		96.8	70-130	3.49	20	
Surrogate: 4-Bromochlorobenzene-PID	7.25		8.00		90.6	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 1:09:51PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445057-BLK1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.60		8.00		95.0	70-130			

**LCS (2445057-BS2)**

Prepared: 11/06/24 Analyzed: 11/06/24

Gasoline Range Organics (C6-C10)	43.6	20.0	50.0		87.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.67		8.00		95.8	70-130			

**LCS Dup (2445057-BSD2)**

Prepared: 11/06/24 Analyzed: 11/06/24

Gasoline Range Organics (C6-C10)	43.1	20.0	50.0		86.1	70-130	1.33	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.62		8.00		95.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 1:09:51PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445058-BLK1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	44.5		50.0		89.0	50-200			

**LCS (2445058-BS1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Diesel Range Organics (C10-C28)	232	25.0	250		92.8	38-132			
Surrogate: <i>n</i> -Nonane	47.1		50.0		94.2	50-200			

**LCS Dup (2445058-BSD1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Diesel Range Organics (C10-C28)	245	25.0	250		97.8	38-132	5.28	20	
Surrogate: <i>n</i> -Nonane	48.0		50.0		96.0	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/7/2024 1:09:51PM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445073-BLK1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Chloride	ND	20.0							
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**LCS (2445073-BS1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Chloride	254	20.0	250		102	90-110			
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**Matrix Spike (2445073-MS1)**

Source: E411046-06

Prepared: 11/06/24 Analyzed: 11/06/24

Chloride	2230	20.0	250	1990	94.3	80-120			
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**Matrix Spike Dup (2445073-MSD1)**

Source: E411046-06

Prepared: 11/06/24 Analyzed: 11/06/24

Chloride	2180	20.0	250	1990	76.3	80-120	2.04	20	M4
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/07/24 13:09
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M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



# Chain of Custody

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411039		23003.0002		X				X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program				Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA					
															Compliance	Y	or	N				
															PWSID #							
9:56	11/4/2024	S	1	SW08 - 0-5'		1													If TPH > 100 do not run other tests			
13:01	11/4/2024	S	1	FS19 - 2'		2													If TPH > 2500 or GRO+DRO > 1000 do not run other tests			

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com **RUSH TPH ONLY**

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: <u>Cole Burton</u>										Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>									
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time														
<i>[Signature]</i>	11/5/24	7:30	<i>Michelle Gonzales</i>	11-5-24	6:30														
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time														
<i>Michelle Gonzales</i>	11-5-24	1615	<i>[Signature]</i>	11-5-24	1730														
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time														
<i>[Signature]</i>	11.5.24	2345	<i>Cynthia Moran</i>	11.6.24	7130														
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time														
<i>[Signature]</i>																			

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Released to Imaging: 3/21/2025 4:52:05 PM



Envirotech Analytical Laboratory

Printed: 11/6/2024 9:21:59AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 11/06/24 07:30	Work Order ID: E411039
Phone: (972) 371-5200	Date Logged In: 11/05/24 14:34	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 11/06/24 17:00 (0 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Client Comments: Samples 1-3 state if TPH or GRO+DRO>1000 do not run other tests. Sample 4 states if TPH.100 do not run other tests.

**Comments/Resolution**

Client Comments: Samples 1 states if TPH.100 do not run other tests. Sample 2 states if TPH >2500 or GRO+DRO>1000 do not run other tests.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411045

Job Number: 23003-0002

Received: 11/6/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/8/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/8/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411045  
Date Received: 11/6/2024 7:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/6/2024 7:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/08/24 17:15
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS31-5'	E411045-01A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.
FS33-5'	E411045-02A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.
FS34-2'	E411045-03A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.
FS36-2'	E411045-04A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.
FS40-2'	E411045-05A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.
SW11-0-4'	E411045-06A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.
SW10-0-2'	E411045-07A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.
FS21-2'	E411045-08A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.
FS35-4'	E411045-09A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.
FS37-4'	E411045-10A	Soil	11/04/24	11/06/24	Glass Jar, 2 oz.

### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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**FS31-5'**

**E411045-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445065
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	ND	0.0250	1	11/06/24	11/06/24	
Toluene	ND	0.0250	1	11/06/24	11/06/24	
o-Xylene	ND	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	ND	0.0500	1	11/06/24	11/06/24	
Total Xylenes	ND	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.5 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		107 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.5 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		107 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2445063
Diesel Range Organics (C10-C28)	75.7	25.0	1	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	113	50.0	1	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		113 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: DT		Batch: 2445068
Chloride	60.5	20.0	1	11/06/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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**FS33-5'**

**E411045-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	ND	0.0250	1	11/06/24	11/06/24	
Toluene	ND	0.0250	1	11/06/24	11/06/24	
o-Xylene	ND	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	ND	0.0500	1	11/06/24	11/06/24	
Total Xylenes	ND	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		111 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.4 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		111 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.4 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445063
Diesel Range Organics (C10-C28)	ND	25.0	1	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		110 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445068
Chloride	41.5	20.0	1	11/06/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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**FS34-2'**

**E411045-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445065
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	ND	0.0250	1	11/06/24	11/06/24	
Toluene	ND	0.0250	1	11/06/24	11/06/24	
o-Xylene	ND	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	ND	0.0500	1	11/06/24	11/06/24	
Total Xylenes	ND	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		109 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.4 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		109 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.4 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2445063
Diesel Range Organics (C10-C28)	ND	25.0	1	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		107 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: DT		Batch: 2445068
Chloride	30.5	20.0	1	11/06/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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**FS36-2'**

**E411045-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	ND	0.0250	1	11/06/24	11/06/24	
Toluene	ND	0.0250	1	11/06/24	11/06/24	
o-Xylene	ND	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	ND	0.0500	1	11/06/24	11/06/24	
Total Xylenes	ND	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.7 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.7 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445063
Diesel Range Organics (C10-C28)	ND	25.0	1	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		112 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445068
Chloride	57.6	20.0	1	11/06/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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**FS40-2'**

**E411045-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	ND	0.0250	1	11/06/24	11/06/24	
Toluene	ND	0.0250	1	11/06/24	11/06/24	
o-Xylene	ND	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	ND	0.0500	1	11/06/24	11/06/24	
Total Xylenes	ND	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.4 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.4 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445063
Diesel Range Organics (C10-C28)	225	50.0	2	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	547	100	2	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		110 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445068
Chloride	45.2	20.0	1	11/06/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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**SW11-0-4'**

**E411045-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445065
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	ND	0.0250	1	11/06/24	11/06/24	
Toluene	ND	0.0250	1	11/06/24	11/06/24	
o-Xylene	ND	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	ND	0.0500	1	11/06/24	11/06/24	
Total Xylenes	ND	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		112 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.9 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		110 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		112 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.9 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		110 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2445063
Diesel Range Organics (C10-C28)	ND	25.0	1	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		115 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: DT		Batch: 2445068
Chloride	ND	20.0	1	11/06/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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**SW10-0-2'**

**E411045-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	<b>0.151</b>	0.0250	1	11/06/24	11/06/24	
Toluene	<b>0.0395</b>	0.0250	1	11/06/24	11/06/24	
o-Xylene	<b>0.230</b>	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	<b>0.277</b>	0.0500	1	11/06/24	11/06/24	
Total Xylenes	<b>0.507</b>	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		113 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.7 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	<b>30.3</b>	20.0	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		113 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.7 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445063
Diesel Range Organics (C10-C28)	<b>3890</b>	125	5	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	<b>2200</b>	250	5	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445068
Chloride	<b>9730</b>	200	10	11/06/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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**FS21-2'**

**E411045-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445065
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	ND	0.0250	1	11/06/24	11/06/24	
Toluene	ND	0.0250	1	11/06/24	11/06/24	
o-Xylene	ND	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	ND	0.0500	1	11/06/24	11/06/24	
Total Xylenes	ND	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		113 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.4 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		113 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.4 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2445063
Diesel Range Organics (C10-C28)	ND	25.0	1	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		117 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: DT		Batch: 2445068
Chloride	<b>1090</b>	20.0	1	11/06/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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**FS35-4'**

**E411045-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	ND	0.0250	1	11/06/24	11/06/24	
Toluene	ND	0.0250	1	11/06/24	11/06/24	
o-Xylene	ND	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	ND	0.0500	1	11/06/24	11/06/24	
Total Xylenes	ND	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		111 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.7 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		111 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.7 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445063
Diesel Range Organics (C10-C28)	ND	25.0	1	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445068
Chloride	46.2	20.0	1	11/06/24	11/06/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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**FS37-4'**

**E411045-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	ND	0.0250	1	11/06/24	11/06/24	
Toluene	ND	0.0250	1	11/06/24	11/06/24	
o-Xylene	ND	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	ND	0.0500	1	11/06/24	11/06/24	
Total Xylenes	ND	0.0250	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		108 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.4 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
<i>Surrogate: Bromofluorobenzene</i>		108 %	70-130	11/06/24	11/06/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.4 %	70-130	11/06/24	11/06/24	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	11/06/24	11/06/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2445063
Diesel Range Organics (C10-C28)	ND	25.0	1	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/06/24	11/06/24	
<i>Surrogate: n-Nonane</i>		112 %	50-200	11/06/24	11/06/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: DT		Batch: 2445068
Chloride	53.2	20.0	1	11/06/24	11/06/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445065-BLK1)**

Prepared: 11/06/24 Analyzed: 11/07/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.568		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.4	70-130			
Surrogate: Toluene-d8	0.538		0.500		108	70-130			

**LCS (2445065-BS1)**

Prepared: 11/06/24 Analyzed: 11/07/24

Benzene	2.61	0.0250	2.50		104	70-130			
Ethylbenzene	2.55	0.0250	2.50		102	70-130			
Toluene	2.59	0.0250	2.50		104	70-130			
o-Xylene	2.62	0.0250	2.50		105	70-130			
p,m-Xylene	5.24	0.0500	5.00		105	70-130			
Total Xylenes	7.86	0.0250	7.50		105	70-130			
Surrogate: Bromofluorobenzene	0.562		0.500		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.479		0.500		95.7	70-130			
Surrogate: Toluene-d8	0.534		0.500		107	70-130			

**LCS Dup (2445065-BSD1)**

Prepared: 11/06/24 Analyzed: 11/07/24

Benzene	2.63	0.0250	2.50		105	70-130	0.820	23	
Ethylbenzene	2.62	0.0250	2.50		105	70-130	2.49	27	
Toluene	2.68	0.0250	2.50		107	70-130	3.34	24	
o-Xylene	2.69	0.0250	2.50		108	70-130	2.43	27	
p,m-Xylene	5.34	0.0500	5.00		107	70-130	1.96	27	
Total Xylenes	8.03	0.0250	7.50		107	70-130	2.11	27	
Surrogate: Bromofluorobenzene	0.572		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.495		0.500		98.9	70-130			
Surrogate: Toluene-d8	0.540		0.500		108	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445065-BLK1)**

Prepared: 11/06/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.568		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.4	70-130			
Surrogate: Toluene-d8	0.538		0.500		108	70-130			

**LCS (2445065-BS2)**

Prepared: 11/06/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	41.1	20.0	50.0		82.1	70-130			
Surrogate: Bromofluorobenzene	0.577		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.465		0.500		92.9	70-130			
Surrogate: Toluene-d8	0.555		0.500		111	70-130			

**LCS Dup (2445065-BSD2)**

Prepared: 11/06/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	42.7	20.0	50.0		85.4	70-130	3.92	20	
Surrogate: Bromofluorobenzene	0.563		0.500		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.478		0.500		95.6	70-130			
Surrogate: Toluene-d8	0.546		0.500		109	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445063-BLK1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	53.8		50.0		108	50-200			

**LCS (2445063-BS1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Diesel Range Organics (C10-C28)	262	25.0	250		105	38-132			
Surrogate: <i>n</i> -Nonane	58.0		50.0		116	50-200			

**LCS Dup (2445063-BSD1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Diesel Range Organics (C10-C28)	249	25.0	250		99.6	38-132	5.01	20	
Surrogate: <i>n</i> -Nonane	54.6		50.0		109	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 5:15:38PM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445068-BLK1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Chloride	ND	20.0							
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**LCS (2445068-BS1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Chloride	256	20.0	250		102	90-110			
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**LCS Dup (2445068-BSD1)**

Prepared: 11/06/24 Analyzed: 11/06/24

Chloride	254	20.0	250		102	90-110	0.609	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/08/24 17:15
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

<b>Client Information</b>				<b>Invoice Information</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>State</b>													
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D		2D		3D		Std		NM		CO		UT		TX			
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411045		23003.0002						X													
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220																									
Address: 3122 National Parks Hwy				Phone: 575-988-0055																									
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com																									
Phone: 575-988-0055				Miscellaneous:																									
Email: agiovengo@ensolum.com																													

Sample Information										Analysis and Method								EPA Program			Remarks				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	Compliance	Y	or	N	PWSID #		
10:45	11/4/2024	S	1	FS31 - 5'			1						X												
10:44	11/4/2024	S	1	FS33 - 5'			2						X												
10:52	11/4/2024	S	1	FS34 - 2'			3						X												
10:50	11/4/2024	S	1	FS36 - 2'			4						X												
10:53	11/4/2024	S	1	FS40 - 2'			5						X												
12:58	11/4/2024	S	1	SW11 - 0-4'			6						X												
13:06	11/4/2024	S	1	SW10 - 0-2'			7						X												
13:05	11/4/2024	S	1	FS21 - 2'			8						X												
14:05	11/4/2024	S	1	FS35 - 4'			9						X												
14:06	11/4/2024	S	1	FS37 - 4'			10						X												

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Cole Burton

Relinquished by: (Signature) <i>[Signature]</i>	Date 11/5/24	Time 7:30	Received by: (Signature) <i>Michelle Gonzales</i>	Date 11-5-24	Time 0730	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days.  Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N  T1 _____ T2 _____ T3 _____  AVG Temp °C <u>4</u>
Relinquished by: (Signature) <i>Michelle Gonzales</i>	Date 11-5-24	Time 1615	Received by: (Signature) <i>[Signature]</i>	Date 11-5-24	Time 1730	
Relinquished by: (Signature) <i>[Signature]</i>	Date 11.5.24	Time 2345	Received by: (Signature) <i>Auth Ma</i>	Date 11-6-24	Time 7:30	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

12 of 02 edge P

Page 337 of 990



Envirotech Analytical Laboratory

Printed: 11/6/2024 9:47:03AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/06/24 07:30 Work Order ID: E411045
Phone: (972) 371-5200 Date Logged In: 11/05/24 15:01 Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com Due Date: 11/14/24 17:00 (6 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Client Comments: Samples 1-3 state if TPH or GRO+DRO>1000 do not run other tests. Sample 4 states if TPH.100 do not run other tests.

Comments/Resolution

Empty box for Comments/Resolution

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411058

Job Number: 23003-0002

Received: 11/7/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/8/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/8/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E411058  
Date Received: 11/7/2024 7:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/7/2024 7:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
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**Michelle Gonzales**  
Client Representative  
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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/08/24 14:54
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW06- 0-5'	E411058-01A	Soil	11/05/24	11/07/24	Glass Jar, 2 oz.
SW13- 0-3'	E411058-02A	Soil	11/05/24	11/07/24	Glass Jar, 2 oz.
FS43 - 4'	E411058-03A	Soil	11/05/24	11/07/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 2:54:16PM
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**SW06- 0-5'**

**E411058-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Benzene	ND	0.0250	1	11/07/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/07/24	11/07/24	
Toluene	ND	0.0250	1	11/07/24	11/07/24	
o-Xylene	ND	0.0250	1	11/07/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/07/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/07/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		88.7 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.8 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445093
Diesel Range Organics (C10-C28)	ND	25.0	1	11/07/24	11/08/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/07/24	11/08/24	
<i>Surrogate: n-Nonane</i>		88.0 %	50-200	11/07/24	11/08/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: WF		Batch: 2445127
Chloride	42.6	20.0	1	11/07/24	11/07/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 2:54:16PM
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**SW13- 0-3'**

**E411058-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Benzene	ND	0.0250	1	11/07/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/07/24	11/07/24	
Toluene	ND	0.0250	1	11/07/24	11/07/24	
o-Xylene	ND	0.0250	1	11/07/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/07/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/07/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		89.0 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.1 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445093
Diesel Range Organics (C10-C28)	263	50.0	2	11/07/24	11/07/24	
Oil Range Organics (C28-C36)	203	100	2	11/07/24	11/07/24	
<i>Surrogate: n-Nonane</i>		87.9 %	50-200	11/07/24	11/07/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: WF		Batch: 2445127
Chloride	802	20.0	1	11/07/24	11/07/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 2:54:16PM
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**FS43 - 4'**

**E411058-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Benzene	ND	0.0250	1	11/07/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/07/24	11/07/24	
Toluene	ND	0.0250	1	11/07/24	11/07/24	
o-Xylene	ND	0.0250	1	11/07/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/07/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/07/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		90.2 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		92.0 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2445093
Diesel Range Organics (C10-C28)	163	50.0	2	11/07/24	11/07/24	
Oil Range Organics (C28-C36)	245	100	2	11/07/24	11/07/24	
<i>Surrogate: n-Nonane</i>						
		83.1 %	50-200	11/07/24	11/07/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: WF		Batch: 2445127
Chloride	281	20.0	1	11/07/24	11/08/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 2:54:16PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445094-BLK1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.09		8.00		88.6	70-130			

**LCS (2445094-BS1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Benzene	5.16	0.0250	5.00		103	70-130			
Ethylbenzene	4.96	0.0250	5.00		99.3	70-130			
Toluene	5.09	0.0250	5.00		102	70-130			
o-Xylene	4.94	0.0250	5.00		98.9	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.0	0.0250	15.0		100	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.08		8.00		88.5	70-130			

**LCS Dup (2445094-BSD1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Benzene	5.17	0.0250	5.00		103	70-130	0.0881	20	
Ethylbenzene	4.98	0.0250	5.00		99.6	70-130	0.338	20	
Toluene	5.10	0.0250	5.00		102	70-130	0.321	20	
o-Xylene	5.00	0.0250	5.00		100	70-130	1.18	20	
p,m-Xylene	10.1	0.0500	10.0		101	70-130	0.479	20	
Total Xylenes	15.2	0.0250	15.0		101	70-130	0.711	20	
Surrogate: 4-Bromochlorobenzene-PID	7.03		8.00		87.8	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 2:54:16PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445094-BLK1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.39		8.00		92.3	70-130			

**LCS (2445094-BS2)**

Prepared: 11/07/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	42.5	20.0	50.0		85.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.43		8.00		92.9	70-130			

**LCS Dup (2445094-BSD2)**

Prepared: 11/07/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	41.1	20.0	50.0		82.2	70-130	3.44	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.56		8.00		94.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 2:54:16PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445093-BLK1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.4		50.0		101	50-200			

**LCS (2445093-BS1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Diesel Range Organics (C10-C28)	236	25.0	250		94.2	38-132			
Surrogate: n-Nonane	52.0		50.0		104	50-200			

**LCS Dup (2445093-BSD1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Diesel Range Organics (C10-C28)	249	25.0	250		99.5	38-132	5.43	20	
Surrogate: n-Nonane	52.9		50.0		106	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/8/2024 2:54:16PM
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#### Anions by EPA 300.0/9056A

Analyst: WF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445127-BLK1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Chloride	ND	20.0							
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**LCS (2445127-BS1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Chloride	251	20.0	250		100	90-110			
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**Matrix Spike (2445127-MS1)**

Source: E411058-02

Prepared: 11/07/24 Analyzed: 11/07/24

Chloride	1070	20.0	250	802	107	80-120			
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**Matrix Spike Dup (2445127-MSD1)**

Source: E411058-02

Prepared: 11/07/24 Analyzed: 11/07/24

Chloride	1070	20.0	250	802	107	80-120	0.0420	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/08/24 14:54
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411058		23003-0002		X				X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA				
															Compliance	Y	or	N			
9:20	11/5/2024	S	1	SW06 - 0-5'		1						X							If TPH > 100 do not run other tests		
10:32	11/5/2024	S	1	SW13 - 0-3'		2						X							If TPH > 2500 or GRO+DRO > 1000 do not run other tests		
13:51	11/5/2024	S	1	FS43 - 4'		3						X							If TPH > 2500 or GRO+DRO > 1000 do not run other tests		

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com **RUSH TPH ONLY**

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Bowan Simmons

Relinquished by: (Signature) <i>[Signature]</i>	Date 11/6/24	Time 1100	Received by: (Signature) <i>Michelle Gonzales</i>	Date 11-6-24	Time 1100	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.
Relinquished by: (Signature) <i>Michelle Gonzales</i>	Date 11-6-24	Time 1630	Received by: (Signature) <i>[Signature]</i>	Date 11-6-24	Time 1800	
Relinquished by: (Signature) <i>[Signature]</i>	Date 11-7-24	Time 0600	Received by: (Signature) <i>Raina Schwamy</i>	Date 11/7/24	Time 7:30	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Lab Use Only  
Received on ice:  Y  N  
T1 \_\_\_\_\_ T2 \_\_\_\_\_ T3 \_\_\_\_\_  
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 11/7/2024 9:02:02AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 11/07/24 07:30	Work Order ID: E411058
Phone: (972) 371-5200	Date Logged In: 11/06/24 14:23	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 11/07/24 17:00 (0 day TAT)	

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Comments/Resolution

Client Comments: Samples 1 states if TPH >100 do not run other tests. Sample 2-3 states if TPH>2500 or GRO+DRO do not run other tests.

Client Instruction

Client Comments: Samples 1-3 state if TPH or GRO+DRO>1000 do not run other tests. Sample 4 states if TPH.100 do not run other tests.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411060

Job Number: 23003-0002

Received: 11/7/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/15/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/15/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411060  
Date Received: 11/7/2024 7:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/7/2024 7:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
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Field Offices:

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**Michelle Gonzales**  
Client Representative  
Office: 505-421-LABS(5227)  
Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/24 07:42
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW12 - 0-5'	E411060-01A	Soil	11/05/24	11/07/24	Glass Jar, 2 oz.
FS15-2'	E411060-02A	Soil	11/05/24	11/07/24	Glass Jar, 2 oz.
FS18-4'	E411060-03A	Soil	11/05/24	11/07/24	Glass Jar, 2 oz.
FS20-3'	E411060-04A	Soil	11/05/24	11/07/24	Glass Jar, 2 oz.
FS29-4'	E411060-05A	Soil	11/05/24	11/07/24	Glass Jar, 2 oz.
FS41-0'	E411060-06A	Soil	11/05/24	11/07/24	Glass Jar, 2 oz.
FS42-1'	E411060-07A	Soil	11/05/24	11/07/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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**SW12 - 0-5'**

**E411060-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Benzene	ND	0.0250	1	11/07/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/07/24	11/07/24	
Toluene	ND	0.0250	1	11/07/24	11/07/24	
o-Xylene	ND	0.0250	1	11/07/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/07/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/07/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		89.5 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.5 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/07/24	11/08/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/07/24	11/08/24	
<i>Surrogate: n-Nonane</i>		111 %	50-200	11/07/24	11/08/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445114
Chloride	30.6	20.0	1	11/07/24	11/08/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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**FS15-2'**

**E411060-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2445094
Benzene	ND	0.0250	1	11/07/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/07/24	11/07/24	
Toluene	ND	0.0250	1	11/07/24	11/07/24	
o-Xylene	ND	0.0250	1	11/07/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/07/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/07/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.1 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2445094
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.5 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2445103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/07/24	11/08/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/07/24	11/08/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	11/07/24	11/08/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: DT		Batch: 2445114
Chloride	722	20.0	1	11/07/24	11/08/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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**FS18-4'**

**E411060-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Benzene	ND	0.0250	1	11/07/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/07/24	11/07/24	
Toluene	ND	0.0250	1	11/07/24	11/07/24	
o-Xylene	ND	0.0250	1	11/07/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/07/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/07/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		88.5 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.8 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445103
Diesel Range Organics (C10-C28)	436	50.0	2	11/07/24	11/08/24	
Oil Range Organics (C28-C36)	466	100	2	11/07/24	11/08/24	
<i>Surrogate: n-Nonane</i>		107 %	50-200	11/07/24	11/08/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445114
Chloride	656	20.0	1	11/07/24	11/08/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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**FS20-3'**

**E411060-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Benzene	ND	0.0250	1	11/07/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/07/24	11/07/24	
Toluene	ND	0.0250	1	11/07/24	11/07/24	
o-Xylene	ND	0.0250	1	11/07/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/07/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/07/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.3 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.6 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445103
Diesel Range Organics (C10-C28)	61.6	25.0	1	11/07/24	11/08/24	
Oil Range Organics (C28-C36)	74.8	50.0	1	11/07/24	11/08/24	
<i>Surrogate: n-Nonane</i>		114 %	50-200	11/07/24	11/08/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445114
Chloride	524	20.0	1	11/07/24	11/08/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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**FS29-4'**

**E411060-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Benzene	ND	0.0250	1	11/07/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/07/24	11/07/24	
Toluene	ND	0.0250	1	11/07/24	11/07/24	
o-Xylene	ND	0.0250	1	11/07/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/07/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/07/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		89.9 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.8 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445103
Diesel Range Organics (C10-C28)	64.0	25.0	1	11/07/24	11/08/24	
Oil Range Organics (C28-C36)	114	50.0	1	11/07/24	11/08/24	
<i>Surrogate: n-Nonane</i>		114 %	50-200	11/07/24	11/08/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445114
Chloride	43.1	20.0	1	11/07/24	11/08/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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**FS41-0'**

**E411060-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Benzene	ND	0.0250	1	11/07/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/07/24	11/07/24	
Toluene	ND	0.0250	1	11/07/24	11/07/24	
o-Xylene	ND	0.0250	1	11/07/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/07/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/07/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		89.4 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.9 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445103
Diesel Range Organics (C10-C28)	1360	25.0	1	11/07/24	11/08/24	
Oil Range Organics (C28-C36)	1100	50.0	1	11/07/24	11/08/24	
<i>Surrogate: n-Nonane</i>		108 %	50-200	11/07/24	11/08/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445114
Chloride	233	20.0	1	11/07/24	11/08/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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**FS42-1'**

**E411060-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Benzene	ND	0.0250	1	11/07/24	11/07/24	
Ethylbenzene	ND	0.0250	1	11/07/24	11/07/24	
Toluene	ND	0.0250	1	11/07/24	11/07/24	
o-Xylene	ND	0.0250	1	11/07/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/07/24	11/07/24	
Total Xylenes	ND	0.0250	1	11/07/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		89.6 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2445094
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.9 %	70-130	11/07/24	11/07/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2445103
Diesel Range Organics (C10-C28)	30.0	25.0	1	11/07/24	11/08/24	
Oil Range Organics (C28-C36)	82.9	50.0	1	11/07/24	11/08/24	
<i>Surrogate: n-Nonane</i>		104 %	50-200	11/07/24	11/08/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2445114
Chloride	693	20.0	1	11/07/24	11/08/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445094-BLK1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.09		8.00		88.6	70-130			

**LCS (2445094-BS1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Benzene	5.16	0.0250	5.00		103	70-130			
Ethylbenzene	4.96	0.0250	5.00		99.3	70-130			
Toluene	5.09	0.0250	5.00		102	70-130			
o-Xylene	4.94	0.0250	5.00		98.9	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.0	0.0250	15.0		100	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.08		8.00		88.5	70-130			

**LCS Dup (2445094-BSD1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Benzene	5.17	0.0250	5.00		103	70-130	0.0881	20	
Ethylbenzene	4.98	0.0250	5.00		99.6	70-130	0.338	20	
Toluene	5.10	0.0250	5.00		102	70-130	0.321	20	
o-Xylene	5.00	0.0250	5.00		100	70-130	1.18	20	
p,m-Xylene	10.1	0.0500	10.0		101	70-130	0.479	20	
Total Xylenes	15.2	0.0250	15.0		101	70-130	0.711	20	
Surrogate: 4-Bromochlorobenzene-PID	7.03		8.00		87.8	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445094-BLK1)**

Prepared: 11/07/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.39		8.00		92.3	70-130			

**LCS (2445094-BS2)**

Prepared: 11/07/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	42.5	20.0	50.0		85.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.43		8.00		92.9	70-130			

**LCS Dup (2445094-BSD2)**

Prepared: 11/07/24 Analyzed: 11/07/24

Gasoline Range Organics (C6-C10)	41.1	20.0	50.0		82.2	70-130	3.44	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.56		8.00		94.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445103-BLK1)**

Prepared: 11/07/24 Analyzed: 11/08/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	54.5		50.0		109	50-200			

**LCS (2445103-BS1)**

Prepared: 11/07/24 Analyzed: 11/08/24

Diesel Range Organics (C10-C28)	276	25.0	250		110	38-132			
Surrogate: <i>n</i> -Nonane	55.6		50.0		111	50-200			

**LCS Dup (2445103-BSD1)**

Prepared: 11/07/24 Analyzed: 11/08/24

Diesel Range Organics (C10-C28)	267	25.0	250		107	38-132	3.41	20	
Surrogate: <i>n</i> -Nonane	53.9		50.0		108	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 7:42:19AM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445114-BLK1)**

Prepared: 11/07/24 Analyzed: 11/08/24

Chloride	ND	20.0							
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**LCS (2445114-BS1)**

Prepared: 11/07/24 Analyzed: 11/08/24

Chloride	254	20.0	250		102	90-110			
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**Matrix Spike (2445114-MS1)**

Source: E411053-73

Prepared: 11/07/24 Analyzed: 11/08/24

Chloride	314	20.0	250	51.8	105	80-120			
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**Matrix Spike Dup (2445114-MSD1)**

Source: E411053-73

Prepared: 11/07/24 Analyzed: 11/08/24

Chloride	321	20.0	250	51.8	108	80-120	2.45	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/24 07:42
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

18 of 71 pages

Client Information				Invoice Information				Lab Use Only				TAT				State				
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX	
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411060		23003-000Z					X	X				
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220																
Address: 3122 National Parks Hwy				Phone: 575-988-0055																
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com																
Phone: 575-988-0055				Miscellaneous:																
Email: agiovengo@ensolum.com																				
Sample Information										Analysis and Method				EPA Program						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ.1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	Compliance	PWSID #	
9:23	11/5/2024	S	1	SW12 - 0-5'		1						X						Y	or	N
13:19	11/5/2024	S	1	FS15 - 2'		2						X								
9:23	11/5/2024	S	1	FS18 - 4'		3						X								
9:25	11/5/2024	S	1	FS20 - 3'		4						X								
11:03	11/5/2024	S	1	FS29 - 4'		5						X								
9:28	11/5/2024	S	1	FS41 - 0'		6						X								
11:15	11/5/2024	S	1	FS42 - 1'		7						X								
Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																				
Sampled by: Bowan Simmons																				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.												
<i>[Signature]</i>		11/6/24	1100	<i>Michelle Gonzales</i>		11-6-24	1100	Lab Use Only												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N												
<i>Michelle Gonzales</i>		11-6-24	1630	<i>[Signature]</i>		11-6-24	1000	T1 _____ T2 _____ T3 _____												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C <u>4</u>												
<i>[Signature]</i>		11-7-24	0600	<i>Raina Schwamy</i>		11/7/24	7:30	Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____												
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																				



Page 369 of 690

Envirotech Analytical Laboratory

Printed: 11/7/2024 9:10:36AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/07/24 07:30 Work Order ID: E411060
Phone: (972) 371-5200 Date Logged In: 11/06/24 14:36 Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com Due Date: 11/15/24 17:00 (6 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Client Comments: Samples 1-3 state if TPH or GRO+DRO>1000 do not run other tests. Sample 4 states if TPH.100 do not run other tests.

Comments/Resolution

Empty box for Comments/Resolution

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411074

Job Number: 23003-0002

Received: 11/9/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/18/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/18/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E411074  
Date Received: 11/9/2024 10:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/9/2024 10:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/24 13:54
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS14- 1'	E411074-01A	Soil	11/06/24	11/09/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 1:54:13PM
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**FS14- 1'**  
**E411074-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445135
Benzene	ND	0.0250	1	11/11/24	11/12/24	
Ethylbenzene	ND	0.0250	1	11/11/24	11/12/24	
Toluene	ND	0.0250	1	11/11/24	11/12/24	
o-Xylene	ND	0.0250	1	11/11/24	11/12/24	
p,m-Xylene	ND	0.0500	1	11/11/24	11/12/24	
Total Xylenes	ND	0.0250	1	11/11/24	11/12/24	
<i>Surrogate: Bromofluorobenzene</i>		97.8 %	70-130	11/11/24	11/12/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.6 %	70-130	11/11/24	11/12/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	11/11/24	11/12/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445135
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/12/24	
<i>Surrogate: Bromofluorobenzene</i>		97.8 %	70-130	11/11/24	11/12/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.6 %	70-130	11/11/24	11/12/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	11/11/24	11/12/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2446005
Diesel Range Organics (C10-C28)	ND	25.0	1	11/11/24	11/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/11/24	11/12/24	
<i>Surrogate: n-Nonane</i>		96.4 %	50-200	11/11/24	11/12/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2446028
Chloride	266	20.0	1	11/11/24	11/15/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 11/18/2024 1:54:13PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2445135-BLK1)

Prepared: 11/08/24 Analyzed: 11/12/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.3	70-130			
Surrogate: Toluene-d8	0.519		0.500		104	70-130			

#### LCS (2445135-BS1)

Prepared: 11/08/24 Analyzed: 11/12/24

Benzene	2.25	0.0250	2.50		90.2	70-130			
Ethylbenzene	2.45	0.0250	2.50		98.0	70-130			
Toluene	2.34	0.0250	2.50		93.5	70-130			
o-Xylene	2.49	0.0250	2.50		99.7	70-130			
p,m-Xylene	5.02	0.0500	5.00		100	70-130			
Total Xylenes	7.51	0.0250	7.50		100	70-130			
Surrogate: Bromofluorobenzene	0.479		0.500		95.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.497		0.500		99.4	70-130			
Surrogate: Toluene-d8	0.514		0.500		103	70-130			

#### Matrix Spike (2445135-MS1)

Source: E411075-02

Prepared: 11/08/24 Analyzed: 11/12/24

Benzene	2.34	0.0250	2.50	ND	93.7	48-131			
Ethylbenzene	2.58	0.0250	2.50	ND	103	45-135			
Toluene	2.50	0.0250	2.50	ND	100	48-130			
o-Xylene	2.71	0.0250	2.50	ND	108	43-135			
p,m-Xylene	5.45	0.0500	5.00	ND	109	43-135			
Total Xylenes	8.16	0.0250	7.50	ND	109	43-135			
Surrogate: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.522		0.500		104	70-130			

#### Matrix Spike Dup (2445135-MSD1)

Source: E411075-02

Prepared: 11/08/24 Analyzed: 11/12/24

Benzene	2.28	0.0250	2.50	ND	91.3	48-131	2.66	23	
Ethylbenzene	2.53	0.0250	2.50	ND	101	45-135	1.88	27	
Toluene	2.47	0.0250	2.50	ND	98.6	48-130	1.35	24	
o-Xylene	2.59	0.0250	2.50	ND	104	43-135	4.38	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	4.13	27	
Total Xylenes	7.82	0.0250	7.50	ND	104	43-135	4.21	27	
Surrogate: Bromofluorobenzene	0.499		0.500		99.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 1:54:13PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445135-BLK1)**

Prepared: 11/08/24 Analyzed: 11/12/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.3	70-130			
Surrogate: Toluene-d8	0.519		0.500		104	70-130			

**LCS (2445135-BS2)**

Prepared: 11/08/24 Analyzed: 11/12/24

Gasoline Range Organics (C6-C10)	49.2	20.0	50.0		98.5	70-130			
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.522		0.500		104	70-130			

**Matrix Spike (2445135-MS2)**

Source: E411075-02

Prepared: 11/08/24 Analyzed: 11/12/24

Gasoline Range Organics (C6-C10)	48.8	20.0	50.0	ND	97.7	70-130			
Surrogate: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.482		0.500		96.3	70-130			
Surrogate: Toluene-d8	0.526		0.500		105	70-130			

**Matrix Spike Dup (2445135-MSD2)**

Source: E411075-02

Prepared: 11/08/24 Analyzed: 11/12/24

Gasoline Range Organics (C6-C10)	53.1	20.0	50.0	ND	106	70-130	8.44	20	
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.480		0.500		96.0	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 1:54:13PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446005-BLK1)**

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	44.5		50.0		88.9	50-200			

**LCS (2446005-BS1)**

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	228	25.0	250		91.1	38-132			
Surrogate: n-Nonane	48.0		50.0		96.1	50-200			

**LCS Dup (2446005-BSD1)**

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	232	25.0	250		92.8	38-132	1.86	20	
Surrogate: n-Nonane	47.2		50.0		94.4	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 1:54:13PM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446028-BLK1)**

Prepared: 11/11/24 Analyzed: 11/15/24

Chloride	ND	20.0							
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**LCS (2446028-BS1)**

Prepared: 11/11/24 Analyzed: 11/15/24

Chloride	257	20.0	250		103	90-110			
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**LCS Dup (2446028-BSD1)**

Prepared: 11/11/24 Analyzed: 11/15/24

Chloride	257	20.0	250		103	90-110	0.164	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/24 13:54
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





Envirotech Analytical Laboratory

Printed: 11/11/2024 9:22:14AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/09/24 10:00 Work Order ID: E411074
Phone: (972) 371-5200 Date Logged In: 11/07/24 15:50 Logged In By: Noe Soto
Email: agiovengo@ensolum.com Due Date: 11/15/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Comments/Resolution

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for client instruction.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411075

Job Number: 23003-0002

Received: 11/9/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/18/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/18/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411075  
Date Received: 11/9/2024 10:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/9/2024 10:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
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[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/24 13:57
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS08 - 0'	E411075-01A	Soil	11/06/24	11/09/24	Glass Jar, 2 oz.
SS08 - 1'	E411075-02A	Soil	11/06/24	11/09/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 1:57:16PM
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**SS08 - 0'**

**E411075-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445135
Benzene	ND	0.0250	1	11/11/24	11/12/24	
Ethylbenzene	ND	0.0250	1	11/11/24	11/12/24	
Toluene	ND	0.0250	1	11/11/24	11/12/24	
o-Xylene	ND	0.0250	1	11/11/24	11/12/24	
p,m-Xylene	ND	0.0500	1	11/11/24	11/12/24	
Total Xylenes	ND	0.0250	1	11/11/24	11/12/24	
<i>Surrogate: Bromofluorobenzene</i>		98.1 %	70-130	11/11/24	11/12/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	11/11/24	11/12/24	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	11/11/24	11/12/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2445135
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/12/24	
<i>Surrogate: Bromofluorobenzene</i>		98.1 %	70-130	11/11/24	11/12/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	11/11/24	11/12/24	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	11/11/24	11/12/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2446016
Diesel Range Organics (C10-C28)	ND	25.0	1	11/11/24	11/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/11/24	11/12/24	
<i>Surrogate: n-Nonane</i>		101 %	50-200	11/11/24	11/12/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2446028
Chloride	ND	20.0	1	11/11/24	11/15/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 1:57:16PM
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**SS08 - 1'**

**E411075-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445135
Benzene	ND	0.0250	1	11/11/24	11/12/24	
Ethylbenzene	ND	0.0250	1	11/11/24	11/12/24	
Toluene	ND	0.0250	1	11/11/24	11/12/24	
o-Xylene	ND	0.0250	1	11/11/24	11/12/24	
p,m-Xylene	ND	0.0500	1	11/11/24	11/12/24	
Total Xylenes	ND	0.0250	1	11/11/24	11/12/24	
<i>Surrogate: Bromofluorobenzene</i>		99.0 %	70-130	11/11/24	11/12/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.4 %	70-130	11/11/24	11/12/24	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	11/11/24	11/12/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2445135
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/12/24	
<i>Surrogate: Bromofluorobenzene</i>		99.0 %	70-130	11/11/24	11/12/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.4 %	70-130	11/11/24	11/12/24	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	11/11/24	11/12/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2446016
Diesel Range Organics (C10-C28)	ND	25.0	1	11/11/24	11/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/11/24	11/12/24	
<i>Surrogate: n-Nonane</i>		105 %	50-200	11/11/24	11/12/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: DT		Batch: 2446028
Chloride	125	20.0	1	11/11/24	11/15/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 11/18/2024 1:57:16PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445135-BLK1)**

Prepared: 11/08/24 Analyzed: 11/12/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.3	70-130			
Surrogate: Toluene-d8	0.519		0.500		104	70-130			

**LCS (2445135-BS1)**

Prepared: 11/08/24 Analyzed: 11/12/24

Benzene	2.25	0.0250	2.50		90.2	70-130			
Ethylbenzene	2.45	0.0250	2.50		98.0	70-130			
Toluene	2.34	0.0250	2.50		93.5	70-130			
o-Xylene	2.49	0.0250	2.50		99.7	70-130			
p,m-Xylene	5.02	0.0500	5.00		100	70-130			
Total Xylenes	7.51	0.0250	7.50		100	70-130			
Surrogate: Bromofluorobenzene	0.479		0.500		95.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.497		0.500		99.4	70-130			
Surrogate: Toluene-d8	0.514		0.500		103	70-130			

**Matrix Spike (2445135-MS1)**

Source: E411075-02

Prepared: 11/08/24 Analyzed: 11/12/24

Benzene	2.34	0.0250	2.50	ND	93.7	48-131			
Ethylbenzene	2.58	0.0250	2.50	ND	103	45-135			
Toluene	2.50	0.0250	2.50	ND	100	48-130			
o-Xylene	2.71	0.0250	2.50	ND	108	43-135			
p,m-Xylene	5.45	0.0500	5.00	ND	109	43-135			
Total Xylenes	8.16	0.0250	7.50	ND	109	43-135			
Surrogate: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.522		0.500		104	70-130			

**Matrix Spike Dup (2445135-MSD1)**

Source: E411075-02

Prepared: 11/08/24 Analyzed: 11/12/24

Benzene	2.28	0.0250	2.50	ND	91.3	48-131	2.66	23	
Ethylbenzene	2.53	0.0250	2.50	ND	101	45-135	1.88	27	
Toluene	2.47	0.0250	2.50	ND	98.6	48-130	1.35	24	
o-Xylene	2.59	0.0250	2.50	ND	104	43-135	4.38	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	4.13	27	
Total Xylenes	7.82	0.0250	7.50	ND	104	43-135	4.21	27	
Surrogate: Bromofluorobenzene	0.499		0.500		99.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 1:57:16PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2445135-BLK1)**

Prepared: 11/08/24 Analyzed: 11/12/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.3	70-130			
Surrogate: Toluene-d8	0.519		0.500		104	70-130			

**LCS (2445135-BS2)**

Prepared: 11/08/24 Analyzed: 11/12/24

Gasoline Range Organics (C6-C10)	49.2	20.0	50.0		98.5	70-130			
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.522		0.500		104	70-130			

**Matrix Spike (2445135-MS2)**

Source: E411075-02

Prepared: 11/08/24 Analyzed: 11/12/24

Gasoline Range Organics (C6-C10)	48.8	20.0	50.0	ND	97.7	70-130			
Surrogate: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.482		0.500		96.3	70-130			
Surrogate: Toluene-d8	0.526		0.500		105	70-130			

**Matrix Spike Dup (2445135-MSD2)**

Source: E411075-02

Prepared: 11/08/24 Analyzed: 11/12/24

Gasoline Range Organics (C6-C10)	53.1	20.0	50.0	ND	106	70-130	8.44	20	
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.480		0.500		96.0	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 1:57:16PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446016-BLK1)**

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	45.2		50.0		90.4	50-200			

**LCS (2446016-BS1)**

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	233	25.0	250		93.3	38-132			
Surrogate: <i>n</i> -Nonane	49.6		50.0		99.2	50-200			

**Matrix Spike (2446016-MS1)**

Source: E411076-03

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	232	25.0	250	ND	92.7	38-132			
Surrogate: <i>n</i> -Nonane	48.7		50.0		97.5	50-200			

**Matrix Spike Dup (2446016-MSD1)**

Source: E411076-03

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	239	25.0	250	ND	95.6	38-132	3.01	20	
Surrogate: <i>n</i> -Nonane	49.3		50.0		98.6	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 1:57:16PM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446028-BLK1)**

Prepared: 11/11/24 Analyzed: 11/15/24

Chloride	ND	20.0							
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**LCS (2446028-BS1)**

Prepared: 11/11/24 Analyzed: 11/15/24

Chloride	257	20.0	250		103	90-110			
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**LCS Dup (2446028-BSD1)**

Prepared: 11/11/24 Analyzed: 11/15/24

Chloride	257	20.0	250		103	90-110	0.164	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/24 13:57
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





### Envirotech Analytical Laboratory

Printed: 11/11/2024 9:34:05AM

#### Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	11/09/24 10:00	Work Order ID:	E411075
Phone:	(972) 371-5200	Date Logged In:	11/07/24 16:31	Logged In By:	Noe Soto
Email:	agiovengo@ensolum.com	Due Date:	11/15/24 17:00 (4 day TAT)		

#### Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

#### Comments/Resolution

#### Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

#### Sample Cooler

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

#### Sample Container

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

#### Field Label

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

#### Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

#### Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

#### Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

#### Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411098

Job Number: 23003-0002

Received: 11/9/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/18/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/18/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E411098  
Date Received: 11/9/2024 10:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/9/2024 10:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/24 17:12
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS09-0'	E411098-01A	Soil	11/07/24	11/09/24	Glass Jar, 2 oz.
SS10-0'	E411098-02A	Soil	11/07/24	11/09/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 5:12:04PM
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**SS09-0'**

**E411098-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: RKS		Batch: 2446013
Benzene	ND	0.0250	1	11/11/24	11/14/24	
Ethylbenzene	ND	0.0250	1	11/11/24	11/14/24	
Toluene	ND	0.0250	1	11/11/24	11/14/24	
o-Xylene	ND	0.0250	1	11/11/24	11/14/24	
p,m-Xylene	ND	0.0500	1	11/11/24	11/14/24	
Total Xylenes	ND	0.0250	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.1 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.1 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2446029
Diesel Range Organics (C10-C28)	ND	25.0	1	11/11/24	11/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/11/24	11/13/24	
<i>Surrogate: n-Nonane</i>		96.6 %	50-200	11/11/24	11/13/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: JM		Batch: 2446143
Chloride	ND	20.0	1	11/15/24	11/15/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 5:12:04PM
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**SS10-0'**

**E411098-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Benzene	ND	0.0250	1	11/11/24	11/14/24	
Ethylbenzene	ND	0.0250	1	11/11/24	11/14/24	
Toluene	ND	0.0250	1	11/11/24	11/14/24	
o-Xylene	ND	0.0250	1	11/11/24	11/14/24	
p,m-Xylene	ND	0.0500	1	11/11/24	11/14/24	
Total Xylenes	ND	0.0250	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		106 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.5 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		107 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		106 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.5 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		107 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2446029
Diesel Range Organics (C10-C28)	ND	25.0	1	11/11/24	11/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/11/24	11/13/24	
<i>Surrogate: n-Nonane</i>		101 %	50-200	11/11/24	11/13/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2446143
Chloride	ND	20.0	1	11/15/24	11/15/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 5:12:04PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446013-BLK1)**

Prepared: 11/11/24 Analyzed: 11/14/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.518		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		0.500		101	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

**LCS (2446013-BS1)**

Prepared: 11/11/24 Analyzed: 11/14/24

Benzene	2.51	0.0250	2.50		100	70-130			
Ethylbenzene	2.48	0.0250	2.50		99.1	70-130			
Toluene	2.52	0.0250	2.50		101	70-130			
o-Xylene	2.55	0.0250	2.50		102	70-130			
p,m-Xylene	5.06	0.0500	5.00		101	70-130			
Total Xylenes	7.60	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.538		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.4	70-130			
Surrogate: Toluene-d8	0.526		0.500		105	70-130			

**LCS Dup (2446013-BSD1)**

Prepared: 11/11/24 Analyzed: 11/14/24

Benzene	2.49	0.0250	2.50		99.4	70-130	0.841	23	
Ethylbenzene	2.48	0.0250	2.50		99.4	70-130	0.262	27	
Toluene	2.52	0.0250	2.50		101	70-130	0.198	24	
o-Xylene	2.57	0.0250	2.50		103	70-130	0.938	27	
p,m-Xylene	5.10	0.0500	5.00		102	70-130	0.758	27	
Total Xylenes	7.67	0.0250	7.50		102	70-130	0.819	27	
Surrogate: Bromofluorobenzene	0.540		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		95.0	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 5:12:04PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446013-BLK1)**

Prepared: 11/11/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.518		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		0.500		101	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

**LCS (2446013-BS2)**

Prepared: 11/11/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	43.6	20.0	50.0		87.1	70-130			
Surrogate: Bromofluorobenzene	0.535		0.500		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.4	70-130			
Surrogate: Toluene-d8	0.545		0.500		109	70-130			

**LCS Dup (2446013-BSD2)**

Prepared: 11/11/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	45.2	20.0	50.0		90.3	70-130	3.63	20	
Surrogate: Bromofluorobenzene	0.542		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.488		0.500		97.6	70-130			
Surrogate: Toluene-d8	0.541		0.500		108	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 5:12:04PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446029-BLK1)**

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	51.5		50.0		103	50-200			

**LCS (2446029-BS1)**

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	266	25.0	250		106	38-132			
Surrogate: <i>n</i> -Nonane	52.4		50.0		105	50-200			

**Matrix Spike (2446029-MS1)**

Source: E411088-07

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	286	25.0	250	ND	114	38-132			
Surrogate: <i>n</i> -Nonane	55.3		50.0		111	50-200			

**Matrix Spike Dup (2446029-MSD1)**

Source: E411088-07

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	275	25.0	250	ND	110	38-132	3.79	20	
Surrogate: <i>n</i> -Nonane	54.2		50.0		108	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/2024 5:12:04PM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446143-BLK1)**

Prepared: 11/15/24 Analyzed: 11/15/24

Chloride ND 20.0

**LCS (2446143-BS1)**

Prepared: 11/15/24 Analyzed: 11/15/24

Chloride 252 20.0 250 101 90-110

**LCS Dup (2446143-BSD1)**

Prepared: 11/15/24 Analyzed: 11/15/24

Chloride 251 20.0 250 101 90-110 0.0409 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/18/24 17:12
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411098		23003-0002					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			
Sample Information										Analysis and Method						EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ.1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	Compliance	Y or N
10:37	11/7/2024	S	1	SS09 - 0'		1						X							
9:06	11/7/2024	S	1	SS10 - 0'		2						X							
Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																			
Sampled by: Bowan Simmons																			
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time												
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other										Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA									
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			



Envirotech Analytical Laboratory

Printed: 11/11/2024 10:18:06AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/09/24 10:00 Work Order ID: E411098
Phone: (972) 371-5200 Date Logged In: 11/09/24 11:28 Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com Due Date: 11/15/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for client instruction.

Comments/Resolution

Large empty box for comments/resolution.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411099

Job Number: 23003-0002

Received: 11/9/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/15/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/15/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E411099  
Date Received: 11/9/2024 10:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/9/2024 10:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
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Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/24 10:41
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW15- 0-10'	E411099-01A	Soil	11/07/24	11/09/24	Glass Jar, 2 oz.
FS16-10'	E411099-02A	Soil	11/07/24	11/09/24	Glass Jar, 2 oz.
FS17-11'	E411099-03A	Soil	11/07/24	11/09/24	Glass Jar, 2 oz.
FS19-4'	E411099-04A	Soil	11/07/24	11/09/24	Glass Jar, 2 oz.
FS44-1'	E411099-05A	Soil	11/07/24	11/09/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 10:41:10AM
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**SW15- 0-10'**

**E411099-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Benzene	ND	0.0250	1	11/11/24	11/14/24	
Ethylbenzene	ND	0.0250	1	11/11/24	11/14/24	
Toluene	ND	0.0250	1	11/11/24	11/14/24	
o-Xylene	ND	0.0250	1	11/11/24	11/14/24	
p,m-Xylene	ND	0.0500	1	11/11/24	11/14/24	
Total Xylenes	ND	0.0250	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		103 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.2 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		103 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.2 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2446029
Diesel Range Organics (C10-C28)	ND	25.0	1	11/11/24	11/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/11/24	11/13/24	
<i>Surrogate: n-Nonane</i>		104 %	50-200	11/11/24	11/13/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2446096
Chloride	323	20.0	1	11/13/24	11/13/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 10:41:10AM
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**FS16-10'**

**E411099-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Benzene	ND	0.0250	1	11/11/24	11/14/24	
Ethylbenzene	ND	0.0250	1	11/11/24	11/14/24	
Toluene	ND	0.0250	1	11/11/24	11/14/24	
o-Xylene	ND	0.0250	1	11/11/24	11/14/24	
p,m-Xylene	ND	0.0500	1	11/11/24	11/14/24	
Total Xylenes	ND	0.0250	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		105 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.9 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		105 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.9 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2446029
Diesel Range Organics (C10-C28)	ND	25.0	1	11/11/24	11/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/11/24	11/13/24	
<i>Surrogate: n-Nonane</i>		99.2 %	50-200	11/11/24	11/13/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2446096
Chloride	3340	40.0	2	11/13/24	11/13/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 10:41:10AM
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**FS17-11'**  
**E411099-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Benzene	ND	0.0250	1	11/11/24	11/14/24	
Ethylbenzene	ND	0.0250	1	11/11/24	11/14/24	
Toluene	ND	0.0250	1	11/11/24	11/14/24	
o-Xylene	ND	0.0250	1	11/11/24	11/14/24	
p,m-Xylene	ND	0.0500	1	11/11/24	11/14/24	
Total Xylenes	ND	0.0250	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		107 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.3 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		107 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		107 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.3 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		107 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2446029
Diesel Range Organics (C10-C28)	ND	25.0	1	11/11/24	11/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/11/24	11/13/24	
<i>Surrogate: n-Nonane</i>		103 %	50-200	11/11/24	11/13/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2446096
Chloride	4910	100	5	11/13/24	11/13/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 10:41:10AM
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**FS19-4'**

**E411099-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Benzene	ND	0.0250	1	11/11/24	11/14/24	
Ethylbenzene	ND	0.0250	1	11/11/24	11/14/24	
Toluene	ND	0.0250	1	11/11/24	11/14/24	
o-Xylene	ND	0.0250	1	11/11/24	11/14/24	
p,m-Xylene	ND	0.0500	1	11/11/24	11/14/24	
Total Xylenes	ND	0.0250	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		108 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		108 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2446029
Diesel Range Organics (C10-C28)	<b>429</b>	25.0	1	11/11/24	11/13/24	
Oil Range Organics (C28-C36)	<b>182</b>	50.0	1	11/11/24	11/13/24	
<i>Surrogate: n-Nonane</i>		106 %	50-200	11/11/24	11/13/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2446096
Chloride	<b>469</b>	20.0	1	11/13/24	11/13/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 10:41:10AM
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**FS44-1'**

**E411099-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Benzene	ND	0.0250	1	11/11/24	11/14/24	
Ethylbenzene	ND	0.0250	1	11/11/24	11/14/24	
Toluene	ND	0.0250	1	11/11/24	11/14/24	
o-Xylene	ND	0.0250	1	11/11/24	11/14/24	
p,m-Xylene	ND	0.0500	1	11/11/24	11/14/24	
Total Xylenes	ND	0.0250	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		107 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.5 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
<i>Surrogate: Bromofluorobenzene</i>		107 %	70-130	11/11/24	11/14/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.5 %	70-130	11/11/24	11/14/24	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	11/11/24	11/14/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2446029
Diesel Range Organics (C10-C28)	<b>106</b>	25.0	1	11/11/24	11/13/24	
Oil Range Organics (C28-C36)	<b>267</b>	50.0	1	11/11/24	11/13/24	
<i>Surrogate: n-Nonane</i>		107 %	50-200	11/11/24	11/13/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2446096
Chloride	<b>120</b>	20.0	1	11/13/24	11/13/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 10:41:10AM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446013-BLK1)**

Prepared: 11/11/24 Analyzed: 11/14/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.518		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		0.500		101	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

**LCS (2446013-BS1)**

Prepared: 11/11/24 Analyzed: 11/14/24

Benzene	2.51	0.0250	2.50		100	70-130			
Ethylbenzene	2.48	0.0250	2.50		99.1	70-130			
Toluene	2.52	0.0250	2.50		101	70-130			
o-Xylene	2.55	0.0250	2.50		102	70-130			
p,m-Xylene	5.06	0.0500	5.00		101	70-130			
Total Xylenes	7.60	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.538		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.4	70-130			
Surrogate: Toluene-d8	0.526		0.500		105	70-130			

**LCS Dup (2446013-BSD1)**

Prepared: 11/11/24 Analyzed: 11/14/24

Benzene	2.49	0.0250	2.50		99.4	70-130	0.841	23	
Ethylbenzene	2.48	0.0250	2.50		99.4	70-130	0.262	27	
Toluene	2.52	0.0250	2.50		101	70-130	0.198	24	
o-Xylene	2.57	0.0250	2.50		103	70-130	0.938	27	
p,m-Xylene	5.10	0.0500	5.00		102	70-130	0.758	27	
Total Xylenes	7.67	0.0250	7.50		102	70-130	0.819	27	
Surrogate: Bromofluorobenzene	0.540		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		95.0	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 10:41:10AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2446013-BLK1)

Prepared: 11/11/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.518		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		0.500		101	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

#### LCS (2446013-BS2)

Prepared: 11/11/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	43.6	20.0	50.0		87.1	70-130			
Surrogate: Bromofluorobenzene	0.535		0.500		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.4	70-130			
Surrogate: Toluene-d8	0.545		0.500		109	70-130			

#### LCS Dup (2446013-BSD2)

Prepared: 11/11/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	45.2	20.0	50.0		90.3	70-130	3.63	20	
Surrogate: Bromofluorobenzene	0.542		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.488		0.500		97.6	70-130			
Surrogate: Toluene-d8	0.541		0.500		108	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 10:41:10AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446029-BLK1)**

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	51.5		50.0		103	50-200			

**LCS (2446029-BS1)**

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	266	25.0	250		106	38-132			
Surrogate: <i>n</i> -Nonane	52.4		50.0		105	50-200			

**Matrix Spike (2446029-MS1)**

Source: E411088-07

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	286	25.0	250	ND	114	38-132			
Surrogate: <i>n</i> -Nonane	55.3		50.0		111	50-200			

**Matrix Spike Dup (2446029-MSD1)**

Source: E411088-07

Prepared: 11/11/24 Analyzed: 11/12/24

Diesel Range Organics (C10-C28)	275	25.0	250	ND	110	38-132	3.79	20	
Surrogate: <i>n</i> -Nonane	54.2		50.0		108	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/2024 10:41:10AM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446096-BLK1)**

Prepared: 11/13/24 Analyzed: 11/13/24

Chloride	ND	20.0							
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**LCS (2446096-BS1)**

Prepared: 11/13/24 Analyzed: 11/13/24

Chloride	253	20.0	250		101	90-110			
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**LCS Dup (2446096-BSD1)**

Prepared: 11/13/24 Analyzed: 11/13/24

Chloride	252	20.0	250		101	90-110	0.275	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/15/24 10:41
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



# Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State						
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX			
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411099		23003-0002					X	X						
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220																		
Address: 3122 National Parks Hwy				Phone: 575-988-0055																		
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com																		
Phone: 575-988-0055				Miscellaneous:																		
Email: agiovengo@ensolum.com																						
Sample Information										Analysis and Method						EPA Program						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	Compliance	Y	or	N	
10:54	11/7/2024	S	1	SW15 - 0-10'		1						X										
10:53	11/7/2024	S	1	FS16 - 10'		2						X										
10:54	11/7/2024	S	1	FS17 - 11'		3						X										
11:43	11/7/2024	S	1	FS19 - 4'		4						X										
11:50	11/7/2024	S	1	FS44 - 1'								X										
Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																						
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																						
Sampled by: Bowan Simmons																						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="radio"/> Y / N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>																
	11/8/24	1145	Michelle Gonzales	11-8-24	1145																	
Michelle Gonzales	11-8-24	1645		11-8-24	1649																	
	11-8-24	2241	Cecilia Man	11-9-24	10:00																	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time																	
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____										Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA												
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																						



Envirotech Analytical Laboratory

Printed: 11/11/2024 10:19:36AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/09/24 10:00 Work Order ID: E411099
Phone: (972) 371-5200 Date Logged In: 11/09/24 11:32 Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com Due Date: 11/15/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Comments/Resolution

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for client instruction.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411129

Job Number: 23003-0002

Received: 11/13/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/19/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/19/24



Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411129  
Date Received: 11/13/2024 6:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/13/2024 6:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/24 16:20
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW16- 0-4'	E411129-01A	Soil	11/07/24	11/13/24	Glass Jar, 2 oz.
FS26-6'	E411129-02A	Soil	11/07/24	11/13/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 4:20:37PM
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**SW16- 0-4'**

**E411129-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446083
Benzene	ND	0.0250	1	11/13/24	11/18/24	
Ethylbenzene	ND	0.0250	1	11/13/24	11/18/24	
Toluene	ND	0.0250	1	11/13/24	11/18/24	
o-Xylene	ND	0.0250	1	11/13/24	11/18/24	
p,m-Xylene	ND	0.0500	1	11/13/24	11/18/24	
Total Xylenes	ND	0.0250	1	11/13/24	11/18/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		85.1 %	70-130	11/13/24	11/18/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446083
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/13/24	11/18/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.9 %	70-130	11/13/24	11/18/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2446104
Diesel Range Organics (C10-C28)	ND	25.0	1	11/13/24	11/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/13/24	11/16/24	
<i>Surrogate: n-Nonane</i>		116 %	50-200	11/13/24	11/16/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447013
Chloride	ND	20.0	1	11/18/24	11/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 4:20:37PM
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**FS26-6'**

**E411129-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2446083
Benzene	ND	0.0250	1	11/13/24	11/18/24	
Ethylbenzene	ND	0.0250	1	11/13/24	11/18/24	
Toluene	ND	0.0250	1	11/13/24	11/18/24	
o-Xylene	ND	0.0250	1	11/13/24	11/18/24	
p,m-Xylene	ND	0.0500	1	11/13/24	11/18/24	
Total Xylenes	ND	0.0250	1	11/13/24	11/18/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		87.8 %	70-130	11/13/24	11/18/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2446083
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/13/24	11/18/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		90.9 %	70-130	11/13/24	11/18/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2446104
Diesel Range Organics (C10-C28)	ND	25.0	1	11/13/24	11/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/13/24	11/16/24	
<i>Surrogate: n-Nonane</i>						
		123 %	50-200	11/13/24	11/16/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2447013
Chloride	708	20.0	1	11/18/24	11/19/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 4:20:37PM
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#### Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446083-BLK1)**

Prepared: 11/13/24 Analyzed: 11/18/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.78		8.00		84.7	70-130			

**LCS (2446083-BS1)**

Prepared: 11/13/24 Analyzed: 11/18/24

Benzene	5.23	0.0250	5.00		105	70-130			
Ethylbenzene	5.03	0.0250	5.00		101	70-130			
Toluene	5.15	0.0250	5.00		103	70-130			
o-Xylene	4.96	0.0250	5.00		99.1	70-130			
p,m-Xylene	10.2	0.0500	10.0		102	70-130			
Total Xylenes	15.2	0.0250	15.0		101	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.73		8.00		84.2	70-130			

**LCS Dup (2446083-BSD1)**

Prepared: 11/13/24 Analyzed: 11/18/24

Benzene	5.41	0.0250	5.00		108	70-130	3.26	20	
Ethylbenzene	5.19	0.0250	5.00		104	70-130	3.30	20	
Toluene	5.31	0.0250	5.00		106	70-130	3.15	20	
o-Xylene	5.14	0.0250	5.00		103	70-130	3.63	20	
p,m-Xylene	10.5	0.0500	10.0		105	70-130	3.22	20	
Total Xylenes	15.7	0.0250	15.0		104	70-130	3.36	20	
Surrogate: 4-Bromochlorobenzene-PID	6.71		8.00		83.8	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 4:20:37PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446083-BLK1)**

Prepared: 11/13/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.56		8.00		94.5	70-130			

**LCS (2446083-BS2)**

Prepared: 11/13/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	40.4	20.0	50.0		80.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.62		8.00		95.2	70-130			

**LCS Dup (2446083-BSD2)**

Prepared: 11/13/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	39.6	20.0	50.0		79.2	70-130	2.01	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.69		8.00		96.1	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 4:20:37PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446104-BLK1)**

Prepared: 11/13/24 Analyzed: 11/15/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	63.2		50.0		126	50-200			

**LCS (2446104-BS1)**

Prepared: 11/13/24 Analyzed: 11/15/24

Diesel Range Organics (C10-C28)	259	25.0	250		104	38-132			
Surrogate: <i>n</i> -Nonane	55.0		50.0		110	50-200			

**Matrix Spike (2446104-MS1)**

Source: E411119-25

Prepared: 11/13/24 Analyzed: 11/15/24

Diesel Range Organics (C10-C28)	270	25.0	250	ND	108	38-132			
Surrogate: <i>n</i> -Nonane	57.1		50.0		114	50-200			

**Matrix Spike Dup (2446104-MSD1)**

Source: E411119-25

Prepared: 11/13/24 Analyzed: 11/15/24

Diesel Range Organics (C10-C28)	281	25.0	250	ND	112	38-132	3.93	20	
Surrogate: <i>n</i> -Nonane	59.4		50.0		119	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 4:20:37PM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447013-BLK1)**

Prepared: 11/18/24 Analyzed: 11/19/24

Chloride ND 20.0

**LCS (2447013-BS1)**

Prepared: 11/18/24 Analyzed: 11/19/24

Chloride 253 20.0 250 101 90-110

**LCS Dup (2447013-BSD1)**

Prepared: 11/18/24 Analyzed: 11/19/24

Chloride 252 20.0 250 101 90-110 0.359 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/24 16:20
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





### Envirotech Analytical Laboratory

Printed: 11/13/2024 8:01:46AM

#### Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 11/13/24 06:30	Work Order ID: E411129
Phone: (972) 371-5200	Date Logged In: 11/12/24 14:17	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 11/19/24 17:00 (4 day TAT)	

#### Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

#### Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

#### Sample Cooler

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

#### Sample Container

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

#### Field Label

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

#### Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

#### Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

#### Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

#### Client Instruction

#### Comments/Resolution

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411140

Job Number: 23003-0002

Received: 11/14/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/20/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/20/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E411140  
Date Received: 11/14/2024 8:00:57AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/14/2024 8:00:57AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/24 12:30
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH05- 0'	E411140-01A	Soil	11/12/24	11/14/24	Glass Jar, 2 oz.
BH05- 1'	E411140-02A	Soil	11/12/24	11/14/24	Glass Jar, 2 oz.
BH05- 3'	E411140-03A	Soil	11/12/24	11/14/24	Glass Jar, 2 oz.
BH05- 5'	E411140-04A	Soil	11/12/24	11/14/24	Glass Jar, 2 oz.
BH05- 7.5'	E411140-05A	Soil	11/12/24	11/14/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 12:30:59PM
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**BH05- 0'**

**E411140-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446117
Benzene	ND	0.0250	1	11/14/24	11/16/24	
Ethylbenzene	ND	0.0250	1	11/14/24	11/16/24	
Toluene	ND	0.0250	1	11/14/24	11/16/24	
o-Xylene	ND	0.0250	1	11/14/24	11/16/24	
p,m-Xylene	ND	0.0500	1	11/14/24	11/16/24	
Total Xylenes	ND	0.0250	1	11/14/24	11/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		88.6 %	70-130	11/14/24	11/16/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446117
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/24	11/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.8 %	70-130	11/14/24	11/16/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2446115
Diesel Range Organics (C10-C28)	ND	25.0	1	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>		117 %	50-200	11/14/24	11/15/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447015
Chloride	2730	40.0	2	11/18/24	11/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 12:30:59PM
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**BH05- 1'**

**E411140-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446117
Benzene	ND	0.0500	2	11/14/24	11/16/24	
Ethylbenzene	ND	0.0500	2	11/14/24	11/16/24	
Toluene	ND	0.0500	2	11/14/24	11/16/24	
o-Xylene	ND	0.0500	2	11/14/24	11/16/24	
p,m-Xylene	ND	0.100	2	11/14/24	11/16/24	
Total Xylenes	ND	0.0500	2	11/14/24	11/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		88.1 %	70-130	11/14/24	11/16/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446117
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/14/24	11/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.0 %	70-130	11/14/24	11/16/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2446115
Diesel Range Organics (C10-C28)	4470	125	5	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	3790	250	5	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	11/14/24	11/15/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447015
Chloride	3270	40.0	2	11/18/24	11/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 12:30:59PM
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**BH05- 3'**

**E411140-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446117
Benzene	ND	0.0500	2	11/14/24	11/16/24	
Ethylbenzene	ND	0.0500	2	11/14/24	11/16/24	
Toluene	ND	0.0500	2	11/14/24	11/16/24	
o-Xylene	ND	0.0500	2	11/14/24	11/16/24	
p,m-Xylene	ND	0.100	2	11/14/24	11/16/24	
Total Xylenes	ND	0.0500	2	11/14/24	11/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.3 %	70-130	11/14/24	11/16/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446117
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/14/24	11/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.3 %	70-130	11/14/24	11/16/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2446115
Diesel Range Organics (C10-C28)	4720	50.0	2	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	2040	100	2	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>		108 %	50-200	11/14/24	11/15/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447015
Chloride	1420	20.0	1	11/18/24	11/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 12:30:59PM
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**BH05- 5'**

**E411140-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446117
Benzene	ND	0.0500	2	11/14/24	11/17/24	
Ethylbenzene	ND	0.0500	2	11/14/24	11/17/24	
Toluene	ND	0.0500	2	11/14/24	11/17/24	
o-Xylene	<b>0.0574</b>	0.0500	2	11/14/24	11/17/24	
p,m-Xylene	<b>0.119</b>	0.100	2	11/14/24	11/17/24	
Total Xylenes	<b>0.177</b>	0.0500	2	11/14/24	11/17/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		87.4 %	70-130	11/14/24	11/17/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446117
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/14/24	11/17/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.0 %	70-130	11/14/24	11/17/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2446115
Diesel Range Organics (C10-C28)	<b>2070</b>	50.0	2	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	<b>1080</b>	100	2	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>		110 %	50-200	11/14/24	11/15/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447015
Chloride	<b>1840</b>	20.0	1	11/18/24	11/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 12:30:59PM
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**BH05- 7.5'**

**E411140-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446117
Benzene	ND	0.0500	2	11/14/24	11/17/24	
Ethylbenzene	ND	0.0500	2	11/14/24	11/17/24	
Toluene	ND	0.0500	2	11/14/24	11/17/24	
o-Xylene	ND	0.0500	2	11/14/24	11/17/24	
p,m-Xylene	<b>0.163</b>	0.100	2	11/14/24	11/17/24	
Total Xylenes	<b>0.163</b>	0.0500	2	11/14/24	11/17/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		87.6 %	70-130	11/14/24	11/17/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446117
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/14/24	11/17/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.3 %	70-130	11/14/24	11/17/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2446115
Diesel Range Organics (C10-C28)	<b>1450</b>	50.0	2	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	<b>682</b>	100	2	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>		122 %	50-200	11/14/24	11/15/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447015
Chloride	<b>5440</b>	100	5	11/18/24	11/19/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 12:30:59PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446117-BLK1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.10		8.00		88.7	70-130			

**LCS (2446117-BS1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Benzene	4.61	0.0250	5.00		92.2	70-130			
Ethylbenzene	4.64	0.0250	5.00		92.8	70-130			
Toluene	4.69	0.0250	5.00		93.7	70-130			
o-Xylene	4.67	0.0250	5.00		93.4	70-130			
p,m-Xylene	9.45	0.0500	10.0		94.5	70-130			
Total Xylenes	14.1	0.0250	15.0		94.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.21		8.00		90.1	70-130			

**LCS Dup (2446117-BSD1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Benzene	4.93	0.0250	5.00		98.6	70-130	6.73	20	
Ethylbenzene	4.98	0.0250	5.00		99.5	70-130	7.04	20	
Toluene	5.01	0.0250	5.00		100	70-130	6.68	20	
o-Xylene	5.00	0.0250	5.00		100	70-130	6.77	20	
p,m-Xylene	10.1	0.0500	10.0		101	70-130	6.89	20	
Total Xylenes	15.1	0.0250	15.0		101	70-130	6.85	20	
Surrogate: 4-Bromochlorobenzene-PID	7.23		8.00		90.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 12:30:59PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446117-BLK1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.21		8.00		90.1	70-130			

**LCS (2446117-BS2)**

Prepared: 11/14/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	38.7	20.0	50.0		77.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.27		8.00		90.9	70-130			

**LCS Dup (2446117-BSD2)**

Prepared: 11/14/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	40.8	20.0	50.0		81.6	70-130	5.27	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.31		8.00		91.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 12:30:59PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446115-BLK1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	57.7		50.0		115	50-200			

**LCS (2446115-BS1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Diesel Range Organics (C10-C28)	254	25.0	250		102	38-132			
Surrogate: <i>n</i> -Nonane	53.0		50.0		106	50-200			

**Matrix Spike (2446115-MS1)**

Source: E411137-03

Prepared: 11/14/24 Analyzed: 11/14/24

Diesel Range Organics (C10-C28)	272	25.0	250	ND	109	38-132			
Surrogate: <i>n</i> -Nonane	56.6		50.0		113	50-200			

**Matrix Spike Dup (2446115-MSD1)**

Source: E411137-03

Prepared: 11/14/24 Analyzed: 11/15/24

Diesel Range Organics (C10-C28)	288	25.0	250	ND	115	38-132	5.44	20	
Surrogate: <i>n</i> -Nonane	60.5		50.0		121	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 12:30:59PM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447015-BLK1)**

Prepared: 11/18/24 Analyzed: 11/19/24

Chloride	ND	20.0							
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**LCS (2447015-BS1)**

Prepared: 11/18/24 Analyzed: 11/19/24

Chloride	256	20.0	250		102	90-110			
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**LCS Dup (2447015-BSD1)**

Prepared: 11/18/24 Analyzed: 11/19/24

Chloride	256	20.0	250		102	90-110	0.115	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/24 12:30
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

<b>Client Information</b>				<b>Invoice Information</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>State</b>							
Client: Matador Production Company				Company: Ensolum LLC				Lab WO# <b>E411140</b>				Job Number <b>23003-0002</b>				1D 2D 3D Std X				NM CO UT TX X			
Project: Young Deep SWD				Address: 3122 National Parks Hwy				City, State, Zip: Carlsbad NM, 88220															
Project Manager: Ashley Giovengo				Phone: 575-988-0055				Email: <a href="mailto:agiovengo@ensolum.com">agiovengo@ensolum.com</a>															
Address: 3122 National Parks Hwy				Miscellaneous:																			
City, State, Zip: Carlsbad NM, 88220																							
Phone: 575-988-0055																							
Email: <a href="mailto:agiovengo@ensolum.com">agiovengo@ensolum.com</a>																							

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA				
Compliance Y or N																					
9:18	11/12/2024	S	1	BH05 - 0'		1						X									
9:21	11/12/2024	S	1	BH05 - 1'		2						X									
9:25	11/12/2024	S	1	BH05 - 3'		3						X									
10:04	11/12/2024	S	1	BH05 - 5'		4						X									
10:16	11/12/2024	S	1	BH05 - 7.5'		5						X									

**Additional Instructions:** Held on Ice. Please CC: [cburton@ensolum.com](mailto:cburton@ensolum.com), [agiovengo@ensolum.com](mailto:agiovengo@ensolum.com), [iestrella@ensolum.com](mailto:iestrella@ensolum.com), [chamilton@ensolum.com](mailto:chamilton@ensolum.com), [bsimmons@ensolum.com](mailto:bsimmons@ensolum.com)

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: <b>Bowan Simmons</b>						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Relinquished by: (Signature) <i>[Signature]</i>	Date 11/13/24	Time 10:45	Received by: (Signature) <i>Michelle Gonzales</i>	Date 11-13-24	Time 1045	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <b>4</b>					
Relinquished by: (Signature) <i>Michelle Gonzales</i>	Date 11-13-24	Time 15:25	Received by: (Signature) <i>[Signature]</i>	Date 11-13-24	Time 1630						
Relinquished by: (Signature) <i>[Signature]</i>	Date 11-13-24	Time 2230	Received by: (Signature) <i>Cath Ma</i>	Date 11-15-24	Time 8:00						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other  
 Container type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



### Envirotech Analytical Laboratory

Printed: 11/14/2024 9:19:42AM

#### Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 11/14/24 08:00	Work Order ID: E411140
Phone: (972) 371-5200	Date Logged In: 11/13/24 14:27	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 11/20/24 17:00 (4 day TAT)	

#### Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

#### Comments/Resolution

#### Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

#### Sample Cooler

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

#### Sample Container

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

#### Field Label

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

#### Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

#### Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

#### Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

#### Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411141

Job Number: 23003-0002

Received: 11/14/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/20/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/20/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411141  
Date Received: 11/14/2024 8:00:57AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/14/2024 8:00:57AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

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Office: 505-421-LABS(5227)  
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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/24 10:27
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW18 - 0-11'	E411141-01A	Soil	11/12/24	11/14/24	Glass Jar, 2 oz.
SW19 - 0-10'	E411141-02A	Soil	11/12/24	11/14/24	Glass Jar, 2 oz.
SW20 - 0-10'	E411141-03A	Soil	11/12/24	11/14/24	Glass Jar, 2 oz.
FS45 - 4'	E411141-04A	Soil	11/12/24	11/14/24	Glass Jar, 2 oz.
FS46 - 4'	E411141-05A	Soil	11/12/24	11/14/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 10:27:08AM
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**SW18 - 0-11'**

**E411141-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2446118
Benzene	ND	0.0250	1	11/14/24	11/15/24	
Ethylbenzene	ND	0.0250	1	11/14/24	11/15/24	
Toluene	ND	0.0250	1	11/14/24	11/15/24	
o-Xylene	ND	0.0250	1	11/14/24	11/15/24	
p,m-Xylene	ND	0.0500	1	11/14/24	11/15/24	
Total Xylenes	ND	0.0250	1	11/14/24	11/15/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	70-130	11/14/24	11/15/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2446118
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/24	11/15/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.0 %	70-130	11/14/24	11/15/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2446116
Diesel Range Organics (C10-C28)	<b>239</b>	25.0	1	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	<b>181</b>	50.0	1	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>		116 %	50-200	11/14/24	11/15/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: WF		Batch: 2446112
Chloride	<b>291</b>	20.0	1	11/14/24	11/14/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 10:27:08AM
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**SW19 - 0-10'**

**E411141-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2446118
Benzene	ND	0.0500	2	11/14/24	11/15/24	
Ethylbenzene	ND	0.0500	2	11/14/24	11/15/24	
Toluene	ND	0.0500	2	11/14/24	11/15/24	
o-Xylene	ND	0.0500	2	11/14/24	11/15/24	
p,m-Xylene	ND	0.100	2	11/14/24	11/15/24	
Total Xylenes	ND	0.0500	2	11/14/24	11/15/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		103 %	70-130	11/14/24	11/15/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2446118
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/14/24	11/15/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		90.4 %	70-130	11/14/24	11/15/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2446116
Diesel Range Organics (C10-C28)	3200	125	5	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	5420	250	5	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>						
		103 %	50-200	11/14/24	11/15/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: WF		Batch: 2446112
Chloride	1490	20.0	1	11/14/24	11/14/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 10:27:08AM
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**SW20 - 0-10'**

**E411141-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2446118
Benzene	ND	0.0500	2	11/14/24	11/15/24	
Ethylbenzene	ND	0.0500	2	11/14/24	11/15/24	
Toluene	ND	0.0500	2	11/14/24	11/15/24	
o-Xylene	ND	0.0500	2	11/14/24	11/15/24	
p,m-Xylene	ND	0.100	2	11/14/24	11/15/24	
Total Xylenes	ND	0.0500	2	11/14/24	11/15/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		104 %	70-130	11/14/24	11/15/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2446118
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/14/24	11/15/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.8 %	70-130	11/14/24	11/15/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2446116
Diesel Range Organics (C10-C28)	705	125	5	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	784	250	5	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>						
		110 %	50-200	11/14/24	11/15/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: WF		Batch: 2446112
Chloride	216	20.0	1	11/14/24	11/14/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 10:27:08AM
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**FS45 - 4'**

**E411141-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2446118
Benzene	ND	0.0250	1	11/14/24	11/15/24	
Ethylbenzene	ND	0.0250	1	11/14/24	11/15/24	
Toluene	ND	0.0250	1	11/14/24	11/15/24	
o-Xylene	ND	0.0250	1	11/14/24	11/15/24	
p,m-Xylene	ND	0.0500	1	11/14/24	11/15/24	
Total Xylenes	ND	0.0250	1	11/14/24	11/15/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	11/14/24	11/15/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2446118
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/24	11/15/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.8 %	70-130	11/14/24	11/15/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2446116
Diesel Range Organics (C10-C28)	53.2	25.0	1	11/14/24	11/20/24	
Oil Range Organics (C28-C36)	150	50.0	1	11/14/24	11/20/24	
<i>Surrogate: n-Nonane</i>		124 %	50-200	11/14/24	11/20/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: WF		Batch: 2446112
Chloride	22.8	20.0	1	11/14/24	11/14/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 10:27:08AM
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**FS46 - 4'**

**E411141-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2446118
Benzene	ND	0.0250	1	11/14/24	11/15/24	
Ethylbenzene	ND	0.0250	1	11/14/24	11/15/24	
Toluene	ND	0.0250	1	11/14/24	11/15/24	
o-Xylene	ND	0.0250	1	11/14/24	11/15/24	
p,m-Xylene	ND	0.0500	1	11/14/24	11/15/24	
Total Xylenes	ND	0.0250	1	11/14/24	11/15/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	11/14/24	11/15/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2446118
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/24	11/15/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		91.5 %	70-130	11/14/24	11/15/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2446116
Diesel Range Organics (C10-C28)	70.3	50.0	2	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	154	100	2	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>						
		117 %	50-200	11/14/24	11/15/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: WF		Batch: 2446112
Chloride	26.5	20.0	1	11/14/24	11/14/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 10:27:08AM
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#### Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446118-BLK1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.96		8.00		99.5	70-130			

**LCS (2446118-BS1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Benzene	4.99	0.0250	5.00		99.8	70-130			
Ethylbenzene	5.06	0.0250	5.00		101	70-130			
Toluene	5.10	0.0250	5.00		102	70-130			
o-Xylene	5.09	0.0250	5.00		102	70-130			
p,m-Xylene	10.3	0.0500	10.0		103	70-130			
Total Xylenes	15.4	0.0250	15.0		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.01		8.00		100	70-130			

**LCS Dup (2446118-BSD1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Benzene	4.82	0.0250	5.00		96.3	70-130	3.52	20	
Ethylbenzene	4.91	0.0250	5.00		98.3	70-130	3.01	20	
Toluene	4.93	0.0250	5.00		98.6	70-130	3.25	20	
o-Xylene	4.94	0.0250	5.00		98.8	70-130	3.07	20	
p,m-Xylene	10.0	0.0500	10.0		100	70-130	2.83	20	
Total Xylenes	15.0	0.0250	15.0		99.7	70-130	2.91	20	
Surrogate: 4-Bromochlorobenzene-PID	8.06		8.00		101	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 10:27:08AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

**Blank (2446118-BLK1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.38		8.00		92.2	70-130			

**LCS (2446118-BS2)**

Prepared: 11/14/24 Analyzed: 11/15/24

Gasoline Range Organics (C6-C10)	42.6	20.0	50.0		85.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.51		8.00		93.9	70-130			

**LCS Dup (2446118-BSD2)**

Prepared: 11/14/24 Analyzed: 11/14/24

Gasoline Range Organics (C6-C10)	47.1	20.0	50.0		94.2	70-130	10.1	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.47		8.00		93.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 10:27:08AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446116-BLK1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	53.4		50.0		107	50-200			

**LCS (2446116-BS1)**

Prepared: 11/14/24 Analyzed: 11/14/24

Diesel Range Organics (C10-C28)	251	25.0	250		100	38-132			
Surrogate: <i>n</i> -Nonane	54.7		50.0		109	50-200			

**Matrix Spike (2446116-MS1)**

Source: E411136-04

Prepared: 11/14/24 Analyzed: 11/14/24

Diesel Range Organics (C10-C28)	254	25.0	250	ND	102	38-132			
Surrogate: <i>n</i> -Nonane	57.9		50.0		116	50-200			

**Matrix Spike Dup (2446116-MSD1)**

Source: E411136-04

Prepared: 11/14/24 Analyzed: 11/14/24

Diesel Range Organics (C10-C28)	255	25.0	250	ND	102	38-132	0.517	20	
Surrogate: <i>n</i> -Nonane	58.6		50.0		117	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/2024 10:27:08AM
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#### Anions by EPA 300.0/9056A

Analyst: WF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446112-BLK1)**

Prepared: 11/13/24 Analyzed: 11/14/24

Chloride	ND	20.0							
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**LCS (2446112-BS1)**

Prepared: 11/13/24 Analyzed: 11/14/24

Chloride	257	20.0	250		103	90-110			
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**LCS Dup (2446112-BSD1)**

Prepared: 11/13/24 Analyzed: 11/14/24

Chloride	257	20.0	250		103	90-110	0.230	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/20/24 10:27
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E41141		2303-0002					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			
Sample Information																			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Remarks				
13:22	11/12/2024	S	1	SW18 - 0-11'		1						X							
13:25	11/12/2024	S	1	SW19 - 0-10'		2						X							
13:28	11/12/2024	S	1	SW20 - 0-10'		3						X							
14:07	11/12/2024	S	1	FS45 - 4'		4						X							
14:07	11/12/2024	S	1	FS46 - 4'		5						X							
Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																			
Sampled by: Bowan Simmons																			
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.											
<i>[Signature]</i>		11/13/24	10:45	Michelle Gonzales		11-13-24	1045												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time												
<i>Michelle Gonzales</i>		11-13-24	15:25	<i>[Signature]</i>		11-13-24	16:30												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>											
<i>[Signature]</i>		11-13-24	22:30	<i>Cathy Man</i>		11-15-24	8:00												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time												
<i>[Signature]</i>				<i>[Signature]</i>		CM													
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other										Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA									
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			

Envirotech Analytical Laboratory

Printed: 11/14/2024 9:21:07AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/14/24 08:00 Work Order ID: E411141
Phone: (972) 371-5200 Date Logged In: 11/13/24 14:30 Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com Due Date: 11/20/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Comments/Resolution

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for client instruction.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411150

Job Number: 23003-0002

Received: 11/15/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/19/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/19/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411150  
Date Received: 11/15/2024 6:30:37AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/15/2024 6:30:37AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
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Field Offices:

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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/24 10:18
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW14- 0-4'	E411150-01A	Soil	11/13/24	11/15/24	Glass Jar, 2 oz.
SW21- 0-4'	E411150-02A	Soil	11/13/24	11/15/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 10:18:07AM
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**SW14- 0-4'**

**E411150-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446145
Benzene	ND	0.0250	1	11/15/24	11/16/24	
Ethylbenzene	ND	0.0250	1	11/15/24	11/16/24	
Toluene	ND	0.0250	1	11/15/24	11/16/24	
o-Xylene	ND	0.0250	1	11/15/24	11/16/24	
p,m-Xylene	ND	0.0500	1	11/15/24	11/16/24	
Total Xylenes	ND	0.0250	1	11/15/24	11/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.2 %	70-130	11/15/24	11/16/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446145
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/15/24	11/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.2 %	70-130	11/15/24	11/16/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2446149
Diesel Range Organics (C10-C28)	ND	25.0	1	11/15/24	11/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/15/24	11/16/24	
<i>Surrogate: n-Nonane</i>		98.5 %	50-200	11/15/24	11/16/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2446159
Chloride	44.6	20.0	1	11/15/24	11/16/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 10:18:07AM
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**SW21- 0-4'**

**E411150-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446145
Benzene	ND	0.0250	1	11/15/24	11/16/24	
Ethylbenzene	ND	0.0250	1	11/15/24	11/16/24	
Toluene	ND	0.0250	1	11/15/24	11/16/24	
o-Xylene	ND	0.0250	1	11/15/24	11/16/24	
p,m-Xylene	ND	0.0500	1	11/15/24	11/16/24	
Total Xylenes	ND	0.0250	1	11/15/24	11/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		89.6 %	70-130	11/15/24	11/16/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2446145
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/15/24	11/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.5 %	70-130	11/15/24	11/16/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2446149
Diesel Range Organics (C10-C28)	ND	25.0	1	11/15/24	11/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/15/24	11/16/24	
<i>Surrogate: n-Nonane</i>		105 %	50-200	11/15/24	11/16/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2446159
Chloride	ND	20.0	1	11/15/24	11/16/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 10:18:07AM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446145-BLK1)**

Prepared: 11/15/24 Analyzed: 11/15/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.23		8.00		90.3	70-130			

**LCS (2446145-BS1)**

Prepared: 11/15/24 Analyzed: 11/15/24

Benzene	4.64	0.0250	5.00		92.8	70-130			
Ethylbenzene	4.84	0.0250	5.00		96.9	70-130			
Toluene	4.85	0.0250	5.00		96.9	70-130			
o-Xylene	4.88	0.0250	5.00		97.7	70-130			
p,m-Xylene	9.86	0.0500	10.0		98.6	70-130			
Total Xylenes	14.7	0.0250	15.0		98.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.03		8.00		87.9	70-130			

**LCS Dup (2446145-BSD1)**

Prepared: 11/15/24 Analyzed: 11/15/24

Benzene	4.53	0.0250	5.00		90.7	70-130	2.33	20	
Ethylbenzene	4.76	0.0250	5.00		95.2	70-130	1.68	20	
Toluene	4.75	0.0250	5.00		94.9	70-130	2.07	20	
o-Xylene	4.80	0.0250	5.00		96.0	70-130	1.76	20	
p,m-Xylene	9.69	0.0500	10.0		96.9	70-130	1.74	20	
Total Xylenes	14.5	0.0250	15.0		96.6	70-130	1.74	20	
Surrogate: 4-Bromochlorobenzene-PID	7.22		8.00		90.3	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 10:18:07AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446145-BLK1)**

Prepared: 11/15/24 Analyzed: 11/15/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.18		8.00		89.7	70-130			

**LCS (2446145-BS2)**

Prepared: 11/15/24 Analyzed: 11/15/24

Gasoline Range Organics (C6-C10)	37.9	20.0	50.0		75.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.48		8.00		93.5	70-130			

**LCS Dup (2446145-BSD2)**

Prepared: 11/15/24 Analyzed: 11/16/24

Gasoline Range Organics (C6-C10)	38.3	20.0	50.0		76.7	70-130	1.25	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.32		8.00		91.5	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 10:18:07AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446149-BLK1)**

Prepared: 11/15/24 Analyzed: 11/15/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	52.1		50.0		104	50-200			

**LCS (2446149-BS1)**

Prepared: 11/15/24 Analyzed: 11/15/24

Diesel Range Organics (C10-C28)	266	25.0	250		107	38-132			
Surrogate: <i>n</i> -Nonane	54.4		50.0		109	50-200			

**Matrix Spike (2446149-MS1)**

Source: E411147-12

Prepared: 11/15/24 Analyzed: 11/15/24

Diesel Range Organics (C10-C28)	279	25.0	250	ND	112	38-132			
Surrogate: <i>n</i> -Nonane	55.4		50.0		111	50-200			

**Matrix Spike Dup (2446149-MSD1)**

Source: E411147-12

Prepared: 11/15/24 Analyzed: 11/15/24

Diesel Range Organics (C10-C28)	280	25.0	250	ND	112	38-132	0.277	20	
Surrogate: <i>n</i> -Nonane	55.7		50.0		111	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 10:18:07AM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2446159-BLK1)**

Prepared: 11/15/24 Analyzed: 11/16/24

Chloride	ND	20.0							
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**LCS (2446159-BS1)**

Prepared: 11/15/24 Analyzed: 11/16/24

Chloride	250	20.0	250		100	90-110			
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**LCS Dup (2446159-BSD1)**

Prepared: 11/15/24 Analyzed: 11/16/24

Chloride	250	20.0	250		99.9	90-110	0.116	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/24 10:18
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by: OCD: 3/20/2025 7:10:34 AM

Page 1 of 12 page 1

<b>Client Information</b>				<b>Invoice Information</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>State</b>			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E 411150		23003-0002					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information					Analysis and Method										EPA Program			Remarks	
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NIM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA		RCRA
12:38	11/13/2024	S	1	SW14 - 0-4'			1						X						
12:48	11/13/2024	S	1	SW21 - 0-4'			2						X						

Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Bowan Simmons						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>					
<i>[Signature]</i>	11/14/24	9:40	Michelle Gonzalez	11-14-24	0940						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
<i>Michelle Gonzalez</i>	11-14-24	11:00	<i>[Signature]</i>	11-14-24	17:00						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
<i>[Signature]</i>	11.14.24	2345	<i>Auth Tho</i>	11-15-24	02:30						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Page 481 of 490

Envirotech Analytical Laboratory

Printed: 11/15/2024 8:52:06AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/15/24 06:30 Work Order ID: E411150
Phone: (972) 371-5200 Date Logged In: 11/14/24 14:22 Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com Due Date: 11/21/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for Client Instruction

Comments/Resolution

Large empty box for Comments/Resolution

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411160

Job Number: 23003-0002

Received: 11/18/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/19/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/19/24



Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411160  
Date Received: 11/18/2024 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/18/2024 8:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**

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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/24 13:20
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS51- 4-7'	E411160-01A	Soil	11/14/24	11/18/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 11/19/2024 1:20:09PM
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**FS51- 4-7'**

**E411160-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2447002
Benzene	ND	0.0250	1	11/18/24	11/18/24	
Ethylbenzene	ND	0.0250	1	11/18/24	11/18/24	
Toluene	ND	0.0250	1	11/18/24	11/18/24	
o-Xylene	ND	0.0250	1	11/18/24	11/18/24	
p,m-Xylene	ND	0.0500	1	11/18/24	11/18/24	
Total Xylenes	ND	0.0250	1	11/18/24	11/18/24	
<i>Surrogate: Bromofluorobenzene</i>						
		98.9 %	70-130	11/18/24	11/18/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>						
		87.6 %	70-130	11/18/24	11/18/24	
<i>Surrogate: Toluene-d8</i>						
		104 %	70-130	11/18/24	11/18/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2447002
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/24	11/18/24	
<i>Surrogate: Bromofluorobenzene</i>						
		98.9 %	70-130	11/18/24	11/18/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>						
		87.6 %	70-130	11/18/24	11/18/24	
<i>Surrogate: Toluene-d8</i>						
		104 %	70-130	11/18/24	11/18/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2447004
Diesel Range Organics (C10-C28)	<b>141</b>	25.0	1	11/18/24	11/18/24	
Oil Range Organics (C28-C36)	<b>204</b>	50.0	1	11/18/24	11/18/24	
<i>Surrogate: n-Nonane</i>						
		109 %	50-200	11/18/24	11/18/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2447006
Chloride	<b>120</b>	20.0	1	11/18/24	11/18/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 1:20:09PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447002-BLK1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.482		0.500		96.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.3	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			

**LCS (2447002-BS1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Benzene	2.33	0.0250	2.50		93.1	70-130			
Ethylbenzene	2.57	0.0250	2.50		103	70-130			
Toluene	2.48	0.0250	2.50		99.0	70-130			
o-Xylene	2.63	0.0250	2.50		105	70-130			
p,m-Xylene	5.33	0.0500	5.00		107	70-130			
Total Xylenes	7.97	0.0250	7.50		106	70-130			
Surrogate: Bromofluorobenzene	0.497		0.500		99.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.479		0.500		95.7	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			

**LCS Dup (2447002-BSD1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Benzene	2.40	0.0250	2.50		95.8	70-130	2.88	23	
Ethylbenzene	2.61	0.0250	2.50		105	70-130	1.66	27	
Toluene	2.53	0.0250	2.50		101	70-130	2.18	24	
o-Xylene	2.70	0.0250	2.50		108	70-130	2.44	27	
p,m-Xylene	5.40	0.0500	5.00		108	70-130	1.29	27	
Total Xylenes	8.10	0.0250	7.50		108	70-130	1.67	27	
Surrogate: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 1:20:09PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447002-BLK1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.482		0.500		96.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.3	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			

**LCS (2447002-BS2)**

Prepared: 11/18/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	54.3	20.0	50.0		109	70-130			
Surrogate: Bromofluorobenzene	0.500		0.500		99.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.489		0.500		97.8	70-130			
Surrogate: Toluene-d8	0.523		0.500		105	70-130			

**LCS Dup (2447002-BSD2)**

Prepared: 11/18/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	56.5	20.0	50.0		113	70-130	3.95	20	
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		97.9	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 1:20:09PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447004-BLK1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.5		50.0		111	50-200			

**LCS (2447004-BS1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Diesel Range Organics (C10-C28)	237	25.0	250		94.8	38-132			
Surrogate: n-Nonane	52.6		50.0		105	50-200			

**LCS Dup (2447004-BSD1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Diesel Range Organics (C10-C28)	248	25.0	250		99.0	38-132	4.35	20	
Surrogate: n-Nonane	54.1		50.0		108	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/2024 1:20:09PM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447006-BLK1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Chloride	ND	20.0							
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**LCS (2447006-BS1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Chloride	253	20.0	250		101	90-110			
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**LCS Dup (2447006-BSD1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Chloride	253	20.0	250		101	90-110	0.0466	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/19/24 13:20
---	--	------------------------------------

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

<b>Client Information</b>				<b>Invoice Information</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>State</b>			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411160		2303.0002		X				X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information											Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ.1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA					
12:11	11/14/2024	S	1	FSS1 - 4-7'		1						X										

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com **RUSH TPH ONLY**

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Cole Burton

Relinquished by: (Signature) <i>[Signature]</i>	Date 11/15/24	Time 11:10	Received by: (Signature) <i>Michelle Gonzales</i>	Date 11-15-24	Time 1110	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.
Relinquished by: (Signature) <i>Michelle Gonzales</i>	Date 11-15-24	Time 1545	Received by: (Signature) <i>[Signature]</i>	Date 11-15-24	Time 1700	
Relinquished by: (Signature) <i>[Signature]</i>	Date 11-15-24	Time 2330	Received by: (Signature) <i>Caitlin Man</i>	Date 11-18-24	Time 8:00	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Lab Use Only  
Received on ice:  Y /  N  
T1 \_\_\_\_\_ T2 \_\_\_\_\_ T3 \_\_\_\_\_  
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

12:11 11 edgP

Page 493 of 690



Envirotech Analytical Laboratory

Printed: 11/18/2024 10:06:35AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/18/24 08:00 Work Order ID: E411160
Phone: (972) 371-5200 Date Logged In: 11/15/24 14:07 Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com Due Date: 11/18/24 17:00 (0 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for client instruction.

Comments/Resolution

Client Comment- If TPH >2500 or GRO+DRO >1000 Do not run other tests.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411165

Job Number: 23003-0002

Received: 11/18/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/21/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/21/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411165  
Date Received: 11/18/2024 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/18/2024 8:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

Field Offices:

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**Michelle Gonzales**  
Client Representative  
Office: 505-421-LABS(5227)  
Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/24 11:46
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS48 - 4-20'	E411165-01A	Soil	11/14/24	11/18/24	Glass Jar, 2 oz.
FS49 - 4-20'	E411165-02A	Soil	11/14/24	11/18/24	Glass Jar, 2 oz.
FS50 - 4-16'	E411165-03A	Soil	11/14/24	11/18/24	Glass Jar, 2 oz.
FS56 - 0'	E411165-04A	Soil	11/14/24	11/18/24	Glass Jar, 2 oz.
FS47 - 4'	E411165-05A	Soil	11/14/24	11/18/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 11:46:24AM
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**FS48 - 4-20'**

**E411165-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2447003
Benzene	ND	0.0250	1	11/18/24	11/19/24	
Ethylbenzene	ND	0.0250	1	11/18/24	11/19/24	
Toluene	ND	0.0250	1	11/18/24	11/19/24	
o-Xylene	ND	0.0250	1	11/18/24	11/19/24	
p,m-Xylene	ND	0.0500	1	11/18/24	11/19/24	
Total Xylenes	ND	0.0250	1	11/18/24	11/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		86.8 %	70-130	11/18/24	11/19/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2447003
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/24	11/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.6 %	70-130	11/18/24	11/19/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2447012
Diesel Range Organics (C10-C28)	ND	25.0	1	11/18/24	11/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/18/24	11/19/24	
<i>Surrogate: n-Nonane</i>		110 %	50-200	11/18/24	11/19/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447006
Chloride	112	20.0	1	11/18/24	11/18/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 11:46:24AM
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**FS49 - 4-20'**

**E411165-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2447003
Benzene	ND	0.0250	1	11/18/24	11/19/24	
Ethylbenzene	ND	0.0250	1	11/18/24	11/19/24	
Toluene	ND	0.0250	1	11/18/24	11/19/24	
o-Xylene	ND	0.0250	1	11/18/24	11/19/24	
p,m-Xylene	ND	0.0500	1	11/18/24	11/19/24	
Total Xylenes	ND	0.0250	1	11/18/24	11/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		86.8 %	70-130	11/18/24	11/19/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2447003
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/24	11/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.6 %	70-130	11/18/24	11/19/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2447012
Diesel Range Organics (C10-C28)	ND	25.0	1	11/18/24	11/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/18/24	11/19/24	
<i>Surrogate: n-Nonane</i>		108 %	50-200	11/18/24	11/19/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447006
Chloride	477	20.0	1	11/18/24	11/18/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 11:46:24AM
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**FS50 - 4-16'**

**E411165-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2447003
Benzene	ND	0.0250	1	11/18/24	11/19/24	
Ethylbenzene	ND	0.0250	1	11/18/24	11/19/24	
Toluene	ND	0.0250	1	11/18/24	11/19/24	
o-Xylene	ND	0.0250	1	11/18/24	11/19/24	
p,m-Xylene	ND	0.0500	1	11/18/24	11/19/24	
Total Xylenes	ND	0.0250	1	11/18/24	11/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		86.2 %	70-130	11/18/24	11/19/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2447003
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/24	11/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		90.5 %	70-130	11/18/24	11/19/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2447012
Diesel Range Organics (C10-C28)	72.5	25.0	1	11/18/24	11/19/24	
Oil Range Organics (C28-C36)	50.5	50.0	1	11/18/24	11/19/24	
<i>Surrogate: n-Nonane</i>						
		113 %	50-200	11/18/24	11/19/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2447006
Chloride	22.4	20.0	1	11/18/24	11/18/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 11:46:24AM
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**FS56 - 0'**

**E411165-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2447003
Benzene	ND	0.0250	1	11/18/24	11/19/24	
Ethylbenzene	ND	0.0250	1	11/18/24	11/19/24	
Toluene	ND	0.0250	1	11/18/24	11/19/24	
o-Xylene	ND	0.0250	1	11/18/24	11/19/24	
p,m-Xylene	ND	0.0500	1	11/18/24	11/19/24	
Total Xylenes	ND	0.0250	1	11/18/24	11/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		83.3 %	70-130	11/18/24	11/19/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2447003
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/24	11/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.4 %	70-130	11/18/24	11/19/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2447012
Diesel Range Organics (C10-C28)	1440	50.0	2	11/18/24	11/19/24	
Oil Range Organics (C28-C36)	2060	100	2	11/18/24	11/19/24	
<i>Surrogate: n-Nonane</i>		115 %	50-200	11/18/24	11/19/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447006
Chloride	5310	100	5	11/18/24	11/19/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 11:46:24AM
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**FS47 - 4'**

**E411165-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2447003
Benzene	ND	0.0250	1	11/18/24	11/19/24	
Ethylbenzene	ND	0.0250	1	11/18/24	11/19/24	
Toluene	ND	0.0250	1	11/18/24	11/19/24	
o-Xylene	ND	0.0250	1	11/18/24	11/19/24	
p,m-Xylene	ND	0.0500	1	11/18/24	11/19/24	
Total Xylenes	ND	0.0250	1	11/18/24	11/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		85.4 %	70-130	11/18/24	11/19/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2447003
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/24	11/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.9 %	70-130	11/18/24	11/19/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2447012
Diesel Range Organics (C10-C28)	90.1	50.0	2	11/18/24	11/19/24	
Oil Range Organics (C28-C36)	254	100	2	11/18/24	11/19/24	
<i>Surrogate: n-Nonane</i>		108 %	50-200	11/18/24	11/19/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447006
Chloride	ND	20.0	1	11/18/24	11/18/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 11:46:24AM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2447003-BLK1)

Prepared: 11/18/24 Analyzed: 11/18/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.06		8.00		88.2	70-130			

#### LCS (2447003-BS1)

Prepared: 11/18/24 Analyzed: 11/18/24

Benzene	5.49	0.0250	5.00		110	70-130			
Ethylbenzene	5.27	0.0250	5.00		105	70-130			
Toluene	5.39	0.0250	5.00		108	70-130			
o-Xylene	5.23	0.0250	5.00		105	70-130			
p,m-Xylene	10.7	0.0500	10.0		107	70-130			
Total Xylenes	15.9	0.0250	15.0		106	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.14		8.00		89.3	70-130			

#### LCS Dup (2447003-BSD1)

Prepared: 11/18/24 Analyzed: 11/18/24

Benzene	5.31	0.0250	5.00		106	70-130	3.35	20	
Ethylbenzene	5.09	0.0250	5.00		102	70-130	3.39	20	
Toluene	5.21	0.0250	5.00		104	70-130	3.44	20	
o-Xylene	5.04	0.0250	5.00		101	70-130	3.65	20	
p,m-Xylene	10.3	0.0500	10.0		103	70-130	3.50	20	
Total Xylenes	15.4	0.0250	15.0		102	70-130	3.55	20	
Surrogate: 4-Bromochlorobenzene-PID	6.94		8.00		86.7	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 11:46:24AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447003-BLK1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.24		8.00		90.5	70-130			

**LCS (2447003-BS2)**

Prepared: 11/18/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	42.9	20.0	50.0		85.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.36		8.00		92.1	70-130			

**LCS Dup (2447003-BSD2)**

Prepared: 11/18/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	41.5	20.0	50.0		83.0	70-130	3.34	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.31		8.00		91.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 11:46:24AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447012-BLK1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.7		50.0		111	50-200			

**LCS (2447012-BS1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Diesel Range Organics (C10-C28)	274	25.0	250		109	38-132			
Surrogate: n-Nonane	55.7		50.0		111	50-200			

**Matrix Spike (2447012-MS1)**

Source: E411165-04

Prepared: 11/18/24 Analyzed: 11/18/24

Diesel Range Organics (C10-C28)	1430	50.0	250	1440	NR	38-132			M4
Surrogate: n-Nonane	52.5		50.0		105	50-200			

**Matrix Spike Dup (2447012-MSD1)**

Source: E411165-04

Prepared: 11/18/24 Analyzed: 11/18/24

Diesel Range Organics (C10-C28)	1240	50.0	250	1440	NR	38-132	14.3	20	M4
Surrogate: n-Nonane	54.1		50.0		108	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 11:46:24AM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447006-BLK1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Chloride	ND	20.0							
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**LCS (2447006-BS1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Chloride	253	20.0	250		101	90-110			
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**LCS Dup (2447006-BSD1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Chloride	253	20.0	250		101	90-110	0.0466	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/24 11:46
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M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

<b>Client Information</b>				<b>Invoice Information</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>State</b>			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411/105		23003-002					X	X			
Project Manager: Ashley Gioveno				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agioveno@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agioveno@ensolum.com																			

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA				
12:03	11/14/2024	S	1	FS48 - 4-20'		1						X						Per C. Burton			
12:06	11/14/2024	S	1	FS49 - 4-20'		2						X						changed name on sample 4.			
12:08	11/14/2024	S	1	FS50 - 4-16'		3						X						NS 11/18/24.			
NS 12:49 12:53	11/14/2024	S	1	<del>FS52 - 4-16'</del> NS FS56-0'		4						X									
CS 9:00	11/14/24	S	1	FS47 - 4'		5						X									

Additional Instructions: Held on ice. Please CC: cburton@ensolum.com, agioveno@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Bowan Simmons						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4					
<i>[Signature]</i>	11/15/24	11:10	Michelle Gonzales	11-15-24	1110						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
Michelle Gonzales	11-15-24	1545	<i>[Signature]</i>	11-15-24	1700						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
<i>[Signature]</i>	11-15-24	2330	Auth Man	11-18-24	8:00						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Page 509 of 690

Envirotech Analytical Laboratory

Printed: 11/18/2024 10:27:23AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/18/24 08:00 Work Order ID: E411165
Phone: (972) 371-5200 Date Logged In: 11/15/24 14:42 Logged In By: Noe Soto
Email: agiovengo@ensolum.com Due Date: 11/22/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? No
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for Client Instruction

Comments/Resolution

Large empty box for Comments/Resolution

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Envirotech Analytical Laboratory

Printed: 11/18/2024 11:31:32AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 11/18/24 08:00	Work Order ID: E411165
Phone: (972) 371-5200	Date Logged In: 11/15/24 14:42	Logged In By: Noe Soto
Email: agiovengo@ensolum.com	Due Date: 11/22/24 17:00 (4 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? No
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Comments/Resolution**

Sample 4 name did not match the COC, per C. Burton changed the name of the sample to the correct one of the jar.

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411186

Job Number: 23003-0002

Received: 11/19/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/25/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/25/24



Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411186  
Date Received: 11/19/2024 6:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/19/2024 6:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
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**Michelle Gonzales**  
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Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/24 09:36
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW17 - 0-4'	E411186-01A	Soil	11/15/24	11/19/24	Glass Jar, 2 oz.
SW22 - 0-12'	E411186-02A	Soil	11/15/24	11/19/24	Glass Jar, 2 oz.
SW23 - 0-4'	E411186-03A	Soil	11/15/24	11/19/24	Glass Jar, 2 oz.
SW24 - 0-4'	E411186-04A	Soil	11/15/24	11/19/24	Glass Jar, 2 oz.
FS57 - 4-5'	E411186-05A	Soil	11/15/24	11/19/24	Glass Jar, 2 oz.
FS60 - 4-6'	E411186-06A	Soil	11/15/24	11/19/24	Glass Jar, 2 oz.
FS59-4'	E411186-07A	Soil	11/15/24	11/19/24	Glass Jar, 2 oz.

### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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**SW17 - 0-4'**

**E411186-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Benzene	ND	0.0250	1	11/19/24	11/20/24	
Ethylbenzene	ND	0.0250	1	11/19/24	11/20/24	
Toluene	ND	0.0250	1	11/19/24	11/20/24	
o-Xylene	ND	0.0250	1	11/19/24	11/20/24	
p,m-Xylene	ND	0.0500	1	11/19/24	11/20/24	
Total Xylenes	ND	0.0250	1	11/19/24	11/20/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		94.4 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/24	11/20/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.9 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2447033
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/24	11/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/19/24	11/20/24	
<i>Surrogate: n-Nonane</i>		103 %	50-200	11/19/24	11/20/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447046
Chloride	ND	20.0	1	11/19/24	11/20/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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**SW22 - 0-12'**

**E411186-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Benzene	ND	0.0250	1	11/19/24	11/20/24	
Ethylbenzene	ND	0.0250	1	11/19/24	11/20/24	
Toluene	ND	0.0250	1	11/19/24	11/20/24	
o-Xylene	ND	0.0250	1	11/19/24	11/20/24	
p,m-Xylene	ND	0.0500	1	11/19/24	11/20/24	
Total Xylenes	ND	0.0250	1	11/19/24	11/20/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		94.1 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/24	11/20/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		88.6 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2447033
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/24	11/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/19/24	11/20/24	
<i>Surrogate: n-Nonane</i>						
		99.5 %	50-200	11/19/24	11/20/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2447046
Chloride	107	20.0	1	11/19/24	11/20/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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**SW23 - 0-4'**

**E411186-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2447017	
Benzene	ND	0.0250	1	11/19/24	11/20/24	
Ethylbenzene	ND	0.0250	1	11/19/24	11/20/24	
Toluene	ND	0.0250	1	11/19/24	11/20/24	
o-Xylene	ND	0.0250	1	11/19/24	11/20/24	
p,m-Xylene	ND	0.0500	1	11/19/24	11/20/24	
Total Xylenes	ND	0.0250	1	11/19/24	11/20/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		93.8 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2447017	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/24	11/20/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.1 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: AF		Batch: 2447033	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/24	11/21/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/19/24	11/21/24	
<i>Surrogate: n-Nonane</i>		98.6 %	50-200	11/19/24	11/21/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: JM		Batch: 2447046	
Chloride	85.3	20.0	1	11/19/24	11/20/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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**SW24 - 0-4'**

**E411186-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Benzene	ND	0.0250	1	11/19/24	11/20/24	
Ethylbenzene	ND	0.0250	1	11/19/24	11/20/24	
Toluene	ND	0.0250	1	11/19/24	11/20/24	
o-Xylene	ND	0.0250	1	11/19/24	11/20/24	
p,m-Xylene	ND	0.0500	1	11/19/24	11/20/24	
Total Xylenes	ND	0.0250	1	11/19/24	11/20/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		93.2 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/24	11/20/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.1 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2447033
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/24	11/21/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/19/24	11/21/24	
<i>Surrogate: n-Nonane</i>		102 %	50-200	11/19/24	11/21/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447046
Chloride	ND	20.0	1	11/19/24	11/20/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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**FS57 - 4-5'**

**E411186-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Benzene	ND	0.0250	1	11/19/24	11/20/24	
Ethylbenzene	ND	0.0250	1	11/19/24	11/20/24	
Toluene	ND	0.0250	1	11/19/24	11/20/24	
o-Xylene	ND	0.0250	1	11/19/24	11/20/24	
p,m-Xylene	ND	0.0500	1	11/19/24	11/20/24	
Total Xylenes	ND	0.0250	1	11/19/24	11/20/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		93.4 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/24	11/20/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.1 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2447033
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/24	11/21/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/19/24	11/21/24	
<i>Surrogate: n-Nonane</i>						
		103 %	50-200	11/19/24	11/21/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2447046
Chloride	28.1	20.0	1	11/19/24	11/20/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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**FS60 - 4-6'**

**E411186-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Benzene	ND	0.0250	1	11/19/24	11/20/24	
Ethylbenzene	ND	0.0250	1	11/19/24	11/20/24	
Toluene	ND	0.0250	1	11/19/24	11/20/24	
o-Xylene	ND	0.0250	1	11/19/24	11/20/24	
p,m-Xylene	ND	0.0500	1	11/19/24	11/20/24	
Total Xylenes	ND	0.0250	1	11/19/24	11/20/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		92.9 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/24	11/20/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		88.5 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AF		Batch: 2447033
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/24	11/21/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/19/24	11/21/24	
<i>Surrogate: n-Nonane</i>						
		103 %	50-200	11/19/24	11/21/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2447046
Chloride	50.6	20.0	1	11/19/24	11/20/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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**FS59-4'**

**E411186-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Benzene	ND	0.0250	1	11/19/24	11/20/24	
Ethylbenzene	ND	0.0250	1	11/19/24	11/20/24	
Toluene	ND	0.0250	1	11/19/24	11/20/24	
o-Xylene	ND	0.0250	1	11/19/24	11/20/24	
p,m-Xylene	ND	0.0500	1	11/19/24	11/20/24	
Total Xylenes	ND	0.0250	1	11/19/24	11/20/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.0 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447017
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/24	11/20/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.3 %	70-130	11/19/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AF		Batch: 2447033
Diesel Range Organics (C10-C28)	ND	25.0	1	11/19/24	11/21/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/19/24	11/21/24	
<i>Surrogate: n-Nonane</i>		103 %	50-200	11/19/24	11/21/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447046
Chloride	47.2	20.0	1	11/19/24	11/20/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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#### Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447017-BLK1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.74		8.00		96.8	70-130			

**LCS (2447017-BS1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Benzene	4.79	0.0250	5.00		95.7	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.1	70-130			
Toluene	4.71	0.0250	5.00		94.2	70-130			
o-Xylene	4.60	0.0250	5.00		92.1	70-130			
p,m-Xylene	9.39	0.0500	10.0		93.9	70-130			
Total Xylenes	14.0	0.0250	15.0		93.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.85		8.00		98.1	70-130			

**LCS Dup (2447017-BSD1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Benzene	5.12	0.0250	5.00		102	70-130	6.73	20	
Ethylbenzene	4.94	0.0250	5.00		98.8	70-130	7.03	20	
Toluene	5.04	0.0250	5.00		101	70-130	6.81	20	
o-Xylene	4.94	0.0250	5.00		98.7	70-130	6.98	20	
p,m-Xylene	10.1	0.0500	10.0		101	70-130	6.93	20	
Total Xylenes	15.0	0.0250	15.0		100	70-130	6.94	20	
Surrogate: 4-Bromochlorobenzene-PID	7.87		8.00		98.4	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447017-BLK1)**

Prepared: 11/18/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.17		8.00		89.7	70-130			

**LCS (2447017-BS2)**

Prepared: 11/18/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	42.4	20.0	50.0		84.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.29		8.00		91.1	70-130			

**LCS Dup (2447017-BSD2)**

Prepared: 11/18/24 Analyzed: 11/18/24

Gasoline Range Organics (C6-C10)	41.6	20.0	50.0		83.2	70-130	1.99	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.29		8.00		91.1	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447033-BLK1)**

Prepared: 11/19/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	53.6		50.0		107	50-200			

**LCS (2447033-BS1)**

Prepared: 11/19/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	256	25.0	250		102	38-132			
Surrogate: n-Nonane	51.5		50.0		103	50-200			

**Matrix Spike (2447033-MS1)**

Source: E411184-03

Prepared: 11/19/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	268	25.0	250	ND	107	38-132			
Surrogate: n-Nonane	54.1		50.0		108	50-200			

**Matrix Spike Dup (2447033-MSD1)**

Source: E411184-03

Prepared: 11/19/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	272	25.0	250	ND	109	38-132	1.41	20	
Surrogate: n-Nonane	53.2		50.0		106	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/2024 9:36:45AM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447046-BLK1)**

Prepared: 11/19/24 Analyzed: 11/20/24

Chloride	ND	20.0							
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**LCS (2447046-BS1)**

Prepared: 11/19/24 Analyzed: 11/20/24

Chloride	265	20.0	250		106	90-110			
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**LCS Dup (2447046-BSD1)**

Prepared: 11/19/24 Analyzed: 11/20/24

Chloride	265	20.0	250		106	90-110	0.000369	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/25/24 09:36
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411186		23003-0002					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA & Metals	SDWA	CWA	RCRA				
10:35	11/15/2024	S	1	SW17 - 0-4'		1						X									
10:38	11/15/2024	S	1	SW22 - 0-12'		2						X									
12:53	11/15/2024	S	1	SW23 - 0-4'		3						X									
13:00	11/15/2024	S	1	SW24 - 0-4'		4						X									
12:59	11/15/2024	S	1	FS57 - 4-5'		5						x									
13:09	11/15/2024	S	1	FS60 - 4-6'		6						x									
11:04	11/15/2024	S	1	FS59 - 4'		7															

Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Cole Burton						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4					
<i>[Signature]</i>	11/18/24	7:30	Michelle Gonzales	11-18-24	0730						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
<i>[Signature]</i>	11-18-24	1615	<i>[Signature]</i>	11-18-24	1656						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
<i>[Signature]</i>	11-18-24		Cathy Man	11-19-24	10:00						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
<i>[Signature]</i>		2220									

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 11/19/2024 8:28:17AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/19/24 06:00 Work Order ID: E411186
Phone: (972) 371-5200 Date Logged In: 11/18/24 14:51 Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com Due Date: 11/25/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for Client Instruction

Comments/Resolution

Large empty box for Comments/Resolution

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411206

Job Number: 23003-0002

Received: 11/20/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/21/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 11/21/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E411206  
Date Received: 11/20/2024 6:15:12AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/20/2024 6:15:12AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/24 12:15
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS53 - 7-20'	E411206-01A	Soil	11/19/24	11/20/24	Glass Jar, 2 oz.
FS55 - 5-14'	E411206-02A	Soil	11/19/24	11/20/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 12:15:35PM
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**FS53 - 7-20'**

**E411206-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2447049	
Benzene	ND	0.0250	1	11/20/24	11/20/24	
Ethylbenzene	ND	0.0250	1	11/20/24	11/20/24	
Toluene	ND	0.0250	1	11/20/24	11/20/24	
o-Xylene	ND	0.0250	1	11/20/24	11/20/24	
p,m-Xylene	ND	0.0500	1	11/20/24	11/20/24	
Total Xylenes	ND	0.0250	1	11/20/24	11/20/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.3 %	70-130	11/20/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2447049	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/20/24	11/20/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.9 %	70-130	11/20/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: KH		Batch: 2447051	
Diesel Range Organics (C10-C28)	420	50.0	2	11/20/24	11/20/24	
Oil Range Organics (C28-C36)	176	100	2	11/20/24	11/20/24	
<i>Surrogate: n-Nonane</i>		109 %	50-200	11/20/24	11/20/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2447056	
Chloride	686	20.0	1	11/20/24	11/20/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 12:15:35PM
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**FS55 - 5-14'**

**E411206-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2447049
Benzene	ND	0.0250	1	11/20/24	11/20/24	
Ethylbenzene	ND	0.0250	1	11/20/24	11/20/24	
Toluene	ND	0.0250	1	11/20/24	11/20/24	
o-Xylene	ND	0.0250	1	11/20/24	11/20/24	
p,m-Xylene	ND	0.0500	1	11/20/24	11/20/24	
Total Xylenes	ND	0.0250	1	11/20/24	11/20/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		88.7 %	70-130	11/20/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2447049
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/20/24	11/20/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.5 %	70-130	11/20/24	11/20/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: KH		Batch: 2447051
Diesel Range Organics (C10-C28)	315	50.0	2	11/20/24	11/20/24	
Oil Range Organics (C28-C36)	177	100	2	11/20/24	11/20/24	
<i>Surrogate: n-Nonane</i>		99.8 %	50-200	11/20/24	11/20/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: DT		Batch: 2447056
Chloride	840	20.0	1	11/20/24	11/20/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 12:15:35PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447049-BLK1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.07		8.00		88.4	70-130			

**LCS (2447049-BS1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Benzene	4.54	0.0250	5.00		90.7	70-130			
Ethylbenzene	4.31	0.0250	5.00		86.2	70-130			
Toluene	4.44	0.0250	5.00		88.8	70-130			
o-Xylene	4.31	0.0250	5.00		86.2	70-130			
p,m-Xylene	8.75	0.0500	10.0		87.5	70-130			
Total Xylenes	13.1	0.0250	15.0		87.1	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.07		8.00		88.3	70-130			

**LCS Dup (2447049-BSD1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Benzene	4.69	0.0250	5.00		93.8	70-130	3.34	20	
Ethylbenzene	4.45	0.0250	5.00		89.1	70-130	3.28	20	
Toluene	4.59	0.0250	5.00		91.8	70-130	3.30	20	
o-Xylene	4.45	0.0250	5.00		89.0	70-130	3.22	20	
p,m-Xylene	9.05	0.0500	10.0		90.5	70-130	3.27	20	
Total Xylenes	13.5	0.0250	15.0		90.0	70-130	3.25	20	
Surrogate: 4-Bromochlorobenzene-PID	7.14		8.00		89.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 12:15:35PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447049-BLK1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.42		8.00		92.7	70-130			

**LCS (2447049-BS2)**

Prepared: 11/20/24 Analyzed: 11/20/24

Gasoline Range Organics (C6-C10)	36.0	20.0	50.0		71.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.39		8.00		92.4	70-130			

**LCS Dup (2447049-BSD2)**

Prepared: 11/20/24 Analyzed: 11/20/24

Gasoline Range Organics (C6-C10)	39.9	20.0	50.0		79.8	70-130	10.4	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.44		8.00		93.0	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 12:15:35PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KH

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447051-BLK1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	48.1		50.0		96.2	50-200			

**LCS (2447051-BS1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	257	25.0	250		103	38-132			
Surrogate: <i>n</i> -Nonane	49.5		50.0		98.9	50-200			

**LCS Dup (2447051-BSD1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	260	25.0	250		104	38-132	0.917	20	
Surrogate: <i>n</i> -Nonane	52.0		50.0		104	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/2024 12:15:35PM
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#### Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447056-BLK1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Chloride	ND	20.0							
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**LCS (2447056-BS1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Chloride	252	20.0	250		101	90-110			
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**LCS Dup (2447056-BSD1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Chloride	253	20.0	250		101	90-110	0.177	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/21/24 12:15
---	--	------------------------------------

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

Client: Matador  
 Project: Young Deep SWP  
 Project Manager: Ashley G  
 Address: on file  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Report due by: \_\_\_\_\_

Bill To  
 Attention: Ensolum LLC  
 Address: on file  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_

Lab Use Only  
 Lab WO# E411206 Job Number 2303-0002  
 TAT: 1D  2D  3D   
 Standard \_\_\_\_\_  
 EPA Program: CWA \_\_\_\_\_ SDWA \_\_\_\_\_  
 RCRA \_\_\_\_\_

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC - NM	TCEQ 1005- TX	State	Remarks						
														NM	CO	UT	AZ	TX			
1205	11/19/24	S	1	FS53 - 7-20'	1							X		X						IF TPH > 2500 on GRO + DRO	
1100	11/19/24	S	1	FS55 - 5-14'	2							X								is > 1000 do not run of h+ tests	

Additional Instructions: Please CC: cburton agiovengo@ensolum.com chamilton@ensolum.com **Rush TPH Only**

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Cole Burton

Relinquished by: (Signature) <u>Zeb</u>	Date <u>11/19/24</u>	Time <u>13:30</u>	Received by: (Signature) <u>Michelle Gonzales</u>	Date <u>11-19-24</u>	Time <u>1330</u>	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature) <u>Michelle Gonzales</u>	Date <u>11-19-24</u>	Time <u>1650</u>	Received by: (Signature) <u>John J.</u>	Date <u>11-19-24</u>	Time <u>1730</u>	
Relinquished by: (Signature) <u>John J.</u>	Date <u>11-19-24</u>	Time <u>2400</u>	Received by: (Signature) <u>Cath Ma</u>	Date <u>11-20-24</u>	Time <u>1015</u>	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 11/20/2024 7:12:41AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 11/20/24 06:15	Work Order ID: E411206
Phone: (972) 371-5200	Date Logged In: 11/19/24 15:43	Logged In By: Noe Soto
Email: agiovengo@ensolum.com	Due Date: 11/20/24 17:00 (0 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Comments/Resolution**

Per client: if TPH> 2500 or GRO+DRO is >1000 do not run other tests

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Per client: if TPH> 2500 or GRO+DRO is >1000 do not run other tests

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E411209

Job Number: 23003-0002

Received: 11/20/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/23/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/23/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E411209  
Date Received: 11/20/2024 6:15:12AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/20/2024 6:15:12AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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**Southern New Mexico Area**

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**Michelle Gonzales**  
Client Representative  
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Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/23/24 10:07
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS52 - 7-16'	E411209-01A	Soil	11/19/24	11/20/24	Glass Jar, 2 oz.
FS54 - 6-20'	E411209-02A	Soil	11/19/24	11/20/24	Glass Jar, 2 oz.
FS58 - 4-7'	E411209-03A	Soil	11/19/24	11/20/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/23/2024 10:07:07AM
---	--	---

**FS52 - 7-16'**

**E411209-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447050
Benzene	ND	0.0500	2	11/20/24	11/21/24	
Ethylbenzene	ND	0.0500	2	11/20/24	11/21/24	
Toluene	ND	0.0500	2	11/20/24	11/21/24	
o-Xylene	ND	0.0500	2	11/20/24	11/21/24	
p,m-Xylene	ND	0.100	2	11/20/24	11/21/24	
Total Xylenes	ND	0.0500	2	11/20/24	11/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.6 %	70-130	11/20/24	11/21/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447050
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/20/24	11/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.2 %	70-130	11/20/24	11/21/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2447060
Diesel Range Organics (C10-C28)	201	25.0	1	11/20/24	11/20/24	
Oil Range Organics (C28-C36)	236	50.0	1	11/20/24	11/20/24	
<i>Surrogate: n-Nonane</i>		106 %	50-200	11/20/24	11/20/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447093
Chloride	2210	40.0	2	11/21/24	11/21/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/23/2024 10:07:07AM
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**FS54 - 6-20'**

**E411209-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447050
Benzene	ND	0.0250	1	11/20/24	11/21/24	
Ethylbenzene	ND	0.0250	1	11/20/24	11/21/24	
Toluene	ND	0.0250	1	11/20/24	11/21/24	
o-Xylene	ND	0.0250	1	11/20/24	11/21/24	
p,m-Xylene	ND	0.0500	1	11/20/24	11/21/24	
Total Xylenes	ND	0.0250	1	11/20/24	11/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.9 %	70-130	11/20/24	11/21/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447050
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/20/24	11/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.5 %	70-130	11/20/24	11/21/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2447060
Diesel Range Organics (C10-C28)	ND	25.0	1	11/20/24	11/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/20/24	11/20/24	
<i>Surrogate: n-Nonane</i>		116 %	50-200	11/20/24	11/20/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447093
Chloride	934	20.0	1	11/21/24	11/21/24	



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/23/2024 10:07:07AM
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**FS58 - 4-7'**

**E411209-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447050
Benzene	ND	0.0250	1	11/20/24	11/21/24	
Ethylbenzene	ND	0.0250	1	11/20/24	11/21/24	
Toluene	ND	0.0250	1	11/20/24	11/21/24	
o-Xylene	ND	0.0250	1	11/20/24	11/21/24	
p,m-Xylene	ND	0.0500	1	11/20/24	11/21/24	
Total Xylenes	ND	0.0250	1	11/20/24	11/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.2 %	70-130	11/20/24	11/21/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: BA		Batch: 2447050
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/20/24	11/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.2 %	70-130	11/20/24	11/21/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: NV		Batch: 2447060
Diesel Range Organics (C10-C28)	ND	25.0	1	11/20/24	11/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/20/24	11/20/24	
<i>Surrogate: n-Nonane</i>		115 %	50-200	11/20/24	11/20/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2447093
Chloride	165	20.0	1	11/21/24	11/21/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/23/2024 10:07:07AM
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#### Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447050-BLK1)**

Prepared: 11/20/24 Analyzed: 11/21/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.77		8.00		97.1	70-130			

**LCS (2447050-BS1)**

Prepared: 11/20/24 Analyzed: 11/21/24

Benzene	5.25	0.0250	5.00		105	70-130			
Ethylbenzene	5.03	0.0250	5.00		101	70-130			
Toluene	5.16	0.0250	5.00		103	70-130			
o-Xylene	5.05	0.0250	5.00		101	70-130			
p,m-Xylene	10.2	0.0500	10.0		102	70-130			
Total Xylenes	15.3	0.0250	15.0		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.74		8.00		96.8	70-130			

**LCS Dup (2447050-BSD1)**

Prepared: 11/20/24 Analyzed: 11/21/24

Benzene	5.38	0.0250	5.00		108	70-130	2.61	20	
Ethylbenzene	5.18	0.0250	5.00		104	70-130	2.84	20	
Toluene	5.29	0.0250	5.00		106	70-130	2.56	20	
o-Xylene	5.19	0.0250	5.00		104	70-130	2.73	20	
p,m-Xylene	10.5	0.0500	10.0		105	70-130	2.99	20	
Total Xylenes	15.7	0.0250	15.0		105	70-130	2.90	20	
Surrogate: 4-Bromochlorobenzene-PID	7.78		8.00		97.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/23/2024 10:07:07AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447050-BLK1)**

Prepared: 11/20/24 Analyzed: 11/21/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.25		8.00		90.6	70-130			

**LCS (2447050-BS2)**

Prepared: 11/20/24 Analyzed: 11/21/24

Gasoline Range Organics (C6-C10)	41.3	20.0	50.0		82.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.37		8.00		92.1	70-130			

**LCS Dup (2447050-BSD2)**

Prepared: 11/20/24 Analyzed: 11/21/24

Gasoline Range Organics (C6-C10)	40.3	20.0	50.0		80.6	70-130	2.59	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.33		8.00		91.7	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/23/2024 10:07:07AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447060-BLK1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	58.1		50.0		116	50-200			

**LCS (2447060-BS1)**

Prepared: 11/20/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	267	25.0	250		107	38-132			
Surrogate: <i>n</i> -Nonane	59.1		50.0		118	50-200			

**Matrix Spike (2447060-MS1)**

Source: E411211-02

Prepared: 11/20/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	282	25.0	250	ND	113	38-132			
Surrogate: <i>n</i> -Nonane	61.4		50.0		123	50-200			

**Matrix Spike Dup (2447060-MSD1)**

Source: E411211-02

Prepared: 11/20/24 Analyzed: 11/20/24

Diesel Range Organics (C10-C28)	282	25.0	250	ND	113	38-132	0.0432	20	
Surrogate: <i>n</i> -Nonane	61.3		50.0		123	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/23/2024 10:07:07AM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2447093-BLK1)**

Prepared: 11/21/24 Analyzed: 11/21/24

Chloride	ND	20.0							
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**LCS (2447093-BS1)**

Prepared: 11/21/24 Analyzed: 11/21/24

Chloride	252	20.0	250		101	90-110			
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**LCS Dup (2447093-BSD1)**

Prepared: 11/21/24 Analyzed: 11/21/24

Chloride	253	20.0	250		101	90-110	0.328	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 11/23/24 10:07
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





Envirotech Analytical Laboratory

Printed: 11/20/2024 7:20:18AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 11/20/24 06:15 Work Order ID: E411209
Phone: (972) 371-5200 Date Logged In: 11/19/24 16:09 Logged In By: Noe Soto
Email: agiovengo@ensolum.com Due Date: 11/26/24 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? Yes

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Per client: if TPH> 2500 or GRO+DRO is >1000 do not run other tests

Comments/Resolution

Empty box for comments/resolution.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E412012

Job Number: 23003-0002

Received: 12/3/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
12/3/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 12/3/24

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E412012  
Date Received: 12/3/2024 6:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 12/3/2024 6:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
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Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 12/03/24 17:00
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS47 - 4'	E412012-01A	Soil	12/02/24	12/03/24	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 12/3/2024 5:00:14PM
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**FS47 - 4'**

**E412012-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>		mg/kg	mg/kg	Analyst: RKS		Batch: 2449001
Benzene	ND	0.0250	1	12/03/24	12/03/24	
Ethylbenzene	ND	0.0250	1	12/03/24	12/03/24	
Toluene	ND	0.0250	1	12/03/24	12/03/24	
o-Xylene	ND	0.0250	1	12/03/24	12/03/24	
p,m-Xylene	ND	0.0500	1	12/03/24	12/03/24	
Total Xylenes	ND	0.0250	1	12/03/24	12/03/24	
<i>Surrogate: Bromofluorobenzene</i>		112 %	70-130	12/03/24	12/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.2 %	70-130	12/03/24	12/03/24	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	12/03/24	12/03/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: RKS		Batch: 2449001
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/03/24	12/03/24	
<i>Surrogate: Bromofluorobenzene</i>		112 %	70-130	12/03/24	12/03/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.2 %	70-130	12/03/24	12/03/24	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	12/03/24	12/03/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2449026
Diesel Range Organics (C10-C28)	ND	50.0	2	12/02/24	12/03/24	
Oil Range Organics (C28-C36)	<b>102</b>	100	2	12/02/24	12/03/24	
<i>Surrogate: n-Nonane</i>		101 %	50-200	12/02/24	12/03/24	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: JM		Batch: 2449040
Chloride	ND	20.0	1	12/03/24	12/03/24	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 12/3/2024 5:00:14PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2449001-BLK1)**

Prepared: 12/02/24 Analyzed: 12/02/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.564		0.500		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.4	70-130			
Surrogate: Toluene-d8	0.537		0.500		107	70-130			

**LCS (2449001-BS1)**

Prepared: 12/02/24 Analyzed: 12/02/24

Benzene	2.98	0.0250	2.50		119	70-130			
Ethylbenzene	2.91	0.0250	2.50		116	70-130			
Toluene	2.88	0.0250	2.50		115	70-130			
o-Xylene	2.97	0.0250	2.50		119	70-130			
p,m-Xylene	5.89	0.0500	5.00		118	70-130			
Total Xylenes	8.86	0.0250	7.50		118	70-130			
Surrogate: Bromofluorobenzene	0.577		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.486		0.500		97.2	70-130			
Surrogate: Toluene-d8	0.532		0.500		106	70-130			

**LCS Dup (2449001-BSD1)**

Prepared: 12/02/24 Analyzed: 12/02/24

Benzene	2.69	0.0250	2.50		108	70-130	10.0	23	
Ethylbenzene	2.68	0.0250	2.50		107	70-130	8.30	27	
Toluene	2.69	0.0250	2.50		108	70-130	6.73	24	
o-Xylene	2.72	0.0250	2.50		109	70-130	8.85	27	
p,m-Xylene	5.44	0.0500	5.00		109	70-130	7.96	27	
Total Xylenes	8.16	0.0250	7.50		109	70-130	8.26	27	
Surrogate: Bromofluorobenzene	0.570		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.482		0.500		96.3	70-130			
Surrogate: Toluene-d8	0.532		0.500		106	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 12/3/2024 5:00:14PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2449001-BLK1)**

Prepared: 12/02/24 Analyzed: 12/02/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.564		0.500		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.4	70-130			
Surrogate: Toluene-d8	0.537		0.500		107	70-130			

**LCS (2449001-BS2)**

Prepared: 12/02/24 Analyzed: 12/02/24

Gasoline Range Organics (C6-C10)	56.2	20.0	50.0		112	70-130			
Surrogate: Bromofluorobenzene	0.574		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.480		0.500		95.9	70-130			
Surrogate: Toluene-d8	0.544		0.500		109	70-130			

**LCS Dup (2449001-BSD2)**

Prepared: 12/02/24 Analyzed: 12/02/24

Gasoline Range Organics (C6-C10)	54.5	20.0	50.0		109	70-130	2.97	20	
Surrogate: Bromofluorobenzene	0.575		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.474		0.500		94.7	70-130			
Surrogate: Toluene-d8	0.548		0.500		110	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 12/3/2024 5:00:14PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2449026-BLK1)**

Prepared: 12/02/24 Analyzed: 12/02/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	55.8		50.0		112	50-200			

**LCS (2449026-BS1)**

Prepared: 12/02/24 Analyzed: 12/02/24

Diesel Range Organics (C10-C28)	249	25.0	250		99.7	38-132			
Surrogate: <i>n</i> -Nonane	54.7		50.0		109	50-200			

**LCS Dup (2449026-BSD1)**

Prepared: 12/02/24 Analyzed: 12/02/24

Diesel Range Organics (C10-C28)	257	25.0	250		103	38-132	3.06	20	
Surrogate: <i>n</i> -Nonane	56.6		50.0		113	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 12/3/2024 5:00:14PM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2449040-BLK1)**

Prepared: 12/02/24 Analyzed: 12/03/24

Chloride	ND	20.0							
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**LCS (2449040-BS1)**

Prepared: 12/02/24 Analyzed: 12/03/24

Chloride	254	20.0	250		102	90-110			
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**LCS Dup (2449040-BSD1)**

Prepared: 12/02/24 Analyzed: 12/03/24

Chloride	251	20.0	250		101	90-110	1.04	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 12/03/24 17:00
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

<b>Client Information</b>				<b>Invoice Information</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>State</b>			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E412012		2303-002		X				X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCED 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA		
8:26	12/2/2024	S	1	FS47 - 4'			1						X							

Additional Instructions: Held on Ice. Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Bowan Simmons						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: Y / N T1 _____ T2 _____ T3 _____ AVG Temp °C _____					
<i>Bowen Simmons</i>	12/02/24	1045	<i>Michelle Gonzales</i>	12-2-24	1045						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
<i>Michelle Gonzales</i>	12-2-24	1540	<i>Bowen Simmons</i>	12-2-24	1700						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
<i>Bowen Simmons</i>	12-2-24	2330	<i>Michelle Gonzales</i>								
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other  
 Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA  
 Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

12/11/2024

Page 567 of 600



Envirotech Analytical Laboratory

Printed: 12/3/2024 6:56:48AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 12/03/24 06:00	Work Order ID: E412012
Phone: (972) 371-5200	Date Logged In: 12/02/24 14:55	Logged In By: Noe Soto
Email: agiovengo@ensolum.com	Due Date: 12/03/24 17:00 (0 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Comments/Resolution**

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Per client: if TPH> 2500 or GRO+DRO is >1000 do not run other tests

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E501145

Job Number: 23003-0002

Received: 1/22/2025

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
1/28/25

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 1/28/25

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E501145  
Date Received: 1/22/2025 7:15:45AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 1/22/2025 7:15:45AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**

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**Michelle Gonzales**  
Client Representative  
Office: 505-421-LABS(5227)  
Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 01/28/25 15:37
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW25 0-4'	E501145-01A	Soil	01/20/25	01/22/25	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:37:34PM
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**SW25 0-4'**

**E501145-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2504076
Benzene	ND	0.0250	1	01/22/25	01/25/25	
Ethylbenzene	ND	0.0250	1	01/22/25	01/25/25	
Toluene	ND	0.0250	1	01/22/25	01/25/25	
o-Xylene	ND	0.0250	1	01/22/25	01/25/25	
p,m-Xylene	ND	0.0500	1	01/22/25	01/25/25	
Total Xylenes	ND	0.0250	1	01/22/25	01/25/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		82.6 %	70-130	01/22/25	01/25/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2504076
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/22/25	01/25/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.1 %	70-130	01/22/25	01/25/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2504081
Diesel Range Organics (C10-C28)	ND	25.0	1	01/22/25	01/22/25	
Oil Range Organics (C28-C36)	ND	50.0	1	01/22/25	01/22/25	
<i>Surrogate: n-Nonane</i>		111 %	50-200	01/22/25	01/22/25	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: AK		Batch: 2504084
Chloride	ND	20.0	1	01/22/25	01/25/25	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:37:34PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504076-BLK1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.66		8.00		83.2	70-130			

**LCS (2504076-BS1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	4.82	0.0250	5.00		96.4	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.74	0.0250	5.00		94.8	70-130			
o-Xylene	4.59	0.0250	5.00		91.9	70-130			
p,m-Xylene	9.35	0.0500	10.0		93.5	70-130			
Total Xylenes	13.9	0.0250	15.0		93.0	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.81		8.00		85.1	70-130			

**LCS Dup (2504076-BSD1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	4.17	0.0250	5.00		83.4	70-130	14.5	20	
Ethylbenzene	3.97	0.0250	5.00		79.3	70-130	15.0	20	
Toluene	4.08	0.0250	5.00		81.7	70-130	14.9	20	
o-Xylene	3.94	0.0250	5.00		78.8	70-130	15.3	20	
p,m-Xylene	8.06	0.0500	10.0		80.6	70-130	14.8	20	
Total Xylenes	12.0	0.0250	15.0		80.0	70-130	15.0	20	
Surrogate: 4-Bromochlorobenzene-PID	6.66		8.00		83.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:37:34PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504076-BLK1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.88		8.00		98.5	70-130			

**LCS (2504076-BS2)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	40.8	20.0	50.0		81.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.91		8.00		98.9	70-130			

**LCS Dup (2504076-BSD2)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	42.1	20.0	50.0		84.1	70-130	2.94	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.88		8.00		98.5	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:37:34PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504081-BLK1)**

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	58.0		50.0		116	50-200			

**LCS (2504081-BS1)**

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	252	25.0	250		101	38-132			
Surrogate: n-Nonane	56.1		50.0		112	50-200			

**Matrix Spike (2504081-MS1)**

Source: E501149-01

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	1340	25.0	250	1230	42.0	38-132			
Surrogate: n-Nonane	58.4		50.0		117	50-200			

**Matrix Spike Dup (2504081-MSD1)**

Source: E501149-01

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	1310	25.0	250	1230	31.3	38-132	2.04	20	M4
Surrogate: n-Nonane	59.6		50.0		119	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:37:34PM
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#### Anions by EPA 300.0/9056A

Analyst: AK

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504084-BLK1)**

Prepared: 01/22/25 Analyzed: 01/24/25

Chloride	ND	20.0							
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**LCS (2504084-BS1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride	250	20.0	250		100	90-110			
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**Matrix Spike (2504084-MS1)**

Source: E501150-02

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride	1360	20.0	250	1110	99.4	80-120			
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**Matrix Spike Dup (2504084-MSD1)**

Source: E501150-02

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride	1360	20.0	250	1110	99.1	80-120	0.0558	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 01/28/25 15:37
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M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

<b>Client Information</b>				<b>Invoice Information</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>State</b>			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E501145		23003002					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA				
															Compliance	Y	or	N			
															PWSID #						
9:08	1/20/2025	S	1	SW25 - 0-4'		1						X									

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: <u>Cole Burton</u>						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N	T1 _____ T2 _____ T3 _____	AVG Temp °C <u>4</u>			
<i>[Signature]</i>	1/21/25	7:30	<i>Michelle Gonzales</i>	1-21-25	0730						
<i>Michelle Gonzales</i>	1-21-25	1630	<i>[Signature]</i>	1-21-25	1700						
			<i>Caitlynn</i>	1-22-25	7:15						

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

21 of 11 pages

Page 579 of 690



Envirotech Analytical Laboratory

Printed: 1/22/2025 8:41:36AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 01/22/25 07:15	Work Order ID: E501145
Phone: (972) 371-5200	Date Logged In: 01/21/25 15:26	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 01/28/25 17:00 (4 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Comments/Resolution**

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Per client: if TPH> 2500 or GRO+DRO is >1000 do not run other tests

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E501146

Job Number: 23003-0002

Received: 1/22/2025

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
1/28/25

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 1/28/25

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E501146  
Date Received: 1/22/2025 7:15:45AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 1/22/2025 7:15:45AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

Field Offices:

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[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 01/28/25 15:39
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS11-0'	E501146-01A	Soil	01/20/25	01/22/25	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:39:04PM
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**SS11-0'**

**E501146-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2504076	
Benzene	ND	0.0250	1	01/22/25	01/25/25	
Ethylbenzene	ND	0.0250	1	01/22/25	01/25/25	
Toluene	ND	0.0250	1	01/22/25	01/25/25	
o-Xylene	ND	0.0250	1	01/22/25	01/25/25	
p,m-Xylene	ND	0.0500	1	01/22/25	01/25/25	
Total Xylenes	ND	0.0250	1	01/22/25	01/25/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		84.7 %	70-130	01/22/25	01/25/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2504076	
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/22/25	01/25/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.6 %	70-130	01/22/25	01/25/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2504081	
Diesel Range Organics (C10-C28)	47.2	25.0	1	01/22/25	01/22/25	
Oil Range Organics (C28-C36)	107	50.0	1	01/22/25	01/22/25	
<i>Surrogate: n-Nonane</i>		121 %	50-200	01/22/25	01/22/25	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: AK		Batch: 2504084	
Chloride	6060	100	5	01/22/25	01/28/25	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:39:04PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504076-BLK1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.66		8.00		83.2	70-130			

**LCS (2504076-BS1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	4.82	0.0250	5.00		96.4	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.74	0.0250	5.00		94.8	70-130			
o-Xylene	4.59	0.0250	5.00		91.9	70-130			
p,m-Xylene	9.35	0.0500	10.0		93.5	70-130			
Total Xylenes	13.9	0.0250	15.0		93.0	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.81		8.00		85.1	70-130			

**LCS Dup (2504076-BSD1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	4.17	0.0250	5.00		83.4	70-130	14.5	20	
Ethylbenzene	3.97	0.0250	5.00		79.3	70-130	15.0	20	
Toluene	4.08	0.0250	5.00		81.7	70-130	14.9	20	
o-Xylene	3.94	0.0250	5.00		78.8	70-130	15.3	20	
p,m-Xylene	8.06	0.0500	10.0		80.6	70-130	14.8	20	
Total Xylenes	12.0	0.0250	15.0		80.0	70-130	15.0	20	
Surrogate: 4-Bromochlorobenzene-PID	6.66		8.00		83.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:39:04PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504076-BLK1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.88		8.00		98.5	70-130			

**LCS (2504076-BS2)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	40.8	20.0	50.0		81.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.91		8.00		98.9	70-130			

**LCS Dup (2504076-BSD2)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	42.1	20.0	50.0		84.1	70-130	2.94	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.88		8.00		98.5	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:39:04PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

**Blank (2504081-BLK1)**

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	58.0		50.0		116	50-200			

**LCS (2504081-BS1)**

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	252	25.0	250		101	38-132			
Surrogate: n-Nonane	56.1		50.0		112	50-200			

**Matrix Spike (2504081-MS1)**

Source: E501149-01

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	1340	25.0	250	1230	42.0	38-132			
Surrogate: n-Nonane	58.4		50.0		117	50-200			

**Matrix Spike Dup (2504081-MSD1)**

Source: E501149-01

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	1310	25.0	250	1230	31.3	38-132	2.04	20	M4
Surrogate: n-Nonane	59.6		50.0		119	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:39:04PM
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#### Anions by EPA 300.0/9056A

Analyst: AK

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504084-BLK1)**

Prepared: 01/22/25 Analyzed: 01/24/25

Chloride ND 20.0

**LCS (2504084-BS1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride 250 20.0 250 100 90-110

**Matrix Spike (2504084-MS1)**

Source: E501150-02

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride 1360 20.0 250 1110 99.4 80-120

**Matrix Spike Dup (2504084-MSD1)**

Source: E501150-02

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride 1360 20.0 250 1110 99.1 80-120 0.0558 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 01/28/25 15:39
---	--	------------------------------------

M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





Envirotech Analytical Laboratory

Printed: 1/22/2025 8:41:48AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC. Date Received: 01/22/25 07:15 Work Order ID: E501146
Phone: (972) 371-5200 Date Logged In: 01/21/25 15:30 Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com Due Date: 01/28/25 17:00 (4 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? Yes

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Per client: if TPH> 2500 or GRO+DRO is >1000 do not run other tests

Comments/Resolution

Empty box for comments/resolution.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

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## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E501147

Job Number: 23003-0002

Received: 1/22/2025

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
1/28/25

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 1/28/25

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E501147  
Date Received: 1/22/2025 7:15:45AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 1/22/2025 7:15:45AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 01/28/25 15:42
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS11A-0'	E501147-01A	Soil	01/20/25	01/22/25	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:42:12PM
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**SS11A-0'**  
**E501147-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2504076
Benzene	ND	0.0250	1	01/22/25	01/25/25	
Ethylbenzene	ND	0.0250	1	01/22/25	01/25/25	
Toluene	ND	0.0250	1	01/22/25	01/25/25	
o-Xylene	ND	0.0250	1	01/22/25	01/25/25	
p,m-Xylene	ND	0.0500	1	01/22/25	01/25/25	
Total Xylenes	ND	0.0250	1	01/22/25	01/25/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		85.8 %	70-130	01/22/25	01/25/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2504076
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/22/25	01/25/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		96.8 %	70-130	01/22/25	01/25/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2504081
Diesel Range Organics (C10-C28)	57.5	25.0	1	01/22/25	01/22/25	
Oil Range Organics (C28-C36)	125	50.0	1	01/22/25	01/22/25	
<i>Surrogate: n-Nonane</i>		116 %	50-200	01/22/25	01/22/25	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: AK		Batch: 2504084
Chloride	454	20.0	1	01/22/25	01/28/25	

### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:42:12PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504076-BLK1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.66		8.00		83.2	70-130			

**LCS (2504076-BS1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	4.82	0.0250	5.00		96.4	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.74	0.0250	5.00		94.8	70-130			
o-Xylene	4.59	0.0250	5.00		91.9	70-130			
p,m-Xylene	9.35	0.0500	10.0		93.5	70-130			
Total Xylenes	13.9	0.0250	15.0		93.0	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.81		8.00		85.1	70-130			

**LCS Dup (2504076-BSD1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	4.17	0.0250	5.00		83.4	70-130	14.5	20	
Ethylbenzene	3.97	0.0250	5.00		79.3	70-130	15.0	20	
Toluene	4.08	0.0250	5.00		81.7	70-130	14.9	20	
o-Xylene	3.94	0.0250	5.00		78.8	70-130	15.3	20	
p,m-Xylene	8.06	0.0500	10.0		80.6	70-130	14.8	20	
Total Xylenes	12.0	0.0250	15.0		80.0	70-130	15.0	20	
Surrogate: 4-Bromochlorobenzene-PID	6.66		8.00		83.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:42:12PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504076-BLK1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.88		8.00		98.5	70-130			

**LCS (2504076-BS2)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	40.8	20.0	50.0		81.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.91		8.00		98.9	70-130			

**LCS Dup (2504076-BSD2)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	42.1	20.0	50.0		84.1	70-130	2.94	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.88		8.00		98.5	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:42:12PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504081-BLK1)**

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	58.0		50.0		116	50-200			

**LCS (2504081-BS1)**

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	252	25.0	250		101	38-132			
Surrogate: n-Nonane	56.1		50.0		112	50-200			

**Matrix Spike (2504081-MS1)**

Source: E501149-01

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	1340	25.0	250	1230	42.0	38-132			
Surrogate: n-Nonane	58.4		50.0		117	50-200			

**Matrix Spike Dup (2504081-MSD1)**

Source: E501149-01

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	1310	25.0	250	1230	31.3	38-132	2.04	20	M4
Surrogate: n-Nonane	59.6		50.0		119	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:42:12PM
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#### Anions by EPA 300.0/9056A

Analyst: AK

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504084-BLK1)**

Prepared: 01/22/25 Analyzed: 01/24/25

Chloride	ND	20.0							
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**LCS (2504084-BS1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride	250	20.0	250		100	90-110			
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**Matrix Spike (2504084-MS1)**

Source: E501150-02

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride	1360	20.0	250	1110	99.4	80-120			
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**Matrix Spike Dup (2504084-MSD1)**

Source: E501150-02

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride	1360	20.0	250	1110	99.1	80-120	0.0558	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 01/28/25 15:42
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M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



### Chain of Custody

Received by: OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State				
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX	
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E501147		23003-0002					x	x				
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220				Phone: 575-988-0055												
Address: 3122 National Parks Hwy				Email: agiovengo@ensolum.com				Miscellaneous:												
City, State, Zip: Carlsbad NM, 88220																				
Phone: 575-988-0055																				
Email: agiovengo@ensolum.com																				

Sample Information										Analysis and Method								EPA Program		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA			
10:00	1/20/2025	S	1	SS11A - 0'		1						x								

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.  
 Sampled by: Cole Burton

Relinquished by: (Signature) <i>Cole Burton</i>	Date 1/21/25	Time 7:30	Received by: (Signature) <i>Michelle Gonzales</i>	Date 1-21-25	Time 0730	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.  Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N  T1 _____ T2 _____ T3 _____  AVG Temp °C <u>4</u>
Relinquished by: (Signature) <i>Michelle Gonzales</i>	Date 1-21-25	Time 1630	Received by: (Signature) <i>John H.</i>	Date 1.21.25	Time 1700	
Relinquished by: (Signature) <i>John H.</i>	Date 1.21.25	Time 2315	Received by: (Signature) <i>Caitlin Mann</i>	Date 1-22-25	Time 7:15	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_  
 Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Released to Imaging: 3/21/2025 4:52:05 PM



Envirotech Analytical Laboratory

Printed: 1/22/2025 8:41:58AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Matador Resources, LLC.	Date Received: 01/22/25 07:15	Work Order ID: E501147
Phone: (972) 371-5200	Date Logged In: 01/21/25 15:32	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 01/28/25 17:00 (4 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Comments/Resolution**

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Per client: if TPH> 2500 or GRO+DRO is >1000 do not run other tests

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E501148

Job Number: 23003-0002

Received: 1/22/2025

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
1/28/25

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 1/28/25

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E501148  
Date Received: 1/22/2025 7:15:45AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 1/22/2025 7:15:45AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 01/28/25 15:43
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS11B - 0'	E501148-01A	Soil	01/20/25	01/22/25	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:43:12PM
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**SS11B - 0'**

**E501148-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2504076
Benzene	ND	0.0250	1	01/22/25	01/25/25	
Ethylbenzene	ND	0.0250	1	01/22/25	01/25/25	
Toluene	ND	0.0250	1	01/22/25	01/25/25	
o-Xylene	ND	0.0250	1	01/22/25	01/25/25	
p,m-Xylene	ND	0.0500	1	01/22/25	01/25/25	
Total Xylenes	ND	0.0250	1	01/22/25	01/25/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		85.3 %	70-130	01/22/25	01/25/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2504076
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/22/25	01/25/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.8 %	70-130	01/22/25	01/25/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2504081
Diesel Range Organics (C10-C28)	ND	25.0	1	01/22/25	01/22/25	
Oil Range Organics (C28-C36)	ND	50.0	1	01/22/25	01/22/25	
<i>Surrogate: n-Nonane</i>		111 %	50-200	01/22/25	01/22/25	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: AK		Batch: 2504084
Chloride	ND	20.0	1	01/22/25	01/28/25	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:43:12PM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2504076-BLK1)

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.66		8.00		83.2	70-130			

#### LCS (2504076-BS1)

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	4.82	0.0250	5.00		96.4	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.74	0.0250	5.00		94.8	70-130			
o-Xylene	4.59	0.0250	5.00		91.9	70-130			
p,m-Xylene	9.35	0.0500	10.0		93.5	70-130			
Total Xylenes	13.9	0.0250	15.0		93.0	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.81		8.00		85.1	70-130			

#### LCS Dup (2504076-BSD1)

Prepared: 01/22/25 Analyzed: 01/25/25

Benzene	4.17	0.0250	5.00		83.4	70-130	14.5	20	
Ethylbenzene	3.97	0.0250	5.00		79.3	70-130	15.0	20	
Toluene	4.08	0.0250	5.00		81.7	70-130	14.9	20	
o-Xylene	3.94	0.0250	5.00		78.8	70-130	15.3	20	
p,m-Xylene	8.06	0.0500	10.0		80.6	70-130	14.8	20	
Total Xylenes	12.0	0.0250	15.0		80.0	70-130	15.0	20	
Surrogate: 4-Bromochlorobenzene-PID	6.66		8.00		83.2	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:43:12PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504076-BLK1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.88		8.00		98.5	70-130			

**LCS (2504076-BS2)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	40.8	20.0	50.0		81.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.91		8.00		98.9	70-130			

**LCS Dup (2504076-BSD2)**

Prepared: 01/22/25 Analyzed: 01/25/25

Gasoline Range Organics (C6-C10)	42.1	20.0	50.0		84.1	70-130	2.94	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.88		8.00		98.5	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:43:12PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504081-BLK1)**

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	58.0		50.0		116	50-200			

**LCS (2504081-BS1)**

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	252	25.0	250		101	38-132			
Surrogate: <i>n</i> -Nonane	56.1		50.0		112	50-200			

**Matrix Spike (2504081-MS1)**

Source: E501149-01

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	1340	25.0	250	1230	42.0	38-132			
Surrogate: <i>n</i> -Nonane	58.4		50.0		117	50-200			

**Matrix Spike Dup (2504081-MSD1)**

Source: E501149-01

Prepared: 01/22/25 Analyzed: 01/22/25

Diesel Range Organics (C10-C28)	1310	25.0	250	1230	31.3	38-132	2.04	20	M4
Surrogate: <i>n</i> -Nonane	59.6		50.0		119	50-200			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 1/28/2025 3:43:12PM
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#### Anions by EPA 300.0/9056A

Analyst: AK

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2504084-BLK1)**

Prepared: 01/22/25 Analyzed: 01/24/25

Chloride	ND	20.0							
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**LCS (2504084-BS1)**

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride	250	20.0	250		100	90-110			
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**Matrix Spike (2504084-MS1)**

Source: E501150-02

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride	1360	20.0	250	1110	99.4	80-120			
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**Matrix Spike Dup (2504084-MSD1)**

Source: E501150-02

Prepared: 01/22/25 Analyzed: 01/25/25

Chloride	1360	20.0	250	1110	99.1	80-120	0.0558	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 01/28/25 15:43
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M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E501148		230030002					x	x			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA				
10:56	1/20/2025	S	1	SS11B - 0'		1						X									

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Relinquished by: (Signature) <i>Cole Burton</i>	Date 1/21/25	Time 7:30	Received by: (Signature) <i>Michelle Gonzales</i>	Date 1-21-25	Time 0730	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.  Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N  T1 _____ T2 _____ T3 _____  AVG Temp °C <u>4</u>
Relinquished by: (Signature) <i>Michelle Gonzales</i>	Date 1-21-25	Time 1630	Received by: (Signature) <i>Ashley Giovengo</i>	Date 1-21-25	Time 1700	
Relinquished by: (Signature) <i>Ashley Giovengo</i>	Date 1-21-25	Time 2315	Received by: (Signature) <i>Michelle Gonzales</i>	Date 1-22-25	Time 7:15	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Released to Imaging: 3/21/2025 4:52:05 PM



**Envirotech Analytical Laboratory**

Printed: 1/22/2025 8:42:11AM

**Sample Receipt Checklist (SRC)**

**Instructions:** Please take note of any NO checkmarks.

**If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.**

Client: Matador Resources, LLC.	Date Received: 01/22/25 07:15	Work Order ID: E501148
Phone: (972) 371-5200	Date Logged In: 01/21/25 15:45	Logged In By: Noe Soto
Email: agiovengo@ensolum.com	Due Date: 01/28/25 17:00 (4 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Per client: if TPH> 2500 or GRO+DRO is >1000 do not run other tests

**Comments/Resolution**

\_\_\_\_\_  
Signature of client authorizing changes to the COC or sample disposition.

\_\_\_\_\_  
Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E502187

Job Number: 23003-0002

Received: 2/21/2025

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
2/26/25

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 2/26/25

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240

Project Name: Young Deep SWD  
Workorder: E502187  
Date Received: 2/21/2025 4:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 2/21/2025 4:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**

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Laboratory Technical Representative  
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**Michelle Gonzales**  
Client Representative  
Office: 505-421-LABS(5227)  
Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 02/26/25 10:29
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS40-4'	E502187-01A	Soil	02/19/25	02/21/25	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 2/26/2025 10:29:16AM
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**FS40-4'**

**E502187-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2508098
Benzene	ND	0.0250	1	02/21/25	02/21/25	
Ethylbenzene	ND	0.0250	1	02/21/25	02/21/25	
Toluene	ND	0.0250	1	02/21/25	02/21/25	
o-Xylene	ND	0.0250	1	02/21/25	02/21/25	
p,m-Xylene	ND	0.0500	1	02/21/25	02/21/25	
Total Xylenes	ND	0.0250	1	02/21/25	02/21/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		79.4 %	70-130	02/21/25	02/21/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: SL		Batch: 2508098
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/21/25	02/21/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.0 %	70-130	02/21/25	02/21/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: NV		Batch: 2508100
Diesel Range Organics (C10-C28)	ND	25.0	1	02/21/25	02/22/25	
Oil Range Organics (C28-C36)	ND	50.0	1	02/21/25	02/22/25	
<i>Surrogate: n-Nonane</i>		87.5 %	61-141	02/21/25	02/22/25	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: RAS		Batch: 2508102
Chloride	22.0	20.0	1	02/21/25	02/21/25	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 2/26/2025 10:29:16AM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2508098-BLK1)

Prepared: 02/21/25 Analyzed: 02/21/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.49		8.00		81.2	70-130			

#### LCS (2508098-BS1)

Prepared: 02/21/25 Analyzed: 02/21/25

Benzene	5.20	0.0250	5.00		104	70-130			
Ethylbenzene	4.99	0.0250	5.00		99.8	70-130			
Toluene	5.12	0.0250	5.00		102	70-130			
o-Xylene	4.95	0.0250	5.00		99.0	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.1	0.0250	15.0		100	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.51		8.00		81.3	70-130			

#### LCS Dup (2508098-BSD1)

Prepared: 02/21/25 Analyzed: 02/21/25

Benzene	5.17	0.0250	5.00		103	70-130	0.570	20	
Ethylbenzene	4.97	0.0250	5.00		99.4	70-130	0.317	20	
Toluene	5.09	0.0250	5.00		102	70-130	0.547	20	
o-Xylene	4.94	0.0250	5.00		98.7	70-130	0.312	20	
p,m-Xylene	10.1	0.0500	10.0		101	70-130	0.413	20	
Total Xylenes	15.0	0.0250	15.0		100	70-130	0.380	20	
Surrogate: 4-Bromochlorobenzene-PID	6.53		8.00		81.6	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 2/26/2025 10:29:16AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2508098-BLK1)**

Prepared: 02/21/25 Analyzed: 02/21/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.64		8.00		95.5	70-130			

**LCS (2508098-BS2)**

Prepared: 02/21/25 Analyzed: 02/21/25

Gasoline Range Organics (C6-C10)	42.0	20.0	50.0		84.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.80		8.00		97.5	70-130			

**LCS Dup (2508098-BSD2)**

Prepared: 02/21/25 Analyzed: 02/21/25

Gasoline Range Organics (C6-C10)	42.1	20.0	50.0		84.3	70-130	0.195	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.56		8.00		94.5	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 2/26/2025 10:29:16AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2508100-BLK1)**

Prepared: 02/21/25 Analyzed: 02/21/25

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	42.7		50.0		85.5	61-141			

**LCS (2508100-BS1)**

Prepared: 02/21/25 Analyzed: 02/21/25

Diesel Range Organics (C10-C28)	239	25.0	250		95.5	66-144			
Surrogate: <i>n</i> -Nonane	42.0		50.0		84.0	61-141			

**Matrix Spike (2508100-MS1)**

Source: E502178-02

Prepared: 02/21/25 Analyzed: 02/21/25

Diesel Range Organics (C10-C28)	248	25.0	250	ND	99.3	56-156			
Surrogate: <i>n</i> -Nonane	42.9		50.0		85.8	61-141			

**Matrix Spike Dup (2508100-MSD1)**

Source: E502178-02

Prepared: 02/21/25 Analyzed: 02/21/25

Diesel Range Organics (C10-C28)	246	25.0	250	ND	98.4	56-156	0.961	20	
Surrogate: <i>n</i> -Nonane	42.7		50.0		85.3	61-141			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 2/26/2025 10:29:16AM
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#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2508102-BLK1)**

Prepared: 02/21/25 Analyzed: 02/21/25

Chloride ND 20.0

**LCS (2508102-BS1)**

Prepared: 02/21/25 Analyzed: 02/21/25

Chloride 258 20.0 250 103 90-110

**Matrix Spike (2508102-MS1)**

Source: E502185-02

Prepared: 02/21/25 Analyzed: 02/21/25

Chloride 296 20.0 250 38.6 103 80-120

**Matrix Spike Dup (2508102-MSD1)**

Source: E502185-02

Prepared: 02/21/25 Analyzed: 02/21/25

Chloride 297 20.0 250 38.6 103 80-120 0.0654 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 02/26/25 10:29
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Peach Booster Station <sup>6<sup>th</sup> Young Deep SW 10</sup>				Address: 3122 National Parks Hwy				E502187		23003-0007					x	x			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program			Remarks
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDQC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA				
9:58	2/19/2025	Soil	1	FS40 - 4'		1						X									

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Cole Burton and Jenna Hinkle						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
Jenna Hinkle	2/20/2025	7:00	Michelle Gonzales	2-20-25	0700						
Michelle Gonzales	2-20-25	1640	John J.	2-20-25	1730						
John J.	2-20-25	2400	Kristin R. Healy	2-21-25	0430						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other  
 Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Page 627 of 690

**Envirotech Analytical Laboratory**

Printed: 2/21/2025 9:01:46AM

**Sample Receipt Checklist (SRC)**

**Instructions:** Please take note of any NO checkmarks.

**If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.**

Client: Matador Resources, LLC.	Date Received: 02/21/25 04:30	Work Order ID: E502187
Phone: (972) 371-5200	Date Logged In: 02/20/25 15:06	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 02/27/25 17:00 (4 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Per client: if TPH> 2500 or GRO+DRO is >1000 do not run other tests

**Comments/Resolution**

\_\_\_\_\_  
Signature of client authorizing changes to the COC or sample disposition.

\_\_\_\_\_  
Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E503037

Job Number: 23003-0002

Received: 3/6/2025

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
3/11/25

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 3/11/25

Ashley Giovengo  
5400 LBJ Freeway, Suite 1500  
Dallas, TX 75240



Project Name: Young Deep SWD  
Workorder: E503037  
Date Received: 3/6/2025 7:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/6/2025 7:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**

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[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**Michelle Gonzales**  
Client Representative  
Office: 505-421-LABS(5227)  
Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 03/11/25 10:11
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW26- 2-4'	E503037-01A	Soil	03/05/25	03/06/25	Glass Jar, 2 oz.



### Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 3/11/2025 10:11:09AM
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**SW26- 2-4'**  
**E503037-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2510098
Benzene	ND	0.0250	1	03/06/25	03/07/25	
Ethylbenzene	ND	0.0250	1	03/06/25	03/07/25	
Toluene	ND	0.0250	1	03/06/25	03/07/25	
o-Xylene	ND	0.0250	1	03/06/25	03/07/25	
p,m-Xylene	ND	0.0500	1	03/06/25	03/07/25	
Total Xylenes	ND	0.0250	1	03/06/25	03/07/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		79.6 %	70-130	03/06/25	03/07/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: SL		Batch: 2510098
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/06/25	03/07/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.2 %	70-130	03/06/25	03/07/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: HM		Batch: 2510102
Diesel Range Organics (C10-C28)	ND	25.0	1	03/06/25	03/07/25	
Oil Range Organics (C28-C36)	ND	50.0	1	03/06/25	03/07/25	
<i>Surrogate: n-Nonane</i>		106 %	61-141	03/06/25	03/07/25	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: JM		Batch: 2510100
Chloride	21.6	20.0	1	03/06/25	03/06/25	



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 3/11/2025 10:11:09AM
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#### Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2510098-BLK1)**

Prepared: 03/06/25 Analyzed: 03/06/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.31		8.00		78.8	70-130			

**LCS (2510098-BS1)**

Prepared: 03/06/25 Analyzed: 03/06/25

Benzene	5.24	0.0250	5.00		105	70-130			
Ethylbenzene	5.00	0.0250	5.00		100	70-130			
Toluene	5.15	0.0250	5.00		103	70-130			
o-Xylene	4.95	0.0250	5.00		99.0	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.1	0.0250	15.0		101	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.39		8.00		79.9	70-130			

**Matrix Spike (2510098-MS1)**

Source: E503036-23

Prepared: 03/06/25 Analyzed: 03/06/25

Benzene	4.86	0.0250	5.00	ND	97.3	54-133			
Ethylbenzene	4.64	0.0250	5.00	ND	92.9	61-133			
Toluene	4.79	0.0250	5.00	ND	95.7	61-130			
o-Xylene	4.66	0.0250	5.00	ND	93.2	63-131			
p,m-Xylene	9.43	0.0500	10.0	ND	94.3	63-131			
Total Xylenes	14.1	0.0250	15.0	ND	94.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	6.45		8.00		80.6	70-130			

**Matrix Spike Dup (2510098-MSD1)**

Source: E503036-23

Prepared: 03/06/25 Analyzed: 03/06/25

Benzene	5.24	0.0250	5.00	ND	105	54-133	7.46	20	
Ethylbenzene	5.00	0.0250	5.00	ND	100	61-133	7.43	20	
Toluene	5.15	0.0250	5.00	ND	103	61-130	7.34	20	
o-Xylene	4.98	0.0250	5.00	ND	99.6	63-131	6.58	20	
p,m-Xylene	10.1	0.0500	10.0	ND	101	63-131	7.14	20	
Total Xylenes	15.1	0.0250	15.0	ND	101	63-131	6.96	20	
Surrogate: 4-Bromochlorobenzene-PID	6.41		8.00		80.1	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 3/11/2025 10:11:09AM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2510098-BLK1)**

Prepared: 03/06/25 Analyzed: 03/06/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.45		8.00		93.1	70-130			

**LCS (2510098-BS2)**

Prepared: 03/06/25 Analyzed: 03/06/25

Gasoline Range Organics (C6-C10)	40.1	20.0	50.0		80.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.67		8.00		95.8	70-130			

**Matrix Spike (2510098-MS2)**

Source: E503036-23

Prepared: 03/06/25 Analyzed: 03/06/25

Gasoline Range Organics (C6-C10)	43.5	20.0	50.0	ND	87.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		8.00		95.1	70-130			

**Matrix Spike Dup (2510098-MSD2)**

Source: E503036-23

Prepared: 03/06/25 Analyzed: 03/06/25

Gasoline Range Organics (C6-C10)	42.3	20.0	50.0	ND	84.7	70-130	2.83	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		8.00		95.1	70-130			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 3/11/2025 10:11:09AM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: HM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2510102-BLK1)**

Prepared: 03/06/25 Analyzed: 03/06/25

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	52.2		50.0		104	61-141			

**LCS (2510102-BS1)**

Prepared: 03/06/25 Analyzed: 03/06/25

Diesel Range Organics (C10-C28)	250	25.0	250		99.9	66-144			
Surrogate: <i>n</i> -Nonane	52.3		50.0		105	61-141			

**Matrix Spike (2510102-MS1)**

Source: E503036-22

Prepared: 03/06/25 Analyzed: 03/06/25

Diesel Range Organics (C10-C28)	253	25.0	250	ND	101	56-156			
Surrogate: <i>n</i> -Nonane	53.2		50.0		106	61-141			

**Matrix Spike Dup (2510102-MSD1)**

Source: E503036-22

Prepared: 03/06/25 Analyzed: 03/06/25

Diesel Range Organics (C10-C28)	255	25.0	250	ND	102	56-156	1.05	20	
Surrogate: <i>n</i> -Nonane	52.9		50.0		106	61-141			



### QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 3/11/2025 10:11:09AM
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#### Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2510100-BLK1)**

Prepared: 03/06/25 Analyzed: 03/06/25

Chloride ND 20.0

**LCS (2510100-BS1)**

Prepared: 03/06/25 Analyzed: 03/06/25

Chloride 253 20.0 250 101 90-110

**Matrix Spike (2510100-MS1)**

Source: E503037-01

Prepared: 03/06/25 Analyzed: 03/06/25

Chloride 275 20.0 250 21.6 102 80-120

**Matrix Spike Dup (2510100-MSD1)**

Source: E503037-01

Prepared: 03/06/25 Analyzed: 03/06/25

Chloride 276 20.0 250 21.6 102 80-120 0.0309 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	<b>Reported:</b> 03/11/25 10:11
---	--	------------------------------------

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



# Chain of Custody

Released to Imaging: 3/21/2025 4:52:05 PM

Received by OCD: 3/20/2025 7:10:34 AM

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E503037		23003000Z					x	x			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information										Analysis and Method								EPA Program		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA			
8:53	3/5/2025	S	1	SW26 - 2-4'		1						X								

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com, bmoir@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Cole Burton										Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>							
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time												
<i>[Signature]</i>	3/5/25	10:42	<i>[Signature]</i>	3-5-25	10:45												
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time												
<i>[Signature]</i>	3-5-25	1:00	Marissa Gonzales	3-5-25	1:00												
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time												
Marissa Gonzales	3-5-25	1:00	3-5-25 1:00	Richard Gonzalez													
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time												
Richard Gonzalez	3-5-25	2:30	Caitlin Mac	3-10-25	7:30												

Sample Matrix: S - Soil, SD - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA \_\_\_\_\_

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

12 fo 11 ebaP

Page 639 of 690



**Envirotech Analytical Laboratory**

Printed: 3/6/2025 10:10:52AM

**Sample Receipt Checklist (SRC)**

**Instructions:** Please take note of any NO checkmarks.

**If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.**

Client: Matador Resources, LLC.	Date Received: 03/06/25 07:30	Work Order ID: E503037
Phone: (972) 371-5200	Date Logged In: 03/06/25 08:00	Logged In By: Caitlin Mars
Email: agiovengo@ensolum.com	Due Date: 03/12/25 17:00 (4 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Comments/Resolution**

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Per client: if TPH> 2500 or GRO+DRO is >1000 do not run other tests

\_\_\_\_\_  
Signature of client authorizing changes to the COC or sample disposition.

\_\_\_\_\_  
Date



envirotech Inc.



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## APPENDIX E

### NMOCD Correspondence

---

**From:** [Hamlet, Robert, EMNRD](#)  
**To:** [Ashley Giovengo](#)  
**Cc:** [clinton.talley@matadorresources.com](mailto:clinton.talley@matadorresources.com); [Jason Touchet](#); [Cole Burton](#); [Chad Hamilton](#); [Bratcher, Michael, EMNRD](#); [Wells, Shelly, EMNRD](#); [Velez, Nelson, EMNRD](#)  
**Subject:** Extension Request - Young Deep SWD - Incident Number nAPP2412026782  
**Date:** Friday, July 12, 2024 7:44:00 AM  
**Attachments:** [image006.png](#)  
[image007.png](#)  
[image008.png](#)

---

[ \*\*EXTERNAL EMAIL\*\* ]

RE: Incident #NAPP2412026782

**Ashley,**

Your request for a 90 day extension to **October 10th, 2024** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

**Robert Hamlet** • Environmental Specialist - Advanced  
Environmental Bureau  
EMNRD - Oil Conservation Division  
506 W. Texas Ave. | Artesia, NM 88210  
575.909.0302 | [robert.hamlet@state.nm.us](mailto:robert.hamlet@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>



---

**From:** Wells, Shelly, EMNRD <[Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)>  
**Sent:** Thursday, July 11, 2024 10:29 AM  
**To:** Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>  
**Cc:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>  
**Subject:** FW: [EXTERNAL] Extension Request - Young Deep SWD - Incident Number nAPP2412026782

---

**From:** Ashley Giovengo <[agiovengo@ensolum.com](mailto:agiovengo@ensolum.com)>  
**Sent:** Thursday, July 11, 2024 10:25 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>; Velez, Nelson, EMNRD <[Nelson.Velez@emnrd.nm.gov](mailto:Nelson.Velez@emnrd.nm.gov)>; [clinton.talley@matadorresources.com](mailto:clinton.talley@matadorresources.com); Jason Touchet <[jason.touchet@matadorresources.com](mailto:jason.touchet@matadorresources.com)>  
**Cc:** Cole Burton <[cburton@ensolum.com](mailto:cburton@ensolum.com)>; Chad Hamilton <[chamilton@ensolum.com](mailto:chamilton@ensolum.com)>  
**Subject:** [EXTERNAL] Extension Request - Young Deep SWD - Incident Number nAPP2412026782

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Matador Production Company (Matador) is requesting an extension for the current deadline of July 29, 2024, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC at the Young Deep SWD (Site) (Incident Number nAPP2412026782). The release occurred on April 28, 2024, and lateral delineation and vertical delineation sampling to the strictest criteria per NMOCD Table I has been completed at the Site. Matador completed a depth to water boring on July 10, 2024, and Ensolum personnel will allow the boring (BH01) to equilibrate for 72-hours before completing measuring the depth to groundwater (DTW). Matador intends to begin remediation at the Site as soon as the DTW has been determined and will submit a remediation work plan or closure report upon receiving final laboratory analytical data from confirmation sampling activities. Matador respectfully requests a 90-day extension until October 27, 2024. Please let me know if you have any further questions regarding this site.

Thanks,



**Ashley Giovengo**

Senior Scientist

575-988-0055

Ensolum, LLC

in f X

“Your authenticity is your superpower.” – Unknown

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS

Action 421257

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 421257
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

<b>Location of Release Source</b>	
Site Name	YOUNG DEEP SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	4
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	01/20/2025
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

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

General Information  
Phone: (505) 629-6116

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

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

CONDITIONS

Action 421257

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 421257
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	1/15/2025

**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**

QUESTIONS

Action 396185

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 396185
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/01/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
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 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 396185

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 396185
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/28/2024

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

QUESTIONS

Action 396188

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 396188
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/30/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
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**Oil Conservation Division**  
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**Santa Fe, NM 87505**

CONDITIONS

Action 396188

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 396188
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/28/2024

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

QUESTIONS

Action 396192

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 396192
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/31/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 396192

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 396192
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/28/2024

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

QUESTIONS

Action 396194

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 396194
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/04/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
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**District II**  
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 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 396194

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 396194
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/28/2024

**District I**  
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 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**

QUESTIONS

Action 396196

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 396196
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/05/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

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

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**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 396196

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 396196
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/28/2024

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

QUESTIONS

Action 397939

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 397939
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/04/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
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**District IV**  
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 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 397939

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 397939
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/31/2024

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

QUESTIONS

Action 397941

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 397941
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/05/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
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**State of New Mexico**  
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**Santa Fe, NM 87505**

CONDITIONS

Action 397941

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 397941
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/31/2024

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

QUESTIONS

Action 397944

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 397944
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/06/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
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**State of New Mexico**  
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**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 397944

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 397944
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	10/31/2024

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

QUESTIONS

Action 399819

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 399819
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/07/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

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**State of New Mexico**  
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**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 399819

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 399819
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	11/5/2024

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**State of New Mexico**  
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**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

QUESTIONS

Action 399823

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 399823
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/08/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
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**State of New Mexico**  
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**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 399823

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 399823
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	11/5/2024

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

QUESTIONS

Action 399826

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 399826
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/11/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
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**State of New Mexico**  
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**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 399826

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 399826
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	11/5/2024

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

QUESTIONS

Action 399829

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 399829
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/12/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
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**State of New Mexico**  
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**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 399829

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 399829
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	11/5/2024

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

QUESTIONS

Action 402698

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 402698
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/14/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

**District I**  
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**State of New Mexico**  
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**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 402698

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 402698
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	11/12/2024

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

QUESTIONS

Action 402699

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 402699
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/15/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

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**State of New Mexico**  
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**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 402699

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 402699
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	11/12/2024

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS

Action 403519

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 403519
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/18/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

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**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 403519

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 403519
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	11/14/2024

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QUESTIONS

Action 403520

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 403520
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	80
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/19/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

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CONDITIONS

Action 403520

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 403520
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	11/14/2024

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QUESTIONS

Action 406705

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 406705
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

<b>Location of Release Source</b>	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	1
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	12/02/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

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CONDITIONS

Action 406705

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 406705
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	11/26/2024

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**Santa Fe, NM 87505**

QUESTIONS

Action 431839

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 431839
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved
Incident Facility	[fAPP2203442884] Young Deep Unit Bone Spring Facility Tank Battery

<b>Location of Release Source</b>	
Site Name	YOUNG DEEP SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	400
What is the estimated number of samples that will be gathered	1
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	02/19/2025
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	Cole Burton (575)706-5056
Please provide any information necessary for navigation to sampling site	32.76651,-103.76103

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CONDITIONS

Action 431839

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 431839
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	2/13/2025

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**Santa Fe, NM 87505**

QUESTIONS

Action 438252

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 438252
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved
Incident Facility	[fAPP2203442884] Young Deep Unit Bone Spring Facility Tank Battery

<b>Location of Release Source</b>	
Site Name	YOUNG DEEP SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Sampling Event General Information</b>	
<i>Please answer all the questions in this group.</i>	
What is the sampling surface area in square feet	8,129
What is the estimated number of samples that will be gathered	1
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	03/05/2025
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	N/A
Please provide any information necessary for navigation to sampling site	32.7665, -103.76103

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**Santa Fe, NM 87505**

CONDITIONS

Action 438252

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 438252
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**CONDITIONS**

Created By	Condition	Condition Date
j_touchet	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/3/2025

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**Santa Fe, NM 87505**

QUESTIONS

Action 444066

**QUESTIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 444066
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Deferral Request Received
Incident Facility	[fAPP2203442884] Young Deep Unit Bone Spring Facility Tank Battery

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	YOUNG DEEP SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

<b>Nature and Volume of Release</b>	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Other (Specify)   Produced Water   Released: 117 BBL   Recovered: 70 BBL   Lost: 47 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 444066

**QUESTIONS (continued)**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 444066
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>Yes</b>
Reasons why this would be considered a submission for a notification of a major release	<b>From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.</b>
<i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i>	

**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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

*Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.*

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.

I hereby agree and sign off to the above statement	Name: Jason Touchet Title: EHS Field Rep Email: <a href="mailto:jason.touchet@matadorresources.com">jason.touchet@matadorresources.com</a> Date: 03/20/2025
--	--

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**Energy, Minerals and Natural Resources**  
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**1220 S. St Francis Dr.**  
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QUESTIONS, Page 3

Action 444066

**QUESTIONS (continued)**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 444066
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

**Site Characterization**  
*Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 1/2 and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**Remediation Plan**  
*Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	24800
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	14100
GRO+DRO (EPA SW-846 Method 8015M)	8970
BTEX (EPA SW-846 Method 8021B or 8260B)	2
Benzene (EPA SW-846 Method 8021B or 8260B)	1

*Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.*

On what estimated date will the remediation commence	10/28/2024
On what date will (or did) the final sampling or liner inspection occur	03/05/2025
On what date will (or was) the remediation complete(d)	03/05/2025
What is the estimated surface area (in square feet) that will be reclaimed	10545
What is the estimated volume (in cubic yards) that will be reclaimed	3722
What is the estimated surface area (in square feet) that will be remediated	6156
What is the estimated volume (in cubic yards) that will be remediated	467

*These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.*  
*The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.*

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QUESTIONS, Page 4

Action 444066

**QUESTIONS (continued)**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 444066
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

**Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	No
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Yes
What is the name of the NMED facility	Lea Land Hobbs, NM
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

I hereby agree and sign off to the above statement	Name: Jason Touchet Title: EHS Field Rep Email: <a href="mailto:jason.touchet@matadorresources.com">jason.touchet@matadorresources.com</a> Date: 03/20/2025
--	--

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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**Santa Fe, NM 87505**

QUESTIONS, Page 5

Action 444066

**QUESTIONS (continued)**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 444066
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Deferral Requests Only</b>	
<i>Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	Production equipment present includes Pump house, produced water storage tanks, and produced water transfer lines
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	5004
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	741
<i>Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.</i>	
Enter the facility ID (F#) on which this deferral should be granted	Not answered.
Enter the well API (30-) on which this deferral should be granted	30-025-26640 YOUNG DEEP UNIT #001
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Jason Touchet Title: EHS Field Rep Email: jason.touchet@matadorresources.com Date: 03/20/2025

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

QUESTIONS, Page 6

Action 444066

**QUESTIONS (continued)**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 444066
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>438252</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>03/05/2025</b>
What was the (estimated) number of samples that were to be gathered	<b>1</b>
What was the sampling surface area in square feet	<b>8129</b>

<b>Remediation Closure Request</b>	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	<b>No</b>

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

General Information  
Phone: (505) 629-6116

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CONDITIONS

Action 444066

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 444066
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**CONDITIONS**

Created By	Condition	Condition Date
scwells	Deferral approved. Deferral of FS 38, FS 39, FS 41, FS 56, SW 10 and SW 19 is approved until plugging and abandonment or a major facility deconstruction, whichever comes first. A complete and accurate remediation report and/or reclamation report will need to be submitted at that time.	3/21/2025