



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 deferment 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 deferment 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.

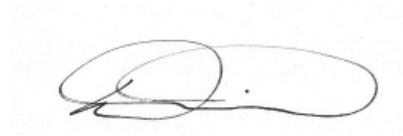
If you have any questions or comments, please contact Ms. Ashley Giovengo at (575) 988-0055 or agiovengo@ensolum.com.

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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



Site Receptor Map

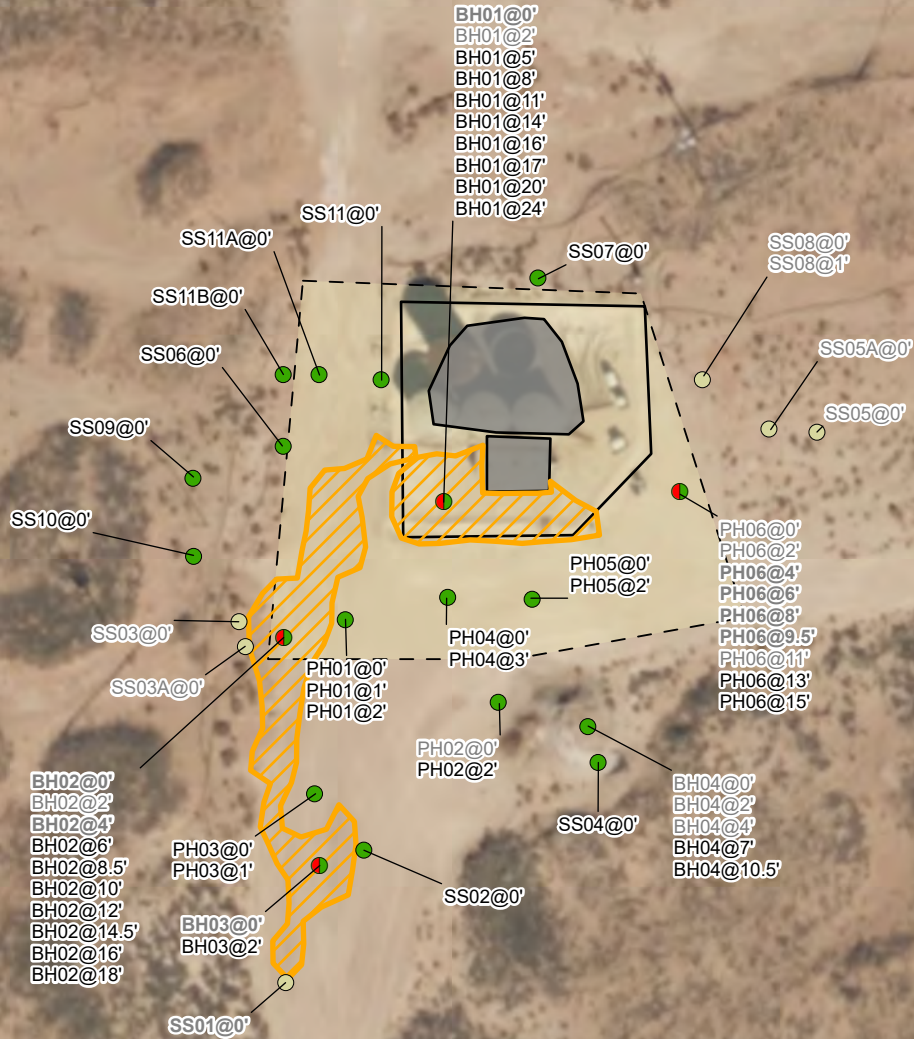
Matador Production Company
Young Deep SWD
Incident Number: nAPP2412026782
Unit L, Section 10, Township 18S, Range 32E
Lea County, New Mexico

FIGURE

1

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.

0 15 30 60 90 120
 Feet

Sources: Environmental Systems Research Institute (ESRI)

Delineation Soil Sample Locations

Matador Production Company

Young Deep SWD

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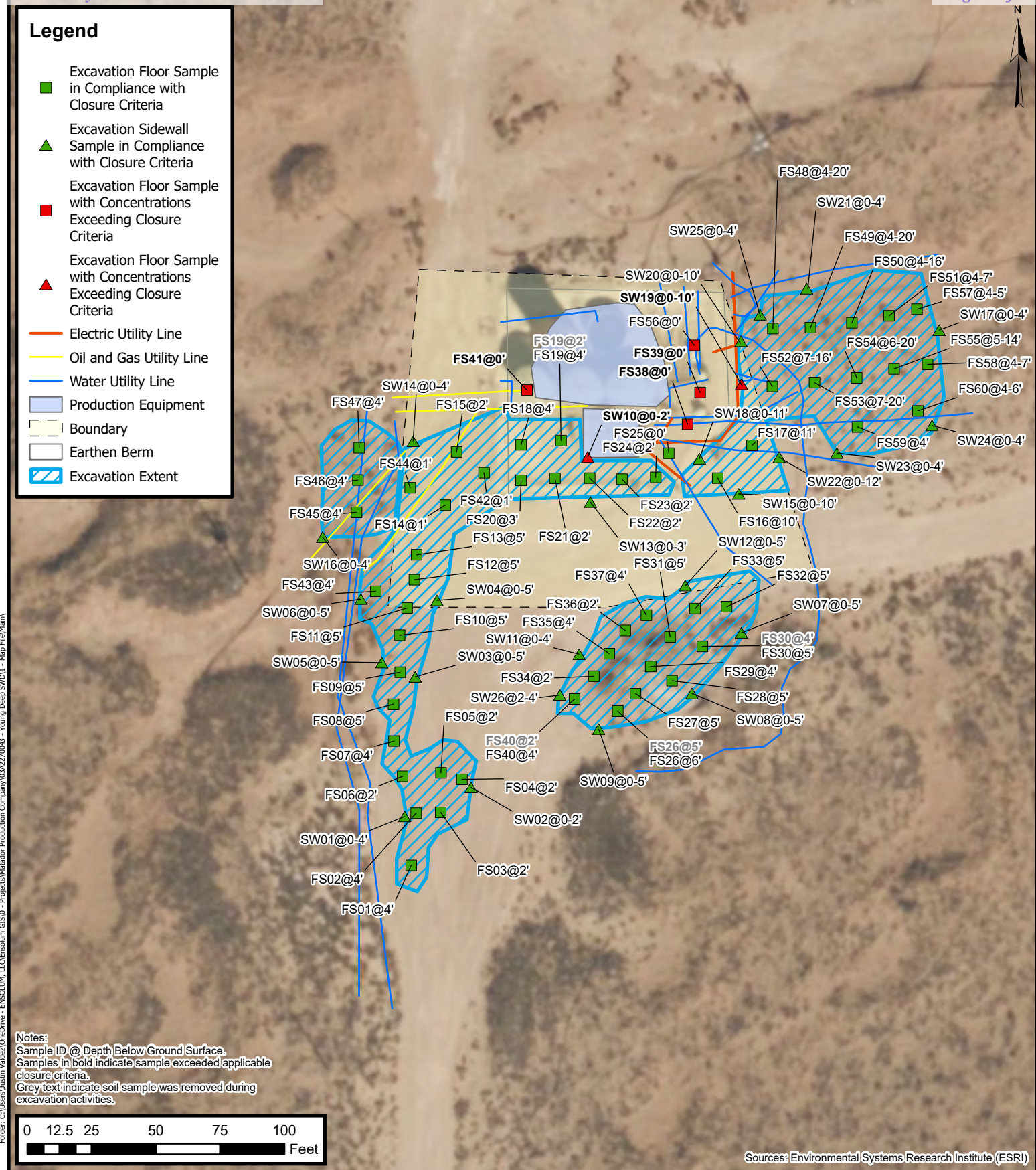
Unit L, Section 10, Township 18S, Range 32E

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FIGURE

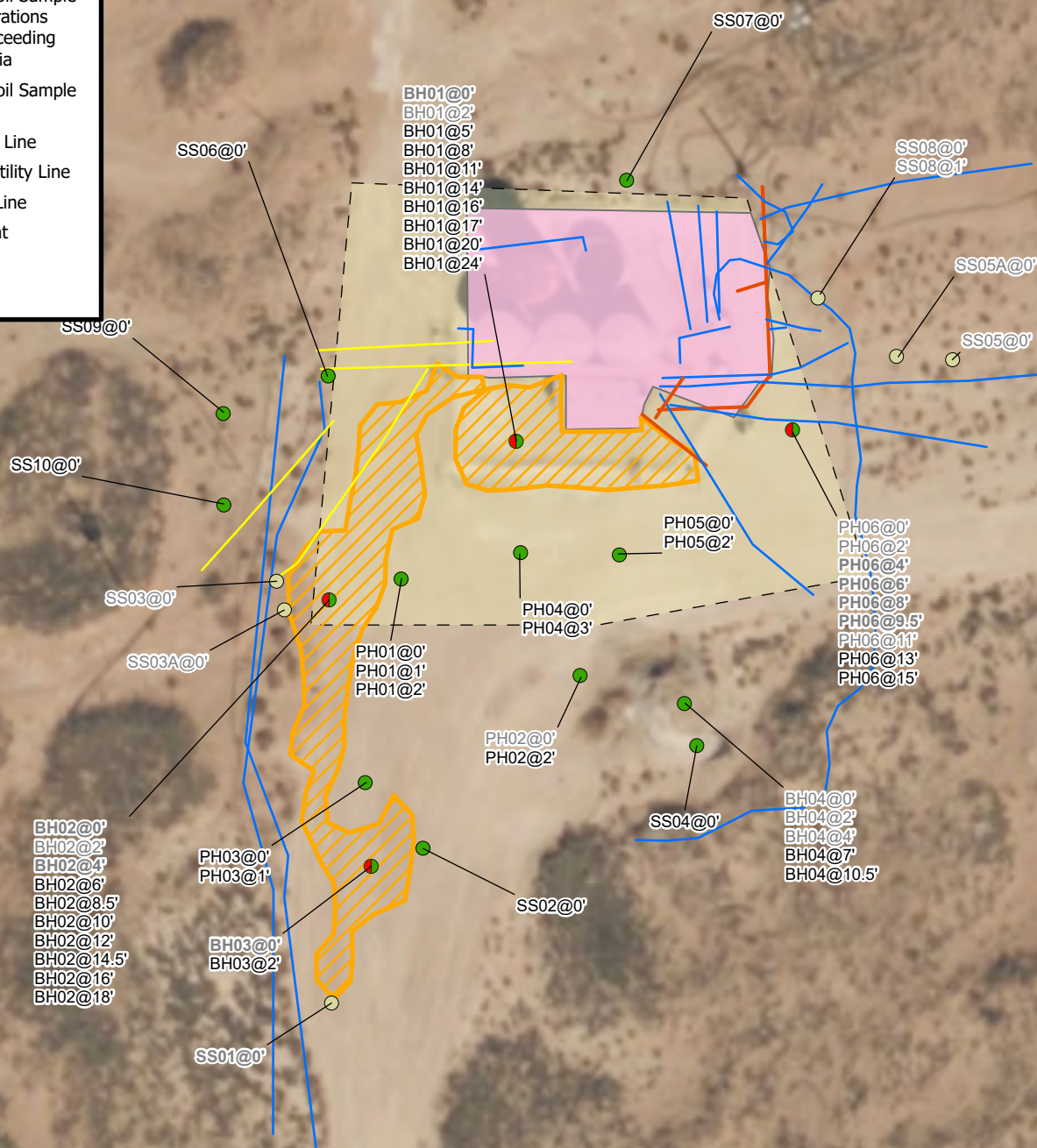
2





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.

0 12.5 25 50 75 100
Feet

Sources: Environmental Systems Research Institute (ESRI)



Area of Requested Deferral

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Unit L, Section 10, Township 18S, Range 32E
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FIGURE

4



TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
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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)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Delineation Soil Samples										
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
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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)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Delineation Soil Samples										
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



TABLE 1
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 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
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

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 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
Excavation Floor Soil Samples										
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)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Excavation Floor Soil Samples										
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	2,410	4,110	4,840
FS39	11/1/2024	0	<0.0250	<0.0500	<20.0	3,730	2,490	3,730	6,220	11,500
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	1,360	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
Excavation Floor Soil Samples										
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	1,440	3,500	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)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Sidewall Soil Samples										
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	3,920.3	6,120.3	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	3,200	8,620	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

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 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)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Sidewall Soil Samples										
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

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* 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.

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ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

NA: Not Analyzed



APPENDIX A

Well Log and Record

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	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

*New Mexico Environment Department-Drinking Water Bureau (NMED-DWB) will be notified if a proposed exploratory well is used for public water supply.

<input checked="" type="checkbox"/> Temporary Request - Requested Start Date: 1/10/24	Requested End Date: 2/10/24
---	-----------------------------

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

1. APPLICANT(S)

Name: Coterra Energy Co.	Name:
Contact or Agent: check here if Agent <input checked="" type="checkbox"/> James Hawley	Contact or Agent: check here if Agent <input type="checkbox"/>
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	

Page 1 of 3

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 1/10th 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.

OCC DTI 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

Page 2 of 3

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:

Exploratory: 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.	Pollution Control and/or Recovery: <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.	Construction De-Watering: <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. Ground Source Heat Pump: <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.	Mine De-Watering: <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.
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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 23rd day of January 20 24, for the State Engineer,

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

Page 3 of 3

**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

page: 1

**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

page: 2

**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

page: 3

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

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 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>

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

To: Knight, Tami C. <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



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



Reasonable efforts have been made by the New Mexico Office of the State Engineer (OSE) to verify that these maps accurately represent 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, projection, positional 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

**Water Right
Regulations**

Closure Area

OSE District
Boundary**New Mexico State
Trust Lands**

Both Estates

Bernalillo
County Parcels
2023
☐ Catron County
Parcels 2023

☐ Chaves County
Parcels 2023

☐ Cibola County
Parcels 2023

☐ Colfax County
Parcels 2023

☐ Curry County
Parcels 2023

☐ De Baca
County Parcels
2023

☐ Doña Ana
County Parcels
2023

☐ Eddy County
Parcels 2023

☐ Grant County
Parcels 2023

☐ Guadalupe
County Parcels
2023

☐ Harding County
Parcels 2023

☐ Hidalgo County
Parcels 2023

☐ Lea County
Parcels 2023

☐ Lincoln County
Parcels 2023

☐ Los Alamos
County Parcels
2023

☐ Luna County
Parcels 2023

☐ McKinley
County Parcels
2023

☐ Mora County
Parcels 2023

☐ Otero County
Parcels 2023

☐ Quay County
Parcels 2023

☐ Rio Arriba
County Parcels
2023

☐ Roosevelt
County Parcels
2023

☐ Sandoval
County Parcels
2023

☐ San Juan
County Parcels
2023

☐ San Miguel
County Parcels
2023

☐ Santa Fe
County Parcels
2023

☐ Sierra County
Parcels 2023

☐ Socorro County
Parcels 2023

☐ Taos County
Parcels 2023

☐ Torrance
County Parcels
2023

☐ Union County
Parcels 2023

☐ Valencia 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.

Sincerely,

A handwritten signature in black ink, appearing to read "Rodolfo Chavez".

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			
LITHOLOGIC / SOIL SAMPLING LOG								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	CCHE	Indurated Caliche - White to tan some light pink, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Uniform			
M	3399		N	BH01	9	9					
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				
LITHOLOGIC / SOIL SAMPLING LOG								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			
LITHOLOGIC / SOIL SAMPLING LOG							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	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				

 ENSOLUM		Sample Name: BH02		Date: 5/16/24				
		Site Name: Young Deep SWD						
		Incident Number: nAPP2412026782						
		Job Number: 03A2270043						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.76643, -103.76123			Logged By: Israel Estrella		Method: Hand Auger			
			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.								

 ENSOLUM		Sample Name: BH03		Date: 5/16/24				
		Site Name: Young Deep SWD						
		Incident Number: nAPP2412026782						
		Job Number: 03A2270043						
LITHOLOGIC / SOIL SAMPLING LOG		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			
LITHOLOGIC / SOIL SAMPLING LOG								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	CCHE	Indurated Caliche - White to tan some light pink, Medium to fine grain size, D, Non-Plastic, Noncohesive, Massive, Non-Uniform			
Total Depth @ 10.5 ft bgs.											

								Sample Name: BH05		Date: 11/12/24			
								Site Name: Young Deep SWD					
								Incident Number: nAPP2412026782					
								Job Number: 03A2270043					
LITHOLOGIC / SOIL SAMPLING LOG								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
Description: Release Area
View: Southwest

Date: 5/9/2024



Photograph 2
Description: Release Area
View: West

Date: 5/9/2024



Photograph 3
Description: Release Area
View: North

Date: 5/9/2024



Photograph 4
Description: Vertical Delineation (BH01)
View: Northeast

Date: 5/16/2024



Photographic Log

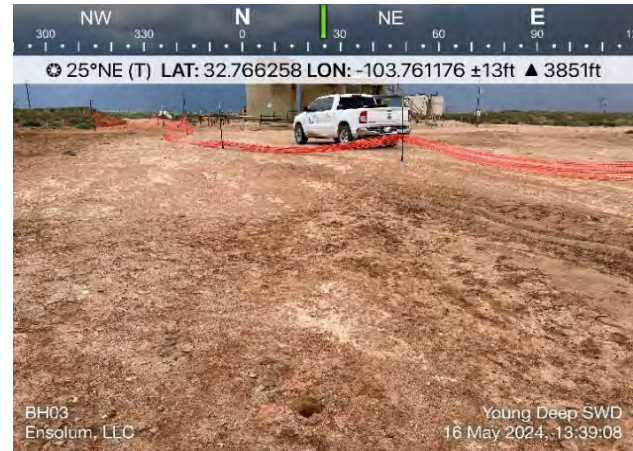
Matador Production Company

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

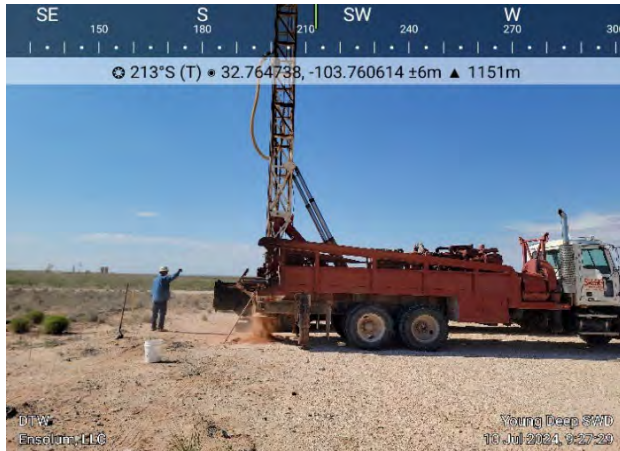


Photographic Log

Matador Production Company

Young Deep SWD

nAPP2412026875



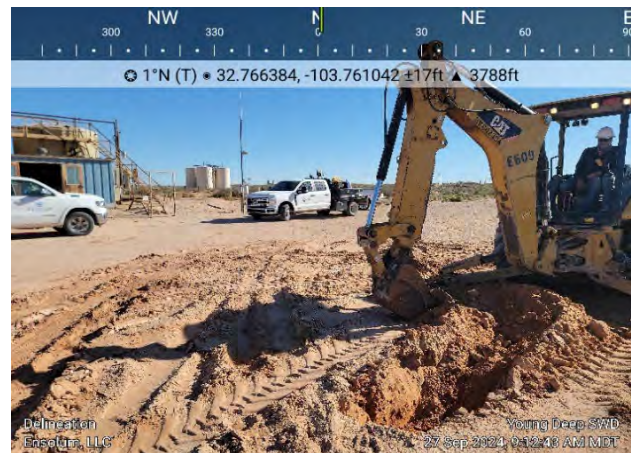
Photograph 9 Date: 7/10/2024
Description: Depth to Water Boring
View: Southwest



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

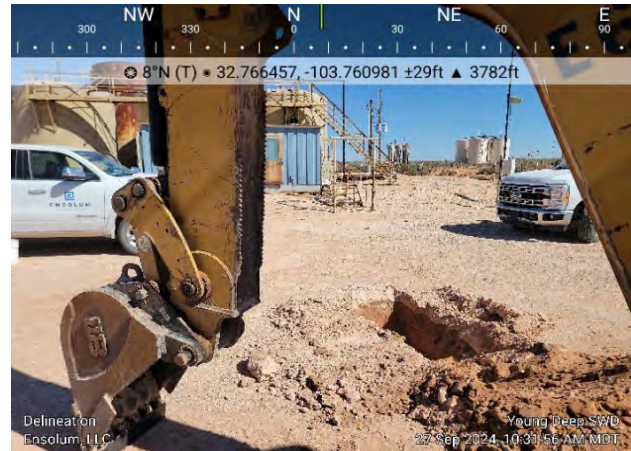
Matador Production Company

Young Deep SWD

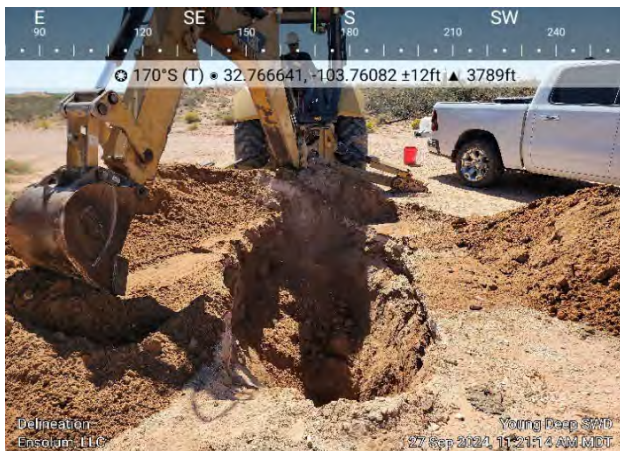
nAPP2412026875



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

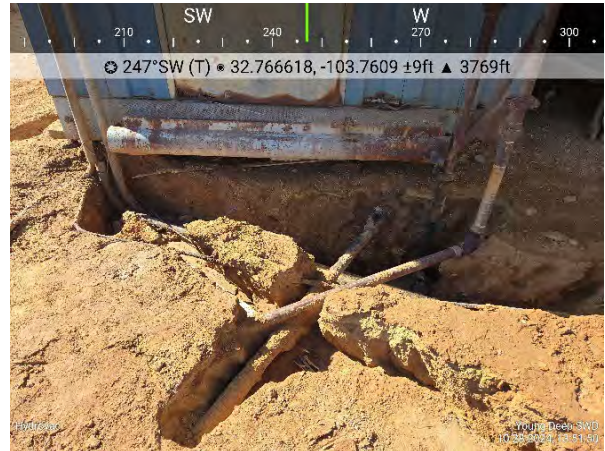
Young Deep SWD

nAPP2412026875



Photograph 17
Description: Hydrovac
View: Northwest

Date: 10/28/2024



Photograph 18
Description: Daylighted Lines
View: West

Date: 10/28/2024



Photograph 19
Description: Excavation
View: North

Date: 10/29/2024



Photograph 20
Description: Excavation
View: Northwest

Date: 10/29/2024



Photographic Log

Matador Production Company

Young Deep SWD

nAPP2412026875



Photograph 21
Description: Excavation
View: North

Date: 10/30/2024



Photograph 22
Description: Daylighted Lines
View: Northeast

Date: 10/30/2024



Photograph 23
Description: Excavation
View: Southwest

Date: 10/30/2024



Photograph 24
Description: Excavation
View: Northeast

Date: 10/30/2024



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

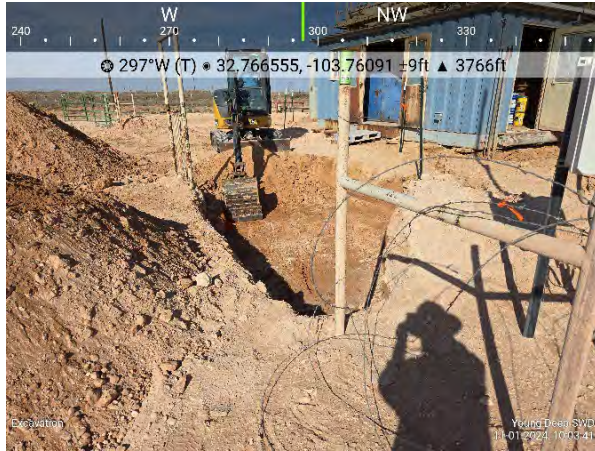


Photographic Log

Matador Production Company

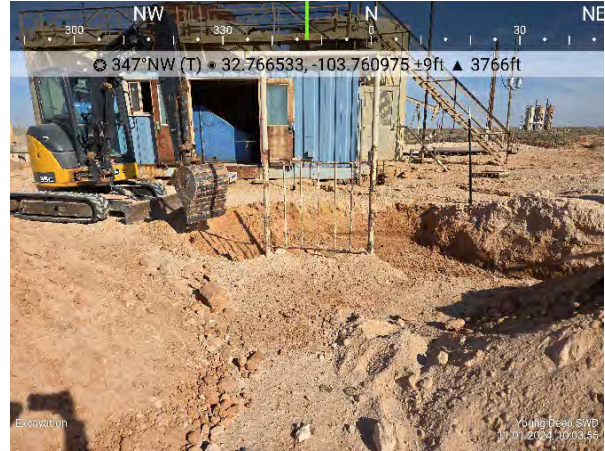
Young Deep SWD

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
Description: Excavation
View: Northeast

Date: 11/04/2024



Photograph 34
Description: Excavation
View: Northwest

Date: 11/04/2024



Photograph 35
Description: Excavation
View: Northeast

Date: 11/04/2024



Photograph 36
Description: Excavation
View: Northeast

Date: 11/04/2024



Photographic Log

Matador Production Company

Young Deep SWD

nAPP2412026875



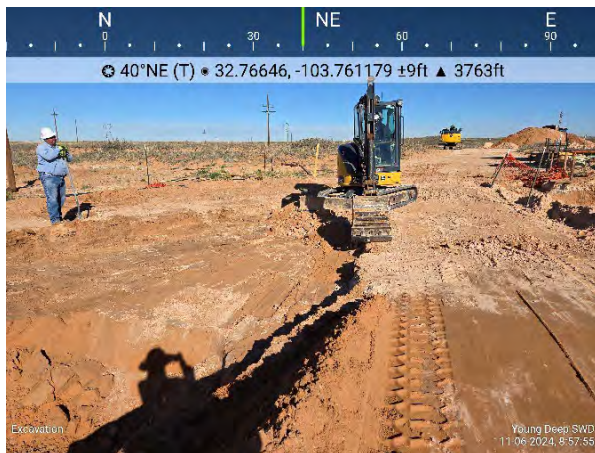
Photograph 37
Description: Excavation
View: Northwest

Date: 11/05/2024



Photograph 38
Description: Excavation
View: Southwest

Date: 11/05/2024



Photograph 39
Description: Excavation
View: Northeast

Date: 11/06/2024



Photograph 40
Description: Excavation
View: East

Date: 11/06/2024



Photographic Log

Matador Production Company

Young Deep SWD

nAPP2412026875



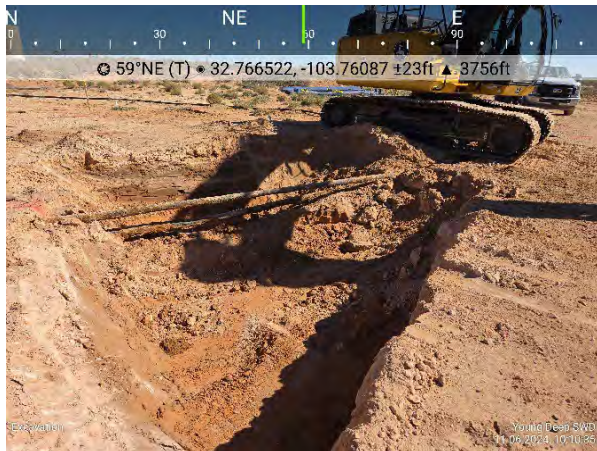
Photograph 41
Description: Excavation
View: Southeast

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



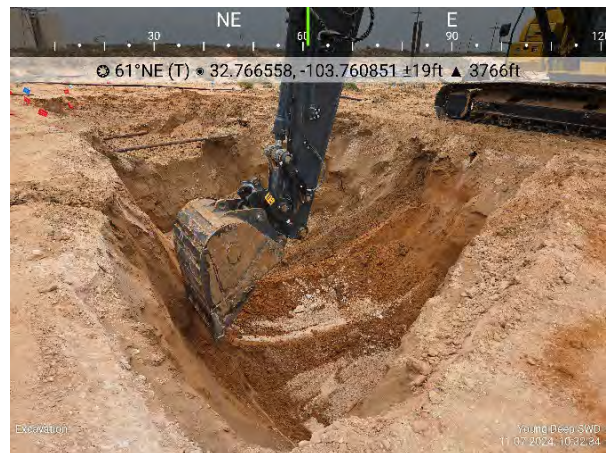
Photograph 46
Description: Excavation
View: Northeast

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



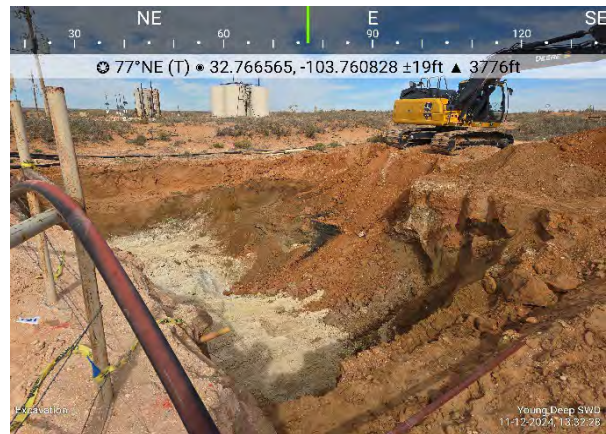
Photograph 50
Description: Excavation
View: Northeast

Date: 11/11/2024



Photograph 51
Description: Excavation
View: South

Date: 11/12/2024



Photograph 52
Description: Excavation
View: Northeast

Date: 11/12/2024

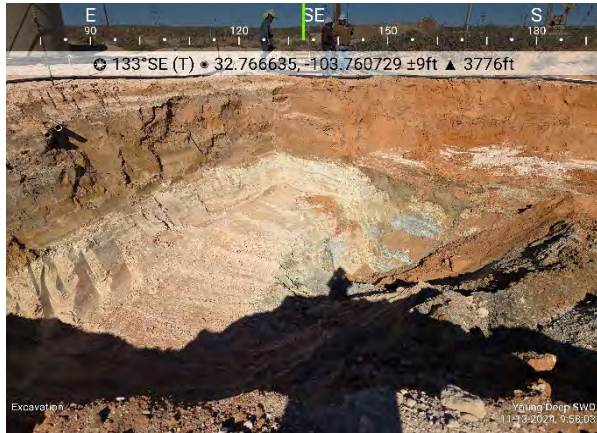


Photographic Log

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

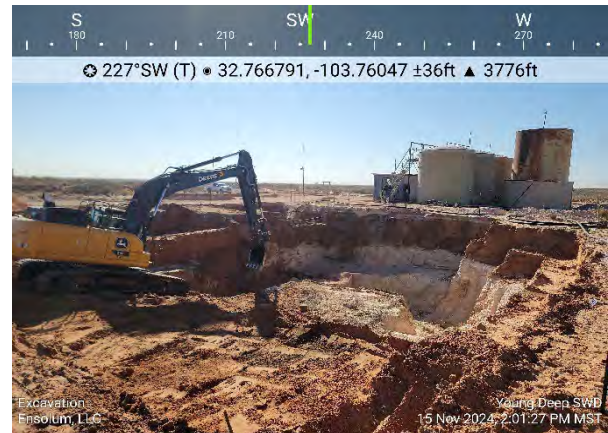
Young Deep SWD

nAPP2412026875



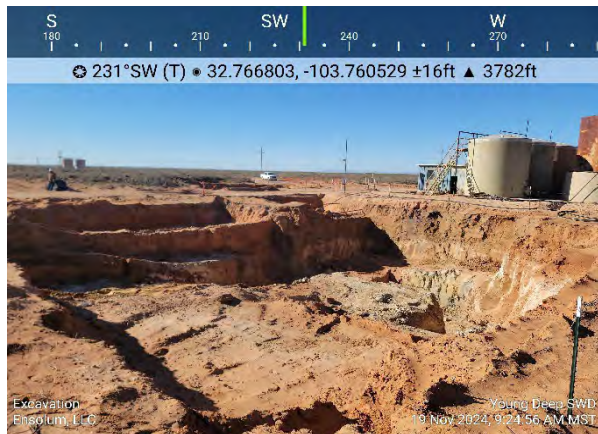
Photograph 57
Description: Excavation
View: East

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
Description: SW25
View: Southwest

Date: 1/20/2025



Photograph 62
Description: SS11
View: East

Date: 1/20/2025



Photograph 63
Description: FS40
View: South

Date: 2/19/2025

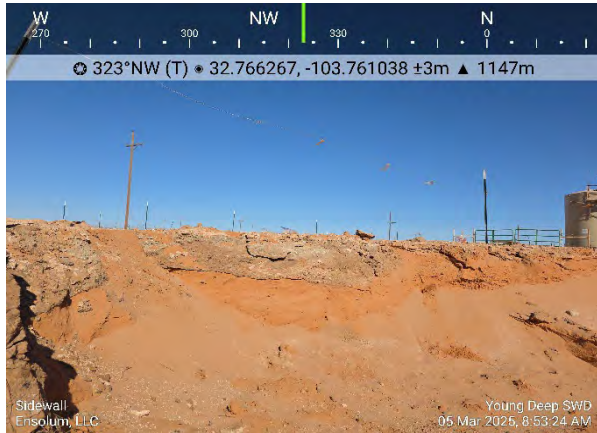


Photograph 64
Description: FS40
View: Northwest

Date: 2/19/2025



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

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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	Reported: 5/29/2024 2:36:31PM
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SS01 - 0'

E405245-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	92.8 %	70-130		05/21/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	105 %	70-130		05/21/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	111 %	50-200		05/22/24	05/26/24	
Anions by EPA 300.0/9056A	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

Reported:
5/29/2024 2:36:31PM

SS02 - 0'

E405245-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 5/29/2024 2:36:31PM
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SS03 - 0'

E405245-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
5/29/2024 2:36:31PM

SS04 - 0'

E405245-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
5/29/2024 2:36:31PM

SS05 - 0'

E405245-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/29/2024 2:36:31PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/29/2024 2:36:31PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/29/2024 2:36:31PM

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
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

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: n-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: n-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: n-Nonane	53.1		50.0		106	50-200			



QC Summary Data

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

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/29/24 14:36

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

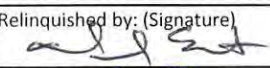

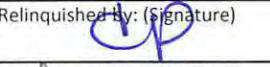
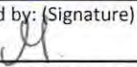
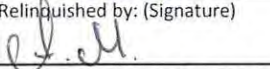
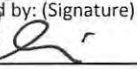
DNI Did Not Ignite

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				Bill To				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	UT	AZ	TX			
Email: agiovengo@ensolum.com																x							
Report due by:																		Remarks					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number																		
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.												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															
		5/16/24	8:15			5-16-24	1140	Received on ice: (Y) / N															
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3															
		5-16-24	1600			5-16-24	1830																
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C															
		5-16-24	2400			5/17/24	0745	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 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:	agiovngo@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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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	Reported: 5/30/2024 1:59:31PM
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BH01-0'

E405259-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	0.606	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	0.233	0.0250	1	05/23/24	05/25/24	
Toluene	0.703	0.0250	1	05/23/24	05/25/24	
o-Xylene	0.0843	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	0.204	0.0500	1	05/23/24	05/25/24	
Total Xylenes	0.288	0.0250	1	05/23/24	05/25/24	
Surrogate: 4-Bromochlorobenzene-PID	94.5 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.9 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	121	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	70.0	50.0	1	05/28/24	05/29/24	
Surrogate: n-Nonane	95.0 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	22500	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	Reported: 5/30/2024 1:59:31PM
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BH01-2'

E405259-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 5/30/2024 1:59:31PM
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BH01-5'

E405259-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 5/30/2024 1:59:31PM
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BH01-8'

E405259-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 5/30/2024 1:59:31PM
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BH01-11'

E405259-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	91.7 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.8 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	105 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A	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	Reported: 5/30/2024 1:59:31PM
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BH01-14'

E405259-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 5/30/2024 1:59:31PM
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BH01-16'

E405259-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 5/30/2024 1:59:31PM
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BH02-0'

E405259-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	8300	500	20	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	5800	1000	20	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>						
	109 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	4160	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	Reported: 5/30/2024 1:59:31PM
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BH02-2'

E405259-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	90.1 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	93.2 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	109 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A	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	Reported: 5/30/2024 1:59:31PM
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BH03-0'

E405259-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 5/30/2024 1:59:31PM
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BH03-2'

E405259-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/30/2024 1:59:31PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/30/2024 1:59:31PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/30/2024 1:59:31PM

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: n-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: n-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: n-Nonane	56.8		50.0		114	50-200			



QC Summary Data

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

Anions by EPA 300.0/9056A

Analyst: IY

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

Blank (2421137-BLK1)					Prepared: 05/23/24 Analyzed: 05/26/24				
Chloride	ND	20.0							
LCS (2421137-BS1)					Prepared: 05/23/24 Analyzed: 05/26/24				
Chloride	249	20.0	250		99.6	90-110			
LCS Dup (2421137-BSD1)					Prepared: 05/23/24 Analyzed: 05/26/24				
Chloride	249	20.0	250		99.4	90-110	0.205	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/30/24 13:59

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					Bill To		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		E405259		23003-0004					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	UT	AZ	TX		
Email: agiovengo@ensolum.com					Report due by:												Remarks				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number																
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.										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only													
		5/17/24	9:45			5.17.24	1112	Received on ice: (Y) N													
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 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 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

envirotech

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:	agiovngo@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

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

Carrier: CourierComments/ResolutionSample 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.

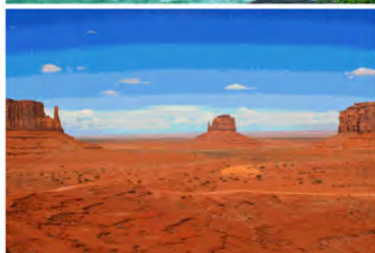
Date



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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: 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

Reported:
06/21/24 14:30

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

Reported:
6/21/2024 2:30:27PM

BH01 - 20'

E406163-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
6/21/2024 2:30:27PM

BH02 - 4'

E406163-02

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

Reported:
6/21/2024 2:30:27PM

BH02 - 6'

E406163-03

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

Reported:
6/21/2024 2:30:27PM

BH02 - 8.5'

E406163-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		89.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		104 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		89.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		104 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		94.5 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	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

Reported:
6/21/2024 2:30:27PM

BH02 - 10'

E406163-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		90.8 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		105 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		90.8 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		105 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	83.6	50.0	2	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	156	100	2	06/19/24	06/20/24	
Surrogate: n-Nonane		101 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: WF		Batch: 2425053
Chloride	686	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	Reported: 6/21/2024 2:30:27PM
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BH02 - 12'

E406163-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		93.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		105 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		93.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		105 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		81.6 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	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

Reported:
6/21/2024 2:30:27PM

BH02 - 14.5'

E406163-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		108 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		92.8 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		104 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		108 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		92.8 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		104 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		98.1 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	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	Reported: 6/21/2024 2:30:27PM
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BH02 - 16'
E406163-08

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

Reported:
6/21/2024 2:30:27PM

BH02 - 18'

E406163-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		101 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		95.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		106 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		101 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		95.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		106 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		102 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	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

Reported:
6/21/2024 2:30:27PM

SS03A - 0'

E406163-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		104 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		97.3 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		94.3 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		104 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		97.3 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		94.3 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		101 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:30:27PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:30:27PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:30:27PM

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	Reported: 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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	06/21/24 14:30

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

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E406163		Job Number 23003-0002		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy										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
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"/> Y / 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

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:	agiovngo@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

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

Carrier: Couier**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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported: 06/21/24 14:29
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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

Reported:
6/21/2024 2:29:15PM

BH01-17'

E406164-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:29:15PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:29:15PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:29:15PM

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	Reported: 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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	06/21/24 14:29

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

[illegible]

envirotecl

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:	agiovngo@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

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

Carrier: Couier**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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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

Reported:
7/16/2024 9:52:08AM

BH01-24'

E407072-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	7/16/2024 9:52:08AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	7/16/2024 9:52:08AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	7/16/2024 9:52:08AM

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	Reported: 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							
LCS (2428083-BS1)					Prepared: 07/11/24 Analyzed: 07/11/24				
Chloride	250	20.0	250		100	90-110			
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			
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	

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	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.



Page 1 of 1



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																													
													Analysis and Method								EPA Program								
													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 #				
																									Remarks				
Sample Information																													
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number																						
9:45	7/10/2024	S	1	BH01 - 24'			1								X														
9:47	7/10/2024	S	1	BH01 - 26'			2								X												Do not run unless BH01 - 24' is > 600Cl or 100 TPH		
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.													
Michelle Gonzales				7/10/24		10:15		Michelle Gonzales				7-10-24		1015		Lab Use Only													
Michelle Gonzales				7-10-24		1630		L.M.				7-10-24		1805		Received on ice: Y N													
L.S.				7-10-24		2400		Alexa Michaels				7/11/24		1030		T1 T2 T3													
Relinquished by: (Signature)				Date		Time		Received by: (Signature)				Date		Time		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.																													

Chain of Custody

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:	agiovngo@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

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

Carrier: Couier**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,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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	Reported: 10/7/2024 5:52:03AM
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PH06-0'

E409294-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	105 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	94.6 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	117 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	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

Reported:
10/7/2024 5:52:03AM

PH06-2'

E409294-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 5:52:03AM

PH06-4'

E409294-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 5:52:03AM

PH06-6'

E409294-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	0.107	0.100	2	10/01/24	10/02/24	
Total Xylenes	0.107	0.0500	2	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	113 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	4830	250	10	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	2260	500	10	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>						
	115 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	1020	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

Reported:
10/7/2024 5:52:03AM

PH06-8'

E409294-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 5:52:03AM

PH06-9.5'

E409294-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 5:52:03AM

PH06-11'

E409294-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 10/7/2024 5:52:03AM
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PH06-13'

E409294-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	99.5 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.8 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	124 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	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

Reported:
10/7/2024 5:52:03AM

PH06-15'

E409294-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	5140	100	5	10/02/24	10/02/24	



QC Summary Data

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:52:03AM

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 (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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:52:03AM

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	Reported: 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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/07/24 05:52

- 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.



Chain of Custody

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO#		1D	2D	3D	Std	NM	CO	UT	TX		
Project: <u>Young Deep SWD</u>				Address: 3122 National Parks Hwy		Job Number					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/TORO 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: <u>Chad Hamilton</u> <u>Cole Burton</u>																	
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: <u>(Y)</u> 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

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:	agiovngo@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

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

Carrier: CourierComments/ResolutionSample 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: 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.
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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
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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

Reported:
10/7/2024 1:08:28PM

SS05A-0'

E409296-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 1:08:28PM

PH01-0'

E409296-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	97.7 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	99.1 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	100 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.7 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	99.1 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	100 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	114 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 1:08:28PM

PH01-1'

E409296-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	99.3 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	99.3 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	127 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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	Reported: 10/7/2024 1:08:28PM
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PH01-2'

E409296-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	97.9 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	98.6 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.9 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	98.6 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	113 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 1:08:28PM

PH02-0'

E409296-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	97.5 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.5 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	116 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 1:08:28PM

PH02-2'

E409296-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	97.8 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	99.5 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.8 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	99.5 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	122 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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	Reported: 10/7/2024 1:08:28PM
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PH03-0'

E409296-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	98.6 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	103 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	98.6 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	103 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	126 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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	Reported: 10/7/2024 1:08:28PM
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PH03-1'

E409296-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	98.3 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	98.3 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	109 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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	Reported: 10/7/2024 1:08:28PM
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PH04-0'

E409296-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	97.6 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	97.6 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	99.8 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 1:08:28PM

PH04-3'

E409296-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	94.0 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	98.0 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	94.0 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	98.0 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	120 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 1:08:28PM

PH05-0'

E409296-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	98.6 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	98.7 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: BA		Batch: 2440032
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	98.6 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	98.7 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	95.9 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 1:08:28PM

PH05-2'

E409296-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	98.1 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	102 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	98.1 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	102 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	94.4 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 1:08:28PM

Volatile Organic Compounds by EPA 8260B

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 (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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 1:08:28PM

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 (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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 1:08:28PM

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	Reported: 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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/07/24 13:08

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#		1D 2D 3D Std				NM CO UT TX					
Project: <u>Young Deep SWD</u>				Address: 3122 National Parks Hwy		<u>E4092910</u>		<u>2303-0002</u>				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/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
0929	9/17/24	S	1	SS05A - 0'		1						X					
0835				PH01 - 0'		2						X					
841				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: <u>cburton@ensolum.com</u> , <u>agiovengo@ensolum.com</u> , <u>chamilton@ensolum.com</u> , <u>iestrella@ensolum.com</u> , <u>bdeal@ensolum.com</u> , <u>bsimmons@ensolum.com</u>																	
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>Chad Hamilton, Cole Burton</u>																	
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: <u>Y</u> 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

Page 2 of 2

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:	agiovngo@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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/07/24 05:55

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

Reported:
10/7/2024 5:55:59AM

BH04-0'

E410002-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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

Reported:
10/7/2024 5:55:59AM

BH04-2'

E410002-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 5:55:59AM

BH04-4'

E410002-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 5:55:59AM

BH04-7'

E410002-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
10/7/2024 5:55:59AM

BH04-10.5'

E410002-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:55:59AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:55:59AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:55:59AM

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	Reported: 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							
LCS (2440048-BS1)					Prepared: 10/01/24 Analyzed: 10/01/24				
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2440048-MS1)					Source: E409291-04		Prepared: 10/01/24 Analyzed: 10/01/24		
Chloride	260	20.0	250	ND	104	80-120			
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	

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/07/24 05:55

- 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# E410002		Job Number 23003-0002		1D	2D	3D	Std	NM	CO	UT	TX			
Project: <u>Young Deep SWD</u>				Address: 3122 National Parks Hwy									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			
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, 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: <u>Chad Hamilton, Cole Burton</u>																				
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: <u>Y</u> 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

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:	agiovngo@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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported: 11/05/24 15:32
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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

Reported:
11/5/2024 3:32:22PM

SS06-0'

E410372-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/5/2024 3:32:22PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/5/2024 3:32:22PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/5/2024 3:32:22PM

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	Reported: 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							
LCS (2445022-BS1)					Prepared: 11/04/24 Analyzed: 11/04/24				
Chloride	255	20.0	250		102	90-110			
LCS Dup (2445022-BSD1)					Prepared: 11/04/24 Analyzed: 11/04/24				
Chloride	256	20.0	250		103	90-110	0.671	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/05/24 15:32

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.



Page 1 of 1

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 11/07/24 14:57
---	--	-----------------------------

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

Reported:
11/7/2024 2:57:37PM

FS03 - 2'

E410392-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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

Reported:
11/7/2024 2:57:37PM

FS04 - 2'

E410392-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/7/2024 2:57:37PM

FS05 - 2'

E410392-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/7/2024 2:57:37PM

FS06 - 2'

E410392-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/7/2024 2:57:37PM

FS08 - 5'

E410392-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/7/2024 2:57:37PM

FS09 - 5'

E410392-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/7/2024 2:57:37PM
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FS10 - 5'

E410392-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/7/2024 2:57:37PM

FS11 - 5'

E410392-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2445023	
Chloride	1770	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

Reported:
11/7/2024 2:57:37PM

FS12 - 5'

E410392-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/7/2024 2:57:37PM

FS13 - 5'

E410392-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/7/2024 2:57:37PM

SW02 - 0-2'

E410392-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2445023	
Chloride	141	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	Reported: 11/7/2024 2:57:37PM
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SW03 - 0-5'
E410392-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	88.9 %	70-130		11/01/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2444150	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/24	11/05/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	92.7 %	70-130		11/01/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	95.8 %	50-200		11/01/24	11/05/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2445023	
Chloride	106	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	Reported: 11/7/2024 2:57:37PM
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SW04 - 0-5'
E410392-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/7/2024 2:57:37PM
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SW05 - 0-5'
E410392-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/7/2024 2:57:37PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/7/2024 2:57:37PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/7/2024 2:57:37PM

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	Reported: 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							
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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/07/24 14:57

- 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

Page 1 of 2

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 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 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.																			



Page 2 of 2

envirotech

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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	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

Reported:
11/6/2024 2:14:06PM

SS07-0'

E411001-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/6/2024 2:14:06PM

Volatile Organics by EPA 8021B

Analyst: SL

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/6/2024 2:14:06PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/6/2024 2:14:06PM

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: n-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: n-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: n-Nonane	53.2		50.0		106	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/6/2024 2:14:06PM

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/06/24 14:14

- 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.



Page 1 of 1



envirotech

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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

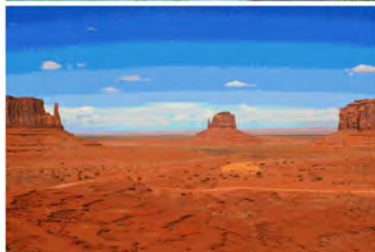
Signature of client authorizing changes to the COC or sample disposition.

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
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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

Reported:
11/8/2024 1:19:36PM

FS01-4'

E411014-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 1:19:36PM

FS02-4'

E411014-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		114 %	70-130	11/04/24	11/05/24	
Surrogate: 1,2-Dichloroethane-d4		93.6 %	70-130	11/04/24	11/05/24	
Surrogate: Toluene-d8		109 %	70-130	11/04/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445007
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		114 %	70-130	11/04/24	11/05/24	
Surrogate: 1,2-Dichloroethane-d4		93.6 %	70-130	11/04/24	11/05/24	
Surrogate: Toluene-d8		109 %	70-130	11/04/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		109 %	50-200	11/04/24	11/04/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 1:19:36PM

FS07-4'

E411014-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		113 %	70-130	11/04/24	11/05/24	
Surrogate: 1,2-Dichloroethane-d4		91.3 %	70-130	11/04/24	11/05/24	
Surrogate: Toluene-d8		109 %	70-130	11/04/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445007
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		113 %	70-130	11/04/24	11/05/24	
Surrogate: 1,2-Dichloroethane-d4		91.3 %	70-130	11/04/24	11/05/24	
Surrogate: Toluene-d8		109 %	70-130	11/04/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		109 %	50-200	11/04/24	11/04/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 1:19:36PM

FS30-4'

E411014-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		112 %	70-130	11/04/24	11/05/24	
Surrogate: 1,2-Dichloroethane-d4		96.3 %	70-130	11/04/24	11/05/24	
Surrogate: Toluene-d8		109 %	70-130	11/04/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445007
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		112 %	70-130	11/04/24	11/05/24	
Surrogate: 1,2-Dichloroethane-d4		96.3 %	70-130	11/04/24	11/05/24	
Surrogate: Toluene-d8		109 %	70-130	11/04/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2445005
Diesel Range Organics (C10-C28)	40.4	25.0	1	11/04/24	11/05/24	
Oil Range Organics (C28-C36)	83.8	50.0	1	11/04/24	11/05/24	
Surrogate: n-Nonane		107 %	50-200	11/04/24	11/05/24	
Anions by EPA 300.0/9056A						
	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	Reported: 11/8/2024 1:19:36PM
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SW07- 0-5'
E411014-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		111 %	70-130	11/04/24	11/05/24	
Surrogate: 1,2-Dichloroethane-d4		93.2 %	70-130	11/04/24	11/05/24	
Surrogate: Toluene-d8		109 %	70-130	11/04/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2445007	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		111 %	70-130	11/04/24	11/05/24	
Surrogate: 1,2-Dichloroethane-d4		93.2 %	70-130	11/04/24	11/05/24	
Surrogate: Toluene-d8		109 %	70-130	11/04/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		103 %	50-200	11/04/24	11/05/24	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported: 11/8/2024 1:19:36PM
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 1:19:36PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 1:19:36PM

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: n-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: n-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: n-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	Reported: 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							
LCS (2445025-BS1)					Prepared: 11/04/24 Analyzed: 11/05/24				
Chloride	250	20.0	250		99.9	90-110			
LCS Dup (2445025-BSD1)					Prepared: 11/04/24 Analyzed: 11/05/24				
Chloride	251	20.0	250		100	90-110	0.369	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/08/24 13:19

- 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				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			
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					Compliance	Y	or	N		
12:54	10/31/2024	S	1	FS02 - 4'			2						X					PWSID #					
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"/> 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: 11/4/2024 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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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	Reported: 11/6/2024 3:34:34PM
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FS23-2'

E411030-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	97.9 %	70-130		11/05/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2445031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/05/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	87.4 %	70-130		11/05/24	11/05/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	97.0 %	50-200		11/05/24	11/05/24	
Anions by EPA 300.0/9056A	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

Reported:
11/6/2024 3:34:34PM

FS27-5'

E411030-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/6/2024 3:34:34PM

FS28-5'

E411030-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2445037	
Diesel Range Organics (C10-C28)	284	125	5	11/05/24	11/05/24	
Oil Range Organics (C28-C36)	706	250	5	11/05/24	11/05/24	
<i>Surrogate: n-Nonane</i>						
	93.3 %	50-200		11/05/24	11/05/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2445042	
Chloride	165	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

Reported:
11/6/2024 3:34:34PM

SW01- 0-4'

E411030-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/6/2024 3:34:34PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/6/2024 3:34:34PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/6/2024 3:34:34PM

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: n-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: n-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: n-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: n-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	Reported: 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							
LCS (2445042-BS1)					Prepared: 11/05/24 Analyzed: 11/05/24				
Chloride	256	20.0	250		102	90-110			
LCS Dup (2445042-BSD1)					Prepared: 11/05/24 Analyzed: 11/05/24				
Chloride	255	20.0	250		102	90-110	0.383	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/06/24 15:34

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

Page 1 of 1

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D		2D		3D		Std	
Project: Young Deep SWD				Address: 3122 National Parks Hwy				E411030		23003-0002		X						NM CO UT TX	
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220														X	
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		
12:24	11/1/2024	S	1	FS23 - 2'		1						X							
12:11	11/1/2024	S	1	FS27 - 5'		2						X							
12:13	11/1/2024	S	1	FS28 - 5'		3						X							
12:02	11/1/2024	S	1	SW01 - 0-4'		4						X							
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)		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

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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.

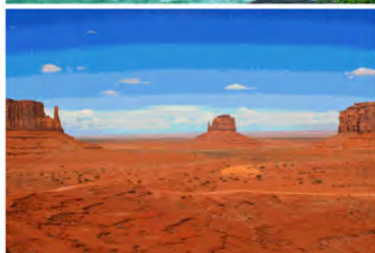
Date



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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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	Reported: 11/8/2024 5:04:43PM
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FS22 - 2'

E411032-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	100 %	70-130		11/05/24	11/07/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2445032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.1 %	70-130		11/05/24	11/07/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	79.5 %	50-200		11/05/24	11/06/24	
Anions by EPA 300.0/9056A	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

Reported:
11/8/2024 5:04:43PM

FS24 - 2'

E411032-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/8/2024 5:04:43PM
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FS26 - 5'

E411032-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2445032	
Benzene	ND	0.0250	1	11/05/24	11/07/24	
Ethylbenzene	0.0602	0.0250	1	11/05/24	11/07/24	
Toluene	ND	0.0250	1	11/05/24	11/07/24	
o-Xylene	0.159	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	0.250	0.0500	1	11/05/24	11/07/24	
Total Xylenes	0.408	0.0250	1	11/05/24	11/07/24	
Surrogate: 4-Bromochlorobenzene-PID	120 %	70-130		11/05/24	11/07/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2445032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	87.5 %	70-130		11/05/24	11/07/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2445047	
Diesel Range Organics (C10-C28)	8090	125	5	11/05/24	11/06/24	
Oil Range Organics (C28-C36)	3990	250	5	11/05/24	11/06/24	
Surrogate: n-Nonane	86.4 %	50-200		11/05/24	11/06/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2445050	
Chloride	4940	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	Reported: 11/8/2024 5:04:43PM
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FS30 - 5'

E411032-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	0.0491	0.0250	1	11/05/24	11/07/24	
p,m-Xylene	ND	0.0500	1	11/05/24	11/07/24	
Total Xylenes	0.0491	0.0250	1	11/05/24	11/07/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	107 %	70-130		11/05/24	11/07/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2445047	
Diesel Range Organics (C10-C28)	145	125	5	11/05/24	11/06/24	
Oil Range Organics (C28-C36)	370	250	5	11/05/24	11/06/24	
<i>Surrogate: n-Nonane</i>						
	88.4 %	50-200		11/05/24	11/06/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2445050	
Chloride	45.1	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

Reported:
11/8/2024 5:04:43PM

FS32 - 5'

E411032-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/8/2024 5:04:43PM
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FS25 - 0'

E411032-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 5:04:43PM

FS38 - 0'

E411032-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/8/2024 5:04:43PM
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FS39 - 0'

E411032-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	99.1 %	70-130		11/05/24	11/07/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2445032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/05/24	11/07/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.8 %	70-130		11/05/24	11/07/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	91.6 %	50-200		11/05/24	11/06/24	
Anions by EPA 300.0/9056A	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

Reported:
11/8/2024 5:04:43PM

SW09 - 0-5'

E411032-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 5:04:43PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 5:04:43PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 5:04:43PM

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	Reported: 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							
LCS (2445050-BS1)					Prepared: 11/05/24 Analyzed: 11/05/24				
Chloride	253	20.0	250		101	90-110			
LCS Dup (2445050-BSD1)					Prepared: 11/05/24 Analyzed: 11/05/24				
Chloride	254	20.0	250		102	90-110	0.381	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/08/24 17:04

- 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

Page 1 of 1

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab W/O# E411032				Job Number 230530002				1D 2D 3D Std			
Project: Young Deep SWD				Address: 3122 National Parks Hwy												NM CO UT TX			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220												x			
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		
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)		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 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: 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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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

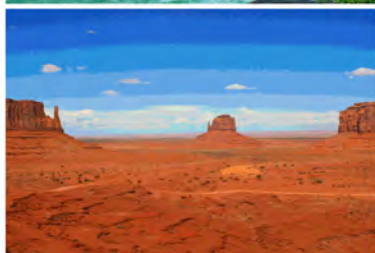
Signature of client authorizing changes to the COC or sample disposition.

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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

Reported:
11/7/2024 1:09:51PM

SW08 - 0-5'

E411039-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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	Reported: 11/7/2024 1:09:51PM
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FS19-2'

E411039-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2445057	
Gasoline Range Organics (C6-C10)	31.2	20.0	1	11/06/24	11/06/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	98.4 %	70-130		11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2445058	
Diesel Range Organics (C10-C28)	1030	50.0	2	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	528	100	2	11/06/24	11/06/24	
Surrogate: n-Nonane	94.9 %	50-200		11/06/24	11/06/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/7/2024 1:09:51PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/7/2024 1:09:51PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/7/2024 1:09:51PM

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: n-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: n-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: n-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	Reported: 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							
LCS (2445073-BS1)					Prepared: 11/06/24 Analyzed: 11/06/24				
Chloride	254	20.0	250		102	90-110			
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			
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

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/07/24 13:09

- 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.



Page ____ of ____

envirotech

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:	agiovento@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

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

Carrier: CourierComments/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.

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.

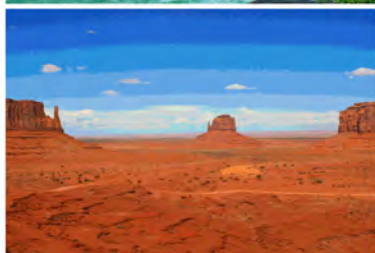
Signature of client authorizing changes to the COC or sample disposition.

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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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

Reported:
11/8/2024 5:15:38PM

FS31-5'

E411045-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		110 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		93.5 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		107 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene		110 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		93.5 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		107 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		113 %	50-200	11/06/24	11/06/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 5:15:38PM

FS33-5'

E411045-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		111 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		96.4 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		108 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene		111 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		96.4 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		108 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		110 %	50-200	11/06/24	11/06/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 5:15:38PM

FS34-2'

E411045-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		109 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		96.4 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		109 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene		109 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		96.4 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		109 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		107 %	50-200	11/06/24	11/06/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 5:15:38PM

FS36-2'

E411045-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		110 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		93.7 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		109 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene		110 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		93.7 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		109 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		112 %	50-200	11/06/24	11/06/24	
Anions by EPA 300.0/9056A						
	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

Reported:

11/8/2024 5:15:38PM

FS40-2'

E411045-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		110 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		96.4 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		109 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene		110 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		96.4 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		109 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		110 %	50-200	11/06/24	11/06/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 5:15:38PM

SW11-0-4'

E411045-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		112 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		95.9 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		110 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene		112 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		95.9 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		110 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		115 %	50-200	11/06/24	11/06/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 5:15:38PM

SW10-0-2'

E411045-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2445065	
Benzene	ND	0.0250	1	11/06/24	11/06/24	
Ethylbenzene	0.151	0.0250	1	11/06/24	11/06/24	
Toluene	0.0395	0.0250	1	11/06/24	11/06/24	
o-Xylene	0.230	0.0250	1	11/06/24	11/06/24	
p,m-Xylene	0.277	0.0500	1	11/06/24	11/06/24	
Total Xylenes	0.507	0.0250	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene	113 %	70-130		11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4	97.7 %	70-130		11/06/24	11/06/24	
Surrogate: Toluene-d8	109 %	70-130		11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2445065	
Gasoline Range Organics (C6-C10)	30.3	20.0	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene	113 %	70-130		11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4	97.7 %	70-130		11/06/24	11/06/24	
Surrogate: Toluene-d8	109 %	70-130		11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2445063	
Diesel Range Organics (C10-C28)	3890	125	5	11/06/24	11/06/24	
Oil Range Organics (C28-C36)	2200	250	5	11/06/24	11/06/24	
Surrogate: n-Nonane	109 %	50-200		11/06/24	11/06/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2445068	
Chloride	9730	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	Reported: 11/8/2024 5:15:38PM
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FS21-2'
E411045-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		113 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		94.4 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		105 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2445065	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene		113 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		94.4 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		105 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		117 %	50-200	11/06/24	11/06/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2445068	
Chloride	1090	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

Reported:
11/8/2024 5:15:38PM

FS35-4'

E411045-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		111 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		95.7 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		106 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene		111 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		95.7 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		106 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		109 %	50-200	11/06/24	11/06/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 5:15:38PM

FS37-4'

E411045-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		108 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		95.4 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		108 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445065
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/06/24	11/06/24	
Surrogate: Bromofluorobenzene		108 %	70-130	11/06/24	11/06/24	
Surrogate: 1,2-Dichloroethane-d4		95.4 %	70-130	11/06/24	11/06/24	
Surrogate: Toluene-d8		108 %	70-130	11/06/24	11/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		112 %	50-200	11/06/24	11/06/24	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 5:15:38PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 5:15:38PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 5:15:38PM

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: n-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: n-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: n-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	Reported: 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							
LCS (2445068-BS1)					Prepared: 11/06/24 Analyzed: 11/06/24				
Chloride	256	20.0	250		102	90-110			
LCS Dup (2445068-BSD1)					Prepared: 11/06/24 Analyzed: 11/06/24				
Chloride	254	20.0	250		102	90-110	0.609	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/08/24 17:15

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.



Chain of Custody

Page 1 of 1

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		E411045	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/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
10:45	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: <u>Cole Burton</u>																	
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 5 °C on subsequent days. Lab Use Only Received on ice: <u>(Y)</u> 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

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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.

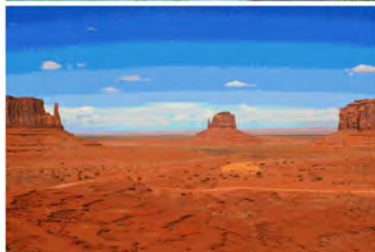
Signature of client authorizing changes to the COC or sample disposition.

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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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	Reported: 11/8/2024 2:54:16PM
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SW06- 0-5'
E411058-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	88.7 %	70-130		11/07/24	11/07/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2445094	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/07/24	11/07/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	92.8 %	70-130		11/07/24	11/07/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	88.0 %	50-200		11/07/24	11/08/24	
Anions by EPA 300.0/9056A	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

Reported:
11/8/2024 2:54:16PM

SW13- 0-3'

E411058-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/8/2024 2:54:16PM

FS43 - 4'

E411058-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 2:54:16PM

Volatile Organics by EPA 8021B

Analyst: SL

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 2:54:16PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/8/2024 2:54:16PM

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	Reported: 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							
LCS (2445127-BS1)					Prepared: 11/07/24 Analyzed: 11/07/24				
Chloride	251	20.0	250		100	90-110			
Matrix Spike (2445127-MS1)					Source: E411058-02		Prepared: 11/07/24 Analyzed: 11/07/24		
Chloride	1070	20.0	250	802	107	80-120			
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	

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/08/24 14:54

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				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																												
																Analysis and Method				EPA Program								
																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 #			
																									Remarks			
Time Sampled				Date Sampled				Matrix				No. of Containers				Sample ID				Field	Filter	Lab Number						
9:20				11/5/2024				S				1				SW06 - 0-5'						1	If TPH > 100 do not run other tests					
10:32				11/5/2024				S				1				SW13 - 0-3'						2	If TPH > 2500 or GRO+DRO > 1000 do not run other tests					
13:51				11/5/2024				S				1				FS43 - 4'						3	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>Bowan Simmons</u>																												
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: 11/7/2024 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:	agiovento@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

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

Carrier: CourierComments/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.

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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/15/24 07:42

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

Reported:
11/15/2024 7:42:19AM

SW12 - 0-5'

E411060-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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

Reported:
11/15/2024 7:42:19AM

FS15-2'

E411060-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/15/2024 7:42:19AM

FS18-4'

E411060-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/15/2024 7:42:19AM

FS20-3'

E411060-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/15/2024 7:42:19AM

FS29-4'

E411060-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/15/2024 7:42:19AM
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FS41-0'

E411060-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/15/2024 7:42:19AM
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FS42-1'

E411060-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/15/2024 7:42:19AM

Volatile Organics by EPA 8021B

Analyst: SL

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/15/2024 7:42:19AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/15/2024 7:42:19AM

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: n-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: n-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: n-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	Reported: 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							
LCS (2445114-BS1)					Prepared: 11/07/24 Analyzed: 11/08/24				
Chloride	254	20.0	250		102	90-110			
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			
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	

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/15/24 07:42

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

Page 1 of 1

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

Page 17 of 18

Page 369 of 690

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	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					
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
9:23	11/5/2024	S	1	SW12 - 0-5'		1						X					
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	<div>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.</div> <div>Lab Use Only</div> <div>Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</div> <div>T1 _____ T2 _____ T3 _____</div> <div>AVG Temp °C 4</div>									
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

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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/24 13:54

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

Reported:
11/18/2024 1:54:13PM

FS14- 1'

E411074-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/2024 1:54:13PM

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.	Project Name:	Young Deep SWD	Reported: 11/18/2024 1:54:13PM
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/2024 1:54:13PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/2024 1:54:13PM

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							
LCS (2446028-BS1)					Prepared: 11/11/24 Analyzed: 11/15/24				
Chloride	257	20.0	250		103	90-110			
LCS Dup (2446028-BSD1)					Prepared: 11/11/24 Analyzed: 11/15/24				
Chloride	257	20.0	250		103	90-110	0.164	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/24 13:54

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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.

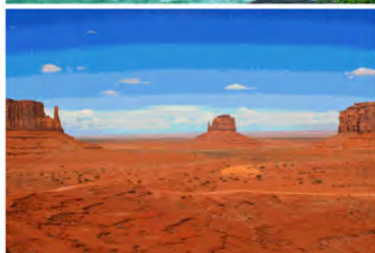
Date



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: 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
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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

Reported:
11/18/2024 1:57:16PM

SS08 - 0'

E411075-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/18/2024 1:57:16PM

SS08 - 1'

E411075-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene	99.0 %	70-130		11/11/24	11/12/24	
Surrogate: 1,2-Dichloroethane-d4	94.4 %	70-130		11/11/24	11/12/24	
Surrogate: Toluene-d8	106 %	70-130		11/11/24	11/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2445135
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/12/24	
Surrogate: Bromofluorobenzene	99.0 %	70-130		11/11/24	11/12/24	
Surrogate: 1,2-Dichloroethane-d4	94.4 %	70-130		11/11/24	11/12/24	
Surrogate: Toluene-d8	106 %	70-130		11/11/24	11/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	105 %	50-200		11/11/24	11/12/24	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/2024 1:57:16PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

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

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.	Project Name:	Young Deep SWD	Reported: 11/18/2024 1:57:16PM
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/2024 1:57:16PM

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: n-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: n-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: n-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: n-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	Reported: 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							
LCS (2446028-BS1)					Prepared: 11/11/24 Analyzed: 11/15/24				
Chloride	257	20.0	250		103	90-110			
LCS Dup (2446028-BSD1)					Prepared: 11/11/24 Analyzed: 11/15/24				
Chloride	257	20.0	250		103	90-110	0.164	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/24 13:57

- 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.



Page 1 of 1

envirotech

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

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

Carrier: CourierComments/ResolutionSample 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.
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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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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

Reported:
11/18/2024 5:12:04PM

SS09-0'

E411098-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		102 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		93.1 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		105 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
Surrogate: Bromofluorobenzene		102 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		93.1 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		105 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		96.6 %	50-200	11/11/24	11/13/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/18/2024 5:12:04PM

SS10-0'

E411098-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		106 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		95.5 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		107 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
Surrogate: Bromofluorobenzene		106 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		95.5 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		107 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		101 %	50-200	11/11/24	11/13/24	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/2024 5:12:04PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/2024 5:12:04PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/2024 5:12:04PM

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: n-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: n-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: n-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: n-Nonane	54.2		50.0		108	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/2024 5:12:04PM

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/18/24 17:12

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

[illegible]

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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: 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
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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

Reported:
11/15/2024 10:41:10AM

SW15- 0-10'

E411099-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		103 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		97.2 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		106 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
Surrogate: Bromofluorobenzene		103 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		97.2 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		106 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		104 %	50-200	11/11/24	11/13/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/15/2024 10:41:10AM

FS16-10'

E411099-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		105 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		94.9 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		105 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
Surrogate: Bromofluorobenzene		105 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		94.9 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		105 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		99.2 %	50-200	11/11/24	11/13/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/15/2024 10:41:10AM

FS17-11'

E411099-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		107 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		99.3 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		107 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
Surrogate: Bromofluorobenzene		107 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		99.3 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		107 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		103 %	50-200	11/11/24	11/13/24	
Anions by EPA 300.0/9056A						
	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

Reported:
11/15/2024 10:41:10AM

FS19-4'

E411099-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		108 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		97.0 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		106 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
Surrogate: Bromofluorobenzene		108 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		97.0 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		106 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2446029
Diesel Range Organics (C10-C28)	429	25.0	1	11/11/24	11/13/24	
Oil Range Organics (C28-C36)	182	50.0	1	11/11/24	11/13/24	
Surrogate: n-Nonane		106 %	50-200	11/11/24	11/13/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2446096
Chloride	469	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	Reported: 11/15/2024 10:41:10AM
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FS44-1'

E411099-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		107 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		92.5 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		103 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2446013
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/11/24	11/14/24	
Surrogate: Bromofluorobenzene		107 %	70-130	11/11/24	11/14/24	
Surrogate: 1,2-Dichloroethane-d4		92.5 %	70-130	11/11/24	11/14/24	
Surrogate: Toluene-d8		103 %	70-130	11/11/24	11/14/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2446029
Diesel Range Organics (C10-C28)	106	25.0	1	11/11/24	11/13/24	
Oil Range Organics (C28-C36)	267	50.0	1	11/11/24	11/13/24	
Surrogate: n-Nonane		107 %	50-200	11/11/24	11/13/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2446096
Chloride	120	20.0	1	11/13/24	11/13/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/15/2024 10:41:10AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/15/2024 10:41:10AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/15/2024 10:41:10AM

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: n-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: n-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: n-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: n-Nonane	54.2		50.0		108	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/15/2024 10:41:10AM

Anions by EPA 300.0/9056A

Analyst: JM

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

Blank (2446096-BLK1)					Prepared: 11/13/24 Analyzed: 11/13/24				
Chloride	ND	20.0							
LCS (2446096-BS1)					Prepared: 11/13/24 Analyzed: 11/13/24				
Chloride	253	20.0	250		101	90-110			
LCS Dup (2446096-BSD1)					Prepared: 11/13/24 Analyzed: 11/13/24				
Chloride	252	20.0	250		101	90-110	0.275	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/15/24 10:41

- 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

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO#		1D 2D 3D Std				NM CO UT TX					
Project: Young Deep SWD				Address: 3122 National Parks Hwy		E411099		Job Number				23003.0002					
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
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	<div>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.</div> <div>Lab Use Only</div> <div>Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N</div> <div>T1 _____ T2 _____ T3 _____</div> <div>AVG Temp °C <u>4</u></div>									
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

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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

Reported:
11/19/2024 4:20:37PM

SW16- 0-4'

E411129-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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

Reported:
11/19/2024 4:20:37PM

FS26-6'

E411129-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported: 11/19/2024 4:20:37PM
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/2024 4:20:37PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/2024 4:20:37PM

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: n-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: n-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: n-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: n-Nonane	59.4		50.0		119	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/2024 4:20:37PM

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
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/24 16:20

- 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

Page 1 of 1

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# E411129		Job Number 23003-0002		1D 2D 3D Std		NM CO UT TX					
Project: Young Deep SWD				Address: 3122 National Parks Hwy										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		
12:04	11/7/2024	S	1	SW16 - 0-4'		1						X							
14:13	11/7/2024	S	1	FS26 - 6'		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: (Y) 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.																			

Page 12 of 13

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envirotech

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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	Reported: 11/20/2024 12:30:59PM
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BH05- 0'

E411140-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	88.6 %	70-130		11/14/24	11/16/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2446117	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/14/24	11/16/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.8 %	70-130		11/14/24	11/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	117 %	50-200		11/14/24	11/15/24	
Anions by EPA 300.0/9056A	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	Reported: 11/20/2024 12:30:59PM
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BH05- 1'

E411140-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/20/2024 12:30:59PM
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BH05- 3'

E411140-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	92.3 %	70-130		11/14/24	11/16/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2446117	
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/14/24	11/16/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	92.3 %	70-130		11/14/24	11/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	108 %	50-200		11/14/24	11/15/24	
Anions by EPA 300.0/9056A	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

Reported:
11/20/2024 12:30:59PM

BH05- 5'

E411140-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	0.0574	0.0500	2	11/14/24	11/17/24	
p,m-Xylene	0.119	0.100	2	11/14/24	11/17/24	
Total Xylenes	0.177	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: AF		Batch: 2446115
Diesel Range Organics (C10-C28)	2070	50.0	2	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	1080	100	2	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>						
	110 %	50-200		11/14/24	11/15/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2447015
Chloride	1840	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	Reported: 11/20/2024 12:30:59PM
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BH05- 7.5'
E411140-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	0.163	0.100	2	11/14/24	11/17/24	
Total Xylenes	0.163	0.0500	2	11/14/24	11/17/24	
Surrogate: 4-Bromochlorobenzene-PID	87.6 %	70-130		11/14/24	11/17/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2446117	
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/14/24	11/17/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	92.3 %	70-130		11/14/24	11/17/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF		Batch: 2446115	
Diesel Range Organics (C10-C28)	1450	50.0	2	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	682	100	2	11/14/24	11/15/24	
Surrogate: n-Nonane	122 %	50-200		11/14/24	11/15/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2447015	
Chloride	5440	100	5	11/18/24	11/19/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/20/2024 12:30:59PM

Volatile Organics by EPA 8021B

Analyst: SL

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/20/2024 12:30:59PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/20/2024 12:30:59PM

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: n-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: n-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: n-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: n-Nonane	60.5		50.0		121	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/20/2024 12:30:59PM

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							
LCS (2447015-BS1)					Prepared: 11/18/24 Analyzed: 11/19/24				
Chloride	256	20.0	250		102	90-110			
LCS Dup (2447015-BSD1)					Prepared: 11/18/24 Analyzed: 11/19/24				
Chloride	256	20.0	250		102	90-110	0.115	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/20/24 12:30

- 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				E411/40		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			
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, 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: Bowen 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													
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time					Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N													
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time					T1 _____ T2 _____ T3 _____													
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time					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

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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

Reported:
11/20/2024 10:27:08AM

SW18 - 0-11'

E411141-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF		Batch: 2446116	
Diesel Range Organics (C10-C28)	239	25.0	1	11/14/24	11/15/24	
Oil Range Organics (C28-C36)	181	50.0	1	11/14/24	11/15/24	
<i>Surrogate: n-Nonane</i>		116 %	50-200	11/14/24	11/15/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: WF		Batch: 2446112	
Chloride	291	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

Reported:
11/20/2024 10:27:08AM

SW19 - 0-10'

E411141-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/20/2024 10:27:08AM

SW20 - 0-10'

E411141-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/20/2024 10:27:08AM

FS45 - 4'

E411141-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/20/2024 10:27:08AM

FS46 - 4'

E411141-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: WF		Batch: 2446112	
Chloride	26.5	20.0	1	11/14/24	11/14/24	



QC Summary Data

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5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/20/2024 10:27:08AM

Volatile Organics by EPA 8021B

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

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-BS1) 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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/20/2024 10:27:08AM

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 (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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/20/2024 10:27:08AM

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: n-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: n-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: n-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: n-Nonane	58.6		50.0		117	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/20/2024 10:27:08AM

Anions by EPA 300.0/9056A

Analyst: WF

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

Blank (2446112-BLK1)					Prepared: 11/13/24 Analyzed: 11/14/24				
Chloride	ND	20.0							
LCS (2446112-BS1)					Prepared: 11/13/24 Analyzed: 11/14/24				
Chloride	257	20.0	250		103	90-110			
LCS Dup (2446112-BSD1)					Prepared: 11/13/24 Analyzed: 11/14/24				
Chloride	257	20.0	250		103	90-110	0.230	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/20/24 10:27

- 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

[illegible]

envirotech

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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	Reported: 11/19/2024 10:18:07AM
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SW14- 0-4'
E411150-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	90.2 %	70-130		11/15/24	11/16/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2446145	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/15/24	11/16/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.2 %	70-130		11/15/24	11/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	98.5 %	50-200		11/15/24	11/16/24	
Anions by EPA 300.0/9056A	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

Reported:
11/19/2024 10:18:07AM

SW21- 0-4'

E411150-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/2024 10:18:07AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/2024 10:18:07AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/2024 10:18:07AM

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: n-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: n-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: n-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: n-Nonane	55.7		50.0		111	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/2024 10:18:07AM

Anions by EPA 300.0/9056A

Analyst: JM

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

Blank (2446159-BLK1)					Prepared: 11/15/24 Analyzed: 11/16/24				
Chloride	ND	20.0							
LCS (2446159-BS1)					Prepared: 11/15/24 Analyzed: 11/16/24				
Chloride	250	20.0	250		100	90-110			
LCS Dup (2446159-BSD1)					Prepared: 11/15/24 Analyzed: 11/16/24				
Chloride	250	20.0	250		99.9	90-110	0.116	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/24 10:18

- 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.



Page 1 of 1

envirotech

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/24 13:20

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

FS51- 4-7'

E411160-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: Bromofluorobenzene		98.9 %	70-130	11/18/24	11/18/24	
Surrogate: 1,2-Dichloroethane-d4		87.6 %	70-130	11/18/24	11/18/24	
Surrogate: Toluene-d8		104 %	70-130	11/18/24	11/18/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2447002
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/24	11/18/24	
Surrogate: Bromofluorobenzene		98.9 %	70-130	11/18/24	11/18/24	
Surrogate: 1,2-Dichloroethane-d4		87.6 %	70-130	11/18/24	11/18/24	
Surrogate: Toluene-d8		104 %	70-130	11/18/24	11/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2447004
Diesel Range Organics (C10-C28)	141	25.0	1	11/18/24	11/18/24	
Oil Range Organics (C28-C36)	204	50.0	1	11/18/24	11/18/24	
Surrogate: n-Nonane		109 %	50-200	11/18/24	11/18/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2447006
Chloride	120	20.0	1	11/18/24	11/18/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/2024 1:20:09PM

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.	Project Name:	Young Deep SWD	Reported: 11/19/2024 1:20:09PM
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/2024 1:20:09PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/19/2024 1:20:09PM

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							
LCS (2447006-BS1)						Prepared: 11/18/24 Analyzed: 11/18/24			
Chloride	253	20.0	250		101	90-110			
LCS Dup (2447006-BSD1)						Prepared: 11/18/24 Analyzed: 11/18/24			
Chloride	253	20.0	250		101	90-110	0.0466	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	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

[illegible]

envirotech

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:	agiovento@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

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

Carrier: CourierComments/Resolution

Client Comment- If TPH >2500 or
GRO+DRO >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? 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: 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.
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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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 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	Reported: 11/21/2024 11:46:24AM
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FS48 - 4-20'
E411165-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	86.8 %	70-130		11/18/24	11/19/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2447003	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/24	11/19/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.6 %	70-130		11/18/24	11/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	110 %	50-200		11/18/24	11/19/24	
Anions by EPA 300.0/9056A	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

Reported:
11/21/2024 11:46:24AM

FS49 - 4-20'

E411165-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/21/2024 11:46:24AM
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FS50 - 4-16'
E411165-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	86.2 %	70-130		11/18/24	11/19/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2447003	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/24	11/19/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.5 %	70-130		11/18/24	11/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	113 %	50-200		11/18/24	11/19/24	
Anions by EPA 300.0/9056A	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

Reported:
11/21/2024 11:46:24AM

FS56 - 0'

E411165-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/21/2024 11:46:24AM

FS47 - 4'

E411165-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/21/2024 11:46:24AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/21/2024 11:46:24AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/21/2024 11:46:24AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/21/2024 11:46:24AM

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							
LCS (2447006-BS1)						Prepared: 11/18/24 Analyzed: 11/18/24			
Chloride	253	20.0	250		101	90-110			
LCS Dup (2447006-BSD1)						Prepared: 11/18/24 Analyzed: 11/18/24			
Chloride	253	20.0	250		101	90-110	0.0466	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/21/24 11:46

- 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

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State										
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E411/45		Job Number 23003-002				1D	2D	3D	Std	NM	CO	UT	TX			
Project: Young Deep SWD				Address: 3122 National Parks Hwy												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	
12:03	11/14/2024	S	1	FS48 - 4-20'		1						X										
12:06	11/14/2024	S	1	FS49 - 4-20'		2						X										
12:08	11/14/2024	S	1	FS50 - 4-16'		3						X										
NS 12:53	11/14/2024	S	1	FS52 - 4-16' 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, 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 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

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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.

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:	agiovento@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

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

Carrier: CourierComments/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.

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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Chain of Custody etc.	17

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	Reported: 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

Reported:
11/25/2024 9:36:45AM

SW17 - 0-4'

E411186-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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	Reported: 11/25/2024 9:36:45AM
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SW22 - 0-12'
E411186-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	94.1 %	70-130		11/19/24	11/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2447017	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/24	11/20/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.6 %	70-130		11/19/24	11/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	99.5 %	50-200		11/19/24	11/20/24	
Anions by EPA 300.0/9056A	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	Reported: 11/25/2024 9:36:45AM
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SW23 - 0-4'
E411186-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	93.8 %	70-130		11/19/24	11/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2447017	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/24	11/20/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.1 %	70-130		11/19/24	11/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	98.6 %	50-200		11/19/24	11/21/24	
Anions by EPA 300.0/9056A	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

Reported:
11/25/2024 9:36:45AM

SW24 - 0-4'

E411186-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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

Reported:
11/25/2024 9:36:45AM

FS57 - 4-5'

E411186-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/25/2024 9:36:45AM
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FS60 - 4-6'
E411186-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	92.9 %	70-130		11/19/24	11/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2447017	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/19/24	11/20/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.5 %	70-130		11/19/24	11/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	103 %	50-200		11/19/24	11/21/24	
Anions by EPA 300.0/9056A	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

Reported:
11/25/2024 9:36:45AM

FS59-4'

E411186-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported: 11/25/2024 9:36:45AM
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/25/2024 9:36:45AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/25/2024 9:36:45AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/25/2024 9:36:45AM

Anions by EPA 300.0/9056A

Analyst: JM

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

Blank (2447046-BLK1)					Prepared: 11/19/24 Analyzed: 11/20/24				
Chloride	ND	20.0							
LCS (2447046-BS1)					Prepared: 11/19/24 Analyzed: 11/20/24				
Chloride	265	20.0	250		106	90-110			
LCS Dup (2447046-BSD1)					Prepared: 11/19/24 Analyzed: 11/20/24				
Chloride	265	20.0	250		106	90-110	0.000369	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/25/24 09:36

- 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

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E411186		Job Number 23003-0002		1D	2D	3D	Std	NM	CO	UT	TX
Project: Young Deep SWD				Address: 3122 National Parks Hwy										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
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																	
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									
Michelle Gonzales		11/18/24	7:30	Michelle Gonzales		11-18-24	0730										
Michelle Gonzales		11-18-24	1615	Michelle Gonzales		11-18-24	1656	Lab Use Only									
Michelle Gonzales		11-18-24		Caitlin Mar		11-19-24	10:00	Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N									
Michelle Gonzales			2220					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

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: 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	Reported: 11/21/24 12:15
---	--	-----------------------------

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	Reported: 11/21/2024 12:15:35PM
---	--	------------------------------------

FS53 - 7-20'
E411206-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	90.3 %	70-130		11/20/24	11/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2447049	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/20/24	11/20/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	94.9 %	70-130		11/20/24	11/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	109 %	50-200		11/20/24	11/20/24	
Anions by EPA 300.0/9056A	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

Reported:
11/21/2024 12:15:35PM

FS55 - 5-14'

E411206-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/21/2024 12:15:35PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/21/2024 12:15:35PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/21/2024 12:15:35PM

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: n-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: n-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: n-Nonane	52.0		50.0		104	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/21/2024 12:15:35PM

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							
LCS (2447056-BS1)						Prepared: 11/20/24 Analyzed: 11/20/24			
Chloride	252	20.0	250		101	90-110			
LCS Dup (2447056-BSD1)						Prepared: 11/20/24 Analyzed: 11/20/24			
Chloride	253	20.0	250		101	90-110	0.177	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	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.



[illegible]

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:	agiovento@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

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

Carrier: CourierComments/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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	10
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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	Reported: 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	Reported: 11/23/2024 10:07:07AM
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FS52 - 7-16'
E411209-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	98.6 %	70-130		11/20/24	11/21/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2447050	
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/20/24	11/21/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.2 %	70-130		11/20/24	11/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	106 %	50-200		11/20/24	11/20/24	
Anions by EPA 300.0/9056A	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

Reported:
11/23/2024 10:07:07AM

FS54 - 6-20'

E411209-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Anions by EPA 300.0/9056A						
	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	Reported: 11/23/2024 10:07:07AM
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FS58 - 4-7'
E411209-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Surrogate: 4-Bromochlorobenzene-PID	96.2 %	70-130		11/20/24	11/21/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2447050	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/20/24	11/21/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.2 %	70-130		11/20/24	11/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Surrogate: n-Nonane	115 %	50-200		11/20/24	11/20/24	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/23/2024 10:07:07AM

Volatile Organics by EPA 8021B

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 (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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/23/2024 10:07:07AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/23/2024 10:07:07AM

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: n-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: n-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: n-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: n-Nonane	61.3		50.0		123	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/23/2024 10:07:07AM

Anions by EPA 300.0/9056A

Analyst: JM

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

Blank (2447093-BLK1)					Prepared: 11/21/24 Analyzed: 11/21/24				
Chloride	ND	20.0							
LCS (2447093-BS1)					Prepared: 11/21/24 Analyzed: 11/21/24				
Chloride	252	20.0	250		101	90-110			
LCS Dup (2447093-BSD1)					Prepared: 11/21/24 Analyzed: 11/21/24				
Chloride	253	20.0	250		101	90-110	0.328	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	11/23/24 10:07

- 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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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: 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
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported: 12/03/24 17:00
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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

Reported:
12/3/2024 5:00:14PM

FS47 - 4'

E412012-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Nonhalogenated Organics by EPA 8015D - GRO						
	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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)	102	100	2	12/02/24	12/03/24	
<i>Surrogate: n-Nonane</i>		101 %	50-200	12/02/24	12/03/24	
Anions by EPA 300.0/9056A						
	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	12/3/2024 5:00:14PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	12/3/2024 5:00:14PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	12/3/2024 5:00:14PM

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: n-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: n-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: n-Nonane	56.6		50.0		113	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	12/3/2024 5:00:14PM

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							
LCS (2449040-BS1)					Prepared: 12/02/24 Analyzed: 12/03/24				
Chloride	254	20.0	250		102	90-110			
LCS Dup (2449040-BSD1)					Prepared: 12/02/24 Analyzed: 12/03/24				
Chloride	251	20.0	250		101	90-110	1.04	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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	12/03/24 17:00

- 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						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	TCEQ 1005 - TX	RCRA 8 Metals					SDWA	CWA	RCRA					
8:26	12/2/2024	S	1	FS47 - 4'			1						X							Compliance	Y	or N					
																			PWSID #								
																				Remarks							
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: Y / N T1 _____ T2 _____ T3 _____ AVG Temp °C _____															
Michelle Gonzales		12/02/24		1045		Michelle Gonzales		12.2.24		1045																	
Michelle Gonzales		12.2.24		1540		John H.		12.2.24		1700																	
John H.		12.2.24		2330		Curtis Mann																					
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																	
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: 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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported: 01/28/25 15:37
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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

Reported:
1/28/2025 3:37:34PM

SW25 0-4'

E501145-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:37:34PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:37:34PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:37:34PM

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	Reported: 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							
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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	01/28/25 15:37

- 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.



[illegible]

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	01/28/25 15:39

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	Reported: 1/28/2025 3:39:04PM
---	--	---

SS11-0'

E501146-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: AK		Batch: 2504084	
Chloride	6060	100	5	01/22/25	01/28/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:39:04PM

Volatile Organics by EPA 8021B

Analyst: SL

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

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:39:04PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:39:04PM

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	Reported: 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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	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.



Chain of Custody

[illegible]

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

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

Carrier: CourierComments/ResolutionSample 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

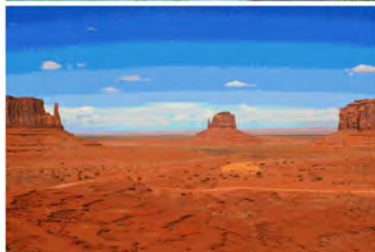
Signature of client authorizing changes to the COC or sample disposition.

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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	01/28/25 15:42

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

Reported:
1/28/2025 3:42:12PM

SS11A-0'

E501147-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:42:12PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:42:12PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:42:12PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:42:12PM

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	01/28/25 15:42

- 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.



Page 1 of 1

**envirotech**

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	01/28/25 15:43

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	Reported: 1/28/2025 3:43:12PM
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SS11B - 0'

E501148-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:43:12PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:43:12PM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	1/28/2025 3:43:12PM

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	Reported: 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							
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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	01/28/25 15:43

- 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

[illegible]

envirotech

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

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

Carrier: CourierComments/ResolutionSample 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: 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	02/26/25 10:29

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

Reported:
2/26/2025 10:29:16AM

FS40-4'

E502187-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	2/26/2025 10:29:16AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	2/26/2025 10:29:16AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	2/26/2025 10:29:16AM

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	Reported: 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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	02/26/25 10:29

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.



Page 1 of 1

envirotech

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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: 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.
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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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported: 03/11/25 10:11
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

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

Reported:
3/11/2025 10:11:09AM

SW26- 2-4'

E503037-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	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	
Nonhalogenated Organics by EPA 8015D - GRO	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	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	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	
Anions by EPA 300.0/9056A	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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	3/11/2025 10:11:09AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	3/11/2025 10:11:09AM

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.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	3/11/2025 10:11:09AM

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: n-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: n-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: n-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: n-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	Reported: 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
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

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.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	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

[illegible]

envirotech

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:	agiovento@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

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

Carrier: CourierComments/ResolutionSample 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.



APPENDIX E

NMOCD Correspondence

From: [Hamlet, Robert, EMNRD](#)
To: [Ashley Giovengo](#)
Cc: [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
<http://www.emnrd.state.nm.us/OCD/>



From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Thursday, July 11, 2024 10:29 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: FW: [EXTERNAL] Extension Request - Young Deep SWD - Incident Number nAPP2412026782

From: Ashley Giovengo <agiovengo@ensolum.com>
Sent: Thursday, July 11, 2024 10:25 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; clinton.talley@matadorresources.com; jason.touchet@matadorresources.com
Cc: Cole Burton <cburton@ensolum.com>; Chad Hamilton <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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source	
Site Name	YOUNG DEEP SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information	
<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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Rd., Aztec, NM 87410
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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 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

District I

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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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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
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 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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
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 III
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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 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

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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

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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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
District II
811 S. First St., Artesia, NM 88210
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 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
Phone:(575) 393-6161 Fax:(575) 393-0720

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1000 Rio Brazos Rd., Aztec, NM 87410
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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

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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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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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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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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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

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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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Energy, Minerals and Natural Resources
Oil Conservation Division
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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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
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

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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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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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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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1625 N. French Dr., Hobbs, NM 88240
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Energy, Minerals and Natural Resources
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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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Phone:(575) 393-6161 Fax:(575) 393-0720

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811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Rd., Aztec, NM 87410
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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 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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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
1625 N. French Dr., Hobbs, NM 88240
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1220 S. St Francis Dr., Santa Fe, NM 87505
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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 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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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
1625 N. French Dr., Hobbs, NM 88240
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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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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

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1625 N. French Dr., Hobbs, NM 88240
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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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Energy, Minerals and Natural Resources
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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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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

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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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Energy, Minerals and Natural Resources
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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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source

Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

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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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

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General Information
Phone: (505) 629-6116

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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 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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
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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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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Oil Conservation Division
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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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
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

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
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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Oil Conservation Division
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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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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

Prerequisites	
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

Location of Release Source	
Site Name	YOUNG DEEP SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information	
<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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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

Prerequisites	
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

Location of Release Source	
Site Name	YOUNG DEEP SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
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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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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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

Prerequisites	
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

Location of Release Source	
Please answer all the questions in this group.	
Site Name	YOUNG DEEP SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
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

Nature and Volume of Release	
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.	
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

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
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.	

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: jason.touchet@matadorresources.com Date: 03/20/2025
--	--

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Phone: (505) 476-3441

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Phone: (505) 629-6116

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State of New Mexico
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Oil Conservation Division
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	
<i>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.</i>	
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
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ 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	
<i>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.</i>	
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
<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>	
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
<i>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.</i>	
<i>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.</i>	

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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)	
<i>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.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	<i>Not answered.</i>
OR which OCD approved well (API) will be used for off-site disposal	<i>Not answered.</i>
OR is the off-site disposal site, to be used, out-of-state	No
OR is the off-site 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 on-site 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
<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
<i>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.</i>	

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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

Deferral Requests Only	
<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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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

Sampling Event Information	
Last sampling notification (C-141N) recorded	438252
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	03/05/2025
What was the (estimated) number of samples that were to be gathered	1
What was the sampling surface area in square feet	8129

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	No
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Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 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