



RECLAMATION REQUEST REPORT

Ross Draw Unit #011

Eddy County, New Mexico

Incident Numbers:

nAB1728553778

nAB1728551205

nHMP1412241998

Prepared For:

WPX Energy Permian, LLC

5315 Buena Vista Dr.

Carlsbad, NM 88220

Carlsbad • Houston • Midland • San Antonio • Lubbock • Hobbs • Lafayette

SYNOPSIS

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy Permian, LLC (WPX), presents the following Reclamation Request Report (RRR) to document reclamation activities completed to date, for three inadvertent releases of crude oil and/or produced water at the Ross Draw Unit #011 (Site) (**Figure 1** in **Appendix A**). Based on the recently approved Closure Request Reports (CRR) and completed Site restoration activities, WPX believes No Further Action (NFA) is warranted until the next favorable growing season in order to re-establish vegetation in areas disturbed by remediation activities.

SITE BACKGROUND

nHMP1412241998, nAB1728553778, and nAB1728551205

Between October 6, 2023, and October 30, 2023, excavation activities were performed in adherence with an approved Remediation Work Plan (RWP). Approximately 1,671 cubic yards (CY) of impacted soil removed from the Site was transported to R360 Antelope Draw in Jal, New Mexico under WPX approved manifests. Laboratory analytical results for excavation confirmation soil samples indicated all concentrations of COCs were below the applicable Site Closure Criteria and/or reclamation standard. A CRR was prepared detailing the remediation summaries and was approved by the New Mexico Oil Conservation Division (NMOCD) on March 20, 2024, for Incident Numbers nAB1728553778 and nAB1728551205.

nHMP1412241998

On October 30, 2023, Etech conducted delineation activities to assess the presence and/or absence of residual impacts along a Path of Investigation (POI) as detailed in the RWP. Laboratory analytical results for all delineation soil samples collected from the POI indicated all analyzed COCs were below the applicable Site Closure Criteria and/or reclamation standard. A CRR was prepared detailing the remediation summary and was approved by the NMOCD on March 20, 2024.

RECLAMATION ACTIVITIES

Upon receipt of final laboratory analytical results for confirmation excavation soil samples, the excavation measured approximately 11,284 square feet (sqft) and was backfilled with approximately 1,671 cubic yards (CY) of clean, locally sourced soil to restore the Site to "as close to its original state" as possible (**Figure 2** in **Appendix A**). The final soil cover was contoured to match the Site's pre-existing grade to prevent ponding of water and erosion. WPX will utilize the Bureau of Land Management (BLM) Seed Mixture 4 (Gypsum Sites) which will be hand-broadcasted over the entire disturbed area in the next favorable growing season following BLM guidelines (**Appendix B**), which will provide the maximum results of vegetation regrowth and ground surface coverage to match pre-existing conditions at the Site.

On May 2, 2024, Etech assessed the backfill material for its capacity to host vegetative growth. Two representative 5-point composite soil samples were collected from the soil cover within the excavation area (SC01 and SC02) and one discrete soil sample was collected in a native soil area outside of the excavation area (BG01) at 0.5-foot bgs via hand shovel and field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips, and qualitatively evaluated for nutrient density of pH, Nitrogen (N), Phosphorus (P), and Potassium (K) utilizing a HoldAll® Soil Test Kit according to the operating manual, which is included in **Appendix C**.

Field screening results indicated the backfill material appears to correlate with surrounding soil conditions currently supporting native vegetative growth, as summarized in **Table 1** included in **Appendix D**. The

location of the restoration areas and field screened soil sample locations are shown in **Figure 2** in **Appendix A**. Photographic documentation of restoration activities is included in **Appendix E**.

RECLAMATION APPROVAL REQUEST

Based on the field assessment of the backfill activities, WPX believes the soil cover of the excavation area has been restored "as close to its original state" as possible in order to promote vegetative regrowth. Completed restoration activities meet requirements set forth in NMAC 19.15.29.13 regulations and WPX respectfully requests approval of this RRR associated with Incident Numbers nHMP1412241998, nAB1728553778 and nAB1728551205. As such, NFA appears warranted until the next favorable growing season, when the Site will be re-seeded via hand-broadcast method with BLM Seed Mixture 4.

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (432) 305-6413 or joseph@etechenv.com or Erick Herrera (432) 305-6416 or erick@etechenv.com. **Appendix F** provides correspondence email notification receipts associated with the subject releases. Referenced CRRs associated with Incident Numbers nHMP1412241998, nAB1728553778, and nAB1728551205 is provided in **Appendix G**.

Sincerely,
Etech Environmental and Safety Solutions, Inc.



Erick Herrera
Staff Geologist



Joseph S. Hernandez
Senior Managing Geologist

cc: Jim Raley, WPX
New Mexico Oil Conservation Division
Bureau of Land Management

Appendices:

- Appendix A:** Figure 1: Site Map
Figure 2: Restoration Area
- Appendix B:** BLM Seed Mixture 4, for Gypsum Sites
- Appendix C:** HoldAll© Operating Manual
- Appendix D:** Tables
- Appendix E:** Photographic Logs
- Appendix F:** Correspondence & Notifications
- Appendix G:** Archived Reports

APPENDIX A

Figures

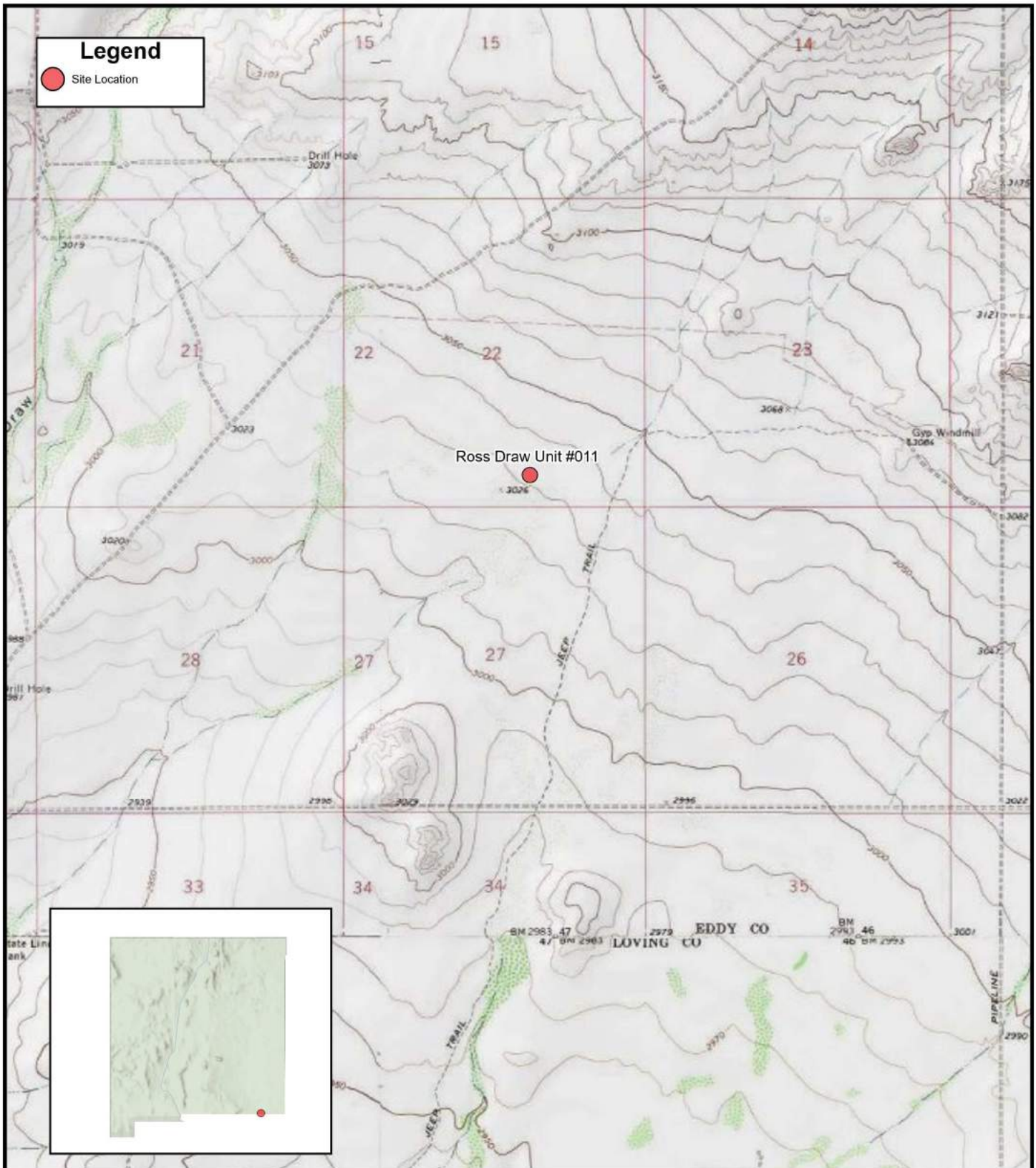


FIGURE 1

Site Location Map

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

eTECH



0 1,500 3,000 Feet



bing

Sources:
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Airbus DS

FIGURE 2

Restoration Area

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

eTECH



0 29 58 Feet

APPENDIX B

BLM Seed Mixture 4, for Gypsum Sites

EXHIBIT
Date
BLM Serial No.:
Company Reference:

Mixture 4, for Gypsum Sites

The holder shall seed all the disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Alkali Sacaton (<i>Sporobolus airoides</i>)	1.5
DWS~ Four-wing saltbush (<i>Atriplex canescens</i>)	8.0

~DWS: DeWinged Seed

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

APPENDIX C

HoldAll© Operating Manual

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213



HoldAll®
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40 TESTS
DIRECTIONS INSIDE

SOIL TEST KIT



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Grasses & Lawns



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SOIL TEST KIT

Tests Your Soil for a Healthy Garden

• pH • Nitrogen(N) • Phosphorus(P) • Potassium(K) •

PREPARING YOUR SOIL SAMPLES

For lawns, annuals or house plants, take the soil sample from about 2-3" below the surface. For perennials especially shrubs, vegetables and fruit, the sample should be from 4" deep.

Avoid touching the soil with your hands. Test different areas of your soil, as it may differ according to past cultivation, underlying soil differences or a localized condition. It is preferable to make individual tests on several samples from different areas, than to mix the samples together.

Place your soil sample into a clean container. Break the sample up with the trowel or spoon and allow it to dry out naturally. This is not essential, however it makes working with the sample easier. Remove any small stones, organic material such as grass, weeds or roots and hard particles of lime. Then crumble the sample finely and mix it thoroughly.

HOW TO TEST YOUR SOIL:

Tube caps and capsules are color-coded for simplicity:

Green = pH Purple = Nitrogen
Blue = Phosphorus Orange = Potash

pH TEST:

- 1. Remove cap from the green capped tube.
 - 2. Fill tube with soil to the first line.
 - 3. Carefully open a green capsule and pour powder into the tube.
 - 4. Add water (preferably distilled) to the fourth line.
 - 5. Cap tube and shake thoroughly.
 - 6. Allow soil to settle and color to develop for about a minute.
 - 7. Compare color of solution to the pH color chart.
- Repeat for remaining capsules.



pH 7.5 - Alkaline

pH 7.0 - Neutral

pH 6.5 - Slight A

pH 6.0 - Acid

pH 5.5 - Acid

pH 5.0 - Very Acid

pH 4.5 - Very Acid

NITROGEN, PHOSPHORUS & POTASH TESTS:

Fill a clean jar or can with 1 part soil and 5 parts water. Thoroughly shake or stir the soil and water together for at least one minute and then allow the mixture to stand undisturbed until it settles (30 minutes to 24 hours, dependent on soil). A fine clay soil will take much longer to settle out than a coarse sandy soil. The clarity of the solution will also vary, the clearer the better, however cloudiness will not affect the accuracy of the test.

PLANT FOOD CHART		
Nitrogen	Phosphorous	Potash
High	High	High
Medium	Medium	Medium
Low	Low	Low
Very Low	Very Low	Very Low

- 1. Remove the cap from the tube. (Please note that the color of the capsules should match the color of the tube cap.) Using dropper provided, fill the tube to the fourth line with liquid from your soil mixture. Avoid disturbing the sediment
- 2. Carefully separate the two halves of one of the capsules. Pour the powder into the tube.
- 3. Cap the tube and shake thoroughly. Allow color to develop for 10 minutes.
- 4. Compare color of solution to the appropriate portion of the plant food color chart. For best results allow daylight, not direct sunlight, to illuminate the solution. Note your results. Repeat for remaining capsules.

TO RAISE OR LOWER pH OF YOUR SOIL

Raising and lowering pH is not an exact science & most plants have a reasonably wide tolerance, certainly to within 1 pH point. Consult the pH Preference List and you will see that the majority can manage well on a pH around 6.5 but some need an alkaline soil

and some a particularly acid soil. Altering pH takes time so do not expect rapid changes; rather, work steadily towards giving a plant its ideal conditions.

ADJUSTING pH

pH can be adjusted to provide more suitable growing conditions for the different plants you wish to grow. Or, you can leave the pH of the soil as it is and select plants that like the level revealed by your test. Once you have your pH reading, check the pH Preference List for the pH levels of over 450 popular plants, trees, shrubs, vegetables and fruits. If your pH reading differs significantly from the list's recommended levels, follow instructions below for adjusting soil pH. You can correct pH at any time of the year but it

is best to start in the Fall and check progress in the Spring. After working to adjust your soil, retest for pH level in 40-60 days. If results are still significantly off, retreat your soil, not exceeding recommended application levels. Allow one month to pass between adding lime and adding fertilizers.

SOIL TYPES

Sandy Soils: A light, coarse soil comprised of crumbling and alluvial debris.
Loam Soils: A medium friable soil, consisting of a blend of coarse (sand) alluvium and fine (clay) particles mixed within fairly broad limits with a little lime and humus.
Clay Soils: A heavy, clinging, impermeable

soil, comprised of very fine particles with little lime and humus and tending to be waterlogged in winter and very dry in summer.

ADJUSTING SOIL pH - HOW MUCH TO APPLY

Material	pHChange	Sandy	Loamy	Clay
Dolomitic or Calcic Limestone	+0.5 unit (0.5 pH)	2.5	2.5	2.5
	+1.0 unit (1.0 pH)	5.0	5.0	5.0
Hydrated Lime	+0.5 unit (0.5 pH)	1.25 - 2.0	1.25 - 2.0	1.25 - 2.0
	+1.0 unit (1.0 pH)	3.5 - 4.0	3.5 - 4.0	3.5 - 4.0
Iron Sulfate	-0.5 unit (0.5 pH)	0.75	0.75	0.75
	-1.0 unit (1.0 pH)	1.5	1.5	1.5
Aluminum Sulfate	-0.5 unit (0.5 pH)	0.5 - 0.75	0.5 - 0.75	0.5 - 0.75
	-1.0 unit (1.0 pH)	1 - 1.25	1 - 1.25	1 - 1.25

Amounts listed are pounds per 100 square feet. Do not add more than 5lbs. of lime or sulfur in one application.

FERTILIZER RECOMMENDATIONS

FEEDING PRIOR TO PLANTING

Adequate reserves of plant food should be available in the soil before planting vegetables, preparing a seed or flower bed, sodding or seeding a lawn, or planting shrubs and trees. To make up any deficiencies, apply fertilizers from the following chart according to your soil test result.

TEST RESULTS	Very Low	Low	Medium	High
Nitrogen Fertilizers (%N)				
Dried Blood (11%)	36	19	6	N/A
Nitrate of Soda (16%)	27	14	3	N/A
Phosphate Fertilizers (%P)				
Bone Meal (19%)	27	14	6	N/A
Triple Superphosphate (46%)	10.25	5.25-5.5	2.25	N/A
Potash Fertilizers (%K)				
Muriate of Potash (60%)	8.75-9	4.75-5	2.25-2.5	N/A

Amounts listed are ounces per 100 square feet. (Ounces referred to are by weight)

FEEDING ESTABLISHED PLANTS AND BEDS

Based on your test results, apply the appropriate fertilizer(s) in the amounts recommended in the following chart.

RECOMMENDATIONS FOR N, P AND K RESULTS

	Very Low			Low			Medium		
	N	P	K	N	P	K	N	P	K
Lawn	22.0-22.5	0.75-1.0	4.75-5.0	14.0-14.5	1.0-1.5	2.25-2.5	3.75-4.0	0	0
Fruit	14.0-14.5	6.5	13.5-14.0	7.75-8.0	4.0-4.25	8.75-9.0	3.75-4.0	2.25	4.75-5.0
Flower	14.0-14.25	6.5	13.5-14.0	7.75-8.0	4.0-4.25	8.75-9.0	3.75-4.0	2.25	4.75-5.0
Shrubs (flowering)	14.0-14.25	8.25-8.5	13.5-14.0	7.75-8.0	4.0-4.25	8.75-9.0	3.75-4.0	1.0-1.25	4.75-5.0
Shrubs (foliage)	22.0-22.5	10.5-10.75	8.75-9.0	14.0-14.5	5.25-5.5	4.75-5.0	3.75-4.0	2.25	2.25-2.5
Veggies (root)	14.0-14.25	12.0-12.25	8.75-9.0	14.0-14.5	5.25-5.5	4.75-5.0	3.75-4.0	3.0	2.25-2.5
Veggies (leafy)	28.25-29.0	10.25	8.75-9.0	14.0-14.5	5.25-5.5	4.75-5.0	7.75-8.0	2.25	2.25-2.5
Tree	14.0-14.5	10.25	8.75-9.0	7.75-8.0	5.25-5.5	4.75-5.0	3.75-4.0	2.25	2.25-2.5
General Feed	22.0-22.5	8.25-8.5	8.75-9.0	10.5-11.0	4.0-4.25	4.75-5.0	3.75-4.0	1.0-1.25	2.25-2.5

High

	N	P	K
Lawn	N/A	N/A	N/A
Fruit	N/A	N/A	N/A
Flower	N/A	N/A	N/A
Shrubs (flowering)	N/A	N/A	N/A
Shrubs (foliage)	N/A	N/A	N/A
Veggies (root)	N/A	N/A	N/A
Veggies (leafy)	N/A	N/A	N/A
Tree	N/A	N/A	N/A
General Feed	N/A	N/A	N/A

The recommendations are based on the following fertilizers sources: Nitrate of Soda (16% N), Triple Superphosphate (46% P2O5) and Muriate of Potassium (60% K2O). The amounts listed are in oz. /100 sq. ft. (Ounces referred to are by weight, not volume.) If you wish to use other fertilizer, simply check the package for the percentage of nutrients for N, P, & K and adjust the application level accordingly.

SPECIAL RECOMMENDATIONS FOR LAWNS

For a new lawn, pay special attention to soil preparation before planting. Proper soil preparation for any size lawn will have a significant impact on the amount of water and care it demands in the future. Till the soil to a depth of at least 12" and incorporate plenty of organic material (9" or more). Test your soil for pH and adjust to the levels recommended on pH Preference List for your type of grass. Refer to the Adjusting Soil pH chart for recommended lime or sulfate applications.

For established lawns, Nitrogen is the most essential nutrient to promote lush growth and deep, green color. Phosphorus and Potassium, in lesser quantities, are also important for strong root formation and growth. Compound fertilizers will supply all 3 nutrients, or you can select an individual fertilizer, such as Nitrate of Soda. The following chart gives recommended application levels specifically for lawns, based on your Nitrogen soil test results.

RECOMMENDATIONS FOR LAWNS

Fertilizer Type	Very Low	Low
24-4-4	4.0 lbs.	2.0 lbs.
24-3-4	3.1 lbs.	1.55 lbs.
30-4-4	3.0 lbs.	1.5 lbs.

	Medium	High
24-4-4	1.0 lbs.	N/A
24-3-4	.77 lbs.	N/A
30-4-4	.75 lbs.	N/A

Amounts listed are pounds per 1000 square feet.

SAFETY & HYGIENE

Dispose of test solutions by rinsing down the sink. Empty gelatin capsules should be disposed of immediately with household waste. Wash the test tubes and caps in warm, soapy water immediately after each use. Make sure any sediment or color staining is removed. Rinse well and dry. Each bag of capsules should be stored inside the blister. Fit the caps on each test tube. Place all components back into the package. The blister pack has been specially designed to be reused as a storage container.

Store your kit in clean, dry conditions, indoors. The powders are safe in normal domestic terms but like all chemicals and pharmaceuticals, they should be put away and kept out of reach of children. Try to avoid touching the powders. Always wash your hands thoroughly after making your tests. Do not eat, drink or smoke while using the soil test kit. Keep powders away from food, drink and animal feed. If taken internally, drink copious amounts of water and seek medical advice.

CAUTIONS

Where a lot of fertilizer is needed to correct one plant food, divide the applications over several weeks. Do not add lime and fertilizer together; lime first. Allow at least one month to pass before applying fertilizer. Retest 30 days after applying fertilizer.

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Decorative Plant Accessories

Plant pH Preference List

NAME	pH	NAME	pH	NAME	pH	NAME	pH	NAME	pH
FRUIT		VEGETABLES AND HERBS		HOUSE and GREENHOUSE PLANTS		FLOWERS, TREES AND SHRUBS		FLOWERS, TREES AND SHRUBS	
APPLE	5.0 - 6.5	SAGE	5.5 - 6.5	GENISTA	6.5 - 7.5	ASPERULA	6.0 - 8.0	LAUREL	6.5 - 7.5
APRICOT	6.0 - 7.0	SHALLOT	5.5 - 7.0	GERANIUM	6.0 - 8.0	ASPHODOLINE	6.0 - 8.0	LAVENDER	6.5 - 7.5
AVOCADO	6.0 - 7.5	SORGHUM	5.5 - 7.5	GLOXINIA	5.5 - 6.5	ASTER	5.5 - 7.5	LIATRIS	5.5 - 7.5
BANANA	5.0 - 7.0	SOYBEAN	5.5 - 6.5	GRAPE IVY	5.0 - 6.5	AUBRITA	6.0 - 7.5	LIGUSTRUM	5.0 - 7.5
BLACKBERRY	5.0 - 6.0	SPEARMINT	5.5 - 7.5	GRAPE HYACINTH	6.0 - 7.5	AZALEA	4.5 - 6.0	LILAC	6.0 - 7.5
BLUEBERRY	4.0 - 6.0	SPINACH	6.0 - 7.5	GREVILLEA	5.5 - 6.5	BALLOON FLOWER	6.0 - 6.5	LILY OF THE VALLEY	4.5 - 6.0
CANTALOUPE	6.5 - 7.5	SWEDE	5.0 - 7.0	GYNURA	5.5 - 6.5	BAYBERRY	4.0 - 6.0	LITHOSPERMUM	5.0 - 6.5
CHERRY	6.0 - 7.5	THYME	5.5 - 7.0	HEDERA (IVY)	6.0 - 8.0	BERGENIA	6.0 - 7.5	LOBELIA	6.5 - 7.5
CRANBERRY	5.5 - 6.5	TOMATO	5.5 - 7.5	HELIOTROPIMUM	5.0 - 6.0	BLEEDING HEART	6.0 - 7.5	LUPINUS	5.5 - 7.0
CURRENT: Black	6.0 - 8.0	TURNIP	5.5 - 7.0	HENS AND CHICKENS	6.0 - 7.0	BLUEBELL	6.0 - 7.6	MAGNOLIA	5.0 - 6.0
Red	5.5 - 7.0	WATER CRESS	6.0 - 8.0	HERRINGBONE PLANT	6.0 - 6.0	BROOM	5.0 - 6.0	MAHONIA	6.0 - 7.0
White	6.0 - 8.0	HOUSE and GREENHOUSE PLANTS		HIBISCUS PLANT	6.0 - 8.0	BUDDLEIA	6.0 - 7.0	MARGOLD	5.5 - 7.0
DAMSON	6.0 - 7.5	ABUTILON	5.5 - 6.5	HOYA	5.0 - 6.5	BUPHTHALUM	6.0 - 8.0	MOLINIA	4.0 - 5.0
GOOSEBERRY	5.0 - 6.5	ACORUS	5.0 - 6.5	IMPATIENS	5.5 - 6.5	BUTTERFLY BUSH	4.0 - 6.0	MORAEA	5.5 - 6.5
GRAPEVINE	6.0 - 7.0	AECHMEA	5.0 - 5.5	IVY TREE	6.0 - 7.0	CALENDULA	5.5 - 7.0	MORNING GLORY	6.0 - 7.5
GRAPEFRUIT	6.0 - 7.5	AFRICAN VIOLET	6.0 - 7.0	JACARANDA	6.0 - 7.5	CAMASSIA	6.0 - 8.0	MOSS	6.0 - 8.0
HAZELNUT	6.0 - 7.0	AGLAONEMA	5.0 - 6.0	JAPANESE SEDGE	6.0 - 8.0	CANDYTUFT	6.0 - 7.5	MOSS, SPHAGNUM	3.5 - 5.0
HOP	6.0 - 7.5	AMARYLLIS	5.5 - 6.5	JASMINUM	5.5 - 7.0	CANNA	6.0 - 8.0	MYOSOTIS	6.0 - 7.0
HUCKLEBERRY	4.0 - 6.0	ANTHURIUM	5.0 - 6.0	JERUSALEM CHERRY	5.5 - 6.5	CANTERBURY BELLS	7.0 - 7.5	NARCISSUS	6.0 - 8.5
LEMON	6.0 - 7.0	APHELANDRA	5.0 - 6.0	JESSAMONE	5.0 - 6.0	CARDINAL FLOWER	4.0 - 6.0	NASTURTIUM	5.5 - 7.5
LYCHEE	6.0 - 7.0	ARAUCARIA	5.0 - 6.0	KALANCHOE	6.0 - 7.5	CARNATION	6.0 - 7.5	NICOTIANA	5.5 - 6.5
MANGO	5.0 - 6.0	ASPARAGUS FERN	6.0 - 8.0	KANGAROO THORN	6.0 - 8.0	CATALPA	6.0 - 8.0	PACHYSANDRA	5.0 - 8.0
MELON	5.5 - 6.5	ASPIDISTRA	4.0 - 5.5	KANGAROO VINE	5.0 - 6.5	CELOSIA	6.0 - 7.0	PAEONIA	6.0 - 7.5
MULBERRY	6.0 - 7.5	AZALEA	4.5 - 6.0	LANTANA	5.5 - 7.0	CENTAUREA	5.0 - 6.5	PANSY	5.5 - 7.0
NECTARINE	6.0 - 7.5	BABY'S BREATH	6.0 - 7.5	LAURUS (BAY TREE)	5.0 - 6.0	CERASTIUM	6.0 - 7.0	PASSION FLOWER	6.0 - 8.0
PEACH	6.0 - 7.5	BABY'S TEARS	5.0 - 6.0	LEMON PLANT	6.0 - 7.5	CHRYSANTHEMUM	6.0 - 7.0	PASQUE FLOWER	5.0 - 6.0
PEAR	6.0 - 7.5	BEGONIA	5.5 - 7.0	MIMOSA	5.0 - 7.0	CISSUS	6.0 - 7.5	PAULOWNIA	6.0 - 8.0
PINEAPPLE	5.0 - 6.0	BIRD OF PARADISE	6.0 - 6.5	MIND YOUR OWN BUSINESS	5.0 - 5.5	CISTUS	6.0 - 7.5	PENSTEMON	5.5 - 7.0
PLUM	6.0 - 7.5	BISHOP'S CAP	5.0 - 6.0	MONSTERA	5.0 - 6.0	CLARKIA	6.0 - 6.5	PERIWINKLE	6.0 - 7.5
POMEGRANATE	5.5 - 6.5	BLACK-EYED SUSAN	5.5 - 7.5	MYRTLE	6.0 - 8.0	CLIANTHUS	6.0 - 7.5	PETUNIA	6.0 - 7.5
QUINCE	6.0 - 7.5	BLOOD LEAF	5.5 - 6.5	NEVER NEVER PLANT	5.0 - 6.0	CLEMATIS	5.5 - 7.0	PINKS	6.0 - 7.5
RASPBERRY	5.0 - 7.5	BOTTLEBRUSH	6.0 - 7.5	NICODEMIA (INDOOR OAK)	6.0 - 8.0	COLCHICUM	5.5 - 6.5	POLYGONUM	6.0 - 7.5
RHUBARB	5.5 - 7.0	BOUGAINVILLEA	5.5 - 7.5	NORFOLK ISLAND PINE	5.0 - 6.0	COLUMBINE	6.0 - 7.0	POLYANTHUS	6.0 - 7.5
STRAWBERRY	5.0 - 7.5	BOXWOOD	6.0 - 7.5	OLEANDER	6.0 - 7.5	CONVOLVULUS	6.0 - 8.0	POPPY	6.0 - 7.5
WATERMELON	5.5 - 6.5	BROMELIADS	5.0 - 7.5	OPLISMENUS	5.0 - 6.0	COREOPSIS	5.0 - 6.0	PORTULACA	5.5 - 7.5
VEGETABLES AND HERBS		BUTTERFLY FLOWER	6.0 - 7.5	ORCHID	4.5 - 5.5	CORONILLA	6.5 - 7.5	PRIMROSE	5.5 - 6.5
ARTICHOKE	6.5 - 7.5	CACTI	4.5 - 6.0	OXALIS	6.0 - 8.0	CORYDALIS	6.0 - 8.0	PRIMULA	6.0 - 7.5
ASPARAGUS	6.0 - 8.0	CALCAOLARIA	6.0 - 7.0	PALMS	6.0 - 7.5	COSMOS	5.0 - 8.0	PRIVET	5.0 - 7.5
BASIL	5.5 - 6.5	CALADIUM	5.0 - 6.0	PANDANUS	5.0 - 6.0	COTTONEASTER	6.0 - 8.0	PRUNELLA	6.0 - 7.5
BEAN	6.0 - 7.5	CALLA LILY	6.0 - 7.0	PEACOCK PLANT	5.0 - 6.0	CRAB APPLE	6.0 - 7.5	PRUNUS	6.5 - 7.5
(Runner, Broad, French)		CAMELIA	4.5 - 5.5	PELLIONIA	5.0 - 6.0	CROCUS	6.0 - 8.0	PYRETHRUM	6.0 - 7.5
BEETROOT	6.0 - 7.5	CAMPANULA	5.5 - 6.5	PEPEROMIA	5.0 - 6.0	CYNOGLOSSUM	6.0 - 7.5	RED HOT POKER	6.0 - 7.5
BROCCOLI	6.0 - 7.0	CAPSICUM	5.0 - 6.5	PHILODENDRON	5.0 - 6.0	DAFFODIL	6.0 - 6.5	RHODODENDRON	4.5 - 6.0
BRUSSELS SPROUTS	6.0 - 7.5	CARDINAL FLOWER	5.0 - 6.0	PILEA	6.0 - 8.0	DAHLIA	6.0 - 7.5	ROSES:	
CABBAGE	6.0 - 7.5	CASTOR OIL PLANT	5.5 - 6.5	PLUMBAGO	5.5 - 6.5	DAY LILY	6.0 - 8.0	HYBRID TEA	5.5 - 7.0
CALABRESE	6.5 - 7.5	CANTURY PLANT	5.0 - 6.5	PODACARPUS	5.0 - 6.5	DELPHINIUM	6.0 - 7.5	CLIMBING	6.0 - 7.0
CARROT	5.5 - 7.0	CHINESE EVERGREEN	5.0 - 6.0	POINTSETTIA	6.0 - 7.5	DEUTZIA	6.0 - 7.5	RAMBLING	5.5 - 7.0
CAULIFLOWER	5.5 - 7.5	CHINESE PRIMROSE	6.0 - 7.5	POLYCAISS	6.0 - 7.5	DIANTHUS	6.0 - 7.5	SALVIA	6.0 - 7.5
CELERY	6.0 - 7.0	CHRISTMAS CACTUS	5.0 - 6.5	POTHOS	5.0 - 6.0	DOGWOOD	5.0 - 7.0	SCABIOSA	5.0 - 7.5
CHICORY	5.0 - 6.5	CINERARIA	5.5 - 7.0	PRAYER PLANT	5.0 - 6.0	EDELWEISS	6.5 - 7.5	SEDUM	6.0 - 7.5
CHINESE CABBAGE	6.0 - 7.5	CLERODENDRUM	5.0 - 6.0	PUNICA	5.5 - 6.5	ELAEAGNUS	5.0 - 7.5	SNAPDRAGON	5.5 - 7.0
CHIVES	6.0 - 7.0	CLIVIA	5.5 - 6.5	SANSERIERIA	4.5 - 7.0	ENKANTHUS	5.0 - 6.0	SNOWDROP	6.0 - 8.0
CORN - SWEET	5.5 - 7.0	COCKSCOMB	6.0 - 7.0	SAXIFRAGA	6.0 - 8.0	ERICA	4.5 - 6.0	SOAPWORT	6.0 - 7.5
CRESS	6.0 - 7.0	COFFEE PLANT	5.0 - 6.0	SCINDAPSUS	5.0 - 6.0	EUPHORBIA	6.0 - 7.0	SPEEDWELL	5.5 - 6.5
COURGETTES	5.5 - 7.0	COLEUS	6.0 - 7.0	SHRIMP PLANT	6.0 - 7.0	EVERLASTINGS	5.0 - 6.0	SPIRAEA	6.0 - 7.5
CUCUMBER	5.5 - 7.5	COLUMNEA	4.5 - 5.5	SPANISH BAYONET	6.0 - 7.5	FIRETHORN	6.0 - 8.0	SPRUCE	4.0 - 5.0
FENNEL	5.0 - 6.0	CORAL BERRY	5.5 - 7.5	SPIDER PLANT	6.0 - 7.5	FORGET-ME-NOTS	6.0 - 7.0	STOCK	6.0 - 7.5
GARLIC	5.5 - 7.5	CRASSULA	5.0 - 6.0	SUCCULENTS	5.0 - 6.5	FORSYTHIA	6.0 - 8.0	STONECROP	6.5 - 7.5
GINGER	6.0 - 8.0	CREEPING FIG	5.0 - 6.0	SYNOGONIUM	5.0 - 6.0	FOXGLOVE	6.0 - 7.5	SUMACK	5.0 - 6.5
HORSE RADISH	6.0 - 7.0	CROTON	5.0 - 6.0	TOLMIEA	5.0 - 6.0	FRITILLARIA	6.0 - 7.5	SUNFLOWER	5.0 - 7.0
KALE	6.0 - 7.5	CROWN OF THORNS	6.0 - 7.5	TRADESCANTIA	5.0 - 6.0	FUCHSIA	5.5 - 7.5	SWEET PEA	6.0 - 7.5
KOHLRABI	6.0 - 7.5	CUPHEA	6.0 - 7.5	UMBRELLA TREE	5.0 - 7.5	GAILLARDIA	6.0 - 7.5	SWEET WILLIAM	6.0 - 7.5
LEEK	6.0 - 8.0	CYCLAMEN	6.0 - 7.0	VENUS FLYTRAP	4.0 - 5.0	GAZANIA	5.5 - 7.0	TAMARIX	6.5 - 8.0
LENTIL	5.5 - 7.0	CYPERUS	5.0 - 7.5	WEeping FIG	5.0 - 6.0	GENTIANA	5.0 - 7.5	TRILLIUM	5.0 - 6.5
LETTUCE	6.0 - 7.0	DIEFFENBACHIA	5.0 - 6.0	YUCCA	6.0 - 7.5	GEUM	6.0 - 7.5	TULIP	6.0 - 7.0
MARJORAM	6.0 - 8.0	DIPLADENIA	6.0 - 7.5	ZEBRINA	5.0 - 6.0	GLADIOILI	6.0 - 7.0	VIBERNUM	5.0 - 7.5
MARROW	6.0 - 7.5	DIZGOTHECA	6.0 - 7.5	FLOWERS, TREES AND SHRUBS		GLOBULARIA	5.5 - 7.0	VIOLA	5.5 - 6.5
MILLET	6.0 - 6.5	DRACAENA	5.0 - 6.0	ABELIA	6.0 - 8.0	GODETIA	6.0 - 7.5	VIRGINIA CREEPER	5.0 - 7.5
MINT	7.0 - 8.0	EASTER LILY	6.0 - 7.0	ACACIA	6.0 - 8.0	GOLDEN ROD	5.0 - 7.0	WALLFLOWER	5.5 - 7.5
MUSHROOM	6.5 - 7.5	ELEPHANT'S EAR	5.0 - 6.0	ACANTHUS	6.0 - 7.0	GYPSOPHILIA	6.0 - 7.5	WATER LILY	5.5 - 6.5
MUSTARD	6.0 - 7.5	EPISCIA	6.0 - 7.0	ACONITUM	5.0 - 6.0	HAWTHORN	6.0 - 7.0	WEIGELIA	6.0 - 7.5
OLIVE	5.5 - 6.5	EUONYMUS	6.0 - 8.0	ADONIS	6.0 - 8.0	HEATHER	4.0 - 6.0	WISTARIA	6.0 - 8.0
ONION	6.0 - 7.0	FERNs:		AGERATUM	6.0 - 7.5	HELIANTHUS	5.0 - 7.0	ZINNIA	5.5 - 7.5
PAPRIKA	7.0 - 8.5	BIRD'S NEST	5.0 - 5.5	AILANTHUS	6.0 - 7.5	HELLEBORUS	6.0 - 7.5	TURF AND ORNAMENTAL GRASSES	
PARSLEY	5.0 - 7.0	BOSTON	5.5 - 6.5	AJUGA	4.0 - 6.0	HOLLY	5.0 - 6.5	BAHAI	6.5 - 7.5
PARSNIP	5.5 - 7.5	BUTTON	6.0 - 8.0	ALTHEA	6.0 - 7.5	HOLLYHOCK	6.0 - 7.5	BENT	5.5 - 6.5
PEA	6.0 - 7.5	CHRISTMAS	6.0 - 7.5	ALYSSUM	6.0 - 7.5	HONEY SUCKLE	6.0 - 7.5	BERMUDA	6.0 - 7.0
PEANUT	5.0 - 6.5	CLOAK	6.0 - 7.5	AMARANTHUS	6.0 - 6.5	HYACINTH	6.5 - 7.5	CANADA BLUE	4.5 - 6.4
PECAN	4.0 - 6.0	FEATHER	5.5 - 6.5	ANCHUSA	6.0 - 7.5	HYDRANGEA (Blue)	4.0 - 5.0	CLOVER	6.0 - 7.0
PEPPER	5.5 - 7.0	HART'S TONGUE	7.0 - 8.0	ANDROSACE	5.0 - 6.0	HYDRANGEA (Pink)	6.0 - 7.0	KENTUCKY BLUE	6.0 - 7.5
PEPPERMINT	6.0 - 7.5	HOLLY	4.5 - 6.0	ANEMONE	6.0 - 7.5	HYDRANGEA (White)	6.5 - 8.0	MEADOW	6.0 - 7.5
PISTACHIO	5.0 - 6.0	MAIDENHAIR	6.0 - 8.0	ANTHYLLIS	5.0 - 6.0	HYPERICUM	5.5 - 7.0	PAMPAS	6.0 - 8.0
POTATO	4.5 - 6.0	RABBITS FOOT	6.0 - 7.5	ARBUSUS	4.0 - 6.0	IRIS	5.0 - 6.5	RED TOP	6.0 - 6.5
POTATO - SWEET	5.5 - 6.0	SPLEENWORT	6.0 - 7.5	ARENARIA	6.0 - 8.0	IVY	6.0 - 7.5	RYE	6.0 - 7.0
PUMPKIN	5.5 - 7.5	FIG	5.0 - 6.0	ARISTEA	6.0 - 7.5	JUNIPER	5.0 - 6.5	ST. AUGUSTINE	6.5 - 7.5
RADISH	6.0 - 7.0	FITTONIA	5.5 - 6.5	ARMERIA	6.0 - 7.5	KALMIA	4.5 - 5.0	TALL FESCUE	6.0 - 7.0
RICE	5.0 - 6.5	FREESIA	6.0 - 7.5	ARNICA	5.0 - 6.5	KERRIA	6.0 - 7.0	VELVET BENT	5.0 - 6.0
ROSEMARY	5.0 - 6.0	GARDENIA	5.0 - 6.0			LABURNUM	6.5 - 7.0	ZOYSIA	6.0 - 7.0

Soil Test Kit Questions and Answers

Question: I tested my soil, the pH test worked, but the rest of the results are clear. What's wrong?

1. An error has been made in the testing process.
2. Nutrient levels are too low for the test to indicate.
3. The capsules have absorbed too much moisture prior to being used. The reaction has already occurred within the capsule itself.

Question: My pH test result came out dark blue, there is no blue on the pH color chart.

1. The water being used to perform the test is alkaline. Recommend distilled water for the testing process.
2. The soil pH is higher than 7.5. The color results change from greens to blues to purples as the pH rises.

Question: I got results on all but the Nitrogen portion of the kit.

1. Nitrogen leaches out of the soil very quickly, especially in sandy soil.
2. The form of Nitrogen the kit tests for is Nitrate, the form used by plants. Nitrate is formed through the natural Nitrogen cycle within the soil. It is possible to have Nitrogen present in the soil in a non-testable form.

Question: I tested fertilizer with the kit and still got no reaction!

The kit detects only the form of the nutrient used by the plant. These nutrients must break down to the form tested for, through the natural bacterial action and decay processes in the soil. In most cases fertilizers will not test correctly.

Question: I fertilized my soil as recommended in your instructions and then re-tested. My readings didn't change.

Because the nutrients need to break down, we recommend two to four weeks between fertilizing and re-testing.

Question: My soil will not settle to the bottom in the soil/water solution I've mixed.

Although the directions read the soil and water should settle for at least 10 minutes before proceeding, there is no harm in letting the soil settle much longer. Suggest the consumer mix the soil and water the evening or even the day before testing. Some very fine clay soil will not settle. For these few homeowners, the kit will not work.

Question: The testing capsule didn't dissolve.

The capsules must be opened and the testing powder poured into the test tube. There isn't enough water present to dissolve the capsule.

Question: The color result I got doesn't match any on the color chart.

1. If the result is the same "color" but a different "shade" it's a matter of a judgment decision between the different nutrient levels.
2. The consumer may have inadvertently used the wrong capsule for the test in question.

In most cases we offer to send the consumer additional reagent capsules for re-testing. If an error was made in the first testing process, it's generally corrected the second time through.

HoldAll®
Decorative Plant Accessories

40 TESTS
DIRECTIONS INSIDE

SOIL TEST KIT

Tests Your Soil for a Healthy Garden

• pH • Nitrogen(N) • Phosphorus(P) • Potassium(K) •

WHY TEST YOUR SOIL?

Plants need food (nutrients) for healthy growth. Nitrogen, Phosphorus and Potash (N, P and K for short), play a vital role in plant growth just as vitamins, minerals, carbohydrates and protein do in our health.

HOW TO TEST YOUR SOIL

For the new and experienced soil testers alike, you will appreciate this easy, fast and fun way to achieve better growing results from your gardening efforts!

Everything is color-coded, including the tubes and capsules. All you do is take a sample of soil, mix with water, add powder from capsule, shake and watch the color develop. Then, note your test results. Fast, easy and it only takes a few minutes!

WHEN TO TEST YOUR SOIL

Soil should be tested periodically throughout the growing season, but it is especially recommended to test before planting in Spring and when preparing beds in Fall. And, if you feel your plants are not growing well, a soil test may help.

Included in the kit are:

40 test capsules, 10 each for pH, N, P and K, Four (4) Color-coded Test Tubes, Test Tube Storage Dock, complete instructions for adjusting soil pH, fertilization guidelines and pH preference list for over 450 plants for the home, yard and garden.

Soil Test Kit Components

Complete Instruction booklet Inside.



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Assembled in USA from
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APPENDIX D

Tables



Table 1
FIELD SCREENING RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #011
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Nitrogen	Potash	Phosphorous	PH (ppm)	Chloride (ppm)
Incident Numbers NHMP1412241998, nAB1728553778, nAB1728551205							
SC01	05/02/2024	0.5	Very Low	Low	High	6.5 - 7	392
SC02	05/02/2024	0.5	Very Low	Low	High	7.00	316
BG01	05/02/2024	0.5	Very Low	Low	Medium	7.00	<128

APPENDIX E

Photographic Logs

**PHOTOGRAPHIC LOG**

WPX Energy Permian, LLC

Ross Draw Unit #011

Incident Numbers: nHMP1412241998, nAB1728553778, nAB1728551205

Date & Time: Tue, Nov 28, 2023 at 12:11:07 MST
 Position: +032.021723° -103.868307° (-12.650)
 Altitude: 3045ft (-10100)
 Datum: WGS 84
 Azimuth Bearing: 302° 33' 50" 552mils True (+10°)
 Elevation Angle: -35.1°
 Horizon Angle: -71.1°
 Zenith: 85.9°
 REL: 11

**Photograph 1** **Date: 11/28/2023**

Description: Northwestern view of restoration activities of the southern excavation.

Date & Time: Tue, Nov 28, 2023 at 12:11:47 MST
 Position: +032.021723° -103.868318° (-15.710)
 Altitude: 3040ft (-10100)
 Datum: WGS 84
 Azimuth Bearing: 302° 33' 50" 552mils True (+10°)
 Elevation Angle: -35.1°
 Horizon Angle: -71.1°
 Zenith: 85.9°
 REL: 11

**Photograph 2** **Date: 11/28/2023**

Description: Southwestern view of restoration activities of the southern excavation.

Position: +032.022079° -103.866565° (-15.610)
 Altitude: 3039ft (-10100)
 Datum: WGS 84
 Azimuth Bearing: 322° 32' 44" 5796mils True (+24°)
 Elevation Angle: -35.1°
 Horizon Angle: -71.1°
 Zenith: 85.9°
 REL: 11 Background

**Photograph 3** **Date: 05/02/2024**

Description: View of nutrient density results for BG01.

Position: +032.022079° -103.866565° (-15.610)
 Altitude: 3039ft (-10100)
 Datum: WGS 84
 Azimuth Bearing: 322° 32' 44" 5796mils True (+24°)
 Elevation Angle: -35.1°
 Horizon Angle: -71.1°
 Zenith: 85.9°
 REL: 11 Background

**Photograph 4** **Date: 05/02/2024**

Description: View of nutrient density results for SC02.

APPENDIX F

Correspondence & Notifications

Erick Herrera

From: Joseph Hernandez
Sent: Friday, January 19, 2024 2:03 PM
To: Devon-Team
Subject: FW: [EXTERNAL] FW: RDU 11 Cultural Survey

Joseph S. Hernandez
Senior Managing Geologist



Cell: (432) 305-6413

From: Arias, Arthur A <aaarias@blm.gov>
Sent: Friday, January 19, 2024 11:17 AM
To: Joseph Hernandez <joseph@etechenv.com>
Cc: Raley, Jim <Jim.Raley@dvn.com>
Subject: Fw: [EXTERNAL] FW: RDU 11 Cultural Survey

You don't often get email from aaarias@blm.gov. [Learn why this is important](#)

Here is a response from the local Archaeologist, after reviewing the information don't think any additional survey will be needed.

Thanks..

From: Whaley, Aaron W <awhaley@blm.gov>
Sent: Thursday, January 18, 2024 7:40 AM
To: Arias, Arthur A <aaarias@blm.gov>
Subject: Re: [EXTERNAL] FW: RDU 11 Cultural Survey

I am all good on the sampling and the work that has been done. As long as they are not needed to do any physical disturbing work within the arch avoidance areas, I am all set for cultural.

Best,

Aaron

Aaron Whaley

Supervisory Archaeologist

Carlsbad Field Office

Bureau of Land Management

575 725 1623 (c)

575-234-5986 (o)

From: Arias, Arthur A <aaarias@blm.gov>
Sent: Wednesday, January 17, 2024 1:58 PM
To: Whaley, Aaron W <awhaley@blm.gov>
Subject: Fw: [EXTERNAL] FW: RDU 11 Cultural Survey

Do you have any other concerns for this spill to address..

From: Joseph Hernandez <joseph@etechenv.com>
Sent: Tuesday, January 16, 2024 10:23 AM
To: Arias, Arthur A <aaarias@blm.gov>
Cc: jim.raley@dnv.com <jim.raley@dnv.com>
Subject: [EXTERNAL] FW: RDU 11 Cultural Survey

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Art,

Hope all is well - Just to bring you up to speed here for incident # **nHMP1412241998**:

- We were working with Devon Energy/WPX to complete an NMOCD approved work plan that proposed remediation/sampling plan for a few reportable incidents.
- Our work plan proposed sampling within a path of investigation for incident number nHMP1412241998. A cultural study was conducted by SWCA which was positive (buffer area shown in attachment).
- Delineation soil samples were advanced within the eastern area of the path of investigation and lab data suggested no impacts above reclamation standards (map and figure shown in attachment).
- There was an excavation performed (NE) for other incidents nAB1728551205 & nAB1728553778 that overlapped nHMP1412241998 . All final confirmation samples associated with that excavation meet NMOCD closure criteria and/or reclamation standards. Site is designated with most lenient NMOCD standards based on the site characterization.

We were requesting guidance from the BLM if any further sampling is necessary and if this data is sufficient to close this incident with the BLM/NMOCD to minimize disturbance near the cultural buffer areas by sampling based on lab data for delineation samples collected nearest the source.

Let me know if you have any questions or need anything from us.

Thanks,

Joseph S. Hernandez

Senior Managing Geologist



Cell: (432) 305-6413

From: Courtney Blair <CBlair@swca.com>
Sent: Monday, January 15, 2024 12:26 PM
To: Joseph Hernandez <joseph@etechenv.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: Re: RDU 11 Cultural Survey

Aaron mentioned that there was no need for any additional sampling on the cultural side but did mention that the conversations about the soil samples results and cleanup will need to take place directly with the BLM EPS folks. Ultimately, if as long as Art signs off then the cultural side shouldn't need anything else, sample wise.

The contact to reach out to would be Art Arias (aaarias@BLM.gov). He's the individual that looked into the RDU 54 samples. I'm not entirely sure what he will require but I would suggest providing him with the incident number so he can verify it was reported and sending along your soil samples for the project.

Let me know if there's anything else I can find out for you before you reach out.

Courtney Blair

Associate Project Archaeologist

SWCA Environmental Consultants

Cell: (617) 435-2083

cblair@swca.com



From: Joseph Hernandez <joseph@etechenv.com>

Sent: Monday, January 15, 2024 1:10 PM

To: Courtney Blair <CBlair@swca.com>

Cc: Devon-Team <Devon-Team@etechenv.com>

Subject: RE: RDU 11 Cultural Survey

Can you clarify what they are good on for the cultural side? Like for us to not continue sampling and that the data we provided is sufficient for closure?

Who do we contact at the BLM EPS and what do we need to provide them?

Joseph S. Hernandez

Senior Managing Geologist



Cell: (432) 305-6413

From: Courtney Blair <CBlair@swca.com>
Sent: Monday, January 15, 2024 11:10 AM
To: Joseph Hernandez <joseph@etechenv.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: Re: RDU 11 Cultural Survey

Hi Joseph,

I wrote back last week that cultural at the BLM had no issues going forward and I also sent a redacted version of the report on the 9th. Is there anything else you have questions about?

Courtney Blair

Associate Project Archaeologist

SWCA Environmental Consultants

Cell: (617) 435-2083

cblair@swca.com



From: Joseph Hernandez <joseph@etechenv.com>
Sent: Monday, January 15, 2024 12:07 PM
To: Courtney Blair <CBlair@swca.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: RDU 11 Cultural Survey

Courtney,

Have you heard anything back from the BLM on this RDU 11?

Joseph S. Hernandez

Senior Managing Geologist



Cell: (432) 305-6413

From: Joseph Hernandez
Sent: Monday, January 8, 2024 2:54 PM
To: Courtney Blair <CBlair@swca.com>

Cc: Devon-Team <Devon-Team@etechenv.com>

Subject: RE: RDU 11 Cultural Survey

Yes, here you go.

We've included a map, table, and lab report. The only exceedances were part of the excavation to the northeast, but the sidewalls and floors of that excavation now meet reclamation requirements. Since concentrations at BH01 through BH03 were under reclamation standards, we did not investigate west of the buffers to minimize any additional soil disturbance near the buffers.

Thanks

Joseph S. Hernandez

Senior Managing Geologist



Cell: (432) 305-6413

From: Courtney Blair <CBlair@swca.com>

Sent: Monday, January 8, 2024 11:30 AM

To: Joseph Hernandez <joseph@etechenv.com>; Anna Byers <anna@etechenv.com>

Cc: Devon-Team <Devon-Team@etechenv.com>

Subject: Re: RDU 11 Cultural Survey

Hi Joseph,

Do you have a copy of the lab results that I can send to the Arch department at the BLM so they can see that the results are clean?

Courtney Blair

Associate Project Archaeologist

SWCA Environmental Consultants

Cell: (617) 435-2083

cblair@swca.com



From: Joseph Hernandez <joseph@etechnv.com>
Sent: Monday, January 8, 2024 10:44 AM
To: Courtney Blair <CBlair@swca.com>; Anna Byers <anna@etechnv.com>
Cc: Devon-Team <Devon-Team@etechnv.com>
Subject: RE: RDU 11 Cultural Survey

Hey Courtney,

Wanted to follow up on this when you get a chance.

Joseph S. Hernandez

Senior Managing Geologist



Cell: (432) 305-6413

From: Joseph Hernandez
Sent: Thursday, January 4, 2024 11:27 AM
To: Courtney Blair <CBlair@swca.com>; Anna Byers <anna@etechenv.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: RDU 11 Cultural Survey

Courtney,

We just wanted to let you know, we sampled within the path of investigation while staying away from the sensitive areas. The data is clean, but we were just wanting some guidance from the BLM if any further sampling is necessary and if this data is sufficient to close this incident. We don't want to further to disturb the area with any sampling.

We are trying to see if we can develop the same approach as we did the RDU 54 where BLM agreed to leave impacts in place but in this situation no impacts were found.

Let me know if you have any questions or need anything from us.

Joseph S. Hernandez

Senior Managing Geologist

eTECH



Environmental & Safety Solution

Work: (432) 305-6413

Cell: (281) 702-2329

Erick Herrera

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Monday, October 2, 2023 2:48 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/5 - 10/6)

You don't often get email from scott.rodgers@emnrd.nm.gov. [Learn why this is important](#)

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Scott Rodgers • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
<http://www.emnrd.nm.gov/oed>



From: Erick Herrera <erick@etechenv.com>
Sent: Monday, October 2, 2023 12:40 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dmn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/5 - 10/6)

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

Good morning,

WPX anticipates conducting confirmation soil sampling activities at the following site between October 5th through October 6th, 2023:

Proposed Date: October 5, 2023, October 6, 2023.

Proposed Timeframe: 0800 – 1700 hrs.

Site Name: RDU 11

Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998

API: 30-015-24307

Thank you,

Erick Herrera

Erick Herrera

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Wednesday, October 11, 2023 5:15 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/16-10/20)

Hi Erick,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520 |Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 11, 2023 3:33 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.rale@dmv.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/16-10/20)

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

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between October 16th through October 20th, 2023:

Proposed Date: October 16, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 34
Incident Number: nAPP2326833391
API: 30-015-41578

Proposed Date: October 17, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDX Federal 21 #031
Incident Number: nAPP2326847671

API: 30-015-41266

Proposed Date: October 17, 20023, October 18, 2023, October 19, 2023, October 20, 2023

Proposed Timeframe: 0800 – 1700 hrs.

Site Name: RDX 16 #009

Incident Numbers: nAPP2322658221 & nAPP2317840368

API: 30-015-39752

Proposed Date: October 16, 2023, October 17, 2023, October 18, 2023, October 19, 2023, October 20, 2023

Proposed Timeframe: 0800 – 1700 hrs.

Site Name: RDU 11

Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998

API: 30-015-24307

Thank you,

Erick Herrera

Staff Geologist



Work: (432) 305-6416

Cell: (281) 777-4152

Staff Geologist



Work: (432) 305-6416

Cell: (281) 777-4152

Erick Herrera

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Wednesday, October 18, 2023 5:25 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/23-10/27)

Hi Erick,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520 |Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 18, 2023 3:34 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.ralej@dmv.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/23-10/27)

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

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between October 23rd through October 27th, 2023:

Proposed Date: October 23, 2023, October 24, 2023, October 25, 2023, October 26, 2023, October 27, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Proposed Date: October 23, 2023, October 24, 2023, October 25, 2023, October 26, 2023, October 27, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: Sheep Draw Federal Battery #2
Incident Numbers: NGEG0720040869

API: 30-015-27015

Thank you,

Erick Herrera
Staff Geologist



Work: (432) 305-6416

Cell: (281) 777-4152

Erick Herrera

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Wednesday, October 25, 2023 2:52 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/30-11/3)

You don't often get email from scott.rodgers@emnrd.nm.gov. [Learn why this is important](#)

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Scott Rodgers • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
<http://www.emnrd.nm.gov/oed>



From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 25, 2023 1:18 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dmn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/30-11/3)

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

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following site between October 30th through November 3th, 2023:

Proposed Date: October 30, 2023, October 31, 2023, November 1, 2023, November 2, 2023, November 3, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Thanks,

Erick Herrera

Staff Geologist



Work: (432) 305-6416

Cell: (281) 777-4152

Erick Herrera

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 7, 2023 10:36 AM
To: Raley, Jim
Cc: Devon-Team; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD
Subject: (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

Importance: High

Some people who received this message don't often get email from robert.hamlet@emnrd.nm.gov. [Learn why this is important](#)

RE: Incident # **NAPP2200728755, NAB1632647780, NAB1712951426, NAB1728551205, NAB1728553778, NHMP1412241998**

Jim,

Your request for an extension to **October 20th, 2023** is approved. This will be the **final extension** for this release. 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: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, June 7, 2023 7:08 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] RE: RDU 11 Extension

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

Robert,
BLM required quite an extensive cultural survey on the RDU 11 excavation project. We contracted SWCA to complete this task, they have finished and expect to provide a cultural survey report to BLM by 6/30/2023. BLM will need time to review this report and determine if any additional action is needed or if they will allow excavation with monitoring etc.

So we are not able to move forward with completion of this project until we receive clearance from BLM which I expect will be mid-July. Due to this circumstance, WPX Energy respectfully requests an additional 90 day extension from today's date or timeframe NMOCD deems reasonable.

Erick Herrera

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Tuesday, October 24, 2023 10:24 AM
To: Raley, Jim
Cc: Devon-Team; Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD; Wells, Shelly, EMNRD
Subject: (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

No problem, thank you for the update.

Your request for an extension to **January 18th, 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: Raley, Jim <Jim.Raley@dvn.com>
Sent: Friday, October 20, 2023 8:42 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: RE: [EXTERNAL] (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

Robert,

To summarize the below extension request. Basically we could not start excavation till BLM gave the OK on a cultural site they were considering possibly significant. When they finally did give the OK to proceed, we started immediately on the excavation, but we just don't have time to finish excavation and reporting by the current deadline of October, 20th. We are in the middle of the excavation and plan on delivering closure as soon as completed. Delay on this project was out of our control.

WPX Energy Permian, LLC (WPX) is requesting an extension to the current deadline for a report required in 19.15.29.12.B.(1) NMAC at the Ross Draw Unit #011 (Site) associated with the following Incident Numbers: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755.

An extensive cultural survey was required by the Bureau of Land Management (BLM) for the proposed work areas in pasture soil prior to conducting remediation activities to address the Incident Numbers listed above according to a Remediation Work Plan approved on October 19, 2022. SWCA was contracted to conduct the cultural survey, which began on May 2, 2023, the earliest a field crew was available. The cultural survey was completed over the course of approximately 2.5 weeks, and a subsequent report was submitted to the BLM for review on July 28, 2023. On August 14,

2023, SWCA received report edits from the BLM, which were addressed in accordance with subsequent correspondence with the BLM. The revised report was re-submitted to the BLM for review on September 1, 2023, which was determined to require minor edits prior to approval. SWCA submitted the finalized report on September 8, 2023, and on September 21, 2023, the BLM approved the sundry with monitoring stipulations and remediation activities began on October 2, 2023. Excavation activities are still currently on-going and approximately 50% of the proposed excavation area remains.

To provide enough time to complete remediation activities, soil sampling analyses, and prepare a subsequent report, WPX requests a 90-day extension of the deadline for the multiple Incident Numbers at the Site to **January 18, 2023**.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.rale@devon.com



From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 7, 2023 9:36 AM
To: Raley, Jim <Jim.Raley@devon.com>
Cc: Devon-Team <Devon-Team@etechnv.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: [EXTERNAL] (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011
Importance: High

RE: Incident # **NAPP2200728755, NAB1632647780, NAB1712951426, NAB1728551205, NAB1728553778, NHMP1412241998**

Jim,

Your request for an extension to **October 20th, 2023** is approved. This will be the **final extension** for this release. 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: Raley, Jim <Jim.Raley@devon.com>
Sent: Wednesday, June 7, 2023 7:08 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechnv.com>
Subject: [EXTERNAL] RE: RDU 11 Extension

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

Robert,

BLM required quite an extensive cultural survey on the RDU 11 excavation project. We contracted SWCA to complete this task, they have finished and expect to provide a cultural survey report to BLM by 6/30/2023. BLM will need time to review this report and determine if any additional action is needed or if they will allow excavation with monitoring etc.

So we are not able to move forward with completion of this project until we receive clearance from BLM which I expect will be mid-July. Due to this circumstance, WPX Energy respectfully requests an additional 90 day extension from today's date or timeframe NMOCD deems reasonable.

Jim Raley | Environmental Professional - Permian Basin

5315 Buena Vista Dr., Carlsbad, NM 88220

C: (575)689-7597 | jim.raley@devon.com



From: Raley, Jim

Sent: Tuesday, May 2, 2023 8:29 AM

To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>

Subject: RDU 11 Extension

Robert,

We had a tentative due date of (4/21/2023) to complete excavation at the RDU 11 for several incidents. BLM has requested a fairly extensive cultural survey before we can begin excavation. We are currently waiting on the archeological vendor (SWCA) to complete the survey and have BLM review. Due to this delay we would like to request an extension to the due to date to 7/20/2023.

(nAPP2200728755, nAB1632647780, nAB1712951426, nAB1728551205, nAB1728553778, nHMP1412241998)



Jim Raley | Environmental Professional - Permian Basin

5315 Buena Vista Dr., Carlsbad, NM 88220

C: (575)689-7597 | jim.raley@devon.com



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APPENDIX G

Archived Reports



CLOSURE REQUEST REPORT

Ross Draw Unit #011

Eddy County, New Mexico

Incident Numbers:

**nAB1712951426
nAB1728553778
nAB1728551205
nAPP2200728755**

Prepared For:

WPX Energy Permian, LLC

5315 Buena Vista Dr.

Carlsbad, NM 88220

Carlsbad • Midland • San Antonio • Lubbock • Hobbs • Lafayette

SYNOPSIS

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy Permian, LLC (WPX), presents the following Closure Request Report (CRR) detailing corrective actions and subsequent soil sampling events as proposed in an approved Remediation Work Plan (RWP), performed for four inadvertent releases of crude oil and/or produced water at the Ross Draw Unit #011 (Site). Based on the completed remedial actions and laboratory analytical results from recent soil sampling events, WPX is requesting No Further Action (NFA) at the Site.

SITE LOCATION AND RELEASE BACKGROUNDS

The Site is located in Unit O, Section 22, Township 26 South, Range 30 East, in Eddy County, New Mexico (32.022210°, -103.867013°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM) (**Figure 1 in Appendix A**).

nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

As originally documented in the RWP, four inadvertent reportable spill incidents occurred between April 20, 2017, and January 4, 2022, and released approximately 94 barrels (bbls) of produced water and/or crude oil at the Site, of which approximately 40 bbls of fluids were successfully recovered. WPX reported the releases to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141s (Form C-141) between April 21, 2017, and January 10, 2022.

The RWP proposed corrective actions to address identified residual soil impacts exceeding the applicable Site Closure Criteria. The RWP was received by the NMOCD on April 4, 2022, and approved with the following conditions:

- *“Horizontal delineation of the releases will be defined through delineation samples or 5-point composite sidewall samples following the removal of residual impacts. Base and sidewalls confirmation samples must be collected and analyzed for parameters listed in Table I of 19.15.29.12 NMAC.”*
- *The OCD approves a confirmation sample size variance of up to but no more than 400 square feet per sample.”*

SITE CHARACTERIZATION AND CLOSURE CRITERIA

As previously described in the approved RWP, the Site was characterized according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC) considering depth to ground water and the proximity to:

- Any continuously flowing watercourse or any other significant watercourse;
- Any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- An occupied permanent residence, school, hospital, institution or church;
- A spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;
- Any freshwater well or spring;
- Incorporated municipal boundaries or a defined municipal fresh water well field covered under a municipal ordinance;
- A wetland;
- A subsurface mine;
- An unstable area (i.e. high karst potential); and
- A 100-year floodplain.

All potential receptors are not within the established buffers in NMAC 19.15.29.12. Receptor details and sources used to determine the site characterization are included in **Figure 1A**, **Figure 1B**, and **Figure 1C** in **Appendix A**. Referenced well records are provided as **Appendix B**.

Based on the results from the desktop review detailed in the approved RWP, the following Closure Criteria was applied:

Constituents of Concern (COCs)	Laboratory Analytical Method	Closure Criteria [†]
Chloride	Environmental Protection Agency (EPA) 300.0	20,000 milligram per kilogram (mg/kg)
Total Petroleum Hydrocarbon (TPH)	EPA 8015 M/D	2,500 mg/kg
TPH-Gasoline Range Organics (GRO) + TPH-Diesel Range Organics (DRO)	EPA 8021B	1,000 mg/kg
Benzene	EPA 8021B	10 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA 8021B	50 mg/kg

[†]The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

EXCAVATION SOIL SAMPLING ACTIVITIES

nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

Between October 6, 2023, and October 30, 2023, excavation activities were performed via mechanical equipment to address residual impacts, which resulted in two separate excavations. Excavation activities were directed by referencing delineation laboratory analytical results documented in the RWP and field screening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips.

Following the removal of impacted soil, Etech collected 5-point composite confirmation soil samples from the floors (FS01 through FS44) and sidewalls (SW01 through SW21) of the excavations at the approved sampling frequency of 400 square feet. The 5-point composite soil samples were comprised of five equivalent aliquots homogenized in a 1-gallon, resealable plastic bag. The samples were then placed into lab provided pre-cleaned glass jars, packaged with minimal void space, labeled, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Envirotech, Inc. in Farmington, New Mexico, for analysis of the COCs.

Approximately 4,380 cubic yards of impacted soil removed from the Site was transported to R360 Antelope Draw in Jal, New Mexico under WPX approved manifests. Upon receipt of final confirmation excavation soil samples results, the excavations were backfilled with clean, locally sourced soil and the Site was restored to “as close to its original state” as possible. The locations of confirmation excavation soil samples are shown in **Figure 2A** and **Figure 2B** in **Appendix A**. Photographic documentation of excavation and restoration activities is included in **Appendix C**.

EXCAVATION LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all final confirmation excavation soil samples indicated all analyzed COCs were below the applicable Site Closure Criteria and/or reclamation standard. As such, the confirmation excavation sidewall soil samples sufficiently defined the horizontal periphery of impacts. Laboratory analytical results are summarized in **Table 1** included in **Appendix D**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix E**.

CLOSURE REQUEST

Based on laboratory analytical results for final confirmation excavation soil samples, WPX believes that residual soil impacts associated with the four inadvertent releases have been excavated and removed from the Site. The remediation areas have been re-seeded with BLM Seed Mix #2 and hand-broadcasted to match vegetative conditions surrounding the Site. WPX also believes the completed remedial actions meet the requirements set forth in NMAC 19.15.29.13 regulations in order to be protective of human health, the environment and groundwater. As a result, NFA appears warranted at this time, and WPX requests Closure of this CRR associated with Incident Numbers nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755, respectively.

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (432) 305-6413 or joseph@etechenv.com or Erick Herrera (432) 305-6416 or erick@etechenv.com.

Appendix G provides correspondence email notification receipts associated with the subject release.

Sincerely,
Etech Environmental and Safety Solutions, Inc.



Erick Herrera
Staff Geologist



Joseph S. Hernandez
Senior Managing Geologist

cc: Jim Raley, WPX
New Mexico Oil Conservation Division
Bureau of Land Management

Appendices:

- Appendix A:** Figure 1: Site Map
 - Figure 1A: Site Characterization Map – Groundwater
 - Figure 1B: Site Characterization Map – Surficial Receptors
 - Figure 1C: Site Characterization Map – Subsurface Receptors
 - Figure 2A: Excavation Soil Sample Locations
 - Figure 2B: Excavation Soil Sample Locations
- Appendix B:** Referenced Well Records
- Appendix C:** Photographic Logs
- Appendix D:** Tables
- Appendix E:** Laboratory Analytical Reports & Chain-of-Custody Documentation
- Appendix F:** NMOCD Notifications
- Appendix G:** Approved Remediation Work Plan

APPENDIX A

Figures

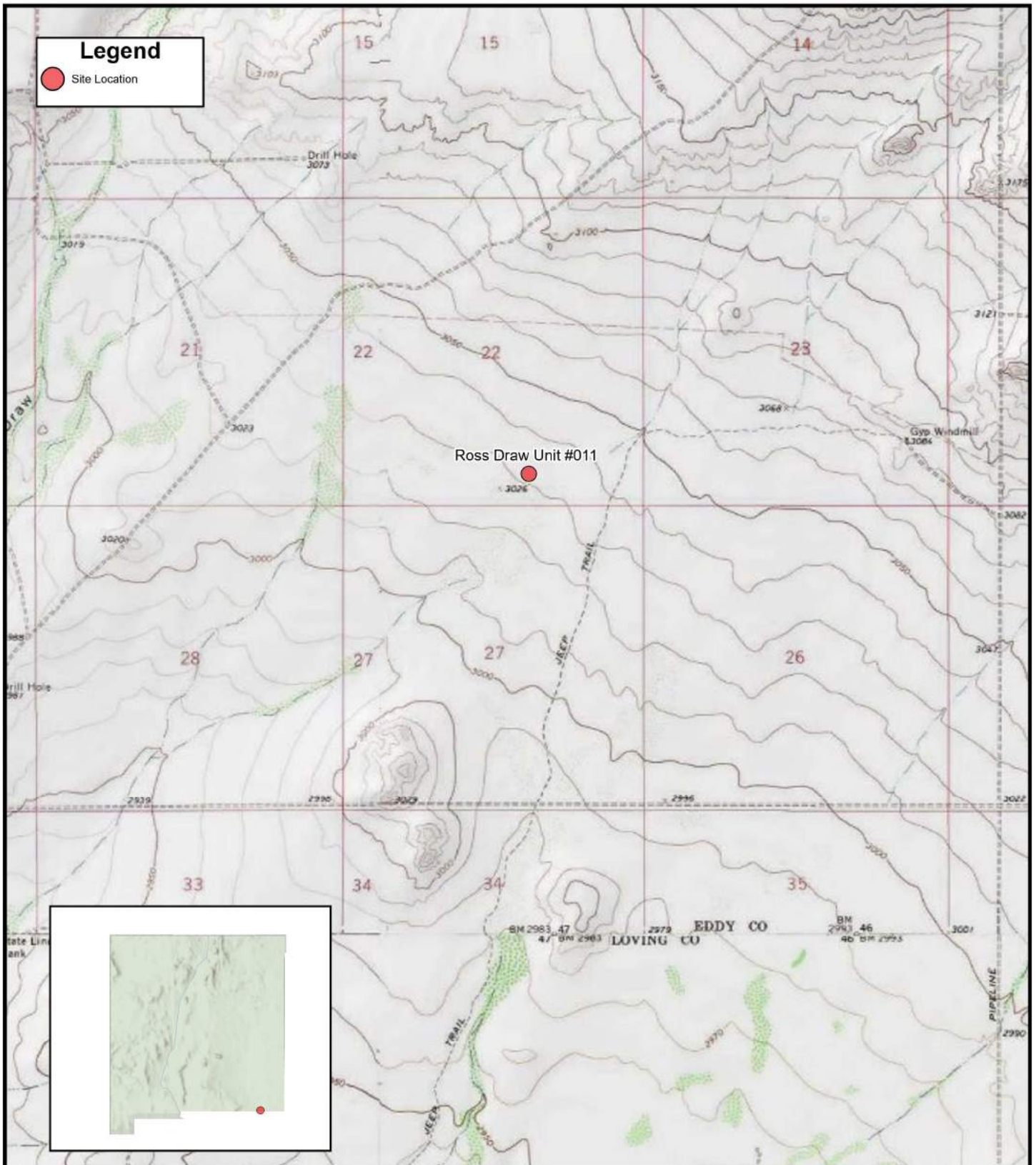


FIGURE 1

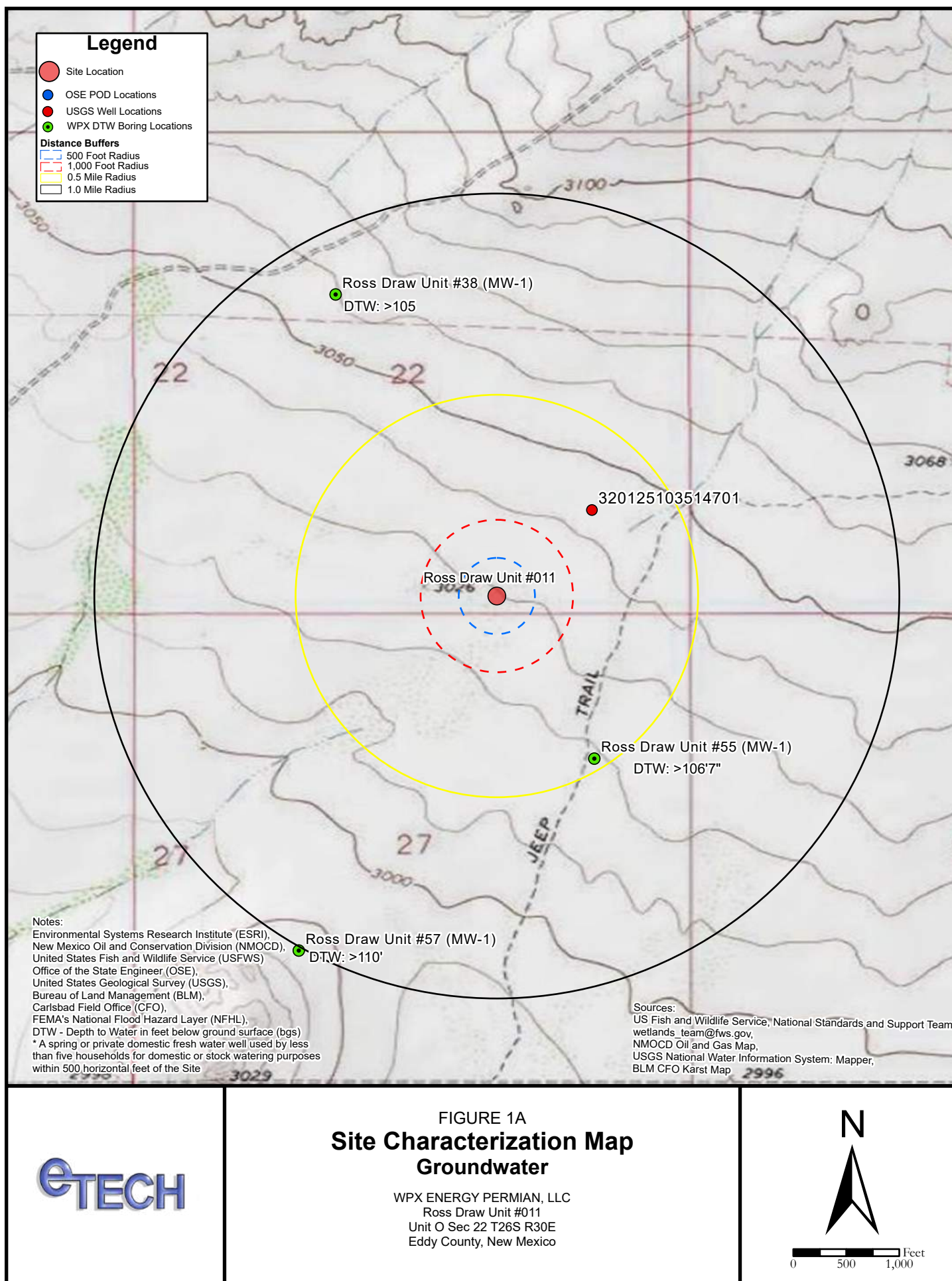
Site Location Map

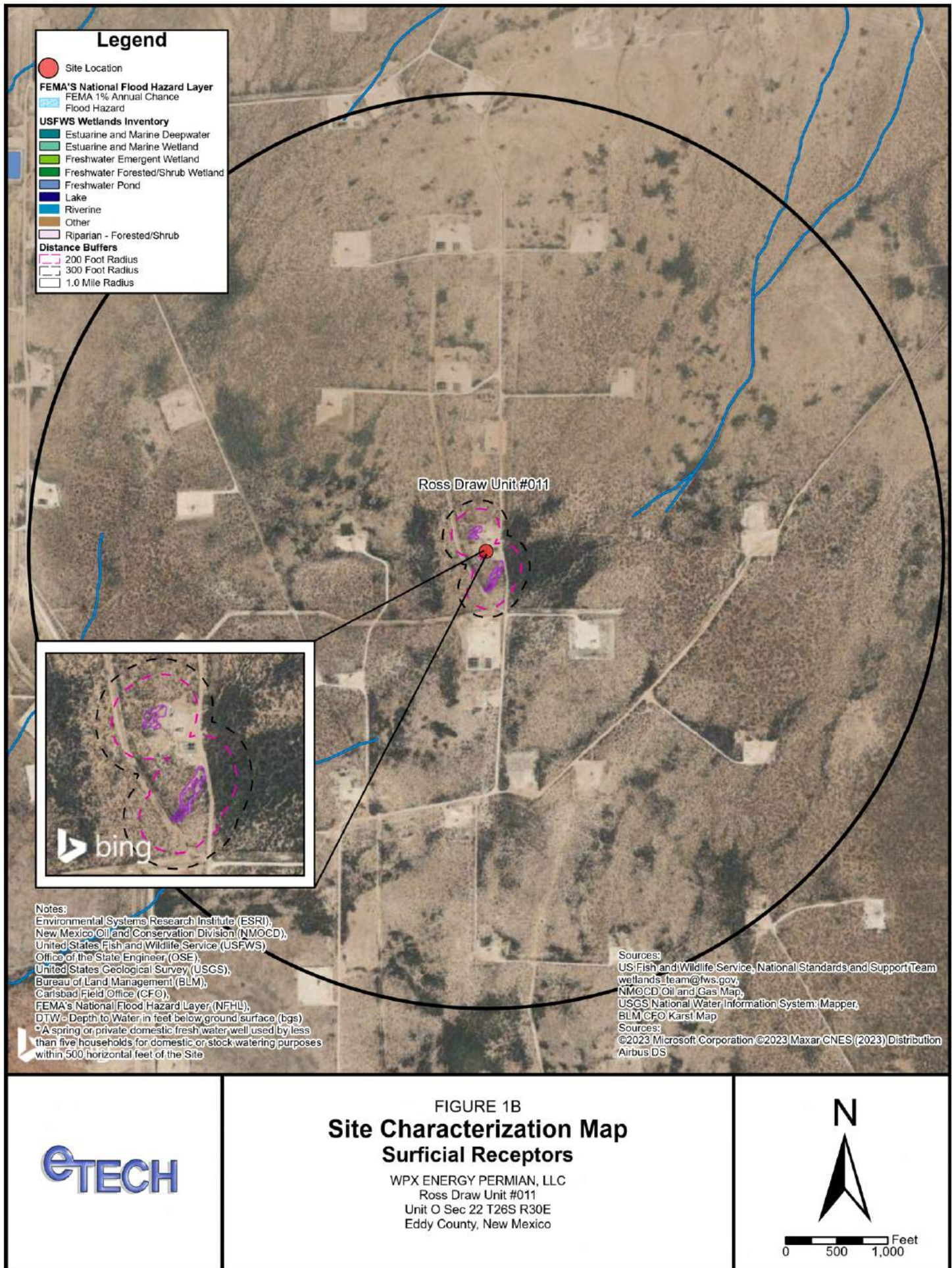
WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

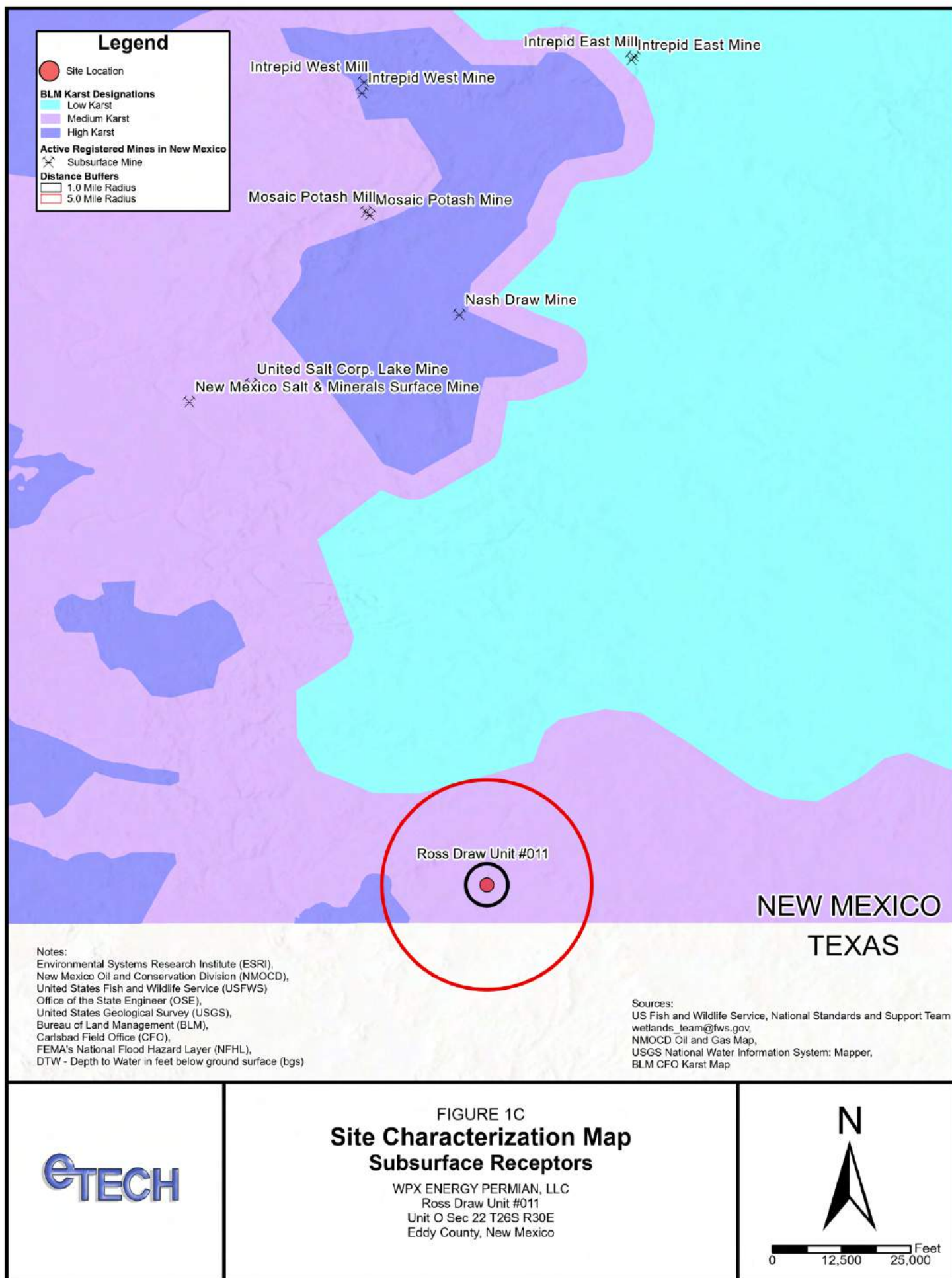
eTECH



0 1,500 3,000 Feet







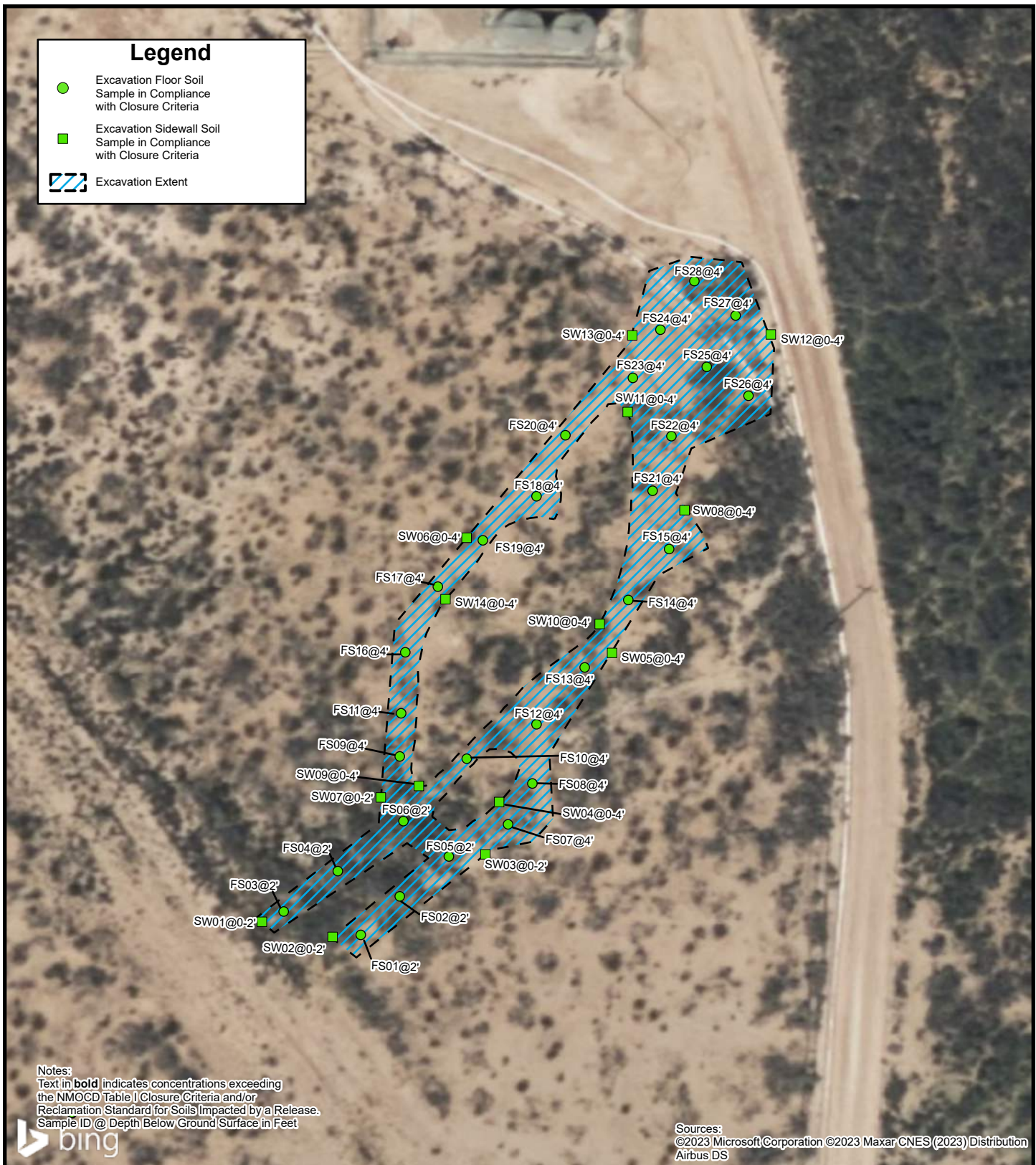


FIGURE 2A

Excavation Soil Sample Locations

WPX ENERGY PERMIAN, LLC
 Ross Draw Unit #011
 Unit O Sec 22 T26S R30E
 Eddy County, New Mexico

eTECH



0 32.5 65 Feet

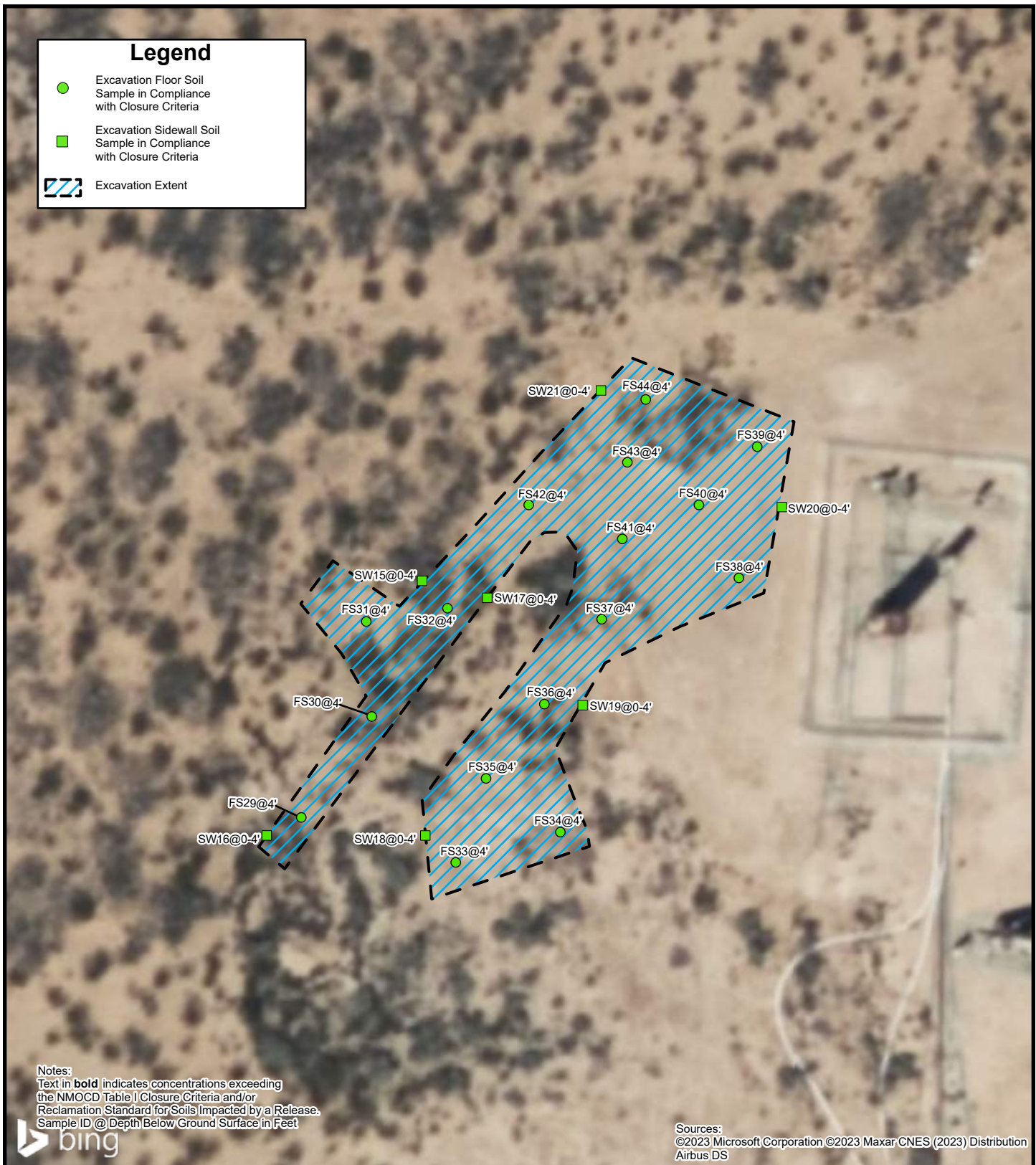


FIGURE 2B

Excavation Soil Sample Locations

WPX ENERGY PERMIAN, LLC
 Ross Draw Unit #011
 Unit O Sec 22 T26S R30E
 Eddy County, New Mexico


eTECH



0 20 40 Feet

APPENDIX B

Referenced Well Records

 HRL COMPLIANCE SOLUTIONS							BORING LOG/MONITORING WELL COMPLETION DIAGRAM						
							Boring/Well Number: MW-1			Location: Ross Draw Unit #55			
							Date: 12/9/2020			Client: WPX Energy			
Drilling Method: Air Rotary			Sampling Method: None				Logged By: J. Linn, PG			Drilled By: Talon LPE			
Gravel Pack Type: 10/20 Sand			Gravel Pack Depth Interval: 3 Bags				Seal Type: None		Seal Depth Interval: None		Latitude: 32.016165		
Casing Type: PVC		Diameter: 2-inch		Depth Interval: 0-101'7"		Boring Total Depth (ft. BGS): 106'7"				Longitude: -103.86346			
Screen Type: PVC		Slot: 0.010-inch		Diameter: 2-inch		Depth Interval: 101'7" - 106'7"		Well Total Depth (ft. BGS): 106'7"			Depth to Water (ft. BTOC): >106' 7"		
DTW Date: 12/16/2020													
Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks			Well Completion	
0	NM	L	D	N	N	NM	SP	NS	Pale pink to buff colored poorly graded sand with minor silt				
5													
10													
15													
20	NM	L	D	N	N	NM	SW	NS	Pale tan orange well graded fine sand with minor medium and coarse sand				
25													
30													
35	NM	L	D	N	N	NM	SP	NS	Pale orange brown poorly graded fine sand with minor gravel				
40													
45													
50													
55													
60													
65													
70													
75	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel				
80													
85													
90													
95	NM	L	D	N	N	NM	SP	NS	Darker grey poorly graded fine sand with minor silt and minor medium sand				
100													
106'7"	NM	M	D	N	N	NM	SC	NS	Dark grey fine sand with moderate silt and clay - TD 106'7"				

APPENDIX C

Photographic Logs

**PHOTOGRAPHIC LOG**

WPX Energy Permian, LLC

Ross Draw Unit #011

Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and
nAPP2200728755

Position: +032.021981° / -103.866867° (±15.1ft)
Altitude: 3073ft (±11.6ft)
Datum: WGS-84
Azimuth/Bearing: 173° S07E 3078mils True (±12°)
Elevation Angle: -18.4°
Horizon Angle: -02.4°
Zoom: 0.5X
BDUT1

**Photograph 1****Date: 10/26/2023**

Description: Southeastern view of excavation activities from the southern excavation.

Position: +032.021981° / -103.866867° (±15.1ft)
Altitude: 3073ft (±11.6ft)
Datum: WGS-84
Azimuth/Bearing: 201° S41W 2899mils True (±12°)
Elevation Angle: -04.3°
Horizon Angle: -01.8°
Zoom: 0.5X
BDUT1

**Photograph 2****Date: 10/26/2023**

Description: Southwestern view of excavation activities from the southern excavation.

Position: +032.021918° / -103.866888° (±15.6ft)
Altitude: 3040ft (±11.0ft)
Datum: WGS-84
Azimuth/Bearing: 035° N39E 0622mils True (±12°)
Elevation Angle: -08.6°
Horizon Angle: -02.1°
Zoom: 0.5X
BDUT1

**Photograph 3****Date: 10/26/2023**

Description: Northeastern view of excavation activities from the southern excavation.

Position: +032.021934° / -103.866876° (±15.7ft)
Altitude: 3038ft (±10.8ft)
Datum: WGS-84
Azimuth/Bearing: 028° N28E 0698mils True (±12°)
Elevation Angle: -06.1°
Horizon Angle: -00.7°
Zoom: 0.5X
BDUT1

**Photograph 4****Date: 10/26/2023**

Description: Northeastern view of excavation activities from the southern excavation.

**PHOTOGRAPHIC LOG**

WPX Energy Permian, LLC

Ross Draw Unit #011

Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and
nAPP2200728755

Date & Time: Mon, Oct 30, 2023 at 12:02:49 MDT
Position: +032.022758° / -103.867184° (±15.7M)
Altitude: 3039M (±10.8M)
Datum: WGS-84
Azimuth/Bearing: 337° N23W 5991mils True (±12°)
Elevation Angle: +06.3°
Horizon Angle: +01.9°
Zoom: 0.5X
REUT1

**Photograph 1****Date: 10/30/2023**

Description: Northwestern view of excavation activities from the northern excavation.

Date & Time: Mon, Oct 30, 2023 at 12:02:52 MDT
Position: +032.022752° / -103.867184° (±15.6M)
Altitude: 3039M (±11.0M)
Datum: WGS-84
Azimuth/Bearing: 299° N6°W 5314mils True (±12°)
Elevation Angle: +10.8°
Horizon Angle: +01.9°
Zoom: 0.5X
REUT1

**Photograph 2****Date: 10/30/2023**

Description: Northwestern view of excavation activities from the northern excavation.

Date & Time: Mon, Oct 30, 2023 at 12:03:11 MDT
Position: +032.022720° / -103.867296° (±15.6M)
Altitude: 3040M (±10.8M)
Datum: WGS-84
Azimuth/Bearing: 205° S25°W 3562mils True (±12°)
Elevation Angle: +11.0°
Horizon Angle: +01.9°
Zoom: 0.5X
REUT1

**Photograph 3****Date: 10/30/2023**

Description: Southwestern view of excavation activities from the northern excavation.

Date & Time: Mon, Oct 30, 2023 at 12:03:27 MDT
Position: +032.022905° / -103.868880° (±15.6M)
Altitude: 3021M (±11.0M)
Datum: WGS-84
Azimuth/Bearing: 207° S27°W 3562mils True (±12°)
Elevation Angle: +03.3°
Horizon Angle: +03.3°
Zoom: 0.5X
REUT1

**Photograph 4****Date: 10/30/2023**

Description: Southwestern view of excavation activities from the northern excavation.

**PHOTOGRAPHIC LOG**

WPX Energy Permian, LLC

Ross Draw Unit #011

Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and
nAPP2200728755

Date & Time: Tue, Nov 28, 2023 at 12:10:27 MST
Position: +33.021723° N -103.868207° W (3650)
Altitude: 3650 ft (1113 m)
Datum: WGS 84
Azimuth Bearing: 202° N35W 658mils True (410°)
Declination Angle: +0.0°
Horizon Angle: +0.0°
Zoom: 1.0x
Roll: 11°

**Photograph 5** **Date: 11/28/2023**

Description: Northwestern view of restoration activities of the southern excavation.

Date & Time: Tue, Nov 28, 2023 at 12:11:47 MST
Position: +33.021723° N -103.868207° W (3650)
Altitude: 3650 ft (1113 m)
Datum: WGS 84
Azimuth Bearing: 202° N35W 658mils True (410°)
Declination Angle: +0.0°
Horizon Angle: +0.0°
Zoom: 1.0x
Roll: 11°

**Photograph 6** **Date: 11/28/2023**

Description: Southwestern view of restoration activities of the southern excavation.

Date & Time: Tue, Nov 28, 2023 at 12:10:27 MST
Position: +33.021723° N -103.868207° W (3650)
Altitude: 3650 ft (1113 m)
Datum: WGS 84
Azimuth Bearing: 202° N35W 658mils True (410°)
Declination Angle: +0.0°
Horizon Angle: +0.0°
Zoom: 1.0x
Roll: 11°

**Photograph 7** **Date: 11/28/2023**

Description: Southeast view of restoration activities of the northern excavation.

Date & Time: Tue, Nov 28, 2023 at 12:11:47 MST
Position: +33.021723° N -103.868207° W (3650)
Altitude: 3650 ft (1113 m)
Datum: WGS 84
Azimuth Bearing: 202° N35W 658mils True (410°)
Declination Angle: +0.0°
Horizon Angle: +0.0°
Zoom: 1.0x
Roll: 11°

**Photograph 8** **Date: 11/28/2023**

Description: Southwest view of restoration activities of the northern excavation.

APPENDIX D

Tables



Table 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #011
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Soil Samples - Incident Numbers nAB1712951426, nAB1728553778, nAB1728551205, and naPP2200728755										
FS01	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
FS02	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
FS03	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
FS04	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	24.1
FS05	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	23.9
FS06	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	23.9
FS07	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,260
FS08	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,180
FS09	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,290
FS10	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,350
FS11	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,240
FS12	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,270
FS13	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,490
FS14	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,370
FS15	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,410
FS16	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,240
FS17	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	935
FS18	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	383
FS19	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	429
FS20	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,220
FS21	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	466
FS22	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	422
FS23	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	984
FS24	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	957
FS25	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,230
FS26	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,990
FS27	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,210
FS28	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,220
FS29	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	39.6
FS30	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	37.9
FS31	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	262



Table 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #011
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS32	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	506
FS33	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	503
FS34	10/27/2023	4	<0.0250	<0.0500	<20.0	58.3	<50.0	58.3	58.3	472
FS35	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,430
FS36	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	5,220
FS37	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,130
FS38	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	281
FS39	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,340
FS40	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,070
FS41	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,260
FS42	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,660
FS43	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,610
FS44	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,630
SW01	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW02	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW03	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW04	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	20.1
SW05	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	23.6
SW06	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	20.5
SW07	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	22.7
SW08	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	28.3
SW09	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	30.0
SW10	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	29.7
SW11	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW12	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	86.2
SW13	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	104
SW14	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	90.3
SW15	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	39.3
SW16	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW17	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	52.0
SW18	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	27.1

<div><div>eTECH</div><div>Table 1 SOIL SAMPLE ANALYTICAL RESULTS WPX Energy Permian, LLC Ross Draw Unit #011 Eddy County, New Mexico</div></div>										
Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
SW19	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	26.8
SW20	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	162
SW21	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<400

Notes:
bgs: below ground surface
mg/kg: milligrams per kilogram
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
NMOCD: New Mexico Oil Conservation Division NMAC: New Mexico Administrative Code
Text in "grey" represents excavated soil samples
Concentrations in bold exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard † for Soils Impacted by a Release
† The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas, to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

APPENDIX E

Laboratory Analytical Reports & Chain-of-Custody Documentation

Report to:
Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: ROSS DRAW UNIT #011

Work Order: E310074

Job Number: 01058-0007

Received: 10/12/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/17/23

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: 10/17/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: ROSS DRAW UNIT #011
Workorder: E310074
Date Received: 10/12/2023 8:25:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/12/2023 8:25:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

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

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/23 09:46

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS01 2'	E310074-01A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS02 2'	E310074-02A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS03 2'	E310074-03A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS04 2'	E310074-04A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS05 2'	E310074-05A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS06 2'	E310074-06A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 10/17/2023 9:46:36AM
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FS01 2'
E310074-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	97.5 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.4 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341072	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane	108 %	50-200		10/12/23	10/12/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2341077	
Chloride	ND	20.0	1	10/12/23	10/13/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/17/2023 9:46:36AM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS02 2'

E310074-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.3 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.1 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2341072	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
<i>Surrogate: n-Nonane</i>						
	99.8 %	50-200		10/12/23	10/12/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2341077	
Chloride	ND	20.0	1	10/12/23	10/12/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/17/2023 9:46:36AM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS03 2'

E310074-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.9 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.1 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2341072	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
<i>Surrogate: n-Nonane</i>						
	103 %	50-200		10/12/23	10/12/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2341077	
Chloride	ND	20.0	1	10/12/23	10/12/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/17/2023 9:46:36AM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS04 2'

E310074-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	96.3 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.2 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341072	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane	102 %	50-200		10/12/23	10/12/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2341077	
Chloride	24.1	20.0	1	10/12/23	10/12/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
10/17/2023 9:46:36AM

FS05 2'

E310074-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	97.9 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.2 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
<i>Surrogate: n-Nonane</i>						
	96.6 %	50-200		10/12/23	10/12/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2341077
Chloride	23.9	20.0	1	10/12/23	10/12/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/17/2023 9:46:36AM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS06 2'

E310074-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	96.8 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.4 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341072	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane	100 %	50-200		10/12/23	10/12/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2341077	
Chloride	23.9	20.0	1	10/12/23	10/12/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

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 (2341068-BLK1) Prepared: 10/12/23 Analyzed: 10/12/23

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	7.61		8.00		95.1	70-130			

LCS (2341068-BS1) Prepared: 10/12/23 Analyzed: 10/12/23

Benzene	4.67	0.0250	5.00		93.4	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.66	0.0250	5.00		93.2	70-130			
o-Xylene	4.65	0.0250	5.00		93.0	70-130			
p,m-Xylene	9.43	0.0500	10.0		94.3	70-130			
Total Xylenes	14.1	0.0250	15.0		93.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.58		8.00		94.7	70-130			

Matrix Spike (2341068-MS1) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23

Benzene	4.42	0.0250	5.00	ND	88.4	54-133			
Ethylbenzene	4.37	0.0250	5.00	ND	87.4	61-133			
Toluene	4.43	0.0250	5.00	ND	88.6	61-130			
o-Xylene	4.41	0.0250	5.00	ND	88.3	63-131			
p,m-Xylene	8.94	0.0500	10.0	ND	89.4	63-131			
Total Xylenes	13.4	0.0250	15.0	ND	89.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.57		8.00		94.6	70-130			

Matrix Spike Dup (2341068-MSD1) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23

Benzene	4.46	0.0250	5.00	ND	89.1	54-133	0.784	20	
Ethylbenzene	4.41	0.0250	5.00	ND	88.3	61-133	0.970	20	
Toluene	4.46	0.0250	5.00	ND	89.2	61-130	0.636	20	
o-Xylene	4.46	0.0250	5.00	ND	89.2	63-131	1.09	20	
p,m-Xylene	9.03	0.0500	10.0	ND	90.3	63-131	0.933	20	
Total Xylenes	13.5	0.0250	15.0	ND	89.9	63-131	0.983	20	
Surrogate: 4-Bromochlorobenzene-PID	7.64		8.00		95.6	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

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 (2341068-BLK1) Prepared: 10/12/23 Analyzed: 10/12/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.42		8.00		92.7	70-130			

LCS (2341068-BS2) Prepared: 10/12/23 Analyzed: 10/12/23

Gasoline Range Organics (C6-C10)	43.7	20.0	50.0		87.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.58		8.00		94.7	70-130			

Matrix Spike (2341068-MS2) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23

Gasoline Range Organics (C6-C10)	45.1	20.0	50.0	ND	90.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.40		8.00		92.5	70-130			

Matrix Spike Dup (2341068-MSD2) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23

Gasoline Range Organics (C6-C10)	44.5	20.0	50.0	ND	88.9	70-130	1.49	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.38		8.00		92.2	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

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 (2341072-BLK1)					Prepared: 10/12/23 Analyzed: 10/12/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	51.7		50.0		103	50-200			

LCS (2341072-BS1)					Prepared: 10/12/23 Analyzed: 10/12/23				
Diesel Range Organics (C10-C28)	248	25.0	250		99.2	38-132			
Surrogate: n-Nonane	49.2		50.0		98.3	50-200			

Matrix Spike (2341072-MS1)					Source: E310074-06		Prepared: 10/12/23 Analyzed: 10/12/23		
Diesel Range Organics (C10-C28)	254	25.0	250	ND	102	38-132			
Surrogate: n-Nonane	50.8		50.0		102	50-200			

Matrix Spike Dup (2341072-MSD1)					Source: E310074-06		Prepared: 10/12/23 Analyzed: 10/12/23		
Diesel Range Organics (C10-C28)	254	25.0	250	ND	101	38-132	0.193	20	
Surrogate: n-Nonane	51.2		50.0		102	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

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 (2341077-BLK1)					Prepared: 10/12/23 Analyzed: 10/12/23				
Chloride	ND	20.0							
LCS (2341077-BS1)					Prepared: 10/12/23 Analyzed: 10/12/23				
Chloride	255	20.0	250		102	90-110			
Matrix Spike (2341077-MS1)					Source: E310074-01		Prepared: 10/12/23 Analyzed: 10/12/23		
Chloride	262	20.0	250	ND	105	80-120			
Matrix Spike Dup (2341077-MSD1)					Source: E310074-01		Prepared: 10/12/23 Analyzed: 10/13/23		
Chloride	258	20.0	250	ND	103	80-120	1.37	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

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/23 09:46

- 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.



Project Information

Chain of Custody

Page 1 of 1

Client: WPX Energy Permian, LLC.					Bill To		Lab Use Only						TAT				EPA Program			
Project: Brushy Gathering Facility					Attention: Jim Raley		Lab WO#		Job Number				1D	2D	3D	Standard	CWA	SDWA		
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.		E310074		01058-0007							5 day TAT				
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220		Analysis and Method											RCRA		
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502		Depth (ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	XL	GDOC	State				
Phone: 832-541-7719					Email: jim.raley@dvn.com											NM	CO	UT	AZ	TX
Email: Devon-team@etechenv.com					WO: 21153712															
Collected by: Edyte Konan					Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205 nAPP2200728755															
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Remarks														
9:00	10.6.23	S	1	FS01	1	2'								X						
9:10	10.6.23	S	1	FS02	2	2'								X						
9:20	10.6.23	S	1	FS03	3	2'								X						
9:30	10.6.23	S	1	FS04	4	2'								X						
9:40	10.6.23	S	1	FS05	5	2'								X						
9:50	10.6.23	S	1	FS06	6	2'								X						
Additional Instructions:																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM																				
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												
[Signature]		10/10/23	12:20	Michelle Cough		10-10-23	1220	Received on ice: (Y) / N												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3												
Michelle Cough		10-11-23	1700	Andrew M. [Signature]		10-11-23	1730													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C												
[Signature]		10-11-23	2330	Cathy [Signature]		10-12-23	8:25	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.																				



Project Information

Chain of Custody

Page 1 of 1

Brass Draw unit #011

Client: WPX Energy Permian, LLC.		Bill To		Lab Use Only		TAT		EPA Program	
Project: Brushy Gathering Facility		Attention: Jim Raley		Lab WO#		1D 2D 3D		CWA SDWA	
Project Manager: Gilbert Moreno		Address: 5315 Buena Vista Dr.		E310074		Job Number		5 day TAT	
Address: 13000 W County Rd 100		City, State, Zip: Carlsbad, NM, 88220		01058-0007				RCRA	
City, State, Zip: Odessa, TX, 79765		Phone: 575-885-7502		Analysis and Method					
Phone: 832-541-7719		Email: jim.raley@dv.com							
Email: Devon-team@etechnv.com		WO: 21153712							
		Incident ID: NHMP1412241998,							
		nAB1712951426, nAB1728553778,							
		nAB1728551205, nAPP2200728755							

Collected by: Edyte Konan

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	TDGC TX	Remarks
9:00	10.6.23	S	1	FS01	1	2'						X		Corrected project name to match Project name on sample Containers per Client. 10.12.23 CM
9:10	10.6.23	S	1	FS02	2	2'						X		
9:20	10.6.23	S	1	FS03	3	2'						X		
9:30	10.6.23	S	1	FS04	4	2'						X		
9:40	10.6.23	S	1	FS05	5	2'						X		
9:50	10.6.23	S	1	FS06	6	2'						X		

Additional Instructions:

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

Sampled by: GM

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

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 T2 T3 AVG Temp °C 4
<i>[Signature]</i>	10/10/23	12:20	<i>[Signature]</i>	10-10-23	1220	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<i>[Signature]</i>	10-11-23	1700	<i>[Signature]</i>	10-11-23	1730	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<i>[Signature]</i>	10-11-23	2330	<i>[Signature]</i>	10-12-23	8:25	

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 Analytical Laboratory

Printed: 10/12/2023 12:24:09PM

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:	WPX Energy - Carlsbad	Date Received:	10/12/23 08:25	Work Order ID:	E310074
Phone:	(539) 573-4018	Date Logged In:	10/11/23 15:32	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/17/23 17:00 (3 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

Project name on sample containers did not match the project name on COC. Client asked to change the project name on the COC.

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:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: ROSS DRAW UNIT #011

Work Order: E310126

Job Number: 01058-0007

Received: 10/19/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/25/23

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: 10/25/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: ROSS DRAW UNIT #011
Workorder: E310126
Date Received: 10/19/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/19/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 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
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Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 10/25/23 12:15
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS07 4'	E310126-01A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS08 4'	E310126-02A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS09 4'	E310126-03A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS10 4'	E310126-04A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS11 4'	E310126-05A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS12 4'	E310126-06A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS13 4'	E310126-07A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS14 4'	E310126-08A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS15 4'	E310126-09A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS16 4'	E310126-10A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS17 4'	E310126-11A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS18 4'	E310126-12A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS19 4'	E310126-13A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS20 4'	E310126-14A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS21 4'	E310126-15A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS22 4'	E310126-16A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS23 4'	E310126-17A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS24 4'	E310126-18A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS25 4'	E310126-19A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS26 4'	E310126-20A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS27 4'	E310126-21A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS28 4'	E310126-22A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
10/25/2023 12:15:12PM

FS07 4'

E310126-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.9 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.5 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	103 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2342076
Chloride	1260	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
10/25/2023 12:15:12PM

FS08 4'

E310126-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.8 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	88.8 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	98.8 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2342076
Chloride	1180	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS09 4'

E310126-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID	96.2 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	88.5 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane	101 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	1290	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS10 4'

E310126-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.3 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.2 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	102 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	1350	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS11 4'

E310126-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.2 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	88.0 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	98.4 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	1240	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS12 4'

E310126-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.0 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.4 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	99.6 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	1270	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
10/25/2023 12:15:12PM

FS13 4'

E310126-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.3 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	88.9 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	99.4 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2342076
Chloride	1490	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS14 4'

E310126-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.9 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.5 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	98.6 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	1370	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS15 4'

E310126-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.6 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.5 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	98.6 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	1410	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS16 4'

E310126-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID	95.2 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	87.4 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane	95.2 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	1240	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS17 4'

E310126-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.2 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	88.6 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	96.2 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	935	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
10/25/2023 12:15:12PM

FS18 4'

E310126-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.6 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	88.0 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	95.4 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2342076
Chloride	383	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
10/25/2023 12:15:12PM

FS19 4'

E310126-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.2 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.0 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	99.2 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2342076
Chloride	429	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS20 4'

E310126-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.3 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.5 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	99.5 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	2220	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
10/25/2023 12:15:12PM

FS21 4'

E310126-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.5 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	86.9 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	106 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2342076
Chloride	466	20.0	1	10/19/23	10/20/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS22 4'

E310126-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.3 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.8 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	102 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	422	20.0	1	10/19/23	10/20/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS23 4'

E310126-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID	94.9 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.2 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane	99.8 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	984	20.0	1	10/19/23	10/20/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS24 4'

E310126-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID	94.9 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.7 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane	97.6 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	957	20.0	1	10/19/23	10/20/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS25 4'

E310126-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.5 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.3 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	96.7 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	1230	20.0	1	10/19/23	10/20/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS26 4'

E310126-20

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID	95.4 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2342066	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.0 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2342068	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane	95.9 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2342076	
Chloride	1990	20.0	1	10/19/23	10/20/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/25/2023 12:15:12PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS27 4'

E310126-21

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342065	
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.9 %	70-130		10/19/23	10/19/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342065	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.2 %	70-130		10/19/23	10/19/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342098	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/20/23	10/21/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/20/23	10/21/23	
<i>Surrogate: n-Nonane</i>						
	82.7 %	50-200		10/20/23	10/21/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2342077	
Chloride	3210	40.0	2	10/19/23	10/20/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
10/25/2023 12:15:12PM

FS28 4'

E310126-22

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342065
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.3 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.4 %	70-130		10/19/23	10/20/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2342098
Diesel Range Organics (C10-C28)	ND	25.0	1	10/20/23	10/21/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/20/23	10/21/23	
<i>Surrogate: n-Nonane</i>						
	84.7 %	50-200		10/20/23	10/21/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2342077
Chloride	3220	40.0	2	10/19/23	10/20/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

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 (2342065-BLK1) Prepared: 10/19/23 Analyzed: 10/19/23

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	7.49		8.00		93.7	70-130			

LCS (2342065-BS1) Prepared: 10/19/23 Analyzed: 10/19/23

Benzene	4.49	0.0250	5.00		89.9	70-130			
Ethylbenzene	4.50	0.0250	5.00		90.1	70-130			
Toluene	4.62	0.0250	5.00		92.4	70-130			
o-Xylene	4.63	0.0250	5.00		92.6	70-130			
p,m-Xylene	9.33	0.0500	10.0		93.3	70-130			
Total Xylenes	14.0	0.0250	15.0		93.0	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.51		8.00		93.8	70-130			

Matrix Spike (2342065-MS1) Source: E310123-04 Prepared: 10/19/23 Analyzed: 10/19/23

Benzene	4.39	0.0250	5.00	ND	87.7	54-133			
Ethylbenzene	4.39	0.0250	5.00	ND	87.7	61-133			
Toluene	4.51	0.0250	5.00	ND	90.1	61-130			
o-Xylene	4.51	0.0250	5.00	ND	90.3	63-131			
p,m-Xylene	9.08	0.0500	10.0	ND	90.8	63-131			
Total Xylenes	13.6	0.0250	15.0	ND	90.6	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.42		8.00		92.8	70-130			

Matrix Spike Dup (2342065-MSD1) Source: E310123-04 Prepared: 10/19/23 Analyzed: 10/19/23

Benzene	4.54	0.0250	5.00	ND	90.7	54-133	3.36	20	
Ethylbenzene	4.55	0.0250	5.00	ND	91.0	61-133	3.72	20	
Toluene	4.68	0.0250	5.00	ND	93.6	61-130	3.73	20	
o-Xylene	4.70	0.0250	5.00	ND	93.9	63-131	3.93	20	
p,m-Xylene	9.43	0.0500	10.0	ND	94.3	63-131	3.85	20	
Total Xylenes	14.1	0.0250	15.0	ND	94.2	63-131	3.87	20	
Surrogate: 4-Bromochlorobenzene-PID	7.47		8.00		93.4	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

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 (2342066-BLK1) Prepared: 10/19/23 Analyzed: 10/20/23

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	7.66		8.00		95.8	70-130			

LCS (2342066-BS1) Prepared: 10/19/23 Analyzed: 10/20/23

Benzene	5.21	0.0250	5.00		104	70-130			
Ethylbenzene	5.11	0.0250	5.00		102	70-130			
Toluene	5.18	0.0250	5.00		104	70-130			
o-Xylene	5.13	0.0250	5.00		103	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.5	0.0250	15.0		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.71		8.00		96.3	70-130			

Matrix Spike (2342066-MS1) Source: E310126-02 Prepared: 10/19/23 Analyzed: 10/20/23

Benzene	5.19	0.0250	5.00	ND	104	54-133			
Ethylbenzene	5.10	0.0250	5.00	ND	102	61-133			
Toluene	5.16	0.0250	5.00	ND	103	61-130			
o-Xylene	5.11	0.0250	5.00	ND	102	63-131			
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131			
Total Xylenes	15.5	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.70		8.00		96.2	70-130			

Matrix Spike Dup (2342066-MSD1) Source: E310126-02 Prepared: 10/19/23 Analyzed: 10/20/23

Benzene	5.39	0.0250	5.00	ND	108	54-133	3.75	20	
Ethylbenzene	5.29	0.0250	5.00	ND	106	61-133	3.70	20	
Toluene	5.36	0.0250	5.00	ND	107	61-130	3.82	20	
o-Xylene	5.31	0.0250	5.00	ND	106	63-131	3.84	20	
p,m-Xylene	10.8	0.0500	10.0	ND	108	63-131	3.91	20	
Total Xylenes	16.1	0.0250	15.0	ND	107	63-131	3.89	20	
Surrogate: 4-Bromochlorobenzene-PID	7.72		8.00		96.5	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

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 (2342065-BLK1) Prepared: 10/19/23 Analyzed: 10/19/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.24		8.00		90.5	70-130			

LCS (2342065-BS2) Prepared: 10/19/23 Analyzed: 10/19/23

Gasoline Range Organics (C6-C10)	46.4	20.0	50.0		92.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.36		8.00		92.0	70-130			

Matrix Spike (2342065-MS2) Source: E310123-04 Prepared: 10/19/23 Analyzed: 10/19/23

Gasoline Range Organics (C6-C10)	44.1	20.0	50.0	ND	88.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.29		8.00		91.1	70-130			

Matrix Spike Dup (2342065-MSD2) Source: E310123-04 Prepared: 10/19/23 Analyzed: 10/19/23

Gasoline Range Organics (C6-C10)	48.8	20.0	50.0	ND	97.7	70-130	10.2	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.45		8.00		93.1	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

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 (2342066-BLK1) Prepared: 10/19/23 Analyzed: 10/20/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.17		8.00		89.6	70-130			

LCS (2342066-BS2) Prepared: 10/19/23 Analyzed: 10/20/23

Gasoline Range Organics (C6-C10)	46.7	20.0	50.0		93.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.05		8.00		88.1	70-130			

Matrix Spike (2342066-MS2) Source: E310126-02 Prepared: 10/19/23 Analyzed: 10/20/23

Gasoline Range Organics (C6-C10)	45.5	20.0	50.0	ND	91.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.06		8.00		88.3	70-130			

Matrix Spike Dup (2342066-MSD2) Source: E310126-02 Prepared: 10/19/23 Analyzed: 10/20/23

Gasoline Range Organics (C6-C10)	46.4	20.0	50.0	ND	92.9	70-130	2.03	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.20		8.00		90.0	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

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 (2342068-BLK1)					Prepared: 10/19/23 Analyzed: 10/20/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.7		50.0		101	50-200			

LCS (2342068-BS1)					Prepared: 10/19/23 Analyzed: 10/20/23				
Diesel Range Organics (C10-C28)	242	25.0	250		96.8	38-132			
Surrogate: n-Nonane	49.6		50.0		99.2	50-200			

Matrix Spike (2342068-MS1)					Source: E310126-05		Prepared: 10/19/23 Analyzed: 10/20/23		
Diesel Range Organics (C10-C28)	291	25.0	250	ND	116	38-132			
Surrogate: n-Nonane	57.5		50.0		115	50-200			

Matrix Spike Dup (2342068-MSD1)					Source: E310126-05		Prepared: 10/19/23 Analyzed: 10/20/23		
Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132	8.64	20	
Surrogate: n-Nonane	53.1		50.0		106	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

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 (2342098-BLK1) Prepared: 10/20/23 Analyzed: 10/21/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	43.9		50.0		87.7	50-200			

LCS (2342098-BS1) Prepared: 10/20/23 Analyzed: 10/21/23

Diesel Range Organics (C10-C28)	226	25.0	250		90.4	38-132			
Surrogate: n-Nonane	44.2		50.0		88.4	50-200			

Matrix Spike (2342098-MS1) Source: E310184-02 Prepared: 10/20/23 Analyzed: 10/21/23

Diesel Range Organics (C10-C28)	230	25.0	250	ND	92.0	38-132			
Surrogate: n-Nonane	41.6		50.0		83.2	50-200			

Matrix Spike Dup (2342098-MSD1) Source: E310184-02 Prepared: 10/20/23 Analyzed: 10/21/23

Diesel Range Organics (C10-C28)	230	25.0	250	ND	92.1	38-132	0.0528	20	
Surrogate: n-Nonane	42.6		50.0		85.3	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Anions by EPA 300.0/9056A

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 (2342076-BLK1)					Prepared: 10/19/23 Analyzed: 10/19/23				
Chloride	ND	20.0							
LCS (2342076-BS1)					Prepared: 10/19/23 Analyzed: 10/19/23				
Chloride	241	20.0	250		96.5	90-110			
Matrix Spike (2342076-MS1)					Source: E310126-03		Prepared: 10/19/23 Analyzed: 10/19/23		
Chloride	1600	20.0	250	1290	125	80-120			M1
Matrix Spike Dup (2342076-MSD1)					Source: E310126-03		Prepared: 10/19/23 Analyzed: 10/19/23		
Chloride	1530	20.0	250	1290	98.0	80-120	4.27	20	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

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

Blank (2342077-BLK1)					Prepared: 10/19/23 Analyzed: 10/20/23				
Chloride	ND	20.0							
LCS (2342077-BS1)					Prepared: 10/19/23 Analyzed: 10/20/23				
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2342077-MS1)					Source: E310127-01		Prepared: 10/19/23 Analyzed: 10/20/23		
Chloride	688	20.0	250	253	174	80-120			M1
Matrix Spike Dup (2342077-MSD1)					Source: E310127-01		Prepared: 10/19/23 Analyzed: 10/20/23		
Chloride	732	20.0	250	253	192	80-120	6.32	20	M1

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

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/23 12:15

- M1 Matrix spike recovery was above acceptance limits. 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.



Client: WPX Energy Permian, LLC.					Bill To		Lab Use Only					TAT				EPA Program				
Project: ROSS DRAW UNIT #011					Attention: Jim Raley		Lab WO#		Job Number			1D	2D	3D	Standard	CWA	SDWA			
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.		E310126		9058-0007						5 day TAT					
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220		Analysis and Method											RCRA		
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502		Depth (ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	TX	GDOC	State				
Phone: 832-541-7719					Email: jim.raley@dvn.com											NM	CO	UT	AZ	TX
Email: Devon-team@etechnv.com					WO: 21153712															
Collected by: Edyte Konan					Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755											Remarks				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number															
9:00	10.16.23	S	1	FS07	1	4'							X							
9:10	10.16.23	S	1	FS08	2	4'							X							
9:20	10.16.23	S	1	FS09	3	4'							X							
9:30	10.16.23	S	1	FS10	4	4'							X							
9:40	10.16.23	S	1	FS11	5	4'							X							
9:50	10.16.23	S	1	FS12	6	4'							X							
10:00	10.16.23	S	1	FS13	7	4'							X							
10:10	10.16.23	S	1	FS14	8	4'							X							
10:20	10.16.23	S	1	FS15	9	4'							X							
10:30	10.16.23	S	1	FS16	10	4'							X							
Additional Instructions:																				
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												
[Signature]		10/18/23	12:10	[Signature]		10-18-23	12:10	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												
[Signature]		10-18-23	1745	[Signature]		10-18-23	1800													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C												
[Signature]		10-18-23	2400	[Signature]		10-19-23	8:15	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.																				

Project Information

Chain of Custody

Page 2 of 3

Client: WPX Energy Permian, LLC.					Bill To		Lab Use Only				TAT				EPA Program					
Project: ROSS DRAW UNIT #011					Attention: Jim Raley		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA				
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.		E310126		01058-0007					5 day TAT						
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220		Analysis and Method										RCRA			
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502		Depth (ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC	TX	GDOC	State				
Phone: 832-541-7719					Email: jim.raley@dmv.com											NM	CO	UT	AZ	TX
Email: Devon-team@etechenv.com					WO: 21153712															
Collected by: Edyte Konan					Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755															
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number											Remarks				
10:40	10.16.23	S	1	FS17	11	4'							X							
10:50	10.16.23	S	1	FS18	12	4'							X							
11:00	10.16.23	S	1	FS19	13	4'							X							
11:10	10.16.23	S	1	FS20	14	4'							X							
11:20	10.16.23	S	1	FS21	15	4'							X							
11:30	10.16.23	S	1	FS22	16	4'							X							
11:40	10.16.23	S	1	FS23	17	4'							X							
11:50	10.16.23	S	1	FS24	18	4'							X							
12:00	10.16.23	S	1	FS25	19	4'							X							
12:10	10.16.23	S	1	FS26	20	4'							X							

Additional Instructions:

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

Sampled by: GM

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

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Andrew Musso	10-18-23	2400	Carth Man	10-19-23	8:15	
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other						Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 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.



Project Information

Chain of Custody

Page 3 of 3

Client: WPX Energy Permian, LLC.					Bill To		Lab Use Only						TAT				EPA Program			
Project: ROSS DRAW UNIT #011					Attention: Jim Raley		Lab WO#		Job Number				1D	2D	3D	Standard	CWA	SDWA		
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.		E310124		11058-0007							5 day TAT				
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220		Analysis and Method												RCRA	
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502		Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC	TX	GDGC	State				
Phone: 832-541-7719					Email: jim.raley@dmv.com											NM	CO	UT	AZ	TX
Email: Devon-team@etechnv.com					WO: 21153712															
Collected by: Edyte Konan					Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755											Remarks				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number															
12:20	10.16.23	S	1	FS27	21	4'							X							
12:30	10.16.23	S	1	FS28	22	4'							X							
10/18/23																				

Additional Instructions:

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

Sampled by: gtr

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
<i>[Signature]</i>	10/18/23	12:10	<i>[Signature]</i>	10-18-23	12:10
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>[Signature]</i>	10-18-23	1745	<i>[Signature]</i>	10-18-23	1800
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>[Signature]</i>	10-18-23	2400	<i>[Signature]</i>	10-19-23	8:15

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

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

Note: Samples are discarded 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 Analytical Laboratory

Printed: 10/19/2023 12:10:56PM

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:	WPX Energy - Carlsbad	Date Received:	10/19/23 08:15	Work Order ID:	E310126
Phone:	(539) 573-4018	Date Logged In:	10/18/23 16:49	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/25/23 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:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: ROSS DRAW UNIT #011

Work Order: E310296

Job Number: 01058-0007

Received: 10/30/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/3/23

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: 11/3/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: ROSS DRAW UNIT #011
Workorder: E310296
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 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
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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/03/23 16:40

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS29 4'	E310296-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS30 4'	E310296-02A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS31 4'	E310296-03A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS32 4'	E310296-04A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS33 4'	E310296-05A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS34 4'	E310296-06A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS35 4'	E310296-07A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS36 4'	E310296-08A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS37 4'	E310296-09A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS38 4'	E310296-10A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS39 4'	E310296-11A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS40 4'	E310296-12A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/3/2023 4:40:22PM

FS29 4'

E310296-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.0 %	70-130		10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.0 %	70-130		10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
<i>Surrogate: n-Nonane</i>						
	91.1 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344079
Chloride	39.6	20.0	1	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 11/3/2023 4:40:22PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS30 4'

E310296-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID	98.1 %	70-130		10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.0 %	70-130		10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2344044	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane	92.4 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2344079	
Chloride	37.9	20.0	1	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 11/3/2023 4:40:22PM
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FS31 4'

E310296-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.8 %	70-130	10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2344044	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
<i>Surrogate: n-Nonane</i>						
		91.8 %	50-200	11/01/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2344079	
Chloride	262	20.0	1	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/3/2023 4:40:22PM

FS32 4'

E310296-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.6 %	70-130		10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.1 %	70-130		10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
<i>Surrogate: n-Nonane</i>						
	90.4 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344079
Chloride	506	20.0	1	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/3/2023 4:40:22PM

FS33 4'

E310296-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.4 %	70-130		10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.0 %	70-130		10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
<i>Surrogate: n-Nonane</i>						
	91.7 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344079
Chloride	503	20.0	1	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 11/3/2023 4:40:22PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS34 4'

E310296-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID	98.4 %	70-130		10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.1 %	70-130		10/31/23	10/31/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2344044	
Diesel Range Organics (C10-C28)	58.3	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane	92.5 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2344079	
Chloride	472	20.0	1	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 11/3/2023 4:40:22PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS35 4'

E310296-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	97.6 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.4 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2344044	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
<i>Surrogate: n-Nonane</i>						
	86.1 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2344079	
Chloride	1430	20.0	1	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 11/3/2023 4:40:22PM
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FS36 4'

E310296-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.5 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.8 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2344044	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
<i>Surrogate: n-Nonane</i>						
	88.7 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2344079	
Chloride	5220	100	5	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 11/3/2023 4:40:22PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS37 4'

E310296-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID	95.9 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.5 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2344044	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane	89.4 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2344079	
Chloride	2130	400	20	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 11/3/2023 4:40:22PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

FS38 4'

E310296-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID	95.5 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.1 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2344044	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane	86.5 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2344079	
Chloride	281	20.0	1	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/3/2023 4:40:22PM

FS39 4'

E310296-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.2 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.1 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2344044	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
<i>Surrogate: n-Nonane</i>						
	90.7 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2344079	
Chloride	3340	400	20	11/02/23	11/03/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 11/3/2023 4:40:22PM
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FS40 4'
E310296-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.7 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344026	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.6 %	70-130		10/31/23	11/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2344044	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
<i>Surrogate: n-Nonane</i>						
	91.6 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2344079	
Chloride	3070	100	5	11/02/23	11/03/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

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 (2344026-BLK1) Prepared: 10/31/23 Analyzed: 10/31/23

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 (2344026-BS1) Prepared: 10/31/23 Analyzed: 10/31/23

Benzene	4.60	0.0250	5.00		92.0	70-130			
Ethylbenzene	4.74	0.0250	5.00		94.8	70-130			
Toluene	4.83	0.0250	5.00		96.6	70-130			
o-Xylene	4.89	0.0250	5.00		97.9	70-130			
p,m-Xylene	9.78	0.0500	10.0		97.8	70-130			
Total Xylenes	14.7	0.0250	15.0		97.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.10		8.00		101	70-130			

Matrix Spike (2344026-MS1) Source: E310296-03 Prepared: 10/31/23 Analyzed: 10/31/23

Benzene	4.57	0.0250	5.00	ND	91.4	54-133			
Ethylbenzene	4.71	0.0250	5.00	ND	94.2	61-133			
Toluene	4.80	0.0250	5.00	ND	95.9	61-130			
o-Xylene	4.87	0.0250	5.00	ND	97.3	63-131			
p,m-Xylene	9.71	0.0500	10.0	ND	97.1	63-131			
Total Xylenes	14.6	0.0250	15.0	ND	97.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.21		8.00		103	70-130			

Matrix Spike Dup (2344026-MSD1) Source: E310296-03 Prepared: 10/31/23 Analyzed: 10/31/23

Benzene	4.50	0.0250	5.00	ND	89.9	54-133	1.61	20	
Ethylbenzene	4.66	0.0250	5.00	ND	93.3	61-133	1.02	20	
Toluene	4.74	0.0250	5.00	ND	94.8	61-130	1.20	20	
o-Xylene	4.82	0.0250	5.00	ND	96.3	63-131	1.07	20	
p,m-Xylene	9.63	0.0500	10.0	ND	96.3	63-131	0.815	20	
Total Xylenes	14.4	0.0250	15.0	ND	96.3	63-131	0.900	20	
Surrogate: 4-Bromochlorobenzene-PID	8.15		8.00		102	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

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 (2344026-BLK1) Prepared: 10/31/23 Analyzed: 10/31/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.20		8.00		90.1	70-130			

LCS (2344026-BS2) Prepared: 10/31/23 Analyzed: 10/31/23

Gasoline Range Organics (C6-C10)	42.6	20.0	50.0		85.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.31		8.00		91.4	70-130			

Matrix Spike (2344026-MS2) Source: E310296-03 Prepared: 10/31/23 Analyzed: 10/31/23

Gasoline Range Organics (C6-C10)	42.6	20.0	50.0	ND	85.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.30		8.00		91.3	70-130			

Matrix Spike Dup (2344026-MSD2) Source: E310296-03 Prepared: 10/31/23 Analyzed: 10/31/23

Gasoline Range Organics (C6-C10)	45.3	20.0	50.0	ND	90.5	70-130	6.06	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.37		8.00		92.1	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

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

Blank (2344044-BLK1)					Prepared: 11/01/23 Analyzed: 11/01/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.3		50.0		94.5	50-200			

LCS (2344044-BS1)					Prepared: 11/01/23 Analyzed: 11/01/23				
Diesel Range Organics (C10-C28)	227	25.0	250		90.6	38-132			
Surrogate: n-Nonane	49.5		50.0		98.9	50-200			

Matrix Spike (2344044-MS1)					Source: E310296-01		Prepared: 11/01/23 Analyzed: 11/01/23		
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.7	38-132			
Surrogate: n-Nonane	46.1		50.0		92.3	50-200			

Matrix Spike Dup (2344044-MSD1)					Source: E310296-01		Prepared: 11/01/23 Analyzed: 11/01/23		
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132	0.813	20	
Surrogate: n-Nonane	48.0		50.0		96.0	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

Anions by EPA 300.0/9056A

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 (2344079-BLK1)					Prepared: 11/02/23 Analyzed: 11/03/23				
Chloride	ND	20.0							
LCS (2344079-BS1)					Prepared: 11/02/23 Analyzed: 11/03/23				
Chloride	249	20.0	250		99.6	90-110			
Matrix Spike (2344079-MS1)					Source: E310296-02		Prepared: 11/02/23 Analyzed: 11/03/23		
Chloride	289	20.0	250	37.9	101	80-120			
Matrix Spike Dup (2344079-MSD1)					Source: E310296-02		Prepared: 11/02/23 Analyzed: 11/03/23		
Chloride	284	20.0	250	37.9	98.5	80-120	1.73	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

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/03/23 16:40

- 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

Project Information

Client: WPX Energy Permian, LLC					Bill To		Lab Use Only				TAT				EPA Program																		
Project: ROSS DRAW UNIT #011					Attention: Jim Raley		Lab WOH		Job Number		1D	2D	3D	Standard	CWA	SDWA																	
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.		E310296		01057-0007					5 day TAT																			
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220		Analysis and Method										RCRA																
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502																												
Phone: 832-541-7719					Email: jim.raley@dvn.com																												
Email: Devon-team@etechemv.com					WBS/WO: MM-155117.AL.RNM																												
Collected by: Edyte Konan					Incident ID: mnmmp1412241998, nAB1712951428, nAB1728533778, nAB17285351205, nAPP2200728753																												
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth (ft.)	TPH GAO/RO/DO by 8075	RTX by 8021	DOC by 8060	Metals 6020	Chloride 3000	NH 3000B	TA 3000G	Remarks																			
13:40	10.27.23	S	1	FS39	11	4'						X																					
13:50	10.27.23	S	1	FS40	12	4'						X																					
10/27/23																																	

Additional Instructions:

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 for: GM

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

Relinquished by: (Signature) <i>[Signature]</i>	Date 10/27/23	Time 15:00	Received by: (Signature) Michelle Gonzales	Date 10-27-23	Time 1500
Relinquished by: (Signature) Michelle Gonzales	Date 10-27-23	Time 1615	Received by: (Signature) Cathy Man	Date 10-30-23	Time 8:30
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only		
Received on ice:	(Y) N	
T1	T2	T3
AVG Temp °C 4		

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

Note: Samples are discarded 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 Analytical Laboratory

Printed: 10/30/2023 12:47:19PM

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:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310296
Phone:	(539) 573-4018	Date Logged In:	10/30/23 11:25	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 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:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: ROSS DRAW UNIT #011

Work Order: E310308

Job Number: 01058-0007

Received: 11/1/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

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: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: ROSS DRAW UNIT #011
Workorder: E310308
Date Received: 11/1/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

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

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Laboratory Administrator
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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:15

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS41 4'	E310308-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
FS42 4'	E310308-02A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
FS43 4'	E310308-03A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
FS44 4'	E310308-04A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/7/2023 3:15:42PM

FS41 4'

E310308-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		104 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		99.9 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		104 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		99.9 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		108 %	50-200	11/03/23	11/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344118
Chloride	3260	400	20	11/04/23	11/06/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/7/2023 3:15:42PM

FS42 4'

E310308-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		106 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		99.8 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		101 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		106 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		99.8 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		101 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		113 %	50-200	11/03/23	11/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344118
Chloride	2660	400	20	11/04/23	11/06/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/7/2023 3:15:42PM

FS43 4'

E310308-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		105 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		101 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		105 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		101 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		112 %	50-200	11/03/23	11/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344118
Chloride	1610	400	20	11/04/23	11/06/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/7/2023 3:15:42PM

FS44 4'

E310308-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		105 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		100 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		101 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		105 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		100 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		101 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		106 %	50-200	11/03/23	11/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344118
Chloride	1630	400	20	11/04/23	11/06/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

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 (2344042-BLK1) Prepared: 11/01/23 Analyzed: 11/02/23

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	0.523		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.508		0.500		102	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			

LCS (2344042-BS1) Prepared: 11/01/23 Analyzed: 11/02/23

Benzene	2.43	0.0250	2.50		97.4	70-130			
Ethylbenzene	2.42	0.0250	2.50		96.8	70-130			
Toluene	2.35	0.0250	2.50		94.0	70-130			
o-Xylene	2.38	0.0250	2.50		95.4	70-130			
p,m-Xylene	4.68	0.0500	5.00		93.7	70-130			
Total Xylenes	7.07	0.0250	7.50		94.2	70-130			
Surrogate: Bromofluorobenzene	0.509		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.495		0.500		98.9	70-130			

Matrix Spike (2344042-MS1) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23

Benzene	2.40	0.0250	2.50	ND	96.1	48-131			
Ethylbenzene	2.39	0.0250	2.50	ND	95.7	45-135			
Toluene	2.31	0.0250	2.50	ND	92.3	48-130			
o-Xylene	2.36	0.0250	2.50	ND	94.3	43-135			
p,m-Xylene	4.60	0.0500	5.00	ND	91.9	43-135			
Total Xylenes	6.95	0.0250	7.50	ND	92.7	43-135			
Surrogate: Bromofluorobenzene	0.513		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.512		0.500		102	70-130			
Surrogate: Toluene-d8	0.491		0.500		98.2	70-130			

Matrix Spike Dup (2344042-MSD1) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23

Benzene	2.42	0.0250	2.50	ND	96.7	48-131	0.685	23	
Ethylbenzene	2.41	0.0250	2.50	ND	96.4	45-135	0.771	27	
Toluene	2.33	0.0250	2.50	ND	93.1	48-130	0.885	24	
o-Xylene	2.38	0.0250	2.50	ND	95.4	43-135	1.18	27	
p,m-Xylene	4.68	0.0500	5.00	ND	93.5	43-135	1.76	27	
Total Xylenes	7.06	0.0250	7.50	ND	94.2	43-135	1.56	27	
Surrogate: Bromofluorobenzene	0.513		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.510		0.500		102	70-130			
Surrogate: Toluene-d8	0.491		0.500		98.2	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

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 (2344042-BLK1) Prepared: 11/01/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.523		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.508		0.500		102	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			

LCS (2344042-BS2) Prepared: 11/01/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	53.7	20.0	50.0		107	70-130			
Surrogate: Bromofluorobenzene	0.521		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.503		0.500		101	70-130			

Matrix Spike (2344042-MS2) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	51.9	20.0	50.0	ND	104	70-130			
Surrogate: Bromofluorobenzene	0.524		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.511		0.500		102	70-130			
Surrogate: Toluene-d8	0.574		0.500		115	70-130			

Matrix Spike Dup (2344042-MSD2) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	53.6	20.0	50.0	ND	107	70-130	3.21	20	
Surrogate: Bromofluorobenzene	0.529		0.500		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.500		0.500		99.9	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2344083-BLK1)					Prepared: 11/03/23 Analyzed: 11/03/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	53.0		50.0		106	50-200			

LCS (2344083-BS1)					Prepared: 11/03/23 Analyzed: 11/03/23				
Diesel Range Organics (C10-C28)	247	25.0	250		99.0	38-132			
Surrogate: n-Nonane	53.7		50.0		107	50-200			

Matrix Spike (2344083-MS1)					Source: E310308-04		Prepared: 11/03/23 Analyzed: 11/03/23		
Diesel Range Organics (C10-C28)	255	25.0	250	ND	102	38-132			
Surrogate: n-Nonane	55.4		50.0		111	50-200			

Matrix Spike Dup (2344083-MSD1)					Source: E310308-04		Prepared: 11/03/23 Analyzed: 11/03/23		
Diesel Range Organics (C10-C28)	257	25.0	250	ND	103	38-132	0.736	20	
Surrogate: n-Nonane	54.7		50.0		109	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

Anions by EPA 300.0/9056A

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 (2344118-BLK1)					Prepared: 11/04/23 Analyzed: 11/06/23				
Chloride	ND	20.0							
LCS (2344118-BS1)					Prepared: 11/04/23 Analyzed: 11/06/23				
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2344118-MS1)					Source: E310306-26		Prepared: 11/04/23 Analyzed: 11/06/23		
Chloride	363	200	250	593	NR	80-120			M2
Matrix Spike Dup (2344118-MSD1)					Source: E310306-26		Prepared: 11/04/23 Analyzed: 11/06/23		
Chloride	761	200	250	593	67.2	80-120	70.7	20	M2, R3

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

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:15

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- R3 The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
- 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.



01058-0007

Client: WPX Energy Permian, LLC.					Bill To		Lab Use Only		TAT			EPA Program		
Project: ROSS DRAW UNIT #011					Attention: Jim Raley		Lab WO#		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.		E310308					5 day TAT		
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220		Analysis and Method							RCRA
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502									
Phone: 832-541-7719					Email: jim.raley@dnv.com									
Email: Devon-team@etechnv.com					WBS/WO: MM-155117.AL.RNM									
Collected by: Edyte Konan					Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755									
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth (ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
10:00	10.30.23	S	1	FS41	1	4'						X		
10:10	10.30.23	S	1	FS42	2	4'						X		
10:20	10.30.23	S	1	FS43	3	4'						X		
10:30	10.30.23	S	1	FS44	4	4'						X		
10/31/2023														
Additional Instructions:														
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						
[Signature]		10/31/2023		Michelle Clayke		10/31/23	1045	Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N						
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3						
Michelle Clayke		10-31-23	1545	John m550		10-31-23	1730							
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C						
John m550		10-31-23	2400	Lacey Pocher		11/1/23	8:30	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 Analytical Laboratory

Printed: 11/1/2023 3:57:30PM

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:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:30	Work Order ID:	E310308
Phone:	(539) 573-4018	Date Logged In:	10/31/23 15:02	Logged In By:	Lacey Rodgers
Email:	devon-team@ensolum.com	Due Date:	11/07/23 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:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: ROSS DRAW UNIT #011

Work Order: E310073

Job Number: 01058-0007

Received: 10/12/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
1/3/24

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: 1/3/24

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: ROSS DRAW UNIT #011
Workorder: E310073
Date Received: 10/12/2023 8:25:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/12/2023 8:25:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

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

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	01/03/24 11:06

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW01 0-2'	E310073-01A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW02 0-2'	E310073-02A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW03 0-2'	E310073-03A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW04 0-4'	E310073-04A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW05 0-4'	E310073-05A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW06 0-4'	E310073-06A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW07 0-2'	E310073-07A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW08 0-4'	E310073-08A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW09 0-4'	E310073-09A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW10 0-4'	E310073-10A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 1/3/2024 11:06:06AM
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SW01 0-2'

E310073-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	95.7 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.3 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane	76.5 %	50-200		10/12/23	10/13/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2341076
Chloride	ND	20.0	1	10/12/23	10/13/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 1/3/2024 11:06:06AM
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SW02 0-2'
E310073-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	96.0 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.8 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341066	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane	69.8 %	50-200		10/12/23	10/13/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2341076	
Chloride	ND	20.0	1	10/12/23	10/13/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 1/3/2024 11:06:06AM
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SW03 0-2'
E310073-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	95.6 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.5 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341066	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane	74.2 %	50-200		10/12/23	10/13/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2341076	
Chloride	ND	20.0	1	10/12/23	10/13/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 1/3/2024 11:06:06AM
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SW04 0-4'
E310073-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	96.5 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.9 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341066	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane	69.5 %	50-200		10/12/23	10/13/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2341076	
Chloride	20.1	20.0	1	10/12/23	10/13/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 1/3/2024 11:06:06AM
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SW05 0-4'
E310073-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	97.3 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.4 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341066	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane	79.1 %	50-200		10/12/23	10/13/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2341076	
Chloride	23.6	20.0	1	10/12/23	10/13/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 1/3/2024 11:06:06AM
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SW06 0-4'
E310073-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	96.5 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.4 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341066	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane	75.9 %	50-200		10/12/23	10/13/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2341076	
Chloride	20.5	20.0	1	10/12/23	10/13/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 1/3/2024 11:06:06AM
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SW07 0-2'
E310073-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	96.8 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.1 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341066	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane	75.9 %	50-200		10/12/23	10/13/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2341076	
Chloride	22.7	20.0	1	10/12/23	10/13/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 1/3/2024 11:06:06AM
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SW08 0-4'
E310073-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	96.9 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.3 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341066	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane	77.9 %	50-200		10/12/23	10/13/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2341076	
Chloride	28.3	20.0	1	10/12/23	10/13/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 1/3/2024 11:06:06AM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

SW09 0-4'
E310073-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.8 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.8 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2341066	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
<i>Surrogate: n-Nonane</i>						
	79.3 %	50-200		10/12/23	10/13/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2341076	
Chloride	30.0	20.0	1	10/12/23	10/13/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 1/3/2024 11:06:06AM
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SW10 0-4'
E310073-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID	96.7 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2341068	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.5 %	70-130		10/12/23	10/12/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2341066	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane	76.3 %	50-200		10/12/23	10/13/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2341076	
Chloride	29.7	20.0	1	10/12/23	10/13/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

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 (2341068-BLK1) Prepared: 10/12/23 Analyzed: 10/12/23

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	7.61		8.00		95.1	70-130			

LCS (2341068-BS1) Prepared: 10/12/23 Analyzed: 10/12/23

Benzene	4.67	0.0250	5.00		93.4	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.66	0.0250	5.00		93.2	70-130			
o-Xylene	4.65	0.0250	5.00		93.0	70-130			
p,m-Xylene	9.43	0.0500	10.0		94.3	70-130			
Total Xylenes	14.1	0.0250	15.0		93.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.58		8.00		94.7	70-130			

Matrix Spike (2341068-MS1) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23

Benzene	4.42	0.0250	5.00	ND	88.4	54-133			
Ethylbenzene	4.37	0.0250	5.00	ND	87.4	61-133			
Toluene	4.43	0.0250	5.00	ND	88.6	61-130			
o-Xylene	4.41	0.0250	5.00	ND	88.3	63-131			
p,m-Xylene	8.94	0.0500	10.0	ND	89.4	63-131			
Total Xylenes	13.4	0.0250	15.0	ND	89.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.57		8.00		94.6	70-130			

Matrix Spike Dup (2341068-MSD1) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23

Benzene	4.46	0.0250	5.00	ND	89.1	54-133	0.784	20	
Ethylbenzene	4.41	0.0250	5.00	ND	88.3	61-133	0.970	20	
Toluene	4.46	0.0250	5.00	ND	89.2	61-130	0.636	20	
o-Xylene	4.46	0.0250	5.00	ND	89.2	63-131	1.09	20	
p,m-Xylene	9.03	0.0500	10.0	ND	90.3	63-131	0.933	20	
Total Xylenes	13.5	0.0250	15.0	ND	89.9	63-131	0.983	20	
Surrogate: 4-Bromochlorobenzene-PID	7.64		8.00		95.6	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

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 (2341068-BLK1) Prepared: 10/12/23 Analyzed: 10/12/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.42		8.00		92.7	70-130			

LCS (2341068-BS2) Prepared: 10/12/23 Analyzed: 10/12/23

Gasoline Range Organics (C6-C10)	43.7	20.0	50.0		87.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.58		8.00		94.7	70-130			

Matrix Spike (2341068-MS2) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23

Gasoline Range Organics (C6-C10)	45.1	20.0	50.0	ND	90.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.40		8.00		92.5	70-130			

Matrix Spike Dup (2341068-MSD2) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23

Gasoline Range Organics (C6-C10)	44.5	20.0	50.0	ND	88.9	70-130	1.49	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.38		8.00		92.2	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

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 (2341066-BLK1)					Prepared: 10/12/23 Analyzed: 10/12/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	42.0		50.0		84.0	50-200			

LCS (2341066-BS1)					Prepared: 10/12/23 Analyzed: 10/12/23				
Diesel Range Organics (C10-C28)	209	25.0	250		83.5	38-132			
Surrogate: n-Nonane	40.2		50.0		80.4	50-200			

Matrix Spike (2341066-MS1)					Source: E310070-04		Prepared: 10/12/23 Analyzed: 10/12/23		
Diesel Range Organics (C10-C28)	211	25.0	250	ND	84.4	38-132			
Surrogate: n-Nonane	37.7		50.0		75.5	50-200			

Matrix Spike Dup (2341066-MSD1)					Source: E310070-04		Prepared: 10/12/23 Analyzed: 10/12/23		
Diesel Range Organics (C10-C28)	206	25.0	250	ND	82.3	38-132	2.54	20	
Surrogate: n-Nonane	36.3		50.0		72.5	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

Anions by EPA 300.0/9056A

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 (2341076-BLK1)					Prepared: 10/12/23 Analyzed: 10/12/23				
Chloride	ND	20.0							
LCS (2341076-BS1)					Prepared: 10/12/23 Analyzed: 10/12/23				
Chloride	246	20.0	250		98.4	90-110			
Matrix Spike (2341076-MS1)					Source: E310065-21		Prepared: 10/12/23 Analyzed: 10/12/23		
Chloride	249	20.0	250	ND	99.4	80-120			
Matrix Spike Dup (2341076-MSD1)					Source: E310065-21		Prepared: 10/12/23 Analyzed: 10/12/23		
Chloride	252	20.0	250	ND	101	80-120	1.37	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

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	01/03/24 11:06

- 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.



Project Information

Chain of Custody

Page 1 of 1

Client: WPX Energy Permian, LLC.					Bill To		Lab Use Only				TAT				EPA Program							
Project: Brushy Gathering Facility					Attention: Jim Raley		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA						
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.		E310073		01058-0007					5 day TAT								
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220		Analysis and Method										RCRA					
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502												State					
Phone: 832-541-7719					Email: jim.raley@dmv.com												NM		CO	UT	AZ	TX
Email: Devon-team@etechnv.com					WO: 21153712																	
Collected by: Edyte Konan					Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755		Depth (ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	XL GDOC	Remarks							
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number																	
10:00	10.6.23	S	1	SW01	1	0-2'						X										
10:10	10.6.23	S	1	SW02	2	0-2'						X										
10:20	10.6.23	S	1	SW03	3	0-2'						X										
10:30	10.6.23	S	1	SW04	4	0-4'						X										
10:40	10.6.23	S	1	SW05	5	0-4'						X										
10:50	10.6.23	S	1	SW06	6	0-4'						X										
11:00	10.6.23	S	1	SW07	7	0-2'						X										
11:10	10.6.23	S	1	SW08	8	0-4'						X										
11:20	10.6.23	S	1	SW09	9	0-4'						X										
11:30	10.6.23	S	1	SW10	10	0-4'						X										
Additional Instructions:																						
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) <i>[Signature]</i> Date: 10/10/23 Time: 12:20										Received by: (Signature) <i>[Signature]</i> Date: 10/10/23 Time: 12:20												
Relinquished by: (Signature) <i>[Signature]</i> Date: 10/11/23 Time: 17:00										Received by: (Signature) <i>[Signature]</i> Date: 10/11/23 Time: 17:30												
Relinquished by: (Signature) <i>[Signature]</i> Date: 10/11/23 Time: 23:30										Received by: (Signature) <i>[Signature]</i> Date: 10/12/23 Time: 8:25												
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.																						


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Project Information

Chain of Custody

Page 1 of 1

Bross Draw unit #011

Client: WPX Energy Permian, LLC.					Bill To		Lab Use Only					TAT				EPA Program										
Project: Brushy Gathering Facility					Attention: Jim Raley		Lab WO#		Job Number			1D	2D	3D	Standard	CWA	SDWA									
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.		E310073		61058-0007			5 day TAT														
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220		Analysis and Method										RCRA									
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502												State									
Phone: 832-541-7719					Email: jim.raley@dvn.com												NM		CO		UT		AZ		TX	
Email: Devon-team@etechnv.com					WO: 21153712																					
Collected by: Edyte Konan					Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755																					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	XL GDOC TX	Remarks												
10:00	10.6.23	S	1	SW01	1	0-2'						X		Corrected project name to match project name on sample containers.												
10:10	10.6.23	S	1	SW02	2	0-2'						X		10.12.23 cm												
10:20	10.6.23	S	1	SW03	3	0-2'						X														
10:30	10.6.23	S	1	SW04	4	0-4'						X														
10:40	10.6.23	S	1	SW05	5	0-4'						X														
10:50	10.6.23	S	1	SW06	6	0-4'						X														
11:00	10.6.23	S	1	SW07	7	0-2'						X														
11:10	10.6.23	S	1	SW08	8	0-4'						X														
11:20	10.6.23	S	1	SW09	9	0-4'						X														
11:30	10.6.23	S	1	SW10	10	0-4'						X														
Additional Instructions:																										
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.											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																		
[Signature]		10/10/23	12:20	Michelle Cough		10/10/23	12:20	Received on ice: Y/N																		
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3																		
Michelle Cough		10/11/23	17:00	Andrew M/450		10/11/23	17:30																			
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C																		
Andrew M/450		10/11/23	23:30	Cathy Man		10/12/23	8:25	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.																										



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Envirotech Analytical Laboratory

Printed: 10/12/2023 12:15:29PM

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:	WPX Energy - Carlsbad	Date Received:	10/12/23 08:25	Work Order ID:	E310073
Phone:	(539) 573-4018	Date Logged In:	10/11/23 15:30	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/17/23 17:00 (3 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

Project name on sample containers did not match the project name on COC. Client asked to change the project name on the COC.

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:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: ROSS DRAW UNIT #011

Work Order: E310125

Job Number: 01058-0007

Received: 10/19/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/23/23

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: 10/23/23



Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310125
Date Received: 10/19/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/19/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
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Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/23 11:48

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW11 0-4'	E310125-01A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
SW12 0-4'	E310125-02A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
SW13 0-4'	E310125-03A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
SW14 0-4'	E310125-04A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 10/23/2023 11:48:27AM
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SW11 0-4'

E310125-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342062
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID	95.1 %	70-130		10/19/23	10/19/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342062
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.6 %	70-130		10/19/23	10/19/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2342064
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane	88.7 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2342075
Chloride	ND	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 10/23/2023 11:48:27AM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

SW12 0-4'
E310125-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342062	
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.0 %	70-130		10/19/23	10/19/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2342062	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.6 %	70-130		10/19/23	10/19/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2342064	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	88.1 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2342075	
Chloride	86.2	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 10/23/2023 11:48:27AM
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SW13 0-4'
E310125-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2342062	
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID	94.9 %	70-130		10/19/23	10/19/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2342062	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	87.8 %	70-130		10/19/23	10/19/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2342064	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane	86.5 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2342075	
Chloride	104	20.0	1	10/19/23	10/19/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
10/23/2023 11:48:27AM

SW14 0-4'

E310125-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342062
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.3 %	70-130		10/19/23	10/19/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2342062
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.7 %	70-130		10/19/23	10/19/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2342064
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
<i>Surrogate: n-Nonane</i>						
	85.7 %	50-200		10/19/23	10/20/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2342075
Chloride	90.3	20.0	1	10/19/23	10/19/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

Volatile Organics by EPA 8021B

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 (2342062-BLK1) Prepared: 10/19/23 Analyzed: 10/19/23

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	7.52		8.00		94.0	70-130			

LCS (2342062-BS1) Prepared: 10/19/23 Analyzed: 10/19/23

Benzene	4.45	0.0250	5.00		89.1	70-130			
Ethylbenzene	4.54	0.0250	5.00		90.7	70-130			
Toluene	4.54	0.0250	5.00		90.8	70-130			
o-Xylene	4.58	0.0250	5.00		91.5	70-130			
p,m-Xylene	9.28	0.0500	10.0		92.8	70-130			
Total Xylenes	13.9	0.0250	15.0		92.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.51		8.00		93.9	70-130			

Matrix Spike (2342062-MS1) Source: E310122-02 Prepared: 10/19/23 Analyzed: 10/19/23

Benzene	4.74	0.0250	5.00	ND	94.8	54-133			
Ethylbenzene	4.84	0.0250	5.00	ND	96.7	61-133			
Toluene	4.84	0.0250	5.00	ND	96.9	61-130			
o-Xylene	4.86	0.0250	5.00	ND	97.3	63-131			
p,m-Xylene	9.86	0.0500	10.0	ND	98.6	63-131			
Total Xylenes	14.7	0.0250	15.0	ND	98.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.50		8.00		93.8	70-130			

Matrix Spike Dup (2342062-MSD1) Source: E310122-02 Prepared: 10/19/23 Analyzed: 10/19/23

Benzene	4.66	0.0250	5.00	ND	93.2	54-133	1.71	20	
Ethylbenzene	4.76	0.0250	5.00	ND	95.2	61-133	1.59	20	
Toluene	4.76	0.0250	5.00	ND	95.1	61-130	1.83	20	
o-Xylene	4.77	0.0250	5.00	ND	95.4	63-131	1.95	20	
p,m-Xylene	9.70	0.0500	10.0	ND	97.0	63-131	1.65	20	
Total Xylenes	14.5	0.0250	15.0	ND	96.5	63-131	1.75	20	
Surrogate: 4-Bromochlorobenzene-PID	7.45		8.00		93.2	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

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 (2342062-BLK1) Prepared: 10/19/23 Analyzed: 10/19/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.16		8.00		89.4	70-130			

LCS (2342062-BS2) Prepared: 10/19/23 Analyzed: 10/19/23

Gasoline Range Organics (C6-C10)	46.0	20.0	50.0		92.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.38		8.00		92.2	70-130			

Matrix Spike (2342062-MS2) Source: E310122-02 Prepared: 10/19/23 Analyzed: 10/19/23

Gasoline Range Organics (C6-C10)	50.2	20.0	50.0	ND	100	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.41		8.00		92.6	70-130			

Matrix Spike Dup (2342062-MSD2) Source: E310122-02 Prepared: 10/19/23 Analyzed: 10/19/23

Gasoline Range Organics (C6-C10)	46.0	20.0	50.0	ND	92.0	70-130	8.72	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.40		8.00		92.5	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

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 (2342064-BLK1) Prepared: 10/19/23 Analyzed: 10/19/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.9		50.0		91.7	50-200			

LCS (2342064-BS1) Prepared: 10/19/23 Analyzed: 10/19/23

Diesel Range Organics (C10-C28)	250	25.0	250		100	38-132			
Surrogate: n-Nonane	46.5		50.0		93.0	50-200			

Matrix Spike (2342064-MS1) Source: E310122-04 Prepared: 10/19/23 Analyzed: 10/19/23

Diesel Range Organics (C10-C28)	260	25.0	250	ND	104	38-132			
Surrogate: n-Nonane	50.4		50.0		101	50-200			

Matrix Spike Dup (2342064-MSD1) Source: E310122-04 Prepared: 10/19/23 Analyzed: 10/19/23

Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132	2.44	20	
Surrogate: n-Nonane	49.3		50.0		98.6	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

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 (2342075-BLK1)					Prepared: 10/19/23 Analyzed: 10/19/23				
Chloride	ND	20.0							
LCS (2342075-BS1)					Prepared: 10/19/23 Analyzed: 10/19/23				
Chloride	256	20.0	250		103	90-110			
Matrix Spike (2342075-MS1)					Source: E310123-05		Prepared: 10/19/23 Analyzed: 10/19/23		
Chloride	1930	20.0	250	1770	64.8	80-120			M4
Matrix Spike Dup (2342075-MSD1)					Source: E310123-05		Prepared: 10/19/23 Analyzed: 10/19/23		
Chloride	1900	20.0	250	1770	52.3	80-120	1.64	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

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/23 11:48

- 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.



Project Information

Chain of Custody

Page 1 of 1

Client: WPX Energy Permian, LLC.					Bill To		Lab Use Only					TAT				EPA Program				
Project: ROSS DRAW UNIT #011					Attention: Jim Raley		Lab WO#		Job Number			1D	2D	3D	Standard	CWA	SDWA			
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.		E310125		01058-0007						5 day TAT					
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220		Analysis and Method											RCRA		
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502		Depth (ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC	TX	GDOC	State				
Phone: 832-541-7719					Email: jim.raley@dvn.com											NM	CO	UT	AZ	TX
Email: Devon-team@etechnv.com					WO: 21153712															
Collected by: Edyte Konan					Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755															
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number													Remarks		
12:40	10.16.23	S	1	SW11	1	0-4'								X						
12:50	10.16.23	S	1	SW12	2	0-4'								X						
13:00	10.16.23	S	1	SW13	3	0-4'								X						
13:10	10.16.23	S	1	SW14	4	0-4'								X						
10/18/23																				
Additional Instructions:																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM																				
Relinquished by: (Signature)						Received by: (Signature)						Lab Use Only								
Date: 10/18/23 Time: 12:10						Date: 10/18/23 Time: 12:10						Received on ice: Y/ N								
Relinquished by: (Signature)						Received by: (Signature)						T1 T2 T3								
Date: 10-18-23 Time: 17:45						Date: 10-18-23 Time: 18:00														
Relinquished by: (Signature)						Received by: (Signature)						AVG Temp °C 4								
Date: 10-18-23 Time: 24:00						Date: 10-19-23 Time: 8:15														
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other						Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA														
Note: Samples are discarded 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: 10/19/2023 12:05:17PM

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:	WPX Energy - Carlsbad	Date Received:	10/19/23 08:15	Work Order ID:	E310125
Phone:	(539) 573-4018	Date Logged In:	10/18/23 16:48	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/25/23 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:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: ROSS DRAW UNIT #011

Work Order: E310293

Job Number: 01058-0007

Received: 10/30/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/6/23

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: 11/6/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: ROSS DRAW UNIT #011
Workorder: E310293
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

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

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:43

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW15 0-4'	E310293-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
SW16 0-4'	E310293-02A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/6/2023 10:43:03AM

SW15 0-4'

E310293-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		117 %	70-130	10/31/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		94.3 %	70-130	10/31/23	11/02/23	
Surrogate: Toluene-d8		109 %	70-130	10/31/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		117 %	70-130	10/31/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		94.3 %	70-130	10/31/23	11/02/23	
Surrogate: Toluene-d8		109 %	70-130	10/31/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2344070
Diesel Range Organics (C10-C28)	ND	25.0	1	11/02/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/02/23	11/02/23	
Surrogate: n-Nonane		85.7 %	50-200	11/02/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344059
Chloride	39.3	20.0	1	11/02/23	11/02/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/6/2023 10:43:03AM

SW16 0-4'

E310293-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		117 %	70-130	10/31/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		93.4 %	70-130	10/31/23	11/02/23	
Surrogate: Toluene-d8		108 %	70-130	10/31/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		117 %	70-130	10/31/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		93.4 %	70-130	10/31/23	11/02/23	
Surrogate: Toluene-d8		108 %	70-130	10/31/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2344070
Diesel Range Organics (C10-C28)	ND	25.0	1	11/02/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/02/23	11/02/23	
Surrogate: n-Nonane		90.5 %	50-200	11/02/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344059
Chloride	ND	20.0	1	11/02/23	11/02/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

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 (2344030-BLK1) Prepared: 10/31/23 Analyzed: 11/02/23

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	0.580		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.2	70-130			
Surrogate: Toluene-d8	0.547		0.500		109	70-130			

LCS (2344030-BS1) Prepared: 10/31/23 Analyzed: 11/02/23

Benzene	2.70	0.0250	2.50		108	70-130			
Ethylbenzene	2.64	0.0250	2.50		106	70-130			
Toluene	2.61	0.0250	2.50		105	70-130			
o-Xylene	2.58	0.0250	2.50		103	70-130			
p,m-Xylene	5.20	0.0500	5.00		104	70-130			
Total Xylenes	7.77	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	0.573		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.1	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			

Matrix Spike (2344030-MS1) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23

Benzene	2.77	0.0250	2.50	ND	111	48-131			
Ethylbenzene	2.75	0.0250	2.50	ND	110	45-135			
Toluene	2.69	0.0250	2.50	ND	108	48-130			
o-Xylene	2.68	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.36	0.0500	5.00	ND	107	43-135			
Total Xylenes	8.04	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	0.595		0.500		119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.8	70-130			
Surrogate: Toluene-d8	0.557		0.500		111	70-130			

Matrix Spike Dup (2344030-MSD1) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23

Benzene	2.68	0.0250	2.50	ND	107	48-131	3.04	23	
Ethylbenzene	2.68	0.0250	2.50	ND	107	45-135	2.56	27	
Toluene	2.64	0.0250	2.50	ND	106	48-130	1.74	24	
o-Xylene	2.61	0.0250	2.50	ND	104	43-135	2.59	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	2.51	27	
Total Xylenes	7.84	0.0250	7.50	ND	105	43-135	2.54	27	
Surrogate: Bromofluorobenzene	0.589		0.500		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.1	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

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 (2344030-BLK1)

Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.580		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.2	70-130			
Surrogate: Toluene-d8	0.547		0.500		109	70-130			

LCS (2344030-BS2)

Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	57.2	20.0	50.0		114	70-130			
Surrogate: Bromofluorobenzene	0.587		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.470		0.500		94.0	70-130			
Surrogate: Toluene-d8	0.554		0.500		111	70-130			

Matrix Spike (2344030-MS2)

Source: E310292-01

Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	55.2	20.0	50.0	ND	110	70-130			
Surrogate: Bromofluorobenzene	0.587		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.557		0.500		111	70-130			

Matrix Spike Dup (2344030-MSD2)

Source: E310292-01

Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	57.1	20.0	50.0	ND	114	70-130	3.37	20	
Surrogate: Bromofluorobenzene	0.576		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.496		0.500		99.2	70-130			
Surrogate: Toluene-d8	0.556		0.500		111	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

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 (2344070-BLK1) Prepared: 11/02/23 Analyzed: 11/02/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.5		50.0		90.9	50-200			

LCS (2344070-BS1) Prepared: 11/02/23 Analyzed: 11/02/23

Diesel Range Organics (C10-C28)	209	25.0	250		83.6	38-132			
Surrogate: n-Nonane	40.0		50.0		80.0	50-200			

Matrix Spike (2344070-MS1) Source: E310300-08 Prepared: 11/02/23 Analyzed: 11/02/23

Diesel Range Organics (C10-C28)	225	25.0	250	ND	89.9	38-132			
Surrogate: n-Nonane	41.7		50.0		83.4	50-200			

Matrix Spike Dup (2344070-MSD1) Source: E310300-08 Prepared: 11/02/23 Analyzed: 11/02/23

Diesel Range Organics (C10-C28)	219	25.0	250	ND	87.6	38-132	2.55	20	
Surrogate: n-Nonane	41.8		50.0		83.5	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

Anions by EPA 300.0/9056A

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 (2344059-BLK1)					Prepared: 11/02/23 Analyzed: 11/02/23				
Chloride	ND	20.0							
LCS (2344059-BS1)					Prepared: 11/02/23 Analyzed: 11/02/23				
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2344059-MS1)					Source: E311014-04		Prepared: 11/02/23 Analyzed: 11/02/23		
Chloride	272	20.0	250	ND	109	80-120			
Matrix Spike Dup (2344059-MSD1)					Source: E311014-04		Prepared: 11/02/23 Analyzed: 11/02/23		
Chloride	263	20.0	250	ND	105	80-120	3.32	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

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:43

- 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: WPX Energy Permian, LLC.					Bill To					Lab Use Only					TAT				EPA Program										
Project: ROSS DRAW UNIT #011					Attention: Jim Raley					Lab WO#		Job Number			1D	2D	3D	Standard	CWA	SDWA									
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.					E310293		01058-0087						5 day TAT											
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220					Analysis and Method												RCRA							
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502					Deposited by	TPH GRQ/GRQ by	BTEX by	GC by	GC by	Chloride	300.0	NM	DOGB	XL	State									
Phone: 832-541-7719					Email: jim.raley@dvn.com															NM	CO	UT	AZ	TX					
Email: Devon-team@etechnv.com					WBS/WO: MM-155117.ALNNM																								
Collected by: Edyte Kanan					Incident ID: R8H0MP1412241998, RAB1712951425, RAB1728551770, RAB1728551205, RAPP2300728755																								
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Deposited by	TPH GRQ/GRQ by	BTEX by	GC by	GC by	Chloride	300.0	NM	DOGB	XL	Remarks													
1:00	10.27.23	S	1	SW15	1	0-4"								X															
14:10	10.27.23	S	1	SW16	2	0-4"								X															
10/27/23																													
Additional Instructions:																													
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.										Samples requiring thermal preservation must be received on ice the day they are sampled or preserved packed in ice at an avg temp above 0 but less than 5 °C on subsequent days.																			
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Lab Use Only																	
		10/27/23		15:00		Michelle Gonzales		10-27-23		1500		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																	
Michelle Gonzales		10-27-23		1615		C. H. Man		10-27-23		8:30																			
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 Analytical Laboratory

Printed: 10/30/2023 11:00:28AM

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:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310293
Phone:	(539) 573-4018	Date Logged In:	10/30/23 10:57	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 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:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: ROSS DRAW UNIT #011

Work Order: E310292

Job Number: 01058-0007

Received: 10/30/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/6/23

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: 11/6/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: ROSS DRAW UNIT #011
Workorder: E310292
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman
Laboratory Director
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Cell: 775-287-1762
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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW17 0-4'	E310292-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/6/2023 10:41:13AM

SW17 0-4'

E310292-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene	117 %	70-130		10/31/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4	93.6 %	70-130		10/31/23	11/02/23	
Surrogate: Toluene-d8	111 %	70-130		10/31/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene	117 %	70-130		10/31/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4	93.6 %	70-130		10/31/23	11/02/23	
Surrogate: Toluene-d8	111 %	70-130		10/31/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane	87.4 %	50-200		11/01/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344059
Chloride	52.0	20.0	1	11/02/23	11/02/23	



WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

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 (2344030-BLK1)

Prepared: 10/31/23 Analyzed: 11/02/23

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	0.580		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.2	70-130			
Surrogate: Toluene-d8	0.547		0.500		109	70-130			

LCS (2344030-BS1)

Prepared: 10/31/23 Analyzed: 11/02/23

Benzene	2.70	0.0250	2.50		108	70-130			
Ethylbenzene	2.64	0.0250	2.50		106	70-130			
Toluene	2.61	0.0250	2.50		105	70-130			
o-Xylene	2.58	0.0250	2.50		103	70-130			
p,m-Xylene	5.20	0.0500	5.00		104	70-130			
Total Xylenes	7.77	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	0.573		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.1	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			

Matrix Spike (2344030-MS1)

Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23

Benzene	2.77	0.0250	2.50	ND	111	48-131			
Ethylbenzene	2.75	0.0250	2.50	ND	110	45-135			
Toluene	2.69	0.0250	2.50	ND	108	48-130			
o-Xylene	2.68	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.36	0.0500	5.00	ND	107	43-135			
Total Xylenes	8.04	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	0.595		0.500		119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.8	70-130			
Surrogate: Toluene-d8	0.557		0.500		111	70-130			

Matrix Spike Dup (2344030-MSD1)

Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23

Benzene	2.68	0.0250	2.50	ND	107	48-131	3.04	23	
Ethylbenzene	2.68	0.0250	2.50	ND	107	45-135	2.56	27	
Toluene	2.64	0.0250	2.50	ND	106	48-130	1.74	24	
o-Xylene	2.61	0.0250	2.50	ND	104	43-135	2.59	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	2.51	27	
Total Xylenes	7.84	0.0250	7.50	ND	105	43-135	2.54	27	
Surrogate: Bromofluorobenzene	0.589		0.500		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.1	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

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 (2344030-BLK1) Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.580		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.2	70-130			
Surrogate: Toluene-d8	0.547		0.500		109	70-130			

LCS (2344030-BS2) Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	57.2	20.0	50.0		114	70-130			
Surrogate: Bromofluorobenzene	0.587		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.470		0.500		94.0	70-130			
Surrogate: Toluene-d8	0.554		0.500		111	70-130			

Matrix Spike (2344030-MS2) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	55.2	20.0	50.0	ND	110	70-130			
Surrogate: Bromofluorobenzene	0.587		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.557		0.500		111	70-130			

Matrix Spike Dup (2344030-MSD2) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	57.1	20.0	50.0	ND	114	70-130	3.37	20	
Surrogate: Bromofluorobenzene	0.576		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.496		0.500		99.2	70-130			
Surrogate: Toluene-d8	0.556		0.500		111	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

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 (2344044-BLK1)					Prepared: 11/01/23 Analyzed: 11/01/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.3		50.0		94.5	50-200			

LCS (2344044-BS1)					Prepared: 11/01/23 Analyzed: 11/01/23				
Diesel Range Organics (C10-C28)	227	25.0	250		90.6	38-132			
Surrogate: n-Nonane	49.5		50.0		98.9	50-200			

Matrix Spike (2344044-MS1)					Source: E310296-01		Prepared: 11/01/23 Analyzed: 11/01/23		
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.7	38-132			
Surrogate: n-Nonane	46.1		50.0		92.3	50-200			

Matrix Spike Dup (2344044-MSD1)					Source: E310296-01		Prepared: 11/01/23 Analyzed: 11/01/23		
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132	0.813	20	
Surrogate: n-Nonane	48.0		50.0		96.0	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Anions by EPA 300.0/9056A

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 (2344059-BLK1)					Prepared: 11/02/23 Analyzed: 11/02/23				
Chloride	ND	20.0							
LCS (2344059-BS1)					Prepared: 11/02/23 Analyzed: 11/02/23				
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2344059-MS1)					Source: E311014-04		Prepared: 11/02/23 Analyzed: 11/02/23		
Chloride	272	20.0	250	ND	109	80-120			
Matrix Spike Dup (2344059-MSD1)					Source: E311014-04		Prepared: 11/02/23 Analyzed: 11/02/23		
Chloride	263	20.0	250	ND	105	80-120	3.32	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

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 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.



Client: WPX Energy Permian, LLC					Bill To					Lab Use Only					TAT				EPA Program						
Project: ROSS DRAW UNIT #011					Attention: Jim Raley					Lab WO# E310292		Job Number 01058-0007			1D	2D	3D	Standard	CWA	SDWA					
Project Manager: Gilbert Moreno					Address: 5315 Buena Vista Dr.					Analysis and Method										5 day TAT					
Address: 13000 W County Rd 100					City, State, Zip: Carlsbad, NM, 88220					Depth (ft.)										RCRA					
City, State, Zip: Odessa, TX, 79765					Phone: 575-885-7502					TPH GAO/DAO/DAO by										State					
Phone: 832-541-7719					Email: jlm.raley@dm.com					BTX by 8015										NM		CO	UT	AZ	TX
Email: Devon-team@etechnv.com					WBS/WO: MM-155117.AL.RNM					VOA by 8060										GDGC					
Collected by: Edyte Konan					Incident ID: MNHMP1412241998, NAB1712951426, NAB1728553778, NAB1728551205, NAPP2200718755					Metals 6010										MM					
										Chloride 300.0										XL					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth (ft.)	TPH GAO/DAO/DAO by	BTX by 8015	VOA by 8060	Metals 6010	Chloride 300.0	MM	GDGC	XL	Remarks										
4:20	10.27.23	S	1	SW17	/	0-4'							X												
<div>10/23/23</div>																									
Additional Instructions:																									
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: GM																									
Relinquished by (Signature): <i>[Signature]</i> Date: 10/27/23 Time: 15:00 Received by (Signature): Michelle Gonzales Date: 10-27-23 Time: 1500																									
Relinquished by (Signature): Michelle Gonzales Date: 10-27-23 Time: 1615 Received by (Signature): <i>[Signature]</i> Date: 10-30-23 Time: 8:30																									
Relinquished by (Signature): Date: Time: Received by (Signature): Date: Time:																									
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other																									
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																									
Note: Samples are discarded 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.																									

Received by OCD: 6/5/2024 11:43:43 AM
Page 226 of 504

Envirotech Analytical Laboratory

Printed: 10/30/2023 10:52:20AM

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:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310292
Phone:	(539) 573-4018	Date Logged In:	10/30/23 10:46	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 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:

Gilbert Moreno



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name: ROSS DRAW UNIT #011

Work Order: E310309

Job Number: 01058-0007

Received: 11/1/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

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: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: ROSS DRAW UNIT #011
Workorder: E310309
Date Received: 11/1/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman
Laboratory Director
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Cell: 775-287-1762
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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:10

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW18 0-4'	E310309-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
SW19 0-4'	E310309-02A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
SW20 0-4'	E310309-03A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
SW21 0-4	E310309-04A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: ROSS DRAW UNIT #011 Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 11/7/2023 3:10:23PM
--	--	----------------------------------

SW18 0-4'
E310309-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		104 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		100 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		104 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		100 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		103 %	50-200	11/03/23	11/04/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344118
Chloride	27.1	20.0	1	11/04/23	11/06/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/7/2023 3:10:23PM

SW19 0-4'

E310309-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		104 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		99.8 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		104 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		99.8 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		109 %	50-200	11/03/23	11/04/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344118
Chloride	26.8	20.0	1	11/04/23	11/06/23	



Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported: 11/7/2023 3:10:23PM
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	

SW20 0-4'
E310309-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344042	
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		104 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		100 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RKS		Batch: 2344042	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		104 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		100 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2344103	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		94.6 %	50-200	11/03/23	11/04/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: BA		Batch: 2344118	
Chloride	162	20.0	1	11/04/23	11/07/23	



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/7/2023 3:10:23PM

SW21 0-4

E310309-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		103 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		100 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		103 %	70-130	11/01/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	11/01/23	11/02/23	
Surrogate: Toluene-d8		100 %	70-130	11/01/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		90.7 %	50-200	11/03/23	11/04/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344118
Chloride	ND	400	20	11/04/23	11/07/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

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 (2344042-BLK1) Prepared: 11/01/23 Analyzed: 11/02/23

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	0.523		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.508		0.500		102	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			

LCS (2344042-BS1) Prepared: 11/01/23 Analyzed: 11/02/23

Benzene	2.43	0.0250	2.50		97.4	70-130			
Ethylbenzene	2.42	0.0250	2.50		96.8	70-130			
Toluene	2.35	0.0250	2.50		94.0	70-130			
o-Xylene	2.38	0.0250	2.50		95.4	70-130			
p,m-Xylene	4.68	0.0500	5.00		93.7	70-130			
Total Xylenes	7.07	0.0250	7.50		94.2	70-130			
Surrogate: Bromofluorobenzene	0.509		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.495		0.500		98.9	70-130			

Matrix Spike (2344042-MS1) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23

Benzene	2.40	0.0250	2.50	ND	96.1	48-131			
Ethylbenzene	2.39	0.0250	2.50	ND	95.7	45-135			
Toluene	2.31	0.0250	2.50	ND	92.3	48-130			
o-Xylene	2.36	0.0250	2.50	ND	94.3	43-135			
p,m-Xylene	4.60	0.0500	5.00	ND	91.9	43-135			
Total Xylenes	6.95	0.0250	7.50	ND	92.7	43-135			
Surrogate: Bromofluorobenzene	0.513		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.512		0.500		102	70-130			
Surrogate: Toluene-d8	0.491		0.500		98.2	70-130			

Matrix Spike Dup (2344042-MSD1) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23

Benzene	2.42	0.0250	2.50	ND	96.7	48-131	0.685	23	
Ethylbenzene	2.41	0.0250	2.50	ND	96.4	45-135	0.771	27	
Toluene	2.33	0.0250	2.50	ND	93.1	48-130	0.885	24	
o-Xylene	2.38	0.0250	2.50	ND	95.4	43-135	1.18	27	
p,m-Xylene	4.68	0.0500	5.00	ND	93.5	43-135	1.76	27	
Total Xylenes	7.06	0.0250	7.50	ND	94.2	43-135	1.56	27	
Surrogate: Bromofluorobenzene	0.513		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.510		0.500		102	70-130			
Surrogate: Toluene-d8	0.491		0.500		98.2	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

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 (2344042-BLK1) Prepared: 11/01/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.523		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.508		0.500		102	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			

LCS (2344042-BS2) Prepared: 11/01/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	53.7	20.0	50.0		107	70-130			
Surrogate: Bromofluorobenzene	0.521		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.503		0.500		101	70-130			

Matrix Spike (2344042-MS2) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	51.9	20.0	50.0	ND	104	70-130			
Surrogate: Bromofluorobenzene	0.524		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.511		0.500		102	70-130			
Surrogate: Toluene-d8	0.574		0.500		115	70-130			

Matrix Spike Dup (2344042-MSD2) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	53.6	20.0	50.0	ND	107	70-130	3.21	20	
Surrogate: Bromofluorobenzene	0.529		0.500		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.500		0.500		99.9	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

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 (2344103-BLK1)					Prepared: 11/03/23 Analyzed: 11/04/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	49.2		50.0		98.3	50-200			

LCS (2344103-BS1)					Prepared: 11/03/23 Analyzed: 11/04/23				
Diesel Range Organics (C10-C28)	241	25.0	250		96.4	38-132			
Surrogate: n-Nonane	48.1		50.0		96.2	50-200			

Matrix Spike (2344103-MS1)					Source: E311018-07		Prepared: 11/03/23 Analyzed: 11/04/23		
Diesel Range Organics (C10-C28)	275	25.0	250	ND	110	38-132			
Surrogate: n-Nonane	54.6		50.0		109	50-200			

Matrix Spike Dup (2344103-MSD1)					Source: E311018-07		Prepared: 11/03/23 Analyzed: 11/04/23		
Diesel Range Organics (C10-C28)	277	25.0	250	ND	111	38-132	0.421	20	
Surrogate: n-Nonane	53.9		50.0		108	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

Anions by EPA 300.0/9056A

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 (2344118-BLK1)					Prepared: 11/04/23 Analyzed: 11/06/23				
Chloride	ND	20.0							
LCS (2344118-BS1)					Prepared: 11/04/23 Analyzed: 11/06/23				
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2344118-MS1)					Source: E310306-26		Prepared: 11/04/23 Analyzed: 11/06/23		
Chloride	363	200	250	593	NR	80-120			M2
Matrix Spike Dup (2344118-MSD1)					Source: E310306-26		Prepared: 11/04/23 Analyzed: 11/06/23		
Chloride	761	200	250	593	67.2	80-120	70.7	20	M2, R3

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

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:10

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- R3 The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
- 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.



envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 4:00:08PM

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:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:30	Work Order ID:	E310309
Phone:	(539) 573-4018	Date Logged In:	10/31/23 15:20	Logged In By:	Lacey Rodgers
Email:	devon-team@ensolum.com	Due Date:	11/07/23 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.

Date Reported: 11/6/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220



Project Name: ROSS DRAW UNIT #011
Workorder: E310292
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW17 0-4'	E310292-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad
5315 Buena Vista Dr
Carlsbad NM, 88220

Project Name: ROSS DRAW UNIT #011
Project Number: 01058-0007
Project Manager: Gilbert Moreno

Reported:
11/6/2023 10:41:13AM

SW17 0-4'

E310292-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		117 %	70-130	10/31/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		93.6 %	70-130	10/31/23	11/02/23	
Surrogate: Toluene-d8		111 %	70-130	10/31/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		117 %	70-130	10/31/23	11/02/23	
Surrogate: 1,2-Dichloroethane-d4		93.6 %	70-130	10/31/23	11/02/23	
Surrogate: Toluene-d8		111 %	70-130	10/31/23	11/02/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		87.4 %	50-200	11/01/23	11/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2344059
Chloride	52.0	20.0	1	11/02/23	11/02/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

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 (2344030-BLK1) Prepared: 10/31/23 Analyzed: 11/02/23

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	0.580		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.2	70-130			
Surrogate: Toluene-d8	0.547		0.500		109	70-130			

LCS (2344030-BS1) Prepared: 10/31/23 Analyzed: 11/02/23

Benzene	2.70	0.0250	2.50		108	70-130			
Ethylbenzene	2.64	0.0250	2.50		106	70-130			
Toluene	2.61	0.0250	2.50		105	70-130			
o-Xylene	2.58	0.0250	2.50		103	70-130			
p,m-Xylene	5.20	0.0500	5.00		104	70-130			
Total Xylenes	7.77	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	0.573		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.1	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			

Matrix Spike (2344030-MS1) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23

Benzene	2.77	0.0250	2.50	ND	111	48-131			
Ethylbenzene	2.75	0.0250	2.50	ND	110	45-135			
Toluene	2.69	0.0250	2.50	ND	108	48-130			
o-Xylene	2.68	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.36	0.0500	5.00	ND	107	43-135			
Total Xylenes	8.04	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	0.595		0.500		119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.8	70-130			
Surrogate: Toluene-d8	0.557		0.500		111	70-130			

Matrix Spike Dup (2344030-MSD1) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23

Benzene	2.68	0.0250	2.50	ND	107	48-131	3.04	23	
Ethylbenzene	2.68	0.0250	2.50	ND	107	45-135	2.56	27	
Toluene	2.64	0.0250	2.50	ND	106	48-130	1.74	24	
o-Xylene	2.61	0.0250	2.50	ND	104	43-135	2.59	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	2.51	27	
Total Xylenes	7.84	0.0250	7.50	ND	105	43-135	2.54	27	
Surrogate: Bromofluorobenzene	0.589		0.500		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.1	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

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 (2344030-BLK1) Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.580		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.2	70-130			
Surrogate: Toluene-d8	0.547		0.500		109	70-130			

LCS (2344030-BS2) Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	57.2	20.0	50.0		114	70-130			
Surrogate: Bromofluorobenzene	0.587		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.470		0.500		94.0	70-130			
Surrogate: Toluene-d8	0.554		0.500		111	70-130			

Matrix Spike (2344030-MS2) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	55.2	20.0	50.0	ND	110	70-130			
Surrogate: Bromofluorobenzene	0.587		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.557		0.500		111	70-130			

Matrix Spike Dup (2344030-MSD2) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23

Gasoline Range Organics (C6-C10)	57.1	20.0	50.0	ND	114	70-130	3.37	20	
Surrogate: Bromofluorobenzene	0.576		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.496		0.500		99.2	70-130			
Surrogate: Toluene-d8	0.556		0.500		111	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

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 (2344044-BLK1)					Prepared: 11/01/23 Analyzed: 11/01/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.3		50.0		94.5	50-200			

LCS (2344044-BS1)					Prepared: 11/01/23 Analyzed: 11/01/23				
Diesel Range Organics (C10-C28)	227	25.0	250		90.6	38-132			
Surrogate: n-Nonane	49.5		50.0		98.9	50-200			

Matrix Spike (2344044-MS1)					Source: E310296-01		Prepared: 11/01/23 Analyzed: 11/01/23		
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.7	38-132			
Surrogate: n-Nonane	46.1		50.0		92.3	50-200			

Matrix Spike Dup (2344044-MSD1)					Source: E310296-01		Prepared: 11/01/23 Analyzed: 11/01/23		
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132	0.813	20	
Surrogate: n-Nonane	48.0		50.0		96.0	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Anions by EPA 300.0/9056A

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 (2344059-BLK1)					Prepared: 11/02/23 Analyzed: 11/02/23				
Chloride	ND	20.0							
LCS (2344059-BS1)					Prepared: 11/02/23 Analyzed: 11/02/23				
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2344059-MS1)					Source: E311014-04		Prepared: 11/02/23 Analyzed: 11/02/23		
Chloride	272	20.0	250	ND	109	80-120			
Matrix Spike Dup (2344059-MSD1)					Source: E311014-04		Prepared: 11/02/23 Analyzed: 11/02/23		
Chloride	263	20.0	250	ND	105	80-120	3.32	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

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 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.



Envirotech Analytical Laboratory

Printed: 10/30/2023 10:52:20AM

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:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310292
Phone:	(539) 573-4018	Date Logged In:	10/30/23 10:46	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 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.

APPENDIX F

NMOCD Notifications

Erick Herrera

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Monday, October 2, 2023 2:48 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/5 - 10/6)

You don't often get email from scott.rodgers@emnrd.nm.gov. [Learn why this is important](#)

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Scott Rodgers • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
<http://www.emnrd.nm.gov/oed>



From: Erick Herrera <erick@etechenv.com>
Sent: Monday, October 2, 2023 12:40 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.ralej@dmn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/5 - 10/6)

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

Good morning,

WPX anticipates conducting confirmation soil sampling activities at the following site between October 5th through October 6th, 2023:

Proposed Date: October 5, 2023, October 6, 2023.

Proposed Timeframe: 0800 – 1700 hrs.

Site Name: RDU 11

Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998

API: 30-015-24307

Thank you,

Erick Herrera

Erick Herrera

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Wednesday, October 11, 2023 5:15 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/16-10/20)

Hi Erick,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520 |Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 11, 2023 3:33 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.rale@dmv.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/16-10/20)

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

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between October 16th through October 20th, 2023:

Proposed Date: October 16, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 34
Incident Number: nAPP2326833391
API: 30-015-41578

Proposed Date: October 17, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDX Federal 21 #031
Incident Number: nAPP2326847671

API: 30-015-41266

Proposed Date: October 17, 20023, October 18, 2023, October 19, 2023, October 20, 2023

Proposed Timeframe: 0800 – 1700 hrs.

Site Name: RDX 16 #009

Incident Numbers: nAPP2322658221 & nAPP2317840368

API: 30-015-39752

Proposed Date: October 16, 2023, October 17, 2023, October 18, 2023, October 19, 2023, October 20, 2023

Proposed Timeframe: 0800 – 1700 hrs.

Site Name: RDU 11

Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998

API: 30-015-24307

Thank you,

Erick Herrera

Staff Geologist



Work: (432) 305-6416

Cell: (281) 777-4152

Staff Geologist



Work: (432) 305-6416

Cell: (281) 777-4152

Erick Herrera

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Wednesday, October 18, 2023 5:25 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/23-10/27)

Hi Erick,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520 |Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 18, 2023 3:34 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dmv.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/23-10/27)

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

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between October 23rd through October 27th, 2023:

Proposed Date: October 23, 2023, October 24, 2023, October 25, 2023, October 26, 2023, October 27, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Proposed Date: October 23, 2023, October 24, 2023, October 25, 2023, October 26, 2023, October 27, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: Sheep Draw Federal Battery #2
Incident Numbers: NGEG0720040869

API: 30-015-27015

Thank you,

Erick Herrera
Staff Geologist



Work: (432) 305-6416

Cell: (281) 777-4152

Erick Herrera

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Wednesday, October 25, 2023 2:52 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/30-11/3)

You don't often get email from scott.rodgers@emnrd.nm.gov. [Learn why this is important](#)

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Scott Rodgers • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
<http://www.emnrd.nm.gov/oed>



From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 25, 2023 1:18 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dmn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/30-11/3)

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

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following site between October 30th through November 3th, 2023:

Proposed Date: October 30, 2023, October 31, 2023, November 1, 2023, November 2, 2023, November 3, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Thanks,

Erick Herrera

Staff Geologist



Work: (432) 305-6416

Cell: (281) 777-4152

Erick Herrera

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 7, 2023 10:36 AM
To: Raley, Jim
Cc: Devon-Team; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD
Subject: (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

Importance: High

Some people who received this message don't often get email from robert.hamlet@emnrd.nm.gov. [Learn why this is important](#)

RE: Incident # **NAPP2200728755, NAB1632647780, NAB1712951426, NAB1728551205, NAB1728553778, NHMP1412241998**

Jim,

Your request for an extension to **October 20th, 2023** is approved. This will be the **final extension** for this release. 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: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, June 7, 2023 7:08 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] RE: RDU 11 Extension

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

Robert,

BLM required quite an extensive cultural survey on the RDU 11 excavation project. We contracted SWCA to complete this task, they have finished and expect to provide a cultural survey report to BLM by 6/30/2023. BLM will need time to review this report and determine if any additional action is needed or if they will allow excavation with monitoring etc.

So we are not able to move forward with completion of this project until we receive clearance from BLM which I expect will be mid-July. Due to this circumstance, WPX Energy respectfully requests an additional 90 day extension from today's date or timeframe NMOCD deems reasonable.

Erick Herrera

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Tuesday, October 24, 2023 10:24 AM
To: Raley, Jim
Cc: Devon-Team; Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD; Wells, Shelly, EMNRD
Subject: (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

No problem, thank you for the update.

Your request for an extension to **January 18th, 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: Raley, Jim <Jim.Raley@dvn.com>
Sent: Friday, October 20, 2023 8:42 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: RE: [EXTERNAL] (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

Robert,

To summarize the below extension request. Basically we could not start excavation till BLM gave the OK on a cultural site they were considering possibly significant. When they finally did give the OK to proceed, we started immediately on the excavation, but we just don't have time to finish excavation and reporting by the current deadline of October, 20th. We are in the middle of the excavation and plan on delivering closure as soon as completed. Delay on this project was out of our control.

WPX Energy Permian, LLC (WPX) is requesting an extension to the current deadline for a report required in 19.15.29.12.B.(1) NMAC at the Ross Draw Unit #011 (Site) associated with the following Incident Numbers: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755.

An extensive cultural survey was required by the Bureau of Land Management (BLM) for the proposed work areas in pasture soil prior to conducting remediation activities to address the Incident Numbers listed above according to a Remediation Work Plan approved on October 19, 2022. SWCA was contracted to conduct the cultural survey, which began on May 2, 2023, the earliest a field crew was available. The cultural survey was completed over the course of approximately 2.5 weeks, and a subsequent report was submitted to the BLM for review on July 28, 2023. On August 14,

2023, SWCA received report edits from the BLM, which were addressed in accordance with subsequent correspondence with the BLM. The revised report was re-submitted to the BLM for review on September 1, 2023, which was determined to require minor edits prior to approval. SWCA submitted the finalized report on September 8, 2023, and on September 21, 2023, the BLM approved the sundry with monitoring stipulations and remediation activities began on October 2, 2023. Excavation activities are still currently on-going and approximately 50% of the proposed excavation area remains.

To provide enough time to complete remediation activities, soil sampling analyses, and prepare a subsequent report, WPX requests a 90-day extension of the deadline for the multiple Incident Numbers at the Site to **January 18, 2023**.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.rale@devon.com



From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 7, 2023 9:36 AM
To: Raley, Jim <Jim.Raley@devon.com>
Cc: Devon-Team <Devon-Team@etechnv.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: [EXTERNAL] (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011
Importance: High

RE: Incident # **NAPP2200728755, NAB1632647780, NAB1712951426, NAB1728551205, NAB1728553778, NHMP1412241998**

Jim,

Your request for an extension to **October 20th, 2023** is approved. This will be the **final extension** for this release. 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: Raley, Jim <Jim.Raley@devon.com>
Sent: Wednesday, June 7, 2023 7:08 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechnv.com>
Subject: [EXTERNAL] RE: RDU 11 Extension

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

Robert,

BLM required quite an extensive cultural survey on the RDU 11 excavation project. We contracted SWCA to complete this task, they have finished and expect to provide a cultural survey report to BLM by 6/30/2023. BLM will need time to review this report and determine if any additional action is needed or if they will allow excavation with monitoring etc.

So we are not able to move forward with completion of this project until we receive clearance from BLM which I expect will be mid-July. Due to this circumstance, WPX Energy respectfully requests an additional 90 day extension from today's date or timeframe NMOCD deems reasonable.

Jim Raley | Environmental Professional - Permian Basin

5315 Buena Vista Dr., Carlsbad, NM 88220

C: (575)689-7597 | jim.raley@dvn.com



From: Raley, Jim

Sent: Tuesday, May 2, 2023 8:29 AM

To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>

Subject: RDU 11 Extension

Robert,

We had a tentative due date of (4/21/2023) to complete excavation at the RDU 11 for several incidents. BLM has requested a fairly extensive cultural survey before we can begin excavation. We are currently waiting on the archeological vendor (SWCA) to complete the survey and have BLM review. Due to this delay we would like to request an extension to the due to date to 7/20/2023.

(nAPP2200728755, nAB1632647780, nAB1712951426, nAB1728551205, nAB1728553778, nHMP1412241998)



Jim Raley | Environmental Professional - Permian Basin

5315 Buena Vista Dr., Carlsbad, NM 88220

C: (575)689-7597 | jim.raley@dvn.com



Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

APPENDIX G

Approved Remediation Work Plan

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141

Revised August 8, 2011

MAY 02 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

NAB1712951426

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	WPX Energy Inc/RKI	Contact	Karolina Blaney
Address	5315 Buena Vista Dr.	Telephone No.	970 589 0743
Facility Name:	RDU 11	Facility Type:	Well Pad

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-24307
------------------------	------------------------	----------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	22	26S	30E	660	FSL	1980	FEL	Eddy

Latitude: 32.02238133N Longitude: -103.86640329W

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 50 Bbls	Volume Recovered: 40 Bbls
Source of Release Poly line	Date and Hour of Occurrence 4/20/2017	Date and Hour of Discovery 4/20/2017 - 13:20 hrs MT
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD Crystal Weaver & Michael Bratcher, BLM Shelly Tucker	
By Whom? Karolina Blaney	Date and Hour: 4/21/2017 - 9:57hrs MT	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully. * N/A

Describe Cause of Problem and Remedial Action Taken. *

The spill was caused by human error; the equipment setup was changed and the calibration employees were given a wrong information. They closed a valve that should've been open which resulted in over-pressuring an above ground poly line. Approximately 50 bbls of oil was spilled off location north and west of the location.

Describe Area Affected and Cleanup Action Taken. *

The impacted area was mapped with Trimble. 40 bbls of oil was recovered with vac trucks. With BLM's approval, the impacted area off location was excavated to 2' below the surface to address the hydrocarbon concentrations. The impacted area will be sampled to determine if any additional excavation is necessary.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: <i>Karolina Blaney</i>	OIL CONSERVATION DIVISION	
Printed Name: Karolina Blaney	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Environmental Specialist	Approval Date: 5/8/17	Expiration Date: N/A
E-mail Address: Karolina.blaney@wpenergy.com	Conditions of Approval: See attached	Attached <input type="checkbox"/>
Date: 5/2/2017	Phone: 970-589-0743	

* Attach Additional Sheets If Necessary

2RP-4197

Incident ID	nAB1712951426
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>105</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody


If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	hAB1712951426
District RP	
Facility ID	
Application ID	

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

Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 4/4/2022
email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

ARTESIA DISTRICT

OCT 05 2017

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

NAB1728553778

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: RKI Exploration / WPX Energy <i>2412189</i>		Contact: Karolina Blaney
Address: 5315 Buena Vista Dr.		Telephone No. 970 589 0743
Facility Name: RDU 11		Facility Type: Well Pad
Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-24307

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	22	26S	30E	660	FSL	1980	FEL	Eddy

Latitude: 32.02114 _ Longitude: -103.86714_ NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: unknown	Volume Recovered 0 bbls
Source of Release: water transfer line	Date and Hour of Occurrence unknown	Date and Hour of Discovery 9/21/2017 at 13:10
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD Crystal Weaver & Michael Bratcher, BLM Shelly Tucker	
By Whom? Karolina Blaney	Date and Hour 9/21/17 at 16:45	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

The cause of this spill is equipment failure; wear and tear of the poly line. The spill occurred ~75-100' south of the RDU 11 well pad and the fluids migrated for ~600 yards southwest of that location. The total volume is unknown due to heavy rainfall but it exceeds the reportable quantities. ~450' of the water transfer line has been replaced.

Describe Area Affected and Cleanup Action Taken.*

The water transfer operations were stopped immediately to prevent from further release of the fluids and the impacted area was mapped with a Trimble to delineate the horizontal extent of the impacts. The impacted area was sampled for TPH, BTEX and Chlorides on 9/28/17 and on 10/4/17. Further remediation will be based on the sampling results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: <i>Karolina Blaney</i>	OIL CONSERVATION DIVISION	
Printed Name: Karolina Blaney	Approved by Environmental Specialist <i>Karolina Blaney</i>	
Title: Environmental Specialist	Approval Date: 10/5/17	Expiration Date: N/A
E-mail Address: Karolina.blaney@wpxenergy.com	Conditions of Approval: <i>See Attached</i>	Attached: <input type="checkbox"/> <i>ARD-4432</i>
Date: 10/5/17	Phone: 970 589 0743	

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/5/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 28P-4432 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 11/5/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, October 5, 2017 1:13 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 initial spill report
Attachments: RDU 11 C-141 9-21-17.doc; RDU 11 C-141 9-30-17.doc

Good afternoon,

Attached are two C-141 reports for spills that occurred on 9/21 and 9/30 south of the RDU 11 well pad. The footprint of both spills is very similar and the majority is overlapping. Our plan is to remediate and close both spills at the same time however, I understand that you will be assigning two separate incident numbers and I might need to submit separate paperwork.

Please let me know if you have any questions or suggestions.

Thank you,

Karolina Blaney
Environmental Specialist
WPX Energy
Office: (575) 885-7514
Cell: (970) 589-0743
karolina.blaney@wpxenergy.com

From: Blaney, Karolina
Sent: Saturday, September 30, 2017 8:26 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>
Cc: mike.bratcher@state.nm.us; Raley, Jim <James.Raley@wpxenergy.com>
Subject: WPX/RKI RDU 11 initial spill report

Good evening,

WPX had a spill this afternoon, 10/1/17 at 3 pm. The cause of the spill is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred south of the RDU 11 (API # 30-015-24307) well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to rainfall, but it exceeds the reportable quantities.

The C-141 report will be submitted within the next 15 days, but please do not hesitate to contact me if you have any questions.

thank you,

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, September 21, 2017 4:45 PM
To: Weaver, Crystal, EMNRD; 'Tucker, Shelly'
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 - initial notification

Good afternoon,

WPX discovered a spill this afternoon, 9/21/17 at 1:10 pm, located south of the RDU 11 well pad; API # 30-015-24307; O-22-26S-30E. The coordinates of the spill origin are: Lat 32.02114 long -103.86714. The cause is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred ~75-100' south of the RDU 11 well pad and the fluids migrated for ~600 yards southwest of that location. The total volume is unknown at this time but it exceeds the reportable quantities.

The spill report will be submitted in the next 15 days but if you have any questions or concerns, please do not hesitate to contact me.

Thank you,

Karolina Blaney
Environmental Specialist
WPX Energy
Office: (575) 885-7514
Cell: (970) 589-0743
karolina.blaney@wpxenergy.com

Incident ID	nAB1728553778
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>105</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody


If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	nAB1728553778
District RP	
Facility ID	
Application ID	

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

Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 4/4/2022
email: jim.raley@dm.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141
Revised April 3, 2017

OCT 05 2017

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

NAB1728551205

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: RKI Exploration / WPX Energy	Contact: Karolina Blaney
Address: 5315 Buena Vista Dr.	Telephone No. 970 589 0743
Facility Name: RDU 11	Facility Type: Well Pad
Surface Owner: Federal	Mineral Owner: Federal
API No. 30-015-24307	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	22	26S	30E	660	FSL	1980	FEL	Eddy

Latitude: 32.02114 _ Longitude _ -103.86714 _ NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: unknown	Volume Recovered 0 bbls
Source of Release: water transfer line	Date and Hour of Occurrence 9/30/17	Date and Hour of Discovery 9/30/2017 at 15:00
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD Crystal Weaver & Michael Bratcher, BLM Shelly Tucker	
By Whom? Karolina Blaney	Date and Hour 9/30/17 at 20:30	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

The cause of this spill is equipment failure; wear and tear of the poly line. The spill occurred ~75-100' south of the RDU 11 well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to heavy rainfall but it exceeds the reportable quantities. ~450' of the water transfer line has been replaced.

Describe Area Affected and Cleanup Action Taken.*

The water transfer operations were stopped immediately to prevent from further release of the fluids and the impacted area was mapped with a Trimble to delineate the horizontal extent of the impacts. The impacted area was sampled for TPH, BTEX and Chlorides on 10/4/17. Further remediation will be based on the sampling results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: <i>Karolina Blaney</i>	OIL CONSERVATION DIVISION	
Printed Name: Karolina Blaney	Approved by Environmental Specialist <i>[Signature]</i>	
Title: Environmental Specialist	Approval Date: 10/5/17	Expiration Date: N/A
E-mail Address: Karolina.blaney@wpxenergy.com	Conditions of Approval:	
Date: 10/5/17 Phone: 970 589 0743	See attached	Attached <input type="checkbox"/> 2RP-4431

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/5/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 20P-4431 has been assigned. Please refer to this case number in all future correspondence.

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 11/5/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) if groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, October 5, 2017 1:13 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 initial spill report
Attachments: RDU 11 C-141 9-21-17.doc; RDU 11 C-141 9-30-17.doc

Good afternoon,

Attached are two C-141 reports for spills that occurred on 9/21 and 9/30 south of the RDU 11 well pad. The footprint of both spills is very similar and the majority is overlapping. Our plan is to remediate and close both spills at the same time however, I understand that you will be assigning two separate incident numbers and I might need to submit separate paperwork.

Please let me know if you have any questions or suggestions.

Thank you,

Karolina Blaney
Environmental Specialist
WPX Energy
Office: (575) 885-7514
Cell: (970) 589-0743
karolina.blaney@wpxenergy.com

From: Blaney, Karolina
Sent: Saturday, September 30, 2017 8:26 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>
Cc: mike.bratcher@state.nm.us; Raley, Jim <James.Raley@wpxenergy.com>
Subject: WPX/RKI RDU 11 initial spill report

Good evening,

WPX had a spill this afternoon, 10/1/17 at 3 pm. The cause of the spill is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred south of the RDU 11 (API # 30-015-24307) well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to rainfall, but it exceeds the reportable quantities.

The C-141 report will be submitted within the next 15 days, but please do not hesitate to contact me if you have any questions.

thank you,

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Saturday, September 30, 2017 8:26 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 initial spill report

Good evening,

WPX had a spill this afternoon, 10/1/17 at 3 pm. The cause of the spill is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred south of the RDU 11 (API # 30-015-24307) well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to rainfall, but it exceeds the reportable quantities.

The C-141 report will be submitted within the next 15 days, but please do not hesitate to contact me if you have any questions.

thank you,
Karolina Blaney
970 589 0743

Incident ID	nAB1728551205
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>105</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody


If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	nAB1728551205
District RP	
Facility ID	
Application ID	

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

Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 4/4/2022
email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Remediation Plan

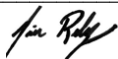
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

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

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

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 4/4/2022
email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: Robert Hamlet Date: 5/4/2022

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

Signature:  Date: 5/4/2022

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: jim.raley@dvn.com	Incident # (assigned by OCD) nAPP2200728755
Contact mailing address: 5315 Buena Vista Dr., Carlsbad NM 88220	

Location of Release Source

Latitude 32.0224991 _____ Longitude -103.8669281 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: ROSS DRAW UNIT #011	Site Type: Oil Production Site
Date Release Discovered: January 4 th . 2022	API# (if applicable) 30-015-24307

Unit Letter	Section	Township	Range	County
O	22	26S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 20	Volume Recovered (bbls) 0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 24	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Dump malfunctioned on separator, causing fluids to escape from PRV and impact soils in dirt secondary containment, pad surface and slightly off-pad.

[Saturated Soil Volume yds^3 x percent porosity x (6.41187 bbls/1 yds^3)] = bbls of residual fluid in soil


[Fluid Volume yds^3 x (6.41187 bbls/1 yds^3)] = bbls of free-standing fluid

Incident ID	nAPP2200728755
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Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc) Via email sent to Mike Bratcher, Emily Hernandez and Robert Hamlet on 1/4/2022	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>James Raley</u>	Title: <u>Environmental Specialist</u>
Signature: 	Date: <u>1/10/2022</u>
email: <u>jim.raley@dvn.com</u>	Telephone: <u>575-689-7597</u>
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>1/10/2022</u>

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 71386

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 71386
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	1/10/2022

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>105</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody


If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	nAPP2200728755
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Facility ID	
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Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 4/4/2022
email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Remediation Plan

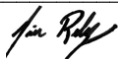
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

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

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

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Jim Raley Title: Environmental Professional
Signature:  Date: 4/4/2022
email: jim.raley@dmv.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____



REMEDIATION WORK PLAN AND DEFERRAL REQUEST REPORT

Site Location:

**Ross Draw Unit #011
Eddy County, New Mexico**

Incident Numbers:

NHMP1412241998

nAB1632647780

nAB1712951426

nAB1728553778

nAB1728551205

nAPP2200728755

April 1, 2022

Ensolum Project No. 03A1987006

Prepared for:

**WPX Energy Permian, LLC
5315 Buena Vista Dr.
Carlsbad, NM 88220
Attention: Jim Raley**

Prepared by:

A handwritten signature in black ink, appearing to read "Joseph S. Hernandez".

Joseph S. Hernandez
Senior Geologist

A handwritten signature in black ink, appearing to read "Ashley L. Ager".

Ashley Ager, M.S., PG
Program Director, Geologist

Ross Draw Unit #011
Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426
nAB1728553778, nAB1728551205, nAPP2200728755
Remediation Work Plan Report
April 1, 2022



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1.2 Site Characterization	2&3
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APPENDICES

Appendix A:	Figure 1 – Site Map Figure 2A – Delineation Soil Sample Locations (nAP1712951426 and nAPP2200728755) Figure 2B – Delineation Soil Sample Locations (nAB172855377 and nAB1728551205) Figure 3 – Area of Concern Tract (NHMP1412241998) Figure 4 – Proposed Excavation Extent
Appendix B:	Well Record
Appendix C:	Lithologic Soil Sampling Logs
Appendix D:	Photographic Log
Appendix E:	Tables
Appendix F:	Laboratory Analytical Reports & Chain-of-Custody Documentation

Ross Draw Unit #011

Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426

nAB1728553778, nAB1728551205, nAPP2200728755

Remediation Work Plan Report

April 1, 2022

1.0 INTRODUCTION

Ensolum, LLC (Ensolum) has prepared this Remediation Work Plan Report (RWP) to document site assessment, soil sampling activities and preliminary corrective actions performed to date by WPX Permian Energy, LLC (WPX) at the Ross Draw Unit #011 (hereinafter referred to as the "Site") in Unit O, Section 22, Township 26 South, Range 30 East, in Eddy County, New Mexico (**Figure 1 in Appendix A**). Based on field observations, field screening activities and review of the laboratory analytical results from delineation soil sampling activities at the Site, WPX respectfully submits this RWP, which summarizes soil sampling activities and initial response efforts that have occurred and proposes additional remediation and soil sampling activities to further investigate and address reportable releases of produced water and/or crude oil at the Site.

Additionally, WPX has provided relevant information from a recent deferral request (Incident Number NRM2034258716), authored by WSP USA Inc. (WSP) and approved by New Mexico Oil Conservation Division (NMOCD) on January 13, 2022 for a release that overlapped historical Incident Number nAB1632647780. WPX respectfully requests NMOCD review the field summary and laboratory analytical data as it is applicable in the deferral request for Incident Number nAB1632647780. All previous remediation activities and soil sample analytical results can be referenced in the original approved Deferral Request.

1.1 Site Description and Release Background

The Site is located within Eddy County, New Mexico (32.022210° N, 103.867013°W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land (**Figure 1 in Appendix A**).

NHMP1412241998

On March 18, 2014, a 4-inch PVC transfer line leaked and caused 200 barrels (bbls) of oil and produced water to be released and migrate southwest-west approximately 0.6 miles through the pasture. No fluids were able to be recovered immediately. WPX reported the release to the NMOCD via email and with a subsequent Corrective Action Form C-141 (Form C-141) dated March 29, 2014. The release was assigned Incident Number NHMP1412241998.

nAB1632647780

On November 5, 2016, a pump air locked and caused an oil tank to overfill and release approximately 70 bbls of crude oil into the earthen containment berm. No fluids escaped the earthen containment berm. Approximately 66 bbls of crude oil were recovered via vacuum truck. WPX reported the release to the NMOCD via email on November 6, 2016 and with a subsequent Form C-141 on November 17, 2016. The release was assigned Incident Number nAB1632647780.

nAB1712951426

On April 20, 2017, human error during equipment reconfiguration resulted in overpressurization of an aboveground poly line that released approximately 50 bbls of crude oil to the pasture north and west of the well pad location. Approximately 40 bbls of crude oil were recovered. WPX

Ross Draw Unit #011

Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426

nAB1728553778, nAB1728551205, nAPP2200728755

Remediation Work Plan Report

April 1, 2022

reported the release to the NMOCD via email on April 21, 2017 and with a subsequent Form C-141 on May 2, 2017. The release was assigned Incident Number nAB1712951426.

nAB1728553778 and nAB1728551205

On September 21, 2017 and September 30, 2017 it was discovered that a poly line had failed between 75 and 100 feet south of the well pad and resulted in an unknown volume of produced water to be released and migrate an estimated 600 yards southwest in the pasture. No fluids were able to be recovered immediately due to heavy rainfall but volumes appeared to exceed the reportable limit. WPX reported the releases to the NMOCD via email and with subsequent Form C-141s on October 5, 2017. Incident Numbers nAB1728553778 and nAB1728551205, respectively were assigned.

nAPP2200728755

On January 4, 2022, the dump malfunctioned on a separator, causing the release of approximately 24 bbls of produced water and 20 bbls of crude oil into a earthen berm secondary containment and immediate pasture. No fluids were able to be recovered immediately but the release area on pad was excavated to approximately 0.5 foot below ground surface (bgs) to address surface staining. WPX reported the release to the NMOCD via email on January 4, 2022 and with a subsequent Form C-141 January 10, 2022. The release was assigned Incident Number nAPP2200728755.

1.2 Site Characterization

Ensolum characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, from Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on **Figure 1 in Appendix A**.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based a soil boring (MW-1) that was drilled by Talon LPE on December 9, 2020, located approximately 0.40 miles southeast of the Site. Using a truck mounted drill rig equipped with hollow stem auger, the soil boring was advanced to a total depth of 106 feet bgs. No fluids were observed within the soil boring after at least 72 hours. Following the observation period, the boring was plugged and abandoned. The well log is provided as **Appendix B**.

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbon (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet in the pasture area that was impacted by the release.

1.3 Project Objective

The primary objectives of Ensolum's scope of services were to document soil characterization and delineation actions performed at the Site were completed in accordance with the applicable NMOCD regulatory RWP guidelines and to document those concentrations of constituents of concern (COCs) present in soil remaining on-Site required to be addressed.

2.0 SOIL SAMPLING AND INITIAL REMEDIAL ACTIONS

WPX conducted initial remediation activities for Incident Number nAPP2200728755 by excavating impacted soil on pad for off-Site disposal. WSP conducted soil sampling activities to verify the presence or absence of soil impacts associated with the subject releases.

2.1 Delineation Activities

nAP1712951426 and nAPP2200728755

On January 25, 2022 and February 28, 2022, delineation activities were conducted by WSP to confirm the presence or absence of impacted soil in areas associated with the subject release area. Delineation samples were collected in boreholes advanced with a hand auger (samples designated BH). Delineation activities were directed by field screening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from each delineation soil sample location (BH01 through BH17): the sample with the highest observed field screening (ranging from 0.5 foot bgs to 3 foot bgs) and the greatest depth (4 feet bgs). The location of the delineation samples are shown in **Figure 2A in Appendix A**. Field screening results and observations for each delineation soil sample were recorded on lithologic/soil sampling logs (**Appendix C**). The soil samples were placed directly into a 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 at or below 4 degrees Celsius (°C), under strict chain-of-custody procedures, to Eurofins LLC (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0. Photographic documentation during delineation activities is included in **Appendix D**.

nAB1728553778 and nAB1728551205

On March 3, 2022, delineation activities were conducted by WSP to confirm the presence or absence of impacted soil in areas associated with the subject release area. Delineation samples were collected in boreholes advanced with a hand auger (samples designated BH). Delineation activities were directed by field screening soil for VOCs utilizing a calibrated PID and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from each delineation soil sample location (BH01 through BH10): the sample with the highest observed field screening (ranging from 0.5 foot bgs to 2 feet bgs) and the greatest depth (4 feet bgs). The location of the delineation samples are shown in **Figure 2B in Appendix A**. Field screening results and observations for each delineation soil sample were recorded on lithologic/soil

Ross Draw Unit #011

Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426

nAB1728553778, nAB1728551205, nAPP2200728755

Remediation Work Plan Report

April 1, 2022

sampling logs (**Appendix C**). The soil samples were handled, collected and analyzed as previously described. Photographic documentation during delineation activities is included in **Appendix D**.

3.0 SOIL SAMPLING RESULTS

nAP1712951426 and nAPP2200728755

Laboratory analytical results for delineation soil samples BH03, BH04, BH10, BH13, BH16 and BH17 indicated COCs were above the reclamation standard requirement. Based on the current extent of soil characterization at the Site, it appears that vertical impacts exceeding Closure Criteria do not exceed 4 feet bgs in the pasture. Laboratory analytical results for delineation soil samples BH01, BH02, BH05 through BH09, BH11, BH12, BH14 and BH15 indicated COCs were within the applicable Closure Criteria and/or reclamation standard requirement.

nAB1728553778 and nAB1728551205

Laboratory analytical results for delineation soil samples BH01 through BH03 indicated COCs were above the reclamation standard requirement. Based on the current extent of soil characterization at the Site, it appears that vertical impacts exceeding Closure Criteria do not exceed 4 feet bgs in the pasture. Laboratory analytical results for delineation soil samples BH04 through BH10 indicated COCs were within the applicable reclamation standard requirement.

Laboratory analytical results are summarized in the **Table 1** included in **Appendix E**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix F**.

4.0 DEFERRAL REQUEST

nAB1632647780

The Deferral Request for Incident Number NRM2034258716, authored by WSP, was approved by NMOCD on January 13, 2022 and overlapped historical Incident Number nAB1632647780. WPX respectfully requests NMOCD review the laboratory analytical data as it can be applicable for this release to provide vertical and lateral definition of the historical release. All previous remediation activities and soil sample analytical results can be referenced in the original approved Deferral Request.

Based on the summary of the approved Deferral Request, the following findings and conclusions regarding the incident are presented:

- Based on laboratory analytical results of confirmation and delineation soil samples for Incident Number NRM2034258716, impacts associated with Incident Number nAB1632647780 were confirmed to have remained within the secondary containment, as documented on the Form C-141;
- Based on soil laboratory analytical results and extent of release area within the secondary earthen berm containment, an estimated **102 cubic yards** was approved to be deferred until the Plugging and Abandonment or reconstruction of the Site, whichever comes first.

Based on the findings and conclusions of this approved Deferral Report and review and applicability to historical Incident Number nAB1632647780, No Further Action appears warranted at this time and the Site should be respectfully considered for Deferral by the NMOCD using the previously collected data.

5.0 REMEDIATION WORK PLAN

Based on the results documented in this report, the following findings and conclusions regarding the releases are presented:

- Areas within the top four feet of the pasture contain impacted soil exceeding the reclamation standard; however, impacts exceeding Closure Criteria within the area of concerns for nAB1728551205, nAB1728553778 and nAB1712951426 and release extent for nAPP220728755 do not appear to exceed 4 feet bgs;
- Based on existing soil analytical results and mapped extent of the release areas, an estimated **6,840 cubic yards** of impacted soil is anticipated to be remediated and/or removed from the Site for disposal in accordance with state and federal regulations. The current proposed excavation extent is depicted on **Figure 4 in Appendix A**;
- Based on laboratory analytical results for delineation samples from BH01, BH06, BH05, BH09, BH11 and BH12 (nAP1712951426 and nAPP2200728755), no remediation efforts are required in these areas. No areas on pad exceed the Closure Criteria for the Site.

Based on the conclusions presented above, the following remediation is proposed:

- Soil characterization and investigation is required to determine the lateral and vertical extent of impact associated with Incident Number NHMP1412241998. A proposed tract that aligns with details provided on the C-141 is provided on **Figure 3 in Appendix A**. Ensolum will conduct delineation activities to verify the presence or absence of soil impacts associated with this incident. Laboratory analytical results will be used to update additional cubic yards of soil to be remediated, if any;
- Horizontal delineation of all releases associated with nAB1728551205, nAB1728553778 and nAB1712951426 and nAPP220728755 will be defined through delineation samples or 5-point composite sidewall samples following the removal of residual impacts;
- Impacted soil will be excavated from the top four feet of the areas in the pasture containing soil exceeding the reclamation standard. Excavated soil will then be transferred to: (a) a New Mexico approved landfill facility for disposal and the excavation will be backfilled with Non-waste containing soil, as defined by "Procedures for Implementation of the Spill Rule" (September 6, 2019) or (b) an on-site ex-situ treatment cell for chloride extraction. Following review of the additional soil characterization at the Site, WPX will re-evaluate the proposed remedial options and submit a revised RWP detailing the option (b) treatment and sampling plan for NMOCD review, if selected.
- Surface scraping may be conducted to remove any minor surficial staining in areas that are delineated;

Ross Draw Unit #011

Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426

nAB1728553778, nAB1728551205, nAPP2200728755

Remediation Work Plan Report

April 1, 2022

- Access for remediation or disturbance that occurs offsite requires BLM approval with additional coverage. WPX will prepare and submit documentation for proposed work areas before initiating corrective actions;
- There are areas off pad (ex. Right-of-Way) that will likely require third-party operator oversight and additional safety measures before or during remediation activities near their respective subsurface pipelines. WPX or the third party operator may implement additional safety precautions above encroachment guidelines, including restrictions on hand shoveling and cribbing. These restrictions may be implemented as health and safety precautions at the judgment and responsibility of a WPX or third-party operator safety representative.
- Subsequent to the completion of remediation and receipt of soil confirmation sample results documenting that impacted soil had been removed, the excavation will be backfilled with clean and/or treated soil and restored to “as close to its original state” as possible.

5.1 Proposed Sampling

WPX is requesting a variance to the 200 square foot confirmation sampling requirement for the areas to be excavated, which would require an estimated 193 floor samples within the release extent, excluding sidewall samples. Due to the large extent of the impacted areas (38,500 square feet), Ensolum proposes increasing the confirmation sampling size to collecting a 5-point composite sample to represent each 1,000 square foot area for the floors and sidewalls of the excavation.

5.2 Proposed Schedule

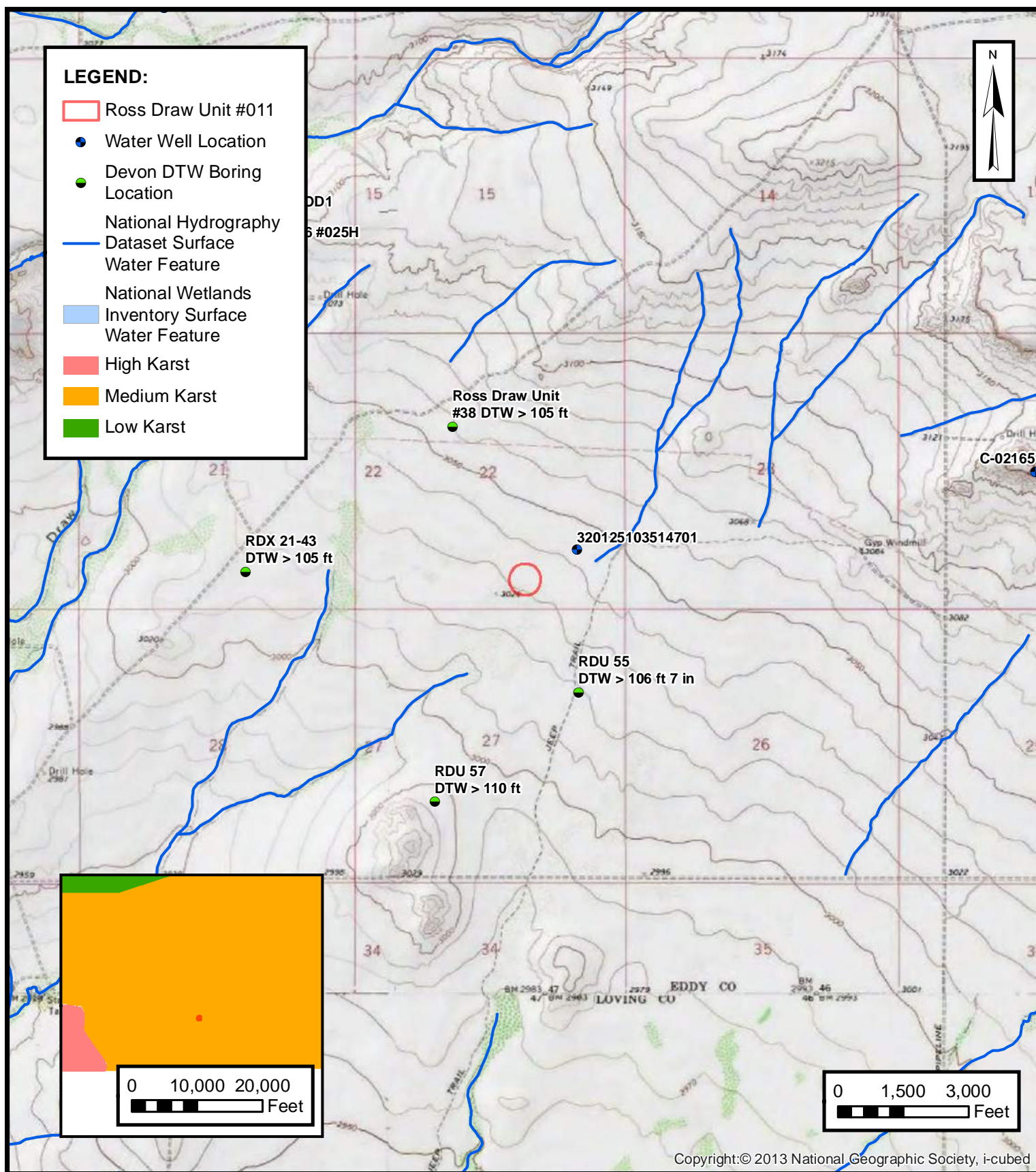
WPX believes the scope of work described above will meet requirements set forth in NMAC 19.15.29.13 and be protective of human health, the environment, and groundwater. As such, WPX respectfully requests approval of this RWP from NMOCD.

Based on the extent of corrective measures, planning and potential third-party operator oversight at the Site, WPX anticipates beginning remediation by **January 2023**.



APPENDIX A

Figures



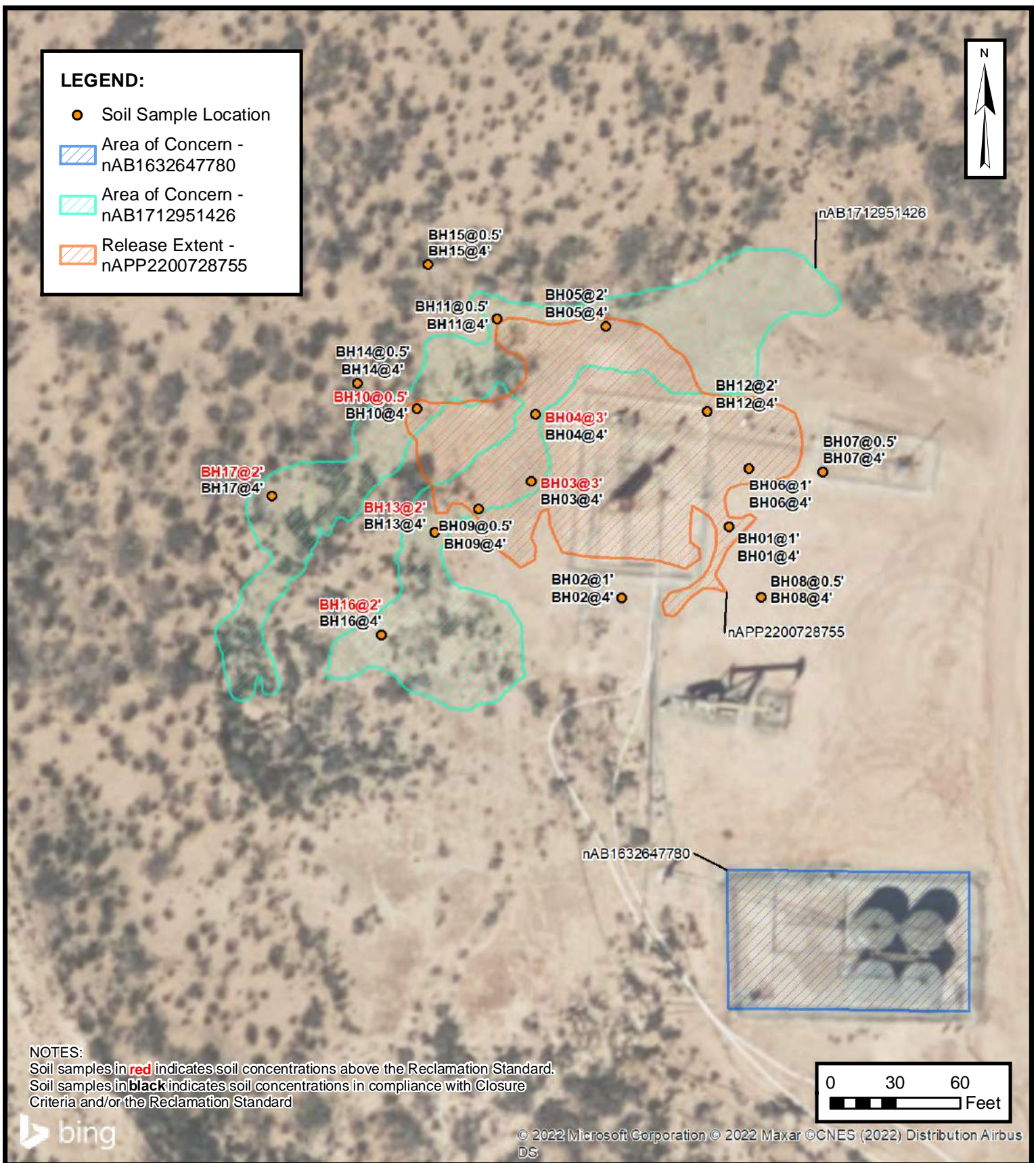
 **ENSOLUM**
Environmental & Hydrogeologic Consultants

SITE MAP

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
1



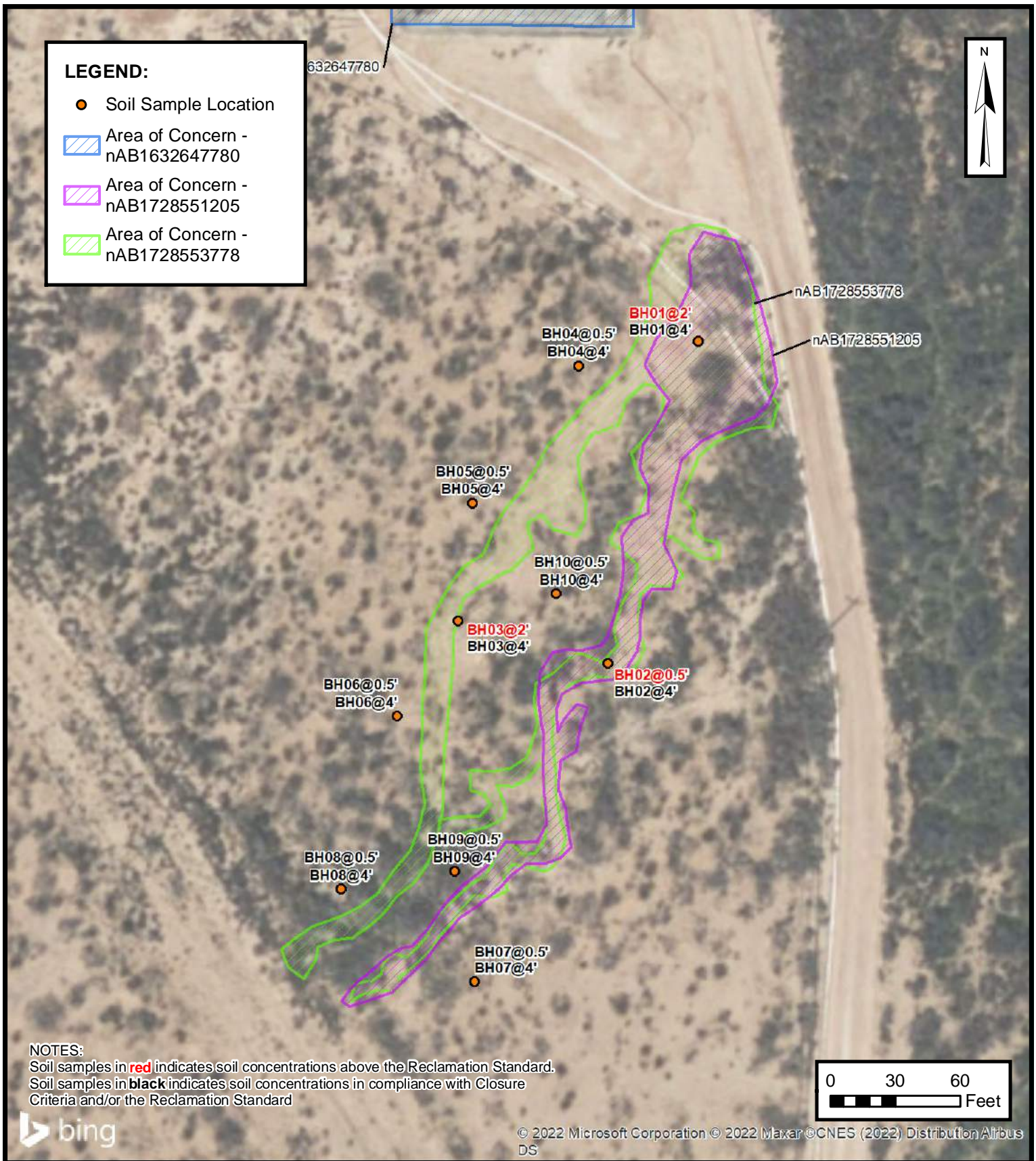
DELINEATION SOIL SAMPLE LOCATION MAP 2A

WPX ENERGY PERMIAN, LLC.
 ROSS DRAW UNIT #011
 Eddy County, New Mexico
 32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
2A

ENSOLUM
 Environmental & Hydrogeologic Consultants



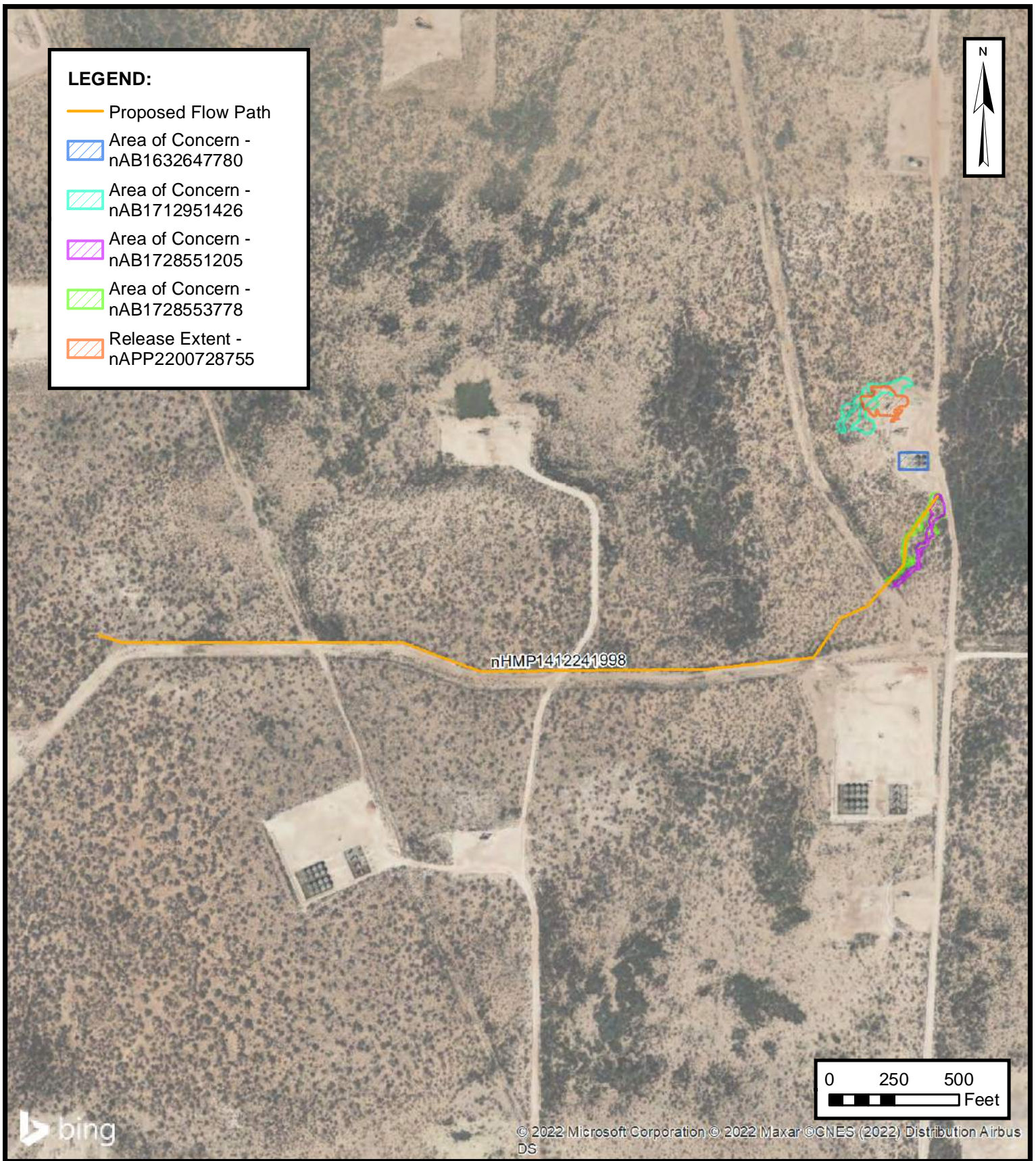
DELINEATION SOIL SAMPLE LOCATION MAP 2B

WPX ENERGY PERMIAN, LLC.
 ROSS DRAW UNIT #011
 Eddy County, New Mexico
 32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
2B

ENSOLUM
 Environmental & Hydrogeologic Consultants

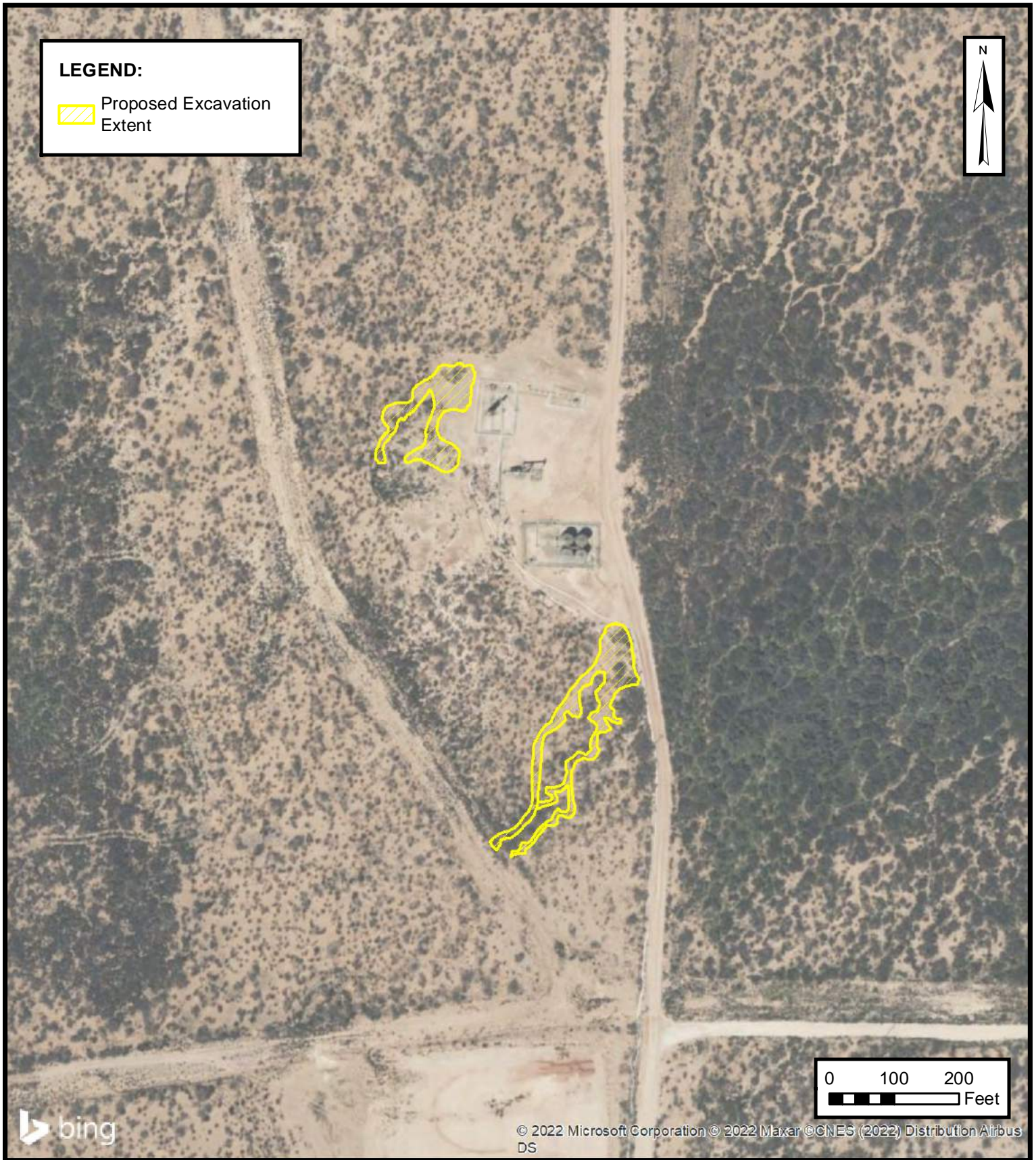
**AREA OF CONCERN TRACT**

WPX ENERGY PERMIAN, LLC.
 ROSS DRAW UNIT #011
 Eddy County, New Mexico
 32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE**3**

ENSOLUM
 Environmental & Hydrogeologic Consultants



 **ENSOLUM**
Environmental & Hydrogeologic Consultants

PROPOSED EXCAVATION AREAS

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W


PROJECT NUMBER: 03A1987006

FIGURE
4



APPENDIX B


Well Record


 HRL COMPLIANCE SOLUTIONS							BORING LOG/MONITORING WELL COMPLETION DIAGRAM					
							Boring/Well Number:			Location:		
							MW-1			Ross Draw Unit #55		
							Date:			Client:		
							12/9/2020			WPX Energy		
Drilling Method:			Sampling Method:				Logged By:			Drilled By:		
Air Rotary			None				J. Linn, PG			Talon LPE		
Gravel Pack Type:			Gravel Pack Depth Interval:				Seal Type:		Seal Depth Interval:		Latitude:	
10/20 Sand			3 Bags				None		None		32.016165	
Casing Type:		Diameter:	Depth Interval:		Boring Total Depth (ft. BGS):				Longitude:			
PVC		2-inch	0-101'7"		106'7"				-103.86346			
Screen Type:		Slot:	Diameter:	Depth Interval:		Well Total Depth (ft. BGS):				Depth to Water (ft. BTOC):		DTW Date:
PVC		0.010-inch	2-inch	101'7" - 106'7"		106'7"				>106' 7"		12/16/2020
Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks		Well Completion	
0	NM	L	D	N	N	NM	SP	NS	Pale pink to buff colored poorly graded sand with minor silt			
5												
10												
15												
20	NM	L	D	N	N	NM	SW	NS	Pale tan orange well graded fine sand with minor medium and coarse sand			
25												
30												
35	NM	L	D	N	N	NM	SP	NS	Pale orange brown poorly graded fine sand with minor gravel			
40												
45												
50												
55												
60	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel			
65												
70												
75												
80												
85	NM	L	D	N	N	NM	SP	NS	Darker grey poorly graded fine sand with minor silt and minor medium sand			
90												
95												
100	NM	M	D	N	N	NM	SC	NS	Dark grey fine sand with moderate silt and clay - TD 106'7"			
106'7"												





APPENDIX C


Lithologic Soil Sampling Logs


								Sample Name: BH01		Date: 1-25-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: MR		Method: Hand Auger	
Coordinates: 32.022700°, -103.866936°								Hole Diameter: 4"		Total Depth: 4'	
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	1,260	1.6	Y	BH01	1	1	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, some staining, H-C odor.			
M	816	0.9	Y		2	2		At 2', decrease in staining to slight staining, decrease in odor to slight H-C odor.			
M	1,020	0.2	N		3	3		At 3', no staining, no odor.			
M	1,176	0.1	N	BH01	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH02		Date: 1-25-2022	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
Coordinates: 32.022624°, -103.867072°								Logged By: MR		Method: Hand Auger	
								Hole Diameter: 4"		Total Depth: 4'	
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	<128	0.1	N	BH02	1	1	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor.			
M	<128	0.1	N		2	2					
M	<128	0	N		3	3					
M	<128	0.2	N	BH02	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH03		Date: 1-25-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: MR		Method: Hand Auger	
Coordinates: 32.022749°, -103.867186°								Hole Diameter: 4"		Total Depth: 4'	
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	<128	2.5	Y	BH03	1	1	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, slight odor. At 3', no odor.			
M	280	2.5	N		2	2					
M	1,544	1.1	N		3	3					
M	1,896	1.4	N		4	4					
							TD	Total depth at 4' bgs.			


								Sample Name: BH04		Date: 1-25-2022		
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Ross Draw Unit #011				
								Incident Number: nAPP2200728755 & nAB1712951426				
								Job Number: 03A1987006				
Coordinates: 32.022821°, -103.867181°								Logged By: MR		Method: Hand Auger		
								Hole Diameter: 4"		Total Depth: 4'		
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	180	27.6	Y	BH04	1	1	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, slight staining, slight odor.				
									At 2', no staining.			
									At 3', color change to light brown, no odor.			
									At 4' color change to dark brown.			
M	1,260	9.9	N		2	2						
M	2,552	14.5	N		3	3						
M	1,772	20.2	N	BH04	4	4	TD	Total depth at 4' bgs.				


								Sample Name: BH05		Date: 1-25-2022	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
Coordinates: 32.022915°, -103.867092°								Logged By: MR		Method: Hand Auger	
								Hole Diameter: 4"		Total Depth: 4'	
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	152	0.1	N	BH05	1	1	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor. At 2', color change to light brown.			
M	<128	0.1	N		2	2					
M	<128	0.1	N		3	3					
M	<128	0.1	N	BH05	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH06		Date: 1-25-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: MR		Method: Hand Auger	
Coordinates: 32.022763°, -103.866911°								Hole Diameter: 4"		Total Depth: 4'	
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			
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor.			
M	488	0.1	N	BH06	1	1		At 3', color change to light brown.			
M	444	0	N		2	2					
M	444	0.9	N		3	3					
M	356	0.4	N	BH06	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH07		Date: 2-18-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 3 32.022759°, -103.866818°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	588	0.1	N	BH07	0.5	0	CCHE	0-1', CALICHE, dry, light brown-brown, well graded, very fine-fine grain, no stain, no odor.			
D	<128	0.7	N		1	1	SP-SM	1-3', SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.			
D	<128	0.2	N		2	2					
						3	CCHE	3-4', CALICHE, dry, light brown-brown, well graded, very fine-medium grain, no stain, no odor.			
D	444	0.2	N	BH07	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH08		Date: 2-18-2022					
								Site Name: Ross Draw Unit #011							
								Incident Number: nAPP2200728755 & nAB1712951426							
								Job Number: 03A1987006							
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger					
Coordinates: 32.022624°, -103.866896°								Hole Diameter: 4"		Total Depth: 4'					
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							
D	444	0.1	N	BH08	0.5	0	CCHE	0-1', CALICHE, dry, light brown-brown, well graded, very fine-fine grain, no stain, no odor.							
D	152	0.1	N		1	1	SP-SM	1-3', SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.							
D	<128	0.1	N		2	2									
						3									
D	<128	0.1	N	BH08	4	4	TD	Total depth at 4' bgs.							


								Sample Name: BH09		Date: 2-18-2022					
								Site Name: Ross Draw Unit #011							
								Incident Number: nAPP2200728755 & nAB1712951426							
								Job Number: 03A1987006							
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger					
Coordinates: 32.022719°, -103.867253°								Hole Diameter: 4"		Total Depth: 4'					
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							
D	444	0.5	N	BH09	0.5	0	SP-SM	0-4', SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.							
D	820	0.9	N		1	1									
D	1,360	0.8	N		2	2									
						3		At 3', color change to light brown-brown.							
D	756	1.8	N	BH09	4	4	TD	Total depth at 4' bgs.							


								Sample Name: BH10		Date: 2-18-2022	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
Coordinates: 32.022827°, -103.867331°								Logged By: GM		Method: Hand Auger	
Hole Diameter: 4"								Total Depth: 4'			
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			
D	280	0.5	N	BH10	0.5	0	SP	0-1', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	<128	0.9	N		1	1	SP-SM	1-3', SAND, dry, reddish brown-brown, poorly graded with silt, very fine-fine grain, no stain, no odor.			
D	2,224	0.8	N		2	2					
						3	SM	3-4', SILTY SAND, dry, tan-light brown, fine-medium grain, no stain, no odor.			
D	11,016	1.8	N	BH10	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH11		Date: 2-18-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.022923°, -103.867229°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	<128	2.2	N	BH11	0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	<128	4.3	N		1	1					
D	120	2.3	N		2	2					
						3	CCHE	3-4', CALICHE, dry, tan, well graded, fine-medium grain, no stain, no odor.			
D	2,188	4.3	N	BH11	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH12		Date: 2-28-2022	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
Coordinates: 32.022824°, -103.866964°								Logged By: GM		Method: Hand Auger	
								Hole Diameter: 4"		Total Depth: 4'	
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			
D	1,556	0.3	N	BH12	0.5	0	SW-SM	0-1', SAND, dry, brown, well graded with silt, very fine-fine grain, no stain, no odor.			
D	1,780	0.4	N		1	1	SP-SM	1-4', SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.			
D	2,200	0.9	N		2	2					
					3						
D	1,556	0.3	N	BH12	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH13		Date: 2-28-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.022694°, -103.867308°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	142	N/A	N	BH13	0.5	0	SP	0-2', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor. Note: PID not calibrating. Only screening for chlorides.			
D	1,360	N/A	N		1	1		At 1', some silt.			
D	2,840	N/A	N		2	2	SW-SM	2-3', SAND, dry, brown, well graded with silt, very fine- fine grain, no stain, no odor.			
						3	CCHE	3-4', CALICHE, dry, light brown, well graded, very fine-fine grain, no stain, no odor.			
D	4,884	N/A	N	BH13	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH14		Date: 2-28-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.022854°, -103.867406°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	360	N/A	N	BH14	0.5	0	SP	0-4', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.			
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.			
D	<120	N/A	N		2	2					
						3					
								At 4', some silt.			
D	120	N/A	N	BH14	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH15		Date: 2-28-2022	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
Coordinates: 32.022981°, -103.867317°								Logged By: GM		Method: Hand Auger	
								Hole Diameter: 4"		Total Depth: 4'	
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			
D	<120	N/A	N	BH15	0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.			
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.			
D	<120	N/A	N		2	2					
						3	SW	3-4', SAND, dry, light brown, well graded, very fine-fine grain, no stain, no odor.			
D	<120	N/A	N	BH15	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH16		Date: 2-28-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.022584°, -103.867375°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	<120	N/A	N	BH16	0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.			
D	1,360	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.			
D	1,556	N/A	N		2	2		SW-SM	3-4', SAND, dry, tan-light brown, well graded with silt, very fine-fine grain, no stain, no odor.		
D	3,076	N/A	N	BH16	4	4	TD		Total depth at 4' bgs.		


								Sample Name: BH17		Date: 2-28-2022	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Ross Draw Unit #011			
								Incident Number: nAPP2200728755 & nAB1712951426			
								Job Number: 03A1987006			
Coordinates: 32.022733°, -103.867514°								Logged By: GM		Method: Hand Auger	
								Hole Diameter: 4"		Total Depth: 4'	
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			
D	<120	N/A	N	BH17	0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.			
D	<120	N/A	N		1	1		At 1', no organics.			
D	888	N/A	N		2	2		NOTE: PID not calibrating. Only screening for chlorides.			
						3	SW-SM	3-4', SAND, dry, light brown, well graded with silt, very fine-fine grain, no stain, no odor.			
D	6,160	N/A	N	BH17	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH01		Date: 3-3-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAB1728551205 & nAB1728553778			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.021844°, -103.866550°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	6,160	1.5	N	BH01	0.5	0	SP	0-1', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	6,160	1	N		1	1	SP-SM	1-4', SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.			
D	6,664	0.8	N		2	2	TD	Total depth at 4' bgs.			
					3						
D	7,824	1.1	N	BH01	4	4					


								Sample Name: BH02		Date: 3-3-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAB1728551205 & nAB1728553778			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.021498°, -103.866665°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	3,076	0.4	N	BH02	0.5	0	SP	0-1', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	1,664	0.4	N		1	1	SP-SM	1-4', SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.			
D	1,452	0.5	N		2	2					
						3					
D	9,244	0.6	N	BH02	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH03		Date: 3-3-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAB1728551205 & nAB1728553778			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.021543°, -103.866854°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	<120	0.4	N	BH03	0.5	0	SP	0-1', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	252	0.3	N		1	1	SP-SM	1-2', SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.			
D	1,556	0.3	N		2	2	SW-SM	2-4', SAND, dry, brown, well graded with silt, very fine-fine grain, no stain, no odor.			
						3					
D	7,216	0.9	N	BH03	4	4	TD	Total depth at 4' bgs.			


								Sample Name: BH05		Date: 3-3-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAB1728551205 & nAB1728553778			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.021670°, -103.866836°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	<120	2.6	N	BH05	0.5	0	SP	0-4', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	<120	4	N		1	1					
D	<120	3.6	N		2	2					
						3					
D	<120	4.3	N	BH05	4	4	TD	Total depth at 4' bgs.			

								Sample Name: BH06		Date: 3-3-2022	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Ross Draw Unit #011			
								Incident Number: nAB1728551205 & nAB1728553778			
								Job Number: 03A1987006			
Coordinates: 32.021442°, -103.866931°								Logged By: GM		Method: Hand Auger	
								Hole Diameter: 4"		Total Depth: 4'	
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			
D	144	0.7	N	BH06	0.5	0	SP	0-4', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	<120	0.8	N		1	1					
D	<120	1.7	N		2	2					
						3		Total depth at 4' bgs.			
D	<120	2.9	N	BH06	4	4	TD				

								Sample Name: BH07		Date: 3-3-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAB1728551205 & nAB1728553778			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.021156°, -103.866833°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	<120	1.8	N	BH07	0.5	0	SP	0-4', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	<120	1.9	N		1	1					
D	<120	2.1	N		2	2					
						3					
D	120	2.3	N	BH07	4	4	TD	Total depth at 4' bgs.			

								Sample Name: BH08		Date: 3-3-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAB1728551205 & nAB1728553778			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.021256°, -103.867002°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	<120	1.3	N	BH08	0.5	0	SP	0-4', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	<120	1.4	N		1	1					
D	<120	1.9	N		2	2					
						3					
D	<120	3.6	N	BH08	4	4	TD	Total depth at 4' bgs.			

								Sample Name: BH09		Date: 3-3-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAB1728551205 & nAB1728553778			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.021275°, -103.866859°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	<120	1.1	N	BH09	0.5	0	SP	0-4', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	<120	1.5	N		1	1					
D	<120	1.7	N		2	2					
						3					
D	168	1	N	BH09	4	4	TD	Total depth at 4' bgs.			

								Sample Name: BH10		Date: 3-3-2022	
								Site Name: Ross Draw Unit #011			
								Incident Number: nAB1728551205 & nAB1728553778			
								Job Number: 03A1987006			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: GM		Method: Hand Auger	
Coordinates: 32.021573°, -103.866730°								Hole Diameter: 4"		Total Depth: 4'	
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			
D	<120	1.7	N	BH10	0.5	0	SP	0-4', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.			
D	<120	3.2	N		1	1					
D	<120	3.2	N		2	2					
						3					
D	<120	4.2	N	BH10	4	4	TD	Total depth at 4' bgs.			



APPENDIX D

Photographic Log

**Photographic Log**

WPX Energy Permian, LLC.
Ross Draw Unit #011 - Project Location
Ensolum Job Number: 03A1987006

**Photograph 1**

Date: January 25, 2022

Description: View of the Site during delineation activities

**Photograph 2**

Date: January 25, 2022

Description: View of the Site during delineation activities

**Photograph 3**

Date: February 28, 2022

Description: View of the Site during delineation

**Photograph 4**

Date: March 3, 2022

Description: View of the Site during delineation activities



APPENDIX E

Tables



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 WPX Energy Permian, LLC. - Ross Draw Unit #011
 Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Sample Analytical Results										
Incident Number: nAB1712951426 and nAPP220728755										
BH01	1/25/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	1,490
BH01	1/25/2022	4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	1,320
BH02	1/25/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	15.7
BH02	1/25/2022	4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	11.2
BH03	1/25/2022	3	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	2,570*
BH03	1/25/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,420
BH04	1/25/2022	3	<0.00202	<0.00403	<49.9	68.8	<49.9	68.8	68.8	3,320*
BH04	1/25/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,610
BH05	1/25/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	134
BH05	1/25/2022	4	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	35.6
BH06	1/25/2022	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	601
BH06	1/25/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	464
BH07	2/18/2022	0.5	<0.00199	<0.00398	<50.0	81.7	<50.0	81.7	81.7	582
BH07	2/18/2022	4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	510
BH08	2/18/2022	0.5	<0.00200	<0.00399	<50.0	108	<50.0	108	108	492
BH08	2/18/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	12.9
BH09	2/18/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	365
BH09	2/18/2022	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	347
BH10	2/18/2022	0.5	<0.00200	<0.00399	<250	1,660	<250	1,660	1,660	906*
BH10	2/18/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	18,000
BH11	2/18/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	135
BH11	2/18/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	3,220
BH12	2/28/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,610
BH12	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,360
BH13	2/28/2022	2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	4,430*
BH13	2/28/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	7,260



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 WPX Energy Permian, LLC. - Ross Draw Unit #011
 Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCB Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
BH14	2/28/2022	0.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	464
BH14	2/28/2022	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	115
BH15	2/28/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	77.5
BH15	2/28/2022	4	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	21.4
BH16	2/28/2022	2	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	1,940*
BH16	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	4,650
BH17	2/28/2022	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	1,090*
BH17	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8,280
Incident Number: nAB1728551205 and nAB1728553778										
BH01	3/3/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8,700*
BH01	3/3/2022	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	9,220
BH02	3/3/2022	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	4,300*
BH02	3/3/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	8,350
BH03	3/3/2022	2	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	3,310*
BH03	3/3/2022	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	62.6
BH04	3/3/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	45.3
BH04	3/3/2022	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	29.1
BH05	3/3/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	5.80
BH05	3/3/2022	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	62.6
BH06	3/3/2022	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
BH06	3/3/2022	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	63.4
BH07	3/3/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	5.01
BH07	3/3/2022	4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	130
BH08	3/3/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	5.90
BH08	3/3/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	57.1



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC. - Ross Draw Unit #011
Eddy County, New Mexico
Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
BH09	3/3/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	10.4
BH09	3/3/2022	4	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	174
BH10	3/3/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	5.95
BH10	3/3/2022	4	<0.00199	<0.00398	<50.0	70.6	<50.0	70.6	70.6	34.6

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria and/or reclamation requirement for Soils Impacted by a Release

* - indicates top 4 feet in the pasture area impacted by the release, NMAC 19.15.29.13. D (1) that will be reclaimed following remediation.



APPENDIX F

Laboratory Analytical Reports & Chain-of-Custody Documentation



Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1876-1
Laboratory Sample Delivery Group: Eddy
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
2/3/2022 12:01:30 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-1876-1
SDG: Eddy

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Job ID: 890-1876-1

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-1876-1
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Receipt
The samples were received on 1/26/2022 4:08 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH05 (890-1876-9), BH05 (890-1876-10), BH06 (890-1876-11), (890-1883-A-1-C MS) and (890-1883-A-1-D MSD). Evidence of matrix interferences is not obvious.
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-18029 and analytical batch 880-18094 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01

Lab Sample ID: 890-1876-1

Date Collected: 01/25/22 09:10

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 14:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/28/22 12:00	01/28/22 14:28	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/28/22 12:00	01/28/22 14:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/28/22 12:00	01/28/22 14:28	1
1,4-Difluorobenzene (Surr)	100		70 - 130	01/28/22 12:00	01/28/22 14:28	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 11:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 11:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 11:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	01/31/22 11:10	02/01/22 11:34	1
o-Terphenyl	90		70 - 130	01/31/22 11:10	02/01/22 11:34	1

Client Sample ID: BH01

Lab Sample ID: 890-1876-2

Date Collected: 01/25/22 09:24

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 14:48	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/28/22 12:00	01/28/22 14:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/28/22 12:00	01/28/22 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	01/28/22 12:00	01/28/22 14:48	1
1,4-Difluorobenzene (Surr)	101		70 - 130	01/28/22 12:00	01/28/22 14:48	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01

Lab Sample ID: 890-1876-2

Date Collected: 01/25/22 09:24

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 4

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 11:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 11:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 11:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			01/31/22 11:10	02/01/22 11:56	1
o-Terphenyl	92		70 - 130			01/31/22 11:10	02/01/22 11:56	1

Client Sample ID: BH02

Lab Sample ID: 890-1876-3

Date Collected: 01/25/22 09:32

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:12	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/28/22 12:00	01/28/22 16:12	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			01/28/22 12:00	01/28/22 16:12	1
1,4-Difluorobenzene (Surr)	103		70 - 130			01/28/22 12:00	01/28/22 16:12	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 12:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 12:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 12:18	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH02

Lab Sample ID: 890-1876-3

Date Collected: 01/25/22 09:32

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130	01/31/22 11:10	02/01/22 12:18	1
o-Terphenyl	90		70 - 130	01/31/22 11:10	02/01/22 12:18	1

Client Sample ID: BH02

Lab Sample ID: 890-1876-4

Date Collected: 01/25/22 09:50

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			01/28/22 12:00	01/28/22 16:32	1
1,4-Difluorobenzene (Surr)	101		70 - 130			01/28/22 12:00	01/28/22 16:32	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 12:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 12:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 12:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130			01/31/22 11:10	02/01/22 12:40	1
o-Terphenyl	86		70 - 130			01/31/22 11:10	02/01/22 12:40	1

Client Sample ID: BH03

Lab Sample ID: 890-1876-5

Date Collected: 01/25/22 10:08

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 16:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/28/22 12:00	01/28/22 16:53	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03

Lab Sample ID: 890-1876-5

Date Collected: 01/25/22 10:08

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			01/28/22 12:00	01/28/22 16:53	1
1,4-Difluorobenzene (Surr)	75		70 - 130			01/28/22 12:00	01/28/22 16:53	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 13:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 13:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 13:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130			01/31/22 11:10	02/01/22 13:02	1
o-Terphenyl	93		70 - 130			01/31/22 11:10	02/01/22 13:02	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2570		25.3	mg/Kg			02/01/22 18:58	5

Client Sample ID: BH03

Lab Sample ID: 890-1876-6

Date Collected: 01/25/22 10:14

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/28/22 12:00	01/28/22 17:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/28/22 12:00	01/28/22 17:13	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130			01/28/22 12:00	01/28/22 17:13	1
1,4-Difluorobenzene (Surr)	89		70 - 130			01/28/22 12:00	01/28/22 17:13	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03

Lab Sample ID: 890-1876-6

Date Collected: 01/25/22 10:14

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 4

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 13:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 13:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 13:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	76		70 - 130			01/31/22 11:10	02/01/22 13:24	1
o-Terphenyl	84		70 - 130			01/31/22 11:10	02/01/22 13:24	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2420	F1	24.8	mg/Kg			02/01/22 19:04	5

Client Sample ID: BH04

Lab Sample ID: 890-1876-7

Date Collected: 01/25/22 10:34

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 17:34	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		01/28/22 12:00	01/28/22 17:34	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			01/28/22 12:00	01/28/22 17:34	1
1,4-Difluorobenzene (Surr)	82		70 - 130			01/28/22 12:00	01/28/22 17:34	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	68.8		49.9	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 13:46	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04

Lab Sample ID: 890-1876-7

Date Collected: 01/25/22 10:34

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	68.8		49.9	mg/Kg		01/31/22 11:10	02/01/22 13:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 13:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			01/31/22 11:10	02/01/22 13:46	1
o-Terphenyl	103		70 - 130			01/31/22 11:10	02/01/22 13:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3320		25.0	mg/Kg			02/01/22 19:22	5

Client Sample ID: BH04

Lab Sample ID: 890-1876-8

Date Collected: 01/25/22 10:40

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/28/22 12:00	01/28/22 17:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/28/22 12:00	01/28/22 17:54	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			01/28/22 12:00	01/28/22 17:54	1
1,4-Difluorobenzene (Surr)	99		70 - 130			01/28/22 12:00	01/28/22 17:54	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 14:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 14:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 14:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130			01/31/22 11:10	02/01/22 14:08	1
o-Terphenyl	86		70 - 130			01/31/22 11:10	02/01/22 14:08	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04

Lab Sample ID: 890-1876-8

Date Collected: 01/25/22 10:40

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2610		25.0	mg/Kg			02/01/22 19:38	5

Client Sample ID: BH05

Lab Sample ID: 890-1876-9

Date Collected: 01/25/22 13:20

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 18:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/28/22 12:00	01/28/22 18:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130			01/28/22 12:00	01/28/22 18:14	1
1,4-Difluorobenzene (Surr)	100		70 - 130			01/28/22 12:00	01/28/22 18:14	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 14:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 14:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 14:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130			01/31/22 11:10	02/01/22 14:30	1
o-Terphenyl	76		70 - 130			01/31/22 11:10	02/01/22 14:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	134		5.02	mg/Kg			02/01/22 19:56	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH05

Lab Sample ID: 890-1876-10

Date Collected: 01/25/22 13:25

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/28/22 12:00	01/28/22 18:35	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		01/28/22 12:00	01/28/22 18:35	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		01/28/22 12:00	01/28/22 18:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	01/28/22 12:00	01/28/22 18:35	1
1,4-Difluorobenzene (Surr)	112		70 - 130	01/28/22 12:00	01/28/22 18:35	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			02/02/22 16:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	66	S1-	70 - 130	01/31/22 11:10	02/01/22 15:13	1
o-Terphenyl	76		70 - 130	01/31/22 11:10	02/01/22 15:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.6		4.98	mg/Kg			02/02/22 10:49	1

Client Sample ID: BH06

Lab Sample ID: 890-1876-11

Date Collected: 01/25/22 14:10

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/28/22 12:00	01/28/22 18:55	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/28/22 12:00	01/28/22 18:55	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/28/22 12:00	01/28/22 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	01/28/22 12:00	01/28/22 18:55	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06

Lab Sample ID: 890-1876-11

Date Collected: 01/25/22 14:10

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	01/28/22 12:00	01/28/22 18:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130			01/31/22 11:10	02/01/22 15:35	1
o-Terphenyl	78		70 - 130			01/31/22 11:10	02/01/22 15:35	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	601		5.03	mg/Kg			02/01/22 20:08	1

Client Sample ID: BH06

Lab Sample ID: 890-1876-12

Date Collected: 01/25/22 14:28

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/28/22 12:00	01/28/22 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	01/28/22 12:00	01/28/22 19:16	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/28/22 12:00	01/28/22 19:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06
Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-12
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130	01/31/22 11:10	02/01/22 15:57	1
o-Terphenyl	86		70 - 130	01/31/22 11:10	02/01/22 15:57	1

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	464		4.98	mg/Kg			02/01/22 20:14	1	

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1872-A-3-C MS	Matrix Spike	100	88
890-1872-A-3-D MSD	Matrix Spike Duplicate	100	90
890-1876-1	BH01	111	100
890-1876-2	BH01	117	101
890-1876-3	BH02	123	103
890-1876-4	BH02	114	101
890-1876-5	BH03	108	75
890-1876-6	BH03	121	89
890-1876-7	BH04	116	82
890-1876-8	BH04	112	99
890-1876-9	BH05	130	100
890-1876-10	BH05	123	112
890-1876-11	BH06	115	104
890-1876-12	BH06	128	89
LCS 880-17922/1-A	Lab Control Sample	100	101
LCSD 880-17922/2-A	Lab Control Sample Dup	102	97
MB 880-17922/5-A	Method Blank	111	100
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1876-1	BH01	81	90
890-1876-2	BH01	81	92
890-1876-3	BH02	79	90
890-1876-4	BH02	77	86
890-1876-5	BH03	82	93
890-1876-6	BH03	76	84
890-1876-7	BH04	91	103
890-1876-8	BH04	72	86
890-1876-9	BH05	68 S1-	76
890-1876-10	BH05	66 S1-	76
890-1876-11	BH06	69 S1-	78
890-1876-12	BH06	77	86
890-1883-A-1-C MS	Matrix Spike	69 S1-	69 S1-
890-1883-A-1-D MSD	Matrix Spike Duplicate	69 S1-	70
LCS 880-18143/2-A	Lab Control Sample	90	96
LCSD 880-18143/3-A	Lab Control Sample Dup	89	93
MB 880-18143/1-A	Method Blank	82	97
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-17922/5-A

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17922

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/28/22 07:30	01/28/22 11:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/28/22 07:30	01/28/22 11:18	1
1,4-Difluorobenzene (Surr)	100		70 - 130	01/28/22 07:30	01/28/22 11:18	1

Lab Sample ID: LCS 880-17922/1-A

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07650		mg/Kg		76	70 - 130
Toluene	0.100	0.07336		mg/Kg		73	70 - 130
Ethylbenzene	0.100	0.07414		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	0.200	0.1514		mg/Kg		76	70 - 130
o-Xylene	0.100	0.07781		mg/Kg		78	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-17922/2-A

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08267		mg/Kg		83	70 - 130	8	35
Toluene	0.100	0.08204		mg/Kg		82	70 - 130	11	35
Ethylbenzene	0.100	0.08305		mg/Kg		83	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.1720		mg/Kg		86	70 - 130	13	35
o-Xylene	0.100	0.08577		mg/Kg		86	70 - 130	10	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-1872-A-3-C MS

Matrix: Solid

Analysis Batch: 17974

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00201	U	0.0998	0.08204		mg/Kg		82	70 - 130
Toluene	<0.00201	U	0.0998	0.07890		mg/Kg		79	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

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

Lab Sample ID: 890-1872-A-3-C MS
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00201	U	0.0998	0.08289		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1698		mg/Kg		85	70 - 130
o-Xylene	<0.00201	U	0.0998	0.08492		mg/Kg		85	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	100		70 - 130						
1,4-Difluorobenzene (Surr)	88		70 - 130						

Lab Sample ID: 890-1872-A-3-D MSD
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00201	U	0.0998	0.08226		mg/Kg		82	70 - 130	0	35
Toluene	<0.00201	U	0.0998	0.07930		mg/Kg		79	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0998	0.08132		mg/Kg		81	70 - 130	2	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1645		mg/Kg		82	70 - 130	3	35
o-Xylene	<0.00201	U	0.0998	0.08062		mg/Kg		81	70 - 130	5	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	100		70 - 130								
1,4-Difluorobenzene (Surr)	90		70 - 130								

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

Lab Sample ID: MB 880-18143/1-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18143

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 09:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 09:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 09:23	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	82		70 - 130	01/31/22 11:10	02/01/22 09:23	1		
o-Terphenyl	97		70 - 130	01/31/22 11:10	02/01/22 09:23	1		

Lab Sample ID: LCS 880-18143/2-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	846.8		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1190		mg/Kg		119	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

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

Lab Sample ID: LCS 880-18143/2-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18143

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-18143/3-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18143

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	926.5		mg/Kg		93	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1204		mg/Kg		120	70 - 130	1	20
Surrogate		LCSD	LCSD								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	89		70 - 130								
o-Terphenyl	93		70 - 130								

Lab Sample ID: 890-1883-A-1-C MS
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	851.8		mg/Kg		83	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	970.6		mg/Kg		95	70 - 130		
Surrogate		MS	MS								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	69	S1-	70 - 130								
o-Terphenyl	69	S1-	70 - 130								

Lab Sample ID: 890-1883-A-1-D MSD
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18143

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	967.9		mg/Kg		95	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	999.6		mg/Kg		98	70 - 130	3	20
Surrogate		MSD	MSD								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	69	S1-	70 - 130								
o-Terphenyl	70		70 - 130								

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11Job ID: 890-1876-1
SDG: Eddy

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18029/1-A

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/01/22 17:20	1

Lab Sample ID: LCS 880-18029/2-A

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	231.6		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-18029/3-A

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	261.3		mg/Kg		105	90 - 110	12	20

Lab Sample ID: 890-1876-6 MS

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: BH03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2420	F1	1240	3559		mg/Kg		92	90 - 110

Lab Sample ID: 890-1876-6 MSD

Matrix: Solid

Analysis Batch: 18094

Client Sample ID: BH03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2420	F1	1240	3183	F1	mg/Kg		62	90 - 110	11	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC VOA

Prep Batch: 17922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	5035	
890-1876-2	BH01	Total/NA	Solid	5035	
890-1876-3	BH02	Total/NA	Solid	5035	
890-1876-4	BH02	Total/NA	Solid	5035	
890-1876-5	BH03	Total/NA	Solid	5035	
890-1876-6	BH03	Total/NA	Solid	5035	
890-1876-7	BH04	Total/NA	Solid	5035	
890-1876-8	BH04	Total/NA	Solid	5035	
890-1876-9	BH05	Total/NA	Solid	5035	
890-1876-10	BH05	Total/NA	Solid	5035	
890-1876-11	BH06	Total/NA	Solid	5035	
890-1876-12	BH06	Total/NA	Solid	5035	
MB 880-17922/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 17974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8021B	17922
890-1876-2	BH01	Total/NA	Solid	8021B	17922
890-1876-3	BH02	Total/NA	Solid	8021B	17922
890-1876-4	BH02	Total/NA	Solid	8021B	17922
890-1876-5	BH03	Total/NA	Solid	8021B	17922
890-1876-6	BH03	Total/NA	Solid	8021B	17922
890-1876-7	BH04	Total/NA	Solid	8021B	17922
890-1876-8	BH04	Total/NA	Solid	8021B	17922
890-1876-9	BH05	Total/NA	Solid	8021B	17922
890-1876-10	BH05	Total/NA	Solid	8021B	17922
890-1876-11	BH06	Total/NA	Solid	8021B	17922
890-1876-12	BH06	Total/NA	Solid	8021B	17922
MB 880-17922/5-A	Method Blank	Total/NA	Solid	8021B	17922
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	8021B	17922
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17922
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	8021B	17922
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17922

Analysis Batch: 18419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	Total BTEX	
890-1876-2	BH01	Total/NA	Solid	Total BTEX	
890-1876-3	BH02	Total/NA	Solid	Total BTEX	
890-1876-4	BH02	Total/NA	Solid	Total BTEX	
890-1876-5	BH03	Total/NA	Solid	Total BTEX	
890-1876-6	BH03	Total/NA	Solid	Total BTEX	
890-1876-7	BH04	Total/NA	Solid	Total BTEX	
890-1876-8	BH04	Total/NA	Solid	Total BTEX	
890-1876-9	BH05	Total/NA	Solid	Total BTEX	
890-1876-10	BH05	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11Job ID: 890-1876-1
SDG: Eddy

GC Semi VOA

Prep Batch: 18143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015NM Prep	
890-1876-2	BH01	Total/NA	Solid	8015NM Prep	
890-1876-3	BH02	Total/NA	Solid	8015NM Prep	
890-1876-4	BH02	Total/NA	Solid	8015NM Prep	
890-1876-5	BH03	Total/NA	Solid	8015NM Prep	
890-1876-6	BH03	Total/NA	Solid	8015NM Prep	
890-1876-7	BH04	Total/NA	Solid	8015NM Prep	
890-1876-8	BH04	Total/NA	Solid	8015NM Prep	
890-1876-9	BH05	Total/NA	Solid	8015NM Prep	
890-1876-10	BH05	Total/NA	Solid	8015NM Prep	
890-1876-11	BH06	Total/NA	Solid	8015NM Prep	
890-1876-12	BH06	Total/NA	Solid	8015NM Prep	
MB 880-18143/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18143/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18143/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1883-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1883-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015 NM	
890-1876-2	BH01	Total/NA	Solid	8015 NM	
890-1876-3	BH02	Total/NA	Solid	8015 NM	
890-1876-4	BH02	Total/NA	Solid	8015 NM	
890-1876-5	BH03	Total/NA	Solid	8015 NM	
890-1876-6	BH03	Total/NA	Solid	8015 NM	
890-1876-7	BH04	Total/NA	Solid	8015 NM	
890-1876-8	BH04	Total/NA	Solid	8015 NM	
890-1876-9	BH05	Total/NA	Solid	8015 NM	
890-1876-10	BH05	Total/NA	Solid	8015 NM	
890-1876-11	BH06	Total/NA	Solid	8015 NM	
890-1876-12	BH06	Total/NA	Solid	8015 NM	

Analysis Batch: 18225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015B NM	18143
890-1876-2	BH01	Total/NA	Solid	8015B NM	18143
890-1876-3	BH02	Total/NA	Solid	8015B NM	18143
890-1876-4	BH02	Total/NA	Solid	8015B NM	18143
890-1876-5	BH03	Total/NA	Solid	8015B NM	18143
890-1876-6	BH03	Total/NA	Solid	8015B NM	18143
890-1876-7	BH04	Total/NA	Solid	8015B NM	18143
890-1876-8	BH04	Total/NA	Solid	8015B NM	18143
890-1876-9	BH05	Total/NA	Solid	8015B NM	18143
890-1876-10	BH05	Total/NA	Solid	8015B NM	18143
890-1876-11	BH06	Total/NA	Solid	8015B NM	18143
890-1876-12	BH06	Total/NA	Solid	8015B NM	18143
MB 880-18143/1-A	Method Blank	Total/NA	Solid	8015B NM	18143
LCS 880-18143/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18143
LCSD 880-18143/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18143
890-1883-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	18143

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC Semi VOA (Continued)

Analysis Batch: 18225 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1883-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18143

HPLC/IC

Leach Batch: 18029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-5	BH03	Soluble	Solid	DI Leach	
890-1876-6	BH03	Soluble	Solid	DI Leach	
890-1876-7	BH04	Soluble	Solid	DI Leach	
890-1876-8	BH04	Soluble	Solid	DI Leach	
890-1876-9	BH05	Soluble	Solid	DI Leach	
890-1876-10	BH05	Soluble	Solid	DI Leach	
890-1876-11	BH06	Soluble	Solid	DI Leach	
890-1876-12	BH06	Soluble	Solid	DI Leach	
MB 880-18029/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1876-6 MS	BH03	Soluble	Solid	DI Leach	
890-1876-6 MSD	BH03	Soluble	Solid	DI Leach	

Analysis Batch: 18094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-5	BH03	Soluble	Solid	300.0	18029
890-1876-6	BH03	Soluble	Solid	300.0	18029
890-1876-7	BH04	Soluble	Solid	300.0	18029
890-1876-8	BH04	Soluble	Solid	300.0	18029
890-1876-9	BH05	Soluble	Solid	300.0	18029
890-1876-10	BH05	Soluble	Solid	300.0	18029
890-1876-11	BH06	Soluble	Solid	300.0	18029
890-1876-12	BH06	Soluble	Solid	300.0	18029
MB 880-18029/1-A	Method Blank	Soluble	Solid	300.0	18029
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	300.0	18029
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18029
890-1876-6 MS	BH03	Soluble	Solid	300.0	18029
890-1876-6 MSD	BH03	Soluble	Solid	300.0	18029

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01**Lab Sample ID: 890-1876-1****Date Collected: 01/25/22 09:10****Matrix: Solid****Date Received: 01/26/22 16:08**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 14:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 11:34	AJ	XEN MID

Client Sample ID: BH01**Lab Sample ID: 890-1876-2****Date Collected: 01/25/22 09:24****Matrix: Solid****Date Received: 01/26/22 16:08**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 14:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 11:56	AJ	XEN MID

Client Sample ID: BH02**Lab Sample ID: 890-1876-3****Date Collected: 01/25/22 09:32****Matrix: Solid****Date Received: 01/26/22 16:08**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 12:18	AJ	XEN MID

Client Sample ID: BH02**Lab Sample ID: 890-1876-4****Date Collected: 01/25/22 09:50****Matrix: Solid****Date Received: 01/26/22 16:08**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 12:40	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03**Lab Sample ID: 890-1876-5****Date Collected: 01/25/22 10:08****Matrix: Solid****Date Received: 01/26/22 16:08**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 18:58	CH	XEN MID

Client Sample ID: BH03**Lab Sample ID: 890-1876-6****Date Collected: 01/25/22 10:14****Matrix: Solid****Date Received: 01/26/22 16:08**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:04	CH	XEN MID

Client Sample ID: BH04**Lab Sample ID: 890-1876-7****Date Collected: 01/25/22 10:34****Matrix: Solid****Date Received: 01/26/22 16:08**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:46	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:22	CH	XEN MID

Client Sample ID: BH04**Lab Sample ID: 890-1876-8****Date Collected: 01/25/22 10:40****Matrix: Solid****Date Received: 01/26/22 16:08**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04

Lab Sample ID: 890-1876-8

Date Collected: 01/25/22 10:40

Matrix: Solid

Date Received: 01/26/22 16:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 14:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:38	CH	XEN MID

Client Sample ID: BH05

Lab Sample ID: 890-1876-9

Date Collected: 01/25/22 13:20

Matrix: Solid

Date Received: 01/26/22 16:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 14:30	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 19:56	CH	XEN MID

Client Sample ID: BH05

Lab Sample ID: 890-1876-10

Date Collected: 01/25/22 13:25

Matrix: Solid

Date Received: 01/26/22 16:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/02/22 10:49	CH	XEN MID

Client Sample ID: BH06

Lab Sample ID: 890-1876-11

Date Collected: 01/25/22 14:10

Matrix: Solid

Date Received: 01/26/22 16:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:55	KL	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:35	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 20:08	CH	XEN MID

Client Sample ID: BH06
Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 19:16	KL	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 20:14	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1876-1	BH01	Solid	01/25/22 09:10	01/26/22 16:08	1
890-1876-2	BH01	Solid	01/25/22 09:24	01/26/22 16:08	4
890-1876-3	BH02	Solid	01/25/22 09:32	01/26/22 16:08	1
890-1876-4	BH02	Solid	01/25/22 09:50	01/26/22 16:08	4
890-1876-5	BH03	Solid	01/25/22 10:08	01/26/22 16:08	3
890-1876-6	BH03	Solid	01/25/22 10:14	01/26/22 16:08	4
890-1876-7	BH04	Solid	01/25/22 10:34	01/26/22 16:08	3
890-1876-8	BH04	Solid	01/25/22 10:40	01/26/22 16:08	4
890-1876-9	BH05	Solid	01/25/22 13:20	01/26/22 16:08	2
890-1876-10	BH05	Solid	01/25/22 13:25	01/26/22 16:08	4
890-1876-11	BH06	Solid	01/25/22 14:10	01/26/22 16:08	1
890-1876-12	BH06	Solid	01/25/22 14:28	01/26/22 16:08	4

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Environment Testing
Xenco

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

Chain of Custody

Work Order No: _____

www.xencocom Page 1 of 2

Project Manager: Joseph Hernandez
Company Name: WSP USA
Address: 3340 N. A. Street
City, State ZIP: Midland TX 79705
Phone: 251-782-2329 Email: Anna.Beyer@wsp.com

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

Project Name: RSN 11
Project Number: 31403360.031
Project Location: END 1
Sampler's Name: Maria Rencch
PO #: 31403360.031
SAMPLE RECEIPT
Temp Blank: ☒ No
Samples Received Intact: ☒ No
Cooler Custody Seals: Yes No N/A
Sample Custody Seals: Yes No N/A
Total Containers: 1
Turn Around: ☒ Routine ☐ Rush
Due Date: _____
TAT starts the day received by the lab, if received by 4:30pm
Well Ice: ☒ No
Thermometer ID: T-112007
Correction Factor: -0.2
Temperature Reading: 12.71.0
Corrected Temperature: 1.0
Parameters: BTEX (EPA 8021B), TPH (EPA 8015 Method), Chloride (300.0)



890-1876 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST	Preservative Codes	Sample Comments
BHC1	S	1/25/2022	0916	1'	Grab			None: NO Cool: Cool HCL: HC H ₂ SO ₄ : H ₂ H ₂ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₅ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SABC	
BHC2	C	1/25/2022	0924	4'					
BHC3	S	1/25/2022	0932	1'					
BHC4	S	1/25/2022	0950	4'					
BHC5	S	1/25/2022	1008	3'					
BHC6	S	1/25/2022	1014	4'					
BHC7	S	1/25/2022	1034	3'					
BHC8	S	1/25/2022	1048	4'					
BHC9	S	1/25/2022	1048	4'					
BHC10	S	1/25/2022	1320	4'					
BHC11	S	1/25/2022	1325	4'					

Total 2007/6010 2008/6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Megan	N. Beyer	1/26/22 4:08p			



Environment Testing

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

Chain of Custody

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Bill to: (if different)	
Joseph Hernandez		→
Company Name:	WSP USA	→
Address:	3300 N A Street	→
City, State ZIP:	Midland TX 79705	→
Phone:	281-702-2329	→
	Email: Anna-Bjers @wsp.com	

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PPR <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

ANALYSIS REQUEST							
						Preservative Codes	
						None: NO	DI Water: H ₂ O
						Cool: Cool	MeOH: Me
						HCL: HC	HNO ₃ : HN
						H ₂ SO ₄ : H ₂	NaOH: Na
						H ₃ PO ₄ : HP	
						NaHSO ₄ : NABIS	
						Na ₂ S ₂ O ₅ : NASO ₃	
						Zn Acetate+NaOH: Zn	
						NaOH+Ascorbic Acid: SAPC	

[illegible]

Total 200.7/6010	200.8/6020:	
8RCRA	13PPM	Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zr
TC1P/SPLP 6010 : 8RCRA	5b As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>W. S. S.</i>	<i>W. S. S.</i>	11/6/72 4:09 ²			
2		4			
3		6			
4					
5					

FD-413a (Rev. 08-21-70) Form 7003

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1876-1

SDG Number: Eddy

Login Number: 1876**List Number: 1****Creator: Olivas, Nathaniel****List Source: Eurofins Carlsbad**

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1876-1

SDG Number: Eddy

Login Number: 1876**List Number: 2****Creator: Rodriguez, Leticia****List Source: Eurofins Midland****List Creation: 01/28/22 12:32 PM**

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



Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2003-1

Laboratory Sample Delivery Group: 31403360.03

Client Project/Site: RDU 11

For:

WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
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Attn: Joseph Hernandez

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
3/3/2022 3:57:39 PM

Jessica Kramer, Project Manager
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Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2003-1
SDG: 31403360.03

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Job ID: 890-2003-1

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-2003-1
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Receipt

The samples were received on 2/23/2022 11:26 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA

Method 8021B: The following samples were diluted due to the nature of the sample matrix: (890-2009-A-3-I), (890-2009-A-3-G MS) and (890-2009-A-3-H MSD) at 25.0, 25.0 and 25.0. Elevated reporting limits (RLs) are provided.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-20605 and analytical batch 880-20710 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH10 (890-2003-7), (LCS 880-20253/2-A) and (880-11670-A-1-D MS). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07

Lab Sample ID: 890-2003-1

Date Collected: 02/18/22 10:45

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/02/22 16:00	03/03/22 02:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/02/22 16:00	03/03/22 02:32	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/02/22 16:00	03/03/22 02:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	03/02/22 16:00	03/03/22 02:32	1
1,4-Difluorobenzene (Surr)	91		70 - 130	03/02/22 16:00	03/03/22 02:32	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	81.7		50.0	mg/Kg			02/25/22 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 03:14	1
Diesel Range Organics (Over C10-C28)	81.7		50.0	mg/Kg		02/24/22 15:51	02/25/22 03:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 03:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	02/24/22 15:51	02/25/22 03:14	1
o-Terphenyl	86		70 - 130	02/24/22 15:51	02/25/22 03:14	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	582		24.9	mg/Kg			02/27/22 14:24	5

Client Sample ID: BH07

Lab Sample ID: 890-2003-2

Date Collected: 02/18/22 10:55

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/02/22 16:00	03/03/22 02:59	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/02/22 16:00	03/03/22 02:59	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/02/22 16:00	03/03/22 02:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	03/02/22 16:00	03/03/22 02:59	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07

Lab Sample ID: 890-2003-2

Date Collected: 02/18/22 10:55

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	03/02/22 16:00	03/03/22 02:59	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/25/22 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			02/24/22 15:51	02/25/22 03:35	1
o-Terphenyl	98		70 - 130			02/24/22 15:51	02/25/22 03:35	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	510		5.00	mg/Kg			02/27/22 14:33	1

Client Sample ID: BH08

Lab Sample ID: 890-2003-3

Date Collected: 02/18/22 11:00

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/02/22 16:00	03/03/22 03:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	03/02/22 16:00	03/03/22 03:25	1
1,4-Difluorobenzene (Surr)	95		70 - 130	03/02/22 16:00	03/03/22 03:25	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	108		50.0	mg/Kg			02/25/22 15:07	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08

Lab Sample ID: 890-2003-3

Date Collected: 02/18/22 11:00

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 03:55	1
Diesel Range Organics (Over C10-C28)	108		50.0	mg/Kg		02/24/22 15:51	02/25/22 03:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 03:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	76		70 - 130			02/24/22 15:51	02/25/22 03:55	1
o-Terphenyl	74		70 - 130			02/24/22 15:51	02/25/22 03:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	492		25.1	mg/Kg			02/27/22 14:42	5

Client Sample ID: BH08

Lab Sample ID: 890-2003-4

Date Collected: 02/18/22 11:10

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/02/22 16:00	03/03/22 03:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/02/22 16:00	03/03/22 03:52	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	59	S1-	70 - 130			03/02/22 16:00	03/03/22 03:52	1
1,4-Difluorobenzene (Surr)	92		70 - 130			03/02/22 16:00	03/03/22 03:52	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/25/22 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 04:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 04:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 04:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			02/24/22 15:51	02/25/22 04:16	1
o-Terphenyl	100		70 - 130			02/24/22 15:51	02/25/22 04:16	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08

Lab Sample ID: 890-2003-4

Date Collected: 02/18/22 11:10

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.9		4.98	mg/Kg			02/27/22 14:51	1

Client Sample ID: BH09

Lab Sample ID: 890-2003-5

Date Collected: 02/18/22 12:30

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 22:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 22:15	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			03/01/22 08:30	03/01/22 22:15	1
1,4-Difluorobenzene (Surr)	97		70 - 130			03/01/22 08:30	03/01/22 22:15	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/25/22 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 04:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 04:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 04:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			02/24/22 15:51	02/25/22 04:57	1
o-Terphenyl	83		70 - 130			02/24/22 15:51	02/25/22 04:57	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	365		5.05	mg/Kg			02/27/22 14:59	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH09

Lab Sample ID: 890-2003-6

Date Collected: 02/18/22 12:45

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 22:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/01/22 08:30	03/01/22 22:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			03/01/22 08:30	03/01/22 22:36	1
1,4-Difluorobenzene (Surr)	93		70 - 130			03/01/22 08:30	03/01/22 22:36	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/25/22 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 05:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 05:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 05:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			02/24/22 15:51	02/25/22 05:17	1
o-Terphenyl	85		70 - 130			02/24/22 15:51	02/25/22 05:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	347		5.00	mg/Kg			02/27/22 15:26	1

Client Sample ID: BH10

Lab Sample ID: 890-2003-7

Date Collected: 02/18/22 13:05

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 22:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/01/22 08:30	03/01/22 22:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			03/01/22 08:30	03/01/22 22:56	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10

Lab Sample ID: 890-2003-7

Date Collected: 02/18/22 13:05

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	102		70 - 130	03/01/22 08:30	03/01/22 22:56	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1660		250	mg/Kg			02/25/22 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
Diesel Range Organics (Over C10-C28)	1660		250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
Oil Range Organics (Over C28-C36)	<250	U	250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	54	S1-	70 - 130			02/24/22 15:51	02/25/22 05:38	5
o-Terphenyl	81		70 - 130			02/24/22 15:51	02/25/22 05:38	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	906		4.99	mg/Kg			02/27/22 15:35	1

Client Sample ID: BH10

Lab Sample ID: 890-2003-8

Date Collected: 02/18/22 13:20

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	03/01/22 08:30	03/01/22 23:16	1
1,4-Difluorobenzene (Surr)	101		70 - 130	03/01/22 08:30	03/01/22 23:16	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/25/22 15:07	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10

Lab Sample ID: 890-2003-8

Date Collected: 02/18/22 13:20

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 04:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 04:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 04:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130			02/24/22 15:51	02/25/22 04:36	1
o-Terphenyl	89		70 - 130			02/24/22 15:51	02/25/22 04:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18000		253	mg/Kg			02/27/22 16:01	50

Client Sample ID: BH11

Lab Sample ID: 890-2003-9

Date Collected: 02/18/22 13:30

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:37	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			03/01/22 08:30	03/01/22 23:37	1
1,4-Difluorobenzene (Surr)	90		70 - 130			03/01/22 08:30	03/01/22 23:37	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/25/22 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/25/22 08:25	02/25/22 17:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/25/22 08:25	02/25/22 17:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/25/22 08:25	02/25/22 17:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			02/25/22 08:25	02/25/22 17:05	1
o-Terphenyl	85		70 - 130			02/25/22 08:25	02/25/22 17:05	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH11

Lab Sample ID: 890-2003-9

Date Collected: 02/18/22 13:30

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	135		4.95	mg/Kg			02/27/22 16:10	1

Client Sample ID: BH11

Lab Sample ID: 890-2003-10

Date Collected: 02/18/22 13:45

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 23:57	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/01/22 08:30	03/01/22 23:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			03/01/22 08:30	03/01/22 23:57	1
1,4-Difluorobenzene (Surr)	103		70 - 130			03/01/22 08:30	03/01/22 23:57	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/25/22 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/25/22 08:25	02/25/22 17:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/25/22 08:25	02/25/22 17:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/25/22 08:25	02/25/22 17:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			02/25/22 08:25	02/25/22 17:25	1
o-Terphenyl	116		70 - 130			02/25/22 08:25	02/25/22 17:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3220		25.3	mg/Kg			02/27/22 16:19	5

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11907-A-1-B MS	Matrix Spike	98	106
880-11907-A-1-C MSD	Matrix Spike Duplicate	94	98
890-2003-1	BH07	88	91
890-2003-2	BH07	78	94
890-2003-3	BH08	88	95
890-2003-4	BH08	59 S1-	92
890-2003-5	BH09	111	97
890-2003-6	BH09	104	93
890-2003-7	BH10	105	102
890-2003-8	BH10	105	101
890-2003-9	BH11	100	90
890-2003-10	BH11	105	103
890-2009-A-3-G MS	Matrix Spike	72	73
890-2009-A-3-H MSD	Matrix Spike Duplicate	122	75
CB MB	Method Blank	51 S1-	99
LCS 880-20526/1-A	Lab Control Sample	98	101
LCS 880-20605/1-A	Lab Control Sample	101	124
LCSD 880-20526/2-A	Lab Control Sample Dup	101	103
LCSD 880-20605/2-A	Lab Control Sample Dup	97	102
MB 880-20526/5-A	Method Blank	97	98
MB 880-20605/5-A	Method Blank	49 S1-	101
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-11670-A-1-D MS	Matrix Spike	69 S1-	73
880-11670-A-1-E MSD	Matrix Spike Duplicate	82	77
890-2003-1	BH07	88	86
890-2003-2	BH07	96	98
890-2003-3	BH08	76	74
890-2003-4	BH08	98	100
890-2003-5	BH09	81	83
890-2003-6	BH09	83	85
890-2003-7	BH10	54 S1-	81
890-2003-8	BH10	84	89
890-2003-9	BH11	89	85
890-2003-10	BH11	113	116
890-2004-A-1-E MS	Matrix Spike	94	81
890-2004-A-1-F MSD	Matrix Spike Duplicate	92	80
LCS 880-20293/2-A	Lab Control Sample	80	81
LCSD 880-20293/3-A	Lab Control Sample Dup	103	104
MB 880-20293/1-A	Method Blank	105	115
Surrogate Legend			

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11
1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Job ID: 890-2003-1
SDG: 31403360.03

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-20253/2-A	Lab Control Sample	132 S1+	136 S1+
LCSD 880-20253/3-A	Lab Control Sample Dup	113	128
MB 880-20253/1-A	Method Blank	97	102
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20526/5-A

Matrix: Solid

Analysis Batch: 20577

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20526

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 13:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/01/22 08:30	03/01/22 13:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/01/22 08:30	03/01/22 13:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	03/01/22 08:30	03/01/22 13:39	1
1,4-Difluorobenzene (Surr)	98		70 - 130	03/01/22 08:30	03/01/22 13:39	1

Lab Sample ID: LCS 880-20526/1-A

Matrix: Solid

Analysis Batch: 20577

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20526

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09731		mg/Kg		97	70 - 130
Toluene	0.100	0.09402		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09440		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.2156		mg/Kg		108	70 - 130
o-Xylene	0.100	0.1049		mg/Kg		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-20526/2-A

Matrix: Solid

Analysis Batch: 20577

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20526

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1030		mg/Kg		103	70 - 130	6	35
Toluene	0.100	0.09946		mg/Kg		99	70 - 130	6	35
Ethylbenzene	0.100	0.1007		mg/Kg		101	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2324		mg/Kg		116	70 - 130	7	35
o-Xylene	0.100	0.1148		mg/Kg		115	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-2009-A-3-G MS

Matrix: Solid

Analysis Batch: 20577

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.0498	U F1	0.101	0.8104	F1	mg/Kg		804	70 - 130
Toluene	<0.0498	U F1 F2	0.101	1.626	F1	mg/Kg		1613	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

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

Lab Sample ID: 890-2009-A-3-G MS

Matrix: Solid

Analysis Batch: 20577

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.0498	U F1 F2	0.101	2.379	F1	mg/Kg		2360	70 - 130
m-Xylene & p-Xylene	<0.0996	U F1 F2	0.202	9.133	F1	mg/Kg		4530	70 - 130
o-Xylene	<0.0498	U F1 F2	0.101	4.163	F1	mg/Kg		4130	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	72		70 - 130						
1,4-Difluorobenzene (Surr)	73		70 - 130						

Lab Sample ID: 890-2009-A-3-H MSD

Matrix: Solid

Analysis Batch: 20577

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.0498	U F1	0.0996	0.9509	F1	mg/Kg		955	70 - 130	16	35
Toluene	<0.0498	U F1 F2	0.0996	2.505	F1 F2	mg/Kg		2515	70 - 130	43	35
Ethylbenzene	<0.0498	U F1 F2	0.0996	3.505	F1 F2	mg/Kg		3519	70 - 130	38	35
m-Xylene & p-Xylene	<0.0996	U F1 F2	0.199	15.01	F1 F2	mg/Kg		7534	70 - 130	49	35
o-Xylene	<0.0498	U F1 F2	0.0996	7.358	F1 F2	mg/Kg		7387	70 - 130	55	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	122		70 - 130								
1,4-Difluorobenzene (Surr)	75		70 - 130								

Lab Sample ID: MB 880-20605/5-A

Matrix: Solid

Analysis Batch: 20710

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20605

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/02/22 20:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/02/22 16:00	03/02/22 20:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	49	S1-	70 - 130			03/02/22 16:00	03/02/22 20:20	1
1,4-Difluorobenzene (Surr)	101		70 - 130			03/02/22 16:00	03/02/22 20:20	1

Lab Sample ID: LCS 880-20605/1-A

Matrix: Solid

Analysis Batch: 20710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20605

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1224		mg/Kg		122	70 - 130
Toluene	0.100	0.1044		mg/Kg		104	70 - 130
Ethylbenzene	0.100	0.1072		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2201		mg/Kg		110	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

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

Lab Sample ID: LCS 880-20605/1-A

Matrix: Solid

Analysis Batch: 20710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20605

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	0.100	0.1072		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	124		70 - 130

Lab Sample ID: LCSD 880-20605/2-A

Matrix: Solid

Analysis Batch: 20710

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20605

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1058		mg/Kg		106	70 - 130	15	35
Toluene	0.100	0.09560		mg/Kg		96	70 - 130	9	35
Ethylbenzene	0.100	0.1004		mg/Kg		100	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2080		mg/Kg		104	70 - 130	6	35
o-Xylene	0.100	0.09996		mg/Kg		100	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-11907-A-1-B MS

Matrix: Solid

Analysis Batch: 20710

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20605

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.101	0.07733		mg/Kg		77	70 - 130
Toluene	<0.00200	U F1	0.101	0.06553	F1	mg/Kg		65	70 - 130
Ethylbenzene	<0.00200	U F1	0.101	0.06954	F1	mg/Kg		69	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.201	0.1418		mg/Kg		70	70 - 130
o-Xylene	<0.00200	U	0.101	0.07034		mg/Kg		70	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-11907-A-1-C MSD

Matrix: Solid

Analysis Batch: 20710

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20605

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.07748		mg/Kg		77	70 - 130	0	35
Toluene	<0.00200	U F1	0.100	0.06554	F1	mg/Kg		65	70 - 130	0	35
Ethylbenzene	<0.00200	U F1	0.100	0.07098		mg/Kg		71	70 - 130	2	35
m-Xylene & p-Xylene	<0.00401	U	0.201	0.1454		mg/Kg		72	70 - 130	3	35
o-Xylene	<0.00200	U	0.100	0.07552		mg/Kg		75	70 - 130	7	35

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

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

Lab Sample ID: 880-11907-A-1-C MSD

Matrix: Solid

Analysis Batch: 20710

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20605

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: CB MB

Matrix: Solid

Analysis Batch: 20710

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB							
	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200	mg/Kg			03/02/22 17:14	1	
Toluene	<0.00200	U	0.00200	mg/Kg			03/02/22 17:14	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			03/02/22 17:14	1	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			03/02/22 17:14	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg			03/02/22 17:14	1	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			03/02/22 17:14	1	

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	51	S1-	70 - 130		03/02/22 17:14	1			
1,4-Difluorobenzene (Surr)	99		70 - 130		03/02/22 17:14	1			

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

Lab Sample ID: MB 880-20253/1-A

Matrix: Solid

Analysis Batch: 20195

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20253

Analyte	MB	MB							
	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/24/22 21:01	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/24/22 21:01	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/24/22 21:01	1	

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	97		70 - 130	02/24/22 15:51	02/24/22 21:01	1			
o-Terphenyl	102		70 - 130	02/24/22 15:51	02/24/22 21:01	1			

Lab Sample ID: LCS 880-20253/2-A

Matrix: Solid

Analysis Batch: 20195

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20253

Analyte	Spike	LCS	LCS						
	Added	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	808.4		mg/Kg		81		70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1182		mg/Kg		118		70 - 130	

	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	132	S1+	70 - 130						
o-Terphenyl	136	S1+	70 - 130						

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

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

Lab Sample ID: LCSD 880-20253/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 20195				Prep Batch: 20253							
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	876.2		mg/Kg		88	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	1084		mg/Kg		108	70 - 130	9	20
LCSD LCSD											
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	113		70 - 130								
o-Terphenyl	128		70 - 130								

Lab Sample ID: 880-11670-A-1-D MS				Client Sample ID: Matrix Spike							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 20195				Prep Batch: 20253							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1187		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1120		mg/Kg		112	70 - 130		
MS MS											
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	69	S1-	70 - 130								
o-Terphenyl	73		70 - 130								

Lab Sample ID: 880-11670-A-1-E MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 20195				Prep Batch: 20253							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1007		mg/Kg		97	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1187		mg/Kg		119	70 - 130	6	20
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	82		70 - 130								
o-Terphenyl	77		70 - 130								

Lab Sample ID: MB 880-20293/1-A				Client Sample ID: Method Blank							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 20308				Prep Batch: 20293							
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/25/22 08:25	02/25/22 12:36	1			
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/25/22 08:25	02/25/22 12:36	1			
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/25/22 08:25	02/25/22 12:36	1			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

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

Lab Sample ID: MB 880-20293/1-A

Matrix: Solid

Analysis Batch: 20308

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20293

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	02/25/22 08:25	02/25/22 12:36	1
o-Terphenyl	115		70 - 130	02/25/22 08:25	02/25/22 12:36	1

Lab Sample ID: LCS 880-20293/2-A

Matrix: Solid

Analysis Batch: 20308

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20293

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	797.2		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	928.5		mg/Kg		93	70 - 130		

	LCS	LCS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	80		70 - 130			
o-Terphenyl	81		70 - 130			

Lab Sample ID: LCSD 880-20293/3-A

Matrix: Solid

Analysis Batch: 20308

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20293

			Spike	LCSD	LCSD				%Rec.		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	821.5		mg/Kg		82	70 - 130	3	20	
Diesel Range Organics (Over C10-C28)			1000	1019		mg/Kg		102	70 - 130	9	20	

	LCSD	LCSD				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	103		70 - 130			
o-Terphenyl	104		70 - 130			

Lab Sample ID: 890-2004-A-1-E MS

Matrix: Solid

Analysis Batch: 20308

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20293

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1240		mg/Kg		124	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1269		mg/Kg		127	70 - 130		

	MS	MS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	94		70 - 130			
o-Terphenyl	81		70 - 130			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

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

Lab Sample ID: 890-2004-A-1-F MSD

Matrix: Solid

Analysis Batch: 20308

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20293

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1205		mg/Kg		121	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1237		mg/Kg		124	70 - 130	3	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	92		70 - 130								
o-Terphenyl	80		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20217/1-A

Matrix: Solid

Analysis Batch: 20409

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/27/22 12:29	1

Lab Sample ID: LCS 880-20217/2-A

Matrix: Solid

Analysis Batch: 20409

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	252.6		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-20217/3-A

Matrix: Solid

Analysis Batch: 20409

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	252.6		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-2003-5 MS

Matrix: Solid

Analysis Batch: 20409

Client Sample ID: BH09

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	365		253	614.6		mg/Kg		99	90 - 110

Lab Sample ID: 890-2003-5 MSD

Matrix: Solid

Analysis Batch: 20409

Client Sample ID: BH09

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	365		253	611.6		mg/Kg		97	90 - 110	1	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC VOA

Analysis Batch: 20453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	Total BTEX	
890-2003-2	BH07	Total/NA	Solid	Total BTEX	
890-2003-3	BH08	Total/NA	Solid	Total BTEX	
890-2003-4	BH08	Total/NA	Solid	Total BTEX	
890-2003-5	BH09	Total/NA	Solid	Total BTEX	
890-2003-6	BH09	Total/NA	Solid	Total BTEX	
890-2003-7	BH10	Total/NA	Solid	Total BTEX	
890-2003-8	BH10	Total/NA	Solid	Total BTEX	
890-2003-9	BH11	Total/NA	Solid	Total BTEX	
890-2003-10	BH11	Total/NA	Solid	Total BTEX	

Prep Batch: 20526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-5	BH09	Total/NA	Solid	5035	
890-2003-6	BH09	Total/NA	Solid	5035	
890-2003-7	BH10	Total/NA	Solid	5035	
890-2003-8	BH10	Total/NA	Solid	5035	
890-2003-9	BH11	Total/NA	Solid	5035	
890-2003-10	BH11	Total/NA	Solid	5035	
MB 880-20526/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20526/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20526/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2009-A-3-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2009-A-3-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-5	BH09	Total/NA	Solid	8021B	20526
890-2003-6	BH09	Total/NA	Solid	8021B	20526
890-2003-7	BH10	Total/NA	Solid	8021B	20526
890-2003-8	BH10	Total/NA	Solid	8021B	20526
890-2003-9	BH11	Total/NA	Solid	8021B	20526
890-2003-10	BH11	Total/NA	Solid	8021B	20526
MB 880-20526/5-A	Method Blank	Total/NA	Solid	8021B	20526
LCS 880-20526/1-A	Lab Control Sample	Total/NA	Solid	8021B	20526
LCSD 880-20526/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20526
890-2009-A-3-G MS	Matrix Spike	Total/NA	Solid	8021B	20526
890-2009-A-3-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20526

Prep Batch: 20605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	5035	
890-2003-2	BH07	Total/NA	Solid	5035	
890-2003-3	BH08	Total/NA	Solid	5035	
890-2003-4	BH08	Total/NA	Solid	5035	
MB 880-20605/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20605/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20605/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11907-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-11907-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC VOA

Analysis Batch: 20710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8021B	20605
890-2003-2	BH07	Total/NA	Solid	8021B	20605
890-2003-3	BH08	Total/NA	Solid	8021B	20605
890-2003-4	BH08	Total/NA	Solid	8021B	20605
CB MB	Method Blank	Total/NA	Solid	8021B	
MB 880-20605/5-A	Method Blank	Total/NA	Solid	8021B	20605
LCS 880-20605/1-A	Lab Control Sample	Total/NA	Solid	8021B	20605
LCSD 880-20605/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20605
880-11907-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	20605
880-11907-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20605

GC Semi VOA

Analysis Batch: 20195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015B NM	20253
890-2003-2	BH07	Total/NA	Solid	8015B NM	20253
890-2003-3	BH08	Total/NA	Solid	8015B NM	20253
890-2003-4	BH08	Total/NA	Solid	8015B NM	20253
890-2003-5	BH09	Total/NA	Solid	8015B NM	20253
890-2003-6	BH09	Total/NA	Solid	8015B NM	20253
890-2003-7	BH10	Total/NA	Solid	8015B NM	20253
890-2003-8	BH10	Total/NA	Solid	8015B NM	20253
MB 880-20253/1-A	Method Blank	Total/NA	Solid	8015B NM	20253
LCS 880-20253/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20253
LCSD 880-20253/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20253
880-11670-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	20253
880-11670-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20253

Prep Batch: 20253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015NM Prep	
890-2003-2	BH07	Total/NA	Solid	8015NM Prep	
890-2003-3	BH08	Total/NA	Solid	8015NM Prep	
890-2003-4	BH08	Total/NA	Solid	8015NM Prep	
890-2003-5	BH09	Total/NA	Solid	8015NM Prep	
890-2003-6	BH09	Total/NA	Solid	8015NM Prep	
890-2003-7	BH10	Total/NA	Solid	8015NM Prep	
890-2003-8	BH10	Total/NA	Solid	8015NM Prep	
MB 880-20253/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20253/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20253/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11670-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11670-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 20293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-9	BH11	Total/NA	Solid	8015NM Prep	
890-2003-10	BH11	Total/NA	Solid	8015NM Prep	
MB 880-20293/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20293/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC Semi VOA (Continued)

Prep Batch: 20293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-20293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2004-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2004-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-9	BH11	Total/NA	Solid	8015B NM	20293
890-2003-10	BH11	Total/NA	Solid	8015B NM	20293
MB 880-20293/1-A	Method Blank	Total/NA	Solid	8015B NM	20293
LCS 880-20293/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20293
LCSD 880-20293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20293
890-2004-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	20293
890-2004-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20293

Analysis Batch: 20341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015 NM	
890-2003-2	BH07	Total/NA	Solid	8015 NM	
890-2003-3	BH08	Total/NA	Solid	8015 NM	
890-2003-4	BH08	Total/NA	Solid	8015 NM	
890-2003-5	BH09	Total/NA	Solid	8015 NM	
890-2003-6	BH09	Total/NA	Solid	8015 NM	
890-2003-7	BH10	Total/NA	Solid	8015 NM	
890-2003-8	BH10	Total/NA	Solid	8015 NM	
890-2003-9	BH11	Total/NA	Solid	8015 NM	
890-2003-10	BH11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 20217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Soluble	Solid	DI Leach	
890-2003-2	BH07	Soluble	Solid	DI Leach	
890-2003-3	BH08	Soluble	Solid	DI Leach	
890-2003-4	BH08	Soluble	Solid	DI Leach	
890-2003-5	BH09	Soluble	Solid	DI Leach	
890-2003-6	BH09	Soluble	Solid	DI Leach	
890-2003-7	BH10	Soluble	Solid	DI Leach	
890-2003-8	BH10	Soluble	Solid	DI Leach	
890-2003-9	BH11	Soluble	Solid	DI Leach	
890-2003-10	BH11	Soluble	Solid	DI Leach	
MB 880-20217/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20217/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20217/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2003-5 MS	BH09	Soluble	Solid	DI Leach	
890-2003-5 MSD	BH09	Soluble	Solid	DI Leach	

Analysis Batch: 20409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Soluble	Solid	300.0	20217
890-2003-2	BH07	Soluble	Solid	300.0	20217

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

HPLC/IC (Continued)

Analysis Batch: 20409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-3	BH08	Soluble	Solid	300.0	20217
890-2003-4	BH08	Soluble	Solid	300.0	20217
890-2003-5	BH09	Soluble	Solid	300.0	20217
890-2003-6	BH09	Soluble	Solid	300.0	20217
890-2003-7	BH10	Soluble	Solid	300.0	20217
890-2003-8	BH10	Soluble	Solid	300.0	20217
890-2003-9	BH11	Soluble	Solid	300.0	20217
890-2003-10	BH11	Soluble	Solid	300.0	20217
MB 880-20217/1-A	Method Blank	Soluble	Solid	300.0	20217
LCS 880-20217/2-A	Lab Control Sample	Soluble	Solid	300.0	20217
LCSD 880-20217/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20217
890-2003-5 MS	BH09	Soluble	Solid	300.0	20217
890-2003-5 MSD	BH09	Soluble	Solid	300.0	20217

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07
Date Collected: 02/18/22 10:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 02:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 14:24	CH	XEN MID

Client Sample ID: BH07
Date Collected: 02/18/22 10:55
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 02:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:35	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:33	CH	XEN MID

Client Sample ID: BH08
Date Collected: 02/18/22 11:00
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 03:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:55	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 14:42	CH	XEN MID

Client Sample ID: BH08
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 03:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:51	CH	XEN MID

Client Sample ID: BH09
Date Collected: 02/18/22 12:30
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:59	CH	XEN MID

Client Sample ID: BH09
Date Collected: 02/18/22 12:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 05:17	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 15:26	CH	XEN MID

Client Sample ID: BH10
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		5			20195	02/25/22 05:38	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 15:35	CH	XEN MID

Client Sample ID: BH10
Date Collected: 02/18/22 13:20
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:36	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		50			20409	02/27/22 16:01	CH	XEN MID

Client Sample ID: BH11
Date Collected: 02/18/22 13:30
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20293	02/25/22 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20308	02/25/22 17:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 16:10	CH	XEN MID

Client Sample ID: BH11
Date Collected: 02/18/22 13:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20293	02/25/22 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20308	02/25/22 17:25	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 16:19	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Laboratory References:
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

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

Protocol References:

- ASTM = ASTM International
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2003-1	BH07	Solid	02/18/22 10:45	02/23/22 11:26	0.5
890-2003-2	BH07	Solid	02/18/22 10:55	02/23/22 11:26	4
890-2003-3	BH08	Solid	02/18/22 11:00	02/23/22 11:26	0.5
890-2003-4	BH08	Solid	02/18/22 11:10	02/23/22 11:26	4
890-2003-5	BH09	Solid	02/18/22 12:30	02/23/22 11:26	0.5
890-2003-6	BH09	Solid	02/18/22 12:45	02/23/22 11:26	4
890-2003-7	BH10	Solid	02/18/22 13:05	02/23/22 11:26	0.5
890-2003-8	BH10	Solid	02/18/22 13:20	02/23/22 11:26	4
890-2003-9	BH11	Solid	02/18/22 13:30	02/23/22 11:26	0.5
890-2003-10	BH11	Solid	02/18/22 13:45	02/23/22 11:26	4





Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Joseph Hernandez	Bill to: (if different)	Joseph Hernandez
Company Name:	WSP USA	Company Name:	WSP
Address:	3300 N A Street	Address:	3300 N A Street
City, State ZIP:	Midland, TX, 79705	City, State ZIP:	Midland, TX, 79705
Phone:	281-702-2329	Email:	Address: Anna.Byers@wsp.com

Program: <input checked="" type="checkbox"/> UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Rowfields <input type="checkbox"/> RC <input type="checkbox"/> Spentfund <input type="checkbox"/>	
State of Project:	
Reporting Level: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>	Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	RDU 11	Turn Around	Routine
Project Number:	31403360.03	Flush:	
P.O. Number:	Napp2200728755	Due Date:	
Sampler's Name:	Gilbert Moreno		
SAMPLE RECEIPT			
Temperature (°C):	18.1/1.6	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Received In tact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID	TRW-067
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total Containers:	



890-2003 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
BH07	S	02/18/22	10:45	0.5'	1	X	X	X		
BH07	S	02/18/22	10:55	4'	1	X	X	X		
BH08	S	02/18/22	11:00	0.5'	1	X	X	X		
BH08	S	02/18/22	11:10	4'	1	X	X	X		
BH09	S	02/18/22	12:30	0.5'	1	X	X	X		
BH09	S	02/18/22	12:45	4'	1	X	X	X		
BH10	S	02/18/22	13:05	0.5'	1	X	X	X		
BH10	S	02/18/22	13:20	4'	1	X	X	X		
BH11	S	2/18/2022	13:30	0.5'	1	X	X	X		
BH11	S	2/18/2022	13:45	4'	1	X	X	X		

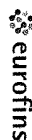
Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	2-23-22 11:24			

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Chain of Custody Record



Environment Testing America

1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax 575-988-3199

[illegible]

1089 N Canal St
Carlsbad, NM 88220

Chain of Custody Record



**Environment Testing
America**

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2003-1

SDG Number: 31403360.03

Login Number: 2003

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2003-1

SDG Number: 31403360.03

Login Number: 2003

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 02/24/22 12:49 PM

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



Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2030-1

Laboratory Sample Delivery Group: 31403360.031

Client Project/Site: RDU 11

For:

WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
3/7/2022 9:27:48 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2030-1
SDG: 31403360.031

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Job ID: 890-2030-1

Laboratory: Eurofins Carlsbad

Narrative	
	Job Narrative 890-2030-1

Receipt

The samples were received on 3/1/2022 8:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12

Lab Sample ID: 890-2030-1

Date Collected: 02/28/22 10:30

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	03/06/22 11:15	03/06/22 16:21	1
1,4-Difluorobenzene (Surr)	114		70 - 130	03/06/22 11:15	03/06/22 16:21	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	03/02/22 08:11	03/03/22 02:31	1
o-Terphenyl	104		70 - 130	03/02/22 08:11	03/03/22 02:31	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1610		25.0		mg/Kg			03/05/22 15:30	5

Client Sample ID: BH12

Lab Sample ID: 890-2030-2

Date Collected: 02/28/22 10:33

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	9	S1-	70 - 130	03/06/22 11:15	03/06/22 16:48	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12

Lab Sample ID: 890-2030-2

Date Collected: 02/28/22 10:33

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	101		70 - 130	03/06/22 11:15	03/06/22 16:48	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				03/02/22 08:11	03/03/22 03:34	1
o-Terphenyl	103		70 - 130				03/02/22 08:11	03/03/22 03:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1360		25.0		mg/Kg			03/05/22 16:06	5

Client Sample ID: BH13

Lab Sample ID: 890-2030-3

Date Collected: 02/28/22 11:20

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/06/22 11:15	03/06/22 17:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	03/06/22 11:15	03/06/22 17:15	1
1,4-Difluorobenzene (Surr)	118		70 - 130	03/06/22 11:15	03/06/22 17:15	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13

Lab Sample ID: 890-2030-3

Date Collected: 02/28/22 11:20

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				03/02/22 08:11	03/03/22 03:55	1
o-Terphenyl	112		70 - 130				03/02/22 08:11	03/03/22 03:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4430		49.7		mg/Kg			03/05/22 16:18	10

Client Sample ID: BH13

Lab Sample ID: 890-2030-4

Date Collected: 02/28/22 11:25

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	8	S1-	70 - 130				03/06/22 11:15	03/06/22 17:41	1
1,4-Difluorobenzene (Surr)	108		70 - 130				03/06/22 11:15	03/06/22 17:41	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130				03/02/22 08:11	03/03/22 04:15	1
o-Terphenyl	97		70 - 130				03/02/22 08:11	03/03/22 04:15	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13

Lab Sample ID: 890-2030-4

Date Collected: 02/28/22 11:25

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7260		49.8		mg/Kg			03/05/22 16:30	10

Client Sample ID: BH14

Lab Sample ID: 890-2030-5

Date Collected: 02/28/22 11:30

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				03/06/22 11:15	03/06/22 18:08	1
1,4-Difluorobenzene (Surr)	116		70 - 130				03/06/22 11:15	03/06/22 18:08	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130				03/02/22 08:11	03/03/22 04:36	1
o-Terphenyl	106		70 - 130				03/02/22 08:11	03/03/22 04:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	464		5.00		mg/Kg			03/05/22 16:41	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH14

Lab Sample ID: 890-2030-6

Date Collected: 02/28/22 11:35

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/06/22 11:15	03/06/22 18:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	03/06/22 11:15	03/06/22 18:35	1
1,4-Difluorobenzene (Surr)	119		70 - 130	03/06/22 11:15	03/06/22 18:35	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	03/02/22 08:11	03/03/22 04:57	1
o-Terphenyl	120		70 - 130	03/02/22 08:11	03/03/22 04:57	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	115		4.99		mg/Kg			03/05/22 16:53	1

Client Sample ID: BH15

Lab Sample ID: 890-2030-7

Date Collected: 02/28/22 11:40

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/06/22 11:15	03/06/22 19:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	170	S1+	70 - 130	03/06/22 11:15	03/06/22 19:02	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15

Lab Sample ID: 890-2030-7

Date Collected: 02/28/22 11:40

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	85		70 - 130	03/06/22 11:15	03/06/22 19:02	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				03/02/22 08:11	03/03/22 05:18	1
o-Terphenyl	99		70 - 130				03/02/22 08:11	03/03/22 05:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	77.5		5.00		mg/Kg			03/05/22 17:05	1

Client Sample ID: BH15

Lab Sample ID: 890-2030-8

Date Collected: 02/28/22 11:50

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 20:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	03/06/22 11:15	03/06/22 20:48	1
1,4-Difluorobenzene (Surr)	110		70 - 130	03/06/22 11:15	03/06/22 20:48	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15

Lab Sample ID: 890-2030-8

Date Collected: 02/28/22 11:50

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				03/02/22 08:11	03/03/22 05:38	1
o-Terphenyl	111		70 - 130				03/02/22 08:11	03/03/22 05:38	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.4		4.98		mg/Kg			03/05/22 17:41	1

Client Sample ID: BH16

Lab Sample ID: 890-2030-9

Date Collected: 02/28/22 13:20

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130				03/06/22 11:15	03/06/22 21:15	1
1,4-Difluorobenzene (Surr)	105		70 - 130				03/06/22 11:15	03/06/22 21:15	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				03/02/22 08:11	03/03/22 05:59	1
o-Terphenyl	92		70 - 130				03/02/22 08:11	03/03/22 05:59	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH16

Lab Sample ID: 890-2030-9

Date Collected: 02/28/22 13:20

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1940		24.8		mg/Kg			03/05/22 17:53	5

Client Sample ID: BH16

Lab Sample ID: 890-2030-10

Date Collected: 02/28/22 13:25

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130				03/06/22 11:15	03/06/22 21:42	1
1,4-Difluorobenzene (Surr)	108		70 - 130				03/06/22 11:15	03/06/22 21:42	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130				03/02/22 08:11	03/03/22 06:19	1
o-Terphenyl	106		70 - 130				03/02/22 08:11	03/03/22 06:19	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4650		50.1		mg/Kg			03/05/22 18:28	10

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Lab Sample ID: 890-2030-11

Date Collected: 02/28/22 14:15

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	03/06/22 11:15	03/06/22 22:09	1
1,4-Difluorobenzene (Surr)	106		70 - 130	03/06/22 11:15	03/06/22 22:09	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	03/02/22 08:11	03/03/22 07:01	1
o-Terphenyl	97		70 - 130	03/02/22 08:11	03/03/22 07:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1090		24.9		mg/Kg			03/05/22 18:40	5

Client Sample ID: BH17

Lab Sample ID: 890-2030-12

Date Collected: 02/28/22 14:20

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 22:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	03/06/22 11:15	03/06/22 22:36	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Lab Sample ID: 890-2030-12

Date Collected: 02/28/22 14:20

Matrix: Solid

Date Received: 03/01/22 08:50

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	108		70 - 130	03/06/22 11:15	03/06/22 22:36	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	03/02/22 08:11	03/03/22 07:21	1
o-Terphenyl	103		70 - 130	03/02/22 08:11	03/03/22 07:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8280		100		mg/Kg			03/05/22 18:52	20

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11719-A-1-J MS	Matrix Spike	89	123
880-11719-A-1-K MSD	Matrix Spike Duplicate	94	124
890-2030-1	BH12	101	114
890-2030-2	BH12	9 S1-	101
890-2030-3	BH13	102	118
890-2030-4	BH13	8 S1-	108
890-2030-5	BH14	87	116
890-2030-6	BH14	106	119
890-2030-7	BH15	170 S1+	85
890-2030-8	BH15	94	110
890-2030-9	BH16	83	105
890-2030-10	BH16	89	108
890-2030-11	BH17	99	106
890-2030-12	BH17	101	108
LCS 880-20687/1-A	Lab Control Sample	82	116
LCSD 880-20687/2-A	Lab Control Sample Dup	84	111
MB 880-20687/5-A	Method Blank	51 S1-	108
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2030-1	BH12	100	104
890-2030-1 MS	BH12	94	100
890-2030-1 MSD	BH12	99	95
890-2030-2	BH12	99	103
890-2030-3	BH13	108	112
890-2030-4	BH13	95	97
890-2030-5	BH14	104	106
890-2030-6	BH14	118	120
890-2030-7	BH15	97	99
890-2030-8	BH15	108	111
890-2030-9	BH16	93	92
890-2030-10	BH16	105	106
890-2030-11	BH17	96	97
890-2030-12	BH17	99	103
LCS 880-20658/2-A	Lab Control Sample	107	106
LCSD 880-20658/3-A	Lab Control Sample Dup	106	105
MB 880-20658/1-A	Method Blank	112	117
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20687/5-A

Matrix: Solid

Analysis Batch: 20977

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20687

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/06/22 11:15	03/06/22 14:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	51	S1-	70 - 130	03/06/22 11:15	03/06/22 14:35	1
1,4-Difluorobenzene (Surr)	108		70 - 130	03/06/22 11:15	03/06/22 14:35	1

Lab Sample ID: LCS 880-20687/1-A

Matrix: Solid

Analysis Batch: 20977

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20687

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08533		mg/Kg		85	70 - 130
Toluene	0.100	0.08536		mg/Kg		85	70 - 130
Ethylbenzene	0.100	0.09079		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	0.200	0.1854		mg/Kg		93	70 - 130
o-Xylene	0.100	0.09200		mg/Kg		92	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	82		70 - 130
1,4-Difluorobenzene (Surr)	116		70 - 130

Lab Sample ID: LCSD 880-20687/2-A

Matrix: Solid

Analysis Batch: 20977

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20687

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09073		mg/Kg		91	70 - 130	6	35
Toluene	0.100	0.08702		mg/Kg		87	70 - 130	2	35
Ethylbenzene	0.100	0.09419		mg/Kg		94	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1931		mg/Kg		97	70 - 130	4	35
o-Xylene	0.100	0.09334		mg/Kg		93	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 880-11719-A-1-J MS

Matrix: Solid

Analysis Batch: 20977

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0998	0.1035		mg/Kg		104	70 - 130
Toluene	<0.00199	U	0.0998	0.09757		mg/Kg		98	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

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

Lab Sample ID: 880-11719-A-1-J MS

Matrix: Solid

Analysis Batch: 20977

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.0998	0.1035		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2115		mg/Kg		106	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1057		mg/Kg		106	70 - 130
Surrogate	%Recovery	MS Qualifier	MS Limits						
4-Bromofluorobenzene (Surr)	89		70 - 130						
1,4-Difluorobenzene (Surr)	123		70 - 130						

Lab Sample ID: 880-11719-A-1-K MSD

Matrix: Solid

Analysis Batch: 20977

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1073		mg/Kg		106	70 - 130	4	35
Toluene	<0.00199	U	0.101	0.1009		mg/Kg		100	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.101	0.1083		mg/Kg		107	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2216		mg/Kg		110	70 - 130	5	35
o-Xylene	<0.00199	U	0.101	0.1086		mg/Kg		107	70 - 130	3	35
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	94		70 - 130								
1,4-Difluorobenzene (Surr)	124		70 - 130								

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

Lab Sample ID: MB 880-20658/1-A

Matrix: Solid

Analysis Batch: 20655

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1
Surrogate	%Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130				03/02/22 08:11	03/03/22 01:28	1
o-Terphenyl	117		70 - 130				03/02/22 08:11	03/03/22 01:28	1

Lab Sample ID: LCS 880-20658/2-A

Matrix: Solid

Analysis Batch: 20655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	930.2		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	852.2		mg/Kg		85	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

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

Lab Sample ID: LCS 880-20658/2-A

Matrix: Solid

Analysis Batch: 20655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20658

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-20658/3-A

Matrix: Solid

Analysis Batch: 20655

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20658

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	971.8		mg/Kg		97	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	874.2		mg/Kg		87	70 - 130	3	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 890-2030-1 MS

Matrix: Solid

Analysis Batch: 20655

Client Sample ID: BH12

Prep Type: Total/NA

Prep Batch: 20658

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1077		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	943.7		mg/Kg		94	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-2030-1 MSD

Matrix: Solid

Analysis Batch: 20655

Client Sample ID: BH12

Prep Type: Total/NA

Prep Batch: 20658

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1086		mg/Kg		106	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	910.9		mg/Kg		91	70 - 130	4	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	95		70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20681/1-A Matrix: Solid Analysis Batch: 20963										Client Sample ID: Method Blank Prep Type: Soluble		
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	<5.00	U	5.00		mg/Kg			03/05/22 13:14	1			

Lab Sample ID: LCS 880-20681/2-A Matrix: Solid Analysis Batch: 20963										Client Sample ID: Lab Control Sample Prep Type: Soluble		
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Chloride			250	254.8		mg/Kg		102	90 - 110			

Lab Sample ID: LCSD 880-20681/3-A Matrix: Solid Analysis Batch: 20963										Client Sample ID: Lab Control Sample Dup Prep Type: Soluble		
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Chloride			250	257.4		mg/Kg		103	90 - 110	1	20	

Lab Sample ID: 890-2030-7 MS Matrix: Solid Analysis Batch: 20963										Client Sample ID: BH15 Prep Type: Soluble		
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits			
Chloride	77.5		250	316.5		mg/Kg		96	90 - 110			

Lab Sample ID: 890-2030-7 MSD Matrix: Solid Analysis Batch: 20963										Client Sample ID: BH15 Prep Type: Soluble		
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Chloride	77.5		250	321.4		mg/Kg		98	90 - 110	2	20	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC VOA

Prep Batch: 20687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	5035	
890-2030-2	BH12	Total/NA	Solid	5035	
890-2030-3	BH13	Total/NA	Solid	5035	
890-2030-4	BH13	Total/NA	Solid	5035	
890-2030-5	BH14	Total/NA	Solid	5035	
890-2030-6	BH14	Total/NA	Solid	5035	
890-2030-7	BH15	Total/NA	Solid	5035	
890-2030-8	BH15	Total/NA	Solid	5035	
890-2030-9	BH16	Total/NA	Solid	5035	
890-2030-10	BH16	Total/NA	Solid	5035	
890-2030-11	BH17	Total/NA	Solid	5035	
890-2030-12	BH17	Total/NA	Solid	5035	
MB 880-20687/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20687/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20687/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11719-A-1-J MS	Matrix Spike	Total/NA	Solid	5035	
880-11719-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8021B	20687
890-2030-2	BH12	Total/NA	Solid	8021B	20687
890-2030-3	BH13	Total/NA	Solid	8021B	20687
890-2030-4	BH13	Total/NA	Solid	8021B	20687
890-2030-5	BH14	Total/NA	Solid	8021B	20687
890-2030-6	BH14	Total/NA	Solid	8021B	20687
890-2030-7	BH15	Total/NA	Solid	8021B	20687
890-2030-8	BH15	Total/NA	Solid	8021B	20687
890-2030-9	BH16	Total/NA	Solid	8021B	20687
890-2030-10	BH16	Total/NA	Solid	8021B	20687
890-2030-11	BH17	Total/NA	Solid	8021B	20687
890-2030-12	BH17	Total/NA	Solid	8021B	20687
MB 880-20687/5-A	Method Blank	Total/NA	Solid	8021B	20687
LCS 880-20687/1-A	Lab Control Sample	Total/NA	Solid	8021B	20687
LCSD 880-20687/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20687
880-11719-A-1-J MS	Matrix Spike	Total/NA	Solid	8021B	20687
880-11719-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20687

Analysis Batch: 21059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	Total BTEX	
890-2030-2	BH12	Total/NA	Solid	Total BTEX	
890-2030-3	BH13	Total/NA	Solid	Total BTEX	
890-2030-4	BH13	Total/NA	Solid	Total BTEX	
890-2030-5	BH14	Total/NA	Solid	Total BTEX	
890-2030-6	BH14	Total/NA	Solid	Total BTEX	
890-2030-7	BH15	Total/NA	Solid	Total BTEX	
890-2030-8	BH15	Total/NA	Solid	Total BTEX	
890-2030-9	BH16	Total/NA	Solid	Total BTEX	
890-2030-10	BH16	Total/NA	Solid	Total BTEX	
890-2030-11	BH17	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC VOA (Continued)

Analysis Batch: 21059 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-12	BH17	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 20655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015B NM	20658
890-2030-2	BH12	Total/NA	Solid	8015B NM	20658
890-2030-3	BH13	Total/NA	Solid	8015B NM	20658
890-2030-4	BH13	Total/NA	Solid	8015B NM	20658
890-2030-5	BH14	Total/NA	Solid	8015B NM	20658
890-2030-6	BH14	Total/NA	Solid	8015B NM	20658
890-2030-7	BH15	Total/NA	Solid	8015B NM	20658
890-2030-8	BH15	Total/NA	Solid	8015B NM	20658
890-2030-9	BH16	Total/NA	Solid	8015B NM	20658
890-2030-10	BH16	Total/NA	Solid	8015B NM	20658
890-2030-11	BH17	Total/NA	Solid	8015B NM	20658
890-2030-12	BH17	Total/NA	Solid	8015B NM	20658
MB 880-20658/1-A	Method Blank	Total/NA	Solid	8015B NM	20658
LCS 880-20658/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20658
LCSD 880-20658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20658
890-2030-1 MS	BH12	Total/NA	Solid	8015B NM	20658
890-2030-1 MSD	BH12	Total/NA	Solid	8015B NM	20658

Prep Batch: 20658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015NM Prep	
890-2030-2	BH12	Total/NA	Solid	8015NM Prep	
890-2030-3	BH13	Total/NA	Solid	8015NM Prep	
890-2030-4	BH13	Total/NA	Solid	8015NM Prep	
890-2030-5	BH14	Total/NA	Solid	8015NM Prep	
890-2030-6	BH14	Total/NA	Solid	8015NM Prep	
890-2030-7	BH15	Total/NA	Solid	8015NM Prep	
890-2030-8	BH15	Total/NA	Solid	8015NM Prep	
890-2030-9	BH16	Total/NA	Solid	8015NM Prep	
890-2030-10	BH16	Total/NA	Solid	8015NM Prep	
890-2030-11	BH17	Total/NA	Solid	8015NM Prep	
890-2030-12	BH17	Total/NA	Solid	8015NM Prep	
MB 880-20658/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20658/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2030-1 MS	BH12	Total/NA	Solid	8015NM Prep	
890-2030-1 MSD	BH12	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015 NM	
890-2030-2	BH12	Total/NA	Solid	8015 NM	
890-2030-3	BH13	Total/NA	Solid	8015 NM	
890-2030-4	BH13	Total/NA	Solid	8015 NM	
890-2030-5	BH14	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC Semi VOA (Continued)

Analysis Batch: 20812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-6	BH14	Total/NA	Solid	8015 NM	
890-2030-7	BH15	Total/NA	Solid	8015 NM	
890-2030-8	BH15	Total/NA	Solid	8015 NM	
890-2030-9	BH16	Total/NA	Solid	8015 NM	
890-2030-10	BH16	Total/NA	Solid	8015 NM	
890-2030-11	BH17	Total/NA	Solid	8015 NM	
890-2030-12	BH17	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 20681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Soluble	Solid	DI Leach	
890-2030-2	BH12	Soluble	Solid	DI Leach	
890-2030-3	BH13	Soluble	Solid	DI Leach	
890-2030-4	BH13	Soluble	Solid	DI Leach	
890-2030-5	BH14	Soluble	Solid	DI Leach	
890-2030-6	BH14	Soluble	Solid	DI Leach	
890-2030-7	BH15	Soluble	Solid	DI Leach	
890-2030-8	BH15	Soluble	Solid	DI Leach	
890-2030-9	BH16	Soluble	Solid	DI Leach	
890-2030-10	BH16	Soluble	Solid	DI Leach	
890-2030-11	BH17	Soluble	Solid	DI Leach	
890-2030-12	BH17	Soluble	Solid	DI Leach	
MB 880-20681/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20681/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20681/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2030-7 MS	BH15	Soluble	Solid	DI Leach	
890-2030-7 MSD	BH15	Soluble	Solid	DI Leach	

Analysis Batch: 20963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Soluble	Solid	300.0	20681
890-2030-2	BH12	Soluble	Solid	300.0	20681
890-2030-3	BH13	Soluble	Solid	300.0	20681
890-2030-4	BH13	Soluble	Solid	300.0	20681
890-2030-5	BH14	Soluble	Solid	300.0	20681
890-2030-6	BH14	Soluble	Solid	300.0	20681
890-2030-7	BH15	Soluble	Solid	300.0	20681
890-2030-8	BH15	Soluble	Solid	300.0	20681
890-2030-9	BH16	Soluble	Solid	300.0	20681
890-2030-10	BH16	Soluble	Solid	300.0	20681
890-2030-11	BH17	Soluble	Solid	300.0	20681
890-2030-12	BH17	Soluble	Solid	300.0	20681
MB 880-20681/1-A	Method Blank	Soluble	Solid	300.0	20681
LCS 880-20681/2-A	Lab Control Sample	Soluble	Solid	300.0	20681
LCSD 880-20681/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20681
890-2030-7 MS	BH15	Soluble	Solid	300.0	20681
890-2030-7 MSD	BH15	Soluble	Solid	300.0	20681

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12
Date Collected: 02/28/22 10:30
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 16:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 02:31	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 15:30	SC	XEN MID

Client Sample ID: BH12
Date Collected: 02/28/22 10:33
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 16:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 03:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 16:06	SC	XEN MID

Client Sample ID: BH13
Date Collected: 02/28/22 11:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 17:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 03:55	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 16:18	SC	XEN MID

Client Sample ID: BH13
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 17:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 16:30	SC	XEN MID

Client Sample ID: BH14
Date Collected: 02/28/22 11:30
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 18:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:36	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 16:41	SC	XEN MID

Client Sample ID: BH14
Date Collected: 02/28/22 11:35
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 18:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 16:53	SC	XEN MID

Client Sample ID: BH15
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 19:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:18	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 17:05	SC	XEN MID

Client Sample ID: BH15
Date Collected: 02/28/22 11:50
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 20:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 17:41	SC	XEN MID

Client Sample ID: BH16
Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 21:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 17:53	SC	XEN MID

Client Sample ID: BH16
Date Collected: 02/28/22 13:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 21:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 06:19	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 18:28	SC	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17
Date Collected: 02/28/22 14:15
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 22:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 07:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 18:40	SC	XEN MID

Client Sample ID: BH17
Date Collected: 02/28/22 14:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 22:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 07:21	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		20			20963	03/05/22 18:52	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2030-1	BH12	Solid	02/28/22 10:30	03/01/22 08:50	2
890-2030-2	BH12	Solid	02/28/22 10:33	03/01/22 08:50	4
890-2030-3	BH13	Solid	02/28/22 11:20	03/01/22 08:50	2
890-2030-4	BH13	Solid	02/28/22 11:25	03/01/22 08:50	4
890-2030-5	BH14	Solid	02/28/22 11:30	03/01/22 08:50	0.5
890-2030-6	BH14	Solid	02/28/22 11:35	03/01/22 08:50	4
890-2030-7	BH15	Solid	02/28/22 11:40	03/01/22 08:50	0.5
890-2030-8	BH15	Solid	02/28/22 11:50	03/01/22 08:50	4
890-2030-9	BH16	Solid	02/28/22 13:20	03/01/22 08:50	2
890-2030-10	BH16	Solid	02/28/22 13:25	03/01/22 08:50	4
890-2030-11	BH17	Solid	02/28/22 14:15	03/01/22 08:50	2
890-2030-12	BH17	Solid	02/28/22 14:20	03/01/22 08:50	4

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296

Work Order No: _____
www.xenco.com Page 1 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name:	WPX Energy
Address:	3300 North A Street	Address:	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	281-702-2329	Email:	Anna.Byers@wsp.com

Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> KRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Reporting Level: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

Project Name:	RDU 11	Turn Around		Work Order Notes
Project Number:	31403360.031	Route	<input checked="" type="checkbox"/>	CG 1137631001
Incident ID:	nAPP2200728755	Rush:		API: PA.2021.04159.EXP.01
Sampler's Name:	Gilbert Moreno	Due Date:		
SAMPLE RECEIPT				
Temperature (°C):	1.2/1.0	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Thermometer ID:	TWA-007	
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Correction Factor:	0.2	
		Total Containers:		



890-2030 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	TAT starts the day received by the lab, if received by 4:30pm	Sample Comments
BH12	S	2.28.22	10:30	2	1	X	X	X		
BH12	S	2.28.22	10:33	4	1	X	X	X		
BH13	S	2.28.22	11:20	2	1	X	X	X		
BH13	S	2.28.22	11:25	4	1	X	X	X		
BH14	S	2.28.22	11:30	0.5	1	X	X	X		
BH14	S	2.28.22	11:35	4	1	X	X	X		
BH15	S	2.28.22	11:40	0.5	1	X	X	X		
BH15	S	2.28.22	11:50	4	1	X	X	X		
BH16	S	2.28.22	13:20	2	1	X	X	X		
BH16	S	2.28.22	13:25	4	1	X	X	X		

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010:	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Adrian</i>	<i>Joe Gaf</i>	3.1.22 0852			



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Work Order No: _____
www.xenco.com Page 2 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Riley
Company Name:	WSP	Company Name:	WPX Energy
Address:	3300 North A Street	Address:	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	281-702-2329	Email:	Anna.Byers@wsp.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Reporting Level: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

Project Name:	RDU 11	Turn Around	<input checked="" type="checkbox"/>
Project Number:	31403360.031	Route:	<input checked="" type="checkbox"/>
Incident ID:	nAPP2200728755	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):		Thermometer ID					
Received In tact:	Yes	No					
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:	0.2		
Sample Custody Seals:	Yes	No	N/A	Total Containers:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number	TPH (E	BTEX	Chlori																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										</
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Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO2	Na	Sr	Ti	Sn	U	V	Zn				
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U	1631 / 245.1 / 7470 / 7471 : Hg															

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	3.1.22 0850			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2030-1

SDG Number: 31403360.031

Login Number: 2030

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2030-1

SDG Number: 31403360.031

Login Number: 2030

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 03/02/22 11:22 AM

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



Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2040-1
Laboratory SDG: 31403360.036.31403360.035
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

Authorized for release by:
3/14/2022 1:37:54 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

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results through

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Job ID: 890-2040-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2040-1

Receipt

The samples were received on 3/3/2022 3:10 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-20924 and analytical batch 880-21381 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH04 (890-2040-7), BH08 (890-2040-16), BH09 (890-2040-17), BH10 (890-2040-19) and BH10 (890-2040-20). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-21026 and analytical batch 880-21137 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01

Lab Sample ID: 890-2040-1

Date Collected: 03/03/22 11:05

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/09/22 23:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	03/07/22 12:57	03/09/22 23:03	1
1,4-Difluorobenzene (Surr)	98		70 - 130	03/07/22 12:57	03/09/22 23:03	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	03/04/22 15:08	03/11/22 22:14	1
o-Terphenyl	105		70 - 130	03/04/22 15:08	03/11/22 22:14	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8700		99.8		mg/Kg			03/09/22 01:31	20

Client Sample ID: BH01

Lab Sample ID: 890-2040-2

Date Collected: 03/03/22 11:07

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 23:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	03/07/22 12:57	03/09/22 23:24	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01

Lab Sample ID: 890-2040-2

Date Collected: 03/03/22 11:07

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	97		70 - 130	03/07/22 12:57	03/09/22 23:24	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130				03/04/22 15:08	03/11/22 23:18	1
o-Terphenyl	123		70 - 130				03/04/22 15:08	03/11/22 23:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9220		99.2		mg/Kg			03/09/22 12:55	20

Client Sample ID: BH02

Lab Sample ID: 890-2040-3

Date Collected: 03/03/22 11:10

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/09/22 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	03/07/22 12:57	03/09/22 23:44	1
1,4-Difluorobenzene (Surr)	96		70 - 130	03/07/22 12:57	03/09/22 23:44	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02

Lab Sample ID: 890-2040-3

Date Collected: 03/03/22 11:10

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U *	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130				03/04/22 15:08	03/11/22 23:39	1
o-Terphenyl	79		70 - 130				03/04/22 15:08	03/11/22 23:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4300		49.8		mg/Kg			03/09/22 09:22	10

Client Sample ID: BH02

Lab Sample ID: 890-2040-4

Date Collected: 03/03/22 11:20

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				03/07/22 12:57	03/10/22 00:05	1
1,4-Difluorobenzene (Surr)	101		70 - 130				03/07/22 12:57	03/10/22 00:05	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U *	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130				03/04/22 15:08	03/12/22 00:01	1
o-Terphenyl	86		70 - 130				03/04/22 15:08	03/12/22 00:01	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02

Lab Sample ID: 890-2040-4

Date Collected: 03/03/22 11:20

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8350		100		mg/Kg			03/09/22 09:31	20

Client Sample ID: BH03

Lab Sample ID: 890-2040-5

Date Collected: 03/03/22 11:37

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130				03/07/22 12:57	03/10/22 00:25	1
1,4-Difluorobenzene (Surr)	99		70 - 130				03/07/22 12:57	03/10/22 00:25	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130				03/04/22 15:08	03/12/22 00:22	1
o-Terphenyl	78		70 - 130				03/04/22 15:08	03/12/22 00:22	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3310		49.7		mg/Kg			03/09/22 09:40	10

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH03

Lab Sample ID: 890-2040-6

Date Collected: 03/03/22 11:40

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 00:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	03/07/22 12:57	03/10/22 00:46	1
1,4-Difluorobenzene (Surr)	98		70 - 130	03/07/22 12:57	03/10/22 00:46	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130	03/04/22 15:08	03/12/22 00:44	1
o-Terphenyl	83		70 - 130	03/04/22 15:08	03/12/22 00:44	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12600		99.0		mg/Kg			03/09/22 10:06	20

Client Sample ID: BH04

Lab Sample ID: 890-2040-7

Date Collected: 03/03/22 09:25

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 01:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	03/07/22 12:57	03/10/22 01:06	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04

Lab Sample ID: 890-2040-7

Date Collected: 03/03/22 09:25

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	99		70 - 130	03/07/22 12:57	03/10/22 01:06	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	65	S1-	70 - 130				03/04/22 15:08	03/12/22 01:05	1
o-Terphenyl	65	S1-	70 - 130				03/04/22 15:08	03/12/22 01:05	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.3	F1	4.96		mg/Kg			03/09/22 16:05	1

Client Sample ID: BH04

Lab Sample ID: 890-2040-8

Date Collected: 03/03/22 09:30

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 01:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	03/07/22 12:57	03/10/22 01:26	1
1,4-Difluorobenzene (Surr)	101		70 - 130	03/07/22 12:57	03/10/22 01:26	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04

Lab Sample ID: 890-2040-8

Date Collected: 03/03/22 09:30

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130				03/04/22 15:08	03/12/22 01:26	1
o-Terphenyl	81		70 - 130				03/04/22 15:08	03/12/22 01:26	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.1		5.00		mg/Kg			03/09/22 16:23	1

Client Sample ID: BH05

Lab Sample ID: 890-2040-9

Date Collected: 03/03/22 09:35

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	302	S1+	70 - 130				03/07/22 12:57	03/10/22 01:47	1
1,4-Difluorobenzene (Surr)	273	S1+	70 - 130				03/07/22 12:57	03/10/22 01:47	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130				03/04/22 15:08	03/12/22 01:48	1
o-Terphenyl	72		70 - 130				03/04/22 15:08	03/12/22 01:48	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH05

Lab Sample ID: 890-2040-9

Date Collected: 03/03/22 09:35

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.80		4.98		mg/Kg			03/09/22 16:29	1

Client Sample ID: BH05

Lab Sample ID: 890-2040-10

Date Collected: 03/03/22 09:40

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130				03/07/22 12:57	03/10/22 02:07	1
1,4-Difluorobenzene (Surr)	98		70 - 130				03/07/22 12:57	03/10/22 02:07	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130				03/04/22 15:08	03/12/22 02:10	1
o-Terphenyl	73		70 - 130				03/04/22 15:08	03/12/22 02:10	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.6		5.00		mg/Kg			03/09/22 16:52	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06

Lab Sample ID: 890-2040-11

Date Collected: 03/03/22 09:45

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/07/22 12:57	03/10/22 03:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	03/07/22 12:57	03/10/22 03:29	1
1,4-Difluorobenzene (Surr)	100		70 - 130	03/07/22 12:57	03/10/22 03:29	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130	03/04/22 15:08	03/12/22 02:52	1
o-Terphenyl	77		70 - 130	03/04/22 15:08	03/12/22 02:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			03/09/22 16:58	1

Client Sample ID: BH06

Lab Sample ID: 890-2040-12

Date Collected: 03/03/22 09:50

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 03:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	03/07/22 12:57	03/10/22 03:50	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06

Lab Sample ID: 890-2040-12

Date Collected: 03/03/22 09:50

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130	03/07/22 12:57	03/10/22 03:50	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U *	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130				03/04/22 15:08	03/12/22 03:14	1
o-Terphenyl	78		70 - 130				03/04/22 15:08	03/12/22 03:14	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.4		5.04		mg/Kg			03/09/22 17:16	1

Client Sample ID: BH07

Lab Sample ID: 890-2040-13

Date Collected: 03/03/22 09:55

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	03/07/22 12:57	03/10/22 04:10	1
1,4-Difluorobenzene (Surr)	97		70 - 130	03/07/22 12:57	03/10/22 04:10	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07

Lab Sample ID: 890-2040-13

Date Collected: 03/03/22 09:55

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130				03/04/22 15:08	03/12/22 03:35	1
o-Terphenyl	91		70 - 130				03/04/22 15:08	03/12/22 03:35	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.01		4.98		mg/Kg			03/09/22 17:21	1

Client Sample ID: BH07

Lab Sample ID: 890-2040-14

Date Collected: 03/03/22 10:00

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				03/07/22 12:57	03/10/22 04:31	1
1,4-Difluorobenzene (Surr)	98		70 - 130				03/07/22 12:57	03/10/22 04:31	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				03/04/22 15:08	03/12/22 03:57	1
o-Terphenyl	101		70 - 130				03/04/22 15:08	03/12/22 03:57	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07

Lab Sample ID: 890-2040-14

Date Collected: 03/03/22 10:00

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		5.01		mg/Kg			03/09/22 17:27	1

Client Sample ID: BH08

Lab Sample ID: 890-2040-15

Date Collected: 03/03/22 10:05

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130				03/07/22 12:57	03/10/22 04:51	1
1,4-Difluorobenzene (Surr)	98		70 - 130				03/07/22 12:57	03/10/22 04:51	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U *	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				03/04/22 15:08	03/12/22 04:18	1
o-Terphenyl	88		70 - 130				03/04/22 15:08	03/12/22 04:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.90		4.99		mg/Kg			03/09/22 17:33	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH08

Lab Sample ID: 890-2040-16

Date Collected: 03/03/22 10:10

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 05:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	03/07/22 12:57	03/10/22 05:11	1
1,4-Difluorobenzene (Surr)	98		70 - 130	03/07/22 12:57	03/10/22 05:11	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	0.4	S1-	70 - 130	03/04/22 15:08	03/12/22 04:40	1
o-Terphenyl	2	S1-	70 - 130	03/04/22 15:08	03/12/22 04:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.1		4.95		mg/Kg			03/09/22 17:39	1

Client Sample ID: BH09

Lab Sample ID: 890-2040-17

Date Collected: 03/03/22 10:15

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 05:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	03/07/22 12:57	03/10/22 05:32	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09

Lab Sample ID: 890-2040-17

Date Collected: 03/03/22 10:15

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	102		70 - 130	03/07/22 12:57	03/10/22 05:32	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U *	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	61	S1-	70 - 130				03/04/22 15:08	03/12/22 05:01	1
o-Terphenyl	58	S1-	70 - 130				03/04/22 15:08	03/12/22 05:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.4		5.00		mg/Kg			03/09/22 17:45	1

Client Sample ID: BH09

Lab Sample ID: 890-2040-18

Date Collected: 03/03/22 10:25

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 05:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	03/07/22 12:57	03/10/22 05:52	1
1,4-Difluorobenzene (Surr)	98		70 - 130	03/07/22 12:57	03/10/22 05:52	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/14/22 12:12	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09

Lab Sample ID: 890-2040-18

Date Collected: 03/03/22 10:25

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1
Diesel Range Organics (Over C10-C28)	<49.8	U *	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130				03/04/22 15:08	03/12/22 05:23	1
o-Terphenyl	90		70 - 130				03/04/22 15:08	03/12/22 05:23	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	174		5.05		mg/Kg			03/09/22 18:03	1

Client Sample ID: BH10

Lab Sample ID: 890-2040-19

Date Collected: 03/03/22 10:30

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				03/07/22 12:57	03/10/22 06:13	1
1,4-Difluorobenzene (Surr)	98		70 - 130				03/07/22 12:57	03/10/22 06:13	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	61	S1-	70 - 130				03/04/22 15:08	03/12/22 05:45	1
o-Terphenyl	62	S1-	70 - 130				03/04/22 15:08	03/12/22 05:45	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH10

Lab Sample ID: 890-2040-19

Date Collected: 03/03/22 10:30

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.95		4.97		mg/Kg			03/09/22 18:09	1

Client Sample ID: BH10

Lab Sample ID: 890-2040-20

Date Collected: 03/03/22 10:35

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				03/07/22 12:57	03/10/22 06:33	1
1,4-Difluorobenzene (Surr)	98		70 - 130				03/07/22 12:57	03/10/22 06:33	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	70.6		50.0		mg/Kg			03/14/22 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1
Diesel Range Organics (Over C10-C28)	70.6	*-	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	0.03	S1-	70 - 130				03/04/22 15:08	03/12/22 06:06	1
o-Terphenyl	91		70 - 130				03/04/22 15:08	03/12/22 06:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.6		4.98		mg/Kg			03/09/22 18:26	1

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
890-2040-1	BH01	103	98				
890-2040-1 MS	BH01	100	99				
890-2040-1 MSD	BH01	101	99				
890-2040-2	BH01	105	97				
890-2040-3	BH02	101	96				
890-2040-4	BH02	109	101				
890-2040-5	BH03	108	99				
890-2040-6	BH03	108	98				
890-2040-7	BH04	107	99				
890-2040-8	BH04	110	101				
890-2040-9	BH05	302 S1+	273 S1+				
890-2040-10	BH05	108	98				
890-2040-11	BH06	109	100				
890-2040-12	BH06	108	98				
890-2040-13	BH07	105	97				
890-2040-14	BH07	109	98				
890-2040-15	BH08	108	98				
890-2040-16	BH08	106	98				
890-2040-17	BH09	110	102				
890-2040-18	BH09	112	98				
890-2040-19	BH10	103	98				
890-2040-20	BH10	104	98				
LCS 880-20908/1-A	Lab Control Sample	99	100				
LCSD 880-20908/2-A	Lab Control Sample Dup	99	100				
MB 880-20906/5-A	Method Blank	99	93				
MB 880-20908/5-A	Method Blank	95	93				
Surrogate Legend							
BFB = 4-Bromofluorobenzene (Surr)							
DFBZ = 1,4-Difluorobenzene (Surr)							

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	1CO1	OTPH1				
		(70-130)	(70-130)				
890-2040-1	BH01	98	105				
890-2040-1 MS	BH01	108	107				
890-2040-1 MSD	BH01	112	107				
890-2040-2	BH01	118	123				
890-2040-3	BH02	74	79				
890-2040-4	BH02	82	86				
890-2040-5	BH03	72	78				
890-2040-6	BH03	77	83				
890-2040-7	BH04	65 S1-	65 S1-				
890-2040-8	BH04	80	81				
890-2040-9	BH05	78	72				
890-2040-10	BH05	70	73				
890-2040-11	BH06	79	77				

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2040-12	BH06	75	78
890-2040-13	BH07	87	91
890-2040-14	BH07	98	101
890-2040-15	BH08	85	88
890-2040-16	BH08	0.4 S1-	2 S1-
890-2040-17	BH09	61 S1-	58 S1-
890-2040-18	BH09	87	90
890-2040-19	BH10	61 S1-	62 S1-
890-2040-20	BH10	0.03 S1-	91
LCS 880-20924/2-A	Lab Control Sample	101	103
LCSD 880-20924/3-A	Lab Control Sample Dup	113	115
MB 880-20924/1-A	Method Blank	101	109
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20906/5-A							Client Sample ID: Method Blank		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 21187							Prep Batch: 20906		
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130				03/09/22 08:00	03/09/22 10:58	1
1,4-Difluorobenzene (Surr)	93		70 - 130				03/09/22 08:00	03/09/22 10:58	1

Lab Sample ID: MB 880-20908/5-A							Client Sample ID: Method Blank		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 21187							Prep Batch: 20908		
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130				03/07/22 12:57	03/09/22 22:41	1
1,4-Difluorobenzene (Surr)	93		70 - 130				03/07/22 12:57	03/09/22 22:41	1

Lab Sample ID: LCS 880-20908/1-A							Client Sample ID: Lab Control Sample		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 21187							Prep Batch: 20908		
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Benzene		0.100	0.1006		mg/Kg		101	70 - 130	
Toluene		0.100	0.09711		mg/Kg		97	70 - 130	
Ethylbenzene		0.100	0.09592		mg/Kg		96	70 - 130	
m-Xylene & p-Xylene		0.200	0.1986		mg/Kg		99	70 - 130	
o-Xylene		0.100	0.09573		mg/Kg		96	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	99		70 - 130						
1,4-Difluorobenzene (Surr)	100		70 - 130						

Lab Sample ID: LCSD 880-20908/2-A							Client Sample ID: Lab Control Sample Dup		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 21187							Prep Batch: 20908		
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD Limit
Benzene		0.100	0.1030		mg/Kg		103	70 - 130	2 35

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

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

Lab Sample ID: LCSD 880-20908/2-A

Matrix: Solid

Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20908

Analyte	Spike		LCSD	LCSD	Unit	D	%Rec	%Rec.		RPD	
	Added	Result	Qualifier	Result				Limits	RPD	Limit	Limit
Toluene	0.100	0.09990			mg/Kg		100	70 - 130	3	35	
Ethylbenzene	0.100	0.09791			mg/Kg		98	70 - 130	2	35	
m-Xylene & p-Xylene	0.200	0.2036			mg/Kg		102	70 - 130	2	35	
o-Xylene	0.100	0.09864			mg/Kg		99	70 - 130	3	35	
LCSD		LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	99		70 - 130								
1,4-Difluorobenzene (Surr)	100		70 - 130								

Lab Sample ID: 890-2040-1 MS

Matrix: Solid

Analysis Batch: 21187

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 20908

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	<0.00199	U	0.0990	0.1074		mg/Kg		108	70 - 130		
Toluene	<0.00199	U	0.0990	0.1038		mg/Kg		105	70 - 130		
Ethylbenzene	<0.00199	U	0.0990	0.1022		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2108		mg/Kg		106	70 - 130		
o-Xylene	<0.00199	U	0.0990	0.1024		mg/Kg		103	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	100		70 - 130								
1,4-Difluorobenzene (Surr)	99		70 - 130								

Lab Sample ID: 890-2040-1 MSD

Matrix: Solid

Analysis Batch: 21187

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 20908

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		Limit
Benzene	<0.00199	U	0.0994	0.1022		mg/Kg		103	70 - 130	5	35
Toluene	<0.00199	U	0.0994	0.09897		mg/Kg		100	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.0994	0.09699		mg/Kg		98	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2012		mg/Kg		101	70 - 130	5	35
o-Xylene	<0.00199	U	0.0994	0.09863		mg/Kg		99	70 - 130	4	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	101		70 - 130								
1,4-Difluorobenzene (Surr)	99		70 - 130								

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

Lab Sample ID: MB 880-20924/1-A

Matrix: Solid

Analysis Batch: 21381

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20924

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

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

Lab Sample ID: MB 880-20924/1-A

Matrix: Solid

Analysis Batch: 21381

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				03/04/22 15:08	03/11/22 21:09	1
o-Terphenyl	109		70 - 130				03/04/22 15:08	03/11/22 21:09	1

Lab Sample ID: LCS 880-20924/2-A

Matrix: Solid

Analysis Batch: 21381

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	962.5		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	686.5	*-	mg/Kg		69	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	101		70 - 130				
o-Terphenyl	103		70 - 130				

Lab Sample ID: LCSD 880-20924/3-A

Matrix: Solid

Analysis Batch: 21381

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20924

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1041		mg/Kg		104	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	768.2		mg/Kg		77	70 - 130	11	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	113		70 - 130						
o-Terphenyl	115		70 - 130						

Lab Sample ID: 890-2040-1 MS

Matrix: Solid

Analysis Batch: 21381

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 20924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1019		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *-	1000	801.0		mg/Kg		78	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	108		70 - 130						
o-Terphenyl	107		70 - 130						

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

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

Lab Sample ID: 890-2040-1 MSD

Matrix: Solid

Analysis Batch: 21381

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 20924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1099		mg/Kg		107	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<50.0	U *	998	821.3		mg/Kg		80	70 - 130	3	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	112		70 - 130								
o-Terphenyl	107		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21026/1-A

Matrix: Solid

Analysis Batch: 21137

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 15:48	1

Lab Sample ID: LCS 880-21026/2-A

Matrix: Solid

Analysis Batch: 21137

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	231.2		mg/Kg		92	90 - 110

Lab Sample ID: LCSD 880-21026/3-A

Matrix: Solid

Analysis Batch: 21137

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	243.8		mg/Kg		98	90 - 110	5	20

Lab Sample ID: 890-2040-7 MS

Matrix: Solid

Analysis Batch: 21137

Client Sample ID: BH04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	45.3	F1	248	261.4	F1	mg/Kg		87	90 - 110

Lab Sample ID: 890-2040-7 MSD

Matrix: Solid

Analysis Batch: 21137

Client Sample ID: BH04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	45.3	F1	248	262.7	F1	mg/Kg		88	90 - 110	1	20

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2040-17 MS

Matrix: Solid

Analysis Batch: 21137

Client Sample ID: BH09

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.4		250	281.4		mg/Kg		108	90 - 110

Lab Sample ID: 890-2040-17 MSD

Matrix: Solid

Analysis Batch: 21137

Client Sample ID: BH09

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.4		250	273.4		mg/Kg		105	90 - 110	3	20

Lab Sample ID: MB 880-21025/1-A

Matrix: Solid

Analysis Batch: 21139

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 01:05	1

Lab Sample ID: LCS 880-21025/2-A

Matrix: Solid

Analysis Batch: 21139

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	254.2		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-21025/3-A

Matrix: Solid

Analysis Batch: 21139

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	252.3		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-2040-1 MS

Matrix: Solid

Analysis Batch: 21139

Client Sample ID: BH01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8700		4990	13740		mg/Kg		101	90 - 110

Lab Sample ID: 890-2040-1 MSD

Matrix: Solid

Analysis Batch: 21139

Client Sample ID: BH01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8700		4990	13490		mg/Kg		96	90 - 110	2	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC VOA

Prep Batch: 20906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20906/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 20908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	5035	
890-2040-2	BH01	Total/NA	Solid	5035	
890-2040-3	BH02	Total/NA	Solid	5035	
890-2040-4	BH02	Total/NA	Solid	5035	
890-2040-5	BH03	Total/NA	Solid	5035	
890-2040-6	BH03	Total/NA	Solid	5035	
890-2040-7	BH04	Total/NA	Solid	5035	
890-2040-8	BH04	Total/NA	Solid	5035	
890-2040-9	BH05	Total/NA	Solid	5035	
890-2040-10	BH05	Total/NA	Solid	5035	
890-2040-11	BH06	Total/NA	Solid	5035	
890-2040-12	BH06	Total/NA	Solid	5035	
890-2040-13	BH07	Total/NA	Solid	5035	
890-2040-14	BH07	Total/NA	Solid	5035	
890-2040-15	BH08	Total/NA	Solid	5035	
890-2040-16	BH08	Total/NA	Solid	5035	
890-2040-17	BH09	Total/NA	Solid	5035	
890-2040-18	BH09	Total/NA	Solid	5035	
890-2040-19	BH10	Total/NA	Solid	5035	
890-2040-20	BH10	Total/NA	Solid	5035	
MB 880-20908/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20908/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20908/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2040-1 MS	BH01	Total/NA	Solid	5035	
890-2040-1 MSD	BH01	Total/NA	Solid	5035	

Analysis Batch: 21187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8021B	20908
890-2040-2	BH01	Total/NA	Solid	8021B	20908
890-2040-3	BH02	Total/NA	Solid	8021B	20908
890-2040-4	BH02	Total/NA	Solid	8021B	20908
890-2040-5	BH03	Total/NA	Solid	8021B	20908
890-2040-6	BH03	Total/NA	Solid	8021B	20908
890-2040-7	BH04	Total/NA	Solid	8021B	20908
890-2040-8	BH04	Total/NA	Solid	8021B	20908
890-2040-9	BH05	Total/NA	Solid	8021B	20908
890-2040-10	BH05	Total/NA	Solid	8021B	20908
890-2040-11	BH06	Total/NA	Solid	8021B	20908
890-2040-12	BH06	Total/NA	Solid	8021B	20908
890-2040-13	BH07	Total/NA	Solid	8021B	20908
890-2040-14	BH07	Total/NA	Solid	8021B	20908
890-2040-15	BH08	Total/NA	Solid	8021B	20908
890-2040-16	BH08	Total/NA	Solid	8021B	20908
890-2040-17	BH09	Total/NA	Solid	8021B	20908
890-2040-18	BH09	Total/NA	Solid	8021B	20908
890-2040-19	BH10	Total/NA	Solid	8021B	20908

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC VOA (Continued)

Analysis Batch: 21187 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-20	BH10	Total/NA	Solid	8021B	20908
MB 880-20906/5-A	Method Blank	Total/NA	Solid	8021B	20906
MB 880-20908/5-A	Method Blank	Total/NA	Solid	8021B	20908
LCS 880-20908/1-A	Lab Control Sample	Total/NA	Solid	8021B	20908
LCSD 880-20908/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20908
890-2040-1 MS	BH01	Total/NA	Solid	8021B	20908
890-2040-1 MSD	BH01	Total/NA	Solid	8021B	20908

Analysis Batch: 21336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	Total BTEX	
890-2040-2	BH01	Total/NA	Solid	Total BTEX	
890-2040-3	BH02	Total/NA	Solid	Total BTEX	
890-2040-4	BH02	Total/NA	Solid	Total BTEX	
890-2040-5	BH03	Total/NA	Solid	Total BTEX	
890-2040-6	BH03	Total/NA	Solid	Total BTEX	
890-2040-7	BH04	Total/NA	Solid	Total BTEX	
890-2040-8	BH04	Total/NA	Solid	Total BTEX	
890-2040-9	BH05	Total/NA	Solid	Total BTEX	
890-2040-10	BH05	Total/NA	Solid	Total BTEX	
890-2040-11	BH06	Total/NA	Solid	Total BTEX	
890-2040-12	BH06	Total/NA	Solid	Total BTEX	
890-2040-13	BH07	Total/NA	Solid	Total BTEX	
890-2040-14	BH07	Total/NA	Solid	Total BTEX	
890-2040-15	BH08	Total/NA	Solid	Total BTEX	
890-2040-16	BH08	Total/NA	Solid	Total BTEX	
890-2040-17	BH09	Total/NA	Solid	Total BTEX	
890-2040-18	BH09	Total/NA	Solid	Total BTEX	
890-2040-19	BH10	Total/NA	Solid	Total BTEX	
890-2040-20	BH10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 20924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015NM Prep	
890-2040-2	BH01	Total/NA	Solid	8015NM Prep	
890-2040-3	BH02	Total/NA	Solid	8015NM Prep	
890-2040-4	BH02	Total/NA	Solid	8015NM Prep	
890-2040-5	BH03	Total/NA	Solid	8015NM Prep	
890-2040-6	BH03	Total/NA	Solid	8015NM Prep	
890-2040-7	BH04	Total/NA	Solid	8015NM Prep	
890-2040-8	BH04	Total/NA	Solid	8015NM Prep	
890-2040-9	BH05	Total/NA	Solid	8015NM Prep	
890-2040-10	BH05	Total/NA	Solid	8015NM Prep	
890-2040-11	BH06	Total/NA	Solid	8015NM Prep	
890-2040-12	BH06	Total/NA	Solid	8015NM Prep	
890-2040-13	BH07	Total/NA	Solid	8015NM Prep	
890-2040-14	BH07	Total/NA	Solid	8015NM Prep	
890-2040-15	BH08	Total/NA	Solid	8015NM Prep	
890-2040-16	BH08	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC Semi VOA (Continued)

Prep Batch: 20924 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-17	BH09	Total/NA	Solid	8015NM Prep	
890-2040-18	BH09	Total/NA	Solid	8015NM Prep	
890-2040-19	BH10	Total/NA	Solid	8015NM Prep	
890-2040-20	BH10	Total/NA	Solid	8015NM Prep	
MB 880-20924/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20924/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2040-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-2040-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015B NM	20924
890-2040-2	BH01	Total/NA	Solid	8015B NM	20924
890-2040-3	BH02	Total/NA	Solid	8015B NM	20924
890-2040-4	BH02	Total/NA	Solid	8015B NM	20924
890-2040-5	BH03	Total/NA	Solid	8015B NM	20924
890-2040-6	BH03	Total/NA	Solid	8015B NM	20924
890-2040-7	BH04	Total/NA	Solid	8015B NM	20924
890-2040-8	BH04	Total/NA	Solid	8015B NM	20924
890-2040-9	BH05	Total/NA	Solid	8015B NM	20924
890-2040-10	BH05	Total/NA	Solid	8015B NM	20924
890-2040-11	BH06	Total/NA	Solid	8015B NM	20924
890-2040-12	BH06	Total/NA	Solid	8015B NM	20924
890-2040-13	BH07	Total/NA	Solid	8015B NM	20924
890-2040-14	BH07	Total/NA	Solid	8015B NM	20924
890-2040-15	BH08	Total/NA	Solid	8015B NM	20924
890-2040-16	BH08	Total/NA	Solid	8015B NM	20924
890-2040-17	BH09	Total/NA	Solid	8015B NM	20924
890-2040-18	BH09	Total/NA	Solid	8015B NM	20924
890-2040-19	BH10	Total/NA	Solid	8015B NM	20924
890-2040-20	BH10	Total/NA	Solid	8015B NM	20924
MB 880-20924/1-A	Method Blank	Total/NA	Solid	8015B NM	20924
LCS 880-20924/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20924
LCSD 880-20924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20924
890-2040-1 MS	BH01	Total/NA	Solid	8015B NM	20924
890-2040-1 MSD	BH01	Total/NA	Solid	8015B NM	20924

Analysis Batch: 21529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015 NM	
890-2040-2	BH01	Total/NA	Solid	8015 NM	
890-2040-3	BH02	Total/NA	Solid	8015 NM	
890-2040-4	BH02	Total/NA	Solid	8015 NM	
890-2040-5	BH03	Total/NA	Solid	8015 NM	
890-2040-6	BH03	Total/NA	Solid	8015 NM	
890-2040-7	BH04	Total/NA	Solid	8015 NM	
890-2040-8	BH04	Total/NA	Solid	8015 NM	
890-2040-9	BH05	Total/NA	Solid	8015 NM	
890-2040-10	BH05	Total/NA	Solid	8015 NM	
890-2040-11	BH06	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC Semi VOA (Continued)

Analysis Batch: 21529 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-12	BH06	Total/NA	Solid	8015 NM	
890-2040-13	BH07	Total/NA	Solid	8015 NM	
890-2040-14	BH07	Total/NA	Solid	8015 NM	
890-2040-15	BH08	Total/NA	Solid	8015 NM	
890-2040-16	BH08	Total/NA	Solid	8015 NM	
890-2040-17	BH09	Total/NA	Solid	8015 NM	
890-2040-18	BH09	Total/NA	Solid	8015 NM	
890-2040-19	BH10	Total/NA	Solid	8015 NM	
890-2040-20	BH10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Soluble	Solid	DI Leach	
890-2040-2	BH01	Soluble	Solid	DI Leach	
890-2040-3	BH02	Soluble	Solid	DI Leach	
890-2040-4	BH02	Soluble	Solid	DI Leach	
890-2040-5	BH03	Soluble	Solid	DI Leach	
890-2040-6	BH03	Soluble	Solid	DI Leach	
MB 880-21025/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21025/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21025/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2040-1 MS	BH01	Soluble	Solid	DI Leach	
890-2040-1 MSD	BH01	Soluble	Solid	DI Leach	

Leach Batch: 21026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-7	BH04	Soluble	Solid	DI Leach	
890-2040-8	BH04	Soluble	Solid	DI Leach	
890-2040-9	BH05	Soluble	Solid	DI Leach	
890-2040-10	BH05	Soluble	Solid	DI Leach	
890-2040-11	BH06	Soluble	Solid	DI Leach	
890-2040-12	BH06	Soluble	Solid	DI Leach	
890-2040-13	BH07	Soluble	Solid	DI Leach	
890-2040-14	BH07	Soluble	Solid	DI Leach	
890-2040-15	BH08	Soluble	Solid	DI Leach	
890-2040-16	BH08	Soluble	Solid	DI Leach	
890-2040-17	BH09	Soluble	Solid	DI Leach	
890-2040-18	BH09	Soluble	Solid	DI Leach	
890-2040-19	BH10	Soluble	Solid	DI Leach	
890-2040-20	BH10	Soluble	Solid	DI Leach	
MB 880-21026/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21026/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21026/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2040-7 MS	BH04	Soluble	Solid	DI Leach	
890-2040-7 MSD	BH04	Soluble	Solid	DI Leach	
890-2040-17 MS	BH09	Soluble	Solid	DI Leach	
890-2040-17 MSD	BH09	Soluble	Solid	DI Leach	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

HPLC/IC

Analysis Batch: 21137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-7	BH04	Soluble	Solid	300.0	21026
890-2040-8	BH04	Soluble	Solid	300.0	21026
890-2040-9	BH05	Soluble	Solid	300.0	21026
890-2040-10	BH05	Soluble	Solid	300.0	21026
890-2040-11	BH06	Soluble	Solid	300.0	21026
890-2040-12	BH06	Soluble	Solid	300.0	21026
890-2040-13	BH07	Soluble	Solid	300.0	21026
890-2040-14	BH07	Soluble	Solid	300.0	21026
890-2040-15	BH08	Soluble	Solid	300.0	21026
890-2040-16	BH08	Soluble	Solid	300.0	21026
890-2040-17	BH09	Soluble	Solid	300.0	21026
890-2040-18	BH09	Soluble	Solid	300.0	21026
890-2040-19	BH10	Soluble	Solid	300.0	21026
890-2040-20	BH10	Soluble	Solid	300.0	21026
MB 880-21026/1-A	Method Blank	Soluble	Solid	300.0	21026
LCS 880-21026/2-A	Lab Control Sample	Soluble	Solid	300.0	21026
LCSD 880-21026/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21026
890-2040-7 MS	BH04	Soluble	Solid	300.0	21026
890-2040-7 MSD	BH04	Soluble	Solid	300.0	21026
890-2040-17 MS	BH09	Soluble	Solid	300.0	21026
890-2040-17 MSD	BH09	Soluble	Solid	300.0	21026

Analysis Batch: 21139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Soluble	Solid	300.0	21025
890-2040-2	BH01	Soluble	Solid	300.0	21025
890-2040-3	BH02	Soluble	Solid	300.0	21025
890-2040-4	BH02	Soluble	Solid	300.0	21025
890-2040-5	BH03	Soluble	Solid	300.0	21025
890-2040-6	BH03	Soluble	Solid	300.0	21025
MB 880-21025/1-A	Method Blank	Soluble	Solid	300.0	21025
LCS 880-21025/2-A	Lab Control Sample	Soluble	Solid	300.0	21025
LCSD 880-21025/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21025
890-2040-1 MS	BH01	Soluble	Solid	300.0	21025
890-2040-1 MSD	BH01	Soluble	Solid	300.0	21025

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01
Date Collected: 03/03/22 11:05
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 22:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 01:31	CH	XEN MID

Client Sample ID: BH01
Date Collected: 03/03/22 11:07
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 23:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 12:55	CH	XEN MID

Client Sample ID: BH02
Date Collected: 03/03/22 11:10
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 23:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		10			21139	03/09/22 09:22	CH	XEN MID

Client Sample ID: BH02
Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02
Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:01	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 09:31	CH	XEN MID

Client Sample ID: BH03
Date Collected: 03/03/22 11:37
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		10			21139	03/09/22 09:40	CH	XEN MID

Client Sample ID: BH03
Date Collected: 03/03/22 11:40
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 10:06	CH	XEN MID

Client Sample ID: BH04
Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:05	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04
Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:05	CH	XEN MID

Client Sample ID: BH04
Date Collected: 03/03/22 09:30
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:26	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:23	CH	XEN MID

Client Sample ID: BH05
Date Collected: 03/03/22 09:35
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:29	CH	XEN MID

Client Sample ID: BH05
Date Collected: 03/03/22 09:40
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 02:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 02:10	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:52	CH	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06
Date Collected: 03/03/22 09:45
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 03:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 02:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:58	CH	XEN MID

Client Sample ID: BH06
Date Collected: 03/03/22 09:50
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 03:50	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:16	CH	XEN MID

Client Sample ID: BH07
Date Collected: 03/03/22 09:55
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:21	CH	XEN MID

Client Sample ID: BH07
Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07
Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:27	CH	XEN MID

Client Sample ID: BH08
Date Collected: 03/03/22 10:05
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 04:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:33	CH	XEN MID

Client Sample ID: BH08
Date Collected: 03/03/22 10:10
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 04:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:39	CH	XEN MID

Client Sample ID: BH09
Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:01	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09
Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:45	CH	XEN MID

Client Sample ID: BH09
Date Collected: 03/03/22 10:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:23	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:03	CH	XEN MID

Client Sample ID: BH10
Date Collected: 03/03/22 10:30
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 06:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:09	CH	XEN MID

Client Sample ID: BH10
Date Collected: 03/03/22 10:35
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 06:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 06:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:26	CH	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Laboratory References:
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2040-1	BH01	Solid	03/03/22 11:05	03/03/22 15:10	2
890-2040-2	BH01	Solid	03/03/22 11:07	03/03/22 15:10	4
890-2040-3	BH02	Solid	03/03/22 11:10	03/03/22 15:10	0.5
890-2040-4	BH02	Solid	03/03/22 11:20	03/03/22 15:10	4
890-2040-5	BH03	Solid	03/03/22 11:37	03/03/22 15:10	2
890-2040-6	BH03	Solid	03/03/22 11:40	03/03/22 15:10	4
890-2040-7	BH04	Solid	03/03/22 09:25	03/03/22 15:10	0.5
890-2040-8	BH04	Solid	03/03/22 09:30	03/03/22 15:10	4
890-2040-9	BH05	Solid	03/03/22 09:35	03/03/22 15:10	0.5
890-2040-10	BH05	Solid	03/03/22 09:40	03/03/22 15:10	4
890-2040-11	BH06	Solid	03/03/22 09:45	03/03/22 15:10	0.5
890-2040-12	BH06	Solid	03/03/22 09:50	03/03/22 15:10	4
890-2040-13	BH07	Solid	03/03/22 09:55	03/03/22 15:10	0.5
890-2040-14	BH07	Solid	03/03/22 10:00	03/03/22 15:10	4
890-2040-15	BH08	Solid	03/03/22 10:05	03/03/22 15:10	0.5
890-2040-16	BH08	Solid	03/03/22 10:10	03/03/22 15:10	4
890-2040-17	BH09	Solid	03/03/22 10:15	03/03/22 15:10	0.5
890-2040-18	BH09	Solid	03/03/22 10:25	03/03/22 15:10	4
890-2040-19	BH10	Solid	03/03/22 10:30	03/03/22 15:10	0.5
890-2040-20	BH10	Solid	03/03/22 10:35	03/03/22 15:10	4



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Joseph Hernandez	Bill To: (if different)	Jim Raley
Company Name:	WSP	Company Name:	WPX Energy
Address:	3300 North A Street	Address:	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	281-702-2329	Email:	Anna.Byers@wsp.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project: _____	
Reporting Level: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	

Project Name:	RDU 11	Turn Around	<input checked="" type="checkbox"/>
Project Number:	31403360.036, 31403360.035	Route:	<input checked="" type="checkbox"/>
Incident ID:	nAB1728553778, nAB1728551205	Rush:	<input checked="" type="checkbox"/>
Sampler's Name:	Gilbert Moreno	Due Date:	
SAMPLE RECEIPT			
Temperature (°C):	1.2	Temp Blank:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Received In tact:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cooler Custody Seals:	Yes No NA	Thermometer ID:	FE-M-22
Sample Custody Seals:	Yes No NA	Correction Factor:	- 0.2
		Total Containers:	



890-2040 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	ANALYSIS REQUEST															
					Number of Containers				TPH (EPA 8015)				BTX (EPA 0=8021)				Chloride (EPA 300.0)			
BH01	S	3.2.22	11:05	2	1	X	X	X	X											
BH01	S	3.2.22	11:07	4	1	X	X	X	X											
BH02	S	3.2.22	11:10	0.5	1	X	X	X	X											
BH02	S	3.2.22	11:20	4	1	X	X	X	X											
BH03	S	3.2.22	11:37	2	1	X	X	X	X											
BH03	S	3.2.22	11:40	4	1	X	X	X	X											
BH04	S	3.3.22	9:25	0.5	1	X	X	X	X											
BH04	S	3.3.22	9:30	4	1	X	X	X	X											
BH05	S	3.3.22	9:35	0.5	1	X	X	X	X											
BH05	S	3.3.22	9:40	4	1	X	X	X	X											

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Edwards</i>	<i>W. Edwards</i>	3/3/22 3:14			



Chain of Custody

Work Order No:

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-1111
Hobbs, NM (575-392-7550)

Page 2 of 2
www.xenco.com

Project Manager:		Joseph Hernandez		Billings: (if different)		Jim Raley	
Company Name:		WSP		Company Name		WPX Energy	
Address:		3300 North A Street		Address		5315 Buena Vista Dr.	
City, State ZIP:		Midland, TX 79705		City, State ZIP		Carlsbad, NM 88220	
Phone		281-702-2329		Email		Anna.Byers@wsp.com	

Work Order Comments			
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>			
State of Project:			
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>			
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:			

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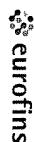
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Arden</i>	<i>V. Chen</i>	3/3/22 3:14			

Eurofins Carlsbad

1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing America

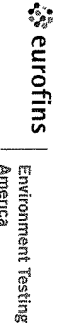
Client Information (Sub Contract Lab)						Sampler:	Lab PM	COC No:
Client Contact:						Kramer Jessica		890-652 1
Shipping/Receiving						E-Mail jessica.kramer@eurofinsnet.com	State of Origin: New Mexico	Page 1 of 3
Company Eurofins Environment Testing South Cent						Accreditations Required (See note): NELAP - Texas		Job #: 890-2040-1
Address 1211 W. Florida Ave.						Due Date Requested 3/9/2022		
City Midland						TAT Requested (days):		
State Zip: TX, 79701								
Phone: 432-704-5440(Tel)						PO #:		
Email						WO #:		
Project Name: RDU 11						Project #: 88000203		
Site						SSOW#:		
Sample Identification - Client ID (Lab ID)						Field Filtered Sample (Yes or No)	Analysis Requested	
BH01 (890-2040-1)	3/3/22	11 05	Solid	Matrix (Water-Soluble, BT-Tissue, A-Alp)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	Total Number of containers	Special Instructions/Note:
BH01 (890-2040-2)	3/3/22	11 07	Solid			8015MOD_NM/8015NM_S_Prep Full TPH		
BH02 (890-2040-3)	3/3/22	11 10	Solid			8021B/5035FP_Calc BTEX		
BH02 (890-2040-4)	3/3/22	11 20	Solid			8015MOD_Calc		
BH03 (890-2040-5)	3/3/22	11 37	Solid			Total_BTEX_GCV		
BH03 (890-2040-8)	3/3/22	11 40	Solid					
BH04 (890-2040-7)	3/3/22	09 25	Solid					
BH04 (890-2040-8)	3/3/22	09 30	Solid					
BH05 (890-2040-9)	3/3/22	09 35	Solid					
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/method being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other institutions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.								
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Deliverable Requested I II III IV, Other (specify) Primary Deliverable Rank 2						Special Instructions/QC Requirements		
Empty Kit Relinquished by:						Date	Time	Method of Shipment:
Relinquished by: Oia Gaf 3422						Date/Time	Received by: [Signature]	Date/Time: 3422 13:05
Relinquished by:						Date/Time	Received by:	Date/Time: 13:15
Relinquished by:						Date/Time	Received by:	Date/Time:
Custody Seals Intact: Δ Yes Δ No						Custody Seal No	Cooler Temperature(s) °C and Other Remarks.	Company

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Eurofins Carlsbad

1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

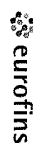


Client Information (Sub Contract Lab)		Sampler	Lab PM:	Carrier Tracking No(s)	COCC No									
Client Contact:		Phone:	Kramer Jessica		890-652 2									
Shipping/Receiving		E-Mail:	Jessica.kramer@eurofins.com	State of Origin	Page:									
Company		Accreditations Required (See note)		New Mexico	Page 2 of 3									
Eurofins Environment Testing South Cent		NELAP - Texas			Job #:									
Address:		Due Date Requested	890-2040-1											
1211 W Florida Ave		3/9/2022												
City:		TAT Requested (days):												
Midland														
State Zip:														
TX, 79701														
Phone:		PO #:												
432-704-5440(Ext)		WO #:												
Email:														
Project Name:		Project #:												
RDU 11		88000203												
Site		SSOW#:												
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab, BT=Tissue, A=Air)	Matrix (W=Water, S=solid, O=soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested			Total Number of containers	Special Instructions/Note:		
BH05 (890-2040-10)		3/3/22	09 40		Solid		X	X	X	X	X	X		
BH06 (890-2040-11)		3/3/22	09 45		Solid		X	X	X	X	X	X		
BH06 (890-2040-12)		3/3/22	09 50		Solid		X	X	X	X	X	X		
BH07 (890-2040-13)		3/3/22	09 55		Solid		X	X	X	X	X	X		
BH07 (890-2040-14)		3/3/22	10 00		Solid		X	X	X	X	X	X		
BH08 (890-2040-15)		3/3/22	10 05		Solid		X	X	X	X	X	X		
BH08 (890-2040-16)		3/3/22	10 10		Solid		X	X	X	X	X	X		
BH09 (890-2040-17)		3/3/22	10 15		Solid		X	X	X	X	X	X		
BH09 (890-2040-18)		3/3/22	10 25		Solid		X	X	X	X	X	X		
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other institutions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC.														
Possible Hazard Identification														
Unconfirmed														
Deliverable Requested I, II, III, IV Other (specify)														
Primary Deliverable Rank 2														
Empty Kit Relinquished by:														
Relinquished by: <i>Chloe My 3422</i>														
Relinquished by:														
Relinquished by:														
Custody Seals Intact: Custody Seal No														
Δ Yes Δ No														
Cooler Temperature(s) °C and Other Remarks														

Eurofins Carlsbad

1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2040-1

SDG Number: 31403360.036.31403360.035

Login Number: 2040

List Source: Eurofins Carlsbad

List Number: 1

Creator: Clifton, Cloe

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2040-1

SDG Number: 31403360.036.31403360.035

Login Number: 2040

List Number: 2

Creator: Lowe, Katie

List Source: Eurofins Midland

List Creation: 03/04/22 01:21 PM

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 95617

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 95617
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. Samples must be analyzed for the constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. At this time, the largest variance the OCD can grant is 500 ft2 for confirmation samples. Sidewall and floor samples should represent no more than 500 ft2. The work will need to occur in 90 days after the work plan has been approved.	5/4/2022

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 351041

QUESTIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 351041
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAB1728553778
Incident Name	NAB1728553778 ROSS DRAW UNIT #011 @ 30-015-24307
Incident Type	Produced Water Release
Incident Status	Reclamation Report Received
Incident Well	[30-015-24307] ROSS DRAW UNIT #011

Location of Release Source	
Please answer all the questions in this group.	
Site Name	ROSS DRAW UNIT #011
Date Release Discovered	09/21/2017
Surface Owner	Federal

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: 0 BBL Recovered: 0 BBL Lost: 0 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
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 351041

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:
	246289
	Action Number:
	351041
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	More info needed to determine if this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Unavailable.
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
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: James Raley Title: EHS Professional Email: jim.raley@dmn.com Date: 03/14/2024
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QUESTIONS, Page 3

Action 351041

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 351041
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
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 1000 (ft.) and ½ (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 1000 (ft.) and ½ (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 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
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.	
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)	5220
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	58.3
GRO+DRO	(EPA SW-846 Method 8015M)	58.3
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	10/01/2023
On what date will (or did) the final sampling or liner inspection occur	10/30/2023
On what date will (or was) the remediation complete(d)	10/30/2023
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	0
What is the estimated volume (in cubic yards) that will be remediated	0

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 351041

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:	246289
	Action Number:	351041
	Action Type:	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

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	Not answered.
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Yes
In which state is the disposal taking place	TX
What is the name of the out-of-state facility	R360
OR is the off-site disposal site, to be used, an NMED facility	No
(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: James Raley Title: EHS Professional Email: jim.raley@dvni.com Date: 03/14/2024
<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 351041

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 351041
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

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	No

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QUESTIONS, Page 6

Action 351041

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:
	246289
	Action Number:
	351041
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	323118
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/30/2023
What was the (estimated) number of samples that were to be gathered	70
What was the sampling surface area in square feet	38500

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	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	38500
What was the total volume (cubic yards) remediated	4380
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	4380
What was the total volume (in cubic yards) reclaimed	4380
Summarize any additional remediation activities not included by answers (above)	Remediation area has been restored with clean backfill material and re-seeded with BLM Seed Mixture #2 following the appropriate BLM re-seeding guidelines for seed to sqft area ratio.

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dmv.com Date: 03/14/2024
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QUESTIONS, Page 7

Action 351041

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:	246289
	Action Number:	351041
	Action Type:	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	11284
What was the total volume of replacement material (in cubic yards) for this site	1671
<i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.</i>	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseedling commence(d)	06/30/2024
Summarize any additional reclamation activities not included by answers (above)	Remediation area has been restored with clean backfill material and will be re-seeded with BLM Seed Mixture #4 following the appropriate BLM re-seeding guidelines for seed to sqft area ratio.
<i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseedling plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.</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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvsn.com Date: 06/05/2024

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QUESTIONS, Page 8

Action 351041

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 351041
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
<i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>	
Requesting a restoration complete approval with this submission	No
<i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i>	

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CONDITIONS

Action 351041

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:
	246289
	Action Number:
	351041
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

CONDITIONS

Created By	Condition	Condition Date
amaxwell	The reclamation report has been approved pursuant to 19.15.29.13 E. NMAC. The acceptance of this 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; or if the location fails to revegetate properly. In addition, OCD approval does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.	6/6/2024
amaxwell	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeded activities, inspections, and final pictures when revegetation is achieved.	6/6/2024
amaxwell	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	6/6/2024