April 20, 2020

Mr. Mike Bratcher
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

RE: Closure and Variance Request
Mean Green 10" Line
Incident Number nRM2002943377
Lea County, New Mexico

Dear Mr. Bratcher:

Lucid Energy Group (Lucid), presents the following Closure and Variance Request detailing site assessment and soil sampling activities at the Mean Green 10" Line (Site) in Unit I, Section 23, Township 26 South, Range 34 East, in Eddy County, New Mexico under surface ownership of the Bureau of Land Management (BLM) (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil associated with a release of produced water at the Site and subsequent excavation of impacted soil. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, Lucid is submitting this Closure and Variance Request. Lucid requests no further action that may contribute to compromising the safety of field personnel and integrity of sensitive subsurface pipelines during active operations. Listed below is a brief summation of the Site details in Table 1.

Table 1: Site and Release information	
Name	Mean Green 10"
Company	Lucid Energy Delaware
Incident Number	nRM2002943377
Location	32.025451°, -103.435522°
Estimated Date of Release	12/2/2019
Date reported to NMOCD	12/16/2019
Landowner	Bureau of Land Management
Reported to	NMOCD District II and BLM
Source of Release	Pipeline
Released Material	Produced Water
Released Volume	~25 bbls
Recovered Volume	~5 bbls
Net Release	~20 bbls

Nearest Waterway	Intermittent stream 3.3 miles east
Depth to Groundwater	Estimated to be >100'
Nearest Domestic Water source	Greater than 1000'
Lucid Activity Dates	12/16/19, 1/13/20, 2/26/20, 3/11/20

1.0 RELEASE BACKGROUND

On December 2, 2019, a pumper noticed water spraying from a produced water line riser system and notified Lucid field personnel. It was later discovered that a saddle clamp on the produced water poly line had failed and released produced water to the surrounding area. Approximately 25 barrels (Bbls) of produced water were released to the surrounding area. Lucid attentively reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on December 16, 2019, which was received and assigned Incident Number NRM1935234977 on January 29, 2020. The Form C-141 is provided as Appendix A.

2.0 SITE CHARACTERIZATION

Lucid characterized the Site according to Table 1, *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). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data attained from the New Mexico Office of the State Engineer (NMOSE). The United States Geological Survey groundwater database showed no wells within a reasonable proximity to the Site. The closest permitted groundwater well with depth to groundwater data is, located approximately 5 miles northwest of the Site. The groundwater well has a reported depth to groundwater of approximately 200 feet bgs and a total depth of approximately 250 feet bgs. The Site is greater than 300 feet from any continuously flowing or significant watercourse. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, or church. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located greater than 300 feet from a wetland. The Site is located in a low-potential karst area. The surface geology of the Site is comprised mostly of the Pyote and Maljamar series sand. The Pyote series is described as a yellowish-red, fine-grained, deep, well drained, moderately permeable soil formed in sandy and loamy sediments. The Maljamar series is described as a yellowish-red, fine-grained, well drained moderately sandy to sandy soil somewhat reworked by wind with a deep petrocalcic horizon typically occurring around 4 to 5 feet bgs. During excavation of the Site the Pyote series was encountered throughout at 0 to 5 feet bgs. The area immediately around the riser system was excavated down to approximately 6 feet bgs where an unconsolidated petrocalcic horizon, caliche, was identified. The nearest identified groundwater wells and potential receptors identified during site characterization are displayed in Figure 1. NMOSE groundwater data for surrounding wells is presented in Appendix C.

3.0 CLOSURE CRITERIA

In lieu of attaining a definitive groundwater depth via listed methods and lacking current groundwater information within reasonable proximity, Lucid remediated the Site according to the strictest closure criteria relevant to groundwater depth of <50 feet bgs, listed in NMAC 19.15.29 Table 1 Closure Criteria (Closure Criteria). Based on the results of the site characterization, the following Closure Criteria apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons TPH: 100 mg/kg
- Chloride: 600 mg/kg

4.0 INITIAL RESPONSE

During the response to the release, Lucid personnel contracted a vacuum truck to remove any standing liquids from the area. Approximately 5 bbls of liquids were removed from the Site. Due to surface geology and topography of sand dunes the produced water flowed directly east of the riser system. Produced water had also sprayed from the failed clamp to the south of the riser system. The subject pipeline was repaired, and surface samples were collected by a Lucid EHSR technician. The locations of samples are presented on Figure 2 and laboratory analytical results are summarized in Table 2. The complete laboratory analytical report is included in Appendix D.

5.0 DELINEATION SOIL SAMPLING ACTIVITIES

On December 2, Lucid personnel conducted site investigative activities to evaluate the release extent and current conditions. Surface staining throughout the release was visually observed while heavier staining and saturation was observed in the immediate proximity of the riser system. No surface staining was observed in the overspray area south of the riser system. Photographic documentation was conducted during the Site visit and a Photographic Log is included in Appendix B.

Lucid personnel conducted delineation activities to define the horizontal extent of the impacted area. Utilizing a hand trowel and/or shovel, five surface samples (HA-1 through HA-5) were collected within and around the release footprint to verify the presence or absence of soil impacts. Samples were collected in the saturated soils to the east and the overspray area to the south. Surface soil samples were collected at approximately 8-12 inches bgs. Sample HA-3 was collected nearest to the release point at a depth of approximately 30-36 inches bgs. More thorough vertical delineation of the Site began during remediation activities utilizing a backhoe. An additional 2 delineation soil samples (HA-6 and HA-7) were collected at approximately 20-24 inches bgs later during remediation to verify excavation activities beyond the initial delineation area. Sampled depths are approximations due to the composition and nature of the fine-grained sands.

Field screening was conducted for chloride using Hach® chloride QuanTab® test strips. The soil samples were placed directly into a pre-cleaned glass jar, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C), under strict chain-of-custody (COC) procedures, to Hall in Albuquerque, New Mexico, for analysis of BTEX following United States EPA Method 8021B; TPH-GRO, TPH-DRO, and TPH-MRO following EPA Method 8015M/D; and/or chloride following EPA Method 300.0. The complete laboratory analytical report is included in Appendix D. Additionally, photographic documentation from delineation activities is also included in Appendix B.

6.0 REMEDIATION ACTIVITIES

On December 16, 2019, Lucid personnel and Reno Equipment Inc. (Reno) began remedial excavation activities at the Site. In lieu of attaining a definitive groundwater depth via listed methods and lacking current groundwater information nearby, Lucid remediated the Site in conjunction with the strictest closure criteria relevant to groundwater depth of <50 feet bgs, listed in NMAC 19.15.29 Table 1. The closest groundwater wells are approximately 5 miles to the west and east of the Site, groundwater well data from NMOSE are listed in Appendix C.

Beginning the week of December 16-20, both the east and south sections of the release area were excavated to 2 feet bgs and composite soil samples were collected. During January 2020, the east section of the excavation area was advanced to a depth of 4 feet bgs and composite samples were again collected shown in Figure 2. Analytical results reported chloride levels above 600 ppm for samples B-6-C and B-8-C, collected on 12/30/2019 and 1/14/2020, respectively. Later in January, the east section was excavated to a depth of approximately 5 feet bgs and the south section was excavated to a total depth of approximately 3 feet bgs. Composite samples B-9-C were collected for the east section at approximately 5 feet bgs, however an additional sample from the south section was not collected at 3 feet bgs after the excavation had been advanced.

Due to operational restrictions and safety concerns regarding mechanical excavation near the high-pressure natural gas line and produced water line the impacted material immediately surrounding the riser system was removed by hand digging to a depth of approximately 6 feet bgs. Delineation sample results showed the sample HA-5-3' contained 5100 ppm chloride, due to the immediate proximity of the release point on the pipeline. The elevated concentrations and vertical migration of chlorides necessitate the composite soil samples B-8-C, B-10-C, and B-11-C collected in this area at 4, 5, and 6 feet bgs, respectively. Sample B-11-C results contained <60 ppm chlorides. The eastern most pipeline of the riser system is a high-pressure natural gas line and a small area of soil immediately surrounding the concrete footings measuring approximately 6x4x6 feet was left in place, seen in Figure 2. Composite sidewall samples SW-10-C and SW-8-C confirmed that the material left in place was unimpacted by chloride, with a concentration below detection limits, <60 ppm chlorides. During hand digging of the soil near the riser system, wooden supports were used underneath the pipelines where allowable. Sampled and

excavation depths are approximations due to the composition and nature of the fine-grained sands. On 3/31/2020, the Site was backfilled with locally sourced clean fill material.

A total of twenty-three 5-point composite soil samples were collected throughout the excavation. Composite soil samples were collected at approximately 50' lateral intervals encompassing ≤200 yd^2 of soil. Sidewall composite soil samples from the east section of the excavation were collected at depths between 2 and 5 feet bgs. Sidewall composite soil samples from the south section of the excavation were collected at depths between 1 and 3 feet bgs. Field screening was conducted for chloride using Hach® chloride QuanTab® test strips. The soil samples were placed directly into a pre-cleaned glass jar, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4° C, under strict COC procedures, to Hall, for analysis of chloride following EPA Method 300.0. The complete laboratory analytical report is included in Appendix D. Additionally, photographic documentation from remediation activities is also included in Appendix B.

7.0 ANALYTICAL

Excluding sample B-5-C, all release area boundary sample locations analyzed for chloride concentrations yielded concentrations below the Closure Criteria. All other delineation grab samples indicated BTEX, TPH-GRO, TPH-DRO, and Total TPH concentrations below the applicable Closure Criteria. Hydrocarbon and chloride impacts have been delineated vertically and laterally. All confirmatory composite samples collected from the excavation sidewalls and bottom indicate that chloride impacts have been successfully remediated to below the Closure Criteria. Soil sample analytical results are reported in Table 2. The complete laboratory analytical report is included in Appendix D.

8.0 VARIANCE REQUEST

Lucid seeks OCD approval for qualifying B-5-C as a fully vertically delineated sample due to contiguity to the chloride Closure Criteria. The exceeding 10 mg/kg is equally protective of public health and environment based on the depth of the identified concentration and lack of open pathways to nearby receptors. The depth of the identified concentration prohibits a complete pathway to any surface receptors, including surface water, wildlife, humans, and vegetation. Chloride is not toxic to humans or wildlife and is generally regulated for protection of vegetation and groundwater quality. The sample was collected from 3 feet bgs, though an additional sample was not collected, the excavation depth in the area of sample B-5-C was approximately 4 feet bgs after hand digging near the pipeline riser system and wooden supports were removed. Groundwater is estimated to be greater than 100 feet bgs and the exceeding 10 mg/kg is unlikely to migrate vertically to such a depth as to degrade groundwater. As such, Lucid requests approval to consider the chloride identified as 610 mg/kg at 3 feet bgs in B-5-C as vertically and laterally delineated.

9.0 CLOSURE REQUEST

Based on the analytical data indicating hydrocarbon and chloride impacts are delineated and the remediation of impacted material, Lucid respectfully requests closure of the Site and no further action associated with Incident Number nRM2002943377. Lucid will periodically monitor any altered Site configurations that may lead to the permanent removal of sensitive subsurface pipelines located within the subject area. Lucid will commence corrective action to address reseeding the Site closer to the monsoon season for more effective revegetation. If you have any questions or comments, please do not hesitate to contact Mr. Michael Gant at 314-330-7876.

Sincerely,

LUCID ENERGY GROUP

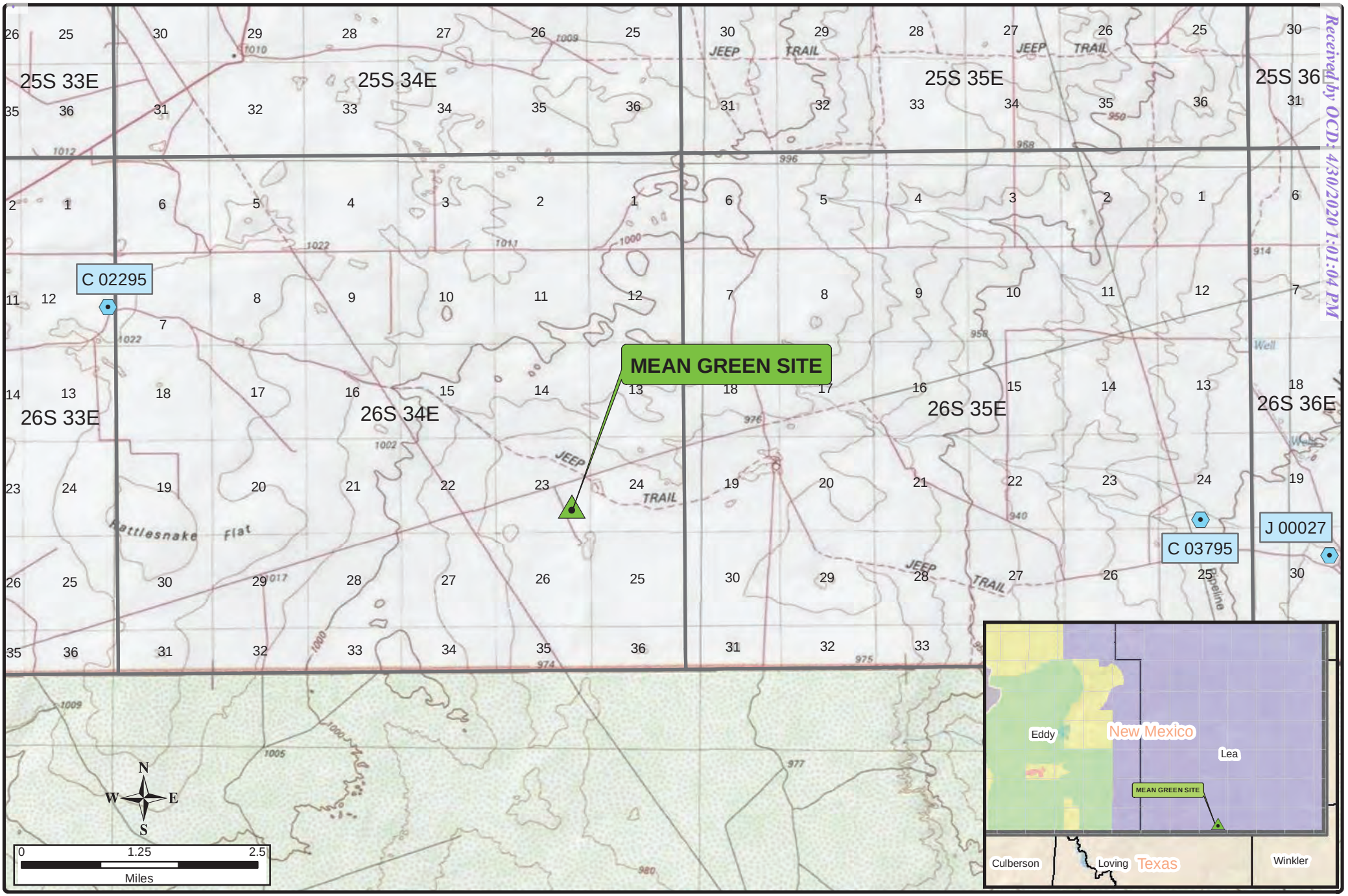
Michael Gant
Environmental Coordinator

cc: Jim Amos, BLM
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Table 2	Soil Analytical Results
Appendix A	Form C-141
Appendix B	Photographic Log
Appendix C	NMOSE Groundwater Data
Appendix D	Laboratory Analytical Reports

FIGURES



LUCID energy group

Lucid Energy Group
201 South 4th Street
Artesia, NM 88210

LEGEND	
Site	Karst
Wells	Critical
	High
	Medium
	Low

FIGURE 1: SITE LOCATION MAP

MEAN GREEN CTB 12 PIPELINE RELEASE
LEA COUNTY, NM
32.025456°N, 103.435485°W

B-1-C	12-18-19
Depth	2'
TPH	<63.7
BTEX	<0.225
Chlorides	690

HA-5	12-18-19
Depth	3'
TPH	<60.2
BTEX	<0.224
Chlorides	5100

SW-9-C	1-14-20
Depth	NA
Chlorides	500

B-11-C	3-11-20
Depth	6'
Chlorides	<60

B-8-C	1-14-20
Depth	4'
Chlorides	1200

B-10-C	2-26-20
Depth	5'
Chlorides	1500

HA-2	12-2-19
Depth	1'
TPH	<57.5
BTEX	<0.216
Chlorides	2700

SW-4-C	1-8-20
Depth	NA
Chlorides	337

B-4-C	12-18-19
Depth	2'
Chlorides	1100

B-7-C	1-8-20
Depth	4'
Chlorides	<60

SW-5-C	1-8-20
Depth	NA
Chlorides	140

B-5-C	12-30-19
Depth	3'
Chlorides	610

POINT OF RELEASE

SW-6-C	1-8-20
Depth	NA
Chlorides	270

SW-1-C	12-30-19
Depth	NA
Chlorides	430

SW-10-C	3-11-20
Depth	NA
Chlorides	<60

SW-3-C	1-3-20
Depth	NA
Chlorides	<60

B-3-C	12-18-19
Depth	2'
Chlorides	1500

HA-3	12-2-19
Depth	1'
TPH	<61.0
BTEX	<0.208
Chlorides	3000

HA-1	12-2-19
Depth	1'
TPH	1100
BTEX	0.360
Chlorides	2900

SW-8-C	1-14-20
Depth	NA
Chlorides	550

B-6-C	12-30-19
Depth	4'
Chlorides	700

SW-7-C	1-8-20
Depth	NA
Chlorides	89

HA-6	3-11-20
Depth	2'
TPH	NA
BTEX	<0.216
Chlorides	<60

HA-7	3-11-20
Depth	2'
TPH	NA
BTEX	<0.22
Chlorides	<60

B-9-C	1-14-20
Depth	5'
Chlorides	<60

B-2-C	12-18-19
Depth	2'
Chlorides	460

SW-2-C	12-30-19
Depth	NA
Chlorides	<60

SW-11-C	3-11-20
Depth	NA
Chlorides	<60

HA-4	12-2-19
Depth	1'
TPH	<57.5
BTEX	<0.211
Chlorides	2600

SW-12-C	3-11-20
Depth	NA
Chlorides	<61

LEGEND

- Hand Auger Grab Samples
- Composite Samples
- Dig Area - 6' Depth
- Overhead Powerlines
- Lucid Pipelines

Lucid Energy Group
201 South 4th Street
Artesia, NM 88210

NOTES:

1. Analytical Values are Given in mg/Kg (ppm).
2. Analytical Values in Yellow Shading Exceed NMED RRAL's.

N W E S

Coordinate System:
NAD 1983 StatePlane New Mexico
East FIPS 3001 Feet

0 15 30 Feet

FIGURE 2: SAMPLE LOCATION MAP

MEAN GREEN CTB 10" LINE RELEASE
LEA COUNTY, NM
32.025456°N, 103.435485°W

TABLES

Table 2
Soil Sample Analytical Results
Mean Green CTB
Lea County, NM

Sample ID	Depth (feet)	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	BTEX	TPH (GRO)	TPH (DRO)	TPH (MRO)	Total TPH	Chlorides
HA-1	1'	12/2/2019	<0.024	<0.049	0.070	0.290	0.360	21	1100	380	1501	2900
HA-2	1'	12/2/2019	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<8.7	<44	<57.5	2700
HA-3	1'	12/2/2019	<0.023	<0.046	<0.046	<0.093	<0.208	<4.6	<9.4	<47	<61.0	3000
HA-4	1'	12/2/2019	<0.023	<0.047	<0.047	<0.094	<0.211	<4.7	<8.8	<44	<57.5	2600
HA-5	3'	12/18/2019	<0.025	<0.050	<0.050	<0.099	<0.224	<5.0	<9.2	<46	<60.2	5100
B-1-C	2'	12/18/2019	<0.025	<0.050	<0.050	<0.100	<0.225	<5.0	<9.7	<49	<63.7	690
B-2-C	2'	12/18/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	460
B-3-C	2'	12/18/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	1500
B-4-C	2'	12/18/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	1100
B-5-C	3'	1/3/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	610
B-6-C	4'	1/3/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	700
SW-1-C	NA	1/3/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	430
SW-2-C	NA	1/3/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	<60
SW-3-C	NA	1/3/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	<60
SW-4-C	NA	1/8/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	337
SW-5-C	NA	1/8/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	140
SW-6-C	NA	1/8/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	270
SW-7-C	NA	1/8/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	89
B-7-C	4'	1/8/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	<60
B-8-C	4'	1/14/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	1200
B-9-C	5'	1/14/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	<60
SW-8-C	NA	1/14/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	550
SW-9-C	NA	1/14/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	500
B-10-C	5'	2/26/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	1500
B-11-C	6'	3/11/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	<60
SW-10-C	NA	3/11/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	<60
SW-11-C	NA	3/11/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	<60
SW-12-C	NA	3/11/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	<61
HA-6	2'	3/11/2020	<0.024	<0.047	<0.047	<0.098	<0.216	NA	NA	NA	NA	<60
HA-7	2'	3/11/2020	<0.024	<0.049	<0.049	<0.098	<0.22	NA	NA	NA	NA	<60
NMOCD Table 1 Closure Limits			**10**	**Total BTEX: 50**				**Total TPH: 100**				**600**

Notes:

All sample results are in milligrams per kilogram

NMOCD = New Mexico Oil Conservation Division
Table 1 Closure Limits = In accordance with 19.15.29 Release Rule
NA = Not Analyzed
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
TPH = Total Petroleum Hydrocarbons
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
MRO = Motor Oil Range Organics
Exceeds NMOCD limit

Appendix A

Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Lucid Energy Delaware, LLC.	OGRID
Contact Name Michael Gant	Contact Telephone 3143307876
Contact email MGant@lucid-energy.com	Incident # *(assigned by OCD)*
Contact mailing address 201 South Fourth Street Artesia, NM 88210	

Location of Release Source

Latitude 32.025451° Longitude -103.435522°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Mean Green 10"	Site Type Produced Water poly line
Date Release Discovered 12/2/19	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
I	23	26S	34E	Lea

Surface Owner: ☐ State ☑ Federal ☐ Tribal ☐ Private (*Name:* Bureau of Land Management)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☑ Produced Water	Volume Released (bbls) approx. 15 bbls	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The saddle clamp on the poly line of the produced water riser system failed releasing produced water to the surrounding area.

Form C-141
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State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☑ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☑ The source of the release has been stopped.
☑ The impacted area has been secured to protect human health and the environment.
☑ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☑ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Michael Gant Title: Environmental Coordinator

Signature: Date: 12/17/19

email: MGant@lucid-energy.com Telephone: 3143307876

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2002943377
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?	_____ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ 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)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ 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?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☑ 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.

Form C-141
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State of New Mexico
Oil Conservation Division

Incident ID	NRM2002943377
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: Michael Gant Title: Environmental Coordinator

Signature: Date: 4/28/2020

email: MGant@lucid-energy.com Telephone: 3143307876

OCD Only

Received by: Cristina Eads Date: 04/30/2020

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	
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: Michael Gant Title: Environmental Coordinator

Signature: Date: 4/28/2020

email: MGant@lucid-energy.com Telephone: 3143307876

OCD Only

Received by: Date:

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

Signature: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NRM2002943377
District RP	
Facility ID	
Application ID	

Closure

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 (electronic submittals in .pdf format are preferred) 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.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

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.

Printed Name: Michael Gant Title: Environmental Coordinator

Signature: [signature] Date: 4/28/2020

email: MGant@lucid-energy.com Telephone: 314-330-7876

OCD Only

Received by: Cristina Eads Date: 04/30/2020

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: [signature] Date: 07/02/2020

Printed Name: Cristina Eads Title: Environmental Specialist

Appendix B

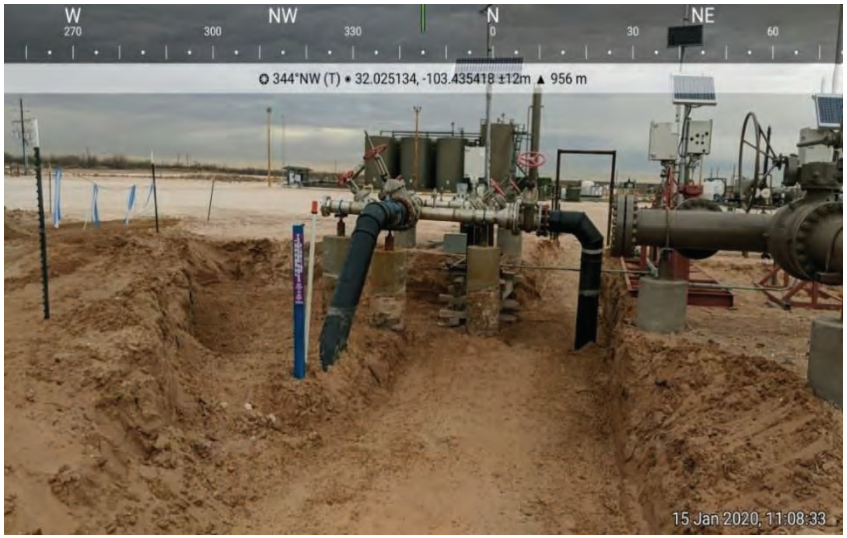
Photographic Log

Appendix B: Photographic Log 12/02/2019-03/31/2020
Mean Green 10" Line

Pre-Excavation Aerial (12/02/19)

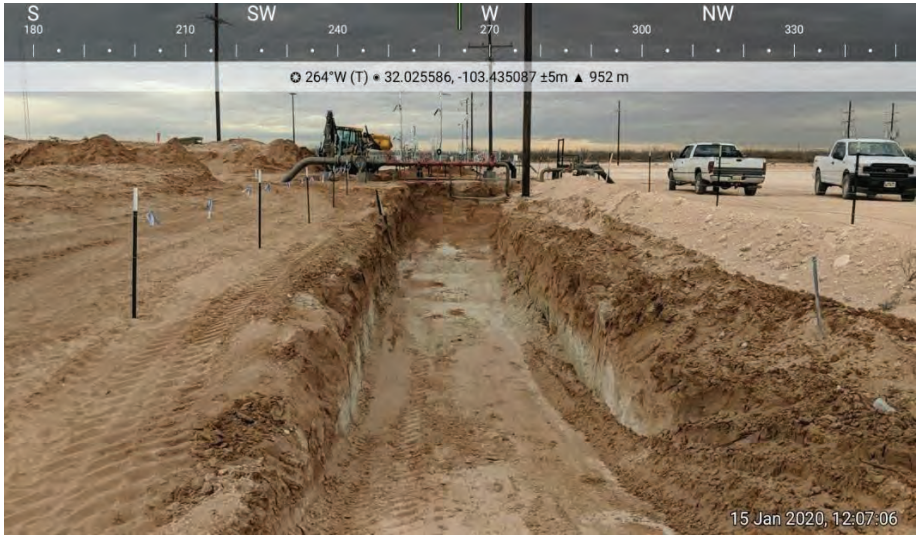
Pre-Excavation Looking East

Point of Release (Saddle-clamp)



Riser Excavated Area Looking North

Pre-Excavation Looking West



Post-Excavation Looking East

Post-Excavation (Looking South)

Excavation Backfill (3/31/2020)

Appendix C

Groundwater Data

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Twn	Rng	(NAD83 UTM in meters) X	Y
	C 03577 POD1	3	3	3	22	26S	33E	636010	3543771

Driller License: 1654 **Driller Company:** NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC

Driller Name:

Drill Start Date: 11/19/2012 **Drill Finish Date:** 11/20/2012 **Plug Date:**

Log File Date: 12/11/2012 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 35 GPM

Casing Size: 6.00 **Depth Well:** 750 feet **Depth Water:** 110 feet

Water Bearing Stratifications:	Top	Bottom	Description
	95	150	Sandstone/Gravel/Conglomerate
	200	710	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	180	200
	690	750

Meter Number: 16570 **Meter Make:** MASTERMETER

Meter Serial Number: 6985354 **Meter Multiplier:** 100.0000

Number of Dials: 6 **Meter Type:** Diversion

Unit of Measure: Gallons **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:** Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
04/01/2014	2014	123440	A	RPT		0
07/01/2014	2014	160772	A	RPT		11.457
10/01/2014	2014	193527	A	RPT		10.052
12/31/2014	2014	237836	A	RPT		13.598
02/01/2015	2015	247102	A	RPT		2.844
03/02/2015	2015	260095	A	RPT		3.987
04/01/2015	2015	268444	A	RPT		2.562
04/30/2015	2015	284991	A	RPT		5.078
05/31/2015	2015	296985	A	RPT		3.681
07/01/2015	2015	313077	A	RPT		4.938
08/01/2015	2015	321571	A	RPT		2.607
08/31/2015	2015	333738	A	RPT		3.734
10/01/2015	2015	340361	A	RPT		2.033

**YTD Meter Amounts:	Year	Amount
	2014	35.107

2015	31.464	

4/28/20 3:00 PM POINT OF DIVERSION SUMMARY

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 02295	2	2	4	12	26S	33E	639850	3547710*

Driller License:	122	**Driller Company:**	UNKNOWN		
Driller Name:	UNKNOWN				
Drill Start Date:		**Drill Finish Date:**	12/31/1949	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	12 GPM
Casing Size:	8.00	**Depth Well:**	250 feet	**Depth Water:**	200 feet

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	00027 POD1	1	2	2	30	26S	36E	660612	3543961

Driller License:	1682	**Driller Company:**	HUNGRY HORSE, LLC.		
Driller Name:	OHN NORRIS				
Drill Start Date:	07/04/2013	**Drill Finish Date:**	07/11/2013	**Plug Date:**	
Log File Date:	10/16/2013	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	12.00	**Depth Well:**	571 feet	**Depth Water:**	285 feet

Water earing Stratifications:	Top	ottom	Description
	285	325	Sandstone/Gra el/Conglomerate
	367	393	Sandstone/Gra el/Conglomerate
	430	446	Sandstone/Gra el/Conglomerate
	465	487	Sandstone/Gra el/Conglomerate
	523	548	Sandstone/Gra el/Conglomerate

Casing Perforations:	Top	ottom
	0	571

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 03795 POD1	4	4	3	24	26S	35E	658419	3544221

Driller License:	1607	**Driller Company:**	DURAN DRILLING		
Driller Name:	DURAN, LUIS (TONY)				
Drill Start Date:	02/02/2015	**Drill Finish Date:**	02/06/2015	**Plug Date:**	
Log File Date:	02/19/2015	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	180 GPM
Casing Size:	7.00	**Depth Well:**	496 feet	**Depth Water:**	250 feet

Water earing Stratifications:	Top	ottom	Description
	320	324	Sandstone/Gra el/Conglomerate
	460	492	Sandstone/Gra el/Conglomerate

Casing Perforations:	Top	ottom
	195	495

Appendix D

Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 10, 2019

Michael Gant

Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL:
FAX

RE: Mean Green Release OrderNo.: 1912115

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/4/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1912115**
Date Reported: **12/10/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-1
Project: Mean Green Release
Collection Date: 12/2/2019 11:51:00 AM
Lab ID: 1912115-001 **Matrix:** SOIL **Received Date:** 12/4/2019 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	1100	48		mg/Kg	5	12/9/2019 8:59:08 AM
Motor Oil Range Organics (MRO)	380	240		mg/Kg	5	12/9/2019 8:59:08 AM
Surr: DNOP	140	70-130	S	%Rec	5	12/9/2019 8:59:08 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	21	4.9		mg/Kg	1	12/5/2019 10:38:36 AM
Surr: BFB	219	66.6-105	S	%Rec	1	12/5/2019 10:38:36 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/5/2019 10:38:36 AM
Toluene	ND	0.049		mg/Kg	1	12/5/2019 10:38:36 AM
Ethylbenzene	0.070	0.049		mg/Kg	1	12/5/2019 10:38:36 AM
Xylenes, Total	0.29	0.097		mg/Kg	1	12/5/2019 10:38:36 AM
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	12/5/2019 10:38:36 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	2900	150		mg/Kg	50	12/9/2019 11:01:44 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912115**
Date Reported: **12/10/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-2
Project: Mean Green Release
Collection Date: 12/2/2019 11:53:00 AM
Lab ID: 1912115-002 **Matrix:** SOIL **Received Date:** 12/4/2019 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	12/9/2019 9:08:15 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	12/9/2019 9:08:15 AM
Surr: DNOP	109	70-130		%Rec	1	12/9/2019 9:08:15 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/5/2019 12:12:15 PM
Surr: BFB	84.9	66.6-105		%Rec	1	12/5/2019 12:12:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	12/5/2019 12:12:15 PM
Toluene	ND	0.048		mg/Kg	1	12/5/2019 12:12:15 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/5/2019 12:12:15 PM
Xylenes, Total	ND	0.096		mg/Kg	1	12/5/2019 12:12:15 PM
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	12/5/2019 12:12:15 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	2700	150		mg/Kg	50	12/9/2019 11:14:05 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912115**
Date Reported: **12/10/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-3
Project: Mean Green Release
Collection Date: 12/2/2019 11:55:00 AM
Lab ID: 1912115-003 **Matrix:** SOIL **Received Date:** 12/4/2019 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/9/2019 9:17:21 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/9/2019 9:17:21 AM
Surr: DNOP	113	70-130		%Rec	1	12/9/2019 9:17:21 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/5/2019 1:22:27 PM
Surr: BFB	81.9	66.6-105		%Rec	1	12/5/2019 1:22:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/5/2019 1:22:27 PM
Toluene	ND	0.046		mg/Kg	1	12/5/2019 1:22:27 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/5/2019 1:22:27 PM
Xylenes, Total	ND	0.093		mg/Kg	1	12/5/2019 1:22:27 PM
Surr: 4-Bromofluorobenzene	93.4	80-120		%Rec	1	12/5/2019 1:22:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	3000	150		mg/Kg	50	12/9/2019 11:26:26 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **1912115**
Date Reported: **12/10/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-4
Project: Mean Green Release
Collection Date: 12/2/2019 11:58:00 AM
Lab ID: 1912115-004 **Matrix:** SOIL **Received Date:** 12/4/2019 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	12/9/2019 9:26:26 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	12/9/2019 9:26:26 AM
Surr: DNOP	101	70-130		%Rec	1	12/9/2019 9:26:26 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/5/2019 1:46:03 PM
Surr: BFB	82.3	66.6-105		%Rec	1	12/5/2019 1:46:03 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	12/5/2019 1:46:03 PM
Toluene	ND	0.047		mg/Kg	1	12/5/2019 1:46:03 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/5/2019 1:46:03 PM
Xylenes, Total	ND	0.094		mg/Kg	1	12/5/2019 1:46:03 PM
Surr: 4-Bromofluorobenzene	95.8	80-120		%Rec	1	12/5/2019 1:46:03 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	2600	150		mg/Kg	50	12/9/2019 11:38:47 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912115**

10-Dec-19

Client: Lucid Energy Delaware

Project: Mean Green Release

Sample ID: **MB-49205**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **49205**	RunNo: **65000**
Prep Date: **12/6/2019**	Analysis Date: **12/6/2019**	SeqNo: **2230295** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49205**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **49205**	RunNo: **65000**
Prep Date: **12/6/2019**	Analysis Date: **12/6/2019**	SeqNo: **2230296** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912115**

10-Dec-19

Client: Lucid Energy Delaware

Project: Mean Green Release

Sample ID: **MB-49170** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **49170** RunNo: **65021**

Prep Date: **12/5/2019** Analysis Date: **12/9/2019** SeqNo: **2230412** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		108	70	130			

Sample ID: **LCS-49170** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **49170** RunNo: **65021**

Prep Date: **12/5/2019** Analysis Date: **12/9/2019** SeqNo: **2230418** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	63.9	124			
Surr: DNOP	4.3		5.000		85.9	70	130			

Sample ID: **1912115-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **HA-1** Batch ID: **49170** RunNo: **65021**

Prep Date: **12/5/2019** Analysis Date: **12/9/2019** SeqNo: **2231625** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	730	45	45.00	1147	-921	57	142			S
Surr: DNOP	5.7		4.500		127	70	130			

Sample ID: **1912115-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **HA-1** Batch ID: **49170** RunNo: **65021**

Prep Date: **12/5/2019** Analysis Date: **12/9/2019** SeqNo: **2231626** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	910	47	47.26	1147	-501	57	142	21.6	20	RS
Surr: DNOP	7.3		4.726		155	70	130	0	0	S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912115**

10-Dec-19

Client: Lucid Energy Delaware

Project: Mean Green Release

Sample ID: **mb-49165** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **49165** RunNo: **64975**

Prep Date: **12/4/2019** Analysis Date: **12/5/2019** SeqNo: **2228503** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	810		1000		81.3	66.6	105			

Sample ID: **lcs-49165** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **49165** RunNo: **64975**

Prep Date: **12/4/2019** Analysis Date: **12/5/2019** SeqNo: **2228504** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.2	80	120			
Surr: BFB	940		1000		94.2	66.6	105			

Sample ID: **1912115-001ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **HA-1** Batch ID: **49165** RunNo: **64975**

Prep Date: **12/4/2019** Analysis Date: **12/5/2019** SeqNo: **2228507** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	53	4.7	23.72	20.53	139	69.1	142			
Surr: BFB	2600		948.8		275	66.6	105			S

Sample ID: **1912115-001amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **HA-1** Batch ID: **49165** RunNo: **64975**

Prep Date: **12/4/2019** Analysis Date: **12/5/2019** SeqNo: **2228508** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	63	4.8	23.90	20.53	177	69.1	142	16.2	20	S
Surr: BFB	3100		956.0		329	66.6	105	0	0	S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912115**

10-Dec-19

Client: Lucid Energy Delaware

Project: Mean Green Release

Sample ID: **mb-49165** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **49165** RunNo: **64975**

Prep Date: **12/4/2019** Analysis Date: **12/5/2019** SeqNo: **2228519** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.5	80	120			

Sample ID: **LCS-49165** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **49165** RunNo: **64975**

Prep Date: **12/4/2019** Analysis Date: **12/5/2019** SeqNo: **2228520** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.4	80	120			
Toluene	0.93	0.050	1.000	0	93.0	80	120			
Ethylbenzene	0.92	0.050	1.000	0	92.3	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.2	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.0	80	120			

Sample ID: **1912115-002AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **HA-2** Batch ID: **49165** RunNo: **64975**

Prep Date: **12/4/2019** Analysis Date: **12/5/2019** SeqNo: **2228524** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.024	0.9461	0	93.6	76	123			
Toluene	0.91	0.047	0.9461	0.01128	95.4	80.3	127			
Ethylbenzene	0.93	0.047	0.9461	0	98.2	80.2	131			
Xylenes, Total	2.8	0.095	2.838	0.01466	98.7	78	133			
Surr: 4-Bromofluorobenzene	0.96		0.9461		102	80	120			

Sample ID: **1912115-002AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **HA-2** Batch ID: **49165** RunNo: **64975**

Prep Date: **12/4/2019** Analysis Date: **12/5/2019** SeqNo: **2228525** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.023	0.9363	0	102	76	123	7.95	20	
Toluene	1.0	0.047	0.9363	0.01128	107	80.3	127	10.1	20	
Ethylbenzene	1.0	0.047	0.9363	0	110	80.2	131	10.2	20	
Xylenes, Total	3.1	0.094	2.809	0.01466	111	78	133	10.7	20	
Surr: 4-Bromofluorobenzene	0.99		0.9363		105	80	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **LUCID ENERGY DELAW** Work Order Number: **1912115** RcptNo: **1**

Received By: **Yazmine Garduno** **12/4/2019 9:10:00 AM**

Completed By: **Yazmine Garduno** **12/4/2019 9:26:22 AM**

Reviewed By: DM 12/4/19

Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: ENM 12/4/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good				

Chain-of-Custody Record

Client: Lucid Energy Group

Mailing Address: 201 S. 4th St
Artesia, NM 88210

Phone #: 314-338-7876

email or Fax#: mgant@lucid-energy.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 3-day

Project Name: Mean Green Release

Project #:

Project Manager: Mike Gant

Sampler: Phil Lorang

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 3.4 (+0.3 - 3.1) (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1912115	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12-2-19	11:51	Soil	HA-1	4oz. glass	Ice	-001	X	X					X			
	11:53		HA-2			-002	X	X					X			
	11:55		HA-3			-003	X	X					X			
	11:58		HA-4			-004	X	X					X			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
12-3-19	12:30				12/3/19	1230
12/3/19	1900			courier	12/4/19	0910

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 30, 2019

Michael Gant

Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL:
FAX

RE: Mean Green CTB OrderNo.: 1912B00

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/20/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1912B00**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-5-3'
Project: Mean Green CTB
Collection Date: 12/18/2019 11:30:00 AM
Lab ID: 1912B00-001 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	12/27/2019 10:55:43 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/27/2019 10:55:43 AM
Surr: DNOP	91.0	70-130		%Rec	1	12/27/2019 10:55:43 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/27/2019 1:59:10 PM
Surr: BFB	76.7	66.6-105		%Rec	1	12/27/2019 1:59:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	12/27/2019 1:59:10 PM
Toluene	ND	0.050		mg/Kg	1	12/27/2019 1:59:10 PM
Ethylbenzene	ND	0.050		mg/Kg	1	12/27/2019 1:59:10 PM
Xylenes, Total	ND	0.099		mg/Kg	1	12/27/2019 1:59:10 PM
Surr: 4-Bromofluorobenzene	94.5	80-120		%Rec	1	12/27/2019 1:59:10 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	5100	150		mg/Kg	50	12/28/2019 6:45:29 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **1912B00**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: B-1-2'
Project: Mean Green CTB
Collection Date: 12/18/2019 11:55:00 AM
Lab ID: 1912B00-002 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/27/2019 11:20:04 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/27/2019 11:20:04 AM
Surr: DNOP	92.9	70-130		%Rec	1	12/27/2019 11:20:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/27/2019 3:33:37 PM
Surr: BFB	80.1	66.6-105		%Rec	1	12/27/2019 3:33:37 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	12/27/2019 3:33:37 PM
Toluene	ND	0.050		mg/Kg	1	12/27/2019 3:33:37 PM
Ethylbenzene	ND	0.050		mg/Kg	1	12/27/2019 3:33:37 PM
Xylenes, Total	ND	0.10		mg/Kg	1	12/27/2019 3:33:37 PM
Surr: 4-Bromofluorobenzene	98.7	80-120		%Rec	1	12/27/2019 3:33:37 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	690	60		mg/Kg	20	12/24/2019 12:01:52 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **1912B00**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: B-2-2'
Project: Mean Green CTB
Collection Date: 12/18/2019 12:25:00 PM
Lab ID: 1912B00-003 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	460	60		mg/Kg	20	12/24/2019 12:38:55 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912B00**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: B-3-2'
Project: Mean Green CTB
Collection Date: 12/18/2019 12:30:00 PM
Lab ID: 1912B00-004 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	1500	60		mg/Kg	20	12/24/2019 12:51:15 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1912B00**
Date Reported: **12/30/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: B-4-2'
Project: Mean Green CTB
Collection Date: 12/18/2019 12:35:00 PM
Lab ID: 1912B00-005 **Matrix:** SOIL **Received Date:** 12/20/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	1100	60		mg/Kg	20	12/24/2019 1:03:35 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912B00**

30-Dec-19

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **MB-49494** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **49494** RunNo: **65358**

Prep Date: **12/23/2019** Analysis Date: **12/23/2019** SeqNo: **2246271** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49494** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **49494** RunNo: **65358**

Prep Date: **12/23/2019** Analysis Date: **12/23/2019** SeqNo: **2246272** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912B00**

30-Dec-19

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **LCS-49535** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **49535** RunNo: **65437**

Prep Date: **12/27/2019** Analysis Date: **12/27/2019** SeqNo: **2247854** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	63.9	124			
Surr: DNOP	4.5		5.000		90.0	70	130			

Sample ID: **MB-49535** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **49535** RunNo: **65437**

Prep Date: **12/27/2019** Analysis Date: **12/27/2019** SeqNo: **2247855** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		92.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912B00**

30-Dec-19

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **MB-49528**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **49528**	RunNo: **65453**
Prep Date: **12/26/2019**	Analysis Date: **12/27/2019**	SeqNo: **2248318** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		82.2	66.6	105			

Sample ID: **LCS-49528**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **49528**	RunNo: **65453**
Prep Date: **12/26/2019**	Analysis Date: **12/27/2019**	SeqNo: **2248319** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.4	80	120			
Surr: BFB	870		1000		87.2	66.6	105			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912B00**

30-Dec-19

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **MB-49528** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **49528** RunNo: **65453**

Prep Date: **12/26/2019** Analysis Date: **12/27/2019** SeqNo: **2248345** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID: **LCS-49528** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **49528** RunNo: **65453**

Prep Date: **12/26/2019** Analysis Date: **12/27/2019** SeqNo: **2248346** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.3	80	120			
Toluene	0.96	0.050	1.000	0	96.3	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.0	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.6	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: LUCID ENERGY DELAW Work Order Number: 1912B00 RcptNo: 1

Received By: **Leah Baca** 12/20/2019 9:15:00 AM Leah Baca
Completed By: **Michelle Garcia** 12/20/2019 12:08:56 PM Michelle Garcia
Reviewed By: LB 12/20/19

Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: ____ (<2 or >12 unless noted)
Adjusted? ____
Checked by: 12/20/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.2	Good	Not Present			

Chain-of-Custody Record

Client: Lucid Energy Group

Mailing Address: 201 S 4th St. Artesia NM 88210

Phone #: 314-630-1596

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day
☑ Standard ☐ Rush

Project Name: Mean Green CTB

Project #:

Project Manager: Michael Gant

Sampler: Michael Moffitt

On Ice: ☑ Yes ☐ No

# of Coolers: (1)

Cooler Temp(including CF): 3.3 - .1 = 3.2 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1912B00	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12/8/19	1130	S	HA-5-3'	4 oz glass jar	ICE	001	X	X					X			
"	1155	"	B-1-2'	"	"	002	X	X					X			
"	1225	"	B-2-2'	"	"	003							X			
"	1230	"	B-3-2'	"	"	004							X			
"	1235	"	B-4-2'	"	"	005							X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
12/9/19	1230	Michael Moffitt	Jaylon Gant		12/9/19	12 30
12/9/19	1900	Jaylon Gant		Courier	12/10/19	0915

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 08, 2020

Michael Gant

Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL:
FAX

RE: Mean Green CTB OrderNo.: 2001090

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/4/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **2001090**
Date Reported: **1/8/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware **Lab Order:** 2001090
Project: Mean Green CTB

Lab ID: 2001090-001 **Collection Date:** 12/30/2019 12:30:00 PM
Client Sample ID: B-5-3' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	610	60		mg/Kg	20	1/6/2020 7:47:28 PM	49640

Lab ID: 2001090-002 **Collection Date:** 1/3/2020 11:30:00 AM
Client Sample ID: SW-1-C **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	430	60		mg/Kg	20	1/6/2020 7:59:52 PM	49640

Lab ID: 2001090-003 **Collection Date:** 1/3/2020 11:35:00 AM
Client Sample ID: SW-2-C **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	1/6/2020 8:12:17 PM	49640

Lab ID: 2001090-004 **Collection Date:** 1/3/2020 12:20:00 PM
Client Sample ID: SW-3-C **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	1/6/2020 1:58:39 PM	49642

Lab ID: 2001090-005 **Collection Date:** 1/3/2020 12:35:00 PM
Client Sample ID: B-6-4' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	700	60		mg/Kg	20	1/6/2020 2:11:00 PM	49642

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001090**

08-Jan-20

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **MB-49640** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **49640** RunNo: **65598**

Prep Date: **1/6/2020** Analysis Date: **1/6/2020** SeqNo: **2253170** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49640** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **49640** RunNo: **65598**

Prep Date: **1/6/2020** Analysis Date: **1/6/2020** SeqNo: **2253171** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Sample ID: **MB-49642** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **49642** RunNo: **65601**

Prep Date: **1/6/2020** Analysis Date: **1/6/2020** SeqNo: **2253254** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49642** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **49642** RunNo: **65601**

Prep Date: **1/6/2020** Analysis Date: **1/6/2020** SeqNo: **2253255** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **LUCID ENERGY DELAW** Work Order Number: **2001090** RcptNo: 1

Received By: **Yazmine Garduno** **1/4/2020 9:45:00 AM**

Completed By: **Yazmine Garduno** **1/4/2020 10:31:11 AM**

Reviewed By: 01/06/20

Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JR 1/6/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good				
2	4.0	Good				
3	2.2	Good				

Chain-of-Custody Record

Client: Lucid Energy Group

Mailing Address: 201 S. 4th ST
Artesia, NM 88210

Phone #: 314-330-7876

email or Fax#: mmoffitt@lucid-energy.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 48 HR
☐ Standard ☐ Rush ~~3 day~~

Project Name: Mean Green CTB

Project #:

Project Manager: Michael Gant

Sampler: Michael Moffitt
On Ice: ☒ Yes ☐ No
# of Coolers: 3
Cooler Temp (including CF): Remarks

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2001090	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
123619	1230	S	B-5-3'	4 oz glass jar	ICE	-001							X									
010320	1130	|	SW-1-C	|	|	-002							X									
010320	1135	|	SW-2-C	|	|	-003							X									
010320	1220	|	SW-3-C	|	|	-004							X									
010320	1235		B-6-3'	|	|	-005							X									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1/3/2020	1500	Michael Moffitt	[signature]		1/3/20	1500
1/3/20	1810	[signature]	[signature]	Courier	1/4/20	0945

Remarks:
2.7 +0.1 = 2.8
3.9 +0.1 = 4.0
2.1 +0.1 = 2.2

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
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Website: www.hallenvironmental.com

January 14, 2020

Michael Gant
Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL: (575) 513-8988
FAX:

RE: Mean Green CTB OrderNo.: 2001374

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/9/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2001374**
Date Reported: **1/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW-4-C
Project: Mean Green CTB
Collection Date: 1/8/2020 11:15:00 AM
Lab ID: 2001374-001 **Matrix:** SOIL **Received Date:** 1/9/2020 3:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	370	60		mg/Kg	20	1/10/2020 4:33:58 PM	49749

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2001374**
Date Reported: **1/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW-5-C
Project: Mean Green CTB
Collection Date: 1/8/2020 11:20:00 AM
Lab ID: 2001374-002 **Matrix:** SOIL **Received Date:** 1/9/2020 3:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	140	60		mg/Kg	20	1/10/2020 4:46:19 PM	49749

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2001374**
Date Reported: **1/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW-6-C
Project: Mean Green CTB
Collection Date: 1/8/2020 11:25:00 AM
Lab ID: 2001374-003 **Matrix:** SOIL **Received Date:** 1/9/2020 3:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	270	60		mg/Kg	20	1/10/2020 4:58:40 PM	49749

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2001374**
Date Reported: **1/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW-7-C
Project: Mean Green CTB
Collection Date: 1/8/2020 11:27:00 AM
Lab ID: 2001374-004 **Matrix:** SOIL **Received Date:** 1/9/2020 3:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	89	60		mg/Kg	20	1/10/2020 5:11:00 PM	49749

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2001374**
Date Reported: **1/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: B-7-C-4'
Project: Mean Green CTB
Collection Date: 1/8/2020 11:30:00 AM
Lab ID: 2001374-005 **Matrix:** SOIL **Received Date:** 1/9/2020 3:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	1/10/2020 5:23:21 PM	49749

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001374**

14-Jan-20

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **MB-49749**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **49749**	RunNo: **65712**
Prep Date: **1/10/2020**	Analysis Date: **1/10/2020**	SeqNo: **2257076** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49749**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **49749**	RunNo: **65712**
Prep Date: **1/10/2020**	Analysis Date: **1/10/2020**	SeqNo: **2257077** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: LUCID ENERGY DELAW Work Order Number: 2001374 RcptNo: 1

Received By: **Daniel Marquez** 1/9/2020 3:00:00 PM

Completed By: **Daniel Marquez** 1/10/2020 10:53:42 AM

Reviewed By: LB 1/10/20

Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: DAD 1/10/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good				
2	4.0	Good				

Chain-of-Custody Record

Client: Lucid Energy Group

Mailing Address: 201 S. 4th St. Artesia NM 88210

Phone #: 314-330-7876

email or Fax#: mmoffith@lucid-energy.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush 3 day

Project Name: Mean Green CTB

Project #:

Project Manager: Michael Gant

Sampler: Michael Moffitt

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 2.2+0=2.2 (°C) 4.0+0=4.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2001374	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
010820	1115	S	SW-4-C	4 oz soil Jar	ICE	001							X			
"	1120	"	SW-5-C	"	"	002							X			
"	1125	"	SW-6-C	"	"	003							X			
"	1127	"	SW-7-C	"	"	004							X			
"	1130	"	B-7-C-4'	"	"	005							X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1/9/20	1500				1/9/20	1500
1/9/20	1900			Courier	1/10/20	900

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 21, 2020

Michael Gant

Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL: (575) 513-8988
FAX

RE: Mean Green CTB OrderNo.: 2001677

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/17/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **2001677**
Date Reported: **1/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware **Lab Order:** 2001677
Project: Mean Green CTB

Lab ID: 2001677-001 **Collection Date:** 1/14/2020 1:10:00 PM
Client Sample ID: SW-8-C **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	550	60		mg/Kg	20	1/20/2020 3:10:48 PM	49925

Lab ID: 2001677-002 **Collection Date:** 1/14/2020 1:15:00 PM
Client Sample ID: B-8-C-4' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	1200	60		mg/Kg	20	1/20/2020 3:23:08 PM	49925

Lab ID: 2001677-003 **Collection Date:** 1/14/2020 1:20:00 PM
Client Sample ID: SW-9-C **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	500	60		mg/Kg	20	1/20/2020 4:00:12 PM	49925

Lab ID: 2001677-004 **Collection Date:** 1/14/2020 1:25:00 PM
Client Sample ID: B-9-C-5' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	1/20/2020 4:12:33 PM	49925

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001677**

21-Jan-20

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **MB-49925**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **49925**	RunNo: **65933**
Prep Date: **1/20/2020**	Analysis Date: **1/20/2020**	SeqNo: **2264389** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-49925**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **49925**	RunNo: **65933**
Prep Date: **1/20/2020**	Analysis Date: **1/20/2020**	SeqNo: **2264390** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **LUCID ENERGY DELAW** Work Order Number: **2001677** RcptNo: **1**

Received By: **Leah Baca** **1/17/2020 9:05:00 AM** Leah Baca

Completed By: **Isaiah Ortiz** **1/17/2020 9:41:14 AM** I-Ort

Reviewed By: YG 1/17/20

Chain of Custody

1. Is Chain of Custody sufficiently complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JR 1/17/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good	Not Present			

Chain-of-Custody Record

Client: Lucid Energy Group

Mailing Address: 201 S 4th St.
Artesia NM 88210

Phone #: 314-680-1596

email or Fax#: mmoffitt@lucid-energy.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 48hr

Project Name: Mean Green CTB

Project #:

Project Manager: Michael Gant

Sampler: Michael Moffitt
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 3.2 - 0.1 = 3.1 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2001677	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
011420	1310	S	SW-8-C	4 oz sal Jar	ICE	-001							X			
"	1315	"	B-8-C-4'	"	"	-002							X			
"	1320	"	SW-9-C	"	"	-003							X			
"	1325	"	B-9-C-5'	"	"	-004							X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1/14/20	1312				1-16-2020	1317
1/16/2020	1900			courier	1/17/20	9:05

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 09, 2020

Michael Gant

Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL:
FAX:

RE: Mean Green CTB OrderNo.: 2003118

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/3/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2003118**
Date Reported: **3/9/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: B-10-C-5
Project: Mean Green CTB
Collection Date: 2/26/2020 1:00:00 PM
Lab ID: 2003118-001 **Matrix:** SOIL **Received Date:** 3/3/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	1500	61		mg/Kg	20	3/6/2020 8:51:24 PM	50942

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2003118**

09-Mar-20

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **MB-50942**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **50942**	RunNo: **67101**
Prep Date: **3/6/2020**	Analysis Date: **3/6/2020**	SeqNo: **2310564** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-50942**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **50942**	RunNo: **67101**
Prep Date: **3/6/2020**	Analysis Date: **3/6/2020**	SeqNo: **2310565** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **LUCID ENERGY DELAW** Work Order Number: **2003118** RcptNo: **1**

Received By: **Desiree Dominguez** **3/3/2020 9:00:00 AM** DD

Completed By: **Leah Baca** **3/4/2020 8:55:38 AM** Leah Baca

Reviewed By: JR 3/4/20

Chain of Custody

1. Is Chain of Custody sufficiently complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: DAD 3/4/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good				

Chain-of-Custody Record

Client: Lucid Energy Group

Mailing Address:

Phone #: 314-680-1596

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Mean Green CTB

Project #:

Project Manager: Michael Gant

Sampler: Michael Moffitt

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.2+0.2 = 3.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl, F, Br, NO_3, NO_2, PO_4, SO_4)	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
022620	1300	S	B-10-C-5'	4 oz soil Jar	ICE								X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
3-2-2020	1205	Michael Moffitt			3/2/20	1205
3/2/20	1900			Courier	3/3/20	9:00

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 20, 2020

Michael Gant

Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL:
FAX

RE: Mean Green CTB OrderNo.: 2003610

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/13/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2003610**
Date Reported: **3/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW-10-C
Project: Mean Green CTB
Collection Date: 3/11/2020 2:20:00 PM
Lab ID: 2003610-001 **Matrix:** SOIL **Received Date:** 3/13/2020 8:24:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	3/18/2020 11:38:59 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003610**
Date Reported: **3/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW-11-C
Project: Mean Green CTB
Collection Date: 3/11/2020 2:25:00 PM
Lab ID: 2003610-002 **Matrix:** SOIL **Received Date:** 3/13/2020 8:24:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	3/19/2020 12:16:01 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003610**
Date Reported: **3/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW-12-C
Project: Mean Green CTB
Collection Date: 3/11/2020 2:30:00 PM
Lab ID: 2003610-003 **Matrix:** SOIL **Received Date:** 3/13/2020 8:24:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	61		mg/Kg	20	3/19/2020 12:28:22 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003610**
Date Reported: **3/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: B-11-C-6'
Project: Mean Green CTB
Collection Date: 3/11/2020 2:15:00 PM
Lab ID: 2003610-004 **Matrix:** SOIL **Received Date:** 3/13/2020 8:24:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	3/19/2020 4:12:57 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003610**
Date Reported: **3/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-6-2'
Project: Mean Green CTB
Collection Date: 3/11/2020 2:35:00 PM
Lab ID: 2003610-005 **Matrix:** SOIL **Received Date:** 3/13/2020 8:24:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	3/16/2020 7:26:54 PM
Toluene	ND	0.047		mg/Kg	1	3/16/2020 7:26:54 PM
Ethylbenzene	ND	0.047		mg/Kg	1	3/16/2020 7:26:54 PM
Xylenes, Total	ND	0.094		mg/Kg	1	3/16/2020 7:26:54 PM
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	3/16/2020 7:26:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	3/19/2020 4:25:18 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2003610**
Date Reported: **3/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-7-2'
Project: Mean Green CTB
Collection Date: 3/11/2020 2:40:00 PM
Lab ID: 2003610-006 **Matrix:** SOIL **Received Date:** 3/13/2020 8:24:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	3/17/2020 9:41:45 PM
Toluene	ND	0.049		mg/Kg	1	3/17/2020 9:41:45 PM
Ethylbenzene	ND	0.049		mg/Kg	1	3/17/2020 9:41:45 PM
Xylenes, Total	ND	0.098		mg/Kg	1	3/17/2020 9:41:45 PM
Surr: 4-Bromofluorobenzene	87.6	80-120		%Rec	1	3/17/2020 9:41:45 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	3/19/2020 4:37:39 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2003610**

20-Mar-20

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **MB-51199** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **51199** RunNo: **67386**

Prep Date: **3/18/2020** Analysis Date: **3/18/2020** SeqNo: **2325416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-51199** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **51199** RunNo: **67386**

Prep Date: **3/18/2020** Analysis Date: **3/18/2020** SeqNo: **2325417** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.4	90	110			

Sample ID: **MB-51212** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **51212** RunNo: **67421**

Prep Date: **3/19/2020** Analysis Date: **3/19/2020** SeqNo: **2326742** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2003610**

20-Mar-20

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **mb-51097** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **51097** RunNo: **67331**

Prep Date: **3/13/2020** Analysis Date: **3/16/2020** SeqNo: **2320543** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.86		1.000		85.8	80	120			

Sample ID: **LCS-51097** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **51097** RunNo: **67331**

Prep Date: **3/13/2020** Analysis Date: **3/16/2020** SeqNo: **2320544** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.1	80	120			
Toluene	0.93	0.050	1.000	0	93.3	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.2	80	120			
Surr: 4-Bromofluorobenzene	0.89		1.000		89.4	80	120			

Sample ID: **mb-51093** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **51093** RunNo: **67331**

Prep Date: **3/13/2020** Analysis Date: **3/16/2020** SeqNo: **2320567** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.90		1.000		90.1	80	120			

Sample ID: **LCS-51093** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **51093** RunNo: **67331**

Prep Date: **3/13/2020** Analysis Date: **3/16/2020** SeqNo: **2320568** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		91.9	80	120			

Sample ID: **mb-51119** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **51119** RunNo: **67350**

Prep Date: **3/16/2020** Analysis Date: **3/18/2020** SeqNo: **2322879** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2003610**

20-Mar-20

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **mb-51119** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **51119** RunNo: **67350**

Prep Date: **3/16/2020** Analysis Date: **3/18/2020** SeqNo: **2322879** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.88		1.000		88.4	80	120			

Sample ID: **LCS-51119** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **51119** RunNo: **67350**

Prep Date: **3/16/2020** Analysis Date: **3/18/2020** SeqNo: **2322880** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.6	80	120			
Toluene	0.95	0.050	1.000	0	95.1	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.6	80	120			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.0	80	120			

Sample ID: **2003610-006ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **HA-7-2'** Batch ID: **51119** RunNo: **67350**

Prep Date: **3/16/2020** Analysis Date: **3/17/2020** SeqNo: **2322882** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.023	0.9276	0	89.7	78.5	119			
Toluene	0.87	0.046	0.9276	0	93.8	75.7	123			
Ethylbenzene	0.90	0.046	0.9276	0	96.8	74.3	126			
Xylenes, Total	2.7	0.093	2.783	0	97.9	72.9	130			
Surr: 4-Bromofluorobenzene	0.82		0.9276		88.7	80	120			

Sample ID: **2003610-006amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **HA-7-2'** Batch ID: **51119** RunNo: **67350**

Prep Date: **3/16/2020** Analysis Date: **3/17/2020** SeqNo: **2322883** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.024	0.9542	0	88.5	78.5	119	1.54	20	
Toluene	0.88	0.048	0.9542	0	92.6	75.7	123	1.48	20	
Ethylbenzene	0.90	0.048	0.9542	0	94.6	74.3	126	0.492	20	
Xylenes, Total	2.8	0.095	2.863	0	96.4	72.9	130	1.30	20	
Surr: 4-Bromofluorobenzene	0.88		0.9542		91.7	80	120	0	0	

Sample ID: **mb-51153** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **51153** RunNo: **67382**

Prep Date: **3/17/2020** Analysis Date: **3/18/2020** SeqNo: **2324686** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2003610**

20-Mar-20

Client: Lucid Energy Delaware

Project: Mean Green CTB

Sample ID: **mb-51153**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **51153**	RunNo: **67382**
Prep Date: **3/17/2020**	Analysis Date: **3/18/2020**	SeqNo: **2324686** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.90		1.000		89.7	80	120			

Sample ID: **lcs-51153**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **51153**	RunNo: **67382**
Prep Date: **3/17/2020**	Analysis Date: **3/18/2020**	SeqNo: **2324687** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.88		1.000		88.1	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: LUCID ENERGY DELAW Work Order Number: 2003610 RcptNo: 1

Received By: Juan Rojas 3/13/2020 8:24:00 AM

Completed By: Erin Melendrez 3/13/2020 10:22:29 AM

Reviewed By: YG 3/13/20

Chain of Custody

1. Is Chain of Custody sufficiently complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: DAD 3/13/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good				

Chain-of-Custody Record

Client: Lucid Energy Group

Mailing Address:

Phone #: 314-680-1596

email or Fax#: MMoffitt@lucid-energy.com

QA/QC Package: ☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day ☑ Standard ☐ Rush

Project Name: Mean Green CTB

Project #:

Project Manager: Michael Gant

Sampler: Michael Moffitt

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 1.7-0.1=1.6 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2003610	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	~~RCRA 8 Metals~~	Cl, F, Br, NO_3, NO_2, PO_4, SO_4 (circled)	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
031220	1420	S	SW-10-C	4oz soil jar	ICE	-001						~~X~~	X			
	1425		SW-11-C			-002						~~X~~	X			
	1430		SW-12-C			-003						~~X~~	X			
	1415		B-11-C-6'			-004						~~X~~	X			
	1435		HA-6-2'			-005	X					~~X~~	X			
	1440		HA-7-2'			-006	X					~~X~~	X			
												NO				

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
031220	1530	Michael Moffitt	[signature]		3/12	1530
3/12	1900	[signature]	[signature]	courier	3/13/20	8:24

Remarks: Chlorides not metals... Per Michael all samples were collected on 3/11/20 YG 3/13/20.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.