

Site Characterization Report of Oil and Gas-Related Spills in Red Bluff Draw, New Mexico



July, 2015

PREPARED FOR



THE NEW MEXICO STATE LAND OFFICE

PREPARED BY



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1 INTRODUCTION

This report provides the results and interpretations of soil, surface water and vegetation sampling within Red Bluff Draw in order to delineate oil and gas related spills that took place on New Mexico State Trust land in September and October 2014. The initial survey and subsequent sampling effort was conducted by GL Environmental Inc. from May 4 – May 29, 2015.

Red Bluff Draw drains an approximate 100,000 acre west to east sloping watershed and joins the Pecos River 5.5 miles north of the Texas / New Mexico border. Surface water within the meandering channel is intermittent with pools of water separated by dry stretches. Soils within the project area range from shallow to deep calcareous to gypsiferous silty loams within the floodplains and silty fine sand to coarse sand with pebbles of mixed parent rock within the channel. Consolidated gypsum, siltstone and dolomite from the Rustler formation outcrop or shallowly underlie the majority of the project area.

In September of 2014 sustained storm events in the Red Bluff Draw watershed resulted in a significant flood event. On September 19, 2014 flood waters overran the COG Operating LLC Crossman 25 State #1H well pad, washing tanks and equipment and a large portion of the pad downstream with the flood waters. Tanks and equipment were transported up to 2 miles downstream of the well pad. The majority of the contents of the steel tanks were drained during the flood event and the fiberglass tanks were torn apart. COG Operating LLC reported 280 bbl oil and 100 bbls produced water were released with no recovery.

On September 26, 2014 a Mewbourne Oil Company HDPE salt water disposal line that ran alongside the west side of the Highway 285 bridge was damaged by debris and floodwaters within the draw. The damaged line was discovered on September 28, 2014 at which time the line was capped to stop the release. Mewbourne reported that the draw was affected from the bridge to approximately 6,000 ft downstream by the release. Oil was initially recovered from the surface water with vacuum trucks and skimmers and a continued cleanup effort utilized hydrocarbon absorbing pads and booms. Mewbourne reported that 253 bbls oil and 1,473 bbls of produced water were released while 253 bbls oil and 267 bbls produced water /flood water were recovered.

On October 10, 2014 a Yates Petroleum Corporation buried salt water disposal line ruptured which was discovered the same day and affected an approximate 300 ft x 1,500 ft area on the banks and channel of the draw. Yates reported that 20 bbls oil and 500 bbls of produced water were released while 15 bbls oil and 375 bbls of produced water were recovered. Vacuum trucks and a roustabout crew were called to recover oil and produced water and fence off the immediate affected area. Upland areas and a portion of the draw channel were bermed to isolate affected areas. Some soils were excavated from the upland release site and hauled off-site for disposal.

This summary of the release events that occurred in September and October 2014 has been taken from each companies' accounts presented in the New Mexico Oil Conservation Division Form C-141 and interviews conducted with company representatives.



2 METHODS

GL Environmental, Inc. completed a review of operator reports, state and federal agency reports and scientific literature to compile report background information and to support the sampling strategy and conclusions. A site reconnaissance was conducted from May 4 – May 6, 2015 to identify appropriate sample locations and sample media that would determine the presence of salts and petroleum products present within Red Bluff Draw as a result of the September and October 2014 releases. The site visit also included a pedestrian survey to delineate visible deposits of petroleum products. Samples were collected from May 26 to May 28, 2015 from surface water, soil and channel sediments.

Sample containers were prepared in advance of actual sample collection for the analytes of interest and included sample preservatives where necessary. During sampling, proper protective clothing and equipment decontamination procedures were used to avoid contamination of the samples. The samples were placed in cooled ice chests for storage and shipped to Hall Environmental Analysis Laboratory on a daily basis under standard chain-of custody procedures.

2.1 Soil

Soil from each sample location was collected from a maximum of five discrete depth intervals. Depth intervals consisted of surface to 0.5 ft, 0.5 ft – 1.5 ft, 1.5 ft - 2.5 ft, 2.5 ft – 3.5 ft and 3.5 ft – 4 ft below the ground surface (bgs). Soil samples were collected with a mobile equipment mounted geo-probe coring device which functions by advancing a hollow steel sample tube into the soil using a direct push in combination with percussion energy when required. Soil samples were retrieved in decontaminated 1.25 in OD clear PVC tube liners. Sampling was not completed to four feet at several locations due to the presence of hardened consolidated material at depth. A hand coring device was implemented at four sample locations that were inaccessible to the geo-probe rig due to rough terrain and excessive mud (Soil 4, Soil 25, Soil 28 and Soil 29). Upon completion of core collection the sample holes were filled with 3/8 in bentonite pellets to the surface in order to plug the hole.

2.2 Surface Water

Surface water samples were collected by hand using a decontaminated 1 liter sample container. The container was filled from several locations within the selected surface water pool and then used to fill the appropriate sample containers.

2.3 Sediments

Sediments were collected with a decontaminated trowel from several locations within pools of standing water. Sediment samples consisted of the uppermost 0.5 ft of material on the bottom of the pools. The sediment substrate appeared to consist of mostly organic material with some silt and clay.



3 SAMPLE LOCATIONS AND DESCRIPTIONS

Three soil samples were collected along a transect perpendicular to the channel (Soil 1 – Soil 3) in the reference area in order to characterize soil conditions in cross-section across the draw. A fourth soil sample (Soil 4) was collected downstream within the channel bed. A surface water and sediment sample (SW 1 and Sed 1) were collected from an open stretch of water just west of the soil sampling area (Map 1. Red Bluff Draw – Reference Sample Area).

Three soil cores, collected from the COG Operating LLC Crossman 25 State #1H well pad, were composited into single soil samples from each of the corresponding depths (Soil 5). Three soil samples were collected in a cross-section directly down-gradient of the well pad (Soil 6 - Soil 8) and one soil sample (Soil 9) was collected from the braided channels 200ft further down-gradient.

A surface water and sediment sample (SW 2 and Sed 2) were collected from the pool immediately west (up-gradient) of the well pad. A surface water sample and sediment sample (SW 3 and Sed 3) were also collected at the nearest downstream surface water location, approximately 3,500ft to the east of the well pad (Map 2. Red Bluff Draw – COG Operating Well Pad Sample Area).

One soil sample was collected directly up-gradient of the tank #1 location (Soil 19), one in between the tank #1 and tank #2 locations (Soil 18) and one down-gradient of the tank #2 location (Soil 17). Four additional soil samples were collected at Soil 13, Soil 14, Soil 15, and Soil 16 in order to characterize soil conditions in cross-section across the draw below the two tanks (Map 3. Red Bluff Draw – Tanks Sample Area).

One soil sample was collected directly up-gradient of the tank #3 site and one down-gradient (Soil 12 and Soil 11 respectively). A third soil sample (Soil 10) was collected within the channel bottom just south of a buried pipeline.

A surface water, sediment and soil sample (SW 4, Sed 4 and Soil 21) were collected within the channel bottom west (up-stream) of where the Yates release entered into the draw. Two soil samples (Soil 22 and Soil 23) were collected outside of the draw between the Yates release location and the earthen berm along the south bank of the draw. A surface water, sediment and soil sample (SW 6 and Sed 6 and Soil 20) were collected from within the bermed area in the channel bottom north of the Yates release site. One surface water and sediment sample were collected in the canal south of the bermed area (SW 5, Sed 5) (Map 4. Red Bluff Draw – Highway 285 Bridge).

Six soil samples and three sediment samples were collected downstream of the Highway 285 bridge (Soil 24-29 and Sed 6-8). Three of the soil samples (Soil 25, Soil 26, and Soil 27) were collected in order to characterize soil conditions in cross-section across the draw just east of the bridge. A water sample was collected at a relatively large pool of open water 0.5 miles east of the bridge (SW 6) and at a second location an additional 1.75mi downstream above the confluence of Red Bluff Draw and the Pecos River (SW 8, Map 4. Red Bluff Draw – Highway 285 Bridge).



4 RESULTS

4.1 Site Characteristics

4.1.1 Vegetation

Vegetation within the reference area is characteristic of saltcedar successional-disturbance vegetation type on a water course that likely formerly supported plains riparian vegetation. Recent precipitation has produced a flush of flowering annuals within and around the channel and floodplain.

Vegetation around the COG Operating well pad was similar to the reference area, although no vegetation is present on the pad. Vegetation in the vicinity of the COG Operating pad and downstream tank locations is characteristic of floodplain riparian vegetation including some scattered saltcedar (partially burned). Flowering annuals interspersed with mesquite and sand dropseed dominate this part of the floodplain with Saltcedar concentrated within the deeper channel. Small patches of vegetation within this area were recently burned along the channel edges, but not within the channel.

Mesquite and sand dropseed dominate the floodplain in the portion of the draw that stretches from just above the Highway 285 bridge to a mile east (downstream) of the bridge, with numerous flowering annuals dispersed throughout. Saltcedar is abundant, but concentrated within the deeper channel. The burn rate was highest in the area between Highway 285 and one half mile east of the bridge, where burned mesquite, yucca, and saltcedar were observed on both banks of the draw. A relatively large area of burned salt cedar was observed on the southern bank of the draw in the southeastern reaches of the large continuous pool.

4.1.2 Soil

The major mapped soil units within the project area, as mapped by the NRCS Soil Survey, are Cottonwood, Reeves, Reagan and Pima soils mixed with outcrops of gypsum (NRCS Web Soil Survey 2015). The Cottonwood series consists of shallow, well drained soils that formed in loamy residuum overlying gypsum bedrock. These gently sloping to steep soils are on the summits and side slopes of hills and ridges. These soils are well drained with moderate permeability in the solum and very low permeability in the gypsum bedrock. The Reeves series consists of very deep soils that are moderately deep to gypsum material. They are well drained, moderately permeable soils that formed in calcareous and gypsiferous fine textured alluvium derived from gypsum beds. These soils are on hillslopes, plateaus, and basin floors. The Reagan series consists of very deep, well drained, moderately permeable soils that formed in calcareous loamy materials. These nearly level to gently sloping upland soils are on broad flats, filled valleys and fans. The Pima series consists of deep, well drained soils formed in stream alluvium. Pima soils are on alluvial fans and flood plains.

Soils observed during soil sampling were in general agreement with NRCS mapped soil units. Soils within the floodplains consisted of silty loam with sand. Soils within the channel ranged from a sandy silt with significant amounts of organic matter to a medium sand with pebbles. The bottom



of nearly all of the sample cores collected within the channel were completed in a weakly cemented gypsiferous layer mixed with pebbles of siltstone and limestone or terminated upon encountering a consolidated gypsum layer. The thickness of the silty sandy soils overlying the gypsum material generally increased in depth in the downstream direction.

4.1.3 Geology

Surface deposits within the draw channel and adjacent flood plains are mapped as Pleistocene to Holocene aged alluvial sediments. Areas surrounding and directly underlying the draw are mapped as the Permian Rustler Formation which can attain a thickness of several hundred feet in the area. Just west of the project area, the Permian Salado Formation may be exposed at the surface within the draw and surrounding uplands. The Salado consists of halite and anhydrite with subordinate potash salts, dolomite and claystone to siltstone. The Salado can attain a thickness of over 1,000 ft (USGS 2003).

Observed alluvial deposits within the channel and floodplain are described in the soils section of this report. Outcrops of Rustler Formation were observed throughout the project area along the banks of the draw and within the channel bottom. The outcrops consisted of white/cream colored dolomite, orange-red siltstone to fine sandstone and gypsum. Sections of Rustler exposed in the banks of the draw were often capped with 3 – 6 ft of calcrete. The Salado Formation was not observed at the surface within the immediate project area.

4.1.4 Hydrology

Surface water

Surface water within the channel is intermittent with pools of water separated by dry stretches. Several of the pools in the project area are somewhat large ranging up to 50ft wide, hundreds of feet in length and several feet in depth. The stretches of surface water are likely interconnected by subsurface flows through the shallow alluvial deposits as evidenced by the occurrence of springs and low velocity flow within the pools. Additionally, saturated soils were observed in most cores collected within the draw channel above unconsolidated to consolidated gypsum. Continuous surface flows through the length of the draw appear to occur only in response to large storm events.

Groundwater

Depth to groundwater within the broader project area outside of the draw channel is approximately 80 - 100 feet. Depth to groundwater was approximated after a review of near-by well logs filed with the New Mexico Office of the State Engineer. According to the well logs groundwater was present within fine sandstone layers ranging from 10 – 35ft in thickness which are likely part of the Rustler Formation.

Local groundwater gradients could not be determined due to a lack of contemporaneous measurements within local wells, however a review of the ChevronTexaco 2005 Eddy Co. Depth to Groundwater map suggests the regional groundwater gradient follows the surface gradient and slopes to the east.



4.2 Pedestrian Survey

A survey of the project area was conducted May 4 – 6 with additional investigation performed May 26 – 29, 2015. The survey included a combination walking systematic transects across and along the draw and making observations while performing other tasks such as sample collection to identify and record the location and intensity of petroleum product deposits.

Observed petroleum products between the COG Operating well pad and the bermed area just west of the US 285 bridge are widely spaced and spotty with patches observed in vegetation and on surface soils. One 25 ft² – 30 ft² oil stain was observed in an upland location north of the tank 1 sampling location (See Map 5. Observed Petroleum Products).

Significant somewhat continuous deposits of petroleum were observed within the bermed area inside of the draw channel west of the Highway 285 bridge. The deposits consisted of a thin layer of petroleum material that coated large patches of the soil surface and vegetation. Additional large deposits were observed from the Highway 285 bridge to the east for approximately 0.5 miles. Oil staining was confined to a ring around the banks of the larger standing pools of water where the channel is deeply incised. Sediments within the pools possessed a hydrocarbon odor when disturbed. Petroleum deposits were dispersed over a wider area where the channel took on a braided nature. Most petroleum staining in the braided channels was confined to patches on the soil and vegetation. In general the concentration of petroleum patches within affected areas diminished with distance from the Highway 285 bridge. The results of the survey are displayed on Map 5.

4.3 Analytical Results

A total of 29 soil sample locations at multiple depths (128 samples), 8 water samples and 9 sediment samples were collected during the May sampling event. Chlorides were present in detectable concentrations in the majority of sample media and locations. Chloride concentrations ranged from 670 mg/l to 3,200 mg/l in surface water, 170 mg/kg to 720 mg/kg in sediments and from less than 7.5 mg/kg to 5,500 mg/kg in soils. Diesel range organics (DRO) were detected in one surface water sample (1.2 mg/l), ranged from 15 mg/kg – 210 mg/kg in four sediment samples where DRO was detected and from 10 mg/kg to 1,200 mg/kg in seven soil samples where DRO was detected.

Gasoline range organics (GRO) and benzene, toluene, ethylbenzene and xylenes (BTEX) were not detected in collected samples.



Table 1. Surface water and sediment analytical results

Sample ID	Chloride (mg/L)	Diesel Range Organics - DRO (mg/L)
SW 1	3200	< 1.0
SW 2	1800	< 1.0
SW 3	760	< 1.0
SW 4	670	< 1.0
SW 5	1100	< 1.0
SW 6	1800	1.2
SW 7	1100	< 1.0
SW 8	2300	< 1.0
Sed 1	720	< 9.9
Sed 2	410	< 9.9
Sed 3	240	< 9.7
Sed 4	440	15
Sed 5	220	< 9.6
Sed 6	350	210
Sed 7	190	< 9.6
Sed 8	380	53
Sed 9	170	78

Table 2. Soil analytical results

Sample ID	Chloride (mg/L)	Diesel Range Organics - DRO (mg/L)	Sample ID	Chloride (mg/L)	Diesel Range Organics - DRO (mg/L)
Soil 1, 0 - 0.5ft	1600	< 10	Soil 4, 0 - 0.5ft	54	< 9.9
Soil 1, 0.5 - 1.5ft	200	< 10	Soil 4, 0.5 - 1.5ft	130	< 9.8
Soil 1, 1.5 - 2.5ft	190	< 9.8	Soil 5, 0 - 0.5ft	5500	1200
Soil 1, 2.5 - 3.5ft	70	< 9.9	Soil 5, 0.5 - 1.5ft	4600	< 10
Soil 2, 0 - 0.5ft	210	< 10	Soil 5, 1.5 - 2.5ft	3400	< 9.9
Soil 2, 1.0 - 1.5ft	46	< 10	Soil 5, 2.5 - 3.5ft	1900	< 9.8
Soil 2, 1.5 - 2.0ft	63	< 0.10	Soil 5, 3.5 - 4.0ft	2600	< 9.8
Soil 3, 0 - 0.5ft	39	< 9.9	Soil 6, 0 - 0.5ft	35	37
Soil 3, 0.5 - 1.5ft	78	< 10	Soil 6, 0.5 - 1.5ft	77	< 10
Soil 3, 1.5 - 2.5ft	260	< 9.8	Soil 6, 1.5 - 2.5ft	80	< 4.7
Soil 3, 2.5 - 3.5ft	280	< 9.9	Soil 6, 2.5 - 3.5ft	88	< 10
Soil 3, 3.5 - 4.0ft	210	< 10			

Table 2. Soil Analytical Results (Continued)

Sample ID	Chloride (mg/L)	Diesel Range Organics - DRO (mg/L)	Sample ID	Chloride (mg/L)	Diesel Range Organics - DRO (mg/L)
Soil 7, 0 - 0.5ft	7.2	< 10	Soil 16, 0 - 0.5ft	7.7	< 10
Soil 7, 0.5 - 1.5ft	23	< 9.8	Soil 16, 0.5 - 1.5ft	< 7.5	< 9.8
Soil 7, 1.5 - 2.5ft	85	< 10	Soil 16, 1.5 - 2.5ft	< 30	< 9.6
Soil 7, 2.5 - 3.5ft	130	< 9.9	Soil 16, 2.5 - 3.5ft	360	21
Soil 7, 3.5 - 4.0ft	190	< 9.8	Soil 16, 3.5 - 4.0ft	110	< 9.8
Soil 8, 0 - 0.5ft	< 7.5	10	Soil 17, 0 - 0.5ft	< 7.5	24
Soil 8, 0.5 - 1.5ft	< 7.5	< 10	Soil 17, 0.5 - 1.5ft	11	< 9.6
Soil 8, 1.5 - 2.5ft	< 7.5	< 10	Soil 17, 1.5 - 2.5ft	94	< 9.7
Soil 8, 2.5 - 3.5ft	< 7.5	< 9.7	Soil 17, 2.5 - 3.5ft	280	< 9.5
Soil 9, 0 - 0.5ft	12	14	Soil 17, 3.5 - 4.0ft	600	< 9.9
Soil 9, 0.5 - 1.5ft	51	< 10	Soil 18, 0 - 0.5ft	< 7.5	< 9.7
Soil 9, 1.5 - 2.5ft	52	< 9.7	Soil 18, 0.5 - 1.5ft	31	< 9.8
Soil 9, 2.5 - 3.5ft	62	< 10	Soil 18, 1.5 - 2.5ft	51	< 9.9
Soil 9, 3.5 - 4.0ft	83	< 10	Soil 18, 2.5 - 3.5ft	77	< 9.5
Soil 10, 0 - 0.5ft	32	< 9.8	Soil 19, 0 - 0.5ft	8.2	< 9.6
Soil 10, 0.5 - 1.5ft	40	< 9.9	Soil 19, 0.5 - 1.5ft	< 7.5	< 9.5
Soil 10, 1.5 - 2.5ft	18	< 10	Soil 19, 1.5 - 2.5ft	< 7.5	< 9.5
Soil 10, 2.5 - 3.5ft	10	< 9.7	Soil 19, 2.5 - 3.5ft	< 7.5	< 9.5
Soil 10, 3.5 - 4.0ft	16	< 10	Soil 19, 3.5 - 4.0ft	14	< 9.6
Soil 11, 0 - 0.5ft	13	< 9.8	Soil 20, 0 - 0.5ft	2600	< 10
Soil 11, 0.5 - 1.5ft	13	< 10	Soil 20, 0.5 - 1.5ft	150	< 9.5
Soil 11, 1.5 - 2.5ft	12	< 4.9	Soil 20, 1.5 - 2.5ft	100	< 10
Soil 11, 2.5 - 3.5ft	11	< 9.9	Soil 20, 2.5 - 3.5ft	95	< 10
Soil 11, 3.5 - 4.0ft	38	< 5.0	Soil 20, 3.5 - 4.0ft	130	< 10
Soil 12, 0 - 0.5ft	21	< 10	Soil 21, 0 - 0.5ft	3300	< 10
Soil 12, 0.5 - 1.5ft	< 7.5	< 10	Soil 21, 0.5 - 1.5ft	2500	< 10
Soil 12, 1.5 - 2.5ft	< 7.5	< 9.9	Soil 21, 1.5 - 2.5ft	1500	< 9.8
Soil 12, 2.5 - 3.5ft	< 7.5	< 10	Soil 21, 2.5 - 3.5ft	1900	< 9.4
Soil 13, 0 - 0.5ft	< 7.5	13	Soil 21, 3.5 - 4.0ft	1700	< 10
Soil 13, 0.5 - 1.5ft	< 7.5	< 10	Soil 22, 0 - 0.5ft	9.5	< 9.9
Soil 13, 1.5 - 2.5ft	19	< 5.0	Soil 22, 0.5 - 1.5ft	< 7.5	< 9.8
Soil 14, 0 - 0.5ft	< 7.5	< 5.0	Soil 22, 1.5 - 2.5ft	< 7.5	< 9.6
Soil 14, 0.5 - 1.5ft	64	< 9.7	Soil 22, 2.5 - 3.5ft	< 7.5	< 10
Soil 14, 1.5 - 2.5ft	69	< 9.9	Soil 22, 3.5 - 4.0ft	< 7.5	< 9.4
Soil 14, 2.5 - 3.5ft	99	< 10	Soil 23, 0 - 0.5ft	460	< 9.6
Soil 14, 3.5 - 4.0ft	120	< 9.9	Soil 23, 0.5 - 1.5ft	60	< 9.6
Soil 15, 0 - 0.5ft	< 7.5	< 9.8	Soil 23, 1.5 - 2.5ft	46	< 10
Soil 15, 0.5 - 1.5ft	< 7.5	< 10	Soil 23, 2.5 - 3.5ft	93	< 9.5
Soil 15, 1.5 - 2.5ft	11	< 10	Soil 23, 3.5 - 4.0ft	340	< 9.5
Soil 15, 2.5 - 3.5ft	100	< 10			
Soil 15, 3.5 - 4.0ft	380	< 10			

Table 2. Soil Analytical Results (Continued)

Sample ID	Chloride (mg/L)	Diesel Range Organics - DRO (mg/L)	Sample ID	Chloride (mg/L)	Diesel Range Organics - DRO (mg/L)
Soil 24, 0 - 0.5ft	85	< 10	Soil 27, 0 - 0.5ft	310	< 9.8
Soil 24, 0.5 - 1.5ft	58	< 9.8	Soil 27, 0.5 - 1.5ft	170	< 10
Soil 24, 1.5 - 2.5ft	64	< 9.5	Soil 27, 1.5 - 2.5ft	140	< 9.9
Soil 24, 2.5 - 3.5ft	85	< 9.7	Soil 27, 2.5 - 3.5ft	160	< 10
Soil 24, 3.5 - 4.0ft	88	< 10	Soil 28, 0 - 0.5ft	260	< 9.9
Soil 25, 0 - 0.5ft	220	< 9.7	Soil 28, 0.5 - 1.5ft	210	< 9.9
Soil 25, 0.5 - 1.5ft	81	< 9.7	Soil 28, 1.5 - 2.5ft	120	< 9.7
Soil 25, 1.5 - 2.5ft	98	< 9.4	Soil 29, 0 - 0.5ft	530	< 9.9
Soil 25, 2.5 - 3.5ft	70	< 9.8	Soil 29, 0.5 - 1.5ft	140	< 9.9
Soil 25, 3.5 - 4.0ft	70	< 9.9	Soil 29, 1.5 - 2.5ft	130	< 9.5
Soil 26, 0 - 0.5ft	180	< 9.8	Soil 29, 2.5 - 3.5ft	120	< 9.9
Soil 26, 0.5 - 1.5ft	170	< 9.4			
Soil 26, 1.5 - 2.5ft	110	< 9.6			
Soil 26, 2.5 - 3.5ft	66	< 10			

5 DISCUSSION

5.1 Vegetation

Because vegetation within the entire release area appeared healthy and not stressed overall, it was not inventoried by quantitative methods. None of the vegetation observed is particularly salt-tolerant; no obligate halophiles were observed. Very few burned and/or uprooted individuals appeared dead, and saltcedar, mesquite, and sand dropseed within the release area was leafing out at the time of the surveys.

5.2 Sampling Results

The sampling analytical results are discussed below and depicted on Maps 6 through 16.

5.2.1 Reference Area

Chlorides within the surface water and sediments in the reference area were the highest of any surface water or sediment location sampled at 3,200 mg/l and 720 mg/kg respectively (SW 1 and Sed 1). These concentrations likely reflect high natural salinities in the Red Bluff Draw environment and are possibly related to the near surface presence of the Salado Formation upstream of the reference area as indicated in geologic mapping (USGS 2003).

Chloride concentrations in soil samples collected along a transect perpendicular to the channel (Soil 1 – Soil 3) ranged from 1,600 mg/kg at the surface on the south side of the channel to 39 mg/kg at the surface on north side of the channel. A fourth soil sample (Soil 4), collected



downstream within the channel bed had relatively low chloride concentrations. (Map 2. Red Bluff Draw – Reference Area Sampling).

No DRO was detected in the reference area surface water, sediment or soil samples. No surface deposits of petroleum products were observed.

5.2.2 COG Operating LLC Crossman 25 State #1H Well Pad

The well pad was partially built in the channel bottom and appears to be constructed from imported material (observed gravel and cobble are rock types that do not occur locally). The remnants of the pad are highly eroded with ongoing erosion as a result of storm events. No obvious petroleum deposits were observed on the pad or within its immediate vicinity.

A small body of open water, present within the channel immediately west (upstream) of the well pad, was sampled as well as the nearest downstream surface water location, which is approximately 3,500ft to the east of the pad. Chlorides within the surface water and sediment samples to the west of the pad (SW 2 and Sed 2) were 1,800 mg/l and 410 mg/kg respectively. Chlorides within the surface water and sediments at the downstream surface water location (SW 3 and Sed 3) were 760 mg/l and 240 mg/kg respectively. No DRO was detected in the surface water or channel sediments in the pad area.

One soil sample (Soil 5) was composited from each of the corresponding depths of three cores collected from well pad. Reported chloride concentrations ranged from 5,500 mg/kg at the surface to 1,900 mg/kg at 2.5 to 3.5ft bgs. DRO results from the surface soil sample were 1,200 mg/kg. The elevated concentration of chlorides throughout the soil column and high concentration of DRO at the surface appear to reflect contamination within the pad material from releases associated with the site.

Four soil samples (Soil 6 – Soil 9) were collected from the braided channels east and directly down-gradient of the well pad, including three arranged in a cross-section perpendicular to the draw. Reported chloride concentrations ranged from less than 7.5 mg/kg to 190 mg/kg. Three soil samples (Soil 6, Soil 8 and Soil 9) reported detectable concentrations of DRO at the surface at 37 mg/kg, 10 mg/kg and 14 mg/kg respectively. Although detectable amounts of DRO were identified down-gradient of the well pad, the concentrations were low and appear to be confined to the surface.

5.2.3 Tanks #1 and #2

Two of the three displaced COG Operating steel oil tanks came to rest within 550ft of each other within the floodplain approximately 1.8mi downstream of the well pad, but north and east of the deeper channel. Small amounts of petroleum product were observed at the tank locations as well as in vegetation down-gradient (downstream) of the tanks.

A total of six soil samples were collected from the area. One soil sample was collected directly up-gradient (northwest) of the tank #1 location (Soil 19) and one down-gradient (southwest, Soil 18). Chlorides concentrations were relatively low through the soil column at both locations ranging from less than 7.5 mg/kg to 77 mg/kg. DRO was not detected at either sample location.



A soil sample was collected down-gradient of the tank #2 location (Soil 17) which yielded chloride concentrations between less than 7.5 mg/kg and 600 mg/kg. DRO was reported to be 24 mg/kg at the surface and not detected at deeper depths.

Four additional soil samples were collected at Soil 13 - Soil 16 in order to characterize soil conditions in a cross-section across the draw. Chloride concentrations ranged from less than 7.5 mg/kg to 380 mg/kg. DRO were detected at the surface in Soil 13 at 13 mg/kg and between 2.5 to 3.5ft bgs in Soil 16 at 24 mg/kg. Soil 13 is adjacent to the channel and Soil 16 is down-gradient of tank #2 and Soil 17, which also had detectable concentrations of DRO.

Soil chloride concentrations appear to be within a typical range for Red Bluff Draw in the tank #1 and #2 vicinity. However, relatively low but detectable concentrations of DRO were identified in the soil column down-gradient of tank #2 and near the draw channel.

5.2.4 Steel Tank #3

One of the three displaced COG Operating steel oil tanks came to rest approximately 1.4mi downstream from the well pad within the floodplain, but south of the deeper channel. Minor oil staining was observed at the tank site. According to Concho representatives the removal crew was unable to plug the tank openings and the remaining tank contents, which likely consisted of a mixture of flood water and petroleum products, were released into the draw channel during removal. This release occurred near the intersection of the draw channel and a nearby pipeline right-of-way.

One soil sample was collected directly up-gradient of the tank #3 site and one down-gradient (Soil 12 and Soil 11 respectively). Chlorides were relatively low through the soil column at both locations ranging from less than 7.5 mg/kg to 38 mg/kg. DRO were not detected at either sample location. A third soil sample (Soil 10) was collected within the channel bottom near the location where the tank's contents were drained during removal activities. Chloride concentrations ranged from 10 mg/kg to 40 mg/kg and DRO were not detected.

5.2.5 West of Bermed Area

A surface water, sediment and soil sample (SW 4, Sed 4 and Soil 21) were collected within the channel bottom west (up-stream) of where the Yates release entered into the draw. The reported chloride concentration in surface water was 670 mg/l and no DRO was detected. Chloride concentration in the sediment sample was 440 mg/kg and DRO was 15 mg/kg. Chloride concentrations in the soil column ranged from 1,500 mg/kg to 3,300 mg/kg and DRO was not detected.

Elevated chloride concentrations were present within the soils at this location. It is unclear why chlorides were elevated, but it may simply reflect the heterogeneity of the underlying Rustler Formation which can contain salt deposits. Detectable concentration of DRO were identified in the channel sediments which suggests deposition of petroleum products from an up-gradient location.



5.2.6 Upland Release Area

This sample area consists of the vicinity of the Yates release that occurred within an upland area south of the draw. An earthen berm has been constructed north of the release area along the south bank of the channel in an attempt to isolate the upland release area. Patches of a white crust were visible on the soil surface throughout the release area. According to a Yates representative, soil that was visibly contaminated with petroleum products was excavated and disposed of off-site. Several small open pits used for Yates sample collection were present at the time of sampling.

Two soil samples (Soil 22 and Soil 23) were collected in this area and displayed a chloride concentration between less than 7.5 mg/kg and 460 mg/kg. No DRO were detected in either sample location.

5.2.7 Bermed Channel Area

The bermed area includes the portion of the channel bottom that contains the largest visible petroleum deposits between the Yates release site and the Highway 285 bridge. The earthen berm is connected to the northern channel bank, surrounds impacted sites and diverts channel surface flows toward an excavated canal. Recently disturbed areas are present on both sides of this section of the draw. It appears that erosion of these areas has resulted in the deposition of significant quantities of sediment within this section of the draw.

A surface water sample, sediment sample and soil sample (SW 6 and Sed 6 and Soil 20) were collected from within the bermed area and a surface water and sediment sample were collected in the canal to the south of the berm (SW 5, Sed 5). Within the bermed area the reported chloride concentration was 1,800 mg/l and DRO were 1.2 mg/l in surface water. Chloride concentration in the sediment sample was 350 mg/kg and DRO were 210 mg/kg. Chloride concentrations in the soil column ranged from 95 mg/kg to 2,600 mg/kg and DRO were not detected.

Reported chloride concentration in surface water from the canal was 1,100 mg/l and no DRO were detected. Chloride concentration in the sediment sample from the canal was 220 mg/kg and DRO were not detected.

Chloride concentrations were similar in all media sampled to the reference area and other samples collected within the channel of Red Bluff Draw. The surface water sample and sediment sample results from within the bermed area confirm visual observations and indicate the presence of petroleum products. DRO were not detected in the canal to the south of the berm in surface water or sediments.

5.2.8 East of Highway 285 Bridge Release Area

Below the bridge, significant petroleum product deposits were concentrated within the channel-proper and scattered throughout the braided channels. Visible petroleum product staining and deposits continue downstream to a sizable expanse of open water 0.5 miles east of the Highway 285 bridge on the Cooksey Ranch, including minor staining and deposits on the northern extremity of the pool. No significant petroleum deposition was observed in the channel east of the large pool nor in the upland floodplain.



A water sample was collected from the open water 0.5 miles east of the bridge (SW 7) and at a second location an additional 1.75 miles downstream, above the confluence of Red Bluff Draw and the Pecos River (SW 8). Chloride concentrations were 1,100 mg/l and 2,300 mg/l respectively.

Three sediment samples (Sed 7 – Sed 9) were collected between the Highway 285 bridge and the large open stretch of water. Chloride concentrations ranged from 170 mg/kg to 380 mg/kg. DRO in Sed 8 was 53 mg/kg and 78 mg/kg in Sed 9. No DRO was detected in Sed 7.

Chloride concentration results from the six soil sample locations (Soil 24 – Soil 29) between the Highway 285 bridge and the large open stretch of water ranged from 58 mg/kg to 310 mg/kg. No DRO was detected.

Significant observed petroleum products deposits and detectable DRO in sediments confirm the presence of hydrocarbon contamination within this stretch of the draw. Soil sample results appear to indicate a limited downward migration of hydrocarbons in the soil profile. A lack of DRO in the surface water suggests a limited mobility of the petroleum products at the time of sample collection.

6 CONCLUSIONS

The reference area displayed elevated concentrations of chlorides in surface water, sediments and soils. These conditions may reflect naturally occurring salt deposits in the local geologic formations. No DRO were detected in sample media and no surface deposits of petroleum products were observed, lending some evidence that the conditions are natural and not the result of a previous release of contaminated material.

Soil sampling indicates that the COG Operating LLC Crossman 25 State #1H well pad material contains elevated concentrations of chloride and DRO. The composited surface soil sample from the pad reported 5,500 mg/kg chloride and 1,200 mg/kg DRO. Chloride concentrations were elevated at nearly all of the samples intervals within the pad. Additionally, the pad displays signs of ongoing erosion and will likely act as a source of continued sedimentation and possible DRO contamination within downstream reaches of the draw. Surface soil samples collected immediately down-gradient of the pad reported detectable concentrations of DRO which may reflect the initial release or subsequent erosion of the pad.

Widely spaced and spotty petroleum staining, which were mostly confined to vegetation, was observed throughout the tank sampling areas. DRO were detected in soils down-gradient of tank 2 and near the channel in the vicinity of the tanks. Additionally, DRO were detected in sediments approximately 0.3 miles west of the Highway 285 bridge (Sed 4). It appears that petroleum contamination in the stretch of the draw between the COG well pad to approximately 0.3 mi west of the Highway 285 bridge is widespread but not concentrated in any identified locations. Chloride concentration in this stretch are elevated at some locations but the origins are likely natural.

Significant petroleum product deposits were observed on vegetation and surface soils in the bermed area immediately upstream (west) the Highway 285 bridge and for 0.5 miles east of the bridge. Reported DRO concentrations ranged from 53 mg/kg to 210 mg/kg in three sediment



samples collected in this area. No DRO was detected in soil samples which indicates that widespread infiltration of petroleum products has not occurred in the draw, rather remaining petroleum products have been isolated in vegetation, patches of soil and in the organic sediments of the deeper sections of the channel. No DRO was detected in the surface water suggesting a limited mobility of the petroleum products at the time of sample collection.

Soil samples results indicate that petroleum products are mostly confined to the surface with limited downward migration. Additionally, low permeability gypsiferous material that underlie the draw channel likely act as a barrier to the downward migration of contaminated material into regional groundwater formations. However, due to the soluble nature of the underlying Rustler Formation the presence of karst hydrology and a direct connection of surface / shallow groundwater to deeper groundwater cannot be eliminated.

In general, silt and fine sand sediments increase in depth within the channel in the downstream direction of the draw. Siltstone, evaporites and dolomite pebbles / cobbles mixed with sand occur on the channel surface in the reference area. This material could be identified in most soil samples within the draw channel, except it was buried by a layer of silt and sand that increased in thickness in the downstream direction. The observed sedimentation may have numerous causes related natural sedimentation patterns and recent flood events. However, it seems likely that recent oil and gas development including roads and drill/well pads in combination with a lack of storm water controls may be accelerating the sedimentation rate within the draw. For example, storm water runoff from the well location immediately adjacent to the Red Bluff Draw just north of the Yates pipeline release site, was observed conveying sediment directly into the draw during a moderate precipitation event. Also, the COG Crossman 25 State #1H well pad, has several other facilities in close proximity to the draw that do not appear to have adequate storm water runoff protection. It is recommended that a review of compliance with the storm water regulations be conducted on NM SLO lands, and Storm Water Pollution Prevention Plans (SWPPP's) be implemented.

Finally, the New Mexico Oil Conservation Division (OCD) uses a target of 1,000 mg/kg for remediation of chlorides and between a 100 mg/kg and 1,000 mg/kg concentration target for remediation of petroleum hydrocarbons. The COG Operating LLC Crossman 25 State #1H pad material continues to erode within the draw, displays an elevated concentration of chloride over the surrounding environment and DRO of 1,200 mg/kg in surface soils. Based on these finding the pad area should be targeted for remediation. The roughly 0.8 mile stretch of the draw that begins at bermed area west of the Highway 285 bridge and ends within the large stretch of open water 0.5 miles east of the bridge contains significant petroleum product deposits in vegetation and on surface soils. Souder Miller & Associates collected and analyzed petroleum samples as part of their *Assessment of the Use of Prescribed Fire as a Mitigation of Hydrocarbon Affected Vegetation in and Around Red Bluff Draw, 2015* and reported DRO concentrations ranged from 120,000 mg/kg to 150,000 mg/kg. Samples of sediment within pools of open water were reported to contain up to 210 mg/kg DRO. This 0.8 mile stretch of the draw should also be targeted for remediation.



7 REFERENCES

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- Mewbourne Oil Company. 2014. *New Mexico Oil Conservation Division Form C-141 San Lorenzo SWD #001*. Received 10/06/14
- New Mexico Office of the State Engineer (NMOSE). *New Mexico Water Rights Reporting System (NMWRRS)*. <http://nmwrrs.ose.state.nm.us/nmwrrs/index.html> Accessed June 2, 2015.
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- USDA NRCS. *The Web Soil Survey*. <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx> Accessed June 2, 2015.
- USGS. 2003. *Geologic Map of New Mexico*. New Mexico Bureau of Geology and Mineral Resources 801 Leroy Pl, Socorro NM, 87801.
- Yates Petroleum Corporation. 2014. *New Mexico Oil Conservation Division Form C-141 Cigarillo SWD System*. Received 11/04/14

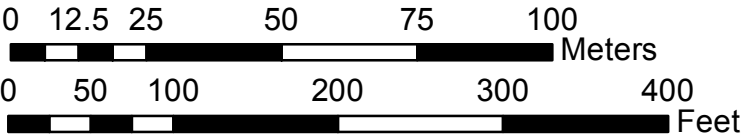


Appendix 1 - Maps



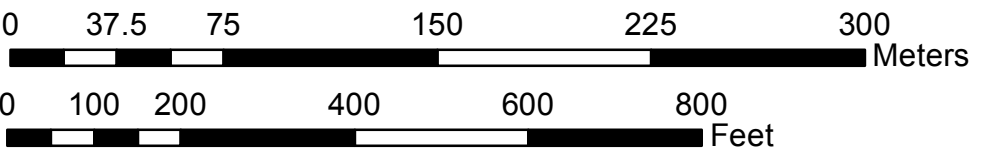


Red Bluff Draw - Map 1
Reference Sample Area








Red Bluff Draw - Map 2
COG Operating Pad Sample Area

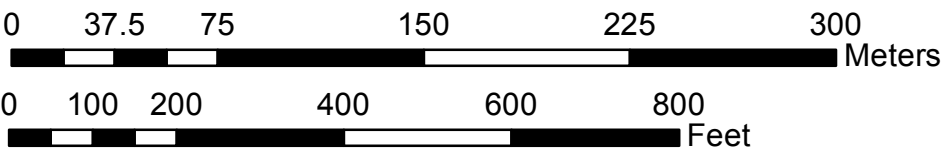




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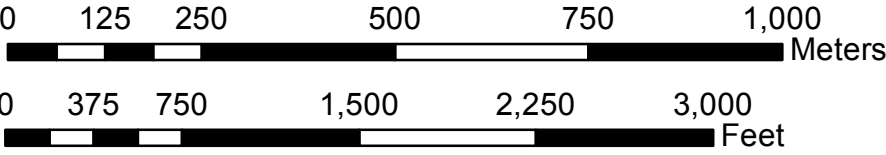
-  Sediment (Sed)
-  Soil
-  Surface Water (SW)

Red Bluff Draw - Map 3
Tanks Sample Area








Red Bluff Draw - Map 4
Highway 285 Bridge Sample Area



Legend

Deposition Type

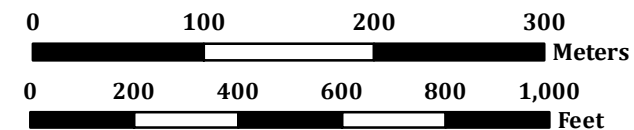
-  Channelized
-  Continuous
-  Dispersed

Highest density of deposition
of petroleum products
observed at the surface.

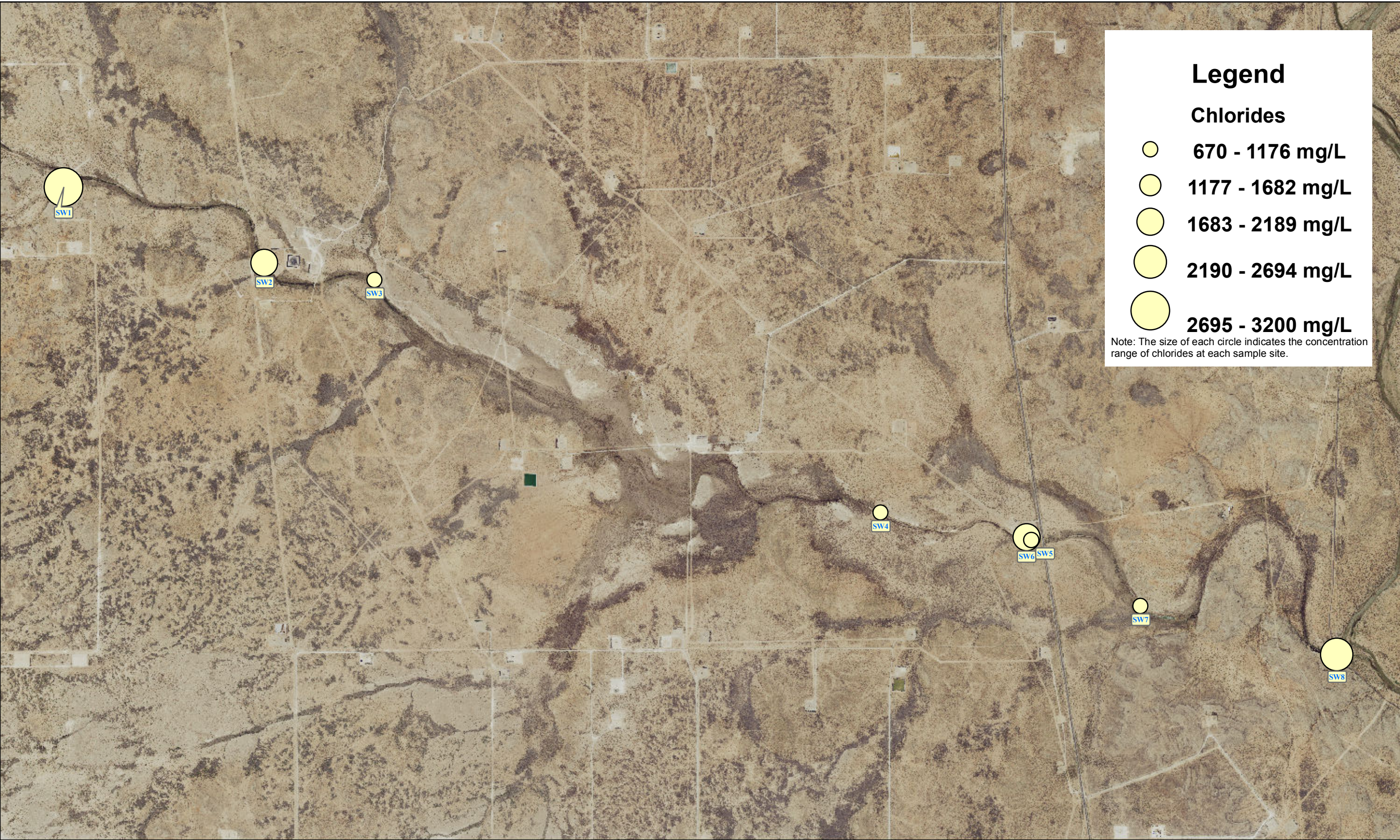
Deposition of petroleum
products confined to channel.

Petroleum products dispersed at
surface and within vegetation.

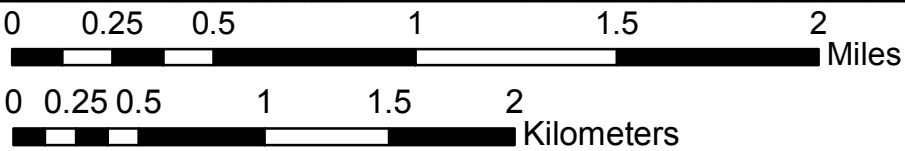
Deposition of petroleum
products confined to channel.



Red Bluff Draw - Map 5
Observed Petroleum Products

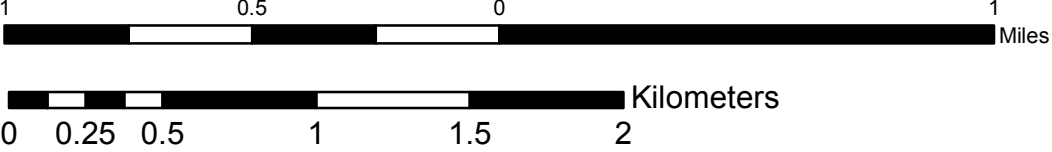


Red Bluff Draw - Map 6
Chlorides - Surface Water





Red Bluff Draw - Map 7
Diesel Range Organics - Surface Water



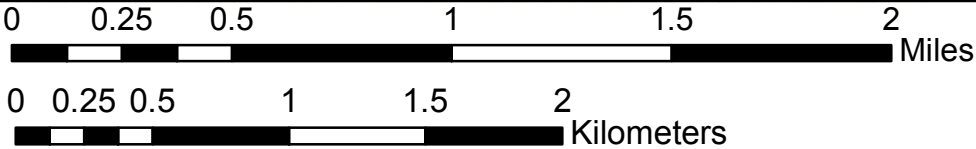
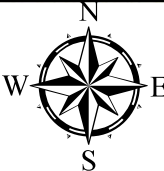


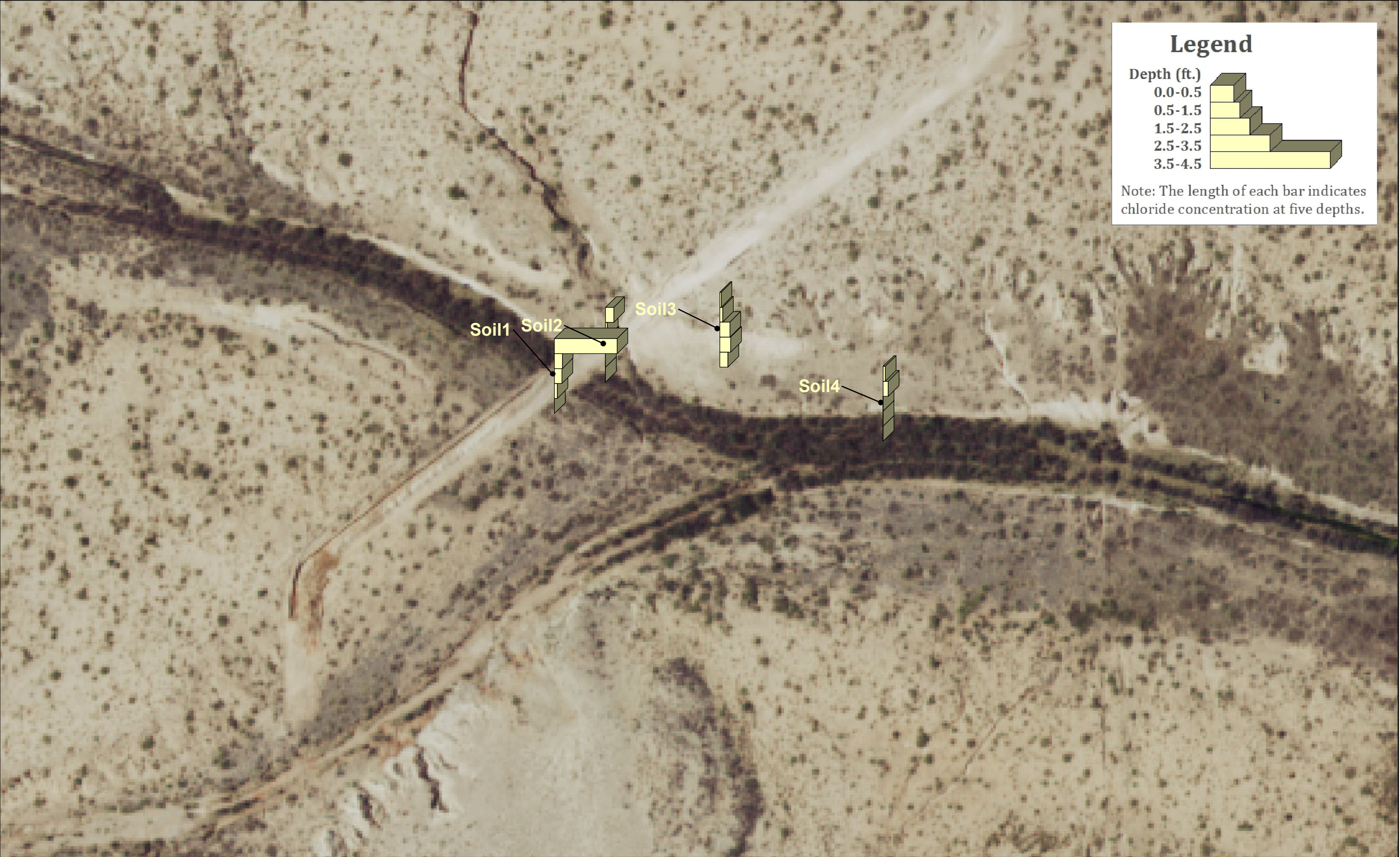
Red Bluff Draw - Map 8
Chlorides - Sediments





Red Bluff Draw - Map 9
Diesel Range Organics - Sediments





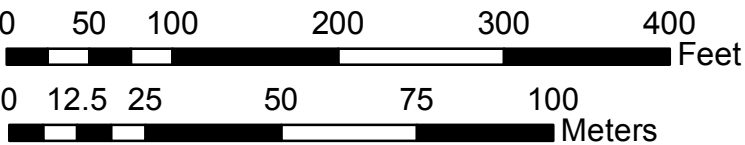
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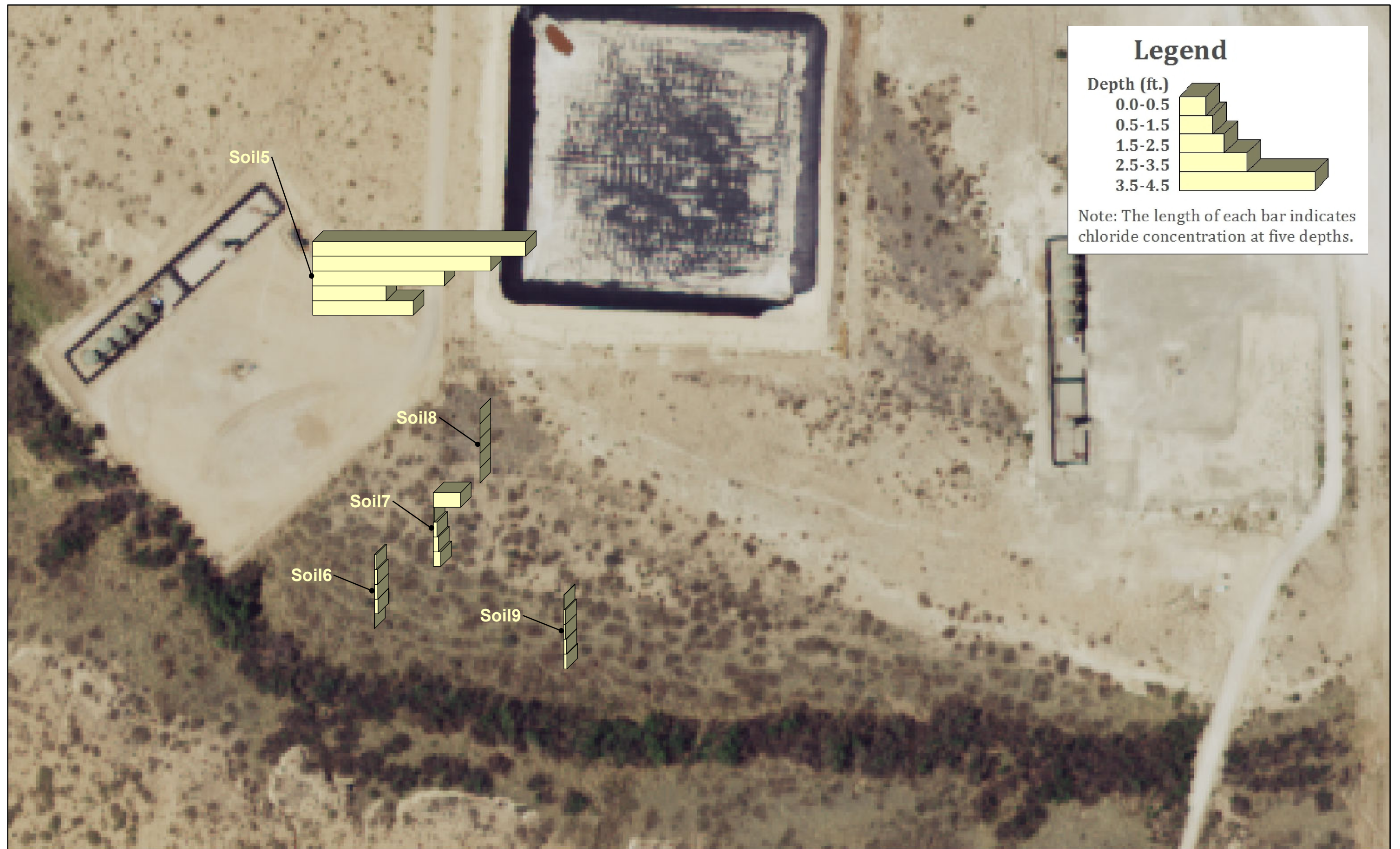
Depth (ft.)

Depth (ft.)	Bar Length (Chloride Concentration)
0.0-0.5	Shortest
0.5-1.5	Short
1.5-2.5	Medium
2.5-3.5	Long
3.5-4.5	Longest

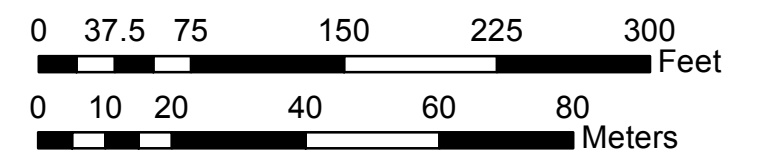
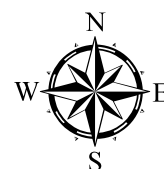
Note: The length of each bar indicates chloride concentration at five depths.

Red Bluff Draw - Map 10
Soil Chlorides - Reference Sample Area



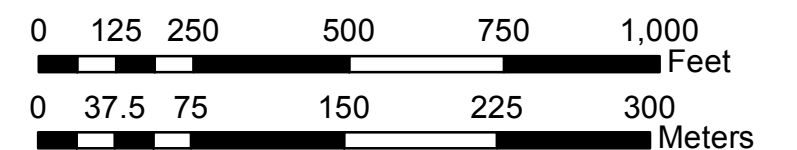
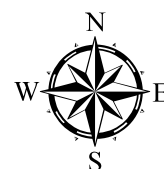


Red Bluff Draw - Map 11
Soil Chlorides - COG Operating Pad Area



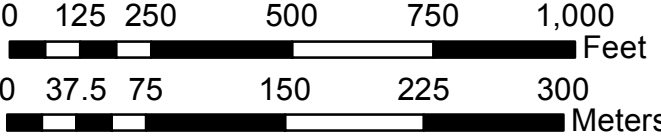


Red Bluff Draw - Map 12
Soil Chlorides - Tank Locations



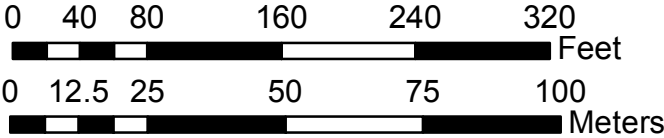


Red Bluff Draw - Map 13
Soil Chlorides - Highway 285 Bridge Sample Area



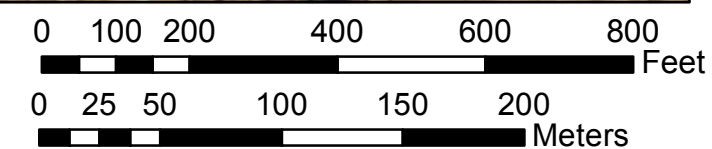
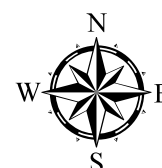


Red Bluff Draw - Map 14
Diesel Range Organics - COG Operating Pad Area





Red Bluff Draw - Map 15
Diesel Range Organics - Tanks Location





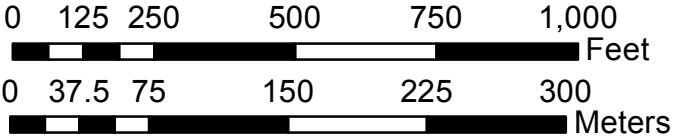
Legend

Depth (ft.)

- 0.0-0.5
- 0.5-1.5
- 1.5-2.5
- 2.5-3.5
- 3.5-4.5

Note: The length of each bar indicates concentration of diesel range organics (DRO) at the specified depths.

Red Bluff Draw - Map 16
Diesel Range Organics - Highway 285 Bridge Sample Area



Appendix 2

Photos





Photo 1. Reference area, Soil 1 location



Photo 2. Reference area, Soil 1 location



Photo 3. Reference area, Soil 2 location



Photo 4. Reference area, Soil 2 location



Photo 5. Reference area, Soil 3 location



Photo 6. Reference area, Soil 3 location



Photo 7. Example of plugged hole



Photo 8. Example of attempted burn area



Photo 9. COG Operating LLC Crossman 25 State #1H well pad



Photo 10. COG Operating LLC Crossman 25 State #1H well pad



Photo 11. COG Operating LLC Crossman 25 State #1H well pad



Photo 12. Soil cross-section location east of COG well pad



Photo 13. Soil 6 location



Photo 14. Soil 10 location



Photo 15. Soil 11 location



Photo 16. Soil 19 location



Photo 17. Soil 22 location



Photo 18. Soil 23 location



Photo 19. Soil 25 location



Photo 20. Soil 26 location



Photo 21. Soil 28 location



Photo 22. Soil 29 location



Photo 23. Surface water 8 location



Photo 24. Bermed area in channel



Photo 25. Bermed area in channel and canal



Photo 26. Petroleum deposits in bermed area



Photo 27. Example of typical petroleum deposit in braided channel



Photo 28. Petroleum staining in upland area near tank sampling locations

Appendix 3

Laboratory Data Sheet





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

June 04, 2015

Matt Lane
GL Environmental Inc
PO Box 1746
Las Vegas, NM 87701
TEL: (505) 454-0830
FAX

RE: Red Bluff Draw

OrderNo.: 1505B92

Dear Matt Lane:

Hall Environmental Analysis Laboratory received 17 sample(s) on 5/28/2015 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 #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**Date Reported: **6/4/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** SWI (REF)**Project:** Red Bluff Draw**Collection Date:** 5/26/2015 9:10:00 AM**Lab ID:** 1505B92-001**Matrix:** AQUEOUS**Received Date:** 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	3200	250	*	mg/L	500	6/2/2015 11:28:02 PM	R26575
EPA METHOD 8015D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/2/2015 10:34:41 AM	19455
Surr: DNOP	107	76.5-150		%REC	1	6/2/2015 10:34:41 AM	19455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/1/2015 11:41:30 AM	R26543
Surr: BFB	76.6	57.8-137		%REC	1	6/1/2015 11:41:30 AM	R26543
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/29/2015 11:56:58 AM	R26505
Toluene	ND	1.0		µg/L	1	5/29/2015 11:56:58 AM	R26505
Ethylbenzene	ND	1.0		µg/L	1	5/29/2015 11:56:58 AM	R26505
Xylenes, Total	ND	2.0		µg/L	1	5/29/2015 11:56:58 AM	R26505
Surr: 4-Bromofluorobenzene	98.6	80-120		%REC	1	5/29/2015 11:56:58 AM	R26505

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	Page 1 of 26
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**

Date Reported: **6/4/2015**

CLIENT: GL Environmental Inc

Client Sample ID: SED I (REF)

Project: Red Bluff Draw

Collection Date: 5/26/2015 9:10:00 AM

Lab ID: 1505B92-002

Matrix: SEDIMENT

Received Date: 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	720	30		mg/Kg	20	6/1/2015 8:02:01 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/31/2015 1:35:46 AM	19454
Surr: DNOP	98.6	57.9-140		%REC	1	5/31/2015 1:35:46 AM	19454
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2015 10:27:46 AM	19456
Surr: BFB	87.6	75.4-113		%REC	1	5/30/2015 10:27:46 AM	19456
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/30/2015 10:27:46 AM	19456
Toluene	ND	0.048		mg/Kg	1	5/30/2015 10:27:46 AM	19456
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2015 10:27:46 AM	19456
Xylenes, Total	ND	0.096		mg/Kg	1	5/30/2015 10:27:46 AM	19456
Surr: 4-Bromofluorobenzene	91.9	80-120		%REC	1	5/30/2015 10:27:46 AM	19456

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**Date Reported: **6/4/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** SW 2 RBD**Project:** Red Bluff Draw**Collection Date:** 5/26/2015 10:15:00 AM**Lab ID:** 1505B92-003**Matrix:** AQUEOUS**Received Date:** 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
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Chloride	1800	100	*	mg/L	200	6/2/2015 11:40:27 PM	R26575
EPA METHOD 8015D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/2/2015 11:28:26 AM	19455
Surr: DNOP	110	76.5-150		%REC	1	6/2/2015 11:28:26 AM	19455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/1/2015 12:06:37 PM	R26543
Surr: BFB	84.2	57.8-137		%REC	1	6/1/2015 12:06:37 PM	R26543
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/29/2015 12:22:20 PM	R26505
Toluene	ND	1.0		µg/L	1	5/29/2015 12:22:20 PM	R26505
Ethylbenzene	ND	1.0		µg/L	1	5/29/2015 12:22:20 PM	R26505
Xylenes, Total	ND	2.0		µg/L	1	5/29/2015 12:22:20 PM	R26505
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	5/29/2015 12:22:20 PM	R26505

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505B92

Date Reported: 6/4/2015

CLIENT: GL Environmental Inc

Client Sample ID: SED 2 RBD

Project: Red Bluff Draw

Collection Date: 5/26/2015 10:15:00 AM

Lab ID: 1505B92-004

Matrix: SEDIMENT

Received Date: 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	410	30		mg/Kg	20	6/1/2015 8:14:26 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/31/2015 3:00:57 AM	19454
Surr: DNOP	95.4	57.9-140		%REC	1	5/31/2015 3:00:57 AM	19454
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2015 11:54:11 AM	19456
Surr: BFB	89.0	75.4-113		%REC	1	5/30/2015 11:54:11 AM	19456
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/30/2015 11:54:11 AM	19456
Toluene	ND	0.049		mg/Kg	1	5/30/2015 11:54:11 AM	19456
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2015 11:54:11 AM	19456
Xylenes, Total	ND	0.097		mg/Kg	1	5/30/2015 11:54:11 AM	19456
Surr: 4-Bromofluorobenzene	96.5	80-120		%REC	1	5/30/2015 11:54:11 AM	19456

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**Date Reported: **6/4/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** SW 3 RBD**Project:** Red Bluff Draw**Collection Date:** 5/26/2015 11:10:00 AM**Lab ID:** 1505B92-005**Matrix:** AQUEOUS**Received Date:** 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	760	25	*	mg/L	50	6/2/2015 11:52:51 PM	R26575
EPA METHOD 8015D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/2/2015 11:55:30 AM	19455
Surr: DNOP	109	76.5-150		%REC	1	6/2/2015 11:55:30 AM	19455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/1/2015 1:47:15 PM	R26543
Surr: BFB	78.4	57.8-137		%REC	1	6/1/2015 1:47:15 PM	R26543
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/29/2015 2:02:57 PM	R26505
Toluene	ND	1.0		µg/L	1	5/29/2015 2:02:57 PM	R26505
Ethylbenzene	ND	1.0		µg/L	1	5/29/2015 2:02:57 PM	R26505
Xylenes, Total	ND	2.0		µg/L	1	5/29/2015 2:02:57 PM	R26505
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/29/2015 2:02:57 PM	R26505

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**

Date Reported: **6/4/2015**

CLIENT: GL Environmental Inc

Client Sample ID: SED 3 RBD

Project: Red Bluff Draw

Collection Date: 5/26/2015 11:10:00 AM

Lab ID: 1505B92-006

Matrix: SEDIMENT

Received Date: 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	240	30		mg/Kg	20	6/1/2015 8:26:51 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/31/2015 3:22:14 AM	19454
Surr: DNOP	101	57.9-140		%REC	1	5/31/2015 3:22:14 AM	19454
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/1/2015 12:16:32 PM	19456
Surr: BFB	91.2	75.4-113		%REC	1	6/1/2015 12:16:32 PM	19456
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/1/2015 12:16:32 PM	19456
Toluene	ND	0.049		mg/Kg	1	6/1/2015 12:16:32 PM	19456
Ethylbenzene	ND	0.049		mg/Kg	1	6/1/2015 12:16:32 PM	19456
Xylenes, Total	ND	0.099		mg/Kg	1	6/1/2015 12:16:32 PM	19456
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/1/2015 12:16:32 PM	19456

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**Date Reported: **6/4/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** SW 4 RBD**Project:** Red Bluff Draw**Collection Date:** 5/26/2015 12:35:00 PM**Lab ID:** 1505B92-007**Matrix:** AQUEOUS**Received Date:** 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	670	25	*	mg/L	50	6/3/2015 12:05:16 AM	R26575
EPA METHOD 8015D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/2/2015 12:22:28 PM	19455
Surr: DNOP	111	76.5-150		%REC	1	6/2/2015 12:22:28 PM	19455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/1/2015 11:16:23 AM	R26543
Surr: BFB	77.7	57.8-137		%REC	1	6/1/2015 11:16:23 AM	R26543
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/29/2015 11:31:53 AM	R26505
Toluene	ND	1.0		µg/L	1	5/29/2015 11:31:53 AM	R26505
Ethylbenzene	ND	1.0		µg/L	1	5/29/2015 11:31:53 AM	R26505
Xylenes, Total	ND	2.0		µg/L	1	5/29/2015 11:31:53 AM	R26505
Surr: 4-Bromofluorobenzene	92.9	80-120		%REC	1	5/29/2015 11:31:53 AM	R26505

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	Page 7 of 26
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**Date Reported: **6/4/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** SED 4 RBD**Project:** Red Bluff Draw**Collection Date:** 5/26/2015 12:35:00 PM**Lab ID:** 1505B92-008**Matrix:** SEDIMENT**Received Date:** 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	440	30		mg/Kg	20	6/1/2015 8:39:16 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	15	9.8		mg/Kg	1	6/2/2015 1:18:14 PM	19454
Surr: DNOP	125	57.9-140		%REC	1	6/2/2015 1:18:14 PM	19454
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/1/2015 12:45:20 PM	19456
Surr: BFB	91.7	75.4-113		%REC	1	6/1/2015 12:45:20 PM	19456
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/1/2015 12:45:20 PM	19456
Toluene	ND	0.049		mg/Kg	1	6/1/2015 12:45:20 PM	19456
Ethylbenzene	ND	0.049		mg/Kg	1	6/1/2015 12:45:20 PM	19456
Xylenes, Total	ND	0.097		mg/Kg	1	6/1/2015 12:45:20 PM	19456
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/1/2015 12:45:20 PM	19456

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**Date Reported: **6/4/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** SW 5 RBD**Project:** Red Bluff Draw**Collection Date:** 5/26/2015 1:35:00 PM**Lab ID:** 1505B92-009**Matrix:** AQUEOUS**Received Date:** 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1100	50	*	mg/L	100	6/3/2015 12:17:40 AM	R26575
EPA METHOD 8015D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/2/2015 12:49:16 PM	19455
Surr: DNOP	109	76.5-150		%REC	1	6/2/2015 12:49:16 PM	19455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/1/2015 2:12:38 PM	R26543
Surr: BFB	79.0	57.8-137		%REC	1	6/1/2015 2:12:38 PM	R26543
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/29/2015 2:28:22 PM	R26505
Toluene	ND	1.0		µg/L	1	5/29/2015 2:28:22 PM	R26505
Ethylbenzene	ND	1.0		µg/L	1	5/29/2015 2:28:22 PM	R26505
Xylenes, Total	ND	2.0		µg/L	1	5/29/2015 2:28:22 PM	R26505
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	5/29/2015 2:28:22 PM	R26505

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	Page 9 of 26
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**Date Reported: **6/4/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** SED 5 RBD**Project:** Red Bluff Draw**Collection Date:** 5/26/2015 1:35:00 PM**Lab ID:** 1505B92-010**Matrix:** SEDIMENT**Received Date:** 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	220	30		mg/Kg	20	6/1/2015 8:51:41 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/31/2015 4:04:47 AM	19454
Surr: DNOP	94.1	57.9-140		%REC	1	5/31/2015 4:04:47 AM	19454
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/30/2015 2:18:00 PM	19456
Surr: BFB	88.0	75.4-113		%REC	1	5/30/2015 2:18:00 PM	19456
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/30/2015 2:18:00 PM	19456
Toluene	ND	0.047		mg/Kg	1	5/30/2015 2:18:00 PM	19456
Ethylbenzene	ND	0.047		mg/Kg	1	5/30/2015 2:18:00 PM	19456
Xylenes, Total	ND	0.095		mg/Kg	1	5/30/2015 2:18:00 PM	19456
Surr: 4-Bromofluorobenzene	93.0	80-120		%REC	1	5/30/2015 2:18:00 PM	19456

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**Date Reported: **6/4/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** SW 6 RBD**Project:** Red Bluff Draw**Collection Date:** 5/26/2015 1:55:00 PM**Lab ID:** 1505B92-011**Matrix:** AQUEOUS**Received Date:** 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1800	100	*	mg/L	200	6/3/2015 12:30:05 AM	R26575
EPA METHOD 8015D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	1.2	1.0		mg/L	1	6/2/2015 1:16:25 PM	19455
Surr: DNOP	113	76.5-150		%REC	1	6/2/2015 1:16:25 PM	19455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/1/2015 2:38:09 PM	R26543
Surr: BFB	80.9	57.8-137		%REC	1	6/1/2015 2:38:09 PM	R26543
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/29/2015 2:53:33 PM	R26505
Toluene	ND	1.0		µg/L	1	5/29/2015 2:53:33 PM	R26505
Ethylbenzene	ND	1.0		µg/L	1	5/29/2015 2:53:33 PM	R26505
Xylenes, Total	ND	2.0		µg/L	1	5/29/2015 2:53:33 PM	R26505
Surr: 4-Bromofluorobenzene	99.4	80-120		%REC	1	5/29/2015 2:53:33 PM	R26505

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**

Date Reported: **6/4/2015**

CLIENT: GL Environmental Inc

Client Sample ID: SED 6 RBD

Project: Red Bluff Draw

Collection Date: 5/26/2015 1:55:00 PM

Lab ID: 1505B92-012

Matrix: SEDIMENT

Received Date: 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	350	30		mg/Kg	20	6/1/2015 9:04:05 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	210	9.7		mg/Kg	1	6/2/2015 1:39:34 PM	19454
Surr: DNOP	179	57.9-140	S	%REC	1	6/2/2015 1:39:34 PM	19454
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/1/2015 1:14:07 PM	19456
Surr: BFB	91.2	75.4-113		%REC	1	6/1/2015 1:14:07 PM	19456
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/1/2015 1:14:07 PM	19456
Toluene	ND	0.047		mg/Kg	1	6/1/2015 1:14:07 PM	19456
Ethylbenzene	ND	0.047		mg/Kg	1	6/1/2015 1:14:07 PM	19456
Xylenes, Total	ND	0.095		mg/Kg	1	6/1/2015 1:14:07 PM	19456
Surr: 4-Bromofluorobenzene	99.1	80-120		%REC	1	6/1/2015 1:14:07 PM	19456

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**

Date Reported: **6/4/2015**

CLIENT: GL Environmental Inc

Client Sample ID: SW 7 RBD

Project: Red Bluff Draw

Collection Date: 5/26/2015 3:56:00 PM

Lab ID: 1505B92-013

Matrix: AQUEOUS

Received Date: 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1100	50	*	mg/L	100	6/3/2015 12:42:30 AM	R26575
EPA METHOD 8015D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/2/2015 2:10:11 PM	19455
Surr: DNOP	110	76.5-150		%REC	1	6/2/2015 2:10:11 PM	19455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/1/2015 3:03:25 PM	R26543
Surr: BFB	77.8	57.8-137		%REC	1	6/1/2015 3:03:25 PM	R26543
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/29/2015 3:18:36 PM	R26505
Toluene	ND	1.0		µg/L	1	5/29/2015 3:18:36 PM	R26505
Ethylbenzene	ND	1.0		µg/L	1	5/29/2015 3:18:36 PM	R26505
Xylenes, Total	ND	2.0		µg/L	1	5/29/2015 3:18:36 PM	R26505
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/29/2015 3:18:36 PM	R26505

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	Page 13 of 26
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505B92

Date Reported: 6/4/2015

CLIENT: GL Environmental Inc

Client Sample ID: SED 7 RBD

Project: Red Bluff Draw

Collection Date: 5/26/2015 3:30:00 PM

Lab ID: 1505B92-014

Matrix: SEDIMENT

Received Date: 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	190	30		mg/Kg	20	6/1/2015 9:16:30 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/2/2015 2:00:49 PM	19454
Surr: DNOP	118	57.9-140		%REC	1	6/2/2015 2:00:49 PM	19454
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2015 3:15:34 PM	19456
Surr: BFB	88.8	75.4-113		%REC	1	5/30/2015 3:15:34 PM	19456
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/30/2015 3:15:34 PM	19456
Toluene	ND	0.049		mg/Kg	1	5/30/2015 3:15:34 PM	19456
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2015 3:15:34 PM	19456
Xylenes, Total	ND	0.097		mg/Kg	1	5/30/2015 3:15:34 PM	19456
Surr: 4-Bromofluorobenzene	94.6	80-120		%REC	1	5/30/2015 3:15:34 PM	19456

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**

Date Reported: **6/4/2015**

CLIENT: GL Environmental Inc

Client Sample ID: SED 8 RBD

Project: Red Bluff Draw

Collection Date: 5/26/2015 3:00:00 PM

Lab ID: 1505B92-015

Matrix: SEDIMENT

Received Date: 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	380	30		mg/Kg	20	6/1/2015 9:28:54 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	53	9.8		mg/Kg	1	5/31/2015 4:26:00 AM	19454
Surr: DNOP	101	57.9-140		%REC	1	5/31/2015 4:26:00 AM	19454
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/1/2015 1:42:54 PM	19456
Surr: BFB	91.8	75.4-113		%REC	1	6/1/2015 1:42:54 PM	19456
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/1/2015 1:42:54 PM	19456
Toluene	ND	0.049		mg/Kg	1	6/1/2015 1:42:54 PM	19456
Ethylbenzene	ND	0.049		mg/Kg	1	6/1/2015 1:42:54 PM	19456
Xylenes, Total	ND	0.098		mg/Kg	1	6/1/2015 1:42:54 PM	19456
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	6/1/2015 1:42:54 PM	19456

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**

Date Reported: **6/4/2015**

CLIENT: GL Environmental Inc

Client Sample ID: SED 9 RBD

Project: Red Bluff Draw

Collection Date: 5/26/2015 4:00:00 PM

Lab ID: 1505B92-016

Matrix: SEDIMENT

Received Date: 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	170	30		mg/Kg	20	6/1/2015 9:41:19 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	78	9.8		mg/Kg	1	6/2/2015 2:22:09 PM	19454
Surr: DNOP	149	57.9-140	S	%REC	1	6/2/2015 2:22:09 PM	19454
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/1/2015 2:11:36 PM	19456
Surr: BFB	91.4	75.4-113		%REC	1	6/1/2015 2:11:36 PM	19456
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/1/2015 2:11:36 PM	19456
Toluene	ND	0.049		mg/Kg	1	6/1/2015 2:11:36 PM	19456
Ethylbenzene	ND	0.049		mg/Kg	1	6/1/2015 2:11:36 PM	19456
Xylenes, Total	ND	0.097		mg/Kg	1	6/1/2015 2:11:36 PM	19456
Surr: 4-Bromofluorobenzene	98.9	80-120		%REC	1	6/1/2015 2:11:36 PM	19456

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505B92**

Date Reported: **6/4/2015**

CLIENT: GL Environmental Inc

Client Sample ID: SW 8 RBD

Project: Red Bluff Draw

Collection Date: 5/26/2015 4:45:00 PM

Lab ID: 1505B92-017

Matrix: AQUEOUS

Received Date: 5/28/2015 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2300	100	*	mg/L	200	6/3/2015 12:54:55 AM	R26575
EPA METHOD 8015D: DIESEL RANGE							Analyst: KJH
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/2/2015 2:37:07 PM	19455
Surr: DNOP	109	76.5-150		%REC	1	6/2/2015 2:37:07 PM	19455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/1/2015 3:28:38 PM	R26543
Surr: BFB	84.2	57.8-137		%REC	1	6/1/2015 3:28:38 PM	R26543
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/29/2015 7:04:39 PM	R26505
Toluene	ND	1.0		µg/L	1	5/29/2015 7:04:39 PM	R26505
Ethylbenzene	ND	1.0		µg/L	1	5/29/2015 7:04:39 PM	R26505
Xylenes, Total	ND	2.0		µg/L	1	5/29/2015 7:04:39 PM	R26505
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/29/2015 7:04:39 PM	R26505

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	Page 17 of 26
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505B92

04-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19495		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	19495		RunNo:	26529				
Prep Date:	6/1/2015		Analysis Date:	6/1/2015		SeqNo:	789176		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-19495		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19495		RunNo: 26529					
Prep Date:	6/1/2015		Analysis Date: 6/1/2015		SeqNo: 789177		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505B92

04-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R26575	RunNo:	26575					
Prep Date:		Analysis Date:	6/2/2015	SeqNo:	790951	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R26575	RunNo:	26575					
Prep Date:		Analysis Date:	6/2/2015	SeqNo:	790952	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.1	0.50	5.000	0	102	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505B92

04-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19454		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 19454		RunNo: 26506					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787713		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		109	57.9	140			

Sample ID	LCS-19454		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19454		RunNo: 26506					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787722		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.2	67.8	130			
Surr: DNOP	4.4		5.000		88.1	57.9	140			

Sample ID	1505B92-002AMS	SampType: MS			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	SED I (REF)	Batch ID: 19454			RunNo: 26506					
Prep Date:	5/29/2015	Analysis Date: 5/31/2015			SeqNo: 787837		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	82	9.9	49.55	0	166	42.3	146			S
Surr: DNOP	8.8		4.955		177	57.9	140			S

Sample ID	1505B92-002AMSD		SampType: MSD		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	SED I (REF)		Batch ID: 19454		RunNo: 26506					
Prep Date:	5/29/2015		Analysis Date: 5/31/2015		SeqNo: 787838		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	82	9.9	49.46	0	166	42.3	146	0.533	28.9	S
Surr: DNOP	8.9		4.946		179	57.9	140	0	0	S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505B92

04-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19455		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range				
Client ID:	PBW		Batch ID:	19455		RunNo:	26548				
Prep Date:	5/29/2015		Analysis Date:	6/2/2015		SeqNo:	789243		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	1.0									
Surr: DNOP	1.1		1.000		112	76.5	150				

Sample ID	LCS-19455		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 19455		RunNo: 26548					
Prep Date:	5/29/2015		Analysis Date: 6/2/2015		SeqNo: 789244		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	111	60.1	156			
Surr: DNOP	0.46		0.5000		92.7	76.5	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505B92

04-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19456		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19456		RunNo: 26508					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787727		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	890		1000		88.8	75.4	113			

Sample ID	LCS-19456		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19456		RunNo: 26508					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787728		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.6	64	130			
Surr: BFB	950		1000		95.0	75.4	113			

Sample ID	1505B92-002AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	SED I (REF)		Batch ID: 19456		RunNo: 26508					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787750		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.8	23.88	0	117	47.9	144			
Surr: BFB	930		955.1		96.9	75.4	113			

Sample ID	1505B92-002AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	SED I (REF)		Batch ID:	19456		RunNo:	26508				
Prep Date:	5/29/2015		Analysis Date:	5/30/2015		SeqNo:	787752		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	29	4.8	23.85	0	120	47.9	144	2.63	29.9		
Surr: BFB	940		954.2		98.0	75.4	113	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505B92

04-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R26543	RunNo:	26543					
Prep Date:		Analysis Date:	6/1/2015	SeqNo:	788809	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	16		20.00		79.0	57.8	137			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R26543	RunNo:	26543					
Prep Date:		Analysis Date:	6/1/2015	SeqNo:	788810	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.1	80	120			
Surr: BFB	16		20.00		80.9	57.8	137			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505B92

04-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19456		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	19456		RunNo:	26508			
Prep Date:	5/29/2015		Analysis Date:	5/30/2015		SeqNo:	787756		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.0	80	120			

Sample ID	LCS-19456		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	19456		RunNo:	26508			
Prep Date:	5/29/2015		Analysis Date:	5/30/2015		SeqNo:	787757		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	102	76.6	128			
Toluene	1.0	0.050	1.000	0	104	75	124			
Ethylbenzene	1.0	0.050	1.000	0	104	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	102	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	1505B92-004AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SED 2 RBD		Batch ID:	19456		RunNo:	26508			
Prep Date:	5/29/2015		Analysis Date:	5/30/2015		SeqNo:	787761		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.049	0.9766	0	119	69.2	126			
Toluene	1.2	0.049	0.9766	0	120	65.6	128			
Ethylbenzene	1.2	0.049	0.9766	0	125	65.5	138			
Xylenes, Total	3.6	0.098	2.930	0	122	63	139			
Surr: 4-Bromofluorobenzene	1.0		0.9766		102	80	120			

Sample ID	1505B92-004AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SED 2 RBD		Batch ID:	19456		RunNo:	26508			
Prep Date:	5/29/2015		Analysis Date:	5/30/2015		SeqNo:	787762		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.049	0.9785	0	101	69.2	126	16.4	18.5	
Toluene	0.99	0.049	0.9785	0	101	65.6	128	17.5	20.6	
Ethylbenzene	1.0	0.049	0.9785	0	103	65.5	138	18.7	20.1	
Xylenes, Total	3.0	0.098	2.935	0	102	63	139	17.7	21.1	
Surr: 4-Bromofluorobenzene	1.0		0.9785		103	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505B92

04-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R26505	RunNo:	26505					
Prep Date:		Analysis Date:	5/29/2015	SeqNo:	787688	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		105	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R26505	RunNo:	26505					
Prep Date:		Analysis Date:	5/29/2015	SeqNo:	787689	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	80	120			
Toluene	23	1.0	20.00	0	117	80	120			
Ethylbenzene	22	1.0	20.00	0	112	80	120			
Xylenes, Total	66	2.0	60.00	0	110	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		108	80	120			

Sample ID	1505B92-003AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SW 2 RBD	Batch ID:	R26505	RunNo:	26505					
Prep Date:		Analysis Date:	5/29/2015	SeqNo:	787695	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.2	77.5	121			
Toluene	23	1.0	20.00	0	114	78.6	122			
Ethylbenzene	21	1.0	20.00	0	107	78.1	128			
Xylenes, Total	64	2.0	60.00	0	106	80	120			
Surr: 4-Bromofluorobenzene	23		20.00		116	80	120			

Sample ID	1505B92-003AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SW 2 RBD	Batch ID:	R26505	RunNo:	26505					
Prep Date:		Analysis Date:	5/29/2015	SeqNo:	787696	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	77.5	121	14.0	20	
Toluene	22	1.0	20.00	0	112	78.6	122	1.71	20	
Ethylbenzene	21	1.0	20.00	0	105	78.1	128	2.33	20	
Xylenes, Total	62	2.0	60.00	0	103	80	120	2.50	20	
Surr: 4-Bromofluorobenzene	22		20.00		108	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505B92

04-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R26543	RunNo:	26543					
Prep Date:		Analysis Date:	6/1/2015	SeqNo:	788822	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	19		20.00		97.0	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R26543	RunNo:	26543					
Prep Date:		Analysis Date:	6/1/2015	SeqNo:	788823	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		112	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: GL Environmental Inc

Work Order Number: 1505B92

RcptNo: 1

Received by/date:

CS 05/28/15

Logged By: Ashley Gallegos

5/28/2015 9:05:00 AM

Ag

Completed By: Ashley Gallegos

5/28/2015 10:04:35 AM

Ag

Reviewed By:

AT 6/5/29/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. 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: _____

Special Handling (if applicable)

16. 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:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good				

Chain-of-Custody Record

Client: GL Environmental

Mailing Address:

21 Bibb Industrial Dr. Las Vegas NV
Phone #: 505-454-0830
Email or Fax#: glmatt@flash.net

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☒ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
results before 6/15/15

☒ Standard ☐ Rush

Project Name:

Red Bluff Draw

Project #:

Project Manager:

Matthew Lane

Sampler: ST ML, II

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.1°C

Date Time Matrix Sample Request ID

2/15/15	0910	water	SW1 (REF)	4	40ml vial 125ml plus	HeL	HEAL No. <u>1505B92</u>
	0910	sediment	SED 1 (REF)	1	8oz glass	ice	-001
	1015	water	SW2 RBD	4	40ml vial 125ml plus	HeL	-002
	1015	sediment	SED 2	1	8oz glass	ice	-003
	1110	water	SW3	4	40ml vial 125ml plus	HeL	-004
	1110	sediment	SED 3	1	8oz glass	ice	-005
	1235	water	SW4	4	40ml vial 125ml plus	HeL	-006
	1235	sediment	SED 4	1	8oz glass	ice	-007
	1335	water	SW5	4	40ml vial 125ml plus	HeL	-008
	1335	sediment	SED 5	1	8oz glass	ice	-009
	1355	water	SW6	4	40ml vial 125ml plus	HeL	-010
	1355	sediment	SED 6	1	8oz glass	ice	-011
	1355	sediment	SED 6	1	8oz glass	ice	-012

Date: 12/15/1630

Relinquished by: Shp Jh

Date: 12/15/1630

Relinquished by:

Received by: Celine Sam

Date: 05/28/15

Time: 0905

Analysis Request

<input checked="" type="checkbox"/> BTEX + MTBE + TMBs (8021)	<input checked="" type="checkbox"/> BTEX + MTBE + TPH (Gas only)	<input checked="" type="checkbox"/> TPH 8015B (GRO) (DRO) (MRO)	<input type="checkbox"/> TPH (Method 418.1)	<input type="checkbox"/> EDB (Method 504.1)	<input type="checkbox"/> PAHs (8310 or 8270 SIMS)	<input type="checkbox"/> RCRA 8 Metals	<input type="checkbox"/> Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	<input type="checkbox"/> 8081 Pesticides / 8082 PCBs	<input type="checkbox"/> 8260B (VOA)	<input type="checkbox"/> 8270 (Semi-VOA)	<input type="checkbox"/> Air Bubbles (Y or N)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

* gl matt @ flash.net
gl Tim @ flash.net
2 hours sample prep time

Chain-of-Custody Record

Client: G-L Environmental

Turn-Around Time: results before 6/15/15
☒ Standard ☐ Rush

Project Name:

Mailing Address:

24 Bible Industrial Dr. Las Vegas NV 89101
 Phone #: 505 454 0830

Email or Fax#: glna@flash.net

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Project Manager:

Matthew Lane

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 31°C

Container Type and # 40ml vial 125ml p
 Preservative Type act. ice
 HEAL No. 1505892

Date	Time	Matrix	Sample Request ID
6/15	1536	water	SW 7 RBD
↓	1530	sediment	SED 7
↓	1500	↓	SED 8
↓	1600	↓	SED 9
6/26/15	1645	water	SW 8 RBD

40ml vial 125ml p
 act. ice
 8oz glass ice
 ↓
 40ml vial 125ml p
 act. ice

Date: 6/15/15 Time: 1630

Date: 6/15/15 Time: 1630

Relinquished by: [Signature]

Relinquished by: [Signature]

Received by:

Calvin Simon Date: 05/28/15 Time: 0905

Received by:

Date: Time

Remarks:

2 hours sample prep Time

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO, DRO, MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



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

June 09, 2015

Matt Lane
GL Environmental Inc
PO Box 1746
Las Vegas, NM 87701
TEL: (505) 454-0830
FAX

RE: Red Bluff Draw

OrderNo.: 1505C59

Dear Matt Lane:

Hall Environmental Analysis Laboratory received 62 sample(s) on 5/29/2015 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 #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 3 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 8:45:00 AM

Lab ID: 1505C59-001

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	39	30		mg/Kg	20	6/1/2015 12:22:49 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2015 1:48:09 PM	19468
Surr: DNOP	119	57.9-140		%REC	1	5/30/2015 1:48:09 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2015 9:36:13 AM	19461
Surr: BFB	78.4	75.4-113		%REC	1	5/30/2015 9:36:13 AM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/30/2015 9:36:13 AM	19461
Toluene	ND	0.048		mg/Kg	1	5/30/2015 9:36:13 AM	19461
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2015 9:36:13 AM	19461
Xylenes, Total	ND	0.095		mg/Kg	1	5/30/2015 9:36:13 AM	19461
Surr: 4-Bromofluorobenzene	92.1	80-120		%REC	1	5/30/2015 9:36:13 AM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 3 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 8:45:00 AM

Lab ID: 1505C59-002

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	78	30		mg/Kg	20	6/1/2015 1:00:03 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 3:10:00 PM	19468
Surr: DNOP	111	57.9-140		%REC	1	5/30/2015 3:10:00 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2015 10:52:40 AM	19461
Surr: BFB	76.8	75.4-113		%REC	1	5/30/2015 10:52:40 AM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/30/2015 10:52:40 AM	19461
Toluene	ND	0.048		mg/Kg	1	5/30/2015 10:52:40 AM	19461
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2015 10:52:40 AM	19461
Xylenes, Total	ND	0.096		mg/Kg	1	5/30/2015 10:52:40 AM	19461
Surr: 4-Bromofluorobenzene	90.1	80-120		%REC	1	5/30/2015 10:52:40 AM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 3 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 8:45:00 AM

Lab ID: 1505C59-003

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	260	30		mg/Kg	20	6/1/2015 1:37:17 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/30/2015 3:37:42 PM	19468
Surr: DNOP	120	57.9-140		%REC	1	5/30/2015 3:37:42 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/30/2015 12:08:18 PM	19461
Surr: BFB	77.4	75.4-113		%REC	1	5/30/2015 12:08:18 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/30/2015 12:08:18 PM	19461
Toluene	ND	0.047		mg/Kg	1	5/30/2015 12:08:18 PM	19461
Ethylbenzene	ND	0.047		mg/Kg	1	5/30/2015 12:08:18 PM	19461
Xylenes, Total	ND	0.094		mg/Kg	1	5/30/2015 12:08:18 PM	19461
Surr: 4-Bromofluorobenzene	90.9	80-120		%REC	1	5/30/2015 12:08:18 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 3 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 8:45:00 AM

Lab ID: 1505C59-004

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	280	30		mg/Kg	20	6/1/2015 1:49:41 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2015 4:05:10 PM	19468
Surr: DNOP	104	57.9-140		%REC	1	5/30/2015 4:05:10 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 4:50:50 PM	19461
Surr: BFB	91.8	75.4-113		%REC	1	5/31/2015 4:50:50 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/30/2015 12:33:23 PM	19461
Toluene	ND	0.049		mg/Kg	1	5/30/2015 12:33:23 PM	19461
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2015 12:33:23 PM	19461
Xylenes, Total	ND	0.098		mg/Kg	1	5/30/2015 12:33:23 PM	19461
Surr: 4-Bromofluorobenzene	83.8	80-120		%REC	1	5/30/2015 12:33:23 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 3 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 8:45:00 AM

Lab ID: 1505C59-005

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	210	30		mg/Kg	20	6/1/2015 2:02:06 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 4:32:43 PM	19468
Surr: DNOP	101	57.9-140		%REC	1	5/30/2015 4:32:43 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2015 5:19:34 PM	19461
Surr: BFB	91.3	75.4-113		%REC	1	5/31/2015 5:19:34 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/30/2015 12:58:30 PM	19461
Toluene	ND	0.047		mg/Kg	1	5/30/2015 12:58:30 PM	19461
Ethylbenzene	ND	0.047		mg/Kg	1	5/30/2015 12:58:30 PM	19461
Xylenes, Total	ND	0.093		mg/Kg	1	5/30/2015 12:58:30 PM	19461
Surr: 4-Bromofluorobenzene	84.2	80-120		%REC	1	5/30/2015 12:58:30 PM	19461

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	Page 5 of 76
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 2 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 9:00:00 AM

Lab ID: 1505C59-006

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	210	30		mg/Kg	20	6/1/2015 2:14:31 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 5:00:34 PM	19468
Surr: DNOP	102	57.9-140		%REC	1	5/30/2015 5:00:34 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2015 5:48:15 PM	19461
Surr: BFB	90.3	75.4-113		%REC	1	5/31/2015 5:48:15 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/30/2015 1:23:47 PM	19461
Toluene	ND	0.047		mg/Kg	1	5/30/2015 1:23:47 PM	19461
Ethylbenzene	ND	0.047		mg/Kg	1	5/30/2015 1:23:47 PM	19461
Xylenes, Total	ND	0.094		mg/Kg	1	5/30/2015 1:23:47 PM	19461
Surr: 4-Bromofluorobenzene	80.4	80-120		%REC	1	5/30/2015 1:23:47 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 2 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 9:00:00 AM

Lab ID: 1505C59-007

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	46	30		mg/Kg	20	6/1/2015 2:51:44 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 5:28:23 PM	19468
Surr: DNOP	103	57.9-140		%REC	1	5/30/2015 5:28:23 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2015 1:49:11 PM	19461
Surr: BFB	75.7	75.4-113		%REC	1	5/30/2015 1:49:11 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/30/2015 1:49:11 PM	19461
Toluene	ND	0.048		mg/Kg	1	5/30/2015 1:49:11 PM	19461
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2015 1:49:11 PM	19461
Xylenes, Total	ND	0.095		mg/Kg	1	5/30/2015 1:49:11 PM	19461
Surr: 4-Bromofluorobenzene	84.3	80-120		%REC	1	5/30/2015 1:49:11 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**Date Reported: **6/9/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** Soil 2 1.5-2.0' RBD**Project:** Red Bluff Draw**Collection Date:** 5/27/2015 9:00:00 AM**Lab ID:** 1505C59-008**Matrix:** SOIL**Received Date:** 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	63	30		mg/Kg	20	6/1/2015 3:04:09 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2015 5:55:58 PM	19468
Surr: DNOP	102	57.9-140		%REC	1	5/30/2015 5:55:58 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/1/2015 11:17:49 PM	19461
Surr: BFB	115	75.4-113	S	%REC	1	6/1/2015 11:17:49 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/1/2015 11:17:49 PM	19461
Toluene	ND	0.050		mg/Kg	1	6/1/2015 11:17:49 PM	19461
Ethylbenzene	ND	0.050		mg/Kg	1	6/1/2015 11:17:49 PM	19461
Xylenes, Total	ND	0.10		mg/Kg	1	6/1/2015 11:17:49 PM	19461
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	6/1/2015 11:17:49 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 1 0-.5'

Project: Red Bluff Draw

Collection Date: 5/27/2015 9:15:00 AM

Lab ID: 1505C59-009

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1600	75		mg/Kg	50	6/2/2015 4:21:14 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 6:23:48 PM	19468
Surr: DNOP	105	57.9-140		%REC	1	5/30/2015 6:23:48 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2015 6:17:01 PM	19461
Surr: BFB	91.4	75.4-113		%REC	1	5/31/2015 6:17:01 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/30/2015 2:39:56 PM	19461
Toluene	ND	0.047		mg/Kg	1	5/30/2015 2:39:56 PM	19461
Ethylbenzene	ND	0.047		mg/Kg	1	5/30/2015 2:39:56 PM	19461
Xylenes, Total	ND	0.094		mg/Kg	1	5/30/2015 2:39:56 PM	19461
Surr: 4-Bromofluorobenzene	82.6	80-120		%REC	1	5/30/2015 2:39:56 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 1 .5-1.5'

Project: Red Bluff Draw

Collection Date: 5/27/2015 9:15:00 AM

Lab ID: 1505C59-010

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	200	30		mg/Kg	20	6/1/2015 3:28:58 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 6:51:39 PM	19468
Surr: DNOP	103	57.9-140		%REC	1	5/30/2015 6:51:39 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/1/2015 11:46:35 PM	19461
Surr: BFB	99.2	75.4-113		%REC	1	6/1/2015 11:46:35 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/1/2015 11:46:35 PM	19461
Toluene	ND	0.050		mg/Kg	1	6/1/2015 11:46:35 PM	19461
Ethylbenzene	ND	0.050		mg/Kg	1	6/1/2015 11:46:35 PM	19461
Xylenes, Total	ND	0.10		mg/Kg	1	6/1/2015 11:46:35 PM	19461
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	6/1/2015 11:46:35 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 9:15:00 AM

Lab ID: 1505C59-011

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	190	30		mg/Kg	20	6/1/2015 3:41:22 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/30/2015 7:46:50 PM	19468
Surr: DNOP	105	57.9-140		%REC	1	5/30/2015 7:46:50 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/30/2015 5:11:17 PM	19461
Surr: BFB	78.6	75.4-113		%REC	1	5/30/2015 5:11:17 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/30/2015 5:11:17 PM	19461
Toluene	ND	0.047		mg/Kg	1	5/30/2015 5:11:17 PM	19461
Ethylbenzene	ND	0.047		mg/Kg	1	5/30/2015 5:11:17 PM	19461
Xylenes, Total	ND	0.093		mg/Kg	1	5/30/2015 5:11:17 PM	19461
Surr: 4-Bromofluorobenzene	94.7	80-120		%REC	1	5/30/2015 5:11:17 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 1 2.5-3.5'

Project: Red Bluff Draw

Collection Date: 5/27/2015 9:15:00 AM

Lab ID: 1505C59-012

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	70	30		mg/Kg	20	6/1/2015 3:53:47 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2015 8:14:27 PM	19468
Surr: DNOP	105	57.9-140		%REC	1	5/30/2015 8:14:27 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/1/2015 1:27:45 AM	19461
Surr: BFB	90.0	75.4-113		%REC	1	6/1/2015 1:27:45 AM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/30/2015 5:36:37 PM	19461
Toluene	ND	0.048		mg/Kg	1	5/30/2015 5:36:37 PM	19461
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2015 5:36:37 PM	19461
Xylenes, Total	ND	0.097		mg/Kg	1	5/30/2015 5:36:37 PM	19461
Surr: 4-Bromofluorobenzene	82.9	80-120		%REC	1	5/30/2015 5:36:37 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 5 0-1.5' Comp RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 10:15:00 AM

Lab ID: 1505C59-013

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	5500	300		mg/Kg	200	6/2/2015 4:33:38 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	1200	99		mg/Kg	10	6/1/2015 2:58:47 PM	19468
Surr: DNOP	0	57.9-140	S	%REC	10	6/1/2015 2:58:47 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2015 6:01:41 PM	19461
Surr: BFB	94.3	75.4-113		%REC	1	5/30/2015 6:01:41 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/30/2015 6:01:41 PM	19461
Toluene	ND	0.048		mg/Kg	1	5/30/2015 6:01:41 PM	19461
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2015 6:01:41 PM	19461
Xylenes, Total	ND	0.096		mg/Kg	1	5/30/2015 6:01:41 PM	19461
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	5/30/2015 6:01:41 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 5 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 10:15:00 AM

Lab ID: 1505C59-014

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	4600	150		mg/Kg	100	6/2/2015 4:46:03 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 10:04:15 PM	19468
Surr: DNOP	108	57.9-140		%REC	1	5/30/2015 10:04:15 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/1/2015 1:56:28 AM	19461
Surr: BFB	90.2	75.4-113		%REC	1	6/1/2015 1:56:28 AM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/30/2015 6:26:44 PM	19461
Toluene	ND	0.047		mg/Kg	1	5/30/2015 6:26:44 PM	19461
Ethylbenzene	ND	0.047		mg/Kg	1	5/30/2015 6:26:44 PM	19461
Xylenes, Total	ND	0.094		mg/Kg	1	5/30/2015 6:26:44 PM	19461
Surr: 4-Bromofluorobenzene	84.7	80-120		%REC	1	5/30/2015 6:26:44 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 5 1.5-2.5'

Project: Red Bluff Draw

Collection Date: 5/27/2015 10:15:00 AM

Lab ID: 1505C59-015

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst: LGT		
Chloride	3400	150		mg/Kg	100	6/2/2015 4:58:27 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS					Analyst: JME		
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2015 10:31:34 PM	19468
Surr: DNOP	109	57.9-140		%REC	1	5/30/2015 10:31:34 PM	19468
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB		
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2015 6:52:07 PM	19461
Surr: BFB	75.9	75.4-113		%REC	1	5/30/2015 6:52:07 PM	19461
EPA METHOD 8021B: VOLATILES					Analyst: NSB		
Benzene	ND	0.049		mg/Kg	1	5/30/2015 6:52:07 PM	19461
Toluene	ND	0.049		mg/Kg	1	5/30/2015 6:52:07 PM	19461
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2015 6:52:07 PM	19461
Xylenes, Total	ND	0.099		mg/Kg	1	5/30/2015 6:52:07 PM	19461
Surr: 4-Bromofluorobenzene	90.1	80-120		%REC	1	5/30/2015 6:52:07 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 5 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 10:15:00 AM

Lab ID: 1505C59-016

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1900	75		mg/Kg	50	6/2/2015 5:35:41 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/30/2015 10:59:00 PM	19468
Surr: DNOP	111	57.9-140		%REC	1	5/30/2015 10:59:00 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2015 7:17:27 PM	19461
Surr: BFB	75.9	75.4-113		%REC	1	5/30/2015 7:17:27 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/30/2015 7:17:27 PM	19461
Toluene	ND	0.048		mg/Kg	1	5/30/2015 7:17:27 PM	19461
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2015 7:17:27 PM	19461
Xylenes, Total	ND	0.096		mg/Kg	1	5/30/2015 7:17:27 PM	19461
Surr: 4-Bromofluorobenzene	88.9	80-120		%REC	1	5/30/2015 7:17:27 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 5 3.5'-4.0'

Project: Red Bluff Draw

Collection Date: 5/27/2015 10:15:00 AM

Lab ID: 1505C59-017

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2600	150		mg/Kg	100	6/2/2015 5:48:05 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/30/2015 11:26:01 PM	19468
Surr: DNOP	105	57.9-140		%REC	1	5/30/2015 11:26:01 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/1/2015 2:25:12 AM	19461
Surr: BFB	89.5	75.4-113		%REC	1	6/1/2015 2:25:12 AM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/30/2015 7:42:28 PM	19461
Toluene	ND	0.047		mg/Kg	1	5/30/2015 7:42:28 PM	19461
Ethylbenzene	ND	0.047		mg/Kg	1	5/30/2015 7:42:28 PM	19461
Xylenes, Total	ND	0.094		mg/Kg	1	5/30/2015 7:42:28 PM	19461
Surr: 4-Bromofluorobenzene	80.9	80-120		%REC	1	5/30/2015 7:42:28 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 6 0-.5'

Project: Red Bluff Draw

Collection Date: 5/27/2015 10:45:00 AM

Lab ID: 1505C59-018

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	35	30		mg/Kg	20	6/1/2015 5:33:05 PM	19484
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	37	10		mg/Kg	1	5/30/2015 11:53:24 PM	19468
Surr: DNOP	112	57.9-140		%REC	1	5/30/2015 11:53:24 PM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2015 8:07:36 PM	19461
Surr: BFB	76.1	75.4-113		%REC	1	5/30/2015 8:07:36 PM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/30/2015 8:07:36 PM	19461
Toluene	ND	0.049		mg/Kg	1	5/30/2015 8:07:36 PM	19461
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2015 8:07:36 PM	19461
Xylenes, Total	ND	0.098		mg/Kg	1	5/30/2015 8:07:36 PM	19461
Surr: 4-Bromofluorobenzene	88.0	80-120		%REC	1	5/30/2015 8:07:36 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 6 .5-1.5'

Project: Red Bluff Draw

Collection Date: 5/27/2015 10:45:00 AM

Lab ID: 1505C59-019

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	77	30		mg/Kg	20	6/1/2015 10:18:33 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 12:47:24 AM	19468
Surr: DNOP	106	57.9-140		%REC	1	5/31/2015 12:47:24 AM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/1/2015 2:53:50 AM	19461
Surr: BFB	90.4	75.4-113		%REC	1	6/1/2015 2:53:50 AM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/30/2015 8:32:48 PM	19461
Toluene	ND	0.048		mg/Kg	1	5/30/2015 8:32:48 PM	19461
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2015 8:32:48 PM	19461
Xylenes, Total	ND	0.097		mg/Kg	1	5/30/2015 8:32:48 PM	19461
Surr: 4-Bromofluorobenzene	83.4	80-120		%REC	1	5/30/2015 8:32:48 PM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 6 1.5-2.5'

Project: Red Bluff Draw

Collection Date: 5/27/2015 10:45:00 AM

Lab ID: 1505C59-020

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	80	30		mg/Kg	20	6/1/2015 10:55:46 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 1:14:28 AM	19468
Surr: DNOP	110	57.9-140		%REC	1	5/31/2015 1:14:28 AM	19468
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/2/2015 12:15:16 AM	19461
Surr: BFB	96.1	75.4-113		%REC	1	6/2/2015 12:15:16 AM	19461
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/2/2015 12:15:16 AM	19461
Toluene	ND	0.047		mg/Kg	1	6/2/2015 12:15:16 AM	19461
Ethylbenzene	ND	0.047		mg/Kg	1	6/2/2015 12:15:16 AM	19461
Xylenes, Total	ND	0.095		mg/Kg	1	6/2/2015 12:15:16 AM	19461
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	6/2/2015 12:15:16 AM	19461

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 6 2.5-4.0'

Project: Red Bluff Draw

Collection Date: 5/27/2015 10:45:00 AM

Lab ID: 1505C59-021

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	88	30		mg/Kg	20	6/1/2015 11:08:11 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 2:08:08 AM	19469
Surr: DNOP	111	57.9-140		%REC	1	5/31/2015 2:08:08 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/31/2015 10:08:01 AM	19462
Surr: BFB	90.5	75.4-113		%REC	1	5/31/2015 10:08:01 AM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/31/2015 10:08:01 AM	19462
Toluene	ND	0.048		mg/Kg	1	5/31/2015 10:08:01 AM	19462
Ethylbenzene	ND	0.048		mg/Kg	1	5/31/2015 10:08:01 AM	19462
Xylenes, Total	ND	0.096		mg/Kg	1	5/31/2015 10:08:01 AM	19462
Surr: 4-Bromofluorobenzene	98.1	80-120		%REC	1	5/31/2015 10:08:01 AM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 7 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:25:00 AM

Lab ID: 1505C59-022

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	7.2	1.5		mg/Kg	1	6/2/2015 6:00:30 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 3:28:43 AM	19469
Surr: DNOP	103	57.9-140		%REC	1	5/31/2015 3:28:43 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 11:34:16 AM	19462
Surr: BFB	91.1	75.4-113		%REC	1	5/31/2015 11:34:16 AM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 11:34:16 AM	19462
Toluene	ND	0.049		mg/Kg	1	5/31/2015 11:34:16 AM	19462
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 11:34:16 AM	19462
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2015 11:34:16 AM	19462
Surr: 4-Bromofluorobenzene	99.4	80-120		%REC	1	5/31/2015 11:34:16 AM	19462

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	Page 22 of 76
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 7 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:25:00 AM

Lab ID: 1505C59-023

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	23	1.5		mg/Kg	1	6/2/2015 6:12:55 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/31/2015 3:55:30 AM	19469
Surr: DNOP	99.6	57.9-140		%REC	1	5/31/2015 3:55:30 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 1:00:38 PM	19462
Surr: BFB	89.9	75.4-113		%REC	1	5/31/2015 1:00:38 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 1:00:38 PM	19462
Toluene	ND	0.049		mg/Kg	1	5/31/2015 1:00:38 PM	19462
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 1:00:38 PM	19462
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2015 1:00:38 PM	19462
Surr: 4-Bromofluorobenzene	97.4	80-120		%REC	1	5/31/2015 1:00:38 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 7 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:25:00 AM

Lab ID: 1505C59-024

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	85	30		mg/Kg	20	6/1/2015 11:45:23 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 4:22:17 AM	19469
Surr: DNOP	100	57.9-140		%REC	1	5/31/2015 4:22:17 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/31/2015 1:29:25 PM	19462
Surr: BFB	91.1	75.4-113		%REC	1	5/31/2015 1:29:25 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/31/2015 1:29:25 PM	19462
Toluene	ND	0.048		mg/Kg	1	5/31/2015 1:29:25 PM	19462
Ethylbenzene	ND	0.048		mg/Kg	1	5/31/2015 1:29:25 PM	19462
Xylenes, Total	ND	0.095		mg/Kg	1	5/31/2015 1:29:25 PM	19462
Surr: 4-Bromofluorobenzene	97.8	80-120		%REC	1	5/31/2015 1:29:25 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 7 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:00:00 AM

Lab ID: 1505C59-025

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	130	30		mg/Kg	20	6/1/2015 11:57:48 PM	19495
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/31/2015 4:49:26 AM	19469
Surr: DNOP	102	57.9-140		%REC	1	5/31/2015 4:49:26 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 1:58:11 PM	19462
Surr: BFB	90.3	75.4-113		%REC	1	5/31/2015 1:58:11 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 1:58:11 PM	19462
Toluene	ND	0.049		mg/Kg	1	5/31/2015 1:58:11 PM	19462
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 1:58:11 PM	19462
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2015 1:58:11 PM	19462
Surr: 4-Bromofluorobenzene	96.3	80-120		%REC	1	5/31/2015 1:58:11 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 7 3.5-4.0 RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:00:00 AM

Lab ID: 1505C59-026

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	190	30		mg/Kg	20	6/2/2015 10:33:46 AM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/31/2015 5:16:13 AM	19469
Surr: DNOP	103	57.9-140		%REC	1	5/31/2015 5:16:13 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2015 2:26:57 PM	19462
Surr: BFB	90.5	75.4-113		%REC	1	5/31/2015 2:26:57 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/31/2015 2:26:57 PM	19462
Toluene	ND	0.047		mg/Kg	1	5/31/2015 2:26:57 PM	19462
Ethylbenzene	ND	0.047		mg/Kg	1	5/31/2015 2:26:57 PM	19462
Xylenes, Total	ND	0.094		mg/Kg	1	5/31/2015 2:26:57 PM	19462
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	5/31/2015 2:26:57 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 8 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:25:00 AM

Lab ID: 1505C59-027

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/3/2015 2:45:49 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	10	10		mg/Kg	1	5/31/2015 5:43:00 AM	19469
Surr: DNOP	102	57.9-140		%REC	1	5/31/2015 5:43:00 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2015 2:55:37 PM	19462
Surr: BFB	89.1	75.4-113		%REC	1	5/31/2015 2:55:37 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 2:55:37 PM	19462
Toluene	ND	0.050		mg/Kg	1	5/31/2015 2:55:37 PM	19462
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 2:55:37 PM	19462
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2015 2:55:37 PM	19462
Surr: 4-Bromofluorobenzene	94.6	80-120		%REC	1	5/31/2015 2:55:37 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 8 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:25:00 AM

Lab ID: 1505C59-028

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/3/2015 2:58:14 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 6:09:41 AM	19469
Surr: DNOP	91.8	57.9-140		%REC	1	5/31/2015 6:09:41 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2015 3:24:28 PM	19462
Surr: BFB	90.9	75.4-113		%REC	1	5/31/2015 3:24:28 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/31/2015 3:24:28 PM	19462
Toluene	ND	0.047		mg/Kg	1	5/31/2015 3:24:28 PM	19462
Ethylbenzene	ND	0.047		mg/Kg	1	5/31/2015 3:24:28 PM	19462
Xylenes, Total	ND	0.094		mg/Kg	1	5/31/2015 3:24:28 PM	19462
Surr: 4-Bromofluorobenzene	97.9	80-120		%REC	1	5/31/2015 3:24:28 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 8 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:25:00 AM

Lab ID: 1505C59-029

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/3/2015 3:10:39 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 6:36:28 AM	19469
Surr: DNOP	80.9	57.9-140		%REC	1	5/31/2015 6:36:28 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 3:53:16 PM	19462
Surr: BFB	90.9	75.4-113		%REC	1	5/31/2015 3:53:16 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 3:53:16 PM	19462
Toluene	ND	0.049		mg/Kg	1	5/31/2015 3:53:16 PM	19462
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 3:53:16 PM	19462
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2015 3:53:16 PM	19462
Surr: 4-Bromofluorobenzene	96.9	80-120		%REC	1	5/31/2015 3:53:16 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 8 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:25:00 AM

Lab ID: 1505C59-030

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/3/2015 3:23:03 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/31/2015 7:03:10 AM	19469
Surr: DNOP	84.0	57.9-140		%REC	1	5/31/2015 7:03:10 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2015 4:22:02 PM	19462
Surr: BFB	89.9	75.4-113		%REC	1	5/31/2015 4:22:02 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/31/2015 4:22:02 PM	19462
Toluene	ND	0.047		mg/Kg	1	5/31/2015 4:22:02 PM	19462
Ethylbenzene	ND	0.047		mg/Kg	1	5/31/2015 4:22:02 PM	19462
Xylenes, Total	ND	0.094		mg/Kg	1	5/31/2015 4:22:02 PM	19462
Surr: 4-Bromofluorobenzene	95.5	80-120		%REC	1	5/31/2015 4:22:02 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 9 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:35:00 AM

Lab ID: 1505C59-031

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	12	7.5		mg/Kg	5	6/3/2015 3:35:28 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	14	10		mg/Kg	1	5/31/2015 7:56:23 AM	19469
Surr: DNOP	103	57.9-140		%REC	1	5/31/2015 7:56:23 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 8:40:43 PM	19462
Surr: BFB	87.6	75.4-113		%REC	1	5/31/2015 8:40:43 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 8:40:43 PM	19462
Toluene	ND	0.049		mg/Kg	1	5/31/2015 8:40:43 PM	19462
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 8:40:43 PM	19462
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2015 8:40:43 PM	19462
Surr: 4-Bromofluorobenzene	92.1	80-120		%REC	1	5/31/2015 8:40:43 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 9 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:35:00 AM

Lab ID: 1505C59-032

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	51	30		mg/Kg	20	6/2/2015 1:02:40 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 8:23:27 AM	19469
Surr: DNOP	99.1	57.9-140		%REC	1	5/31/2015 8:23:27 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/31/2015 9:09:25 PM	19462
Surr: BFB	88.4	75.4-113		%REC	1	5/31/2015 9:09:25 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/31/2015 9:09:25 PM	19462
Toluene	ND	0.048		mg/Kg	1	5/31/2015 9:09:25 PM	19462
Ethylbenzene	ND	0.048		mg/Kg	1	5/31/2015 9:09:25 PM	19462
Xylenes, Total	ND	0.096		mg/Kg	1	5/31/2015 9:09:25 PM	19462
Surr: 4-Bromofluorobenzene	93.8	80-120		%REC	1	5/31/2015 9:09:25 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 9 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:35:00 AM

Lab ID: 1505C59-033

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	52	30		mg/Kg	20	6/2/2015 1:15:05 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/31/2015 8:50:20 AM	19469
Surr: DNOP	93.1	57.9-140		%REC	1	5/31/2015 8:50:20 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/31/2015 9:38:06 PM	19462
Surr: BFB	89.1	75.4-113		%REC	1	5/31/2015 9:38:06 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/31/2015 9:38:06 PM	19462
Toluene	ND	0.048		mg/Kg	1	5/31/2015 9:38:06 PM	19462
Ethylbenzene	ND	0.048		mg/Kg	1	5/31/2015 9:38:06 PM	19462
Xylenes, Total	ND	0.096		mg/Kg	1	5/31/2015 9:38:06 PM	19462
Surr: 4-Bromofluorobenzene	94.5	80-120		%REC	1	5/31/2015 9:38:06 PM	19462

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	Page 33 of 76
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 9 2.5'-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:35:00 AM

Lab ID: 1505C59-034

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	62	30		mg/Kg	20	6/2/2015 1:27:30 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 9:17:03 AM	19469
Surr: DNOP	96.0	57.9-140		%REC	1	5/31/2015 9:17:03 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 10:06:48 PM	19462
Surr: BFB	89.1	75.4-113		%REC	1	5/31/2015 10:06:48 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 10:06:48 PM	19462
Toluene	ND	0.049		mg/Kg	1	5/31/2015 10:06:48 PM	19462
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 10:06:48 PM	19462
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2015 10:06:48 PM	19462
Surr: 4-Bromofluorobenzene	94.8	80-120		%REC	1	5/31/2015 10:06:48 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 9 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 11:35:00 AM

Lab ID: 1505C59-035

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	83	30		mg/Kg	20	6/2/2015 1:39:55 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 9:43:51 AM	19469
Surr: DNOP	92.4	57.9-140		%REC	1	5/31/2015 9:43:51 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/31/2015 10:35:29 PM	19462
Surr: BFB	88.6	75.4-113		%REC	1	5/31/2015 10:35:29 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/31/2015 10:35:29 PM	19462
Toluene	ND	0.047		mg/Kg	1	5/31/2015 10:35:29 PM	19462
Ethylbenzene	ND	0.047		mg/Kg	1	5/31/2015 10:35:29 PM	19462
Xylenes, Total	ND	0.093		mg/Kg	1	5/31/2015 10:35:29 PM	19462
Surr: 4-Bromofluorobenzene	93.1	80-120		%REC	1	5/31/2015 10:35:29 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 10 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:10:00 PM

Lab ID: 1505C59-036

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	32	30		mg/Kg	20	6/2/2015 1:52:19 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/31/2015 10:10:50 AM	19469
Surr: DNOP	98.6	57.9-140		%REC	1	5/31/2015 10:10:50 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 11:04:06 PM	19462
Surr: BFB	87.3	75.4-113		%REC	1	5/31/2015 11:04:06 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 11:04:06 PM	19462
Toluene	ND	0.049		mg/Kg	1	5/31/2015 11:04:06 PM	19462
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 11:04:06 PM	19462
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2015 11:04:06 PM	19462
Surr: 4-Bromofluorobenzene	90.5	80-120		%REC	1	5/31/2015 11:04:06 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 10 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:10:00 PM

Lab ID: 1505C59-037

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	40	30		mg/Kg	20	6/2/2015 2:04:44 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/31/2015 11:05:11 AM	19469
Surr: DNOP	95.6	57.9-140		%REC	1	5/31/2015 11:05:11 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 11:32:54 PM	19462
Surr: BFB	88.0	75.4-113		%REC	1	5/31/2015 11:32:54 PM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 11:32:54 PM	19462
Toluene	ND	0.049		mg/Kg	1	5/31/2015 11:32:54 PM	19462
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 11:32:54 PM	19462
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2015 11:32:54 PM	19462
Surr: 4-Bromofluorobenzene	93.2	80-120		%REC	1	5/31/2015 11:32:54 PM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 10 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:10:00 PM

Lab ID: 1505C59-038

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	18	7.5		mg/Kg	5	6/3/2015 3:47:52 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 11:32:23 AM	19469
Surr: DNOP	96.8	57.9-140		%REC	1	5/31/2015 11:32:23 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/1/2015 12:01:34 AM	19462
Surr: BFB	90.3	75.4-113		%REC	1	6/1/2015 12:01:34 AM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	6/1/2015 12:01:34 AM	19462
Toluene	ND	0.048		mg/Kg	1	6/1/2015 12:01:34 AM	19462
Ethylbenzene	ND	0.048		mg/Kg	1	6/1/2015 12:01:34 AM	19462
Xylenes, Total	ND	0.095		mg/Kg	1	6/1/2015 12:01:34 AM	19462
Surr: 4-Bromofluorobenzene	95.7	80-120		%REC	1	6/1/2015 12:01:34 AM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 10 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:10:00 PM

Lab ID: 1505C59-039

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	10	7.5		mg/Kg	5	6/3/2015 4:25:06 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/31/2015 11:59:39 AM	19469
Surr: DNOP	97.6	57.9-140		%REC	1	5/31/2015 11:59:39 AM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/1/2015 12:30:18 AM	19462
Surr: BFB	91.5	75.4-113		%REC	1	6/1/2015 12:30:18 AM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	6/1/2015 12:30:18 AM	19462
Toluene	ND	0.048		mg/Kg	1	6/1/2015 12:30:18 AM	19462
Ethylbenzene	ND	0.048		mg/Kg	1	6/1/2015 12:30:18 AM	19462
Xylenes, Total	ND	0.096		mg/Kg	1	6/1/2015 12:30:18 AM	19462
Surr: 4-Bromofluorobenzene	97.6	80-120		%REC	1	6/1/2015 12:30:18 AM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 10 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:10:00 PM

Lab ID: 1505C59-040

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	16	7.5		mg/Kg	5	6/3/2015 4:37:31 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 12:26:59 PM	19469
Surr: DNOP	93.7	57.9-140		%REC	1	5/31/2015 12:26:59 PM	19469
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/1/2015 12:59:03 AM	19462
Surr: BFB	90.5	75.4-113		%REC	1	6/1/2015 12:59:03 AM	19462
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/1/2015 12:59:03 AM	19462
Toluene	ND	0.049		mg/Kg	1	6/1/2015 12:59:03 AM	19462
Ethylbenzene	ND	0.049		mg/Kg	1	6/1/2015 12:59:03 AM	19462
Xylenes, Total	ND	0.099		mg/Kg	1	6/1/2015 12:59:03 AM	19462
Surr: 4-Bromofluorobenzene	96.0	80-120		%REC	1	6/1/2015 12:59:03 AM	19462

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 11 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:30:00 PM

Lab ID: 1505C59-041

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	13	7.5		mg/Kg	5	6/3/2015 4:49:55 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/31/2015 1:22:07 PM	19470
Surr: DNOP	90.3	57.9-140		%REC	1	5/31/2015 1:22:07 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/1/2015 5:33:02 PM	19463
Surr: BFB	93.6	75.4-113		%REC	1	6/1/2015 5:33:02 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 9:44:40 AM	19463
Toluene	ND	0.049		mg/Kg	1	5/31/2015 9:44:40 AM	19463
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 9:44:40 AM	19463
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2015 9:44:40 AM	19463
Surr: 4-Bromofluorobenzene	84.7	80-120		%REC	1	5/31/2015 9:44:40 AM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 11 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:30:00 PM

Lab ID: 1505C59-042

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	13	7.5		mg/Kg	5	6/3/2015 5:02:20 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 2:45:35 PM	19470
Surr: DNOP	93.8	57.9-140		%REC	1	5/31/2015 2:45:35 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/1/2015 6:01:46 PM	19463
Surr: BFB	92.9	75.4-113		%REC	1	6/1/2015 6:01:46 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 11:00:36 AM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 11:00:36 AM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 11:00:36 AM	19463
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2015 11:00:36 AM	19463
Surr: 4-Bromofluorobenzene	86.2	80-120		%REC	1	5/31/2015 11:00:36 AM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 11 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:30:00 PM

Lab ID: 1505C59-043

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	12	7.5		mg/Kg	5	6/3/2015 5:14:45 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/31/2015 3:13:43 PM	19470
Surr: DNOP	92.1	57.9-140		%REC	1	5/31/2015 3:13:43 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/2/2015 12:44:00 AM	19463
Surr: BFB	95.8	75.4-113		%REC	1	6/2/2015 12:44:00 AM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/2/2015 12:44:00 AM	19463
Toluene	ND	0.049		mg/Kg	1	6/2/2015 12:44:00 AM	19463
Ethylbenzene	ND	0.049		mg/Kg	1	6/2/2015 12:44:00 AM	19463
Xylenes, Total	ND	0.098		mg/Kg	1	6/2/2015 12:44:00 AM	19463
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	6/2/2015 12:44:00 AM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 11 2.5-3.5'

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:30:00 PM

Lab ID: 1505C59-044

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	11	7.5		mg/Kg	5	6/3/2015 5:27:10 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/31/2015 3:41:49 PM	19470
Surr: DNOP	92.2	57.9-140		%REC	1	5/31/2015 3:41:49 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/1/2015 6:30:31 PM	19463
Surr: BFB	92.5	75.4-113		%REC	1	6/1/2015 6:30:31 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 12:42:02 PM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 12:42:02 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 12:42:02 PM	19463
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2015 12:42:02 PM	19463
Surr: 4-Bromofluorobenzene	80.6	80-120		%REC	1	5/31/2015 12:42:02 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 11 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:30:00 PM

Lab ID: 1505C59-045

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	38	30		mg/Kg	20	6/2/2015 4:08:50 PM	19507
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 4:09:54 PM	19470
Surr: DNOP	87.9	57.9-140		%REC	1	5/31/2015 4:09:54 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/2/2015 1:12:44 AM	19463
Surr: BFB	95.1	75.4-113		%REC	1	6/2/2015 1:12:44 AM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/2/2015 1:12:44 AM	19463
Toluene	ND	0.050		mg/Kg	1	6/2/2015 1:12:44 AM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	6/2/2015 1:12:44 AM	19463
Xylenes, Total	ND	0.10		mg/Kg	1	6/2/2015 1:12:44 AM	19463
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/2/2015 1:12:44 AM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 12 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:40:00 PM

Lab ID: 1505C59-046

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	21	7.5		mg/Kg	5	6/5/2015 9:57:17 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 4:38:15 PM	19470
Surr: DNOP	86.3	57.9-140		%REC	1	5/31/2015 4:38:15 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/2/2015 1:41:28 AM	19463
Surr: BFB	95.4	75.4-113		%REC	1	6/2/2015 1:41:28 AM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 1:32:34 PM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 1:32:34 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 1:32:34 PM	19463
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2015 1:32:34 PM	19463
Surr: 4-Bromofluorobenzene	82.7	80-120		%REC	1	5/31/2015 1:32:34 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 12 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:40:00 PM

Lab ID: 1505C59-047

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/5/2015 10:34:29 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 5:06:35 PM	19470
Surr: DNOP	92.8	57.9-140		%REC	1	5/31/2015 5:06:35 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 1:58:02 PM	19463
Surr: BFB	77.0	75.4-113		%REC	1	5/31/2015 1:58:02 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 1:58:02 PM	19463
Toluene	ND	0.049		mg/Kg	1	5/31/2015 1:58:02 PM	19463
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 1:58:02 PM	19463
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2015 1:58:02 PM	19463
Surr: 4-Bromofluorobenzene	86.8	80-120		%REC	1	5/31/2015 1:58:02 PM	19463

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	Page 47 of 76
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 12 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:40:00 PM

Lab ID: 1505C59-048

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/5/2015 10:46:53 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/31/2015 5:34:36 PM	19470
Surr: DNOP	92.5	57.9-140		%REC	1	5/31/2015 5:34:36 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/2/2015 2:10:10 AM	19463
Surr: BFB	94.4	75.4-113		%REC	1	6/2/2015 2:10:10 AM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 2:23:16 PM	19463
Toluene	ND	0.049		mg/Kg	1	5/31/2015 2:23:16 PM	19463
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 2:23:16 PM	19463
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2015 2:23:16 PM	19463
Surr: 4-Bromofluorobenzene	80.3	80-120		%REC	1	5/31/2015 2:23:16 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 12 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 12:40:00 PM

Lab ID: 1505C59-049

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/5/2015 10:59:17 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 6:02:38 PM	19470
Surr: DNOP	95.7	57.9-140		%REC	1	5/31/2015 6:02:38 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/2/2015 1:20:25 PM	19463
Surr: BFB	90.7	75.4-113		%REC	1	6/2/2015 1:20:25 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/2/2015 1:20:25 PM	19463
Toluene	ND	0.050		mg/Kg	1	6/2/2015 1:20:25 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	6/2/2015 1:20:25 PM	19463
Xylenes, Total	ND	0.099		mg/Kg	1	6/2/2015 1:20:25 PM	19463
Surr: 4-Bromofluorobenzene	98.9	80-120		%REC	1	6/2/2015 1:20:25 PM	19463

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	Page 49 of 76
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 13 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 1:25:00 PM

Lab ID: 1505C59-050

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/5/2015 11:11:42 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	13	9.7		mg/Kg	1	5/31/2015 6:30:49 PM	19470
Surr: DNOP	102	57.9-140		%REC	1	5/31/2015 6:30:49 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/2/2015 2:38:50 AM	19463
Surr: BFB	94.2	75.4-113		%REC	1	6/2/2015 2:38:50 AM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 3:13:32 PM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 3:13:32 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 3:13:32 PM	19463
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2015 3:13:32 PM	19463
Surr: 4-Bromofluorobenzene	81.5	80-120		%REC	1	5/31/2015 3:13:32 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 13 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 1:25:00 PM

Lab ID: 1505C59-051

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/5/2015 11:24:07 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 8:13:44 PM	19470
Surr: DNOP	83.3	57.9-140		%REC	1	5/30/2015 8:13:44 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/2/2015 3:07:32 AM	19463
Surr: BFB	93.2	75.4-113		%REC	1	6/2/2015 3:07:32 AM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 5:19:25 PM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 5:19:25 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 5:19:25 PM	19463
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2015 5:19:25 PM	19463
Surr: 4-Bromofluorobenzene	88.1	80-120		%REC	1	5/31/2015 5:19:25 PM	19463

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	Page 51 of 76
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 13 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 1:25:00 PM

Lab ID: 1505C59-052

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	19	7.5		mg/Kg	5	6/3/2015 11:52:03 AM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2015 8:35:19 PM	19470
Surr: DNOP	95.5	57.9-140		%REC	1	5/30/2015 8:35:19 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2015 5:44:38 PM	19463
Surr: BFB	77.7	75.4-113		%REC	1	5/31/2015 5:44:38 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 5:44:38 PM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 5:44:38 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 5:44:38 PM	19463
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2015 5:44:38 PM	19463
Surr: 4-Bromofluorobenzene	89.8	80-120		%REC	1	5/31/2015 5:44:38 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 14 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 1:35:00 PM

Lab ID: 1505C59-053

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/3/2015 12:04:28 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2015 8:56:57 PM	19470
Surr: DNOP	89.0	57.9-140		%REC	1	5/30/2015 8:56:57 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/2/2015 3:36:09 AM	19463
Surr: BFB	92.4	75.4-113		%REC	1	6/2/2015 3:36:09 AM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 6:09:40 PM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 6:09:40 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 6:09:40 PM	19463
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2015 6:09:40 PM	19463
Surr: 4-Bromofluorobenzene	85.8	80-120		%REC	1	5/31/2015 6:09:40 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 14 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 1:35:00 PM

Lab ID: 1505C59-054

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	64	7.5		mg/Kg	5	6/3/2015 12:16:53 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/30/2015 9:18:28 PM	19470
Surr: DNOP	99.3	57.9-140		%REC	1	5/30/2015 9:18:28 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/2/2015 1:49:11 PM	19463
Surr: BFB	89.2	75.4-113		%REC	1	6/2/2015 1:49:11 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/2/2015 1:49:11 PM	19463
Toluene	ND	0.050		mg/Kg	1	6/2/2015 1:49:11 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	6/2/2015 1:49:11 PM	19463
Xylenes, Total	ND	0.099		mg/Kg	1	6/2/2015 1:49:11 PM	19463
Surr: 4-Bromofluorobenzene	94.6	80-120		%REC	1	6/2/2015 1:49:11 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 14 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 1:35:00 PM

Lab ID: 1505C59-055

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	69	7.5		mg/Kg	5	6/3/2015 12:29:19 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2015 9:40:02 PM	19470
Surr: DNOP	102	57.9-140		%REC	1	5/30/2015 9:40:02 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2015 7:00:03 PM	19463
Surr: BFB	76.7	75.4-113		%REC	1	5/31/2015 7:00:03 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 7:00:03 PM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 7:00:03 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 7:00:03 PM	19463
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2015 7:00:03 PM	19463
Surr: 4-Bromofluorobenzene	82.0	80-120		%REC	1	5/31/2015 7:00:03 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 14 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 1:35:00 PM

Lab ID: 1505C59-056

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	99	7.5		mg/Kg	5	6/3/2015 12:41:44 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 10:01:37 PM	19470
Surr: DNOP	97.8	57.9-140		%REC	1	5/30/2015 10:01:37 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/2/2015 2:17:53 PM	19463
Surr: BFB	91.3	75.4-113		%REC	1	6/2/2015 2:17:53 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/2/2015 2:17:53 PM	19463
Toluene	ND	0.050		mg/Kg	1	6/2/2015 2:17:53 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	6/2/2015 2:17:53 PM	19463
Xylenes, Total	ND	0.099		mg/Kg	1	6/2/2015 2:17:53 PM	19463
Surr: 4-Bromofluorobenzene	99.1	80-120		%REC	1	6/2/2015 2:17:53 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 14 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 1:35:00 PM

Lab ID: 1505C59-057

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	120	7.5		mg/Kg	5	6/3/2015 12:54:09 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2015 10:23:11 PM	19470
Surr: DNOP	102	57.9-140		%REC	1	5/30/2015 10:23:11 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2015 7:50:12 PM	19463
Surr: BFB	77.1	75.4-113		%REC	1	5/31/2015 7:50:12 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/31/2015 7:50:12 PM	19463
Toluene	ND	0.049		mg/Kg	1	5/31/2015 7:50:12 PM	19463
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2015 7:50:12 PM	19463
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2015 7:50:12 PM	19463
Surr: 4-Bromofluorobenzene	86.4	80-120		%REC	1	5/31/2015 7:50:12 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 15 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:00:00 PM

Lab ID: 1505C59-058

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/3/2015 1:06:34 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/30/2015 10:44:36 PM	19470
Surr: DNOP	110	57.9-140		%REC	1	5/30/2015 10:44:36 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/2/2015 4:04:53 AM	19463
Surr: BFB	91.8	75.4-113		%REC	1	6/2/2015 4:04:53 AM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 8:15:32 PM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 8:15:32 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 8:15:32 PM	19463
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2015 8:15:32 PM	19463
Surr: 4-Bromofluorobenzene	82.3	80-120		%REC	1	5/31/2015 8:15:32 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 15 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:00:00 PM

Lab ID: 1505C59-059

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/3/2015 1:18:58 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 11:06:05 PM	19470
Surr: DNOP	116	57.9-140		%REC	1	5/30/2015 11:06:05 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2015 8:40:58 PM	19463
Surr: BFB	77.1	75.4-113		%REC	1	5/31/2015 8:40:58 PM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 8:40:58 PM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 8:40:58 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 8:40:58 PM	19463
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2015 8:40:58 PM	19463
Surr: 4-Bromofluorobenzene	84.5	80-120		%REC	1	5/31/2015 8:40:58 PM	19463

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	Page 59 of 76
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 15 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:00:00 PM

Lab ID: 1505C59-060

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	11	7.5		mg/Kg	5	6/3/2015 1:56:11 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 11:27:28 PM	19470
Surr: DNOP	104	57.9-140		%REC	1	5/30/2015 11:27:28 PM	19470
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/2/2015 4:33:37 AM	19463
Surr: BFB	91.2	75.4-113		%REC	1	6/2/2015 4:33:37 AM	19463
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/31/2015 9:06:18 PM	19463
Toluene	ND	0.050		mg/Kg	1	5/31/2015 9:06:18 PM	19463
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2015 9:06:18 PM	19463
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2015 9:06:18 PM	19463
Surr: 4-Bromofluorobenzene	82.0	80-120		%REC	1	5/31/2015 9:06:18 PM	19463

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1505C59**

Date Reported: **6/9/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 15 2.5-3.5'

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:00:00 PM

Lab ID: 1505C59-061

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	100	7.5		mg/Kg	5	6/3/2015 2:08:36 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2015 11:49:04 PM	19471
Surr: DNOP	97.4	57.9-140		%REC	1	5/30/2015 11:49:04 PM	19471
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/1/2015 11:47:40 AM	19464
Surr: BFB	92.4	75.4-113		%REC	1	6/1/2015 11:47:40 AM	19464
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/1/2015 11:47:40 AM	19464
Toluene	ND	0.050		mg/Kg	1	6/1/2015 11:47:40 AM	19464
Ethylbenzene	ND	0.050		mg/Kg	1	6/1/2015 11:47:40 AM	19464
Xylenes, Total	ND	0.099		mg/Kg	1	6/1/2015 11:47:40 AM	19464
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	6/1/2015 11:47:40 AM	19464

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505C59

Date Reported: 6/9/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 15 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:00:00 PM

Lab ID: 1505C59-062

Matrix: SOIL

Received Date: 5/29/2015 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	380	30		mg/Kg	20	6/5/2015 11:36:32 PM	19539
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2015 12:53:09 AM	19471
Surr: DNOP	95.9	57.9-140		%REC	1	5/31/2015 12:53:09 AM	19471
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/1/2015 2:40:19 PM	19464
Surr: BFB	91.8	75.4-113		%REC	1	6/1/2015 2:40:19 PM	19464
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/1/2015 2:40:19 PM	19464
Toluene	ND	0.049		mg/Kg	1	6/1/2015 2:40:19 PM	19464
Ethylbenzene	ND	0.049		mg/Kg	1	6/1/2015 2:40:19 PM	19464
Xylenes, Total	ND	0.098		mg/Kg	1	6/1/2015 2:40:19 PM	19464
Surr: 4-Bromofluorobenzene	99.7	80-120		%REC	1	6/1/2015 2:40:19 PM	19464

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19484		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 19484		RunNo: 26529					
Prep Date:	6/1/2015		Analysis Date: 6/1/2015		SeqNo: 788531		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-19484		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19484		RunNo: 26529					
Prep Date:	6/1/2015		Analysis Date: 6/1/2015		SeqNo: 788532		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	90	110			

Sample ID	MB-19495		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	19495		RunNo:	26529				
Prep Date:	6/1/2015		Analysis Date:	6/1/2015		SeqNo:	789176		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-19495		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19495		RunNo: 26529					
Prep Date:	6/1/2015		Analysis Date: 6/1/2015		SeqNo: 789177		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Sample ID	MB-19507		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 19507		RunNo: 26569					
Prep Date:	6/2/2015		Analysis Date: 6/2/2015		SeqNo: 790563		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-19507		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19507		RunNo: 26569					
Prep Date:	6/2/2015		Analysis Date: 6/2/2015		SeqNo: 790564		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.2	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19539		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	19539		RunNo:	26612				
Prep Date:	6/3/2015		Analysis Date:	6/3/2015		SeqNo:	792250		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-19539		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19539		RunNo: 26612					
Prep Date:	6/3/2015		Analysis Date: 6/3/2015		SeqNo: 792251		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.5	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19470		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 19470		RunNo: 26506					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787714		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.2		10.00		82.2	57.9	140			

Sample ID	MB-19468		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 19468		RunNo: 26507					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787718		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		101	57.9	140			

Sample ID	LCS-19468		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19468		RunNo: 26507					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787719		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	103	67.8	130			
Surr: DNOP	5.4		5.000		107	57.9	140			

Sample ID	LCS-19469		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19469		RunNo: 26507					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787720		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	109	67.8	130			
Surr: DNOP	5.5		5.000		110	57.9	140			

Sample ID	MB-19469		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 19469		RunNo: 26507					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787721		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		99.2	57.9	140			

Sample ID	LCS-19470		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19470		RunNo: 26506					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787723		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	LCS-19470		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19470		RunNo: 26506					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787723		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.4	67.8	130			
Surr: DNOP	4.5		5.000		90.7	57.9	140			

Sample ID	MB-19471		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 19471		RunNo: 26506					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787834		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.9		10.00		88.6	57.9	140			

Sample ID	LCS-19471		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19471		RunNo: 26506					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787835		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.4	67.8	130			
Surr: DNOP	4.3		5.000		86.5	57.9	140			

Sample ID	1505C59-061AMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	Soil 15 2.5-3.5'		Batch ID: 19471		RunNo: 26506					
Prep Date:	5/29/2015		Analysis Date: 5/31/2015		SeqNo: 787867		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	49.75	0	89.7	42.3	146			
Surr: DNOP	4.7		4.975		95.2	57.9	140			

Sample ID	1505C59-061AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	Soil 15 2.5-3.5'		Batch ID:	19471		RunNo:	26506				
Prep Date:	5/29/2015		Analysis Date:	5/31/2015		SeqNo:	787868		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	44	9.9	49.46	0	88.2	42.3	146	2.28	28.9		
Surr: DNOP	4.7		4.946		94.1	57.9	140	0	0		

Sample ID	1505C59-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	Soil 3 0-.5' RBD		Batch ID:	19468		RunNo:	26507				
Prep Date:	5/29/2015		Analysis Date:	5/30/2015		SeqNo:	787996		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	1505C59-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	Soil 3 0-.5' RBD	Batch ID:	19468	RunNo:	26507					
Prep Date:	5/29/2015	Analysis Date:	5/30/2015	SeqNo:	787996	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.45	0	108	42.3	146			
Surr: DNOP	5.5		5.045		109	57.9	140			

Sample ID	1505C59-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	Soil 3 0-.5' RBD	Batch ID:	19468	RunNo:	26507					
Prep Date:	5/29/2015	Analysis Date:	5/30/2015	SeqNo:	787997	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	9.9	49.36	0	123	42.3	146	10.7	28.9	
Surr: DNOP	5.9		4.936		120	57.9	140	0	0	

Sample ID	1505C59-021AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	Soil 6 2.5-4.0'	Batch ID:	19469	RunNo:	26507					
Prep Date:	5/29/2015	Analysis Date:	5/31/2015	SeqNo:	788018	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.51	0	114	42.3	146			
Surr: DNOP	5.7		5.051		114	57.9	140			

Sample ID	1505C59-021AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	Soil 6 2.5-4.0'	Batch ID:	19469	RunNo:	26507					
Prep Date:	5/29/2015	Analysis Date:	5/31/2015	SeqNo:	788019	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	111	42.3	146	3.63	28.9	
Surr: DNOP	5.8		5.000		116	57.9	140	0	0	

Sample ID	1505C59-041AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	Soil 11 0-.5' RBD	Batch ID:	19470	RunNo:	26507					
Prep Date:	5/29/2015	Analysis Date:	5/31/2015	SeqNo:	788040	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	120	9.7	48.54	0	238	42.3	146			S
Surr: DNOP	9.0		4.854		186	57.9	140			S

Sample ID	1505C59-041AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	Soil 11 0-.5' RBD	Batch ID:	19470	RunNo:	26507					
Prep Date:	5/29/2015	Analysis Date:	5/31/2015	SeqNo:	788041	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	1505C59-041AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics						
Client ID:	Soil 11 0-.5' RBD	Batch ID:	19470	RunNo:	26507						
Prep Date:	5/29/2015	Analysis Date:	5/31/2015	SeqNo:	788041	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	58	10	50.10	0	115	42.3	146	67.0	28.9	R	
Surr: DNOP	4.7		5.010		92.8	57.9	140	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19461		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19461		RunNo: 26509					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787776		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	800		1000		80.3	75.4	113			

Sample ID	LCS-19461		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19461		RunNo: 26509					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787777		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.3	64	130			
Surr: BFB	940		1000		93.9	75.4	113			

Sample ID	1505C59-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	Soil 3 0-.5' RBD		Batch ID: 19461		RunNo: 26509					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787780		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.8	23.90	0	114	47.9	144			
Surr: BFB	860		956.0		89.9	75.4	113			

Sample ID	1505C59-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	Soil 3 0-.5' RBD		Batch ID:	19461		RunNo:	26509				
Prep Date:	5/29/2015		Analysis Date:	5/30/2015		SeqNo:	787781		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	26	4.8	23.90	0	109	47.9	144	4.56	29.9		
Surr: BFB	840		956.0		87.5	75.4	113	0	0		

Sample ID	MB-19462		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19462		RunNo: 26512					
Prep Date:	5/29/2015		Analysis Date: 5/31/2015		SeqNo: 787887		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	910		1000		90.6	75.4	113			

Sample ID	LCS-19462		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	19462		RunNo:	26512				
Prep Date:	5/29/2015		Analysis Date:	5/31/2015		SeqNo:	787888		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	LCS-19462		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19462		RunNo: 26512					
Prep Date:	5/29/2015		Analysis Date: 5/31/2015		SeqNo: 787888		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.5	64	130			
Surr: BFB	960		1000		95.6	75.4	113			

Sample ID	1505C59-021AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	Soil 6 2.5-4.0'		Batch ID: 19462		RunNo: 26512					
Prep Date:	5/29/2015		Analysis Date: 5/31/2015		SeqNo: 787890		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	23.79	0	98.3	47.9	144			
Surr: BFB	940		951.5		98.8	75.4	113			

Sample ID	1505C59-021AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	Soil 6 2.5-4.0'		Batch ID: 19462		RunNo: 26512					
Prep Date:	5/29/2015		Analysis Date: 5/31/2015		SeqNo: 787891		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.8	23.76	0	80.7	47.9	144	19.8	29.9	
Surr: BFB	920		950.6		97.2	75.4	113	0	0	

Sample ID	MB-19463		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19463		RunNo: 26515					
Prep Date:	5/29/2015		Analysis Date: 5/31/2015		SeqNo: 787965		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	780		1000		78.0	75.4	113			

Sample ID	LCS-19463		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19463		RunNo: 26515					
Prep Date:	5/29/2015		Analysis Date: 5/31/2015		SeqNo: 787966		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.9	64	130			
Surr: BFB	910		1000		91.3	75.4	113			

Sample ID	1505C59-042AMS		SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	Soil 11 .5-1.5' RBD		Batch ID:	19463		RunNo:	26515				
Prep Date:	5/29/2015		Analysis Date:	5/31/2015		SeqNo:	787969		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| 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 |
| O RSD is greater than RSDlimit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	1505C59-042AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Soil 11 .5-1.5' RBD	Batch ID:	19463	RunNo:	26515					
Prep Date:	5/29/2015	Analysis Date:	5/31/2015	SeqNo:	787969	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.70	0	102	47.9	144			
Surr: BFB	820		988.1		83.5	75.4	113			

Sample ID	1505C59-042AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Soil 11 .5-1.5' RBD	Batch ID:	19463	RunNo:	26515					
Prep Date:	5/29/2015	Analysis Date:	5/31/2015	SeqNo:	787970	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.65	0	104	47.9	144	1.86	29.9	
Surr: BFB	810		986.2		82.3	75.4	113	0	0	

Sample ID	MB-19464	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	19464	RunNo:	26530					
Prep Date:	5/29/2015	Analysis Date:	6/1/2015	SeqNo:	788849	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	910		1000		91.0	75.4	113			

Sample ID	LCS-19464	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	19464	RunNo:	26530					
Prep Date:	5/29/2015	Analysis Date:	6/1/2015	SeqNo:	788850	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	64	130			
Surr: BFB	980		1000		97.5	75.4	113			

Sample ID	1505C59-061AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Soil 15 2.5-3.5'	Batch ID:	19464	RunNo:	26530					
Prep Date:	5/29/2015	Analysis Date:	6/1/2015	SeqNo:	788852	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.88	0	86.7	47.9	144			
Surr: BFB	1000		995.0		101	75.4	113			

Sample ID	1505C59-061AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Soil 15 2.5-3.5'	Batch ID:	19464	RunNo:	26530					
Prep Date:	5/29/2015	Analysis Date:	6/1/2015	SeqNo:	788853	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	1505C59-061AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Soil 15 2.5-3.5'	Batch ID:	19464	RunNo:	26530					
Prep Date:	5/29/2015	Analysis Date:	6/1/2015	SeqNo:	788853	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.73	0	84.5	47.9	144	3.12	29.9	
Surr: BFB	990		989.1		99.9	75.4	113	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19461	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batch ID: 19461		RunNo: 26509						
Prep Date:	5/29/2015	Analysis Date: 5/30/2015		SeqNo: 787804		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	80	120			

Sample ID	LCS-19461		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19461		RunNo: 26509					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787805		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	76.6	128			
Toluene	1.1	0.050	1.000	0	111	75	124			
Ethylbenzene	1.1	0.050	1.000	0	107	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	105	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	1505C59-002AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	Soil 3 .5-1.5' RBD		Batch ID: 19461		RunNo: 26509					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787808		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.048	0.9560	0	116	69.2	126			
Toluene	1.2	0.048	0.9560	0.005731	120	65.6	128			
Ethylbenzene	1.1	0.048	0.9560	0.009456	113	65.5	138			
Xylenes, Total	3.2	0.096	2.868	0.01652	110	63	139			
Surr: 4-Bromofluorobenzene	0.91		0.9560		95.3	80	120			

Sample ID	1505C59-002AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	Soil 3 .5-1.5' RBD		Batch ID: 19461		RunNo: 26509					
Prep Date:	5/29/2015		Analysis Date: 5/30/2015		SeqNo: 787809		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.048	0.9560	0	123	69.2	126	6.05	18.5	
Toluene	1.2	0.048	0.9560	0.005731	123	65.6	128	2.31	20.6	
Ethylbenzene	1.1	0.048	0.9560	0.009456	118	65.5	138	4.74	20.1	
Xylenes, Total	3.3	0.096	2.868	0.01652	116	63	139	4.71	21.1	
Surr: 4-Bromofluorobenzene	0.75		0.9560		78.2	80	120	0	0	S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19462		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	19462		RunNo:	26512			
Prep Date:	5/29/2015		Analysis Date:	5/31/2015		SeqNo:	787938		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.5	80	120			

Sample ID	LCS-19462		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	19462		RunNo:	26512			
Prep Date:	5/29/2015		Analysis Date:	5/31/2015		SeqNo:	787939		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	76.6	128			
Toluene	1.0	0.050	1.000	0	103	75	124			
Ethylbenzene	1.0	0.050	1.000	0	103	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	102	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	1505C59-022AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	Soil 7 0-.5' RBD		Batch ID:	19462		RunNo:	26512			
Prep Date:	5/29/2015		Analysis Date:	5/31/2015		SeqNo:	787942		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.049	0.9843	0	99.7	69.2	126			
Toluene	0.96	0.049	0.9843	0	97.8	65.6	128			
Ethylbenzene	0.98	0.049	0.9843	0	99.6	65.5	138			
Xylenes, Total	2.9	0.098	2.953	0	99.2	63	139			
Surr: 4-Bromofluorobenzene	1.0		0.9843		106	80	120			

Sample ID	1505C59-022AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	Soil 7 0-.5' RBD		Batch ID:	19462		RunNo:	26512			
Prep Date:	5/29/2015		Analysis Date:	5/31/2015		SeqNo:	787943		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.049	0.9833	0	99.9	69.2	126	0.136	18.5	
Toluene	0.97	0.049	0.9833	0	98.5	65.6	128	0.620	20.6	
Ethylbenzene	1.0	0.049	0.9833	0	103	65.5	138	3.10	20.1	
Xylenes, Total	3.0	0.098	2.950	0	102	63	139	2.26	21.1	
Surr: 4-Bromofluorobenzene	1.0		0.9833		105	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID MB-19463	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 19463		RunNo: 26515							
Prep Date: 5/29/2015	Analysis Date: 5/31/2015		SeqNo: 788054		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		91.5	80	120			

Sample ID LCS-19463	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 19463		RunNo: 26515							
Prep Date: 5/29/2015	Analysis Date: 5/31/2015		SeqNo: 788055		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	110	76.6	128			
Toluene	1.1	0.050	1.000	0	111	75	124			
Ethylbenzene	1.1	0.050	1.000	0	107	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	105	78.8	124			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.3	80	120			

Sample ID 1505C59-041AMS	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: Soil 11 0-.5' RBD	Batch ID: 19463		RunNo: 26515							
Prep Date: 5/29/2015	Analysis Date: 5/31/2015		SeqNo: 788057		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	0.9970	0	104	69.2	126			
Toluene	1.1	0.050	0.9970	0	110	65.6	128			
Ethylbenzene	1.1	0.050	0.9970	0.009181	106	65.5	138			
Xylenes, Total	3.1	0.10	2.991	0	104	63	139			
Surr: 4-Bromofluorobenzene	0.91		0.9970		91.6	80	120			

Sample ID 1505C59-041AMSD	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: Soil 11 0-.5' RBD	Batch ID: 19463		RunNo: 26515							
Prep Date: 5/29/2015	Analysis Date: 5/31/2015		SeqNo: 788058		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	0.9960	0	108	69.2	126	3.48	18.5	
Toluene	1.1	0.050	0.9960	0	111	65.6	128	0.271	20.6	
Ethylbenzene	1.1	0.050	0.9960	0.009181	106	65.5	138	0.359	20.1	
Xylenes, Total	3.1	0.10	2.988	0	105	63	139	0.589	21.1	
Surr: 4-Bromofluorobenzene	0.98		0.9960		98.2	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 O RSD is greater than RSDlimit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH Not In Range
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505C59

09-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19464		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	19464		RunNo:	26530			
Prep Date:	5/29/2015		Analysis Date:	6/1/2015		SeqNo:	788884		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
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-19464		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	19464		RunNo:	26530			
Prep Date:	5/29/2015		Analysis Date:	6/1/2015		SeqNo:	788885		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	76.6	128			
Toluene	1.0	0.050	1.000	0	103	75	124			
Ethylbenzene	1.0	0.050	1.000	0	105	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	103	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	1505C59-062AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	Soil 15 3.5-4.0' RBD		Batch ID:	19464		RunNo:	26530			
Prep Date:	5/29/2015		Analysis Date:	6/1/2015		SeqNo:	788893		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	0.9911	0	95.4	69.2	126			
Toluene	0.95	0.050	0.9911	0	96.3	65.6	128			
Ethylbenzene	0.98	0.050	0.9911	0	99.3	65.5	138			
Xylenes, Total	2.9	0.099	2.973	0	98.4	63	139			
Surr: 4-Bromofluorobenzene	1.1		0.9911		109	80	120			

Sample ID	1505C59-062AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	Soil 15 3.5-4.0' RBD		Batch ID:	19464		RunNo:	26530			
Prep Date:	5/29/2015		Analysis Date:	6/1/2015		SeqNo:	788894		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.050	1.000	0	89.9	69.2	126	5.04	18.5	
Toluene	0.90	0.050	1.000	0	89.6	65.6	128	6.31	20.6	
Ethylbenzene	0.96	0.050	1.000	0	95.7	65.5	138	2.75	20.1	
Xylenes, Total	2.8	0.10	3.000	0	94.5	63	139	3.09	21.1	
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit



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: GL Environmental Inc

Work Order Number: 1505C59

RcptNo: 1

Received by/date:

AT 05/29/15

Logged By: Anne Thorne

5/29/2015 9:08:00 AM

Anne Thorne

Completed By: Anne Thorne

5/29/2015

Anne Thorne

Reviewed By:

CS/JS

05/29/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☐ No ☒
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. 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: _____

Special Handling (if applicable)

16. 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:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	4.6	Good	Yes			

Chain-of-Custody Record

Client:

GL Environmental

Mailing Address:

24 Bibb Industrial Dr. Las Vegas NV 89001

Phone #: 505-454-0830

Email or Fax#: 916-770-1140

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☒ NELAP ☐ Other

☐ EDD (Type)

Date

Time

Sample Request ID

Container Type and #

HEAL No.

Preservative Type

Sample Temperature

On Ice: ☒ Yes ☐ No

Sampler: ML, JJ, ST

Project Manager: Matt Lowe

Project #: 1505659

Project Name: RED BLUFF DRAW

Turn-Around Time: results by 6/15/15

☒ Standard ☐ Rush

Analysis Request

Remarks:

Received by: [Signature]

Date: 6/15/15

Time: 1500

Relinquished by: [Signature]

Date: 6/15/15

Time: 1500

Relinquished by: [Signature]

Date: 6/15/15

Time: 1500

Relinquished by: [Signature]

Date: 6/15/15

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Time: 1500

Relinquished by: [Signature]

Date: 6/15/15

Time: 1500

Chain-of-Custody Record			
Client: _____			
GL ENVIRON mental			
Mailing Address: _____			
see pg 1			
Phone #: _____			
email or Fax#: _____			
QA/QC Package: _____			
<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation _____			
<input checked="" type="checkbox"/> NELAP <input type="checkbox"/> Other _____			
<input type="checkbox"/> EDD (Type) _____			
Date	Time	Matrix	Sample Request ID
11/15	1100	soil	soil 7 2.5-3.5' RBD
11/15	1125		soil 8 0-5' RBD
11/15	1135		soil 9 0-5' RBD
11/15	1240		soil 10 0-5' RBD
11/15	1500		

1990

Received by:

Any sub-contracted data will be clearly notated on the analytical report. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

June 12, 2015

Matt Lane
GL Environmental Inc
PO Box 1746
Las Vegas, NM 87701
TEL: (505) 454-0830
FAX

RE: Red Bluff Draw

OrderNo.: 1506057

Dear Matt Lane:

Hall Environmental Analysis Laboratory received 36 sample(s) on 6/2/2015 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 #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 4 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 1:30:00 PM

Lab ID: 1506057-001

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	54	7.5		mg/Kg	5	6/5/2015 8:18:00 PM	19567
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/4/2015 11:53:40 AM	19508
Surr: DNOP	91.6	57.9-140		%REC	1	6/4/2015 11:53:40 AM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/3/2015 10:25:05 AM	19498
Surr: BFB	87.8	75.4-113		%REC	1	6/3/2015 10:25:05 AM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/3/2015 10:25:05 AM	19498
Toluene	ND	0.050		mg/Kg	1	6/3/2015 10:25:05 AM	19498
Ethylbenzene	ND	0.050		mg/Kg	1	6/3/2015 10:25:05 AM	19498
Xylenes, Total	ND	0.10		mg/Kg	1	6/3/2015 10:25:05 AM	19498
Surr: 4-Bromofluorobenzene	92.8	80-120		%REC	1	6/3/2015 10:25:05 AM	19498

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 4 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 1:30:00 PM

Lab ID: 1506057-002

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	130	30		mg/Kg	20	6/5/2015 8:30:24 PM	19567
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/4/2015 12:57:48 PM	19508
Surr: DNOP	85.6	57.9-140		%REC	1	6/4/2015 12:57:48 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 11:51:20 AM	19498
Surr: BFB	86.4	75.4-113		%REC	1	6/3/2015 11:51:20 AM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 11:51:20 AM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 11:51:20 AM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 11:51:20 AM	19498
Xylenes, Total	ND	0.098		mg/Kg	1	6/3/2015 11:51:20 AM	19498
Surr: 4-Bromofluorobenzene	91.4	80-120		%REC	1	6/3/2015 11:51:20 AM	19498

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 16 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:20:00 PM

Lab ID: 1506057-003

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	7.7	7.5		mg/Kg	5	6/5/2015 8:42:49 PM	19567
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/4/2015 1:19:11 PM	19508
Surr: DNOP	117	57.9-140		%REC	1	6/4/2015 1:19:11 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 1:17:46 PM	19498
Surr: BFB	97.4	75.4-113		%REC	1	6/3/2015 1:17:46 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 1:17:46 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 1:17:46 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 1:17:46 PM	19498
Xylenes, Total	ND	0.099		mg/Kg	1	6/3/2015 1:17:46 PM	19498
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	6/3/2015 1:17:46 PM	19498

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 16 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:20:00 PM

Lab ID: 1506057-004

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/8/2015 9:49:21 PM	19567
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/4/2015 1:40:37 PM	19508
Surr: DNOP	137	57.9-140		%REC	1	6/4/2015 1:40:37 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 1:46:31 PM	19498
Surr: BFB	88.2	75.4-113		%REC	1	6/3/2015 1:46:31 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 1:46:31 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 1:46:31 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 1:46:31 PM	19498
Xylenes, Total	ND	0.098		mg/Kg	1	6/3/2015 1:46:31 PM	19498
Surr: 4-Bromofluorobenzene	94.0	80-120		%REC	1	6/3/2015 1:46:31 PM	19498

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	Page 4 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 16 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:30:00 PM

Lab ID: 1506057-005

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	6/5/2015 9:07:39 PM	19567
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/4/2015 2:01:54 PM	19508
Surr: DNOP	124	57.9-140		%REC	1	6/4/2015 2:01:54 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 2:15:15 PM	19498
Surr: BFB	87.9	75.4-113		%REC	1	6/3/2015 2:15:15 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 2:15:15 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 2:15:15 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 2:15:15 PM	19498
Xylenes, Total	ND	0.098		mg/Kg	1	6/3/2015 2:15:15 PM	19498
Surr: 4-Bromofluorobenzene	92.9	80-120		%REC	1	6/3/2015 2:15:15 PM	19498

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 16 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:30:00 PM

Lab ID: 1506057-006

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	360	30		mg/Kg	20	6/5/2015 9:20:03 PM	19567
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	21	10		mg/Kg	1	6/4/2015 3:06:19 PM	19508
Surr: DNOP	93.6	57.9-140		%REC	1	6/4/2015 3:06:19 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 2:43:59 PM	19498
Surr: BFB	87.3	75.4-113		%REC	1	6/3/2015 2:43:59 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 2:43:59 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 2:43:59 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 2:43:59 PM	19498
Xylenes, Total	ND	0.098		mg/Kg	1	6/3/2015 2:43:59 PM	19498
Surr: 4-Bromofluorobenzene	91.7	80-120		%REC	1	6/3/2015 2:43:59 PM	19498

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	Page 6 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 16 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:30:00 PM

Lab ID: 1506057-007

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	110	30		mg/Kg	20	6/5/2015 9:32:27 PM	19567
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/4/2015 3:27:36 PM	19508
Surr: DNOP	89.5	57.9-140		%REC	1	6/4/2015 3:27:36 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/3/2015 3:12:43 PM	19498
Surr: BFB	88.0	75.4-113		%REC	1	6/3/2015 3:12:43 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/3/2015 3:12:43 PM	19498
Toluene	ND	0.050		mg/Kg	1	6/3/2015 3:12:43 PM	19498
Ethylbenzene	ND	0.050		mg/Kg	1	6/3/2015 3:12:43 PM	19498
Xylenes, Total	ND	0.10		mg/Kg	1	6/3/2015 3:12:43 PM	19498
Surr: 4-Bromofluorobenzene	92.2	80-120		%REC	1	6/3/2015 3:12:43 PM	19498

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	Page 7 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 17 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:35:00 PM

Lab ID: 1506057-008

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/8/2015 10:01:46 PM	19567
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	24	9.9		mg/Kg	1	6/4/2015 3:48:59 PM	19508
Surr: DNOP	96.2	57.9-140		%REC	1	6/4/2015 3:48:59 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 4:07:08 PM	19498
Surr: BFB	105	75.4-113		%REC	1	6/3/2015 4:07:08 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 4:07:08 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 4:07:08 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 4:07:08 PM	19498
Xylenes, Total	ND	0.099		mg/Kg	1	6/3/2015 4:07:08 PM	19498
Surr: 4-Bromofluorobenzene	122	80-120	S	%REC	1	6/3/2015 4:07:08 PM	19498

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 17 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:35:00 PM

Lab ID: 1506057-009

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	11	7.5		mg/Kg	5	6/5/2015 1:03:40 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/4/2015 4:10:19 PM	19508
Surr: DNOP	114	57.9-140		%REC	1	6/4/2015 4:10:19 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 4:35:58 PM	19498
Surr: BFB	87.0	75.4-113		%REC	1	6/3/2015 4:35:58 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 4:35:58 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 4:35:58 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 4:35:58 PM	19498
Xylenes, Total	ND	0.098		mg/Kg	1	6/3/2015 4:35:58 PM	19498
Surr: 4-Bromofluorobenzene	91.2	80-120		%REC	1	6/3/2015 4:35:58 PM	19498

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 17 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:35:00 PM

Lab ID: 1506057-010

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	94	7.5		mg/Kg	5	6/5/2015 1:40:53 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/4/2015 4:31:47 PM	19508
Surr: DNOP	86.2	57.9-140		%REC	1	6/4/2015 4:31:47 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/3/2015 5:04:48 PM	19498
Surr: BFB	86.9	75.4-113		%REC	1	6/3/2015 5:04:48 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/3/2015 5:04:48 PM	19498
Toluene	ND	0.050		mg/Kg	1	6/3/2015 5:04:48 PM	19498
Ethylbenzene	ND	0.050		mg/Kg	1	6/3/2015 5:04:48 PM	19498
Xylenes, Total	ND	0.099		mg/Kg	1	6/3/2015 5:04:48 PM	19498
Surr: 4-Bromofluorobenzene	90.7	80-120		%REC	1	6/3/2015 5:04:48 PM	19498

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 17 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:35:00 PM

Lab ID: 1506057-011

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	280	75		mg/Kg	50	6/8/2015 10:14:11 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/4/2015 5:14:38 PM	19508
Surr: DNOP	86.6	57.9-140		%REC	1	6/4/2015 5:14:38 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 7:57:04 PM	19498
Surr: BFB	85.9	75.4-113		%REC	1	6/3/2015 7:57:04 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 7:57:04 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 7:57:04 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 7:57:04 PM	19498
Xylenes, Total	ND	0.099		mg/Kg	1	6/3/2015 7:57:04 PM	19498
Surr: 4-Bromofluorobenzene	89.0	80-120		%REC	1	6/3/2015 7:57:04 PM	19498

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	Page 11 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 17 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:35:00 PM

Lab ID: 1506057-012

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	600	30		mg/Kg	20	6/8/2015 10:26:35 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/4/2015 5:35:59 PM	19508
Surr: DNOP	84.2	57.9-140		%REC	1	6/4/2015 5:35:59 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/3/2015 8:25:54 PM	19498
Surr: BFB	86.7	75.4-113		%REC	1	6/3/2015 8:25:54 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/3/2015 8:25:54 PM	19498
Toluene	ND	0.050		mg/Kg	1	6/3/2015 8:25:54 PM	19498
Ethylbenzene	ND	0.050		mg/Kg	1	6/3/2015 8:25:54 PM	19498
Xylenes, Total	ND	0.099		mg/Kg	1	6/3/2015 8:25:54 PM	19498
Surr: 4-Bromofluorobenzene	90.8	80-120		%REC	1	6/3/2015 8:25:54 PM	19498

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 18 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:50:00 PM

Lab ID: 1506057-013

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/5/2015 3:07:46 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/4/2015 5:57:28 PM	19508
Surr: DNOP	90.8	57.9-140		%REC	1	6/4/2015 5:57:28 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 8:54:41 PM	19498
Surr: BFB	86.1	75.4-113		%REC	1	6/3/2015 8:54:41 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 8:54:41 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 8:54:41 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 8:54:41 PM	19498
Xylenes, Total	ND	0.098		mg/Kg	1	6/3/2015 8:54:41 PM	19498
Surr: 4-Bromofluorobenzene	89.7	80-120		%REC	1	6/3/2015 8:54:41 PM	19498

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 18 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:50:00 PM

Lab ID: 1506057-014

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	31	7.5		mg/Kg	5	6/5/2015 3:20:11 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/4/2015 6:18:54 PM	19508
Surr: DNOP	117	57.9-140		%REC	1	6/4/2015 6:18:54 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/3/2015 9:23:27 PM	19498
Surr: BFB	86.0	75.4-113		%REC	1	6/3/2015 9:23:27 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/3/2015 9:23:27 PM	19498
Toluene	ND	0.050		mg/Kg	1	6/3/2015 9:23:27 PM	19498
Ethylbenzene	ND	0.050		mg/Kg	1	6/3/2015 9:23:27 PM	19498
Xylenes, Total	ND	0.099		mg/Kg	1	6/3/2015 9:23:27 PM	19498
Surr: 4-Bromofluorobenzene	89.5	80-120		%REC	1	6/3/2015 9:23:27 PM	19498

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 18 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:50:00 PM

Lab ID: 1506057-015

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	51	7.5		mg/Kg	5	6/5/2015 3:32:35 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/4/2015 6:40:27 PM	19508
Surr: DNOP	93.0	57.9-140		%REC	1	6/4/2015 6:40:27 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/3/2015 9:52:12 PM	19498
Surr: BFB	87.2	75.4-113		%REC	1	6/3/2015 9:52:12 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/3/2015 9:52:12 PM	19498
Toluene	ND	0.050		mg/Kg	1	6/3/2015 9:52:12 PM	19498
Ethylbenzene	ND	0.050		mg/Kg	1	6/3/2015 9:52:12 PM	19498
Xylenes, Total	ND	0.10		mg/Kg	1	6/3/2015 9:52:12 PM	19498
Surr: 4-Bromofluorobenzene	91.4	80-120		%REC	1	6/3/2015 9:52:12 PM	19498

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 18 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 2:50:00 PM

Lab ID: 1506057-016

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	77	7.5		mg/Kg	5	6/5/2015 3:44:59 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/4/2015 7:23:13 PM	19508
Surr: DNOP	87.9	57.9-140		%REC	1	6/4/2015 7:23:13 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 10:20:57 PM	19498
Surr: BFB	86.7	75.4-113		%REC	1	6/3/2015 10:20:57 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 10:20:57 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 10:20:57 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 10:20:57 PM	19498
Xylenes, Total	ND	0.099		mg/Kg	1	6/3/2015 10:20:57 PM	19498
Surr: 4-Bromofluorobenzene	91.1	80-120		%REC	1	6/3/2015 10:20:57 PM	19498

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 19 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 3:10:00 PM

Lab ID: 1506057-017

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	8.2	7.5		mg/Kg	5	6/5/2015 3:57:23 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/4/2015 7:44:31 PM	19508
Surr: DNOP	105	57.9-140		%REC	1	6/4/2015 7:44:31 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 10:49:39 PM	19498
Surr: BFB	87.0	75.4-113		%REC	1	6/3/2015 10:49:39 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 10:49:39 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 10:49:39 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 10:49:39 PM	19498
Xylenes, Total	ND	0.099		mg/Kg	1	6/3/2015 10:49:39 PM	19498
Surr: 4-Bromofluorobenzene	90.7	80-120		%REC	1	6/3/2015 10:49:39 PM	19498

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 19 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 3:10:00 PM

Lab ID: 1506057-018

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/5/2015 4:09:48 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/4/2015 8:05:52 PM	19508
Surr: DNOP	107	57.9-140		%REC	1	6/4/2015 8:05:52 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/3/2015 11:18:23 PM	19498
Surr: BFB	87.5	75.4-113		%REC	1	6/3/2015 11:18:23 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/3/2015 11:18:23 PM	19498
Toluene	ND	0.050		mg/Kg	1	6/3/2015 11:18:23 PM	19498
Ethylbenzene	ND	0.050		mg/Kg	1	6/3/2015 11:18:23 PM	19498
Xylenes, Total	ND	0.10		mg/Kg	1	6/3/2015 11:18:23 PM	19498
Surr: 4-Bromofluorobenzene	92.5	80-120		%REC	1	6/3/2015 11:18:23 PM	19498

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	Page 18 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 19 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 3:10:00 PM

Lab ID: 1506057-019

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/5/2015 4:22:12 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/4/2015 8:27:07 PM	19508
Surr: DNOP	74.6	57.9-140		%REC	1	6/4/2015 8:27:07 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/3/2015 11:47:01 PM	19498
Surr: BFB	87.6	75.4-113		%REC	1	6/3/2015 11:47:01 PM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/3/2015 11:47:01 PM	19498
Toluene	ND	0.049		mg/Kg	1	6/3/2015 11:47:01 PM	19498
Ethylbenzene	ND	0.049		mg/Kg	1	6/3/2015 11:47:01 PM	19498
Xylenes, Total	ND	0.098		mg/Kg	1	6/3/2015 11:47:01 PM	19498
Surr: 4-Bromofluorobenzene	91.7	80-120		%REC	1	6/3/2015 11:47:01 PM	19498

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	Page 19 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 19 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 3:10:00 PM

Lab ID: 1506057-020

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/5/2015 4:34:36 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/4/2015 8:48:27 PM	19508
Surr: DNOP	79.2	57.9-140		%REC	1	6/4/2015 8:48:27 PM	19508
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/4/2015 12:15:52 AM	19498
Surr: BFB	86.9	75.4-113		%REC	1	6/4/2015 12:15:52 AM	19498
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/4/2015 12:15:52 AM	19498
Toluene	ND	0.050		mg/Kg	1	6/4/2015 12:15:52 AM	19498
Ethylbenzene	ND	0.050		mg/Kg	1	6/4/2015 12:15:52 AM	19498
Xylenes, Total	ND	0.10		mg/Kg	1	6/4/2015 12:15:52 AM	19498
Surr: 4-Bromofluorobenzene	91.5	80-120		%REC	1	6/4/2015 12:15:52 AM	19498

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 19 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 3:10:00 PM

Lab ID: 1506057-021

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	14	7.5		mg/Kg	5	6/5/2015 4:47:01 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/4/2015 10:13:36 PM	19536
Surr: DNOP	84.6	57.9-140		%REC	1	6/4/2015 10:13:36 PM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/5/2015 2:44:15 PM	19516
Surr: BFB	87.8	75.4-113		%REC	1	6/5/2015 2:44:15 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/5/2015 2:44:15 PM	19516
Toluene	ND	0.049		mg/Kg	1	6/5/2015 2:44:15 PM	19516
Ethylbenzene	ND	0.049		mg/Kg	1	6/5/2015 2:44:15 PM	19516
Xylenes, Total	ND	0.097		mg/Kg	1	6/5/2015 2:44:15 PM	19516
Surr: 4-Bromofluorobenzene	94.3	80-120		%REC	1	6/5/2015 2:44:15 PM	19516

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**Date Reported: **6/12/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** soil 20 0-.5' RBD**Project:** Red Bluff Draw**Collection Date:** 5/27/2015 4:35:00 PM**Lab ID:** 1506057-022**Matrix:** SOIL**Received Date:** 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2600	300		mg/Kg	200	6/8/2015 10:38:59 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/4/2015 11:17:22 PM	19536
Surr: DNOP	82.8	57.9-140		%REC	1	6/4/2015 11:17:22 PM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/5/2015 3:12:58 PM	19516
Surr: BFB	89.0	75.4-113		%REC	1	6/5/2015 3:12:58 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/5/2015 3:12:58 PM	19516
Toluene	ND	0.050		mg/Kg	1	6/5/2015 3:12:58 PM	19516
Ethylbenzene	ND	0.050		mg/Kg	1	6/5/2015 3:12:58 PM	19516
Xylenes, Total	ND	0.099		mg/Kg	1	6/5/2015 3:12:58 PM	19516
Surr: 4-Bromofluorobenzene	93.7	80-120		%REC	1	6/5/2015 3:12:58 PM	19516

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	Page 22 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**Date Reported: **6/12/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** soil 20 .5-1.5' RBD**Project:** Red Bluff Draw**Collection Date:** 5/27/2015 4:35:00 PM**Lab ID:** 1506057-023**Matrix:** SOIL**Received Date:** 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	150	7.5		mg/Kg	5	6/5/2015 5:36:40 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/4/2015 11:38:48 PM	19536
Surr: DNOP	86.6	57.9-140		%REC	1	6/4/2015 11:38:48 PM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/5/2015 3:41:39 PM	19516
Surr: BFB	87.3	75.4-113		%REC	1	6/5/2015 3:41:39 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/5/2015 3:41:39 PM	19516
Toluene	ND	0.047		mg/Kg	1	6/5/2015 3:41:39 PM	19516
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2015 3:41:39 PM	19516
Xylenes, Total	ND	0.094		mg/Kg	1	6/5/2015 3:41:39 PM	19516
Surr: 4-Bromofluorobenzene	92.5	80-120		%REC	1	6/5/2015 3:41:39 PM	19516

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 20 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 4:35:00 PM

Lab ID: 1506057-024

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	100	7.5		mg/Kg	5	6/5/2015 5:49:05 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2015 12:00:12 AM	19536
Surr: DNOP	85.2	57.9-140		%REC	1	6/5/2015 12:00:12 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/5/2015 4:10:27 PM	19516
Surr: BFB	87.7	75.4-113		%REC	1	6/5/2015 4:10:27 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/5/2015 4:10:27 PM	19516
Toluene	ND	0.049		mg/Kg	1	6/5/2015 4:10:27 PM	19516
Ethylbenzene	ND	0.049		mg/Kg	1	6/5/2015 4:10:27 PM	19516
Xylenes, Total	ND	0.098		mg/Kg	1	6/5/2015 4:10:27 PM	19516
Surr: 4-Bromofluorobenzene	92.1	80-120		%REC	1	6/5/2015 4:10:27 PM	19516

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 20 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 4:35:00 PM

Lab ID: 1506057-025

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	95	7.5		mg/Kg	5	6/5/2015 6:01:29 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2015 12:21:37 AM	19536
Surr: DNOP	85.9	57.9-140		%REC	1	6/5/2015 12:21:37 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/5/2015 4:39:12 PM	19516
Surr: BFB	87.2	75.4-113		%REC	1	6/5/2015 4:39:12 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/5/2015 4:39:12 PM	19516
Toluene	ND	0.047		mg/Kg	1	6/5/2015 4:39:12 PM	19516
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2015 4:39:12 PM	19516
Xylenes, Total	ND	0.094		mg/Kg	1	6/5/2015 4:39:12 PM	19516
Surr: 4-Bromofluorobenzene	91.9	80-120		%REC	1	6/5/2015 4:39:12 PM	19516

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 20 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 4:35:00 PM

Lab ID: 1506057-026

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	130	7.5		mg/Kg	5	6/5/2015 6:13:54 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2015 1:04:24 AM	19536
Surr: DNOP	87.8	57.9-140		%REC	1	6/5/2015 1:04:24 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/5/2015 5:07:53 PM	19516
Surr: BFB	86.4	75.4-113		%REC	1	6/5/2015 5:07:53 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/5/2015 5:07:53 PM	19516
Toluene	ND	0.047		mg/Kg	1	6/5/2015 5:07:53 PM	19516
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2015 5:07:53 PM	19516
Xylenes, Total	ND	0.095		mg/Kg	1	6/5/2015 5:07:53 PM	19516
Surr: 4-Bromofluorobenzene	90.1	80-120		%REC	1	6/5/2015 5:07:53 PM	19516

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 21 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 5:10:00 PM

Lab ID: 1506057-027

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	3300	150		mg/Kg	100	6/8/2015 10:51:24 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2015 1:25:42 AM	19536
Surr: DNOP	87.7	57.9-140		%REC	1	6/5/2015 1:25:42 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/5/2015 8:28:54 PM	19516
Surr: BFB	87.7	75.4-113		%REC	1	6/5/2015 8:28:54 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/5/2015 8:28:54 PM	19516
Toluene	ND	0.047		mg/Kg	1	6/5/2015 8:28:54 PM	19516
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2015 8:28:54 PM	19516
Xylenes, Total	ND	0.095		mg/Kg	1	6/5/2015 8:28:54 PM	19516
Surr: 4-Bromofluorobenzene	92.5	80-120		%REC	1	6/5/2015 8:28:54 PM	19516

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	Page 27 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 21 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 5:10:00 PM

Lab ID: 1506057-028

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2500	75		mg/Kg	50	6/8/2015 11:03:48 PM	19593
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2015 1:47:10 AM	19536
Surr: DNOP	88.1	57.9-140		%REC	1	6/5/2015 1:47:10 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/5/2015 8:57:37 PM	19516
Surr: BFB	88.2	75.4-113		%REC	1	6/5/2015 8:57:37 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/5/2015 8:57:37 PM	19516
Toluene	ND	0.050		mg/Kg	1	6/5/2015 8:57:37 PM	19516
Ethylbenzene	ND	0.050		mg/Kg	1	6/5/2015 8:57:37 PM	19516
Xylenes, Total	ND	0.099		mg/Kg	1	6/5/2015 8:57:37 PM	19516
Surr: 4-Bromofluorobenzene	93.3	80-120		%REC	1	6/5/2015 8:57:37 PM	19516

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 21 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 5:10:00 PM

Lab ID: 1506057-029

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1500	75		mg/Kg	50	6/9/2015 4:47:39 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/5/2015 2:08:30 AM	19536
Surr: DNOP	87.2	57.9-140		%REC	1	6/5/2015 2:08:30 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/4/2015 7:21:49 PM	19516
Surr: BFB	85.2	75.4-113		%REC	1	6/4/2015 7:21:49 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	6/4/2015 7:21:49 PM	19516
Toluene	ND	0.046		mg/Kg	1	6/4/2015 7:21:49 PM	19516
Ethylbenzene	ND	0.046		mg/Kg	1	6/4/2015 7:21:49 PM	19516
Xylenes, Total	ND	0.093		mg/Kg	1	6/4/2015 7:21:49 PM	19516
Surr: 4-Bromofluorobenzene	99.9	80-120		%REC	1	6/4/2015 7:21:49 PM	19516

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 21 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 5:10:00 PM

Lab ID: 1506057-030

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1900	75		mg/Kg	50	6/9/2015 5:00:03 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/5/2015 2:29:55 AM	19536
Surr: DNOP	91.5	57.9-140		%REC	1	6/5/2015 2:29:55 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/4/2015 7:46:56 PM	19516
Surr: BFB	84.0	75.4-113		%REC	1	6/4/2015 7:46:56 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/4/2015 7:46:56 PM	19516
Toluene	ND	0.047		mg/Kg	1	6/4/2015 7:46:56 PM	19516
Ethylbenzene	ND	0.047		mg/Kg	1	6/4/2015 7:46:56 PM	19516
Xylenes, Total	ND	0.095		mg/Kg	1	6/4/2015 7:46:56 PM	19516
Surr: 4-Bromofluorobenzene	97.4	80-120		%REC	1	6/4/2015 7:46:56 PM	19516

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	Page 30 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 21 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/27/2015 5:10:00 PM

Lab ID: 1506057-031

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1700	75		mg/Kg	50	6/9/2015 5:37:17 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2015 3:12:23 AM	19536
Surr: DNOP	90.8	57.9-140		%REC	1	6/5/2015 3:12:23 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/4/2015 8:12:02 PM	19516
Surr: BFB	83.1	75.4-113		%REC	1	6/4/2015 8:12:02 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/4/2015 8:12:02 PM	19516
Toluene	ND	0.049		mg/Kg	1	6/4/2015 8:12:02 PM	19516
Ethylbenzene	ND	0.049		mg/Kg	1	6/4/2015 8:12:02 PM	19516
Xylenes, Total	ND	0.099		mg/Kg	1	6/4/2015 8:12:02 PM	19516
Surr: 4-Bromofluorobenzene	94.4	80-120		%REC	1	6/4/2015 8:12:02 PM	19516

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 22 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 9:40:00 AM

Lab ID: 1506057-032

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	9.5	7.5		mg/Kg	5	6/8/2015 5:03:55 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/5/2015 3:33:40 AM	19536
Surr: DNOP	95.3	57.9-140		%REC	1	6/5/2015 3:33:40 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/4/2015 8:37:26 PM	19516
Surr: BFB	85.7	75.4-113		%REC	1	6/4/2015 8:37:26 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/4/2015 8:37:26 PM	19516
Toluene	ND	0.049		mg/Kg	1	6/4/2015 8:37:26 PM	19516
Ethylbenzene	ND	0.049		mg/Kg	1	6/4/2015 8:37:26 PM	19516
Xylenes, Total	ND	0.099		mg/Kg	1	6/4/2015 8:37:26 PM	19516
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/4/2015 8:37:26 PM	19516

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	Page 32 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 22 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 9:40:00 AM

Lab ID: 1506057-033

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/8/2015 5:16:19 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/5/2015 3:54:52 AM	19536
Surr: DNOP	87.7	57.9-140		%REC	1	6/5/2015 3:54:52 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/4/2015 9:02:28 PM	19516
Surr: BFB	82.2	75.4-113		%REC	1	6/4/2015 9:02:28 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/4/2015 9:02:28 PM	19516
Toluene	ND	0.047		mg/Kg	1	6/4/2015 9:02:28 PM	19516
Ethylbenzene	ND	0.047		mg/Kg	1	6/4/2015 9:02:28 PM	19516
Xylenes, Total	ND	0.095		mg/Kg	1	6/4/2015 9:02:28 PM	19516
Surr: 4-Bromofluorobenzene	92.9	80-120		%REC	1	6/4/2015 9:02:28 PM	19516

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	Page 33 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 22 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 9:40:00 AM

Lab ID: 1506057-034

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/8/2015 5:28:43 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/5/2015 4:16:00 AM	19536
Surr: DNOP	93.3	57.9-140		%REC	1	6/5/2015 4:16:00 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/4/2015 9:27:48 PM	19516
Surr: BFB	83.2	75.4-113		%REC	1	6/4/2015 9:27:48 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/4/2015 9:27:48 PM	19516
Toluene	ND	0.050		mg/Kg	1	6/4/2015 9:27:48 PM	19516
Ethylbenzene	ND	0.050		mg/Kg	1	6/4/2015 9:27:48 PM	19516
Xylenes, Total	ND	0.10		mg/Kg	1	6/4/2015 9:27:48 PM	19516
Surr: 4-Bromofluorobenzene	95.6	80-120		%REC	1	6/4/2015 9:27:48 PM	19516

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	Page 34 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 22 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 9:40:00 AM

Lab ID: 1506057-035

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/8/2015 5:41:08 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2015 4:37:19 AM	19536
Surr: DNOP	88.8	57.9-140		%REC	1	6/5/2015 4:37:19 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/4/2015 9:52:49 PM	19516
Surr: BFB	81.5	75.4-113		%REC	1	6/4/2015 9:52:49 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/4/2015 9:52:49 PM	19516
Toluene	ND	0.049		mg/Kg	1	6/4/2015 9:52:49 PM	19516
Ethylbenzene	ND	0.049		mg/Kg	1	6/4/2015 9:52:49 PM	19516
Xylenes, Total	ND	0.098		mg/Kg	1	6/4/2015 9:52:49 PM	19516
Surr: 4-Bromofluorobenzene	92.8	80-120		%REC	1	6/4/2015 9:52:49 PM	19516

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	Page 35 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506057**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: soil 22 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 9:40:00 AM

Lab ID: 1506057-036

Matrix: SOIL

Received Date: 6/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	7.5		mg/Kg	5	6/8/2015 5:53:32 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/5/2015 4:58:36 AM	19536
Surr: DNOP	91.4	57.9-140		%REC	1	6/5/2015 4:58:36 AM	19536
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/5/2015 9:26:19 PM	19516
Surr: BFB	89.4	75.4-113		%REC	1	6/5/2015 9:26:19 PM	19516
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/5/2015 9:26:19 PM	19516
Toluene	ND	0.049		mg/Kg	1	6/5/2015 9:26:19 PM	19516
Ethylbenzene	ND	0.049		mg/Kg	1	6/5/2015 9:26:19 PM	19516
Xylenes, Total	ND	0.097		mg/Kg	1	6/5/2015 9:26:19 PM	19516
Surr: 4-Bromofluorobenzene	95.9	80-120		%REC	1	6/5/2015 9:26:19 PM	19516

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	Page 36 of 44
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506057

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19567		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	19567		RunNo:	26642				
Prep Date:	6/4/2015		Analysis Date:	6/4/2015		SeqNo:	793483		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-19567		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19567		RunNo: 26642					
Prep Date:	6/4/2015		Analysis Date: 6/4/2015		SeqNo: 793484		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	101	90	110			

Sample ID	MB-19593		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	19593		RunNo:	26668				
Prep Date:	6/5/2015		Analysis Date:	6/5/2015		SeqNo:	794487		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-19593		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19593		RunNo: 26668					
Prep Date:	6/5/2015		Analysis Date: 6/5/2015		SeqNo: 794488		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

Sample ID	1506057-009AMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	soil 17 .5-1.5' RBD		Batch ID: 19593		RunNo: 26668					
Prep Date:	6/5/2015		Analysis Date: 6/5/2015		SeqNo: 794490		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25	7.5	15.00	10.63	95.1	64.2	131			

Sample ID	1506057-009AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	soil 17 .5-1.5' RBD		Batch ID: 19593		RunNo: 26668					
Prep Date:	6/5/2015		Analysis Date: 6/5/2015		SeqNo: 794491		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25	7.5	15.00	10.63	92.9	64.2	131	1.36	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506057

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19614		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	19614		RunNo:	26693				
Prep Date:	6/8/2015		Analysis Date:	6/8/2015		SeqNo:	795349		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-19614		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19614		RunNo: 26693					
Prep Date:	6/8/2015		Analysis Date: 6/8/2015		SeqNo: 795350		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	98.5	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506057

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19508		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 19508		RunNo: 26611					
Prep Date:	6/2/2015		Analysis Date: 6/4/2015		SeqNo: 792363		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.4		10.00		94.2	57.9	140			

Sample ID	LCS-19508		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19508		RunNo: 26611					
Prep Date:	6/2/2015		Analysis Date: 6/4/2015		SeqNo: 792753		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	50.00	0	115	67.8	130			
Surr: DNOP	5.5		5.000		110	57.9	140			

Sample ID	1506057-001AMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	soil 4 0-.5' RBD		Batch ID: 19508		RunNo: 26611					
Prep Date:	6/2/2015		Analysis Date: 6/4/2015		SeqNo: 792755		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.9	49.31	0	97.6	42.3	146			
Surr: DNOP	4.9		4.931		98.9	57.9	140			

Sample ID	1506057-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	soil 4 0-.5' RBD		Batch ID:	19508		RunNo:	26611				
Prep Date:	6/2/2015		Analysis Date:	6/4/2015		SeqNo:	792756		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	43	9.9	49.46	0	87.5	42.3	146	10.6	28.9		
Surr: DNOP	4.5		4.946		90.0	57.9	140	0	0		

Sample ID	MB-19536		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	19536		RunNo:	26611				
Prep Date:	6/3/2015		Analysis Date:	6/4/2015		SeqNo:	793140		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	11		10.00		107	57.9	140				

Sample ID	LCS-19536		SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	19536		RunNo:	26611				
Prep Date:	6/3/2015		Analysis Date:	6/4/2015		SeqNo:	793141		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| 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 |
| O RSD is greater than RSDlimit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506057

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	LCS-19536		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19536		RunNo: 26611					
Prep Date:	6/3/2015		Analysis Date: 6/4/2015		SeqNo: 793141		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	67.8	130			
Surr: DNOP	5.1		5.000		101	57.9	140			

Sample ID	1506057-021AMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	soil 19 3.5-4.0' RBD		Batch ID: 19536		RunNo: 26611					
Prep Date:	6/3/2015		Analysis Date: 6/4/2015		SeqNo: 793143		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.5	47.71	0	88.8	42.3	146			
Surr: DNOP	4.0		4.771		84.6	57.9	140			

Sample ID	1506057-021AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	soil 19 3.5-4.0' RBD		Batch ID:	19536		RunNo:	26611				
Prep Date:	6/3/2015		Analysis Date:	6/4/2015		SeqNo:	793144		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	42	9.6	47.76	0	88.5	42.3	146	0.329	28.9		
Surr: DNOP	4.1		4.776		85.4	57.9	140	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506057

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19498		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19498		RunNo: 26602					
Prep Date:	6/2/2015		Analysis Date: 6/3/2015		SeqNo: 791834		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	870		1000		87.4	75.4	113			

Sample ID	LCS-19498		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19498		RunNo: 26602					
Prep Date:	6/2/2015		Analysis Date: 6/3/2015		SeqNo: 791835		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.6	64	130			
Surr: BFB	930		1000		93.3	75.4	113			

Sample ID	1506057-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	soil 4 0-.5' RBD		Batch ID: 19498		RunNo: 26602					
Prep Date:	6/2/2015		Analysis Date: 6/3/2015		SeqNo: 791837		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.78	0	99.0	47.9	144			
Surr: BFB	930		991.1		94.3	75.4	113			

Sample ID	1506057-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	soil 4 0-.5' RBD		Batch ID:	19498		RunNo:	26602				
Prep Date:	6/2/2015		Analysis Date:	6/3/2015		SeqNo:	791838		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	26	5.0	24.85	0	103	47.9	144	4.10	29.9		
Surr: BFB	970		994.0		97.2	75.4	113	0	0		

Sample ID	MB-19516		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	19516		RunNo:	26620				
Prep Date:	6/2/2015		Analysis Date:	6/4/2015		SeqNo:	793052		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	860		1000		86.5	75.4	113				

Sample ID	LCS-19516		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	19516		RunNo:	26620				
Prep Date:	6/2/2015		Analysis Date:	6/4/2015		SeqNo:	793054		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506057

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	LCS-19516		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19516		RunNo: 26620					
Prep Date:	6/2/2015		Analysis Date: 6/4/2015		SeqNo: 793054		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	64	130			
Surr: BFB	950		1000		95.0	75.4	113			

Sample ID	MB-19545		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794163		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		84.9	75.4	113			

Sample ID	LCS-19545		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794164		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		94.7	75.4	113			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506057

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19498		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	19498		RunNo:	26602			
Prep Date:	6/2/2015		Analysis Date:	6/3/2015		SeqNo:	791862		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	120			

Sample ID	LCS-19498		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	19498		RunNo:	26602			
Prep Date:	6/2/2015		Analysis Date:	6/3/2015		SeqNo:	791863		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	76.6	128			
Toluene	1.0	0.050	1.000	0	99.8	75	124			
Ethylbenzene	1.0	0.050	1.000	0	101	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	101	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	1506057-002AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	soil 4 .5-1.5' RBD		Batch ID:	19498		RunNo:	26602			
Prep Date:	6/2/2015		Analysis Date:	6/3/2015		SeqNo:	791866		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9804	0	109	69.2	126			
Toluene	1.1	0.049	0.9804	0	110	65.6	128			
Ethylbenzene	1.1	0.049	0.9804	0	113	65.5	138			
Xylenes, Total	3.3	0.098	2.941	0	112	63	139			
Surr: 4-Bromofluorobenzene	0.96		0.9804		98.4	80	120			

Sample ID	1506057-002AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	soil 4 .5-1.5' RBD		Batch ID:	19498		RunNo:	26602			
Prep Date:	6/2/2015		Analysis Date:	6/3/2015		SeqNo:	791867		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9823	0	109	69.2	126	0.119	18.5	
Toluene	1.1	0.049	0.9823	0	108	65.6	128	1.53	20.6	
Ethylbenzene	1.1	0.049	0.9823	0	113	65.5	138	0.168	20.1	
Xylenes, Total	3.3	0.098	2.947	0	112	63	139	0.287	21.1	
Surr: 4-Bromofluorobenzene	1.0		0.9823		103	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506057

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19516	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	19516		RunNo:	26620				
Prep Date:	6/2/2015	Analysis Date:	6/4/2015		SeqNo:	793100	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		90.5	80	120			

Sample ID	LCS-19516		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19516		RunNo: 26620					
Prep Date:	6/2/2015		Analysis Date: 6/4/2015		SeqNo: 793101		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	76.6	128			
Toluene	1.0	0.050	1.000	0	104	75	124			
Ethylbenzene	1.1	0.050	1.000	0	105	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	104	78.8	124			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.8	80	120			

Sample ID	MB-19545		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794190		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-19545		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794191		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit



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: GL Environmental Inc

Work Order Number: 1506057

RcptNo: 1

Received by/date: LM 06/02/15

Logged By: Celina Sessa 6/2/2015 8:30:00 AM

Completed By: Celina Sessa 6/2/2015 8:54:29 AM

Reviewed By: [Signature] 06/02/15

[Signature]

[Signature]

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. 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: _____

Special Handling (if applicable)

16. 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: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good	Yes			



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

June 12, 2015

Matt Lane
GL Environmental Inc
PO Box 1746
Las Vegas, NM 87701
TEL: (505) 454-0830
FAX

RE: Red Bluff Draw

OrderNo.: 1506117

Dear Matt Lane:

Hall Environmental Analysis Laboratory received 30 sample(s) on 6/3/2015 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 #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506117**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 23 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 10:00:00 AM

Lab ID: 1506117-001

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	460	15		mg/Kg	10	6/9/2015 5:49:42 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/5/2015 10:03:08 AM	19550
Surr: DNOP	90.0	57.9-140		%REC	1	6/5/2015 10:03:08 AM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/5/2015 10:54:06 AM	19545
Surr: BFB	87.3	75.4-113		%REC	1	6/5/2015 10:54:06 AM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	6/5/2015 10:54:06 AM	19545
Toluene	ND	0.048		mg/Kg	1	6/5/2015 10:54:06 AM	19545
Ethylbenzene	ND	0.048		mg/Kg	1	6/5/2015 10:54:06 AM	19545
Xylenes, Total	ND	0.096		mg/Kg	1	6/5/2015 10:54:06 AM	19545
Surr: 4-Bromofluorobenzene	92.2	80-120		%REC	1	6/5/2015 10:54:06 AM	19545

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 23 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 10:00:00 AM

Lab ID: 1506117-002

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	60	7.5		mg/Kg	5	6/8/2015 6:18:22 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/5/2015 11:07:08 AM	19550
Surr: DNOP	87.6	57.9-140		%REC	1	6/5/2015 11:07:08 AM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/5/2015 12:20:23 PM	19545
Surr: BFB	87.5	75.4-113		%REC	1	6/5/2015 12:20:23 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/5/2015 12:20:23 PM	19545
Toluene	ND	0.047		mg/Kg	1	6/5/2015 12:20:23 PM	19545
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2015 12:20:23 PM	19545
Xylenes, Total	ND	0.095		mg/Kg	1	6/5/2015 12:20:23 PM	19545
Surr: 4-Bromofluorobenzene	93.6	80-120		%REC	1	6/5/2015 12:20:23 PM	19545

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	Page 2 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 23 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 10:00:00 AM

Lab ID: 1506117-003

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	46	7.5		mg/Kg	5	6/8/2015 6:30:46 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2015 11:28:29 AM	19550
Surr: DNOP	97.9	57.9-140		%REC	1	6/5/2015 11:28:29 AM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/5/2015 9:54:59 PM	19545
Surr: BFB	90.1	75.4-113		%REC	1	6/5/2015 9:54:59 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/5/2015 9:54:59 PM	19545
Toluene	ND	0.047		mg/Kg	1	6/5/2015 9:54:59 PM	19545
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2015 9:54:59 PM	19545
Xylenes, Total	ND	0.094		mg/Kg	1	6/5/2015 9:54:59 PM	19545
Surr: 4-Bromofluorobenzene	96.3	80-120		%REC	1	6/5/2015 9:54:59 PM	19545

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	Page 3 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506117**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 23 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 10:00:00 AM

Lab ID: 1506117-004

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	93	7.5		mg/Kg	5	6/8/2015 6:43:11 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/5/2015 11:49:56 AM	19550
Surr: DNOP	90.5	57.9-140		%REC	1	6/5/2015 11:49:56 AM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/5/2015 10:23:40 PM	19545
Surr: BFB	89.4	75.4-113		%REC	1	6/5/2015 10:23:40 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	6/5/2015 10:23:40 PM	19545
Toluene	ND	0.048		mg/Kg	1	6/5/2015 10:23:40 PM	19545
Ethylbenzene	ND	0.048		mg/Kg	1	6/5/2015 10:23:40 PM	19545
Xylenes, Total	ND	0.097		mg/Kg	1	6/5/2015 10:23:40 PM	19545
Surr: 4-Bromofluorobenzene	95.0	80-120		%REC	1	6/5/2015 10:23:40 PM	19545

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	Page 4 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 23 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 10:00:00 AM

Lab ID: 1506117-005

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	340	15		mg/Kg	10	6/9/2015 6:02:07 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/5/2015 12:11:14 PM	19550
Surr: DNOP	94.0	57.9-140		%REC	1	6/5/2015 12:11:14 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/5/2015 10:52:21 PM	19545
Surr: BFB	88.5	75.4-113		%REC	1	6/5/2015 10:52:21 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/5/2015 10:52:21 PM	19545
Toluene	ND	0.050		mg/Kg	1	6/5/2015 10:52:21 PM	19545
Ethylbenzene	ND	0.050		mg/Kg	1	6/5/2015 10:52:21 PM	19545
Xylenes, Total	ND	0.099		mg/Kg	1	6/5/2015 10:52:21 PM	19545
Surr: 4-Bromofluorobenzene	93.6	80-120		%REC	1	6/5/2015 10:52:21 PM	19545

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	Page 5 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 24 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:20:00 AM

Lab ID: 1506117-006

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	85	7.5		mg/Kg	5	6/8/2015 7:32:50 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2015 12:53:50 PM	19550
Surr: DNOP	90.3	57.9-140		%REC	1	6/5/2015 12:53:50 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/5/2015 11:20:59 PM	19545
Surr: BFB	88.6	75.4-113		%REC	1	6/5/2015 11:20:59 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	6/5/2015 11:20:59 PM	19545
Toluene	ND	0.046		mg/Kg	1	6/5/2015 11:20:59 PM	19545
Ethylbenzene	ND	0.046		mg/Kg	1	6/5/2015 11:20:59 PM	19545
Xylenes, Total	ND	0.092		mg/Kg	1	6/5/2015 11:20:59 PM	19545
Surr: 4-Bromofluorobenzene	94.3	80-120		%REC	1	6/5/2015 11:20:59 PM	19545

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	Page 6 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 24 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:20:00 AM

Lab ID: 1506117-007

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	58	7.5		mg/Kg	5	6/8/2015 7:45:15 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/5/2015 1:15:09 PM	19550
Surr: DNOP	87.1	57.9-140		%REC	1	6/5/2015 1:15:09 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/5/2015 11:49:35 PM	19545
Surr: BFB	89.3	75.4-113		%REC	1	6/5/2015 11:49:35 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/5/2015 11:49:35 PM	19545
Toluene	ND	0.050		mg/Kg	1	6/5/2015 11:49:35 PM	19545
Ethylbenzene	ND	0.050		mg/Kg	1	6/5/2015 11:49:35 PM	19545
Xylenes, Total	ND	0.099		mg/Kg	1	6/5/2015 11:49:35 PM	19545
Surr: 4-Bromofluorobenzene	94.7	80-120		%REC	1	6/5/2015 11:49:35 PM	19545

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	Page 7 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506117**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 24 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:20:00 AM

Lab ID: 1506117-008

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	64	7.5		mg/Kg	5	6/8/2015 7:57:40 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/5/2015 1:36:20 PM	19550
Surr: DNOP	86.5	57.9-140		%REC	1	6/5/2015 1:36:20 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/6/2015 12:18:18 AM	19545
Surr: BFB	89.0	75.4-113		%REC	1	6/6/2015 12:18:18 AM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/6/2015 12:18:18 AM	19545
Toluene	ND	0.047		mg/Kg	1	6/6/2015 12:18:18 AM	19545
Ethylbenzene	ND	0.047		mg/Kg	1	6/6/2015 12:18:18 AM	19545
Xylenes, Total	ND	0.095		mg/Kg	1	6/6/2015 12:18:18 AM	19545
Surr: 4-Bromofluorobenzene	94.6	80-120		%REC	1	6/6/2015 12:18:18 AM	19545

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	Page 8 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 24 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:20:00 AM

Lab ID: 1506117-009

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	85	7.5		mg/Kg	5	6/8/2015 8:10:05 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/5/2015 1:57:42 PM	19550
Surr: DNOP	87.8	57.9-140		%REC	1	6/5/2015 1:57:42 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/6/2015 12:47:01 AM	19545
Surr: BFB	89.9	75.4-113		%REC	1	6/6/2015 12:47:01 AM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	6/6/2015 12:47:01 AM	19545
Toluene	ND	0.048		mg/Kg	1	6/6/2015 12:47:01 AM	19545
Ethylbenzene	ND	0.048		mg/Kg	1	6/6/2015 12:47:01 AM	19545
Xylenes, Total	ND	0.096		mg/Kg	1	6/6/2015 12:47:01 AM	19545
Surr: 4-Bromofluorobenzene	96.1	80-120		%REC	1	6/6/2015 12:47:01 AM	19545

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	Page 9 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506117**Date Reported: **6/12/2015****CLIENT:** GL Environmental Inc**Client Sample ID:** Soil 24 3.5-4.0' RBD**Project:** Red Bluff Draw**Collection Date:** 5/28/2015 8:20:00 AM**Lab ID:** 1506117-010**Matrix:** SOIL**Received Date:** 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	88	7.5		mg/Kg	5	6/8/2015 8:22:30 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2015 2:18:58 PM	19550
Surr: DNOP	86.5	57.9-140		%REC	1	6/5/2015 2:18:58 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/5/2015 2:45:03 PM	19545
Surr: BFB	87.8	75.4-113		%REC	1	6/5/2015 2:45:03 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/5/2015 2:45:03 PM	19545
Toluene	ND	0.047		mg/Kg	1	6/5/2015 2:45:03 PM	19545
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2015 2:45:03 PM	19545
Xylenes, Total	ND	0.094		mg/Kg	1	6/5/2015 2:45:03 PM	19545
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	6/5/2015 2:45:03 PM	19545

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506117**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 25 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:40:00 AM

Lab ID: 1506117-011

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	220	7.5		mg/Kg	5	6/8/2015 8:34:54 PM	19614
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/8/2015 10:47:40 AM	19550
Surr: DNOP	95.9	57.9-140		%REC	1	6/8/2015 10:47:40 AM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/5/2015 3:10:21 PM	19545
Surr: BFB	84.5	75.4-113		%REC	1	6/5/2015 3:10:21 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	6/5/2015 3:10:21 PM	19545
Toluene	ND	0.048		mg/Kg	1	6/5/2015 3:10:21 PM	19545
Ethylbenzene	ND	0.048		mg/Kg	1	6/5/2015 3:10:21 PM	19545
Xylenes, Total	ND	0.096		mg/Kg	1	6/5/2015 3:10:21 PM	19545
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	6/5/2015 3:10:21 PM	19545

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 25 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:40:00 AM

Lab ID: 1506117-012

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	81	7.5		mg/Kg	5	6/9/2015 10:35:21 AM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/8/2015 11:08:50 AM	19550
Surr: DNOP	92.1	57.9-140		%REC	1	6/8/2015 11:08:50 AM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/5/2015 3:35:24 PM	19545
Surr: BFB	80.6	75.4-113		%REC	1	6/5/2015 3:35:24 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/5/2015 3:35:24 PM	19545
Toluene	ND	0.047		mg/Kg	1	6/5/2015 3:35:24 PM	19545
Ethylbenzene	ND	0.047		mg/Kg	1	6/5/2015 3:35:24 PM	19545
Xylenes, Total	ND	0.094		mg/Kg	1	6/5/2015 3:35:24 PM	19545
Surr: 4-Bromofluorobenzene	92.7	80-120		%REC	1	6/5/2015 3:35:24 PM	19545

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 25 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:40:00 AM

Lab ID: 1506117-013

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	98	7.5		mg/Kg	5	6/9/2015 11:12:35 AM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/8/2015 11:30:11 AM	19550
Surr: DNOP	99.1	57.9-140		%REC	1	6/8/2015 11:30:11 AM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/5/2015 4:00:26 PM	19545
Surr: BFB	81.0	75.4-113		%REC	1	6/5/2015 4:00:26 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/5/2015 4:00:26 PM	19545
Toluene	ND	0.049		mg/Kg	1	6/5/2015 4:00:26 PM	19545
Ethylbenzene	ND	0.049		mg/Kg	1	6/5/2015 4:00:26 PM	19545
Xylenes, Total	ND	0.098		mg/Kg	1	6/5/2015 4:00:26 PM	19545
Surr: 4-Bromofluorobenzene	94.7	80-120		%REC	1	6/5/2015 4:00:26 PM	19545

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 25 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:40:00 AM

Lab ID: 1506117-014

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	70	7.5		mg/Kg	5	6/9/2015 11:24:59 AM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/8/2015 11:51:33 AM	19550
Surr: DNOP	95.3	57.9-140		%REC	1	6/8/2015 11:51:33 AM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/8/2015 4:43:40 PM	19545
Surr: BFB	87.4	75.4-113		%REC	1	6/8/2015 4:43:40 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	6/7/2015 3:58:17 PM	19545
Toluene	ND	0.046		mg/Kg	1	6/7/2015 3:58:17 PM	19545
Ethylbenzene	ND	0.046		mg/Kg	1	6/7/2015 3:58:17 PM	19545
Xylenes, Total	ND	0.092		mg/Kg	1	6/7/2015 3:58:17 PM	19545
Surr: 4-Bromofluorobenzene	88.4	80-120		%REC	1	6/7/2015 3:58:17 PM	19545

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 25 3.5-4.0' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:40:00 AM

Lab ID: 1506117-015

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	70	7.5		mg/Kg	5	6/9/2015 11:37:23 AM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/8/2015 12:13:09 PM	19550
Surr: DNOP	95.7	57.9-140		%REC	1	6/8/2015 12:13:09 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/8/2015 5:12:25 PM	19545
Surr: BFB	88.1	75.4-113		%REC	1	6/8/2015 5:12:25 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	6/7/2015 4:27:04 PM	19545
Toluene	ND	0.047		mg/Kg	1	6/7/2015 4:27:04 PM	19545
Ethylbenzene	ND	0.047		mg/Kg	1	6/7/2015 4:27:04 PM	19545
Xylenes, Total	ND	0.094		mg/Kg	1	6/7/2015 4:27:04 PM	19545
Surr: 4-Bromofluorobenzene	87.8	80-120		%REC	1	6/7/2015 4:27:04 PM	19545

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 26 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:55:00 AM

Lab ID: 1506117-016

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	180	7.5		mg/Kg	5	6/9/2015 12:39:25 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/8/2015 12:55:55 PM	19550
Surr: DNOP	103	57.9-140		%REC	1	6/8/2015 12:55:55 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/8/2015 5:41:09 PM	19545
Surr: BFB	88.0	75.4-113		%REC	1	6/8/2015 5:41:09 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	6/7/2015 4:55:48 PM	19545
Toluene	ND	0.046		mg/Kg	1	6/7/2015 4:55:48 PM	19545
Ethylbenzene	ND	0.046		mg/Kg	1	6/7/2015 4:55:48 PM	19545
Xylenes, Total	ND	0.093		mg/Kg	1	6/7/2015 4:55:48 PM	19545
Surr: 4-Bromofluorobenzene	85.2	80-120		%REC	1	6/7/2015 4:55:48 PM	19545

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	Page 16 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 26 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:55:00 AM

Lab ID: 1506117-017

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	170	7.5		mg/Kg	5	6/9/2015 12:51:50 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/8/2015 1:17:19 PM	19550
Surr: DNOP	93.4	57.9-140		%REC	1	6/8/2015 1:17:19 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/8/2015 6:09:56 PM	19545
Surr: BFB	88.3	75.4-113		%REC	1	6/8/2015 6:09:56 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/7/2015 5:24:33 PM	19545
Toluene	ND	0.050		mg/Kg	1	6/7/2015 5:24:33 PM	19545
Ethylbenzene	ND	0.050		mg/Kg	1	6/7/2015 5:24:33 PM	19545
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2015 5:24:33 PM	19545
Surr: 4-Bromofluorobenzene	87.3	80-120		%REC	1	6/7/2015 5:24:33 PM	19545

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	Page 17 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 26 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:55:00 AM

Lab ID: 1506117-018

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	110	7.5		mg/Kg	5	6/9/2015 1:04:15 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/8/2015 1:38:42 PM	19550
Surr: DNOP	98.6	57.9-140		%REC	1	6/8/2015 1:38:42 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2015 6:38:39 PM	19545
Surr: BFB	88.4	75.4-113		%REC	1	6/8/2015 6:38:39 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/7/2015 8:45:17 PM	19545
Toluene	ND	0.049		mg/Kg	1	6/7/2015 8:45:17 PM	19545
Ethylbenzene	ND	0.049		mg/Kg	1	6/7/2015 8:45:17 PM	19545
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2015 8:45:17 PM	19545
Surr: 4-Bromofluorobenzene	88.3	80-120		%REC	1	6/7/2015 8:45:17 PM	19545

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	Page 18 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 26 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 8:55:00 AM

Lab ID: 1506117-019

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	66	7.5		mg/Kg	5	6/9/2015 1:16:40 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/8/2015 1:59:59 PM	19550
Surr: DNOP	101	57.9-140		%REC	1	6/8/2015 1:59:59 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2015 7:07:25 PM	19545
Surr: BFB	88.0	75.4-113		%REC	1	6/8/2015 7:07:25 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/7/2015 9:14:00 PM	19545
Toluene	ND	0.049		mg/Kg	1	6/7/2015 9:14:00 PM	19545
Ethylbenzene	ND	0.049		mg/Kg	1	6/7/2015 9:14:00 PM	19545
Xylenes, Total	ND	0.098		mg/Kg	1	6/7/2015 9:14:00 PM	19545
Surr: 4-Bromofluorobenzene	90.4	80-120		%REC	1	6/7/2015 9:14:00 PM	19545

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	Page 19 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 27 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 11:00:00 AM

Lab ID: 1506117-020

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	310	15		mg/Kg	10	6/10/2015 4:03:22 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/8/2015 2:21:18 PM	19550
Surr: DNOP	99.0	57.9-140		%REC	1	6/8/2015 2:21:18 PM	19550
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/8/2015 7:36:07 PM	19545
Surr: BFB	85.9	75.4-113		%REC	1	6/8/2015 7:36:07 PM	19545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/7/2015 9:42:42 PM	19545
Toluene	ND	0.050		mg/Kg	1	6/7/2015 9:42:42 PM	19545
Ethylbenzene	ND	0.050		mg/Kg	1	6/7/2015 9:42:42 PM	19545
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2015 9:42:42 PM	19545
Surr: 4-Bromofluorobenzene	89.6	80-120		%REC	1	6/7/2015 9:42:42 PM	19545

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 27 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 11:00:00 AM

Lab ID: 1506117-021

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	170	7.5		mg/Kg	5	6/9/2015 1:41:29 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/8/2015 3:04:07 PM	19551
Surr: DNOP	98.7	57.9-140		%REC	1	6/8/2015 3:04:07 PM	19551
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2015 8:04:45 PM	19577
Surr: BFB	86.5	75.4-113		%REC	1	6/8/2015 8:04:45 PM	19577
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/7/2015 10:11:22 PM	19577
Toluene	ND	0.049		mg/Kg	1	6/7/2015 10:11:22 PM	19577
Ethylbenzene	ND	0.049		mg/Kg	1	6/7/2015 10:11:22 PM	19577
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2015 10:11:22 PM	19577
Surr: 4-Bromofluorobenzene	90.0	80-120		%REC	1	6/7/2015 10:11:22 PM	19577

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	Page 21 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 27 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 11:00:00 AM

Lab ID: 1506117-022

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	140	7.5		mg/Kg	5	6/9/2015 1:53:53 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/8/2015 4:08:09 PM	19551
Surr: DNOP	85.8	57.9-140		%REC	1	6/8/2015 4:08:09 PM	19551
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/8/2015 8:33:33 PM	19577
Surr: BFB	86.1	75.4-113		%REC	1	6/8/2015 8:33:33 PM	19577
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/7/2015 10:40:01 PM	19577
Toluene	ND	0.050		mg/Kg	1	6/7/2015 10:40:01 PM	19577
Ethylbenzene	ND	0.050		mg/Kg	1	6/7/2015 10:40:01 PM	19577
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2015 10:40:01 PM	19577
Surr: 4-Bromofluorobenzene	91.2	80-120		%REC	1	6/7/2015 10:40:01 PM	19577

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	Page 22 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1506117**

Date Reported: **6/12/2015**

CLIENT: GL Environmental Inc

Client Sample ID: Soil 27 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 11:00:00 AM

Lab ID: 1506117-023

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	160	7.5		mg/Kg	5	6/9/2015 2:06:18 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/8/2015 4:29:35 PM	19551
Surr: DNOP	92.8	57.9-140		%REC	1	6/8/2015 4:29:35 PM	19551
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/8/2015 9:02:19 PM	19577
Surr: BFB	85.7	75.4-113		%REC	1	6/8/2015 9:02:19 PM	19577
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/7/2015 11:08:41 PM	19577
Toluene	ND	0.050		mg/Kg	1	6/7/2015 11:08:41 PM	19577
Ethylbenzene	ND	0.050		mg/Kg	1	6/7/2015 11:08:41 PM	19577
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2015 11:08:41 PM	19577
Surr: 4-Bromofluorobenzene	91.8	80-120		%REC	1	6/7/2015 11:08:41 PM	19577

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	Page 23 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 28 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 12:00:00 PM

Lab ID: 1506117-024

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	260	7.5		mg/Kg	5	6/9/2015 2:18:43 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/8/2015 4:51:01 PM	19551
Surr: DNOP	88.5	57.9-140		%REC	1	6/8/2015 4:51:01 PM	19551
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/8/2015 9:31:05 PM	19577
Surr: BFB	87.4	75.4-113		%REC	1	6/8/2015 9:31:05 PM	19577
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/7/2015 11:37:17 PM	19577
Toluene	ND	0.050		mg/Kg	1	6/7/2015 11:37:17 PM	19577
Ethylbenzene	ND	0.050		mg/Kg	1	6/7/2015 11:37:17 PM	19577
Xylenes, Total	ND	0.10		mg/Kg	1	6/7/2015 11:37:17 PM	19577
Surr: 4-Bromofluorobenzene	91.7	80-120		%REC	1	6/7/2015 11:37:17 PM	19577

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	Page 24 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 28 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 12:00:00 PM

Lab ID: 1506117-025

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	210	7.5		mg/Kg	5	6/9/2015 2:31:08 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/8/2015 5:12:23 PM	19551
Surr: DNOP	89.4	57.9-140		%REC	1	6/8/2015 5:12:23 PM	19551
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2015 9:59:50 PM	19577
Surr: BFB	86.6	75.4-113		%REC	1	6/8/2015 9:59:50 PM	19577
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/8/2015 12:05:52 AM	19577
Toluene	ND	0.049		mg/Kg	1	6/8/2015 12:05:52 AM	19577
Ethylbenzene	ND	0.049		mg/Kg	1	6/8/2015 12:05:52 AM	19577
Xylenes, Total	ND	0.098		mg/Kg	1	6/8/2015 12:05:52 AM	19577
Surr: 4-Bromofluorobenzene	92.6	80-120		%REC	1	6/8/2015 12:05:52 AM	19577

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	Page 25 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 28 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 12:00:00 PM

Lab ID: 1506117-026

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	120	7.5		mg/Kg	5	6/9/2015 3:08:22 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/8/2015 5:55:09 PM	19551
Surr: DNOP	93.8	57.9-140		%REC	1	6/8/2015 5:55:09 PM	19551
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2015 10:28:33 PM	19577
Surr: BFB	86.8	75.4-113		%REC	1	6/8/2015 10:28:33 PM	19577
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/8/2015 10:28:33 PM	19577
Toluene	ND	0.049		mg/Kg	1	6/8/2015 10:28:33 PM	19577
Ethylbenzene	ND	0.049		mg/Kg	1	6/8/2015 10:28:33 PM	19577
Xylenes, Total	ND	0.098		mg/Kg	1	6/8/2015 10:28:33 PM	19577
Surr: 4-Bromofluorobenzene	89.7	80-120		%REC	1	6/8/2015 10:28:33 PM	19577

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	Page 26 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 29 0-.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 12:35:00 PM

Lab ID: 1506117-027

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	530	15		mg/Kg	10	6/10/2015 4:15:46 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/8/2015 6:16:28 PM	19551
Surr: DNOP	96.4	57.9-140		%REC	1	6/8/2015 6:16:28 PM	19551
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2015 10:57:16 PM	19577
Surr: BFB	87.6	75.4-113		%REC	1	6/8/2015 10:57:16 PM	19577
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/8/2015 10:57:16 PM	19577
Toluene	ND	0.049		mg/Kg	1	6/8/2015 10:57:16 PM	19577
Ethylbenzene	ND	0.049		mg/Kg	1	6/8/2015 10:57:16 PM	19577
Xylenes, Total	ND	0.099		mg/Kg	1	6/8/2015 10:57:16 PM	19577
Surr: 4-Bromofluorobenzene	90.3	80-120		%REC	1	6/8/2015 10:57:16 PM	19577

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 29 .5-1.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 12:35:00 PM

Lab ID: 1506117-028

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	140	7.5		mg/Kg	5	6/9/2015 3:33:11 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/8/2015 6:38:07 PM	19551
Surr: DNOP	94.8	57.9-140		%REC	1	6/8/2015 6:38:07 PM	19551
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2015 11:25:57 PM	19577
Surr: BFB	86.7	75.4-113		%REC	1	6/8/2015 11:25:57 PM	19577
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/8/2015 11:25:57 PM	19577
Toluene	ND	0.049		mg/Kg	1	6/8/2015 11:25:57 PM	19577
Ethylbenzene	ND	0.049		mg/Kg	1	6/8/2015 11:25:57 PM	19577
Xylenes, Total	ND	0.098		mg/Kg	1	6/8/2015 11:25:57 PM	19577
Surr: 4-Bromofluorobenzene	89.2	80-120		%REC	1	6/8/2015 11:25:57 PM	19577

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 29 1.5-2.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 12:35:00 PM

Lab ID: 1506117-029

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	130	7.5		mg/Kg	5	6/9/2015 3:45:35 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/8/2015 6:59:29 PM	19551
Surr: DNOP	95.3	57.9-140		%REC	1	6/8/2015 6:59:29 PM	19551
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/8/2015 11:54:36 PM	19577
Surr: BFB	86.3	75.4-113		%REC	1	6/8/2015 11:54:36 PM	19577
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/8/2015 11:54:36 PM	19577
Toluene	ND	0.050		mg/Kg	1	6/8/2015 11:54:36 PM	19577
Ethylbenzene	ND	0.050		mg/Kg	1	6/8/2015 11:54:36 PM	19577
Xylenes, Total	ND	0.10		mg/Kg	1	6/8/2015 11:54:36 PM	19577
Surr: 4-Bromofluorobenzene	88.5	80-120		%REC	1	6/8/2015 11:54:36 PM	19577

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	Page 29 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506117

Date Reported: 6/12/2015

CLIENT: GL Environmental Inc

Client Sample ID: Soil 29 2.5-3.5' RBD

Project: Red Bluff Draw

Collection Date: 5/28/2015 12:35:00 PM

Lab ID: 1506117-030

Matrix: SOIL

Received Date: 6/3/2015 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	120	7.5		mg/Kg	5	6/9/2015 3:58:00 PM	19634
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/8/2015 7:20:56 PM	19551
Surr: DNOP	91.4	57.9-140		%REC	1	6/8/2015 7:20:56 PM	19551
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/9/2015 12:23:24 AM	19577
Surr: BFB	86.6	75.4-113		%REC	1	6/9/2015 12:23:24 AM	19577
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/9/2015 12:23:24 AM	19577
Toluene	ND	0.050		mg/Kg	1	6/9/2015 12:23:24 AM	19577
Ethylbenzene	ND	0.050		mg/Kg	1	6/9/2015 12:23:24 AM	19577
Xylenes, Total	ND	0.099		mg/Kg	1	6/9/2015 12:23:24 AM	19577
Surr: 4-Bromofluorobenzene	89.4	80-120		%REC	1	6/9/2015 12:23:24 AM	19577

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	Page 30 of 38
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506117

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19614		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 19614		RunNo: 26693					
Prep Date:	6/8/2015		Analysis Date: 6/8/2015		SeqNo: 795349		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-19614		SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	19614		RunNo:	26693				
Prep Date:	6/8/2015		Analysis Date:	6/8/2015		SeqNo:	795350		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	15	1.5	15.00	0	98.5	90	110				

Sample ID	MB-19634		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	19634		RunNo:	26721				
Prep Date:	6/9/2015		Analysis Date:	6/9/2015		SeqNo:	796436		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-19634		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 19634		RunNo: 26721					
Prep Date:	6/9/2015		Analysis Date: 6/9/2015		SeqNo: 796437		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.6	90	110			

Sample ID	1506117-012AMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	Soil 25 .5-1.5' RBD		Batch ID: 19634		RunNo: 26721					
Prep Date:	6/9/2015		Analysis Date: 6/9/2015		SeqNo: 796439		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	91	7.5	15.00	80.73	70.0	64.2	131			

Sample ID	1506117-012AMSD		SampType:	MSD		TestCode:	EPA Method 300.0: Anions				
Client ID:	Soil 25 .5-1.5' RBD		Batch ID:	19634		RunNo:	26721				
Prep Date:	6/9/2015		Analysis Date:	6/9/2015		SeqNo:	796440		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	97	7.5	15.00	80.73	107	64.2	131	5.97	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506117

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	1506117-015AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	Soil 25 3.5-4.0' RBD	Batch ID:	19634	RunNo:	26721					
Prep Date:	6/9/2015	Analysis Date:	6/9/2015	SeqNo:	796444	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	92	7.5	15.00	69.56	152	64.2	131			S

Sample ID	1506117-015AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	Soil 25 3.5-4.0' RBD	Batch ID:	19634	RunNo:	26721					
Prep Date:	6/9/2015	Analysis Date:	6/9/2015	SeqNo:	796445	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	83	7.5	15.00	69.56	88.0	64.2	131	10.9	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506117

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19551		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 19551		RunNo: 26640					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 793476		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.4		10.00		93.8	57.9	140			

Sample ID	LCS-19551		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19551		RunNo: 26640					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 793477		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.8	67.8	130			
Surr: DNOP	4.2		5.000		83.3	57.9	140			

Sample ID	MB-19550		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 19550		RunNo: 26641					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 793479		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.1		10.00		91.1	57.9	140			

Sample ID	1506117-001AMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	Soil 23 0-.5' RBD		Batch ID: 19550		RunNo: 26640					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 793585		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.6	48.03	0	85.9	42.3	146			
Surr: DNOP	4.3		4.803		90.5	57.9	140			

Sample ID	1506117-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	Soil 23 0-.5' RBD		Batch ID: 19550		RunNo: 26640					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 793749		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.6	47.98	0	83.4	42.3	146	3.05	28.9	
Surr: DNOP	4.2		4.798		88.0	57.9	140	0	0	

Sample ID	LCS-19550		SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	19550		RunNo:	26689				
Prep Date:	6/3/2015		Analysis Date:	6/8/2015		SeqNo:	795160		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506117

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	LCS-19550		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19550		RunNo: 26689					
Prep Date:	6/3/2015		Analysis Date: 6/8/2015		SeqNo: 795160		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	50.00	0	116	67.8	130			
Surr: DNOP	7.3		5.000		145	57.9	140			S

Sample ID	1506117-021AMS		SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	Soil 27 .5-1.5' RBD		Batch ID:	19551		RunNo:	26673				
Prep Date:	6/3/2015		Analysis Date:	6/8/2015		SeqNo:	795193		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	47	10	50.05	0	93.5	42.3	146				
Surr: DNOP	4.5		5.005		90.1	57.9	140				

Sample ID	1506117-021AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	Soil 27 .5-1.5' RBD		Batch ID:	19551		RunNo:	26673				
Prep Date:	6/3/2015		Analysis Date:	6/8/2015		SeqNo:	795194		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	48	10	50.40	0	94.4	42.3	146	1.68	28.9		
Surr: DNOP	4.7		5.040		93.0	57.9	140	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506117

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19545		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794163		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	850		1000		84.9	75.4	113			

Sample ID	LCS-19545		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794164		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	64	130			
Surr: BFB	950		1000		94.7	75.4	113			

Sample ID	1506117-002AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	Soil 23 .5-1.5' RBD		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794167		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	4.7	23.72	0	137	47.9	144			
Surr: BFB	940		948.8		99.0	75.4	113			

Sample ID	1506117-002AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	Soil 23 .5-1.5' RBD		Batch ID:	19545		RunNo:	26660				
Prep Date:	6/3/2015		Analysis Date:	6/5/2015		SeqNo:	794168		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	30	4.7	23.74	0	128	47.9	144	6.10	29.9		
Surr: BFB	930		949.7		97.4	75.4	113	0	0		

Sample ID	MB-19577		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	19577		RunNo:	26687				
Prep Date:	6/4/2015		Analysis Date:	6/8/2015		SeqNo:	795091		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	870		1000		86.7	75.4	113				

Sample ID	LCS-19577		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	19577		RunNo:	26687				
Prep Date:	6/4/2015		Analysis Date:	6/8/2015		SeqNo:	795092		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506117

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	LCS-19577		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19577		RunNo: 26687					
Prep Date:	6/4/2015		Analysis Date: 6/8/2015		SeqNo: 795092		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	64	130			
Surr: BFB	930		1000		93.1	75.4	113			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506117

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19545		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794190		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.7	80	120			

Sample ID	LCS-19545		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794191		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	76.6	128			
Toluene	1.0	0.050	1.000	0	104	75	124			
Ethylbenzene	1.1	0.050	1.000	0	106	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	104	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	1506117-001AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	Soil 23 0-.5' RBD		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794193		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.048	0.9560	0	123	69.2	126			
Toluene	1.2	0.048	0.9560	0	127	65.6	128			
Ethylbenzene	1.2	0.048	0.9560	0	128	65.5	138			
Xylenes, Total	3.6	0.096	2.868	0	126	63	139			
Surr: 4-Bromofluorobenzene	0.94		0.9560		98.4	80	120			

Sample ID	1506117-001AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	Soil 23 0-.5' RBD		Batch ID: 19545		RunNo: 26660					
Prep Date:	6/3/2015		Analysis Date: 6/5/2015		SeqNo: 794194		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.048	0.9551	0	127	69.2	126	3.11	18.5	S
Toluene	1.2	0.048	0.9551	0	130	65.6	128	2.76	20.6	S
Ethylbenzene	1.3	0.048	0.9551	0	133	65.5	138	3.80	20.1	
Xylenes, Total	3.7	0.096	2.865	0	130	63	139	3.58	21.1	
Surr: 4-Bromofluorobenzene	0.95		0.9551		99.6	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506117

12-Jun-15

Client: GL Environmental Inc

Project: Red Bluff Draw

Sample ID	MB-19577		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 19577		RunNo: 26664					
Prep Date:	6/4/2015		Analysis Date: 6/7/2015		SeqNo: 794388		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		94.3	80	120			

Sample ID	LCS-19577		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19577		RunNo: 26664					
Prep Date:	6/4/2015		Analysis Date: 6/7/2015		SeqNo: 794389		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.050	1.000	0	81.3	76.6	128			
Toluene	0.80	0.050	1.000	0	79.9	75	124			
Ethylbenzene	0.81	0.050	1.000	0	81.2	79.5	126			
Xylenes, Total	2.4	0.10	3.000	0	80.0	78.8	124			
Surr: 4-Bromofluorobenzene	0.95		1.000		94.6	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: GL Environmental Inc

Work Order Number: 1506117

RcptNo: 1

Received by/date:	CS	06/03/15
Logged By:	Celina Sessa	6/3/2015 9:03:00 AM
Completed By:	Celina Sessa	6/3/2015 9:18:58 AM
Reviewed By:	JS	06/04/15

Chain of Custody

- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? FedEx

Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- 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: _____

Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

Chain-of-Custody Record

Client:

GL Environmental

Mailing Address:

121 Bibb Industrial Dr. Las Vegas NV 89101

Phone #: 505-454-0830

email or Fax#: gmatto@jchcnet

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

need results before 6/15/03

☒ Standard ☐ Rush

Project Name:

Red Bluff Draw

Project #:

1506117

Project Manager:

Matt Lane

Sampler: ML, ST, JJ

On Ice: ☒ Yes ☐ No

Sample Temperature: 21°C

Date Time Matrix Sample Request ID

Container Type and #

Preservative Type

HEAL No.

1506117

-001

-002

-003

-004

-005

-006

-007

-008

-009

-010

-011

-012

Date Time

Relinquished by

Received by:

Date Time

Remarks:

TPH (Method 418.1)

TPH 8015B (GRO/DRO/MRO)

BTEX + MTBE + TPH (Gas only)

BTEX + MTBE + TMB's (8021)

PAH's (8310 or 8270 SIMS)

RCRA 8 Metals

Anions (Cl⁻, NO₃⁻, PO₄³⁻, SO₄²⁻)

8081 Pesticides / 8082 PCB's

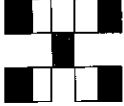
8260B (VOA)

8270 (Semi-VOA)

Air Bubbles (Y or N)

Analysis Request

71 '03



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Chain-of-Custody Record

Client:

G-L Environmental

Mailing Address:

121 8th Industrial Dr. Las Vegas, NV 89101

Phone #: 505-454-0830

email or Fax#: g/matt@glenv.net

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Project Manager:

Matt Lane

Sampler:

ML JS, ST

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1°C

Date Time Matrix Sample Request ID

12/15 0840 soil soil 25 1.5-2.5' RBD

25-3.5'

3.5-7.0'

12/15 0855 soil soil 26 0-0.5' RBD

0.5-1.5'

1.5-2.5'

2.5-3.5'

12/15 1100 soil soil 27 0-0.5' RBD

0.5-1.5'

1.5-2.5'

2.5-3.5'

Date Time Relinquished by

12/15 0900

Date Time Relinquished by

12/15 0900

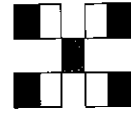
Received by:

Colleen Sams

Date Time

06/03/15 0903

Remarks:



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTX + MTBE + TMBs (8021)	BTX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Chain-of-Custody Record

Client: HL Environmental

Mailing Address: 21 Bibb Industrial Dr Las Vegas NM 88701

Phone #: see pg 1

email or Fax#:

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

☒ Standard

Accreditation ☐ NELAP ☐ Other

☐ EDD (Type)

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
7/15	1200	Soil	Soil 28 0-.5' RAD	402 gals 2	Ice	1506117
			.5-1.5'	2		-0284
			1.5-2.5'	2		-0285
				2		-0286
7/15	1235	Soil	Soil 29 0-.5' RAD	402 gals 2	Ice	-0287
			.5-1.5'	2		-0388
			1.5-2.5'	2		-0389
			2.5-3.5'	2		-0390
						CS 06/03/15

Date: 7/15 Time: 0900

Relinquished by: [Signature]

Date: 7/15 Time: 0900

Relinquished by: [Signature]

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: Red Bluff Draw

Project #:

Project Manager: Matthew

Sampler: ML JTS

On Ice: ☒ Yes ☐ No

Sample Temperature: 21°C

Analysis Request	BTX + MTBE + TMB's (8021)	BTX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO/MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
	X	X	X					X				
	X	X	X					X				
	X	X	X					X				
	X	X	X					X				
	X	X	X					X				
	X	X	X					X				
	X	X	X					X				
	X	X	X					X				
	X	X	X					X				
	X	X	X					X				

Received by: Alvin Sam Date: 06/03/15 Time: 0903

Received by: Date: Time: