

By Alameda County Environmental Health 11:41 am, May 04, 201

# CHEMICAL DATA MANAGEMENT SYSTEMS

May 3, 2015

Mark Detterman Senior Hazardous Material Specialist Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Re:Economy Trucking Co., 3884 Depot Road, Hayward, CA

# Dear Mark:

This letter is in response to your November 6, 2014 letter, which requested information on the subject site.

We chose to take an approach with a reduced set of sampling yet provide sufficient data to close the case. Attached you will find the details of our report, the findings, and conclusion. Please consider this report in your analysis to close this case.

We declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of our knowledge.

Best Regards,

James N. Carro

Fredric Hoffman Professional Geologist #3929 Certified Hydrogeologist #83



Copy: Kevin Singh, Economy Trucking Attachment: Economy Trucking Report.



# Economy Trucking Report May 2015 3884 Depot Road, Hayward CA

This report is a review of currently available documentation beginning in 2001 and the results of recent investigations by CDMS regarding quality of soil and ground water at 3884 Depot Road, Hayward, CA. The site was owned by AAA Truck Parts and operated as an auto parts salvage site from 1960 to 2014. In 2014, the site was sold to Economy Trucking, who currently leases the property to a pallet company and have longer term plans to operate an industrial facility at the site.

# Geology and Hydrogeology

The site is in the east-central alluvial plain of the San Francisco Bay physiographic subregion and is underlain by a thick layer of Quaternary alluvium. (Fig. 1 *Area Map*)

**Geology:** Three shallow monitor wells were installed at the end of 2002 and reported by Engeo in 2003. Two of the wells were installed on the subject property and the third on the property immediately to the east, which was leased by AAA Truck Parts. 2.25 to 2.75 feet of gravelly fill was logged overlying an approximately 4-foot thick clay layer. Soil consisting of varying percentages of silts, clays, and sands was logged beneath the clay layer. Engeo. 2003<sup>1</sup>.

**Hydrogeology**: In the wells installed by Engeo in Dec. 2002, Engeo. 2003. ground water was encountered between 8 and 9 feet below ground surface. Water elevations from the monitor wells taken in 2003 indicate a NNW flow direction. Data from the sediment samples taken during the soil borings, and from the installation of the monitor wells indicate that the ground water was protected from contamination at the surface by the four-foot thick clay layer.

Land Use: The site is located in an area used for light-industrial, commercial office, automotive salvage, sewage treatment plant, gas-fired power generation and salt ponds. At the time of this writing, the site is in use as a wooden pallet fabrication, storage, and transfer site.

<sup>&</sup>lt;sup>1</sup> Engeo 2003 & Engeo Dec 2002 are protected documents and can not be merged into this document. Refer to the Alameda County website to obtain access to them.



**Surface Water**: The nearest surface water is a slough just north and west of the site that flows to San Francisco Bay less than a mile to the west.

Historic Investigation: The site was used for decades as an automotive salvage yard creating the potential for soil and ground water contamination with automotive fluids and fuels. Hazardous waste was collected in containers and drums and stored on a concrete slab. In 2001, in response to a reported spill, 8 shallow soil borings were conducted and labeled P-1 through P-8.( Engeo. 2002)<sup>2</sup>. Following the analytical results from the samples collected, three monitor wells were installed in 2002. One of the wells was installed near the hazardous waste storage area (MW-1), another was drilled in an area of suspicious soil staining (MW-2), and the third was drilled on property leased by AAA Truck Parts immediately east of the property (MW-3). (Engeo Report 7-03)<sup>3</sup>. When that property was closed the well was destroyed and sealed. None of the soil sampled during the installation of the wells contained contaminants above the ESLs. Water samples taken from the wells in 2003 also contained contaminants below the ESLs. Currently, all of the automotive salvage materials have been removed from the site, the property has been sold, and the site is in use as a wooden pallet fabrication, storage, and transfer site.

**Current Investigation**: After discussions with the Alameda County Environmental Health staff, 26 soil samples were taken at 9 locations throughout the site at 6 inches and 12 inches below the surface. These locations are associated with the former Hazardous Waste Storage Slab, the former Southern Parts Storage Area, the former Central Parts Storage Area, and the former Brake and Manifold Storage Racks. (Fig. #2, 3884 Depot Road Site Map).

On January 13, 2015 soil sampling was conducted with a hand-sampling device. The device was not effective in all locations and was frequently met with refusal. The sampling was repeated on February 12, 2015 with a direct push rig.

Ground water elevations in MW-1 and MW-2 were approximately 5 feet below the ground surface. Samples were taken from these wells on January 13, 2015 and again on February 12, 2015.

# **Near Surface Soil Investigations**

 $<sup>^2</sup>$  Engeo 2003 & Engeo Dec 2002 are protected documents and can not be merged into this document. Refer to the Alameda County website to obtain access to them.

<sup>&</sup>lt;sup>3</sup> Engeo 2003 & Engeo Dec 2002 are protected documents and can not be merged into this document. Refer to the Alameda County website to obtain access to them.



# Southern Former Hazardous Waste Storage Slab

The former hazardous waste storage slab is located in the southwest portion of the property immediately east of MW-1. Twelve soil samples were taken from four locations surrounding the slab. Of those twelve samples, eight and were analyzed for total petroleum hydrocarbons, 4 were analyzed for LUFT metals, and all were analyzed for Zinc. Samples labeled Z6 were taken from within 2 feet off the north end of the slab, the Z7 samples within 2 feet of the east edge of the slab, the Z8 samples within 2 feet of the south end of the slab and the Z9 samples from within 2 feet of the west edge of the slab. The results are shown in TABLES 1 and 2.

The analyses of the samples taken to the north of the slab (Z6 samples) indicated no total petroleum hydrocarbons above the ESLs, and zinc was the only metal that was present at low levels, but above the ESL. The highest level was 1000mg/Kg.

The Z7 samples taken from the east of the slab contained low levels of petroleum hydrocarbons above the ESLs. The highest level was 2900mg/Kg of TPH motor oil in the sample taken from 12" below the surface. This sample also contained 2000 mg/Kg TPH diesel, but Tracy Babjar, the Project Manager from Curtis & Tompkins Lab, reported that the chromatogram looked more like a weathered motor oil signature than diesel.

One of the Z8 samples taken from the south of the slab contained TPH motor oil above the ESL at 1700 mg/Kg and the sample taken from 12" below the ground surface contained petroleum hydrocarbons below the ESLs. The two samples taken from the 6" depth contained zinc below the ESL, and the sample from 12" was above the ESL at 1000 mg/Kg.

The two Z9 samples taken from the west of the slab contained TPH diesel above the ESL and the 6" sample contained TPH motor oil just above the ESL. The Z9 samples taken from 6" contained zinc above the ESL at 1100 mg/Kg and the sample taken from 12" was below the ESL.

Sample P-3 located a few feet west of sample Z9 taken during the investigation in 2002 contained no petroleum hydrocarbons above the ESLs, but did contain Zinc at 1100mg/Kg above the ESL of 600mg/Kg. (TABLES 3 and 4).

# **Southern Parts Storage Area**

The southern parts storage area is located in the south central portion of the site. Both of the samples from 6" and 12" contained TPH motor oil above the ESLs at 2100 and 2200



respectively. In addition the 6" sample contained zinc above the ESL at 820 mg/Kg. (TABLES 1 and 2).

The P-7 sample taken in 2002 contained TPH motor oil above the ESL at 2400 mg/Kg at 1' and 1100 mg/Kg at 3'. (TABLE 3).

# **Central Outdoor Parts Storage Area**

The central outdoor storage parts area, as shown on the Site Plan from the 2002 Engeo report, includes two part storage areas and an enclosed hazardous waste storage facility that sat on a concrete slab.

The Z3 samples from 6" and 12" both contained TPH motor oil above the ESL at 1100 and 4400 respectively and the Z4 samples contained TPH motor oil above the ESL at 1600 and 1200 respectively. None of the samples contained metals above the ESLs. (TABLES 1 AND 2).

Of the samples taken in 2002, P-2 taken at 1' contained TPH diesel and TPH motor oil above the ESLs at 1100 and 7900 respectively and contained metals below the ESLs. The P-2 sample taken at 3' contained petroleum hydrocarbons below the ESLs. The analyses of the P-5 sample were below the ESLs for both petroleum hydrocarbons and metals. The TPH and metals analyses of the P-6 sample indicated that only zinc was above the ESLs at 1800 mg/Kg. (TABLES 3 and 4).

# **Brake and Manifold Storage Racks**

The brake and manifold storage racks were located in the northwest central portion of the site.

Of the 5 samples analyzed for metals from this location, only the Z1 sample taken from 1' below the ground surface contained zinc above the ESLs. (TABLE 2).

## **Monitor Well Observations 2014/2015**

In March 2014, Jim Carro and Fred Hoffman, representing CDMS visited the site. The property owner was in the process of clearing all equipment from the site in preparation for a property sale. At that time MW-1 was in a covered Christie Box and MW-2 had pumping equipment installed. The pumping equipment consisted of a pump at the surface



and an intake pipe running down the open well casing. The owner stated that they were using the water from the well as a non-potable water source. We informed the owner that that was not an appropriate use of a monitor well and that the wellhead must be secured.

In December 2014, Jim Carro and Fred Hoffman visited the site. The property was under new ownership and a wooden pallet company was a tenant at the site. MW-1 had pumping equipment installed, consisting of a pump at the surface and an intake pipe running down the open well casing and the tenant stated that they were using the water for dust suppression. We informed the owner that that was not an appropriate use of a monitor well and that the wellhead must be secured. At that time MW-2 was obscured under a stack of pallets.

On January 12, 2015 a team from CDMS visited the site to take sediment and water samples in accordance with a plan approved by the Alameda County Environmental Health Services. MW-1 was in a covered Christy Box, but there was no cap on the well casing and there was an inch of standing water inside the box. Initial water pumped from the well was slightly cloudy and cleared after 5 gallons were pumped. Temp, pH, and EC were measured at 5 gallon intervals and samples were taken after 25 gallons had been pumped.

MW-2 was found in a covered Christy Box but there was no cap on the well casing. There was red staining on the ground around the well and inside the box. The well casing was colored a uniform bright red and a notch was broken out of the top of the casing down to the ground surface at the bottom of the box. The initial water pumped from the well was black, gray at 5 gallons, pink at 10 gallons, cloudy at 15 gallons, and then ran clear. Temp, pH, and EC were measured at 5 gallon intervals, until the TDS exceeded the range of the instrument (2000 ppm TDS) at 15 gallons and samples were taken at 30 gallons.

At a meeting with the owner and the tenant, the tenant explained that shortly after he moved to the site, he attempted to pump water from MW-2, to use for dust suppression, using a pump found on site. When the pump was activated it discharged a small amount of red paint in the vicinity of the wellhead. He stated that he immediately shut down the pump and abandoned its use. He speculated that the pump in question had been used as a paint transfer pump, but there was no external sign that that was the case. We again informed the owner of the need to cap and secure the wellheads, and he promptly installed caps on the well casings and padlocks on the Christy Boxes.



In an effort to determine how much damage had been done to the ground water in the vicinity of MW-2, on February 12, 2015, CDMS pumped 300 gallons from MW-1 and MW-2 respectively into a tanker truck provided by the owner. MW-2 briefly ran pink and then clear. Samples were taken at the conclusion of the pumping and the analyses of these samples is reported in Table 7 and 8.

# **Ground Water Quality Investigations**

Analyses of ground water samples from MW-1 and MW-2 indicated that LUFT metals were either non-detect or below the ESLs (TABLE 8). This was also true of the analyses of samples taken from the wells in 2003 (TABLE 8), and of the grab water samples taken during the installation of the wells in 2002 (TABLE 9).

Ground water grab samples taken during the installation of MW-1 in 2001, contained TPH diesel and TPH motor oil above the ESLs (TABLE 10). When ground water samples were taken from the constructed wells they were below the ESLs or non-detect for petroleum hydrocarbons (TABLE 7). This could indicate that the petroleum hydrocarbons detected in the ground water grab samples resulted from being drawn down to the ground water from the surface during the drilling process.

In 2015 ground water samples taken from MW-1 and MW-2 contain petroleum hydrocarbons above the ESLs ranging from 2200 to 4300 ug/L (TABLE 7). The laboratory report shows results above the ESLs for TPH diesel and TPH motor oil with a flag on the TPH diesel. The flag indicates that the TPH diesel chromatogram does not resemble the standard chromatogram for TPH diesel, but more resembles the TPH motor oil standard. The chromatograms of the samples are shown in the Laboratory Report in Appendix 1, and the standard chromatograms for the TPH diesel and TPH motor oil are shown in Appendix 2.

# **Conclusions**

The analyses of the soil samples taken from the near surface throughout the site indicate that there is spotty contamination of the soils above the ESLs for petroleum hydrocarbons and zinc, but not at concentrations that would indicate that there has been a major release of these contaminants at the site. In addition, with the exception of the analyses for TPH



gasoline, no volatile organic compounds were detected in either the soil or the ground water.

Since the site meets all the criteria of the San Francisco Regional Water Quality Control Board's Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low-Risk Fuel Sites, issued in January 1996, no further action is required regarding the soils at the site. A comparison of the status of the site with Interim Guidance is provided in Appendix A.The hydrocarbons can be expected to continue to undergo natural biodegradation in place.

The ground water contained no petroleum hydrocarbons when the monitor wells were installed in 2002, probably protected from the decades of salvage yard activities by the 4 to 4.5 foot clay layer which begins at 2 feet below the ground surface. Given the observed lack of wellhead security, of unknown duration, it is possible that the ground water became contaminated with petroleum hydrocarbons leached from the surface and near-surface by storm waters which then flowed down the unsecured monitor wells.

We propose to destroy and seal MW-1 and MW-2 eliminating the possible conduit for contamination to the ground water. By eliminating the source of contamination the ground water can be allowed to naturally biodegrade under the Regional Board's Guidance for Low-Risk Fuel Sites.

Regards,

James N. Carro

and D. Cans



# **TABLES**

TABLE 1. Soil Samples: Organics (mg/kg)

Date	Sample	Inches	Diesel	Diesel	Motor	Motor	Gas	Gas
	ID	deep		RL	Oil	Oil RL		RL
ESL			110		500		500	
2/12/15	Z3-1	6"	110	10	<mark>1100</mark>	50	NA	NA
2/12/15	Z3-2	12"	<mark>990</mark>	9.9	<mark>4400</mark>	50	NA	NA
2/12/15	Z4-1	6"	340	20	<mark>1600</mark>	100	NA	NA
2/12/15	Z4-2	12"	390	5	<mark>1200</mark>	25	NA	NA
2/12/15	Z5-1	6"	240	20	<mark>2100</mark>	100	NA	NA
2/12/15	Z5-2	12"	290	20	<mark>2200</mark>	100	NA	NA
2/12/15	Z6-1	6"	60	1	280	5	NA	NA
2/12/15	Z6-2	12"	81	1	260	5	NA	NA
2/12/15	Z7-1	6"	190	20	<mark>860</mark>	100	NA	NA
2/12/15	Z7-2	12"	<mark>2000</mark>	20	<mark>2900</mark>	100	NA	NA
2/12/15	Z8-1	6"	340	10	<mark>1700</mark>	50	NA	NA
2/12/15	Z8-2	12"	100	5	410	25	NA	NA
2/12/15	Z9-1	6"	<mark>1900</mark>	5	<mark>700</mark>	25	2.9	.93
2/12/15	Z9-2	12"	<mark>680</mark>	5	240	25	1.2	.91

See Appendix 1 &2



TABLE 2 Soil Samples: LUFT Metals (mg/kg)

Date	Sample	Inches	Cd	Cd	Cr	Cr	Pb	Pb	Ni	Ni	Zn	Zn
	ID	deep		RL		RL		RL		RL		RL
ESL			12		2500		320		150		600	
1/13/15	Z1-1	6"	.64	.24	44	.24	28	.24	46	.24	87	.94
2/12/15	Z1-1	6"	.75	.23	32	.23	8.1	.23	40	.23	44	.93
2/12/15	Z1-2	12"	5.1	.26	910	26	300	.26	55	.26	<mark>1900</mark>	100
2/12/15	Z2-1	6"	1.8	.23	53	.23	100	.23	55	.23	150	.91
2/12/15	Z2-2	12"	.97	.26	34	.26	29	.26	31	.26	76	1
1/13/15	Z3-1	6"	.6	.25	63	.25	19	.25	77	.25	59	1
2/12/15	Z3-1	6"	.82	.28	110	.28	15	.28	130	.28	46	1.1
2/12/15	Z3-2	12"	3.7	.27	50	.27	22	.27	40	.27	230	1.1
1/13/15	Z4-1	6"	5.2	.27	490	.27	190	.27	61	.27	180	110
2/12/15	Z4-1	6"	2.7	.24	93	.24	210	.24	41	.24	420	.97
2/12/15	Z4-2	12"	3.3	.25	650	25	90	.25	63	.25	460	1
1/13/15	Z5-1	6"	4.1	.27	200	.27	350	.27	44	.27	<mark>820</mark>	110
2/12/15	Z5-1	6"	.71	.27	43	.27	10	.27	56	.27	51	1.1
2/12/15	Z5-2	12"	1.4	.25	780	25	34	.25	31	.25	190	1
1/13/15	Z6-1	6"	2	.26	440	.26	100	.26	34	.26	920	100
2/12/15	Z6-1	6"	NA	NA	NA	NA	NA	NA	NA	NA	<b>1000</b>	110
2/12/15	Z6-2	12"	NA	NA	NA	NA	NA	NA	NA	NA	<mark>970</mark>	110
1/13/15	Z7-1	6"	1.6	.25	110	.25	120	.25	61	.25	180	.99
1/13/15	Z7.2-1	6"	.7	.23	48	.23	49	.23	79	.23	84	.91
2/12/15	Z7-1	6"	NA	NA	NA	NA	NA	NA	NA	NA	110	.92
2/12/15	Z7-2	12"	NA	NA	NA	NA	NA	NA	NA	NA	130	.93
1/13/15	Z8-1	6"	5.1	.24	160	.24	340	.24	52	.24	640	.95
2/12/15	Z8-1	6"	NA	NA	NA	NA	NA	NA	NA	NA	30	1.1
2/12/15	Z8-2	12"	NA	NA	NA	NA	NA	NA	NA	NA	<b>1000</b>	110
2/12/15	Z9-1	6"	NA	NA	NA	NA	NA	NA	NA	NA	<mark>1100</mark>	95
2/12/15	Z9-2	12"	NA	NA	NA	NA	NA	NA	NA	NA	320	1

See Appendix 1 & 2



TABLE 3. Soil Samples-P Series: Organics (mg/kg)

Date	Sample ID	Depth (Ft)	Diesel	Diesel RL	Motor Oil	Motor Oil RL	Gas	Gas RL
ESL			110		500		500	
1/4/02	1-1	1	ND	1	ND	5	ND	1
1/4/02	2-1	1	<mark>1100</mark>	1	<mark>7900</mark>	5	1.7	1
1/4/02	2-2	3	19	1	65	5	ND	1
1/4/02	3-1	1	67	1	400	5	ND	1
1/4/02	4-1	1	23	1	160	5	ND	1
1/4/02	5-1	1	2.5	1	51	5	ND	1
1/4/02	6-1	1	9.2	1	56	5	ND	1
1/4/02	7-1	1	<b>140</b>	1	<mark>2400</mark>	5	ND	1
1/4/02	7-2	3	68	1	<b>1100</b>	5	ND	1
1/4/02	8-1	1	59	1	130	5	ND	1
1/4/02	8-2	3	ND	1	ND	5	ND	1

See Engeo Inc. Jan, 4, 2002. Report on Site Characterization

TABLE 4. Soil Samples-P Series: LUFT Metals (mg/kg)

Date	Sample ID	Depth (Ft)	Cd	Cd RL	Cr	CR RL	Pb	Rb RL	Ni	Ni RL	Zn	Zn RL
ESL			12		2500		320		150		600	
1/4/02	1-1	1	ND	.5	38	.5	7.4	3	44	2	50	1
1/4/02	2-1	1	4.1	.5	61	.5	230	3	36	2	300	1
1/4/02	3-1	1	1	.5	390	.5	100	3	32	2	<b>1100</b>	1
1/4/02	3-2	3	ND	.5	23	.5	9.6	3	21	2	36	1
1/4/02	4-1	1	2.1	.5	61	.5	110	3	34	2	320	1
1/4/02	5-1	1	ND	.5	48	.5	13	3	32	2	88	1
1/4/02	6-1	1	2.5	.5	260	.5	310	3	40	2	<mark>1800</mark>	1
1/4/02	6-2	3	ND	.5	19	.5	16	3	21	2	47	1
1/4/02	7-1	1	1.2	.5	27	.5	150	3	28	2	170	1
1/4/02	8-1	1	0.74	.5	220	.5	60	3	51	2	500	1

See Engeo Inc. Jan, 4, 2002. Report on Site Characterization



TABLE 5. Boring Soil Samples: Organics (mg/kg)

Date	Sample ID	Depth (Ft)	Diesel	Diesel RL	Motor Oil	Motor Oil RL	Gas	Gas RL
ESL			110		500		500	
7/15/03	1-2	7.0-7.5	27	1	27	5	27	1
7/15/03	2-2	7.0-7.5'	ND	1	ND	5	ND	1
7/15/03	3-2	7.0-7.5	ND	1	ND	5	ND	1

See Engeo Inc. July, 15, 2003. Groundwater Monitoring Well Installation

TABLE 6. Boring Soil Samples: LUFT Metals (mg/kg)

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Date	Sample	Depth	Cd	Cd	Cr	Cr	Pb	Pb	Ni	Ni	Zn	Zn
	ID	(Ft)		RL		RL		RL		RL		RL
ESL			12		2500		320		150		600	
7/15/03	1-2	7.0-7.5	ND	.5	30	.5	12	3	32	2	64	1
7/15/03	2-2	7.0-7.5	ND	.5	40	.5	8.8	3	51	2	55	1
7/15/03	3-2	7.0-7.5	ND	.5	23	.5	4.8	3	34	2	36	1

See Engeo Inc. July, 15, 2003. Groundwater Monitoring Well Installation

TABLE 7. Water Samples: Organics (ug/L)

Date	Sample	Diesel	Diesel	Motor	Motor	Gas	Gas
	ID		RL	Oil	Oil RL		RL
ESL		640		640		500	
7/15/03	MW1	76	50	ND	300	ND	.5
1/13/15	MW1	<mark>2400</mark>	50	<mark>4300</mark>	300	42	.5
2/12/15	MW1	<mark>3500</mark>	50	<mark>3800</mark>	300	40	.5
7/15/03	MW2	ND	50	ND	300	ND	.5
1/13/15	MW2	<mark>3100</mark>	50	<mark>3400</mark>	300	9.3	.5
2/12/15	MW2	<mark>2600</mark>	50	<mark>2200</mark>	300	17	.5
7/15/03	MW3	53	50	ND	300	ND	.5

See Appendix 1, 2 & 2003 Analyses from Engeo Inc. July, 15, 2003. Groundwater Monitoring Well Installation



TABLE 8. Water Samples: LUFT Metals (ug/L)

Date	Sample	Cr	Cr	Ni	Ni	Zn	Zn
	ID		RL		RL		RL
ESL		2500		150		600	
7/15/03	MW1	ND	5	ND	5	ND	20
1/13/15	MW1	ND	5	ND	5	81	20
7/15/03	MW2	ND	5	ND	5	ND	20
1/13/15	MW2	11	5	8.9	5	68	20
7/15/03	MW3	ND	5	ND	5	ND	20

See Appendix 1 & Engeo Inc. July, 15, 2003. Groundwater Monitoring Well Installation

TABLE 9. Ground water grab samples LUFT Metals (ug/L)

Date	Sample	Cd	CD	Cr	CR	Pb	Pb	Ni	Ni RL	Zn	Zn RL
	ID		RL		RL		RL				
ESL		.25		180		2.5		8.2		81	
1/4/02	GW-1	ND	0.5	ND	0.5	ND	3	ND	2	ND	1
1/4/02	GW-2	ND	0.5	ND	0.5	ND	3	ND	2	ND	1
1/4/02	GW-3	ND	0.5	ND	0.5	ND	3	ND	2	ND	1

See Engeo Inc. Jan, 4, 2002. Report on Site Characterization

TABLE 10. Ground Water gab samples: Organics (ug/L)

Date	Sample ID	Diesel	Diesel RL	Motor Oil	Motor Oil RL	Gas	Gas RL
ESL		640		640		500	
1/4/02	GW-1	<mark>1900</mark>	50	<mark>9500</mark>	250	ND	50
1/4/02	GW-2	ND	50	ND	250	ND	50
1/4/02	GW-3	1500	<mark>50</mark>	2200	<mark>250</mark>	2200	50

See Engeo Inc. Jan, 4, 2002. Report on Site Characterization



# References

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# Appendix A Guidance on Required Cleanup at Low Risk Fuel Sites

Evaluation of the site at 3884 Depot Road, Hayward, CA in accordance with the RWQCB's "Supplemental Instructions to State Water Board December 8, 1995 interim Guidance on Required Cleanup at Low Risk Fuel Sites"

Shallow ground water exists at 5-10 feet below ground surface and there are no drinking water wells within a mile of the site.

## LOW RISK CASE DEFINITIONS

# 1) The leak has been stopped and ongoing sources, including free product, removed or remediated.

The site has been cleared of all sources of petroleum hydrocarbons. The shallow soils at the site do contain scattered low levels of hydrocarbons above the ESLs. There is a 4 foot thick clay layer between the surface soils and the ground water acting as a barrier to vertical migration of the remaining hydrocarbons at the surface. The monitor wells at the site may act as a vertical conduit for these contaminants and the report recommends that they be sealed and destroyed.

# 2) The site has been adequately characterized.

The hydrogeology of the site has been adequately characterized. Three monitor wells and shallow soil borings at 18 locations have been advanced over the years of investigation. The 4 foot clay layer appears to be ubiquitous, the remaining hydrocarbons in the shallow soil are at lower concentrations than they were in 2004, and the concentrations of hydrocarbons in the remaining monitor wells are similar to the concentrations in MW-3 when it was destroyed.

3) Little or no groundwater impact currently exists and no contaminants are found at levels above established MCLs or other applicable water quality objectives. The dissolved hydrocarbon plume is not migrating.



The dissolved hydrocarbon plume is above the ESLs but at a low level. Sealing of the remaining monitor wells is expected to allow the remaining hydrocarbons to naturally degrade.

# 4) No water wells, deeper drinking water aquifers, or other sensitive receptors are likely to be impacted.

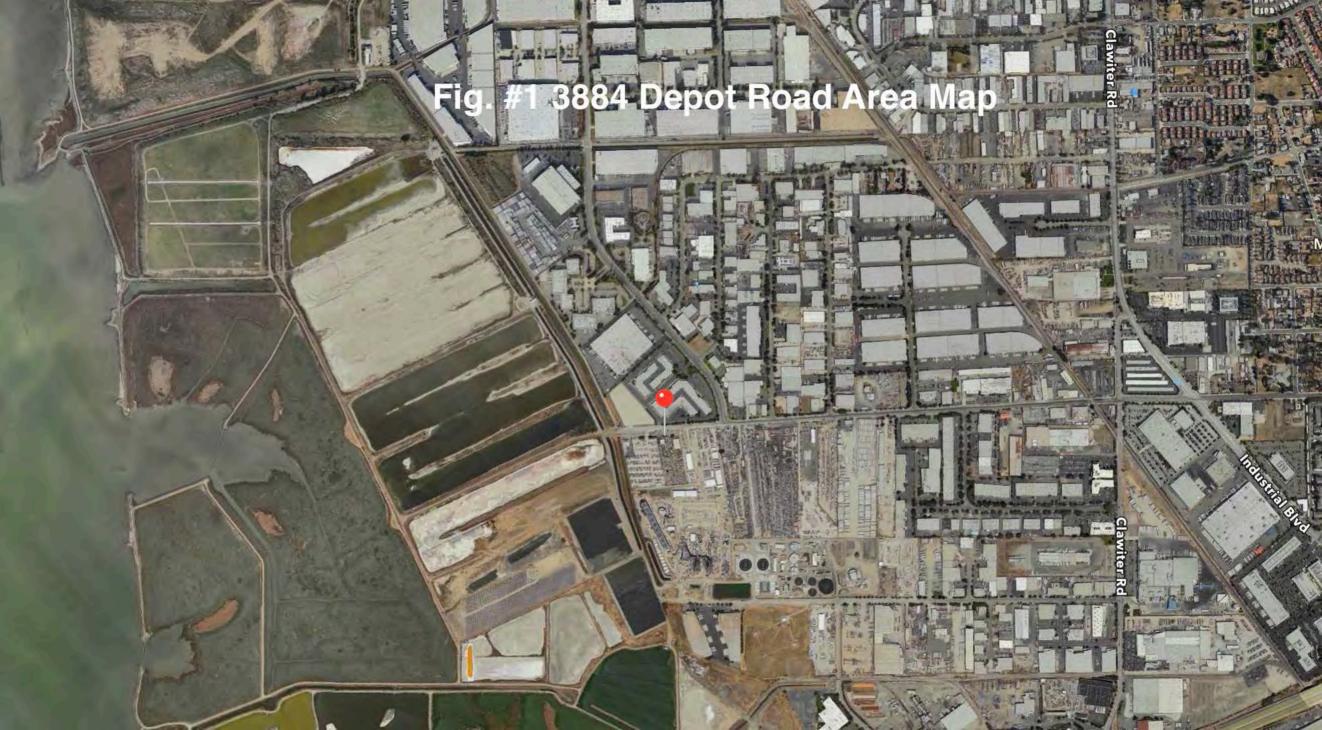
There are no water wells within a mile of the site and no other sensitive receptors are likely to be impacted.

# 5) The site presents no significant risk to human health.

The remaining hydrocarbons in the shallow soil and in the shallow ground water are expected to degrade and there is no conduit to impact human health.

# 6) The site presents no significant risk to the environment.

The remaining hydrocarbons in the shallow soil and shallow ground water are at low levels, are expected to degrade and present no significant risk to the environment.









# Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# Laboratory Job Number 264663 ANALYTICAL REPORT

Chemical Data Management Systems Project : STANDARD

6515 Trinity Court Location: Economy Trucking

Dublin, CA 94568 Level : II

San	nple ID	<u>Lab ID</u>
Z4 - 1	(0"-6")	264663-001
Z4-2	(6"-12")	264663-002
Z5-1	(0"-6")	264663-003
Z5-2	(6"-12")	264663-004
Z7 - 1	(0"-6")	264663-005
Z7-2	(6"-12")	264663-006
Z8-1	(0"-6")	264663-007
Z8-2	(6"-12")	264663-008
Z9-1	(0"-6")	264663-009
Z9-2	(6"-12")	264663-010
Z6-1	(0"-6")	264663-011
Z6-2	(6"-12")	264663-012
Z3-1	(0"-6")	264663-013
Z3-2	(6"-12")	264663-014
Z1-1	(0"-6")	264663-015
Z1-2	(6"-12")	264663-016
Z2-1	(0"-6")	264663-017
Z2-2	(6"-12")	264663-018
MW2		264663-019
MW1		264663-020

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

Date: <u>02/24/2015</u>



### CASE NARRATIVE

Laboratory number: 264663

Client: Chemical Data Management Systems

Location: Economy Trucking

Request Date: 02/12/15 Samples Received: 02/12/15

This data package contains sample and QC results for eighteen soil samples and two water samples, requested for the above referenced project on 02/12/15. The samples were received cold and intact. This report was revised on 02/25/15 to include Nickel results for the water samples. Some sample preservation was done upon receipt; see the attached receipt form.

### TPH-Purgeables and/or BTXE by GC (EPA 8015B) Water:

No analytical problems were encountered.

# TPH-Purgeables and/or BTXE by GC (EPA 8015B) Soil:

No analytical problems were encountered.

### TPH-Extractables by GC (EPA 8015B) Water:

No analytical problems were encountered.

## TPH-Extractables by GC (EPA 8015B) Soil:

Many samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

# Volatile Organics by GC/MS (EPA 8260B):

No analytical problems were encountered.

# Metals (EPA 6010B) Water:

No analytical problems were encountered.

# Metals (EPA 6010B) Soil:

Low recovery was observed for lead in the MS of Z4-1 (0"-6") (lab # 264663-001); the BS/BSD were within limits. High recovery was observed for chromium in the MSD of Z4-1 (0"-6") (lab # 264663-001); the BS/BSD were within limits, and the associated RPD was within limits. High RPD was observed for lead and zinc in the MS/MSD of Z4-1 (0"-6") (lab # 264663-001); the RPD was acceptable in the BS/BSD. No other analytical problems were encountered.

Page 1 of 1

# CHAIN OF CUSTODY

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# COOLER RECEIPT CHECKLIST



Login # 2104663 Date Received 2/2/18 Number of coolers Client Could Project Bearing Trucking	s
Date Opened 2 2 By (print) (sign)  Date Logged in 2 3 By (print) (sign)	
1. Did cooler come with a shipping slip (airbill, etc) YES  Shipping info	ۯ
2A. Were custody seals present?  YES (circle) on cooler on samples  How many Name Date  2B. Were custody seals intact upon arrival?	Ø NO
2B. Were custody seals intact upon arrival?  3. Were custody papers dry and intact when received?  4. Were custody papers filled out properly (ink, signed, etc)?  5. Is the project identifiable from custody papers? (If so fill out top of form)  6. Indicate the packing in cooler: (if other, describe)	NO N(A) NO NO NO
☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ None ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper tow 7. Temperature documentation: * Notify PM if temperature exceeds 6°C	rels
Type of ice used:   Wet □ Blue/Gel □ None Temp(°C)	
If YES, what time were they transferred to freezer?	es 16
10 Are there envising /	110
13. Do the sample labels agree with custody papers?  14. Was sufficient amount of sample sent for tests requested?  15. Are the samples appropriately preserved?  YES	S NO
16. Did you check preservatives for all bottles for each sample?  17. Did you document your preservative check?  18. Did you check a sample?	IO N/A IO N/A
19. Did you change the hold time in LIMS for unpreserved VOAs?YES N 19. Did you change the hold time in LIMS for preserved terracores?YES N 20. Are bubbles > 6mm absent in VOA samples?YES N 21. Was the client contacted concerning this sample delivery?YES N	100 WAR.
If YES, Who was called? By Date:	
15/11/11/11/12 \$ (nesured -0)9 \$ -020 W/ 11/02 (50770) on 2/13/17 @ 1600 to	) ) HZZ

Rev 10, 9/12

# CHAIN OF CUSTODY

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Curtis & Tompkins Sample Preservation for 264663

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# Detections Summary for 264663

Results for any subcontracted analyses are not included in this summary.

Client : Chemical Data Management Systems

Project : STANDARD

Location : Economy Trucking

Client Sample ID : Z4-1 (0"-6")

Laboratory Sample ID : 264663-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	340	Y	20	mg/Kg	As Recd	20.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	1,600		100	mg/Kg	As Recd	20.00	EPA 8015B	EPA 3550B
Cadmium	2.7		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	93		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	210		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	41		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	420		0.97	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : Z4-2 (6"-12") Laboratory Sample ID :

264663-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	390	Y	5.0	mg/Kg	As Recd	5.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	1,200		25	mg/Kg	As Recd	5.000	EPA 8015B	EPA 3550B
Cadmium	3.3		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	650		25	mg/Kg	As Recd	100.0	EPA 6010B	EPA 3050B
Lead	90		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	63		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	460		1.0	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : Z5-1 (0"-6") Laboratory Sample ID :

264663-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	240	Y	20	mg/Kg	As Recd	20.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	2,100		100	mg/Kg	As Recd	20.00	EPA 8015B	EPA 3550B
Cadmium	0.71		0.27	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	43		0.27	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	10		0.27	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	56		0.27	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	51		1.1	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

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Client Sample ID : Z5-2 (6"-12") Laboratory Sample ID : 264663-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	290	Y	20	mg/Kg	As Recd	20.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	2,200		100	mg/Kg	As Recd	20.00	EPA 8015B	EPA 3550B
Cadmium	1.4		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	780		25	mg/Kg	As Recd	100.0	EPA 6010B	EPA 3050B
Lead	34		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	31		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	190		1.0	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : Z7-1 (0"-6") Laboratory Sample ID : 264663-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	190	Y	20	mg/Kg	As Recd	20.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	860		100	mg/Kg	As Recd	20.00	EPA 8015B	EPA 3550B
Zinc	110		0.92	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : Z7-2 (6"-12") Laboratory Sample ID : 264663-006

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	2,000	Y	20	mg/Kg	As Recd	20.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	2,900		100	mg/Kg	As Recd	20.00	EPA 8015B	EPA 3550B
Zinc	130		0.93	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : Z8-1 (0"-6") Laboratory Sample ID : 264663-007

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	340		10	mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	1,700		50	mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Zinc	30		1.1	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : Z8-2 (6"-12") Laboratory Sample ID : 264663-008

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	100		5.0	mg/Kg	As Recd	5.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	410		25	mg/Kg	As Recd	5.000	EPA 8015B	EPA 3550B
Zinc	1,000		110	mg/Kg	As Recd	100.0	EPA 6010B	EPA 3050B

Client Sample ID : Z9-1 (0"-6") Laboratory Sample ID : 264663-009

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	2.9	Y	0.93	mg/Kg	As Recd	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	1,900		5.0	mg/Kg	As Recd	5.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	700		25	mg/Kg	As Recd	5.000	EPA 8015B	EPA 3550B
Zinc	1,100		95	mg/Kg	As Recd	100.0	EPA 6010B	EPA 3050B

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Client Sample ID : Z9-2 (6"-12") Laboratory Sample ID : 264663-010

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	1.2	Y	0.91	mg/Kg	As Recd	1.000	EPA 8015B	EPA 5030B
Diesel C10-C24	680		5.0	mg/Kg	As Recd	5.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	240		25	mg/Kg	As Recd	5.000	EPA 8015B	EPA 3550B
Zinc	320		1.0	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : Z6-1 (0"-6") Laboratory Sample ID : 264663-011

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	60		1.0	mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	280		5.0	mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Zinc	1,000		110	mg/Kg	As Recd	100.0	EPA 6010B	EPA 3050B

Client Sample ID : Z6-2 (6"-12") Laboratory Sample ID : 264663-012

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	81		1.0	mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	260		5.0	mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Zinc	970		110	mg/Kg	As Recd	100.0	EPA 6010B	EPA 3050B

Client Sample ID : Z3-1 (0"-6") Laboratory Sample ID : 264663-013

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	110	Y	10	mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	1,100		50	mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Cadmium	0.82		0.28	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	110		0.28	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	15		0.28	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	130		0.28	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	46		1.1	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : Z3-2 (6"-12") Laboratory Sample ID : 264663-014

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	990	Y	9.9	mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	4,400		50	mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Cadmium	3.7		0.27	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	50		0.27	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	220		0.27	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	40		0.27	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	230		1.1	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

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Client Sample ID : Z1-1 (0"-6") Laboratory Sample ID : 264663-015

Analyte	Result	Flags									Method
Cadmium	0.75			mg/Kg							
Chromium	32			mg/Kg							
Lead	8.1		0.23	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Nickel	40		0.23	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Zinc	44		0.93	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B

Client Sample ID : Z1-2 (6"-12") Laboratory Sample ID : 264663-016

Analyte	Result	Flags	RL								Method
Cadmium	5.1		0.26	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Chromium	910		26	mg/Kg							
Lead	300		0.26	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Nickel	55		0.26	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Zinc	1,900		100	mg/Kg	As	Recd	100.0	EPA	6010B	EPA	3050B

Client Sample ID : Z2-1 (0"-6") Laboratory Sample ID : 264663-017

Analyte	Result	Flags									Method
Cadmium	1.8			mg/Kg							
Chromium	53			mg/Kg							
Lead	100			mg/Kg							
Nickel	55			mg/Kg							
Zinc	150		0.91	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B

Client Sample ID : Z2-2 (6"-12") Laboratory Sample ID : 264663-018

Analyte	Result	Flags									Method
Cadmium	0.97			mg/Kg							
Chromium	34			mg/Kg							
Lead	29		0.26	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Nickel	31			mg/Kg							
Zinc	76		1.0	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B

Client Sample ID: MW2 Laboratory Sample ID: 264663-019

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	2,600	Y	50	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
Motor Oil C24-C36	2,200		300	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
MTBE	17		0.5	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

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Client Sample ID : MW1

# Laboratory Sample ID:

264663-020

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	3,500	Y	50	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
Motor Oil C24-C36	3,800		300	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
MTBE	40		0.5	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B



Total Volatile Hydrocarbons Lab #: 264663 Location: Economy Trucking Client: Chemical Data Management Systems EPA 5030B Prep: Project#: STANDARD EPA 8015B Analysis: Sampled: Matrix: 02/12/15 Water Units: ug/L Received: 02/12/15 1.000 Diln Fac: Analyzed: 02/19/15 Batch#: 220602

Field ID: MW2 Lab ID: 264663-019

Type: SAMPLE

Analyte	Result	RL	
Gasoline C7-C12	ND	50	

Surrogate %REC Limit
mofluorobenzene (FID) 91 80-13

Field ID: MW1 Lab ID: 264663-020

Type: SAMPLE

Analyte	Result	RL	
Gasoline C7-C12	ND	50	

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	94	80-132	

Type: BLANK Lab ID: QC777879

Analyte	Result	RL	
Gasoline C7-C12	ND	50	

ND= Not Detected RL= Reporting Limit

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20.0



Batch QC Report

Total Volatile Hydrocarbons				
Lab #:	264663	Location:	Economy Trucking	
Client:	Chemical Data Management Systems	Prep:	EPA 5030B	
Project#:	STANDARD	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC777878	Batch#:	220602	
Matrix:	Water	Analyzed:	02/19/15	
Units:	ug/L			

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	981.9	98	80-120

Surrogate %REC Limi	.mits
romofluorobenzene (FID) 91 80-1	

Page 1 of 1 21.0



Batch QC Report

Total Volatile Hydrocarbons				
Lab #: 26466	3	Location:	Economy Trucking	
Client: Chemi	cal Data Management Systems	Prep:	EPA 5030B	
Project#: STAND	ARD	Analysis:	EPA 8015B	
Field ID:	ZZZZZZZZZ	Batch#:	220602	
MSS Lab ID:	264703-002	Sampled:	02/16/15	
Matrix:	Water	Received:	02/17/15	
Units:	ug/L	Analyzed:	02/19/15	
Diln Fac:	1.000			

Type: MS

 Analyte
 MSS Result
 Spiked
 Result
 %REC Limits

 Gasoline C7-C12
 18.30
 2,000
 2,077
 103
 76-120

Lab ID:

QC777880

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	98	80-132	

Type: MSD Lab ID: QC777881

 Analyte
 Spiked
 Result
 %REC
 Limits
 RPD
 Lim

 Gasoline C7-C12
 2,000
 2,030
 101
 76-120
 2
 20



Total Volatile Hydrocarbons Economy Trucking EPA 5030B Lab #: 264663 Location: Client: Chemical Data Management Systems Prep: Project#: STANDARD Analysis: EPA 8015B Matrix: Soil Diln Fac: 1.000 02/12/15 Units: mg/Kg Sampled: Basis: as received Received: 02/12/15

Field ID: Z4-1 (0"-6")Batch#: 220494 Type: SAMPLE Analyzed: 02/17/15

Lab ID: 264663-001

Analyte Result RLGasoline C7-C12 ND

Surrogate %REC Limits Bromofluorobenzene (FID) 78-138

Z4-2 (6"-12")Field ID: Batch#: 220494 SAMPLE Analyzed: 02/17/15 Type:

264663-002 Lab ID: Analyte RL Result

ND Gasoline C7-C12 1.1

%REC Limits Surrogate Bromofluorobenzene (FID) 78-138

Field ID: Z5-1 (0"-6")220494 Batch#: Type: SAMPLE Analyzed: 02/17/15 Lab ID: 264663-003

Result Analyte RLGasoline C7-C12

Surrogate %REC Limits Bromofluorobenzene (FID) 78-138

Z5-2 (6"-12") Field ID: Batch#: 220585 Type: SAMPLE Analyzed: 02/19/15 Lab ID: 264663-004

Analyte Result 0.98 Gasoline C7-C12 ND

Surrogate %REC Limits

Bromofluorobenzene (FID)

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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13.0



220494

Total Volatile Hydrocarbons Lab #: 264663 Location: Economy Trucking Client: Chemical Data Management Systems EPA 5030B Prep: Analysis: Diln Fac: Project#: STANDARD EPA 8015B Matrix: Soil 1.000 02/12/15 Units: mg/Kg Sampled: Basis: as received Received: 02/12/15

Batch#:

Field ID: Z7-1 (0"-6")Type: SAMPLE

Analyzed: 02/18/15 264663-005 Lab ID:

Result Analyte Gasoline C7-C12 ND 0.95

Limits Surrogate %REC Bromofluorobenzene (FID) 88 78-138

Z7-2 (6"-12")Field ID: Batch#: 220534 SAMPLE 02/18/15 Type: Analyzed:

Lab ID: 264663-006

Result Analyte RLGasoline C7-C12 ND 1.0

%REC Limits Surrogate 78-138 Bromofluorobenzene (FID)

Field ID: Z8-1 (0"-6")Batch#: 220494 SAMPLE 02/18/15 Type: Analyzed:

264663-007 Lab ID:

Analyte Result Gasoline C7-C12 ND 0.93

%REC Limits Surrogate Bromofluorobenzene (FID) 78-138

220494 Field ID: Z8-2 (6"-12")Batch#: SAMPLE Analyzed: 02/18/15 Type:

Lab ID: 264663-008

Analyte Result RLGasoline C7-C12 0.97 ND

%REC Limits Surrogate Bromofluorobenzene (FID) 78-138

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Total Volatile Hydrocarbons Lab #: 264663 Location: Economy Trucking Client: Chemical Data Management Systems EPA 5030B Prep: Analysis: Diln Fac: Project#: STANDARD EPA 8015B Matrix: Soil 1.000 02/12/15 Units: mg/Kg Sampled: Basis: as received Received: 02/12/15

Field ID: Z9-1 (0"-6")Type: SAMPLE Lab ID:

264663-009

Batch#: 220494 Analyzed: 02/18/15

Result Analyte Gasoline C7-C12 2.9 Y 0.93

Limits Surrogate %REC 98 Bromofluorobenzene (FID) 78-138

Z9-2 (6"-12") Field ID: Batch#: 220494 SAMPLE 02/18/15 Type: Analyzed:

Lab ID: 264663-010

Analyte Result RL1.2 Y Gasoline C7-C12 0.91

%REC Limits Surrogate 78-138 Bromofluorobenzene (FID)

Field ID: Z6-1 (0"-6")Batch#: 220494 SAMPLE 02/18/15 Type: Analyzed:

264663-011 Lab ID:

Analyte Result Gasoline C7-C12 ND 0.94

%REC Limits Surrogate Bromofluorobenzene (FID) 78-138

Z6-2 (6"-12")220494 Field ID: Batch#: SAMPLE Analyzed: 02/18/15 Type:

Lab ID: 264663-012

Analyte Result RLGasoline C7-C12 ND 1.1

%REC Limits Surrogate Bromofluorobenzene (FID) 78-138

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Total Volatile Hydrocarbons Lab #: 264663 Location: Economy Trucking EPA 5030B Client: Chemical Data Management Systems Prep: Analysis: Diln Fac: Project#: STANDARD EPA 8015B Matrix: Soil 1.000 02/12/15 Units: mg/Kg Sampled: Basis: as received Received: 02/12/15

Field ID: Z3-1 (0"-6")Batch#: 220494 Type: SAMPLE Analyzed: 02/18/15

264663-013 Lab ID:

Result Analyte 1.1Gasoline C7-C12 ND

Limits Surrogate %REC 79 Bromofluorobenzene (FID) 78-138

Z3-2 (6"-12") Field ID: Batch#: 220494 SAMPLE 02/18/15 Type: Analyzed:

Lab ID: 264663-014

Result Analyte RLGasoline C7-C12 ND

%REC Limits Surrogate 78-138 Bromofluorobenzene (FID)

Type: BLANK Batch#: 220494 Analyzed: Lab ID: QC777479 02/17/15

Result Analyte C7-C12 0.20 Gasoline

Surrogate %REC Limits

92 Bromofluorobenzene (FID) 78-138

220534 Type: BLANK Batch#: QC777633 02/18/15 Lab ID: Analyzed:

Analyte Result RLGasoline C7-C12 ND 0.20

%REC Limits Surrogate Bromofluorobenzene (FID)

Type: BLANK Batch#: 220585 Lab ID: QC777823 02/19/15 Analyzed:

Analyte Result Gasoline C7-C12 ND 1.0

%REC Limits Surrogate 78-138 Bromofluorobenzene (FID) 99

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected RL= Reporting Limit

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Total Volatile Hydrocarbons					
Lab #:	264663	Location:	Economy Trucking		
Client:	Chemical Data Management Systems	Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8015B		
Type:	LCS	Diln Fac:	1.000		
Lab ID:	QC777478	Batch#:	220494		
Matrix:	Soil	Analyzed:	02/17/15		
Units:	mg/Kg				

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	0.9377	94	80-121

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	85	78-138

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Total Volatile Hydrocarbons						
Lab #: 264	:663	Location:	Economy Trucking			
Client: Che	emical Data Management Systems	Prep:	EPA 5030B			
Project#: STA	NDARD	Analysis:	EPA 8015B			
Field ID:	ZZZZZZZZZ	Diln Fac:	1.000			
MSS Lab ID:	264621-001	Batch#:	220494			
Matrix:	Soil	Sampled:	02/12/15			
Units:	mg/Kg	Received:	02/12/15			
Basis:	as received	Analyzed:	02/17/15			

Type: MS Lab ID: QC777480

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1441	9.804	9.264	93	50-120

Surrogate %REC L	Limits
	78-1

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.31	8.372	80	50-120	15	31



Total Volatile Hydrocarbons					
Lab #:	264663	Location:	Economy Trucking		
Client:	Chemical Data Management Systems	Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8015B		
Type:	LCS	Diln Fac:	1.000		
Lab ID:	QC777632	Batch#:	220534		
Matrix:	Soil	Analyzed:	02/18/15		
Units:	mg/Kg				

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.006	101	80-121

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	96	78-138

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Total Volatile Hydrocarbons						
Lab #: 264663		Location:	Economy Trucking			
Client: Chemic	al Data Management Systems	Prep:	EPA 5030B			
Project#: STANDA	ARD	Analysis:	EPA 8015B			
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000			
MSS Lab ID:	264629-007	Batch#:	220534			
Matrix:	Soil	Sampled:	02/08/15			
Units:	mg/Kg	Received:	02/12/15			
Basis:	as received	Analyzed:	02/18/15			

Type: MS Lab ID: QC777634

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.07656	9.524	8.131	85	50-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	78-138

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.709	8.392	86	50-120	1	31



Total Volatile Hydrocarbons						
Lab #:	264663	Location:	Economy Trucking			
Client:	Chemical Data Management Systems	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8015B			
Type:	LCS	Diln Fac:	1.000			
Lab ID:	QC777822	Batch#:	220585			
Matrix:	Soil	Analyzed:	02/19/15			
Units:	mg/Kg					

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.065	106	80-121

Surrogate %REC Limits
mofluorobenzene (FID) 94 78-1

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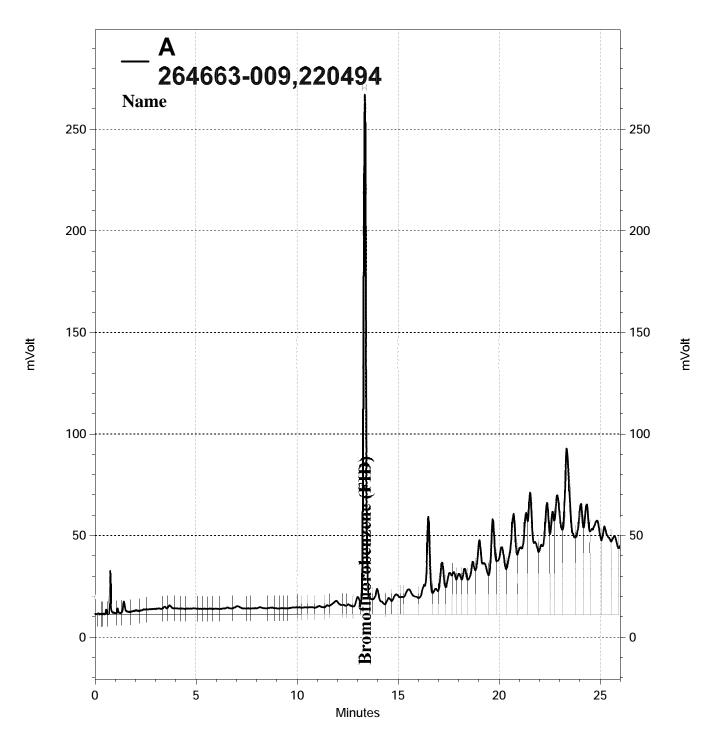
Total Volatile Hydrocarbons						
Lab #: 264663	3	Location:	Economy Trucking			
Client: Chemic	cal Data Management Systems	Prep:	EPA 5030B			
Project#: STANDA	ARD	Analysis:	EPA 8015B			
Field ID:	Z5-2 (6"-12")	Diln Fac:	1.000			
MSS Lab ID:	264663-004	Batch#:	220585			
Matrix:	Soil	Sampled:	02/12/15			
Units:	mg/Kg	Received:	02/12/15			
Basis:	as received	Analyzed:	02/19/15			

Type: MS Lab ID: QC777937

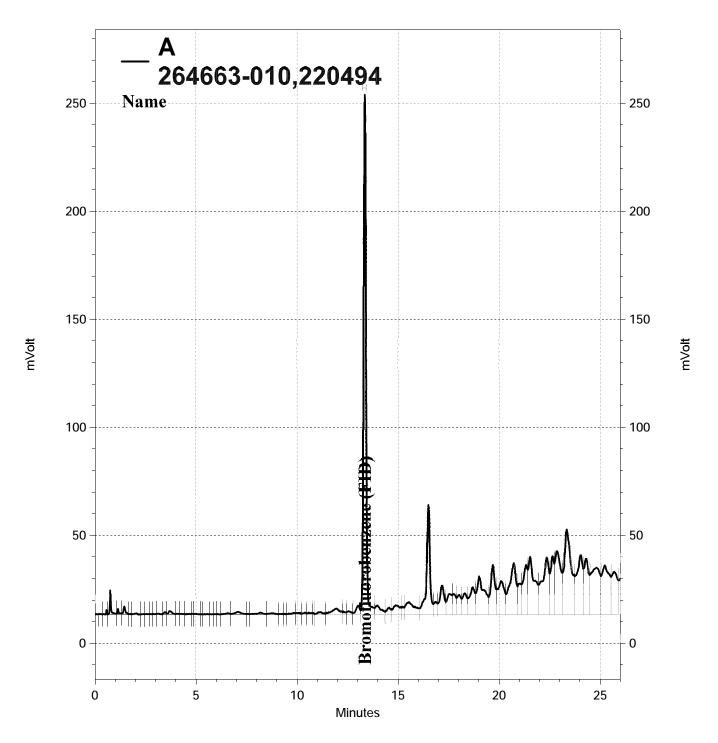
Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.08997	9.901	6.755	67	50-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	78-138

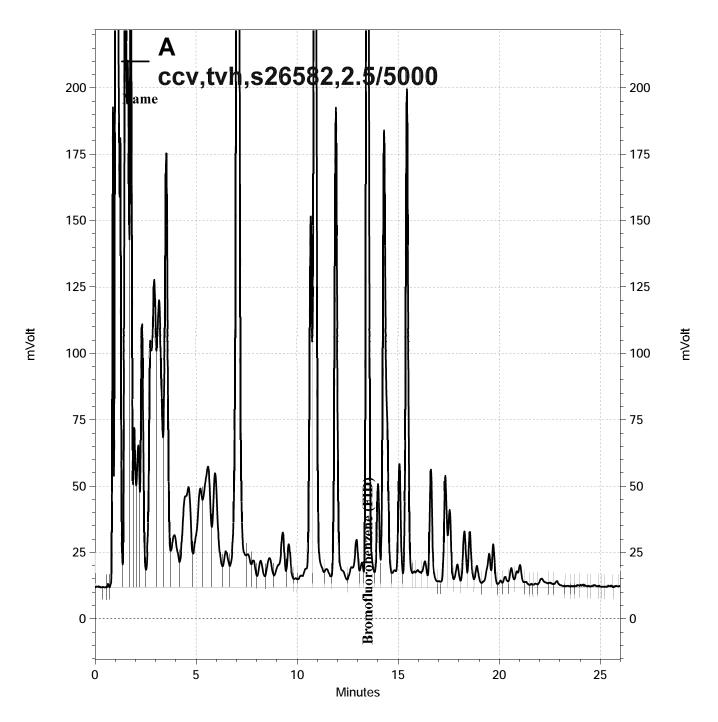
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.434	5.400	56	50-120	18	31



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Total Extractable Hydrocarbons Location: Lab #: 264663 Economy Trucking Client: Chemical Data Management Systems Prep: EPA 3520C Project#: STANDARD Analysis: EPA 8015B 02/12/15 Matrix: Water Sampled: Units: ug/L Received: 02/12/15 1.000 Diln Fac: Prepared: 02/17/15 Batch#: 220504 Analyzed: 02/18/15

Field ID: MW2 Lab ID: 264663-019

Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	2,600 Y	50
Motor Oil C24-C36	2,200	300

Surrogate	%REC	Limits
o-Terphenyl	123	67-136

Field ID: MW1 Lab ID: 264663-020

SAMPLE Type:

Analyte	Result	RL	
Diesel C10-C24	3,500 Y	50	
Motor Oil C24-C36	3,800	300	

Surrogate	%REC	Limits
o-Terphenyl	124	67-136

Type: BLANK Lab ID: QC777518

Analyte	Result	RL	
Diesel C10-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits	
o-Terphenyl	117	67-136	

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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	Total Extractable Hydrocarbons					
Lab #:	264663	Location:	Economy Trucking			
Client:	Chemical Data Management Systems	Prep:	EPA 3520C			
Project#:	STANDARD	Analysis:	EPA 8015B			
Matrix:	Water	Batch#:	220504			
Units:	ug/L	Prepared:	02/17/15			
Diln Fac:	1.000	Analyzed:	02/19/15			

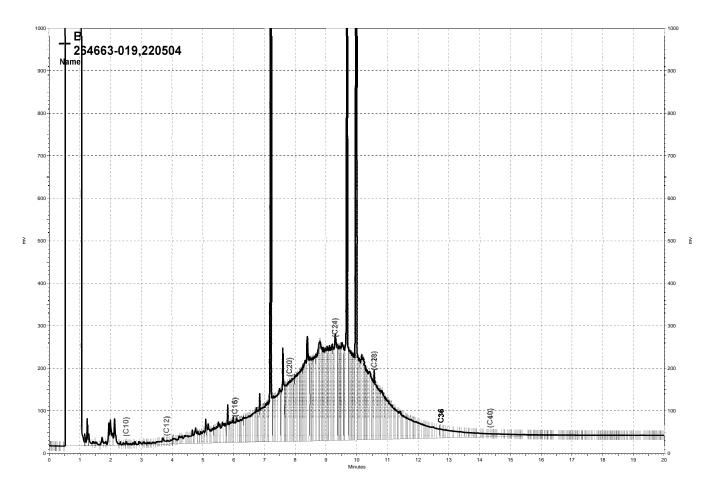
Type: BS Lab ID: QC777519

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,202	88	60-121

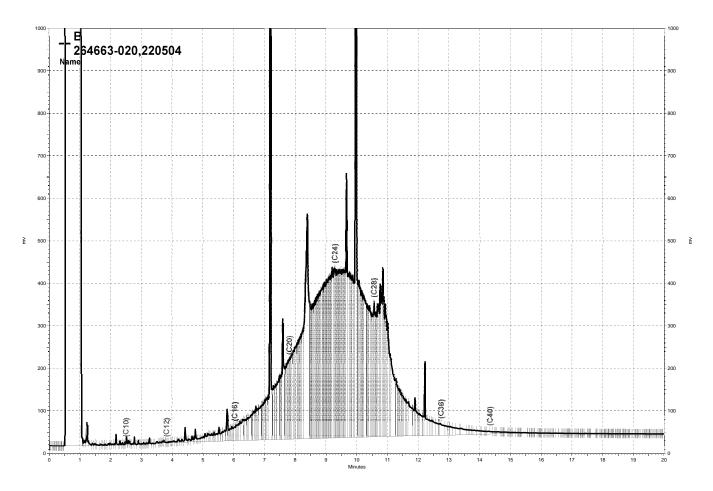
Surrogate	%REC	Limits
o-Terphenyl	106	67-136

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,432	97	60-121	10	32

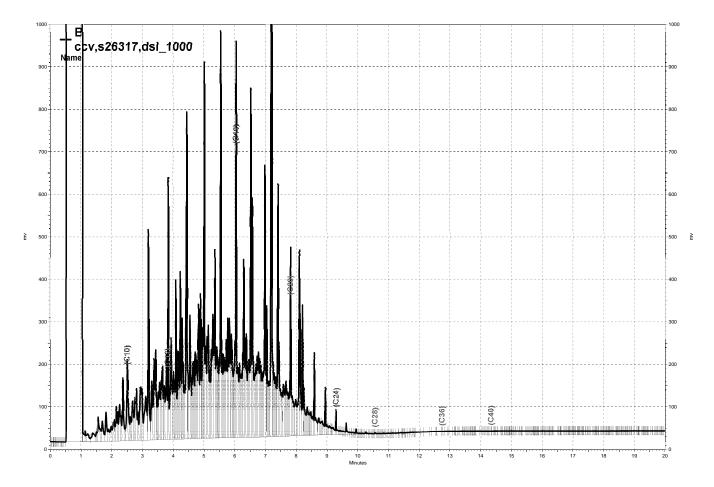
Surrogate	%REC	Limits	
o-Terphenyl	107	67-136	



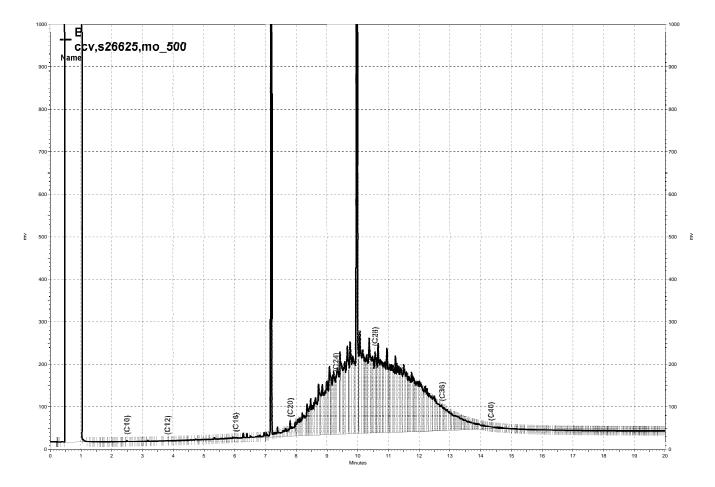
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Total Extractable Hydrocarbons Economy Trucking EPA 3550B Lab #: 264663 Location: Client: Chemical Data Management Systems Prep: Project#: STANDARD Analysis: EPA 8015B Matrix: Soil Sampled: 02/12/15 02/12/15 Units: mg/Kg Received: Basis: as received

Field ID: Z4-1 (0"-6") Batch#: 220559
Type: SAMPLE Prepared: 02/18/15
Lab ID: 264663-001 Analyzed: 02/19/15
Diln Fac: 20.00

 Analyte
 Result
 RL

 Diesel C10-C24
 340 Y
 20

 Motor Oil C24-C36
 1,600
 100

Surrogate %REC Limits
O-Terphenyl DO 59-140

Field ID: Z4-2 (6"-12") Batch#: 220559
Type: SAMPLE Prepared: 02/18/15
Lab ID: 264663-002 Analyzed: 02/19/15
Diln Fac: 5.000

 Analyte
 Result
 RL

 Diesel C10-C24
 390 Y
 5.0

 Motor Oil C24-C36
 1,200
 25

Surrogate %REC Limits
O-Terphenyl 96 59-140

Field ID: Z5-1 (0"-6") Batch#: 220559
Type: SAMPLE Prepared: 02/18/15
Lab ID: 264663-003 Analyzed: 02/19/15
Diln Fac: 20.00

 Analyte
 Result
 RL

 Diesel C10-C24
 240 Y
 20

 Motor Oil C24-C36
 2,100
 100

Surrogate %REC Limits
o-Terphenyl DO 59-140

Field ID: Z5-2 (6"-12") Batch#: 220559
Type: SAMPLE Prepared: 02/18/15
Lab ID: 264663-004 Analyzed: 02/19/15
Diln Fac: 20.00

 Analyte
 Result
 RL

 Diesel C10-C24
 290 Y
 20

 Motor Oil C24-C36
 2,200
 100

 Surrogate
 %REC
 Limits

 o-Terphenyl
 DO
 59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 1 of 4



Total Extractable Hydrocarbons Lab #: 264663 Location: Economy Trucking Client: EPA 3550B Chemical Data Management Systems Prep: Analysis: Sampled: EPA 8015B 02/12/15 Project#: STANDARD Matrix: Soil Units: mg/Kg Received: 02/12/15 Basis: as received

Field ID: Z7-1 (0"-6")Batch#: 220559 Type: SAMPLE Prepared: 02/18/15 Lab ID: 264663-005 Analyzed: 02/19/15 Diln Fac: 20.00

Analyte	Result	RL	
Diesel C10-C24	190 Y	20	
Motor Oil C24-C36	860	100	

Surrogate	%REC	Limits
o-Terphenyl	DO	59-140

Field ID: Z7-2 (6"-12")Batch#: 220559 Type: SAMPLE Prepared: 02/18/15 264663-006 Lab ID: Analyzed: 02/19/15 Diln Fac: 20.00

Analyte Result RL2,000 Diesel C10-C24 20 Motor Oil C24-C36 100 2,900

Field ID: Z8-1 (0"-6") 220586 Batch#: Type: SAMPLE Prepared: 02/19/15 Lab ID: 264663-007 02/19/15 Analyzed: Diln Fac: 10.00

Analyte	Result	RL	
Diesel C10-C24	340	10	
Motor Oil C24-C36	1,700	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	59-140

Field ID: Z8-2 (6"-12") Batch#: 220586 SAMPLE Prepared: Type: 02/19/15 Lab ID: 264663-008 Analyzed: 02/19/15 Diln Fac: 5.000

Analyte	Result	RL	
Diesel C10-C24	100	5.0	
Motor Oil C24-C36	410	25	

Surrogate	%REC	Limits	
o-Terphenyl	106	59-140	

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit

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Total Extractable Hydrocarbons Lab #: 264663 Location: Economy Trucking Client: EPA 3550B Chemical Data Management Systems Prep: Analysis: Sampled: EPA 8015B 02/12/15 Project#: STANDARD Matrix: Soil Units: mg/Kg Received: 02/12/15 Basis: as received

Field ID: Z9-1 (0"-6")Batch#: 220586 Type: SAMPLE Prepared: 02/19/15 Lab ID: 264663-009 Analyzed: 02/19/15 Diln Fac: 5.000

Analyte	Result	RL	
Diesel C10-C24	1,900	5.0	
Motor Oil C24-C36	700	25	

Surrogate	%REC	Limits
o-Terphenyl	80	59-140

Field ID: Z9-2 (6"-12")220586 Batch#: SAMPLE Prepared: 02/19/15 Type: 02/20/15 Lab ID: 264663-010 Analyzed: Diln Fac: 5.000

Result Analyte RL Diesel C10-C24 680 5.0 Motor Oil C24-C36 25 240

Surrogate	%REC	Limits
o-Terphenyl	96	59-140

Field ID: Z6-1 (0"-6")220586 Batch#: Type: SAMPLE Prepared: 02/19/15 Lab ID: 264663-011 02/19/15 Analyzed: Diln Fac: 1.000

Result RL Analyte Diesel C10-C24 60 1.0 Motor Oil C24-C36 280 5.0

Surrogate	%REC	Limits	
o-Terphenyl	102	59-140	

Field ID: Z6-2 (6"-12") 220586 Batch#: Prepared: 02/19/15 Type: SAMPLE Lab ID: 264663-012 Analyzed: 02/19/15 Diln Fac: 1.000

Analyte Result RL Diesel C10-C24 81 260 Motor Oil C24-C36 5.0

Surrogate	%REC	Limits
o-Terphenyl	101	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit

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Total Extractable Hydrocarbons Lab #: 264663 Location: Economy Trucking Client: Chemical Data Management Systems EPA 3550B Prep: Project#: STANDARD Ana<u>lysis:</u> EPA 8015B Sampled: 02/12/15 Matrix: Soil Received: 02/12/15

Units: mg/Kg Basis: as received

Field ID: Z3-1 (0"-6")Batch#: 220586 Type: SAMPLE Prepared: 02/19/15 264663-013 Lab ID: Analyzed: 02/19/15 Diln Fac: 10.00

Analyte Result Diesel C10-C24 Motor Oil C24-C36 110 10 50 100

Surrogate %REC Limits 59-140 o-Terphenyl DO

Field ID: Z3-2 (6"-12")Batch#: 220586 SAMPLE Prepared: 02/19/15 Type: Lab ID: 264663-014 02/19/15 Analyzed:

Diln Fac: 10.00

Analyte Result RLDiesel C10-C24 990 9.9 Motor Oil C24-C36 4,400 50

Surrogate %REC Limits 59-140 o-Terphenyl DO

220559 Type: BLANK Batch#: Lab ID: QC777729 Prepared: 02/18/15  $\tilde{1}.000$ 02/19/15 Diln Fac: Analyzed:

Analyte Result RLDiesel C10-C24 ND  $1.\overline{0}$ Motor Oil C24-C36 ND 5.0

Surrogate %REC Limits o-Terphenyl 59-140

Type: BLANK Batch#: 220586 Lab ID: QC777824 02/19/15 Prepared:  $\tilde{1}.000$ 02/19/15 Diln Fac: Analyzed:

Result RL Analyte Diesel C10-C24 ND 1.0 Motor Oil C24-C36 5.0 ND

Surrogate %REC Limits 59-140 105 o-Terphenyl

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

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Total Extractable Hydrocarbons						
Lab #:	264663	Location:	Economy Trucking			
Client:	Chemical Data Management Systems	Prep:	EPA 3550B			
Project#:	STANDARD	Analysis:	EPA 8015B			
Type:	LCS	Diln Fac:	1.000			
Lab ID:	QC777730	Batch#:	220559			
Matrix:	Soil	Prepared:	02/18/15			
Units:	mg/Kg	Analyzed:	02/19/15			

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.65	53.69	108	58-137

Surrogate	%REC	Limits
o-Terphenyl	121	59-140

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Total Extractable Hydrocarbons							
Lab #: 264663		Location:	Economy Trucking				
Client: Chemical I	Data Management Systems	Prep:	EPA 3550B				
Project#: STANDARD		Analysis:	EPA 8015B				
Field ID: ZZZ	ZZZZZZZ	Batch#:	220559				
MSS Lab ID: 264	4690-001	Sampled:	02/16/15				
Matrix: Soi	il	Received:	02/17/15				
Units: mg/	/Kg	Prepared:	02/18/15				
Basis: as	received	Analyzed:	02/19/15				
Diln Fac: 1.0	000						

Type: MS Lab ID: QC777731

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	8.308	50.16	56.46	96	46-154

Surrogate	%REC	Limits
o-Terphenyl	110	59-140

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.18	59.88	103	46-154	6	50

Surro
o-Terphenyl



Total Extractable Hydrocarbons						
Lab #:	264663	Location:	Economy Trucking			
Client:	Chemical Data Management Systems	Prep:	EPA 3550B			
Project#:	STANDARD	Analysis:	EPA 8015B			
Type:	LCS	Diln Fac:	1.000			
Lab ID:	QC777825	Batch#:	220586			
Matrix:	Soil	Prepared:	02/19/15			
Units:	mg/Kg	Analyzed:	02/19/15			

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.19	39.68	79	58-137

Surrogate	%REC	Limits
o-Terphenyl	82	59-140

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Total Extractable Hydrocarbons							
Lab #: 26466	3	Location:	Economy Trucking				
Client: Chemi	cal Data Management Systems	Prep:	EPA 3550B				
Project#: STAND	ARD	Analysis:	EPA 8015B				
Field ID:	ZZZZZZZZZZ	Batch#:	220586				
MSS Lab ID:	264755-001	Sampled:	02/18/15				
Matrix:	Soil	Received:	02/18/15				
Units:	mg/Kg	Prepared:	02/19/15				
Basis:	as received	Analyzed:	02/19/15				
Diln Fac:	1.000						

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC777826

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	4.089	50.18	44.54	81	46-154

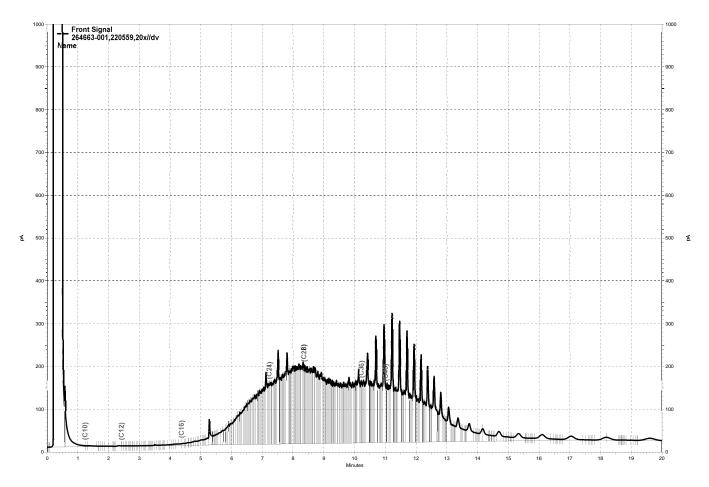
Surrogate	%REC	Limits
o-Terphenyl	91	59-140

Type: MSD Cleanup Method: EPA 3630C

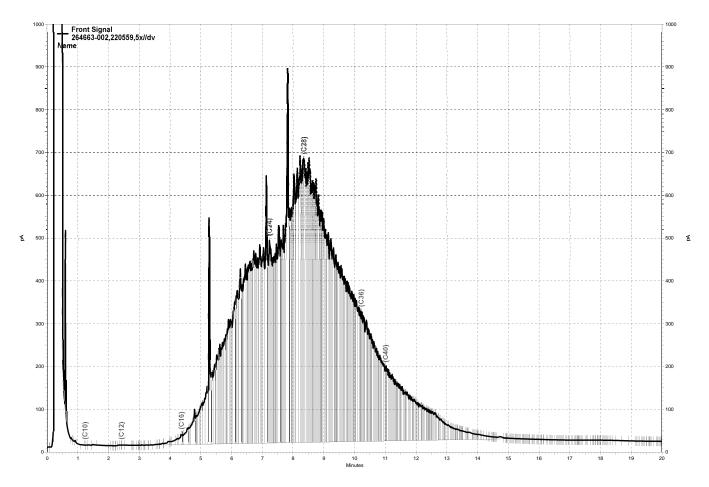
Lab ID: QC777827

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.54	37.87	68	46-154	15	50

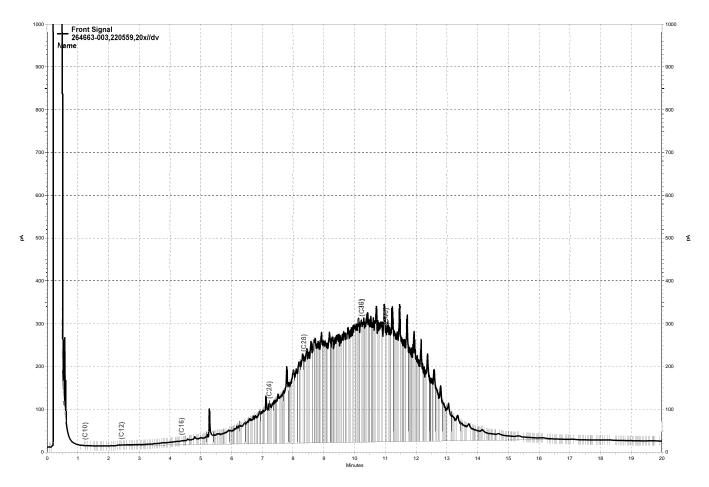
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Terphenyl



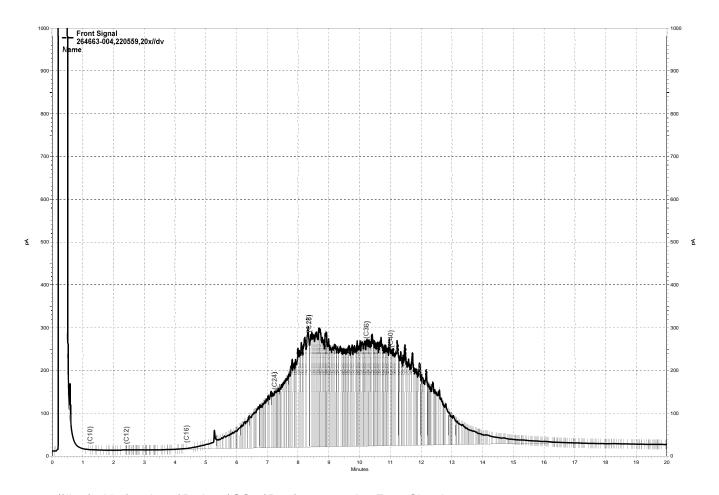
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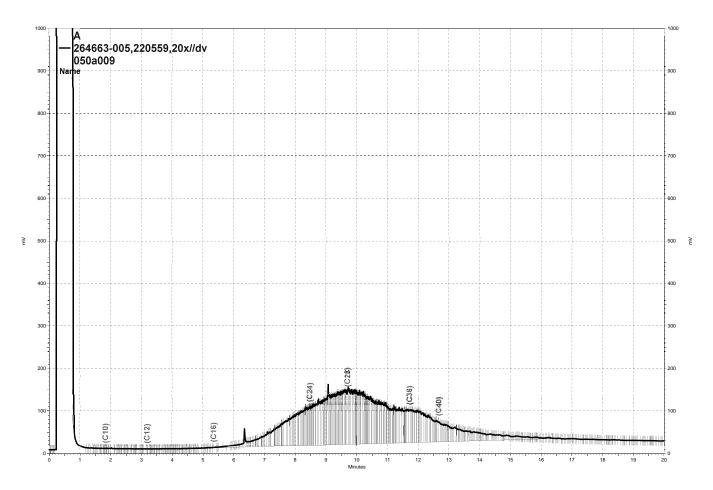
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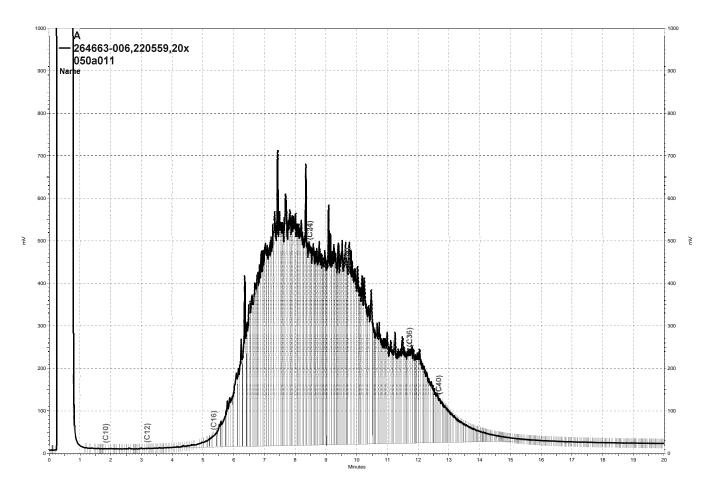
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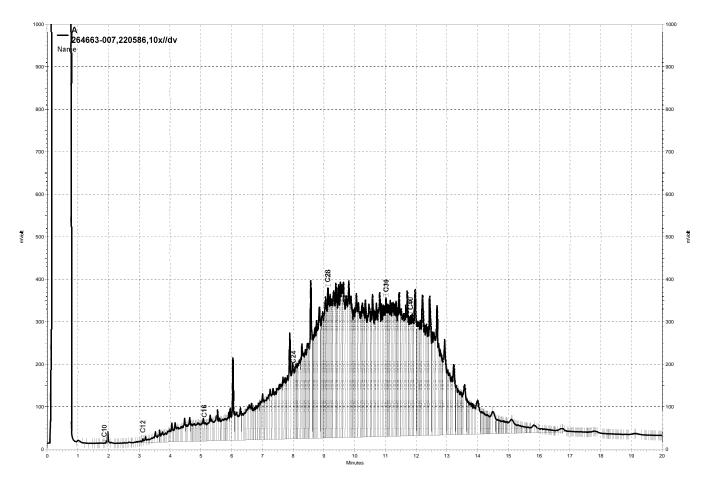
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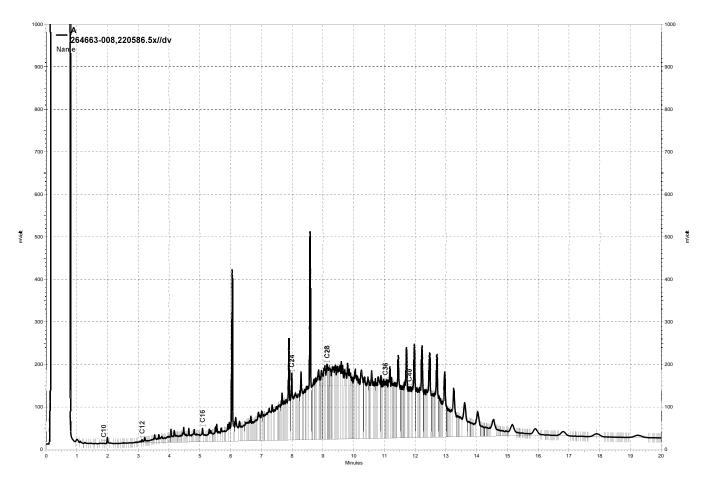
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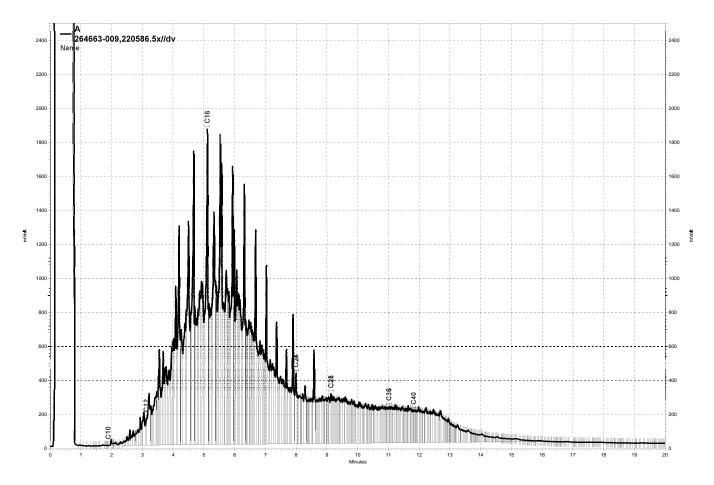
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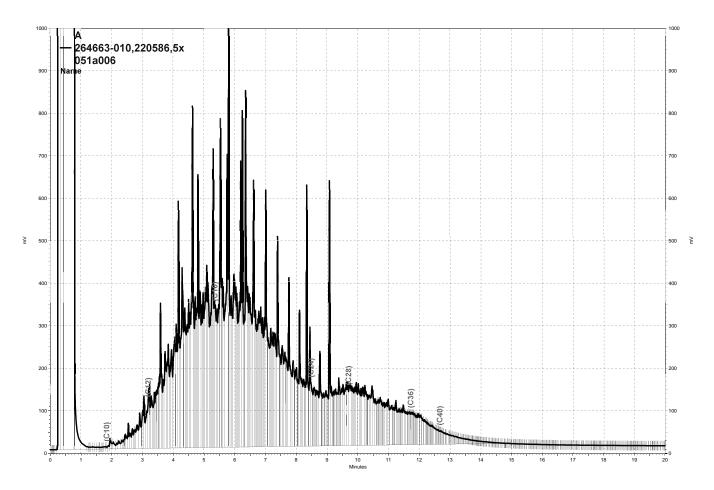
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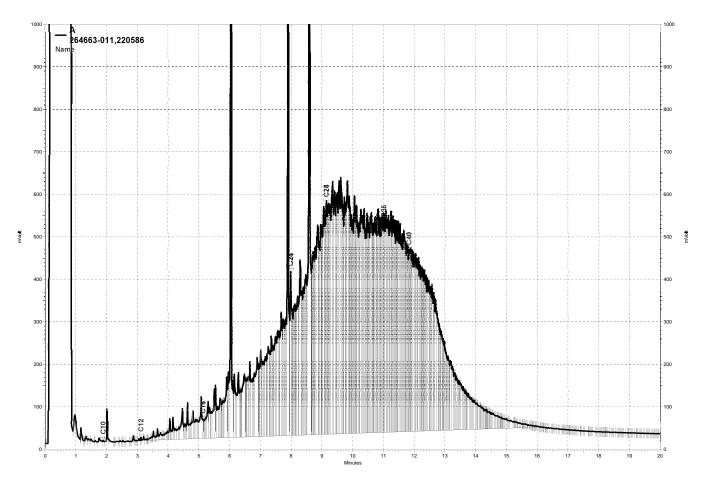
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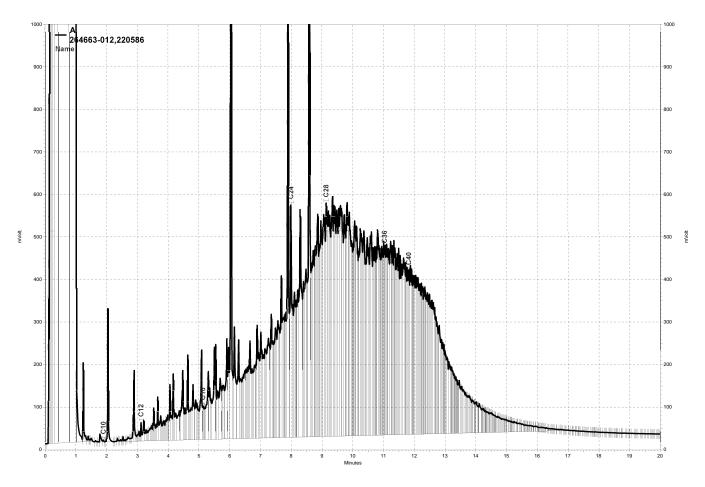
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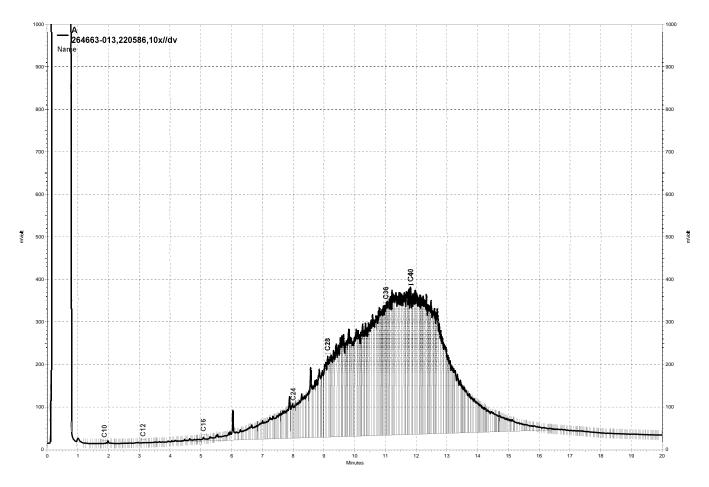
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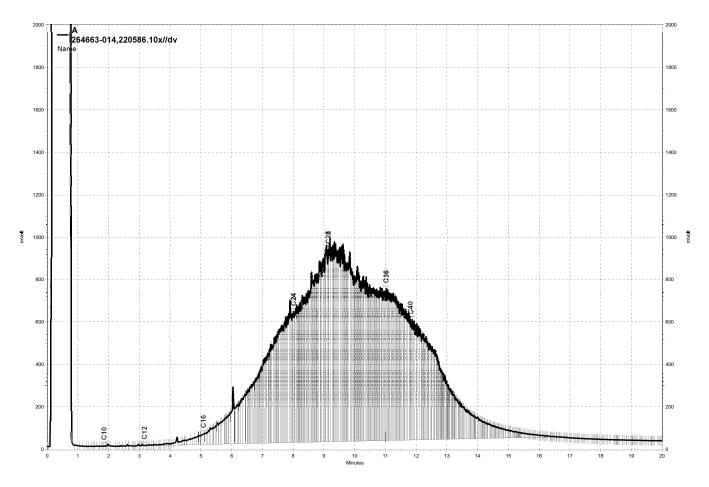
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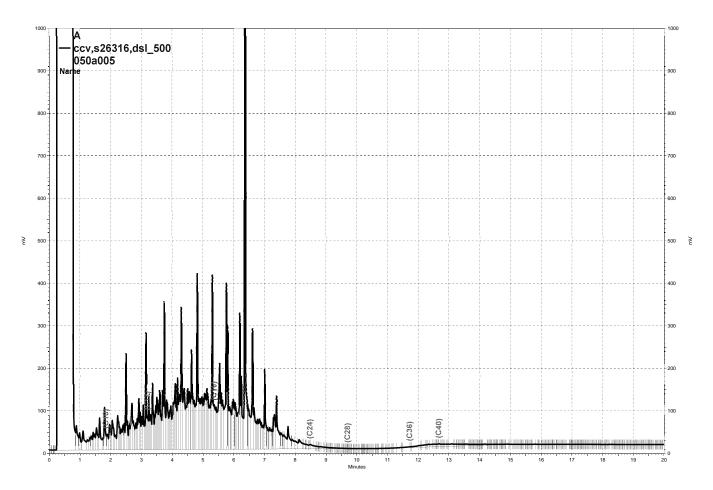
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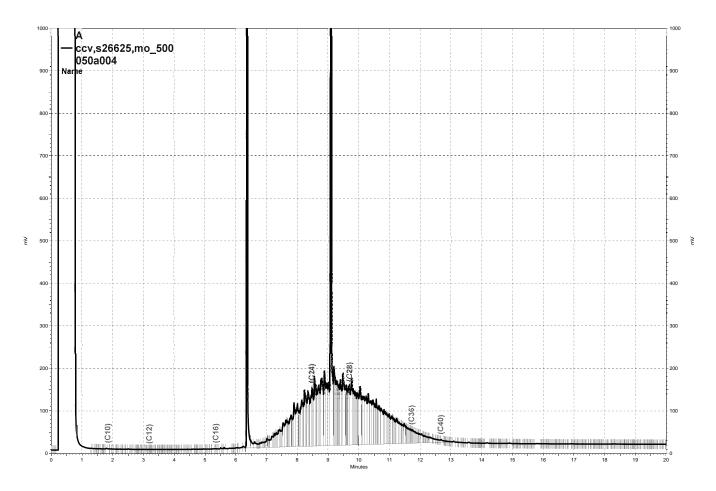
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\Lims\gdrive\ezchrom\Projects\GC17A\Data\050a004, A



	Purgeable Organics by GC/MS							
Lab #:	264663	Location:	Economy Trucking					
Client:	Chemical Data Management Systems	Prep:	EPA 5030B					
Project#:	STANDARD	Analysis:	EPA 8260B					
Field ID:	MW2	Batch#:	220463					
Lab ID:	264663-019	Sampled:	02/12/15					
Matrix:	Water	Received:	02/12/15					
Units:	ug/L	Analyzed:	02/15/15					
Diln Fac:	1.000							

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	2.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	17	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	

ND= Not Detected RL= Reporting Limit

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3.0



	Purgeable Organics by GC/MS						
Lab #:	264663	Location:	Economy Trucking				
Client:	Chemical Data Management Systems	Prep:	EPA 5030B				
Project#:	STANDARD	Analysis:	EPA 8260B				
Field ID:	MW2	Batch#:	220463				
Lab ID:	264663-019	Sampled:	02/12/15				
Matrix:	Water	Received:	02/12/15				
Units:	ug/L	Analyzed:	02/15/15				
Diln Fac:	1.000						

Analyte	Result	RL	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	111	80-128	
1,2-Dichloroethane-d4	94	75-139	
Toluene-d8	89	80-120	
Bromofluorobenzene	94	80-120	

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS						
Lab #:	264663	Location:	Economy Trucking	·		
Client:	Chemical Data Management Systems	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8260B			
Field ID:	MW1	Batch#:	220463			
Lab ID:	264663-020	Sampled:	02/12/15			
Matrix:	Water	Received:	02/12/15			
Units:	ug/L	Analyzed:	02/16/15			
Diln Fac:	1.000					

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	2.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	40	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS						
Lab #:	264663	Location:	Economy Trucking	·		
Client:	Chemical Data Management Systems	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8260B			
Field ID:	MW1	Batch#:	220463			
Lab ID:	264663-020	Sampled:	02/12/15			
Matrix:	Water	Received:	02/12/15			
Units:	ug/L	Analyzed:	02/16/15			
Diln Fac:	1.000					

Analyte	Result	RL	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	112	80-128	
1,2-Dichloroethane-d4	93	75-139	
Toluene-d8	90	80-120	
Bromofluorobenzene	94	80-120	

ND= Not Detected

RL= Reporting Limit

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	Purgeable Organics by GC/MS						
Lab #:	264663	Location:	Economy Trucking				
Client:	Chemical Data Management Systems	Prep:	EPA 5030B				
Project#:	STANDARD	Analysis:	EPA 8260B				
Type:	BLANK	Diln Fac:	1.000				
Lab ID:	QC777353	Batch#:	220463				
Matrix:	Water	Analyzed:	02/15/15				
Units:	ug/L						

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	2.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	
retrachioroethene	ДИ	0.5	

ND= Not Detected

RL= Reporting Limit

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	Purgeable Or	ganics by GC/	MS
Lab #:	264663	Location:	Economy Trucking
Client:	Chemical Data Management Systems	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC777353	Batch#:	220463
Matrix:	Water	Analyzed:	02/15/15
Units:	ug/L		

Analyte	Result	RL	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	109	80-128	
1,2-Dichloroethane-d4	95	75-139	
Toluene-d8	92	80-120	
Bromofluorobenzene	93	80-120	

ND= Not Detected

RL= Reporting Limit

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	Purgeable Or	ganics by GC/	'MS	
Lab #:	264663	Location:	Economy Trucking	
Client:	Chemical Data Management Systems	Prep:	EPA 5030B	
Project#:	STANDARD	Analysis:	EPA 8260B	
Matrix:	Water	Batch#:	220463	
Units:	ug/L	Analyzed:	02/15/15	
Diln Fac:	1.000			

Type: BS Lab ID: QC777354

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	12.50	14.23	114	66-135
Benzene	12.50	12.84	103	80-123
Trichloroethene	12.50	12.83	103	80-123
Toluene	12.50	11.66	93	80-121
Chlorobenzene	12.50	11.75	94	80-123

Surrogate	%REC	Limits	
Dibromofluoromethane	107	80-128	
1,2-Dichloroethane-d4	94	75-139	
Toluene-d8	90	80-120	
Bromofluorobenzene	91	80-120	

Type: BSD Lab ID: QC777355

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	12.50	15.02	120	66-135	5	24
Benzene	12.50	13.40	107	80-123	4	20
Trichloroethene	12.50	13.51	108	80-123	5	20
Toluene	12.50	12.39	99	80-121	6	20
Chlorobenzene	12.50	12.74	102	80-123	8	20

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-128
1,2-Dichloroethane-d4	100	75–139
Toluene-d8	91	80-120
Bromofluorobenzene	90	80-120



	Purgeable Org	ganics by GC/MS	
Lab #: 264663	}	Location:	Economy Trucking
Client: Chemic	al Data Management Systems	Prep:	EPA 5030B
Project#: STANDA	ARD	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZ	Batch#:	220463
MSS Lab ID:	264633-004	Sampled:	02/12/15
Matrix:	Water	Received:	02/13/15
Units:	ug/L	Analyzed:	02/16/15
Diln Fac:	1.000		

Type: MS Lab ID: QC777360

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1268	12.50	15.53	124	73-129
Benzene	<0.1000	12.50	14.22	114	80-120
Trichloroethene	20.59	12.50	34.03	108	73-123
Toluene	<0.1000	12.50	12.33	99	80-120
Chlorobenzene	<0.1000	12.50	12.87	103	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-128
1,2-Dichloroethane-d4	100	75-139
Toluene-d8	88	80-120
Bromofluorobenzene	87	80-120

Type: MSD Lab ID: QC777361

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	12.50	15.52	124	73-129	0	25
Benzene	12.50	14.08	113	80-120	1	20
Trichloroethene	12.50	33.08	100	73-123	3	20
Toluene	12.50	12.11	97	80-120	2	21
Chlorobenzene	12.50	12.56	100	80-120	2	24

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-128
1,2-Dichloroethane-d4	100	75-139
Toluene-d8	88	80-120
Bromofluorobenzene	92	80-120



	N	ickel	
Lab #:	264663	Location:	Economy Trucking
Client:	Chemical Data Management Systems	Prep:	EPA 3010A
Project#:	STANDARD	Analysis:	EPA 6010B
Analyte:	Nickel	Sampled:	02/12/15
Matrix:	Water	Received:	02/12/15
Units:	ug/L	Prepared:	02/18/15
Diln Fac:	1.000	Analyzed:	02/18/15
Batch#:	220544		

	Field ID Type	Lab ID	Result	RL	
MW2	SAMPL	E 264663-019	ND	5.0	
MW1	SAMPL	E 264663-020	ND	5.0	
	BLANK	QC777661	ND	5.0	

ND= Not Detected RL= Reporting Limit Page 1 of 1

40.0



		Zinc	
Lab #:	264663	Location:	Economy Trucking
Client:	Chemical Data Management Systems	Prep:	EPA 3010A
Project#:	STANDARD	Analysis:	EPA 6010B
Analyte:	Zinc	Sampled:	02/12/15
Matrix:	Water	Received:	02/12/15
Units:	ug/L	Prepared:	02/18/15
Diln Fac:	1.000	Analyzed:	02/18/15
Batch#:	220544		

	Field ID Ty	ре	Lab ID	Result	RL
MW2	SAM	PLE 26	54663-019	ND	20
MW1	SAM	PLE 26	54663-020	ND	20
	BLA	NK QC	2777661	ND	20

ND= Not Detected
RL= Reporting Limit

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	N	ickel	
Lab #:	264663	Location:	Economy Trucking
Client:	Chemical Data Management Systems	Prep:	EPA 3010A
Project#:	STANDARD	Analysis:	EPA 6010B
Analyte:	Nickel	Batch#:	220544
Field ID:	ZZZZZZZZZ	Sampled:	02/11/15
MSS Lab ID	264659-001	Received:	02/12/15
Matrix:	Water	Prepared:	02/18/15
Units:	ug/L	Analyzed:	02/18/15
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC777662		100.0	92.58	93	80-120		
BSD	QC777663		100.0	93.15	93	80-120	1	20
MS	QC777664	1.251	100.0	86.27	85	80-120		
MSD	QC777665		100.0	89.30	88	80-120	3	20



		Zinc	
Lab #: 2646	63	Location:	Economy Trucking
Client: Chem	ical Data Management Systems	Prep:	EPA 3010A
Project#: STAN	DARD	Analysis:	EPA 6010B
Analyte:	Zinc	Batch#:	220544
Field ID:	ZZZZZZZZZ	Sampled:	02/11/15
MSS Lab ID:	264659-001	Received:	02/12/15
Matrix:	Water	Prepared:	02/18/15
Units:	ug/L	Analyzed:	02/18/15
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC777662		100.0	96.39	96	80-120		
BSD	QC777663		100.0	97.49	97	80-120	1	20
MS	QC777664	6.709	100.0	99.20	92	80-122		
MSD	QC777665		100.0	102.5	96	80-122	3	20



California LUFT Metals Economy Trucking EPA 3050B Lab #: 264663 Location: Client: Prep: Chemical Data Management Systems Project#: STANDARD Analysis: EPA 6010B 02/12/15 02/12/15 Sampled: Matrix: Soil Received: Units: mg/Kg Basis: as received Prepared: 02/18/15 Batch#: 220552

Field ID: Z4-1 (0"-6")SAMPLÈ Type: Lab ID: 264663-001

Diln Fac: 1.000 Analyzed: 02/20/15

Analyte	Result	RL	
Cadmium	2.7	0.24	
Chromium	93	0.24	
Lead	210	0.24	
Lead Nickel	41	0.24	
Zinc	420	0.97	

Field ID: Z4-2 (6"-12")

Type: SAMPLE Lab ID: 264663-002

Analyte	Result	RL	Diln Fac	Analyzed
Cadmium	3.3	0.25	1.000	02/20/15
Chromium	650	25	100.0	02/23/15
Lead	90	0.25	1.000	02/20/15
Nickel	63	0.25	1.000	02/20/15
Zinc	460	1.0	1.000	02/20/15

Field ID: Z5-1 (0"-6") Diln Fac: Analyzed: 1.000 02/20/15 SAMPLE Type: Lab ID: 264663-003

Analyte	Result	RL
Cadmium	0.71	0.27
Chromium	43	0.27
Lead	10	0.27
Lead Nickel	56	0.27
Zinc	51	1.1

Field ID: Z5-2 (6"-12") Lab ID: 264663-004

Type: SAMPLE

Analyte	Result	RL	Diln Fac	Analyzed
Cadmium	1.4	0.25	1.000	02/20/15
Chromium	780	25	100.0	02/23/15
Lead	34	0.25	1.000	02/20/15
Nickel	31	0.25	1.000	02/20/15
Zinc	190	1.0	1.000	02/20/15

ND= Not Detected RL= Reporting Limit

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California LUFT Metals Economy Trucking EPA 3050B 264663 Lab #: Location: Client: Chemical Data Management Systems Prep: Project#: STANDARD Analysis: Sampled: EPA 6010B 02/12/15 02/12/15 Soil Matrix: Received: Units: mg/Kg as received 220552 Basis: Prepared: 02/18/15 Batch#:

Field ID: Z3-1 (0"-6")
Type: SAMPLE
Lab ID: 264663-013

Diln Fac: 1.000 Analyzed: 02/20/15

Analyte	Result	RL	
Cadmium	0.82	0.28	
Chromium	110	0.28	
Lead	15	0.28	
Nickel	130	0.28	
Zinc	46	1.1	

Field ID: Z3-2 (6"-12")
Type: SAMPLE
Lab ID: 264663-014

Diln Fac: 1.000 Analyzed: 02/20/15

Analyte	Result	RL	
Cadmium	3.7	0.27	
Chromium	50	0.27	
Lead	220	0.27	
Lead Nickel	40	0.27	
Zinc	230	1.1	

Field ID: Z1-1 (0"-6") Type: SAMPLE Lab ID: 264663-015

Diln Fac: 1.000 Analyzed: 02/20/15

Analyte	Result	RL	
Cadmium	0.75	0.23	
Chromium	32	0.23	
Lead	8.1	0.23	
Nickel	40	0.23	
Lead Nickel Zinc	44	0.93	

Field ID: Z1-2 (6"-12")
Type: SAMPLE

Lab ID: 264663-016

Analyte	Result	RL	Diln Fac	Analyzed
Cadmium	5.1	0.26	1.000	02/20/15
Chromium	910	26	100.0	02/23/15
Lead	300	0.26	1.000	02/20/15
Nickel	55	0.26	1.000	02/20/15
Zinc	1,900	100	100.0	02/23/15

ND= Not Detected RL= Reporting Limit

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California LUFT Metals Economy Trucking EPA 3050B 264663 Lab #: Location: Client: Chemical Data Management Systems Prep: Analysis: Sampled: EPA 6010B 02/12/15 02/12/15 Project#: STANDARD Matrix: Soil Received: Units: mg/Kg as received 220552 Basis: Prepared: 02/18/15 Batch#:

Field ID: Z2-1 (0"-6")Type: SAMPLE Lab ID: 264663-017

Diln Fac: 1.000 02/20/15 Analyzed:

Analyte	Result	RL	
Cadmium	1.8	0.23	
Chromium	53	0.23	
Lead	100	0.23	
Lead Nickel	55	0.23	
Zinc	150	0.91	

Z2-2 (6"-12") Field ID: Type: SAMPLE Lāb ID: 264663-018

Diln Fac: 1.000 Analyzed: 02/20/15

Analyte Result RL Cadmium 0.97 0.26 0.26 0.26 Chromium 34 29 Lead 31 Nickel 0.26 Zinc 76 1.0

Type: BLANK Diln Fac: 1.000 QC777699 Analyzed: 02/20/15 Lab ID:

Analyte	Result	RL
Cadmium	ND	0.25
Chromium	ND	0.25
Lead	ND	0.25
Lead Nickel	ND	0.25
Zinc	ND	1.0

ND= Not Detected RL= Reporting Limit

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		Zinc	
Lab #:	264663	Location:	Economy Trucking
Client:	Chemical Data Management Systems	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Analyte:	Zinc	Batch#:	220552
Matrix:	Soil	Sampled:	02/12/15
Units:	mg/Kg	Received:	02/12/15
Basis:	as received	Prepared:	02/18/15

Field ID	Type	Lab ID	Result	RL	Diln Fac	Analyzed
Z7-1 (0"-6")	SAMPLE	264663-005	110	0.92	1.000	02/20/15
Z7-2 (6"-12")	SAMPLE	264663-006	130	0.93	1.000	02/20/15
Z8-1 (0"-6")	SAMPLE	264663-007	30	1.1	1.000	02/20/15
Z8-2 (6"-12")	SAMPLE	264663-008	1,000	110	100.0	02/23/15
Z9-1 (0"-6")	SAMPLE	264663-009	1,100	95	100.0	02/23/15
Z9-2 (6"-12")	SAMPLE	264663-010	320	1.0	1.000	02/20/15
Z6-1 (0"-6")	SAMPLE	264663-011	1,000	110	100.0	02/23/15
Z6-2 (6"-12")	SAMPLE	264663-012	970	110	100.0	02/23/15
	BLANK	QC777699	ND	1.0	1.000	02/20/15

ND= Not Detected RL= Reporting Limit Page 1 of 1



	California	LUFT Metals	
Lab #:	264663	Location:	Economy Trucking
Client:	Chemical Data Management Systems	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	220552
Units:	mg/Kg	Prepared:	02/18/15
Diln Fac:	5.000	Analyzed:	02/20/15

Type: BS Lab ID: QC777700

Analyte	Spiked	Result	%REC	Limits
Cadmium	50.00	48.84	98	80-120
Chromium	50.00	46.21	92	80-120
Lead	50.00	45.04	90	80-120
Nickel	50.00	45.63	91	80-120
Zinc	50.00	47.18	94	80-120

Type: BSD Lab ID: QC777701

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	50.00	49.28	99	80-120	1	20
Chromium	50.00	46.73	93	80-120	1	20
Lead	50.00	44.87	90	80-120	0	20
Nickel	50.00	46.22	92	80-120	1	20
Zinc	50.00	46.84	94	80-120	1	20



	Z	inc	
Lab #: 264663		Location:	Economy Trucking
Client: Chemica	l Data Management Systems	Prep:	EPA 3050B
Project#: STANDAR	D.	Analysis:	EPA 6010B
Analyte:	Zinc	Diln Fac:	5.000
Field ID:	Z4-1 (0"-6")	Batch#:	220552
MSS Lab ID:	264663-001	Sampled:	02/12/15
Matrix: Soil		Received:	02/12/15
Units: mg/Kg		Prepared:	02/18/15
Basis:	as received	Analyzed:	02/20/15

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC777700		50.00	47.18	94	80-120		
BSD	QC777701		50.00	46.84	94	80-120	1	20
MS	QC777702	417.4	53.19	456.0	72 NM	45-145		
MSD	QC777703		51.02	752.0	656 NM	45-145	49 *	39

<sup>\*=</sup> Value outside of QC limits; see narrative

NM= Not Meaningful: Sample concentration > 4% spike concentration

RPD= Relative Percent Difference



California LUFT Metals								
Lab #: 264663		Location:	Economy Trucking					
Client: Chemic	al Data Management Systems	Prep:	EPA 3050B					
Project#: STANDA	RD	Analysis:	EPA 6010B					
Field ID:	Z4-1 (0"-6")	Batch#:	220552					
MSS Lab ID:	264663-001	Sampled:	02/12/15					
Matrix:	Soil	Received:	02/12/15					
Units:	mg/Kg	Prepared:	02/18/15					
Basis:	as received	Analyzed:	02/20/15					
Diln Fac:	5.000							

Type: MS Lab ID: QC777702

Analyte	MSS Result	Spiked	Result	%REC	Limits
Cadmium	2.672	53.19	50.78	90	71-120
Chromium	92.86	53.19	150.4	108	57-133
Lead	210.5	53.19	208.4	-4 *	53-125
Nickel	40.65	53.19	83.94	81	44-141
Zinc	417.4	53.19	456.0	72 NM	45-145

Type: MSD Lab ID: QC777703

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	51.02	50.82	94	71-120	4	25
Chromium	51.02	185.7	182 *	57-133	22	33
Lead	51.02	329.4	233 NM	53-125	46 *	42
Nickel	51.02	86.29	89	44-141	5	39
Zinc	51.02	752.0	656 NM	45-145	49 *	39

<sup>\*=</sup> Value outside of QC limits; see narrative

NM= Not Meaningful: Sample concentration > 4% spike concentration

RPD= Relative Percent Difference





# Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# Laboratory Job Number 263880 ANALYTICAL REPORT

Chemical Data Management Systems

6515 Trinity Court

Dublin, CA 94568

Project : STANDARD

Location : Economy Trucking

Date: <u>01/21/2015</u>

Level : II

<u>Sample ID</u>	<u>Lab ID</u>
Z 5-6"	263880-001
Z-5-12"	263880-002
Z-4-6"	263880-003
Z-4-12"	263880-004
Z-7-6"	263880-005
Z-6-6"	263880-006
Z-7.2 6"	263880-007
Z-7.2-12"	263880-008
Z 8-6"	263880-009
Z 3-6"	263880-010
Z 3-12"	263880-011
MW-1	263880-012
MW-2	263880-013
Z-1-6"	263880-014
Z-1-12"	263880-015

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001



### CASE NARRATIVE

Laboratory number: 263880

Client: Chemical Data Management Systems

Location: Economy Trucking

Request Date: 01/13/15 Samples Received: 01/13/15

This data package contains sample and QC results for eight soil samples and two water samples, requested for the above referenced project on 01/13/15. The samples were received cold and intact.

### TPH-Purgeables and/or BTXE by GC (EPA 8015B):

No analytical problems were encountered.

### TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

### Volatile Organics by GC/MS (EPA 8260B):

No analytical problems were encountered.

### Metals (EPA 6010B) Water:

Low recoveries were observed for lead in the MS/MSD for batch 219441; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

### Metals (EPA 6010B) Soil:

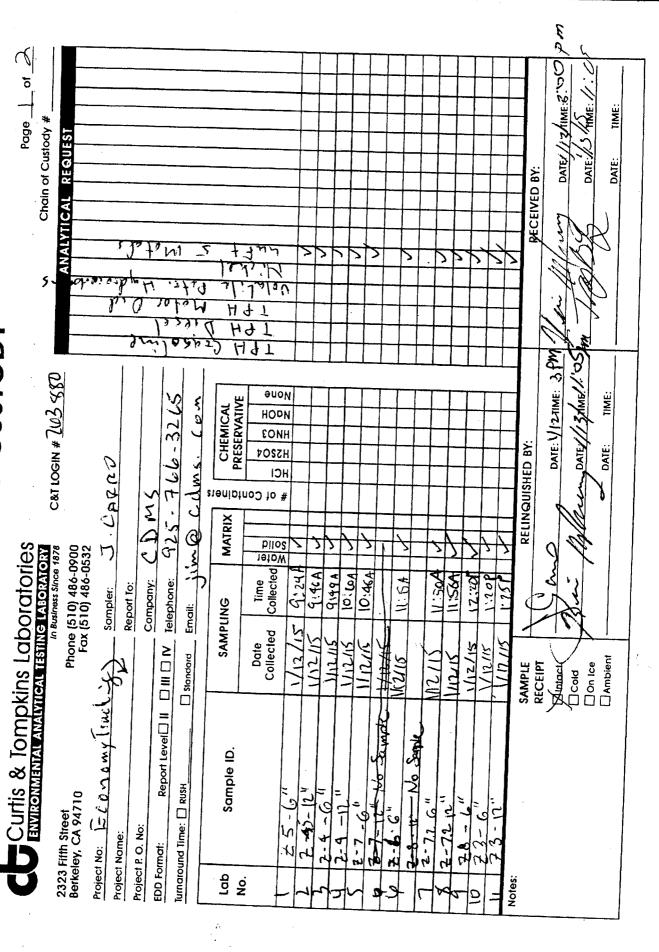
High recovery was observed for chromium in the MS of Z 5-6" (lab # 263880-001); the BS/BSD were within limits, and the associated RPD was within limits. High RPD was observed for lead and zinc in the MS/MSD of Z 5-6" (lab # 263880-001); the RPD was acceptable in the BS/BSD. No other analytical problems were encountered.

SECONDARIO CONTRACTOR DE CONTR
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-Attachments: -

### 7 DATE///2 TIMES ' Page 2 of TIME: TIME Chain of Custody # DATE: DATE: RECEIVED BY: 2760 518 CHAIN OF CUSTODY A DATE/-/5 TIME://CCS DATE: 315 C&T LOGIN # 262880 TIME: Mone **PRESERVATIVE** CHEMICAL HOPN RELINGUISHED BY: 1/12 Colms. Con **EONH** DATE: H2504 HCI of Containers W 3 MATRIX હ Solid Solid Curtis & Tompkins Laboratories Environmental Analytical Testing Laboratory In Business Singe 1878 Phone (510) 486-0900 Fax (510) 486-0532 Email: 1 mm Time 13:30 Telephone: Report To: Company: = = Sampler: \_ SAMPLING Date Collected 12/15 S// &1/ 1 ☐ Ambient \_ **∠** □ ||| □ 1 τ --RECEIPT Standard D Intact SAMPLE Report Level□ II Sample ID. Turnground Time: TRUSH 2323 Fifth Street Berkeley, CA 94710 けーミン 25-2 イノ -37 1 アダー アスト ガダー 7 Project P. O. No: 32 Project Name: EDD Format: Project No: Notes: S S S

# CHAIN OF CUSTODY



COOLER	RECEIPT	CHECKI	TZL



Login # 243580 Date Received 1315 Number of coolers Client COMS Project COMBMY PROKENT
Date Opened By (print) Sign (sign) Date Logged in By (print) By (print)
1. Did cooler come with a shipping slip (airbill, etc) YES NO Shipping info
2A. Were custody seals present? The results of
2B. Were custody seals intact upon arrival?  3. Were custody papers dry and intact when received?  4. Were custody papers filled out properly (ink, signed, etc)?  5. Is the project identifiable from custody papers? (If so fill out top of form)  6. Indicate the packing in cooler: (if other, describe)
Bubble Wrap Coam blocks Bags None Cloth material Cardboard Styrofoam Paper towels  7. Temperature documentation: * Notify PM if temperature exceeds 6°C
Type of ice used: Wet Blue/Gel None Temp(°C)
☐ Samples Received on ice & cold without a temperature blank; temp. taken with IR gun
☐ Samples received on ice directly from the field. Cooling process had begun
8. Were Method 5035 sampling containers present?  If YES, what time were they transferred to freezer?  9. Did all bottles arrive unbroken/unopened?  10. Are there any missing / extra samples?  11. Are samples in the appropriate containers for indicated tests?  12. Are sample labels present, in good condition and complete?  13. Do the sample labels agree with custody papers?  14. Was sufficient amount of sample sent for tests requested?  15. Are the samples appropriately presented?  16. We sample samples appropriately presented?  17. NO
15. Are the samples appropriately preserved? TES NO N/A 16. Did you check preservatives for all bottles for each sample? NO N/A
17. Did you document your preservative check?  18. Did you change the hold time in LIMS for unpreserved VOAs?  19. Did you change the hold time in LIMS for preserved terracores?  20. Are bubbles > 6mm absent in VOA samples?  21. Was the client contacted concerning this sample delivery?  17. Did you document your preservative check?  YES NO WA  YES NO WA  YES NO WA  YES NO WA  21. Was the client contacted concerning this sample delivery?  YES NO WA  YES NO WA  Date: 2
COMMENTS 10) Received 2 extra samples (2-1-4") sampled 1/12/15 6 1335 \$ (2-1-12") sampled @ 1340 on 1/12/15. 2-1-12" Alas been placed on hold \$ 2-1-6" has been logged to be 20)2/10 vivit for -013 rova of bubbles 7 6 mm for Luft metals
re analyze water Samples Rev 10,9/12 for luft 5 met 1,54



### Detections Summary for 263880

Results for any subcontracted analyses are not included in this summary.

Client : Chemical Data Management Systems

Project : STANDARD

Location : Economy Trucking

Client Sample ID : Z 5-6"

Laboratory Sample ID: 263880-001

Analyte	Result	Flags	RL								Method
Cadmium	4.1		0.27	mg/Kg							
Chromium	200		0.27	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Lead	350		0.27	mg/Kg							
Nickel	44		0.27	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Zinc	820		110	mg/Kg	As	Recd	100.0	EPA	6010B	EPA	3050B

Client Sample ID : Z-4-6"

Laboratory Sample ID :

263880-003

Analyte	Result	Flags	RL		Basis		Basis					_	
Cadmium	5.2		0.27	mg/Kg									
Chromium	490		0.27	mg/Kg	As R	Recd	1.000	EPA	6010B	EPA	3050B		
Lead	190		0.27	mg/Kg									
Nickel	66		0.27	mg/Kg									
Zinc	870		110	mg/Kg	As R	Recd	100.0	EPA	6010B	EPA	3050B		

Client Sample ID : Z-7-6"

Laboratory Sample ID :

263880-005

Analyte	Result	Flags					nits Basis IDF Method				
Cadmium	1.6			mg/Kg							
Chromium	110		0.25	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Lead	120			mg/Kg							
Nickel	61			mg/Kg							
Zinc	180		0.99	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B

Client Sample ID : Z-6-6"

Laboratory Sample ID:

263880-006

Analyte	Result	Flags	RL	Units	Ва	asis	IDF	Met	thod	Prep	Method
Cadmium	2.0		0.26	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Chromium	440		0.26	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Lead	100		0.26	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Nickel	34		0.26	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Zinc	920		100	mg/Kg	As	Recd	100.0	EPA	6010B	EPA	3050B

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Client Sample ID : Z-7.2 6" Laboratory Sample ID : 263880-007

Analyte	Result	Flags						Prep Method
Cadmium	0.70							EPA 3050B
Chromium	48							EPA 3050B
Lead	49		0.23	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	79		0.23	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	84		0.91	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : Z 8-6"

Laboratory Sample ID:

263880-009

Analyte	Result	Flags	RL	Units	Ва	asis	IDF	Met	chod	Prep	Method
Cadmium	5.1			mg/Kg							
Chromium	160			mg/Kg							
Lead	340		0.24	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Nickel	52		0.24	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Zinc	640		95	mg/Kg	As	Recd	100.0	EPA	6010B	EPA	3050B

Client Sample ID : Z 3-6"

Laboratory Sample ID :

263880-010

Analyte	Result	Flags									Method
Cadmium	0.60			mg/Kg							
Chromium	63			mg/Kg							
Lead	19			mg/Kg							
Nickel	77		0.25	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Zinc	59		1.0	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B

Client Sample ID : MW-1

Laboratory Sample ID:

263880-012

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	2,400	Y	50	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
Motor Oil C24-C36	4,300		300	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
MTBE	42		0.5	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Zinc	46		20	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A

Client Sample ID : MW-2

Laboratory Sample ID :

263880-013

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	3,100	Y	50	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
Motor Oil C24-C36	3,400		300	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
MTBE	9.3		0.5	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Chromium	11		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Nickel	8.9		5.0	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A
Zinc	68		20	ug/L	TOTAL	1.000	EPA 6010B	EPA 3010A

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Client Sample ID : Z-1-6"

Laboratory Sample ID:

263880-014

Analyte	Result	Flags									Method
Cadmium	0.64			mg/Kg							
Chromium	44			mg/Kg							
Lead	28			mg/Kg							
Nickel	46		0.24	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B
Zinc	87		0.94	mg/Kg	As	Recd	1.000	EPA	6010B	EPA	3050B

Y = Sample exhibits chromatographic pattern which does not resemble standard Page 3 of 3



Total Volatile Hydrocarbons Lab #: 263880 Location: Economy Trucking Client: Chemical Data Management Systems Prep: EPA 5030B Project#: STANDARD EPA 8015B Analysis: Matrix: Sampled: 01/12/15 Water Units: ug/L Received: 01/13/15 Diln Fac: 1.000 Analyzed: 01/20/15 Batch#: 219582

Field ID: MW-1 Lab ID: 263880-012

Type: SAMPLE

Analyte	Result	RL	
Gasoline C7-C12	ND	50	

Limits
80-132

Field ID: MW-2 Lab ID: 263880-013

Type: SAMPLE

Analyte	Result	RL	
Gasoline C7-C12	ND	50	

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	100	80-132	

Type: BLANK Lab ID: QC773967

Analyte	Result	RL	
Gasoline C7-C12	ND	50	

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	80-132

ND= Not Detected RL= Reporting Limit

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15.0



	Total Volati	le Hydrocarbon	ıs
Lab #:	263880	Location:	Economy Trucking
Client:	Chemical Data Management Systems	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC773966	Batch#:	219582
Matrix:	Water	Analyzed:	01/20/15
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	923.5	92	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	80-132

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Total Volatile Hydrocarbons						
Lab #: 263880		Location:	Economy Trucking			
Client: Chemic	cal Data Management Systems	Prep:	EPA 5030B			
Project#: STANDA	ARD	Analysis:	EPA 8015B			
Field ID:	ZZZZZZZZZ	Batch#:	219582			
MSS Lab ID:	263973-001	Sampled:	01/15/15			
Matrix:	Water	Received:	01/16/15			
Units:	ug/L	Analyzed:	01/20/15			
Diln Fac:	1.000					

Type: MS

Lab ID: QC773971

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	21.83	2,000	1,729	85	76-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	80-132

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,756	87	76-120	2	20



Total Extractable Hydrocarbons Lab #: 263880 Location: Economy Trucking Client: Chemical Data Management Systems EPA 3520C Prep: Project#: STANDARD EPA 8015B Analysis: 01/12/15 Matrix: Water Sampled: Units: ug/L Received: 01/13/15 1.000 Diln Fac: Prepared: 01/14/15 Batch#: 219424

 Field ID:
 MW-1
 Lab ID:
 263880-012

 Type:
 SAMPLE
 Analyzed:
 01/16/15

Analyte	Result	RL
Diesel C10-C24	2,400 Y	50
Motor Oil C24-C36	4,300	300

Surrogate	%REC	Limits
o-Terphenyl	68	67-136

Field ID: MW-2 Lab ID: 263880-013 Type: SAMPLE Analyzed: 01/19/15

Analyte	Result	RL	
Diesel C10-C24	3,100 Y	50	
Motor Oil C24-C36	3,400	300	

Surrogate	%REC	Limits
o-Terphenyl	90	67-136

Type: BLANK Analyzed: 01/15/15

Lab ID: QC773373

Analyte	Result	RL	
Diesel C10-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits
o-Terphenyl	95	67-136

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Total Extractable Hydrocarbons					
Lab #:	263880	Location:	Economy Trucking		
Client:	Chemical Data Management Systems	Prep:	EPA 3520C		
Project#:	STANDARD	Analysis:	EPA 8015B		
Matrix:	Water	Batch#:	219424		
Units:	ug/L	Prepared:	01/14/15		
Diln Fac:	1.000	Analyzed:	01/15/15		

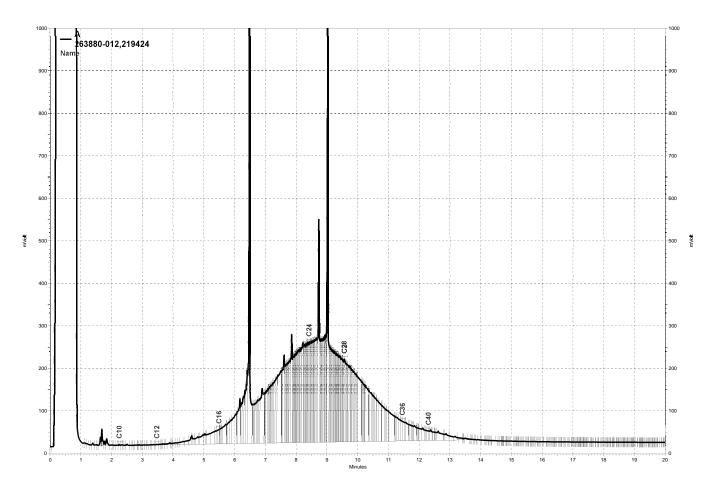
Type: BS Lab ID: QC773374

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	1,904	76	60-121

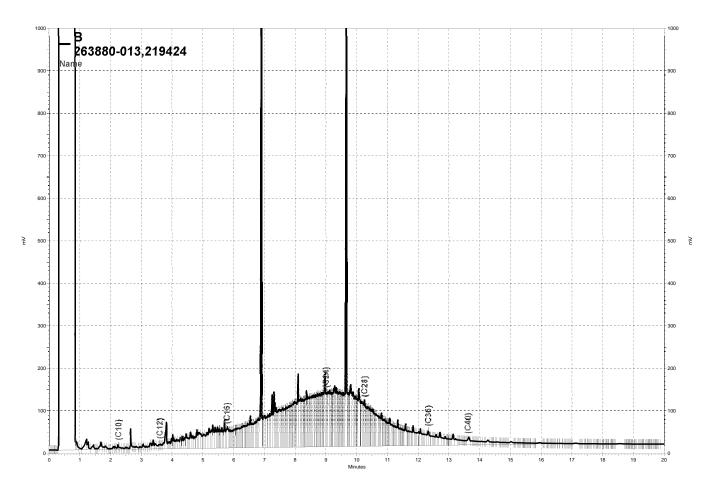
Surrogate	%REC	Limits
o-Terphenyl	93	67-136

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,057	82	60-121	8	32

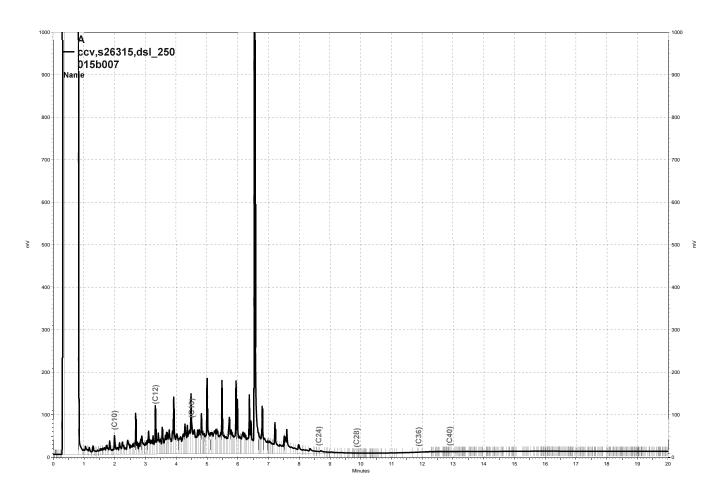
Surrogate	%REC	Limits	
o-Terphenyl	98	67-136	



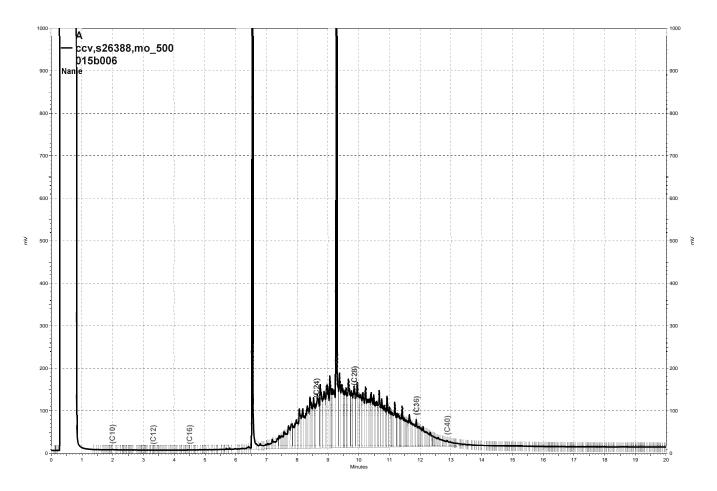
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\Lims\gdrive\ezchrom\Projects\GC17A\Data\015b007, A



\\Lims\gdrive\ezchrom\Projects\GC17A\Data\015b006, A



Purgeable Organics by GC/MS					
Lab #:	263880	Location:	Economy Trucking		
Client:	Chemical Data Management Systems	Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8260B		
Field ID:	MW-1	Batch#:	219394		
Lab ID:	263880-012	Sampled:	01/12/15		
Matrix:	Water	Received:	01/13/15		
Units:	ug/L	Analyzed:	01/14/15		
Diln Fac:	1.000				

Analyte	Result	RL	
Freon 12	ND ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	2.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	42	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	

RL= Reporting Limit



Purgeable Organics by GC/MS					
Lab #:	263880	Location:	Economy Trucking		
Client:	Chemical Data Management Systems	Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8260B		
Field ID:	MW-1	Batch#:	219394		
Lab ID:	263880-012	Sampled:	01/12/15		
Matrix:	Water	Received:	01/13/15		
Units:	ug/L	Analyzed:	01/14/15		
Diln Fac:	1.000				

Analyte	Result	RL	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	108	80-128	
1,2-Dichloroethane-d4	119	75-139	
Toluene-d8	106	80-120	
Bromofluorobenzene	88	80-120	

RL= Reporting Limit

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Purgeable Organics by GC/MS					
Lab #:	263880	Location:	Economy Trucking		
Client:	Chemical Data Management Systems	Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8260B		
Field ID:	MW-2	Batch#:	219394		
Lab ID:	263880-013	Sampled:	01/12/15		
Matrix:	Water	Received:	01/13/15		
Units:	ug/L	Analyzed:	01/14/15		
Diln Fac:	1.000				

Analyte	Result	RL	
Freon 12	ND ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	2.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	9.3	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND ND	0.5	
Bromodichloromethane	ND ND	0.5	
Dibromomethane	ND ND	0.5	
4-Methyl-2-Pentanone	ND ND	10	
cis-1,3-Dichloropropene		0.5	
	ND	0.5	
Toluene trans-1,3-Dichloropropene	ND ND	0.5	
1,1,2-Trichloroethane		0.5	
2-Hexanone	ND	10	
	ND	0.5	
1,3-Dichloropropane	ND		
Tetrachloroethene	ND	0.5	

RL= Reporting Limit



Purgeable Organics by GC/MS					
Lab #:	263880	Location:	Economy Trucking		
Client:	Chemical Data Management Systems	Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8260B		
Field ID:	MW-2	Batch#:	219394		
Lab ID:	263880-013	Sampled:	01/12/15		
Matrix:	Water	Received:	01/13/15		
Units:	ug/L	Analyzed:	01/14/15		
Diln Fac:	1.000				

Analyte	Result	RL	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	104	80-128	
1,2-Dichloroethane-d4	118	75-139	
Toluene-d8	106	80-120	
Bromofluorobenzene	89	80-120	

RL= Reporting Limit

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	Purgeable Org	ganics by GC/MS	
Lab #:	263880	Location:	Economy Trucking
Client:	Chemical Data Management Systems	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	219394
Units:	ug/L	Analyzed:	01/14/15
Diln Fac:	1.000		

Type: BS Lab ID: QC773247

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	12.50	11.43	91	66-135
Benzene	12.50	12.36	99	80-123
Trichloroethene	12.50	11.48	92	80-123
Toluene	12.50	13.08	105	80-121
Chlorobenzene	12.50	12.08	97	80-123

Surrogate	%REC	Limits	
Dibromofluoromethane	103	80-128	
1,2-Dichloroethane-d4	118	75–139	
Toluene-d8	105	80-120	
Bromofluorobenzene	84	80-120	

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	12.50	11.35	91	66-135	1	24
Benzene	12.50	12.00	96	80-123	3	20
Trichloroethene	12.50	11.43	91	80-123	0	20
Toluene	12.50	12.79	102	80-121	2	20
Chlorobenzene	12.50	12.14	97	80-123	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-128
1,2-Dichloroethane-d4	118	75-139
Toluene-d8	105	80-120
Bromofluorobenzene	86	80-120



	Purgeable Or	ganics by GC/	'MS	
Lab #:	263880	Location:	Economy Trucking	
Client:	Chemical Data Management Systems	Prep:	EPA 5030B	
Project#:	STANDARD	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC773249	Batch#:	219394	
Matrix:	Water	Analyzed:	01/14/15	
Units:	ug/L			

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	2.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	

ND= Not Detected

RL= Reporting Limit



	Purgeable Or	ganics by GC/	MS	
Lab #:	263880	Location:	Economy Trucking	
Client:	Chemical Data Management Systems	Prep:	EPA 5030B	
Project#:	STANDARD	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC773249	Batch#:	219394	
Matrix:	Water	Analyzed:	01/14/15	
Units:	ug/L			

Analyte	Result	RL	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	105	80-128	
1,2-Dichloroethane-d4	119	75-139	
Toluene-d8	105	80-120	
Bromofluorobenzene	88	80-120	

ND= Not Detected

RL= Reporting Limit

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6.0



California LUFT Metals Lab #: 263880 Location: Economy Trucking Client: Chemical Data Management Systems Prep: EPA 3010A Project#: STANDARD EPA 6010B Analysis: Matrix: Water Batch#: 219441 Units: Sampled: ug/L 01/12/15 Diln Fac: 1.000 Received: 01/13/15

Field ID: MW-1 Prepared: 01/16/15 Type: SAMPLE Analyzed: 01/16/15

Lab ID: 263880-012

Analyte	Result	RL	
Cadmium	ND	5.0	
Chromium	ND	5.0	
Lead	ND	5.0	
Lead Nickel	ND	5.0	
Zinc	46	20	

Field ID: MW-2 Prepared: 01/16/15 Type: SAMPLE Analyzed: 01/16/15

Lab ID: 263880-013

Analyte	Result	RL	
Cadmium	ND	5.0	
Chromium	11	5.0	
Lead Nickel	ND	5.0	
Nickel	8.9	5.0	
Zinc	68	20	

Type: BLANK Prepared: 01/15/15 Lab ID: QC773435 Analyzed: 01/15/15

Analyte	Result	RL	
Cadmium	ND	5.0	
Chromium	ND	5.0	
Lead Nickel	ND	5.0	
Nickel	ND	5.0	
Zinc	ND	20	

ND= Not Detected

RL= Reporting Limit

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23.0



	California	LUFT Metals	
Lab #:	263880	Location:	Economy Trucking
Client:	Chemical Data Management Systems	Prep:	EPA 3010A
Project#:	STANDARD	Analysis:	EPA 6010B
Matrix:	Water	Batch#:	219441
Units:	ug/L	Prepared:	01/15/15
Diln Fac:	1.000	Analyzed:	01/15/15

Type: BS Lab ID: QC773436

Analyte	Spiked	Result	%REC	Limits
Cadmium	100.0	99.72	100	80-120
Chromium	100.0	96.52	97	80-120
Lead	100.0	92.20	92	80-120
Nickel	100.0	94.68	95	80-120
Zinc	100.0	101.7	102	80-120

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	100.0	104.4	104	80-120	5	20
Chromium	100.0	101.5	102	80-120	5	20
Lead	100.0	96.11	96	80-120	4	20
Nickel	100.0	98.76	99	80-120	4	20
Zinc	100.0	104.0	104	80-120	2	20



	California	LUFT Metals	
Lab #: 263880		Location:	Economy Trucking
Client: Chemic	cal Data Management Systems	Prep:	EPA 3010A
Project#: STANDA	ARD	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	219441
MSS Lab ID:	263707-003	Sampled:	12/31/14
Matrix:	Water	Received:	01/06/15
Units:	ug/L	Prepared:	01/15/15
Diln Fac:	1.000	Analyzed:	01/15/15

Type: MS Lab ID: QC773438

Analyte	MSS Result	Spiked	Result	%REC	Limits
Cadmium	<0.5791	100.0	92.10	92	80-120
Chromium	7.117	100.0	97.98	91	80-120
Lead	<0.9081	100.0	63.83	64 *	67-120
Nickel	<0.7145	100.0	86.76	87	80-120
Zinc	8.656	100.0	105.1	96	80-122

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	100.0	91.51	92	80-120	1	20
Chromium	100.0	97.61	90	80-120	0	20
Lead	100.0	63.65	64 *	67-120	0	23
Nickel	100.0	85.96	86	80-120	1	20
Zinc	100.0	101.7	93	80-122	3	20

<sup>\*=</sup> Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1



263880-001

California LUFT Metals Lab #: 263880 Location: Economy Trucking Client: Chemical Data Management Systems EPA 3050B Prep: Project#: STANDARD EPA 6010B Analysis: Sampled: Matrix: Soil 01/12/15 Units: mg/Kg Received: 01/13/15 Basis: as received Prepared: 01/16/15 Batch#: 219479 Analyzed: 01/19/15

Field ID: Z 5-6"

Type: SAMPLE

Analyte	Result	RL	Diln Fac	
Cadmium	4.1	0.27	1.000	
Chromium	200	0.27	1.000	
Lead	350	0.27	1.000	
Nickel	44	0.27	1.000	
Zinc	820	110	100.0	

Lab ID:

Field ID: Z-4-6" Lab ID: 263880-003

Type: SAMPLE

Analyte	Result	RL	Diln Fac	
Cadmium	5.2	0.27	1.000	
Chromium	490	0.27	1.000	
Lead	190	0.27	1.000	
Nickel	66	0.27	1.000	
Zinc	870	110	100.0	

Field ID: Z-7-6" Lab ID: 263880-005 Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL	
Cadmium	1.6	0.25	
Chromium	110	0.25	
Lead Nickel	120	0.25	
Nickel	61	0.25	
Zinc	180	0.99	

ND= Not Detected

RL= Reporting Limit



263880-006

California LUFT Metals Lab #: 263880 Location: Economy Trucking Client: Chemical Data Management Systems EPA 3050B Prep: Project#: STANDARD EPA 6010B Analysis: Sampled: Matrix: Soil 01/12/15 Units: Received: 01/13/15 mg/Kg Basis: as received Prepared: 01/16/15 Batch#: 219479 Analyzed: 01/19/15

Field ID: Z-6-6"

Type: SAMPLE

Analyte	Result	RL	Diln Fac	
Cadmium	2.0	0.26	1.000	
Chromium	440	0.26	1.000	
Lead	100	0.26	1.000	
Nickel	34	0.26	1.000	
Zinc	920	100	100.0	

Lab ID:

Field ID: Z-7.2 6" Lab ID: 263880-007
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL	
Cadmium	0.70	0.23	
Chromium	48	0.23	
Lead Nickel	49	0.23	
Nickel	79	0.23	
Zinc	84	0.91	

Field ID: Z 8-6" Lab ID: 263880-009

Type: SAMPLE

Analyte	Result	RL	Diln Fac	
Cadmium	5.1	0.24	1.000	
Chromium	160	0.24	1.000	
Lead	340	0.24	1.000	
Nickel	52	0.24	1.000	
Zinc	640	95	100.0	

ND= Not Detected

RL= Reporting Limit

Page 2 of 3



California LUFT Metals Lab #: 263880 Location: Economy Trucking Client: Chemical Data Management Systems EPA 3050B Prep: Project#: STANDARD EPA 6010B Analysis: Sampled: Matrix: Soil 01/12/15 Units: mg/Kg Received: 01/13/15 Basis: as received Prepared: 01/16/15 Batch#: 219479 Analyzed: 01/19/15

Field ID: Z 3-6"
Type: SAMPLE

Lab ID: 263880-010 Diln Fac: 1.000

Analyte	Result	RL	
Cadmium	0.60	0.25	
Chromium	63	0.25	
Lead Nickel	19	0.25	
Nickel	77	0.25	
Zinc	59	1.0	

Field ID: Z-1-6" Type: SAMPLE Lab ID: 263880-014 Diln Fac: 1.000

Analyte	Result	RL	
Cadmium	0.64	0.24	
Chromium	44	0.24	
Lead	28	0.24	
Nickel	46	0.24	
Zinc	87	0.94	

Type: BLANK Lab ID: QC773587

Diln Fac: 1.000

Analyte	Result	RL
Cadmium	ND	0.25
Chromium	ND	0.25
Lead Nickel	ND	0.25
Nickel	ND	0.25
Zinc	ND	1.0

ND= Not Detected

RL= Reporting Limit

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	California	LUFT Metals	
Lab #:	263880	Location:	Economy Trucking
Client:	Chemical Data Management Systems	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	219479
Units:	mg/Kg	Prepared:	01/16/15
Diln Fac:	5.000	Analyzed:	01/19/15

Type: BS Lab ID: QC773588

Analyte	Spiked	Result	%REC	Limits
Cadmium	50.00	49.32	99	80-120
Chromium	50.00	47.91	96	80-120
Lead	50.00	44.46	89	80-120
Nickel	50.00	47.11	94	80-120
Zinc	50.00	47.38	95	80-120

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	50.00	50.93	102	80-120	3	20
Chromium	50.00	49.31	99	80-120	3	20
Lead	50.00	45.20	90	80-120	2	20
Nickel	50.00	48.52	97	80-120	3	20
Zinc	50.00	47.71	95	80-120	1	20



	California LUFT Metals				
Lab #: 26388	0	Location:	Economy Trucking		
Client: Chemi	cal Data Management Systems	Prep:	EPA 3050B		
Project#: STAND	ARD	Analysis:	EPA 6010B		
Field ID:	Z 5-6"	Batch#:	219479		
MSS Lab ID:	263880-001	Sampled:	01/12/15		
Matrix:	Soil	Received:	01/13/15		
Units:	mg/Kg	Prepared:	01/16/15		
Basis:	as received	Analyzed:	01/19/15		
Diln Fac:	5.000				

Type: MS Lab ID: QC773590

Analyte	MSS Result	Spiked	Result	%REC	Limits
Cadmium	4.070	53.19	64.25	113	71-120
Chromium	199.5	53.19	292.3	175 *	57-133
Lead	352.7	53.19	695.0	644 NM	53-125
Nickel	43.70	53.19	106.0	117	44-141
Zinc	821.9	53.19	1,680	1613 NM	45-145

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	46.73	52.50	104	71-120	8	25
Chromium	46.73	278.0	168 NM	57-133	2	33
Lead	46.73	406.1	114 NM	53-125	51 *	42
Nickel	46.73	86.87	92	44-141	13	39
Zinc	46.73	906.4	181 NM	45-145	59 *	39

<sup>\*=</sup> Value outside of QC limits; see narrative

NM= Not Meaningful: Sample concentration > 4% spike concentration

RPD= Relative Percent Difference