# Report Environmental Investigation CDC-Mead Rectifier Yard Mead, Washington

June 26, 2006

Prepared for

CDC-Mead Mead, Washington

### TABLE OF CONTENTS

		Page									
	INTRODUCTION 1.1 SITE GEOLOGY AND HYDROGEOLOGY	1-1 1-1									
	PREVIOUS INVESTIGATIONS 2.1 1992 TRANSFORMER OIL LEAK 2.2 2003 QUALITATIVE SOIL INVESTIGATION	2-1 2-1 2-1									
3.0	LAND USE AND SOIL CLEANUP STANDARDS										
,	FIELD INVESTIGATION 4.1 SOIL INVESTIGATION 4.2 INVESTIGATION RESULTS 4.2.1 Geologic conditions 4.2.2 Laboratory Analytical Results										
5.0	CLEANUP OPTIONS	5-1									
6.0 CONCLUSIONS											
7.0	7.0 USE OF THIS REPORT										
	LIST OF FIGURES										
Figure	<u>Title</u>										
1 2 3	Vicinity Map Facility Location Exploration Locations										
	LIST OF TABLES										
<u>Table</u>	<u>Title</u>										
1	Laboratory Analytical Results – Total Petroleum Hydrocarbons and PCBs										
	LIST OF APPENDICES										
<u>Appen</u>	dix <u>Title</u>										
A B	Boring Logs Laboratory Analytical Report										

#### 1.0 INTRODUCTION

This report presents the results of an environmental investigation conducted by Landau Associates of soils beneath the former rectifier yard at the CDC-Mead facility [formerly operated by Kaiser Aluminum & Chemical Corporation (Kaiser)] in Mead, Washington. During its operation, the rectifier yard at the Mead facility contained a line of oil-filled electrical equipment, including 51 transformers, located on the south side of the rectifier building. The equipment was positioned on an elevated fill area constructed behind a 4-ft concrete bulkhead. All of the transformers were removed prior to this investigation.

The purpose of this investigation was to assess whether soils beneath the transformers are impacted with petroleum hydrocarbons and polychlorinated biphenyls (PCBs), and if so, characterize the magnitude and the vertical extent of the impacts. A vicinity map showing the location of the facility is presented in Figure 1, and a facility map showing the location of the rectifier yard within the Mead facility is presented in Figure 2.

#### 1.1 SITE GEOLOGY AND HYDROGEOLOGY

Based on well logs on file with the Washington State Department of Ecology (Ecology), and reports from previous investigations conducted at the site, soils beneath the Mead facility consist of deposits of fine to medium sand with interbedded silt and clay to a depth of approximately 300 ft. Soils at the site are mapped as Marble loamy coarse sand, 0 to 30 percent slopes, by the 1968 Spokane County Soil Survey. This soil is described in the Survey as being excessively drained and rapidly permeable.

Groundwater at the facility has been measured at approximately 150 ft below ground surface (BGS); however, some minor localized perched water has been encountered above silt and clay interbeds at depths ranging from 35 to 65 ft BGS. The site is located over a branch of the Spokane-Rathdrum Prairie Aquifer called the Hillyard Trough. The Spokane-Rathdrum Prairie Aquifer is a sole source aquifer that supplies drinking water to the cities of Spokane and Spokane Valley.

#### 2.0 PREVIOUS INVESTIGATIONS

#### 2.1 1992 TRANSFORMER OIL LEAK INVESTIGATION

A previous investigation of subsurface soils at the Mead property was conducted by Dalton, Olmstead and Fuglevand in 1992 after a transformer oil line leak of about 100 gallons that occurred near the railroad tracks between the main rectifier bank and the Line 7/8 regulators near transformer 44 (Figure 3). Approximately 35 gallons of oil was reportedly recovered through soil excavation. A subsequent soil investigation conducted to determine the extent of oil migration from the spill indicated the presence of diesel-range and heavy oil-range petroleum hydrocarbons in the soil directly beneath the spill to a depth of approximately 50 ft. No PCBs or chlorinated hydrocarbons were detected. Groundwater samples collected from locations downgradient of the spill more than 4 months after the spill occurred did not detect concentrations of petroleum hydrocarbons. No remediation was conducted due to the low potential for groundwater quality to be impacted and because of restricted access to the spill area.

#### 2.2 2003 QUALITATIVE SOIL INVESTIGATION

In December 2003, Landau Associates conducted a qualitative environmental investigation of soils adjacent to transformers in the rectifier yard on behalf of Kaiser. The purpose of the investigation was to determine the lateral and vertical extent of soils impacted with petroleum hydrocarbons based on visual observations and field screening. Subsurface soil explorations were conducted by test pit excavations and shallow borings. One additional boring to 52 ft BGS was completed using the Geoprobe<sup>TM</sup> exploration method. Soil samples were collected from each of the explorations, logged, and screened for the presence of petroleum hydrocarbons using a sheen test and UV fluorescence.

Based on the conditions observed in nine test pit excavations, four locations were selected for further exploration using a portable hollow-stem auger drilling rig. These borings were drilled to depths ranging from 12 to 14 ft BGS at locations where subsurface petroleum impacts were observed during the test pit investigation (Figure 3). The location of the Geoprobe<sup>TM</sup> exploration was chosen based on test pit and auger explorations and historical accounts of activities at the site. Geoprobe<sup>TM</sup> core samples were taken in 4-ft sections to a total depth of 52 ft BGS.

Environmental conditions were documented through visual observations and field screening of samples collected from each exploration. These observations indicated that petroleum impacts in subsurface soils beneath the transformers were present in the gravel fill and upper 1 ft of the underlying sand. Some minor response, such as a trace sheen or a slight UV reaction, was observed in some deeper

samples during field screening; however, no visual evidence of petroleum hydrocarbon products was observed during the 2003 investigation. Groundwater was not encountered at depths up to 53 ft BGS.

#### 3.0 LAND USE AND SOIL CLEANUP STANDARDS

Under the Washington State Model Toxics Control Act (MTCA) cleanup regulation, cleanup levels for contaminants present at a site are based on two types of land use: unrestricted and industrial. Unrestricted land use, which may include uses such as residential, schools, and childcare, represents the maximum exposure scenario, and therefore requires the most protective cleanup levels. Unless a site qualifies as an industrial property, soil cleanup levels must be based on residential exposure for unrestricted land use.

For industrial land use, soil cleanup levels are based on the exposure expected to occur under industrial land use conditions. If industrial soil cleanup levels are established, restrictions on future use of the land are required. To qualify as an industrial property, a site must meet the definition of an industrial property under WAC 173-340-200 and meet the criteria described in WAC 173-340-745(1)(a). To meet these requirements a property must be or have been characterized by, or be committed to, traditional industrial uses such as manufacturing, transportation, or distribution or storage of bulk materials. The site must also be zoned for industrial uses. When evaluating land uses to determine if a site meets the intent of the industrial classification, additional considerations include whether a site has restricted or limited access to the public, no residential use, and whether the surface is covered by pavement, buildings, or other structures. Surrounding property use may also be considered when evaluating industrial land use.

If a site uses industrial cleanup levels, appropriate institutional controls must be implemented. Institutional controls are measures taken to limit or prohibit activities that may result in exposure to hazardous substances at a site, and may include a covenant on the property that limits the site to industrial use where industrial soil cleanup levels are proposed. Additionally, hazardous substances remaining at the property must not pose a threat to human health or the environment at the site, or at adjacent non-industrial properties such as residential areas, schools, or child care facilities.

The CDC-Mead facility was formerly an aluminum smelter that operated from the 1940's to 2000. The site and property in the vicinity of the site are zoned heavy industrial, according to information obtained from the Spokane County GIS official website on June 1, 2006, and access to the property by the public is restricted. Based on the long history of heavy industrial manufacturing at the property, and the anticipated future industrial use of the facility, the rectifier yard site qualifies as industrial property under MTCA. The MTCA Method A industrial soil cleanup levels for PCBs and TPH are appropriate for this site because the site is and will be industrial property, and relatively few hazardous substances are present. For petroleum mixtures, using the MTCA Method C option, site-specific cleanup levels protective of human health and the environment can also be calculated using site-specific and chemical specific data.

#### 4.0 FIELD INVESTIGATION

The field investigation was conducted on May 8 and 9, 2006, to characterize the environmental condition of shallow soils adjacent to the former transformers in the rectifier yard. Drilling locations were selected based on the presence of visible surface impacts, or on locations where suspected contamination was identified in the previous investigation. Details of the field activities and investigation results are presented below.

#### 4.1 SOIL INVESTIGATION

The scope of work for this investigation consisted of investigating shallow soils by drilling ten shallow borings to depths ranging from 16.5 ft to 26.5 ft BGS. Boring locations were targeted where potential impacts were observed through screening during previous investigations and where visual impacts were observed at the ground surface at the time of this investigation. A shallow surface soil sample was collected from 0 to 1 ft BGS at each boring location using clean stainless steel sampling utensils. Driven soil samples were then collected from each boring using decontaminated split-spoon samplers. Split-spoon samples were collected continuously from 2 to 10 ft BGS, and at 5-ft intervals for the remaining depth of each boring. The locations of the borings are shown on Figure 3.

Samples collected at each boring were placed in laboratory-supplied sample containers and stored in a cooler with ice before delivery to Test America Analytical Laboratory in Spokane, Washington. Soil samples were field classified in accordance with the Unified Soil Classification System, and their lithologic descriptions recorded on a field log. Each sample was field screened for the presence of petroleum hydrocarbons using a simple sheen test. The sheen test was conducted by adding water to a 250-milliliter (ml) jar filled approximately one-third full with soil, and observing whether a petroleum sheen developed on the water surface. The field screening results are included in the field logs in Appendix A.

All surface soil samples and at least two split-spoon samples from each boring were analyzed for total petroleum hydrocarbons (TPH) by Method NWTPH-diesel extended and PCBs by EPA Method 8082. Samples not selected for analysis were placed on hold pending the analytical results. Based on the laboratory results, additional samples were selected for analysis to further define the vertical extent of impacts, where necessary.

#### 4.2 INVESTIGATION RESULTS

#### 4.2.1 GEOLOGIC CONDITIONS

The results of the field investigation indicate that, based on samples collected from the borings, soil beneath the transformer area consists of approximately 0 to 3.5 ft of well-graded silty gravel fill overlying brown, poorly-graded sand to depths of between 14 and 21 ft BGS. At borings A-4A(2) and B-46, well-graded sand was encountered at depths of 14 ft and 19 ft BGS, respectively. Groundwater was not encountered in any of the borings. Details of soil conditions encountered in each boring are presented in the soil logs in Appendix A.

#### 4.2.2 LABORATORY ANALYTICAL RESULTS

The laboratory results for TPH and PCB analysis are presented in Table 1, and the laboratory analytical report is included in Appendix B. Concentrations of PCB Aroclor 1260 above the reporting limit were reported in samples collected from each of the ten borings. Sample concentrations of PCB Aroclor 1260 ranged from No Detection to 459 micrograms per kilogram (µg/kg). PCB Aroclor 1248 was reported in one surface sample from boring A-4A(2) at 359 µg/kg [sample A-4A(2)-0]. All PCB sample concentrations were below the MTCA Method A industrial cleanup level 10,000 µg/kg for total PCBs in soil.

Concentrations of diesel-range or heavy oil-range petroleum hydrocarbons were reported in soil samples collected from each boring, at concentrations ranging from below the reporting limit to a maximum of 132,000 milligrams per kilogram (mg/kg) for diesel and 65,500 mg/kg for heavy oil-range hydrocarbons. Concentrations of TPH above the MTCA Method A soil cleanup level of 2,000 mg/kg were generally detected in the upper 2.5 to 5 ft of soil, although concentrations above the cleanup level were detected at 10 ft in boring B-48, 7.5 ft in boring B-18, and at 15 ft in boring B-46. The concentration of TPH reported in samples deeper than 10 ft in boring B-18, and 20 ft in boring B-46, met the TPH soil cleanup level and therefore bound the depth of contamination at these locations.

#### 5.0 CLEANUP OPTIONS

Site cleanup conducted under MTCA must meet minimum threshold requirements, which include protection of human health and the environment, complying with cleanup standards, and complying with applicable state and federal regulations. The MTCA regulation also requires the use of permanent solutions to the maximum extent practicable, and that the selected cleanup action provide for a reasonable restoration time frame. Cleanup actions must also include institutional controls when industrial cleanup levels are used for the site, or when hazardous substances above site the site cleanup level remain onsite. Institutional controls for the site may include measures such as fences to control site access, limitations on future site use to prevent exposure to hazardous substances, stormwater control, and maintenance of engineered controls such as a cap or cover over contaminated material.

The results of the soil investigation of the former rectifier yard indicate that soil impacted with diesel-range and heavy oil-range hydrocarbons above cleanup levels is generally present within the upper 2.5 to 5 ft of the surface. However, impacted soil above cleanup levels was also encountered between 10 and 15 ft BGS at three locations. PCBs were not detected above the cleanup level of 10, 000  $\mu$ g/kg.

A number of options are available to address the presence of TPH-impacted soil at the site. These include options such as bioremediation; soil excavation, containment and disposal; and implementation of institutional controls. A final option is typically selected based on site-specific conditions, and may include some combination of one or more of these. It should be noted that any option selected would need to be compatible with future redevelopment of the property. The volume of soil that is addressed under any cleanup option will depend on the final cleanup levels developed for the site.

#### 6.0 CONCLUSIONS

Based on laboratory analytical results, total PCB concentrations in soil samples collected during this investigation are less than the MTCA Method A soil cleanup level of 10,000 µg/kg. Petroleum-impacted soil above cleanup levels appears to be limited primarily to the sand and gravel units in the upper 2.5 to 5 ft BGS; however, concentrations of diesel- and oil-range petroleum hydrocarbons above cleanup levels were reported in samples between 7.5 ft and 15 ft BGS in borings B-18, B-46, and B-48.

The depth to groundwater beneath the site is expected to be approximately 150 ft BGS, and was not encountered during this investigation. Based on the results of laboratory analysis of soil samples, TPH above cleanup levels is not present in soil at depths greater than 20 ft BGS. Therefore, due to the limited depth of petroleum impacts observed in soils, combined with the anticipated depth to groundwater and the age of the site, it is unlikely that petroleum encountered in soils at the former rectifier yard has impacted groundwater beneath the site, or is likely to impact groundwater in the future.

#### 7.0 USE OF THIS REPORT

This report has been prepared for the exclusive use of CDC-Mead for specific application to the rectifier yard area of the former Kaiser Mead Works facility. Reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

This document has been prepared under the supervision and direction of the following key staff.

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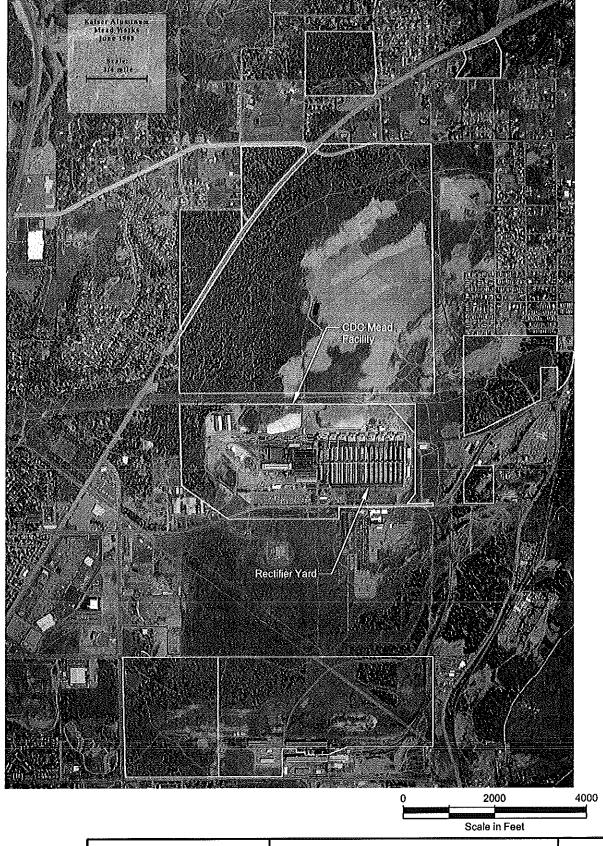
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CDC Mead Mead, Washington

**Vicinity Map** 

Figure



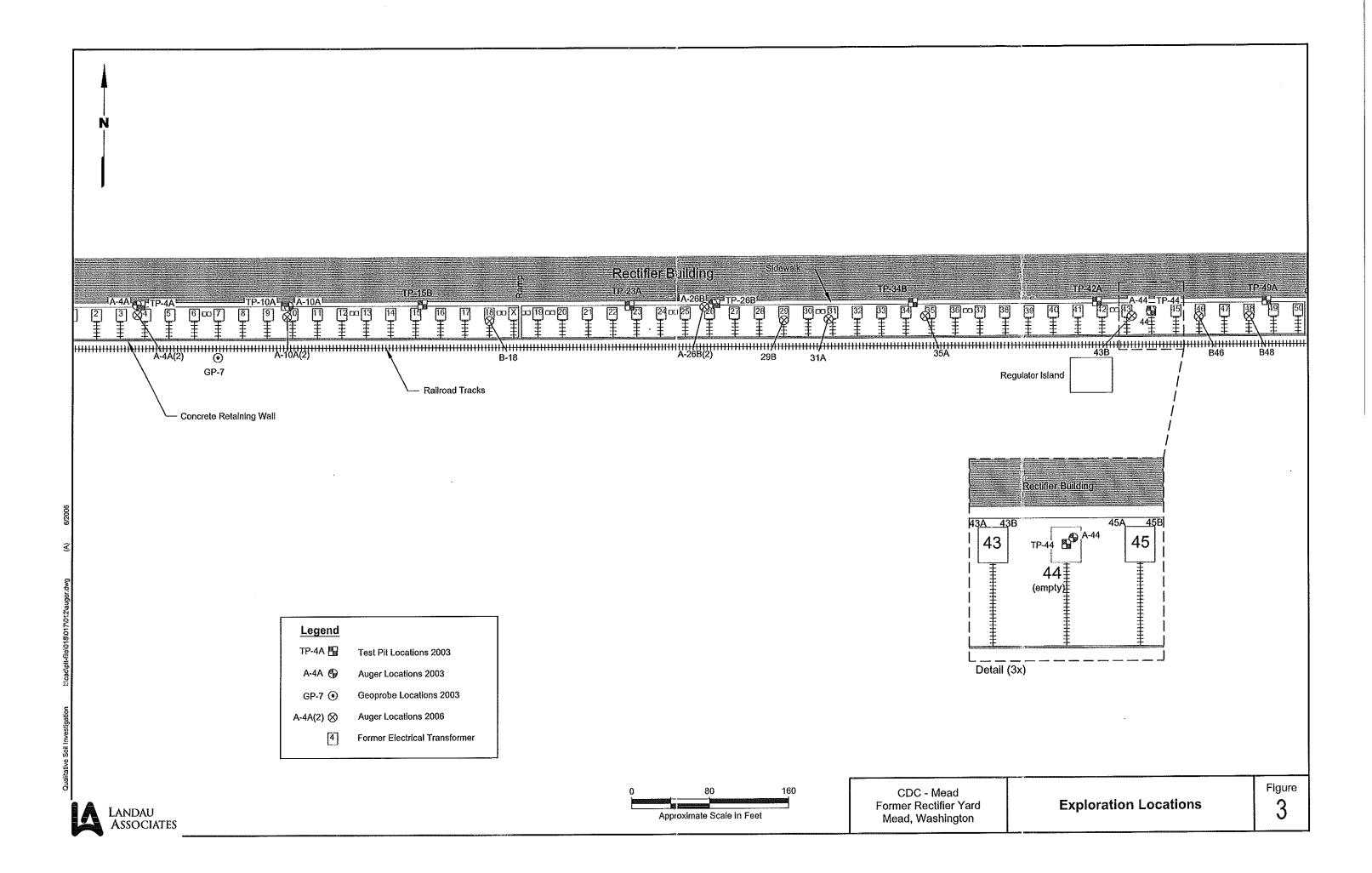


CDC Mead Facility Rectifier Yard Mead, Washington

**Facility Location** 

Figure

2



# TABLE 1 LABORATORY ANALYTICAL RESULTS TOTAL PETROLEUM HYDROCARBONS AND PCBs CDC-Mead Rectifier Yard Mead, WA

				Total Petroleum Hydrocarbons(a)		PC	Bs (b)						
	Sample		Date	TPH-Diesel	TPH-Oil	PCB-1260	PCB-1248						
Boring	Identification	Depth (ft)	Sampled	(mg/kg)	(mg/kg)	(µg/kg)	(µg/kg)						
A-4A(2)	A-4A(2)-0	0	5/8/2006	25,200	34,500	459	359						
	A-4A(2)-5	5	5/8/2006	6,940	2,690 U	53.8 U	53.8 U						
	A-4A(2)-10	10	5/8/2006 <sup>-</sup>	114	38.8	NA NA	NA						
A-10A(2)	A-10A(2)-0	0	5/8/2006	63,200	42,000	55.6	53.4 U						
	A-10A(2)-5	5	5/8/2006	473	287	76.2	54.2 ป						
B18	B18-0	0	5/9/2006	25,400	11,300	61.0	52.9 U						
	B18-5	5	5/9/2006	13,100	2,480 U	55.1 U	55.1 U						
	B18-7.5	7.5	5/9/2006	4,640	899	NA	NA						
	B18-10	10	5/9/2006	227	59.6	53.0 U	53,0 U						
26B(2)	26B(2)-0	0	5/8/2006	6,260	2,770	187	52.0 U						
Local	26B(2)-2.5	2.5	5/8/2006	28.5	26.6 U	NA.	NA						
	26B(2)-5	5	5/8/2006	9.62 U	24.1 U	54.6 U	54.6 U						
		-		, ,,,,,									
29B	298-0	0	5/8/2006	25,300	9,670	146	55.2 U						
202	29B-2.5	2.5	5/8/2006	40.4	30.0	52.9 U	52.9 U						
31A	31A-0	0	5/9/2006	12,500	5,240	195	53.7 U						
	31A-2.5							2.5	5/8/2006	1,840	851	82.9	54.1 U
35A	35A-0	0	5/9/2006	25,400	15,900	68.6	52.2 U						
	35A-2.5	2.5	5/8/2006	166	91.7	54.5 U	54.5 U						
43B	43B-0	0	5/9/2006	1,680	1,310	230	53.2 ป						
	43B-7.5	7.5	5/9/2006	98.6	74.7	52,9 U	52.9 U						
B46	B46-0	0	5/9/2006	81,900	65,500	157	113 U						
D-10	B46-7.5	7.5	5/9/2006	12,400	6,140 U	167	55.7 U						
	B46-15	15	5/9/2006	5,870	5,190 U	136	52.7 U						
	B46-20	20	5/9/2006	29.8	25.9 U	NA	NA						
B48	B48-0	0	5/9/2006	132,000	56.800	123 U	123 U						
D40	B48-5	5	5/9/2006	10,300	4,760 U	104	56.9 U						
	B48-10	10	5/9/2006	2,140	4,760 O 851	52,6 U	52.6 U						
	2-,0-10		0,0,2000	2,170	<b>55</b> 1	02.00	52.0						
MTCA Method A	Cloanun Lovel	(6)		2,000	2,000	10	,000						
IN I CA MEILIOG A	- oteanup ⊾evei	(6)		2,000	2,000	I U	,,000						

#### Notes:

NA = Not Analyzed

U = Indicates that the analyte was not detected in this sample at or above the reporting limit shown.

J = estimated value.

<sup>(</sup>a) Total petroleum hydrocarbons (TPH) analyzed by Washington State Department of Ecology Method NWTPH-Dx.

<sup>(</sup>b) PCBs analyzed by EPA method 8081. Only aroclors detected above reporting limits are listed.

<sup>(</sup>c) MTCA Method A soil cleanup levels for industrial properties, chapter 173-340 WAC.

# **Boring Logs**

	MAJOR		GRAPHIC	LETTER	TYPICAL
	DIVISIONS		SYMBOL	SYMBOL <sup>(1)</sup>	DESCRIPTIONS <sup>(2)(3)</sup>
	GRAVEL AND	CLEAN GRAVEL		GW	Well-graded gravel; gravel/sand mixture(s); little or no fines
OIL size)	GRAVELLY SOIL	(Little or no fines)	000000	GP	Poorly graded gravel; gravel/sand mixture(s); little or no fines
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	(More than 50% of coarse fraction	GRAVEL WITH FINES (Appreciable amount of		GM	Silty gravel; gravel/sand/silt mixture(s)
Zoof N	retained on No. 4 sieve)	(Appreciable amount of fines)	111/1/2	GC	Clayey gravel; gravel/sand/clay mixture(s)
P C C C C C C C C C C C C C C C C C C C	SAND AND	CLEAN SAND		sw	Well-graded sand; gravelly sand; little or no fines
ARS re th: er tha	SANDY SOIL	(Little or no fines)		SP	Poorly graded sand; gravelly sand; little or no fines
S S E	(More than 50% of coarse fraction passed	SAND WITH FINES		SM	Silty sand; sand/silt mixture(s)
	through No. 4 sieve)	(Appreciable amount of fines)		sc	Clayey sand; sand/clay mixture(s)
_ 1 <u>કે</u>	SILT AI	ND CLAY		ML	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity
INE-GRAINED SOIL ore than 50% of material s smaller than No. 200 sieve size)	(Liquid limit	less than 50)		CL	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay
INEC 3% of 1an N size)	, ,		<b>}</b> }}}}	OL	Organic silt; organic, silty clay of low plasticity
GRA nan 50 aller ti sieve	SILT A	ND CLAY		МН	Inorganic silt; micaceous or diatomaceous fine sand
FINE-GRAINED (More than 50% of is smaller than No sieve size)	(Liquid limit a	reater than 50)		СН	Inorganic clay of high plasticity; fat clay
# ∑	, ,	,		ОН	Organic clay of medium to high plasticity; organic silt
	HIGHLY ORGA	NIC SOIL		PT	Peat; humus; swamp soil with high organic content

OTHER MATERIALS **SYMBOL** SYMBOL TYPICAL DESCRIPTIONS **PAVEMENT** AC or PC Asphalt concrete pavement or Portland cement pavement ROCK RK Rock (See Rock Classification) WOOD WD Wood, lumber, wood chips **DEBRIS** DB Construction debris, garbage

GRAPHIC LETTER

Notes: 1. USCS letter symbols correspond to symbols used by the Unified Soil Classification System and ASTM classification methods, Dual letter symbols (e.g., SP-SM for sand or gravel) indicate soil with an estimated 5-15% fines. Multiple letter symbols (e.g., ML/CL) indicate borderline or multiple soil classifications.

Soil descriptions are based on the general approach presented in the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the Standard Test Method for Classification of Soils for Engineering Purposes, as outlined in ASTM D 2487.

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Drilling an	d Sampling Key	F	Field and Lab Test Data			
SAMPLE NUMBER & INTERVAL	SAMPLER TYPE					
Sample Identification Number  Recovery Depth Interval  Sample Depth Interval  Portion of Sample Retained for Archive or Analysis	Code Description a 3.25-inch O.D., 2.42-inch I.D. Split Spoor b 2.00-inch O.D., 1.50-inch I.D. Split Spoor c Shelby Tube d Grab Sample e Other - See text if applicable 1 300-lb Hammer, 30-inch Drop 2 140-lb Hammer, 30-inch Drop 3 Pushed	TV = 0.5 PID = 100 W = 10 D = 120 -200 = 60 GS AL	Description Pocket Penetrometer, tsf Torvane, tsf Photolonization Detector VOC screening, ppm Moisture Content, % Dry Density, pcf Material smaller than No. 200 sieve, % Grain Size - See separate figure for data Atterberg Limits - See separate figure for data			
Groundwater	4 Other - See text if applicable	GT CA	Other Geotechnical Testing Chemical Analysis			
	lime of drilling (ATD) or on date noted. Groundwa pilation, seasonal conditions, and other factors.	te				



Rectifier Yard Soil Investigation Spokane, Washington

Soil Classification System and Key

SAM	PLE	DAT	A			SOIL PROFILE	GROUNDWATER
Depth (ft) Sample Number	& Illerval Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger  Ground Elevation (ft): Drilled By; Boretec	
0 	d2		CA		GM	Dark gray to black, well graded silty GRAVEL with sand, subrounded, petroleum staining and odor, (loose, damp).	Groundwater not encountered.
A-4A(2)-2.5	b2	3			SP	Grayish brown, poorly graded fine to medium SAND, homogeneous, slight petroleum odor, (very loose, moist).	
- - - - A-4A(2)-5 6	b2	3	sheen CA			Grayish brown, poorly graded medium to coarse SAND, homogeneous, slight petroleum odor, (very loose, moist).	
8 A-4A(2)-7.5	b2	24	light sheen			Grayish brown, poorly graded medium to coarse SAND, homogeneous, slight petroleum odor, (medium dense, moist).	·
-10 -A-4A(2)-10 -12 -14 -14 -18 -18 -20 Notes:	b2	29	very light sheen CA			Grayish brown, poorly graded medium to coarse SAND, homogeneous, slight petroleum odor, (medium dense, moist).	
-14					sw	Grayish brown, well graded SAND, homogeneous, slight petroleum odor, (medium dense, moist).	
-A-4A(2)-15 16	b2	23	very light sheen				
<b>-</b>			pleted 05/0 3oring = 16				
	<ol><li>Re</li></ol>	ference	e to the tex	t of this re	port	n field interpretations and are approximate. is necessary for a proper understanding of subsurface cond n and Key" figure for explanation of graphics and symbols.	itions.



	A-10A(2)	
SAMPLE DATA	SOIL PROFILE	GROUNDWATER
Depth (ft) Sample Number & Interval Sampler Type Blows/Foot Test Data	Drilling Method: Hollow-stem Auger  Ground Elevation (ft):  Drilled By: Borelec	
	5.P. 5. GM Dark gray to black, well graded silty GRAVEL with sand, subrounded, petroleum staining and odor, (loose, damp).	Groundwater not encountered.
b2 4	No Recovery	
CA-10A(2)-5 b2 5 sheen CA	Grayish brown, poorly graded fine to medium SAND, homogeneous, slight petroleum odor, (very loose, moist).	
-8 -10A(2)-7.5 b2 23 very ligh sheen	Grayish brown, poorly graded medium to coarse SAND, homogeneous, slight petroleum odor, (medium dense, moist).	
-10 -10A(2)-10 -12	Grayish brown, poorly graded medium to coarse SAND, homogeneous, slight petroleum odor, (medium dense, moist).	
-10A(2)-15 b2 40 apparent sheen	Grayish brown, poorly graded medium to coarse SAND, homogeneous, dense, moist, slight petroleum odor, (dense, moist).	·
Boring Completed 05/ Total Depth of Boring ≈ 1 -18		
<ol><li>Reference to the te</li></ol>	Is are based on field interpretations and are approximate, It of this report is necessary for a proper understanding of subsurface cond fication System and Key* figure for explanation of graphics and symbols.	fitions.



Rectifier Yard Soil Investigation Spokane, Washington

Log of Boring A-10A(2)

Figure A-3



								26B(2)		
	S	AMP	LEI	DATA	Д.			SOIL PROFILE	GROUNDWATER	
	o Depth (ft)	Sample Number & interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method:Hollow-stem Auger  Ground Elevation (ft):  Drilled By:Boretec		
	0 26B(2)-(	o 📗	d		CA		GM	Dark gray to black, well graded silty GRAVEL with sand, subrounded, petroleum staining and odor, (very loose, damp).	Groundwater not encountered.	-
	2 	5	b2	3	CA		SP	Grayish brown, poorly graded fine to medium SAND with gravel, homogeneous, slight petroleum odor, (very loose, moist).		
	26B(2)-		b2	15	very light sheen CA			Grayish brown, poorly graded fine to medium SAND with gravel, homogeneous, slight petroleum odor, (medium dense, moist).		-
			b2	21	no apparent sheen			Grayish brown, poorly graded fine to medium SAND with gravel, homogeneous, (medium dense, moist).		
AD.GPJ SOIL BORING LOG	10 26B(2)-10 12		b2	32				Grayish brown, poorly graded fine to medium SAND with gravel, homogeneous, (medium dense, moist).		
SINT/PROJECTS/CDC-MEA	-14 14 		b2		no apparent			Grayish brown, poorly graded line to medium SAND with gravel, homogeneous, (molst).	· .	-
977001.01 6/16/06 !!OTHERIGINTISPOK-SAVE GINTIPROJECTSICDC-MEAD.GPJ SOIL BORING LOG	-18	To	Boring lat De	oth of t	sheen pleted 05/0 Boring = 16	i.5 ft. Is are b	ased o	n field interpretations and are approximate.		
07.7001.0			2. Re:	ference	e to the tex	t of this	report	is necessary for a proper understanding of subsurface cond n and Key" figure for explanation of graphics and symbols.	litions.	



Rectifier Yard Soil Investigation Spokane, Washington

Log of Boring 26B(2)

Figure A-5

· · · · · · · · · · · · · · · · · · ·				29B							
SAMP	LED	ATA	<b>\</b>			SOIL PROFILE	GROUNDWATER				
Sample Number	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger  Ground Elevation (ft): Drilled By: Boretec					
29B-0	ď2		CA		GM SW	Dark gray to black, well graded silty GRAVEL with sand, subrounded, petroleum staining and odor, (loose, damp).	Groundwater not encountered				
298-2.5	b2	2	no apparent sheen CA			Brown, well graded SAND, homogeneous, slight petroleum odor, (very loose, moist).					
29B-5	b2	12			ЧS	Grayish brown, poorly graded medium to coarse SAND, homogeneous, slight petroleum odor, (loose, moist).	·				
3 29B-7.5	b2	22	no apparent sheen			Grayish brown, poorly graded medium to coarse SAND, homogeneous, (medium dense, moist).					
298-10	b2	39				Grayish brown, poorly graded medium to coarse SAND, homogeneous, (dense, moist).					
29B-15	b2	24	no apparent			Grayish brown, poorly graded medium to coarse SAND, homogeneous, (medium dense, moist).					
	Boring tal Dep	Comp th of E	sheen pleted 05/0 Boring = 16	8/06 .5 ft.							
:	<ol><li>Ref</li></ol>	erence	to the text	t of this	report	n field interpretations and are approximate. is necessary for a proper understanding of subsurface condi n and Key" figure for explanation of graphics and symbols.	tions.				

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						31A		
SAMP	LE [	DATA	4			SOIL PROFILE	GROUNDWATE	R
Depth (ft) Sample Nümber	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method:Hollow-stern Auger  Ground Elevation (ft):  Drilled By:Boretec		
31A-0	d		CA		GM SP	Dark gray to black, well graded silty GRAVEL with sand, subrounded, petroleum staining and odor, (loose, damp).	Groundwater not encountere	d.
31A-2.5	b2	2	CA			Grayish brown, poorly graded fine to medium SAND, homogeneous, petroleum odor, (very koose, moist).		-
31A-5	b2	19	no apparent sheen			Grayish brown, poorly graded medium to coarse SAND, homogeneous, slight petroleum odor, (medium dense, moist).		-
8 31A-7.5	b2	55	no apparent sheen			Grayish brown, poorly graded medium to coarse SAND, homogeneous, slight petroleum odor, (dense, moist).		
-10 31A-10	b2	33				Grayish brown, poorly graded medium to coarse SAND, homogeneous, (medium dense, moist).		-
31A-15 —16	b2	35	no apparent sheen			Grayish brown, poorly graded medium to coarse SAND, homogeneous, (medium dense, moist).		-
— 18 — 18 — 20 — Notes:	tal Dep	oth of E	e to the text	.5 ft. s are b	report	n field interpretations and are approximate. is necessary for a proper understanding of subsurface condit a and Key" figure for explanation of graphics and symbols.	ions.	-
			· [					Ciauro

LANDAU ASSOCIATES Rectifier Yard Soil Investigation Spokane, Washington

Log of Boring 31A

Figure **A-7** 

S	AMP:	LEI	DATA	4			SOIL PROFILE	GROUNDWATER	
	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data		USCS Symbol	Drilling Method:Hollow-stem Auger  Ground Elevation (ft):  Drilled By:Boretec		-
35A-(		d		CA		GM	Dark gray to black, well graded silty GRAVEL with sand, subrounded, petroleum staining and odor, (loose, damp).	Groundwater not encountered.	
2 35A-2.5		b2	3	very light sheen CA		SP- SM	Grayish brown, poorly graded fine silty SAND, homogeneous, slight petroleum odor, (very loose, moist).		
35A-5		b2	19	no apparent sheen		SP	Grayish brown, poorly graded medium to coarse SAND, homogeneous, (medium dense, moist).		
<sup>3</sup> 35A-7.5		b2	28	no apparent sheen			Grayish brown, poorly graded medium to coarse SAND, homogeneous, (medium dense, moist).		
10 35A-10		b2	30				Grayish brown, poorly graded medium to coarse SAND, homogeneous, (medium dense, moist).		
12				-					
35A-15		b2		no apparent sheen			Grayish brown, poorly graded medium to coarse SAND, homogeneous, (moist).		
8	Tota	Boring al Dep	Com;	pleted 05/08 Boring = 16.	B/06 .5 ft.				
0 No	2	. Ref	erence	to the text	of this re	port i	field Interpretations and are approximate. s necessary for a proper understanding of subsurface condit and Key' figure for explanation of graphics and symbols.	ions.	



Rectifier Yard Soil Investigation Spokane, Washington

Log of Boring 35A

Figure A-8

SAMPLE DATA	SOIL PROFILE	GROUNDWATER
Sample Number & Interval Sampler Type Blows/Foot Test Data	Drilling Method: Hollow-stem Auger  Ground Elevation (ft):  Drilled By: Boretec	
43B-0 d CA	Dark gray to black, well graded silty GRAVEL with sand, subrounded, petroleum staining and odor, (loose, damp).	Groundwater not encountered.
43B-2.5 b2 3	Grayish brown, poorly graded fine to medium SAND, homogeneous, slight petroleum odor, (very loose, moist).	
b2 5	Grayish brown, poorly graded fine to medium SAND, homogeneous, slight petroleum odor, with wood fragments, (very loose, wel).	
8 43B-7.5 b2 26 CA	Grayish brown, poorly graded medium to coarse SAND, homogeneous, slight petroleum odor, (medium dense, moist).	
43B-10 b2 27 light sheen	Grayish brown, poorly graded medium to coarse SAND, homogeneous, slight petroleum odor, (medium dense, moist).	
4 43B-15 b2 very light sheen	Grayish brown, poorly graded medium to coarse SAND with scattered gravel, homogeneous, slight petroleum odor, (moist).	
8		



Rectifier Yard Soil Investigation Spokane, Washington

Log of Boring 43B

Figure A-9 (1 of 2)

									43B		
		SAMI	PLE	DATA				SOIL PR	ROFILE	GROUNDWATE	ER
	Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Ho Ground Elevation (ft) Drilled By: Boretec		-	
	E	3B-20	b2	13	ery light sheen		SP	Grayish brown, poo coarse SAND with s homogeneous, sligh (medium dense, mo	it petroleum odor.	Groundwater not encounte	red.
	-22	<b>T</b> c	Borin otal De	g Comple pth of Bo	eted 05/0 ring = 21	08/06 1.5 fl.					-
	24 										-
											-
	- - -28										
. 501	30										-
SOIL BORING	- - - - - 32										_
DC-MEAD,GPJ	-										
TAPROJECTISIC	-34 - - - - -	•									
POK-SAVE GIN	36										<u>.</u> :
OTHERIGINTIS	38									·	
977001.01 6/16/06 INDTHERIGINTISPOK-SAVE GINTIPROJECTSICDC-MEAD.GPJ SOIL BORING LOG	40	Notes:	<ol> <li>Stra</li> <li>Ref</li> <li>Ref</li> </ol>	atigraphic erence to er to "Soil	conlacts the text I Classifi	s are ba of this reation S	ised or report i System	n field interpretations and a is necessary for a proper u and Key" figure for explai	are approximate, inderstanding of subsurface cor nation of graphics and symbols,	nditions.	·
.6	A	T ANT	<b>741</b> 1		Rec	tifier	Yard	Soil Investigation	Log of	f Borina 43B	Figure

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Spokane, Washington

A-9 (2 of 2)

SAMPLE	DATA	١			SOIL PROFILE	GROUNDWATER
Sample Number & Interval	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger  Ground Elevation (ft): Drilled By: Boretec	
B46-0 d	+-	CA		GM SP	Dark gray to black, well graded silty GRAVEL with sand, subrounded, petroleum staining and odor, (loose, damp).	Groundwater not encountered.
B46-2.5 b2	4	•		or	Grayish brown, poorly graded fine to medium SAND with sill, homogeneous, visible petroleum product, (very loose, moist).	
6 B46-5 b2	16				Grayish brown, poorly graded fine to medium SAND with silt, homogeneous, moist, visible petroleum product, (medium dense, moist).	
8 B46-7.5 b2	16	CA			Grayish brown, poorly graded medium to coarse SAND with silt, homogeneous, visible petroleum product, (medium dense, moist).	
10 B46-10 b2	22				Grayish brown, poorly graded medium to coarse SAND with silt, homogeneous, visible petroleum product, (medium dense, moist).	
14 846-15 16 18	34	CA			Grayish brown, poorly graded medium to coarse SAND with sitl, homogeneous, visible petroleum product, (medium dense, moist).	
20 _		1		SW	Grayish brown, well graded SAND with silt, homogeneous, no visible product, slight petroleum odor, (moist).  n field interpretations and are approximate.	



Rectifier Yard Soil Investigation Spokane, Washington

Log of Boring B46

Figure A-10 (1 of 2)

	LE DAT	Ά		SOIL PROFILE	GROUNDWATER
Sample Number & Interval	Sampler Type Blows/Foot	Test Data	Graphic Symbol	Drilling Method: Hollow-stem Auger  Ground Elevation (ft):  Drilled By: Boretec	
B46-20	b2 41	no apparent sheen CA	SV	1	Groundwater not encountered,
24 B46-25 26	b2 33			Grayish brown, well graded SAND with silt, homogeneous, slight petroleum odor, (medium dense, moist).	
То	Boring Cor lal Depth o	npleted 05/0 Boring = 26	09/06 3.5 ft.		
28					
30				•	
32					
32					
32 34					
34					
34					
34					



Rectifier Yard Soil Investigation Spokane, Washington

Log of Boring B46

Figure A-10 (2 of 2)

SAMI	PLE	DAT	<u>A</u>	ļ	SOIL PROFILE	GROUNDWATER
Sample Number	Sampler Type	Blows/Foot	Test Data	Graphic Symbol USCS Symbol	Drilling Method: Hollow-stem Auger  Ground Elevation (ft): Drilled By: Boretec	
0 B48-0	đ		CA	5.2.5 GM 5.2.5 5 5.2.5 5 5.2.5 5 5.2.5 5	GRAVEL with sand, subrounded, petroleum staining and odor, (loose, damp).	Groundwater not encountered.
B48-2.5	b2	2		SP	Grayish brown, poorly graded fine SAND, homogeneous, visible petroleum product, (very loose, moist).	
6 B48-5	b2	17	CA		Grayish brown, poorly graded fine SAND, homogeneous, visible petroleum product, (medium dense, moist).	
8 B48-7.5	b2	34			Grayish brown, poorly graded medium SAND, homogeneous, visible petroleum product, (medium dense, moist).	
10 B48-10	b2	19	sheen CA		Grayish brown, poorly graded medium to coarse SAND, homogeneous, visible petroleum product, (medium dense, moist).	
B48-15	b2	30	very light sheen		Grayish brown, poorly graded medium SAND, homogeneous, no visible product, slight petroleum odor, (medium dense, moist).	
To	Boring olal Dep	) Comp oth of E	pleted 05/0 Boring = 16	9/06 i.5 ft.		
0 Notes:	1. Stra 2. Ref	atigrap	hic contac	ts are based	on field interpretations and are approximate.	

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Log of Boring B48

Figure A-11



SPOKANE, WA 11922 E. 1ST AVENUE SPOKANE VALLEY, WA 99206-5302 ph; (509) 924.9200 fax; (509) 924.9290

Landau Associates - Spokane

10 N. Post Suite 218 Spokane, WA 99201 Project Name:

CDC-Mead

Project Number: Project Manager:

[none] Tom Briggs

Report Created: 06/02/06 14:07

# ANALYTICAL REPORT FOR SAMPLES—

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B18-0'	SPE0059-01	Soil	05/09/06 10:30	05/10/06 16:00
B18-5'	SPE0059-03	Soil	05/09/06 09:35	05/10/06 16:00
B18-7.5'	SPE0059-04	Soil	05/09/06 09:40	05/10/06 16:00
B18-10'	SPE0059-05	Soil	05/09/06 09:45	05/10/06 16:00
26B(2)-0'	SPE0059-07	Soil	05/08/06 13:20	05/10/06 16:00
26B(2)-2.5'	SPE0059-08	Soil	05/08/06 08:00	05/10/06 16:00
26B(2)-5'	SPE0059-09	Soil	05/08/06 08:05	05/10/06 16:00
A4A(2)-0'	SPE0059-13	Soil	05/08/06 07:45	05/10/06 16:00
A4A(2)-5'	SPE0059-15	Soil	05/08/06 08:00	05/10/06 16:00
A4A(2)-10'	SPE0059-17	Soil	05/08/06 08:10	05/10/06 16:00
A10A(2)-0'	SPE0059-19	Soil	05/08/06 08:45	05/10/06 16:00
A10A(2)-5'	SPE0059-20	Soil	05/08/06 08:55	05/10/06 16:00
B46-0'	SPE0059-24	Soil	05/09/06 12:15	05/10/06 16:00
B46-7.5'	SPE0059-27	Soil	05/09/06 07:40	05/10/06 16:00
B46-15'	SPE0059-29	Soil	05/09/06 07:50	05/10/06 16:00
B46-20'	SPE0059-30	Soil	05/09/06 07:55	05/10/06 16:00
B48-0'	SPE0059-32	Soil	05/09/06 12:30	05/10/06 16:00
B48-5'	SPE0059-34	Soil	05/09/06 08:35	05/10/06 16:00
B48-10'	SPE0059-36	Soil	05/09/06 08:45	05/10/06 16:00
29B-0'	SPE0059-38	Soil	05/08/06 13:20	05/10/06 16:00
29B-2.5'	SPE0059-39	Soil	05/08/06 09:15	05/10/06 16:00
31A-0'	SPE0059-44	Soil	05/09/06 10:45	05/10/06 16:00
31A-2.5'	SPE0059-45	Soil	05/08/06 12:00	05/10/06 16:00
35A-0'	SPE0059-50	Soil	05/09/06 11:15	05/10/06 16:00
35A-2.5'	SPE0059-51	Soil	05/08/06 10:00	05/10/06 16:00
43B-0'	SPE0059-56	Soil	05/09/06 11:45	05/10/06 16:00
43B-7.5'	SPE0059-59	Soil	05/09/06 11:10	05/10/06 16:00

TestAmerica - Spokane, WA

Dennis D Wells, Laboratory Director

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Landau Associates - Spokane

10 N. Post Suite 218

Spokane, WA 99201

Project Name:

CDC-Mead

Project Number: Project Manager: [none] Tom Briggs

Report Created:

06/02/06 14:07

#### Semivolatile Petroleum Products by NWTPH-Dx

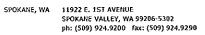
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Analyte	Method	Result	MDL*	MRL	· · · · · ·	Dil	Batch	Prepared	Analyzed	Notes
SPE0059-01 (B18-0')		So	il		Samj	pled: 05/	09/06 10:30			
Diesel Range Hydrocarbons	NWTPH-Dx	25400		1460	mg/kg dry	100x	6050097	05/11/06 09.14	05/17/06 23:93	
Heavy Oil Range Hydrocarbons	7	11300		3650	<u> </u>	•	<b>b</b>	n	•	
Surrogate(s): 2-FBP			139%			- 150%	*		rt	
p-Terphenyl-d14			2010%		50	- 150 %	p*		p.	SR-5
SPE0059-03 (B18-5')		Soi	it		Samı	oled: <b>0</b> 5/	09/06 09:35			
Diesel Range Hydrocarbons	NWTPH-Dx	13100		991	mg/kg đry	100x	6050097	05/11/06 09:14	05/17/06 23:41	
Heavy Oil Range Hydrocarbons	•	ND		2480		H	D	•	В	
Surrogate(s): 2-FBP			306%		50	- 150%	77		н	SR-5
p-Terphenyl-d14			1120%		50	- 150%	n		H	SR-5
SPE0059-04 (B18-7.5')		Soi	il		Samı	oled: 05/	09/06 09:40			
Diesel Range Hydrocarbons	NWTPH-Dx	4640		106	mg/kg đry	10x	6050178	05/22/06 13:53	05/25/06 14:57	
Ieavy Oil Range Hydrocarbons	•	899		266	*	4		н	•	•
Surrogate(s): 2-FBP			158%		50	- 150%	n		z.	SR-5
p-Terphenyl-d14			487%		50	- 150%	*		n	SR-5
SPE0059-05 (B18-10')		Soi	1		Samp	oled: 05/	09/06 09:45			
Diesel Range Hydrocarbons	NWTPH-Dx	227		10.6	mg/kg dry	łx	6050097	05/11/06 09:14	05/18/06 00:21	
Heavy Oil Range Hydrocarbons		59.6		26.5	*	*	7	₩	fr	
Surrogate(s): 2-FBP			95.1%		50 -	- 150%	n		н	
p-Terphenyl-d14			133%		50 -	· 150 %	л		#	
SPE0059-07 (26B(2)-0')	,	Soi	1		Samp	led: 05/	08/06 13:20			
Diesel Range Hydrocarbons	NWTPH-Dx	6260		905	mg/kg đry	100x	6050097	05/11/06 09:14	05/18/06 01:00	
leavy Oil Range Hydrocarbons		2770		2260	*	*		-	*	
Surrogate(s): 2-FBP			132%			- 150 %	<b>,</b>		н	
p-Terphenyl-d14	·		740%		50 -	150 %	n		H	SR-5
SPE0059-08 (26B(2)-2.5')		Soil			Samp	led: 05/0	08/06 08:00			
Diesel Range Hydrocarbons	NWTPH-Dx	28.5		10.6	mg/kg đry	lx	6050178	05/22/06 13:53	05/24/06 03:04	
Heavy Oil Range Hydrocarbons	*	ND		26.6		*		*		
Surrogate(s): 2-FBP			78.1%		50 -	150%	н		п	
p-Terphenyl-d14			77.0%		50 -	150%	,		×	

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10 N. Post Suite 218 Spokane, WA 99201 Project Name:

CDC-Mead

Project Number: Project Manager: [none] Tom Briggs Report Created: 06/02/06 14:07

#### Semivolatile Petroleum Products by NWTPH-Dx

		10	stAmerica	- Spok	ane, WA					
Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
SPE0059-09 (26B(2)-5')		Soi	<b>!</b>		Samp	oled: 05/0	08/06 08:05			
Diesel Range Hydrocarbons	NWTPH-Dx	ND.		9.62	mg/kg dry	lx	6050097	05/11/06 09:14	05/18/06 01:40	
Heavy Oil Range Hydrocarbons	*	ND		24.1			4		*	
Surrogate(s): 2-FBP			83.6%			- 150 %	7		<i>»</i>	
p-Terphenyl-d14			80.5%		50	- 150%	*		<b>"</b>	
SPE0059-13 (A4A(2)-0')		Soi	l		Samp	oled: 05/0	8/06 07:45			
Diesel Range Hydrocarbons	NWTPH-Dx	25200	•	1350	mg/kg đry	100x	6050097	05/11/06 09:14	05/18/06 02:19	
Heavy Oil Range Hydrocarbons	п	34500		2880	70		u .	Ú	•	
Surrogate(s): 2-FBP			195%			- 150 %	я		,	SR-5
p-Terphenyl-d14		1.	1100%		50	- 150 %	π		n	SR-5
SPE0059-15 (A4A(2)-5')		Soi	<u> </u>		Samp	oled: 05/(	8/06 08:00			<del></del>
Diesel Range Hydrocarbons	NWTPH-Dx	6940		1080	mg/kg dry	100x	6050097	05/11/06 09:14	05/18/06 04:55	
Heavy Oil Range Hydrocarbons	#	ND		2690	b		R	•	P	•
Surrogate(s): 2-FBP			188%		50	- 150%	n		n	SR-S
p-Terphenyl-dl-4			666%		50	- 150 %	**		Ħ	SR-5
SPE0059-17 (A4A(2)-10')		Soi	1		Samp	led: 05/0	8/06 08:10			
Diesel Range Hydrocarbons	NWIPH-Dx	114		12.1	mg/kg dry	lx	6050178	05/22/06 13:53	05/24/06 03:41	
Heavy Oil Range Hydrocarbons	·	38,8		30,3	и	•	л	η		mere v
Surrogate(s): 2-FBP			87.5%			- 150%	29		Ħ	
p-Terphenyl-d14			98.4%		50	. 150%	#		*	
SPE0059-19 (A10A(2)-0')		Soil	l		Samp	oled: 05/0	8/06 08:45			
Diesel Range Hydrocarbons	NWTPH-Dx	63200		4320	mg/kg dry	100x	6050097	05/11/06 09:14	05/18/06 05:33	
Heavy Oil Range Hydrocarbons	л	42000		10800	*	*	*	*		
Surrogate(s): 2-FBP			53.1%			150%	n		Ħ	
p-Terphenyl-d14		2	2380%		50 -	- 150 %	e		N*	SR-5
SPE0059-20 (A10A(2)-5')		Soil	l		Samp	led: 05/0	8/06 08:55			
Diesel Range Hydrocarbons	NWTPH-Dx	473	<del></del> .	108	mg/kg dry	10x	. 6050097	05/11/06 09:14	05/18/06 06:10	
leavy Oil Rauge Hydrocarbons	•	287		271	*		u		-	
Surrogate(s): 2-FBP			98.0%		50 -	150%	н		и	
p-Terphenyl-d14			239%		50 -	150%	n		n	SR-5

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CDC-Mead

Project Number: Project Manager:

Tom Briggs

[none]

Report Created: 06/02/06 14:07

## Semivolatile Petroleum Products by NWTPH-Dx

TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	DΉ	Batch	Prepared	Analyzed	Note
SPE0059-24 (B46-0')		Soi	il		- Samı	oled: 05/0	09/06 12:15			
Diesel Range Hydrocarbons	NWTPH-Dx	81900		11300	mg/kg dry	1000x	6050097	05/11/06 09:14	05/22/06 11:43	
Heavy Oil Range Hydrocarbons	*	65500	*****	28200	•	*			*	
Surrogate(s): 2-FBP			148%		50	- 150 %	,		н	SR-S
p-Terphenyl-d14		I	6000%		50 -	- 150 %	*		"	SR-5
SPE0059-27 (B46-7.5')		Soi	l .		Samp	oled: 05/0	09 <i>1</i> 06 07:40			
Diesel Range Hydrocarbons	NWTPH-Dx	12400		2460	mg/kg dry	100x	6050097	05/11/06 09:14	05/18/06 07:23	
Heavy Oil Range Hydrocarbons	•	ND		6140	P		н	h		
Surrogate(s): 2-FBP			164%		50 -	150%	,		p	SR-5
p-Terphenyl-d14			866%		50 -	150%	»		*	SR-5
SPE0059-29 (B46-15')		Soi	1		Samp	led: 05/(	09/06 07:50			
Diesel Range Hydrocarbons	NWTPH-Dx	5870		2080	mg/kg dry	100x	6050097	05/11/06 09:14	05/18/06 08:00	,
Heavy Oil Range Hydrocarbons	¥	ND		5190		'n	n)		n	-
Surrogate(s): 2-FBP			135%		50 -	150%	*		п	
p-Terphenyl-d14			582%		50 -	150%	77		Ħ	SR-5
SPE0059-30 (B46-20')		Soi	l		Samp	led: 05/0	9/06 07:55			
Diesel Range Hydrocarbons	NWTPH-Dx	29.8		10.3	mg/kg dry	lx	6050178	05/22/06 13:53	05/24/06 04:19	
Heavy Oil Range Hydrocarbons		ND		25.9	*	,	**	Ħ.	ņ	
Surrogate(s): 2-FBP			79.8%		50 -	150%	*		. ,	
p-Terphenyl-d14			78.7%		50 -	150%	я		R	
SPE0059-32 (B48-0')		Soi	1		Samp	led: 05/0	9/06 12:30			
Diesel Range Hydrocarbons	NWTPH-Dx	132000		11500	mg/kg đry	1000x	6050097	05/11/06 09:14	05/22/06 12:20	
Jeavy Oil Range Hydrocarbons	*	56800		28900		*				
Surrogate(s): 2-FBP			570%		50 -	150%	r		#	SR-S
p-Terphenyl-d14		12	2600%		50 -	150 %	n		H	SR-5
SPE0059-34 (B48-5')		Soil			Samp	led: 05/0	9/06 08:35			
Diesel Range Hydrocarbons	NWTPH-D <sub>X</sub>	10300		1900	mg∕kg dry	100x	6050097	05/11/06 09:14	05/18/06 09:13	
Heavy Oil Range Hydrocarbons	·	ND		4760	•	u	•	•	•	
Surrogate(s): 2-FBP			146%		50 -	150%	,,		и	
p-Terphenyl-d14		i	280%		50 -	150%	*		"	SR-5

TestAmerica - Spokane, WA

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10 N. Post Suite 218 Spokane, WA 99201 Project Name:

CDC-Mead

Project Number. Project Manager:

[none] Tom Briggs

Report Created: 06/02/06 14:07

#### Semivolatile Petroleum Products by NWTPH-Dx

TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dii	Batch	Prepared	Analyzed	Note
SPE0059-36 (B48-10')		Soi	il		Samp	oled: 05/	09/06 08:45			
Diesel Range Hydrocarbons	NWTPH-Dx	2140		1050	mg∕kg dry	100x	6050097	05/11/06 09:14	05/18/06 09:49	
Heavy Oil Range Hydrocarbons	*	815		526	ь	*	*	*	п	
Surrogate(s): 2-FBP			122%		50-	- 150%	"		"	
p-Terphenyl-d14			102%		50-	- 150%	,		77	SR-5
SPE0059-38 (29B-0')		Soi	ı		Samp	oled: 05/	08/06 13:20			
Diesel Range Hydrocarbons	NWTPH-D <sub>X</sub>	25300		1100	mg/kg dry	100x	6050108	05/12/06 08:52	05/18/06 10:25	
Heavy Oil Range Hydrocarbons	W .	9670		2760	9	•	=	7	•	
Surrogate(s): 2-FBP			322%			- 150%	*		н	SR-5
p-Terphenyl-d14			2490%		50 -	- 150%	*		*	SR-5
SPE0059-39 (29B-2.5')		Soi	1		Samp	led: 05/	08/06 09:15			
Diesel Range Hydrocarbons	NWTPH-Dx	40.4		10.6	mg/kg dıy	lx	6050108	05/12/06 08:52	05/12/06 20:39	
Heavy Oil Range Hydrocarbons		30.0		26.5	n .	•	7	ij	*	
Surrogate(s): 2-FBP			93.9%			150%	*		"	
p-Terphenyl-d14			92.1%		50 -	150%	"		#	
SPE0059-44 (31A-0')		Soi	1	Sampled: 05/09/06 10:45						
Diesel Range Hydrocarbons	NWTPH-D <sub>X</sub>	12500		1070	mg/kg đry	100x	6050108	05/12/06 08:52	05/19/06 17:54	
Heavy Oil Range Hydrocarbons	P .	5240		2690	*	*	7		h	
Surrogate(s): 2-FBP			114%			150%	n		n	
p-Terphenyl-d14			1620%		50 -	150%	н		n	SR-5
SPE0059-45 (31A-2.5')		Sei	l		Samp	led: 05/6	08/06 12:00			
Diesel Range Hydrocarbons	NWTPH-Dx	1840		1080	mg/kg dry	100x	6050108	05/12/06 08:52	05/19/06 18:30	
Heavy Oil Range Hydrocarbons	7 ·	851		541					*	
Surrogate(s): 2-FBP			120%			150%			*	
p-Terphenyl-d14			480%		50 -	150%	*		n	SR-5
SPE0059-50 (35A-0')		Soil			Samp	leđ: 05/0	9/06 11:15			
Diesel Range Hydrocarbons	NWTPH-Dx	25400		1040	mg∕kg đry	100x	6050108	05/12/06 08:52	05/19/06 19:06	
Heavy Oil Range Hydrocarbons	*	15900		2610	•	В	*	*		
Surrogote(s): 2-FBP			161%		50 -	150%	n		<i>n</i>	SR-5
p-Terphenyl-d14		3	700%		50 -	150%	n		p	SR-5

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SPOKANE, WA 11922 E. 1ST AVENUE SPOKANE VALLEY, WA 99206-5302 ph: (509) 924,9200 fax: (509) 924,9290

Landau Associates - Spokane

10 N. Post Suite 218 Spokane, WA 99201 Project Name:

CDC-Mead

Project Number: Project Manager: [none] Tom Briggs Report Created:

06/02/06 14:07

#### Semivolatile Petroleum Products by NWTPH-Dx

TestAmerica - Spokane, WA

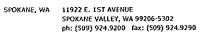
Analyte	Method	Result	MDL*	MRL	Units	Đil	Batch	Prepared	Analyzed	Notes
SPE0059-51 (35A-2.5')		So	il		- Samı	oled: 05/	08/06 10:00			
Diesel Range Hydrocarbons	NWTPH-Dx	166		9.89	mg/kg đry	lx	6050108	05/12/06 08:52	05/13/06 00:52	***************************************
Heavy Oil Range Hydrocarbons	•	91.7		24.7	Ð	н	b	н	×	
Surrogate(s): 2-FBP			81.2%		50	- 150 %		н		
p-Terphenyl-d14			75.9%		50	- 150%	n		,,	
SPE0059-56 (43B-0')	•	Soi	t	Sampled: 05/09/06 11:45						
Diesel Range Hydrocarbons	NWTPH-Dx	1680	••	106	mg/kg dry	10x	6050108	05/12/06 08:52	05/22/06 12:57	
Heavy Oil Range Hydrocarbons	in .	1310		266	٠	*	n	B		
Surrogate(s): 2-FBP			112%		50	- 150%	•		H	
p-Terphenyl-d14			663%		50	- 150 %	n		и	SR-5
SPE0059-59 (43B-7.5')		Soi	1		Samp	led: 05/	09/06 11:10			
Diesel Range Hydrocarbons	NWTPH-D <sub>X</sub>	98.6		10.6	mg/kg dry	lx	6050108	05/12/06 08:52	05/13/06 02:05	
Heavy Oil Range Hydrocarbons	79	74.7		26.4	*	Ħ	*		•	-
Surrogate(s): 2-FBP			83.4%		50 -	150 %	η		n	
p-Terphenyl-d14			106%		50 -	150%	n		Ħ	

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Dennis D Wells, Laboratory Director

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10 N. Post Suite 218 Spokane, WA 99201 Project Name:

CDC-Mead

Project Number: Project Manager:

[none] Tom Briggs

Report Created: 06/02/06 14:07

#### Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Spokane, WA

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	No	otes
SPE0059-01	(B18-0')		Soi	1		Samp	oled: 05/	09/06 10:30				Α-
PCB-1016		EPA 8082	ND		52.9	ug/kg dry	lx	6050110	05/12/06 14:37	05/16/06 00:52		
PCB-1221			ND		52.9	d	•	4	•	>		
PCB-1232		*	ND		52.9	•		•	н	ā		
PCB-1242			ND		52.9	•		*	•	•		
PCB-1248		•	ND		52.9			*	•	•		
PCB-1254		H	ND		52.9	•		я	*	•		
PCB-1260		**	61.0		52.9	ь	"	18	ħ	•		
Surrogate(s):	TCX			124%		50 -	- 150 %	**		#		
	Decachlorobiphenyl			33.3%		50	- 150 %	н		#	SR-4	
SPE0059-03	(B18-5')		Soi	I		Samp	oled: 05/	09/06 09:35				A-
PCB-1016		EPA 8082	ND		55.1	ug/kg dry	Ιx	6050110	05/12/06 14:37	05/16/06 03:09		
PCB-1221		•	ND	•	55.1	•	•	8	•	•		
PCB-1232		•	ND		55,1	•			•	,		
PCB-1242			ND		55.1	•		v	*			
PCB-1248			ND		55.1		*	v	*	•		
PCB-1254		я	ND		55.1	•		v				
PCB-1260		и	ND		55.1	*	•		•	•		
Surrogate(s):	TCX			82.7%		50 -	- 150 %	*		n		
	Decachlorobiphenyl			16.1%		50 -	- 150%	п		H	SR-4	
SPE0059-05	(B18-10')		Soi	l		Samp	led: 05/	09/06 09:45				
PCB-1016		EPA 8082	ND		53.0	ug/kg dry	1×	6050110	05/12/06 14:37	05/16/06 03:37		
PCB-1221		7	ND		53.0	•	7		•	*		
PCB-1232		•	· ND		53.0	*			•	*		
PCB-1242		•	ND		53.0	•	*	*	•	•		
PCB-1248		w	ND		53.0	•		•		•		
PCB-1254		*	ND	_	53.0	•	В	н		*		
PCB-1260		•	ND		53.0		٠	•	*	,		
Surrogate(s):	TCX			85.3%		50 -	150%	н		я		
	Decachlorobiphenyl			111%		50 -	150%	n		n		

TestAmerica - Spokane, WA

Dennis D Wells, Laboratory Director

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SPOKANE, WA 11922 E. 1ST AVENUE

SPOKANE VALLEY, WA 99206-5302 ph: (509) 924.9200 fax: (509) 924.9290

Landau Associates - Spokane

10 N. Post Suite 218 Spokane, WA 99201 Project Name:

CDC-Mead

Project Number: Project Manager:

[none] Tom Briggs

Report Created: 06/02/06 14:07

#### Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Spokane, WA

Analyte		Method	Result	MDL*	MRL	Units	Dii	Batch	Prepared	Analyzed	Notes
SPE0059-07	(26B(2)-0')		Soi	l .		Samp	pled: 05/	08/06 13:20			A-(
PCB-1016		EPA 8082	ND		52.0	ug/kg dry	lx	6050110	05/12/06 14:37	05/16/06 04:04	
PCB-1221		*	ND		52.0	R	•	,	•	-	
PCB-1232			ND		52,0	•	ŧ	*	•	*	
PCB-1242		*	ND		52.0	*	D	•	н	*	
PCB-1248		•	ND		52.0	*	7	U	*	u-	
PCB-1254		•	·ND	_	52.0			U		•	
PCB-1260		•	187		52.0	v	и	•	н	•	
Surrogate(s):	TCX			99.0%		50	- 150%	и		n	
٠	Decachlorobiphenyl			53.5%		50	- 150 %	"		n	
SPE0059-09	(26B(2)-5')		Soi	l		Samp	oled: 05/	08/06 08:05			
PCB-1016	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	EPA 8082	ND		54,6	ug/kg dry	lx	6050110	05/12/06 14:37	05/16/06 04:31	
PCB-1221		н.	ND		54.6	•	*	*		"	
PCB-1232		н	ND		54.6	*	ħ	ж	,	п	-
PCB-1242		•	ND		54.6		n	d	•	u	
PCB-1248		n	ND		54.6	*	•	•	•		
PCB-1254		19	ND		54.6				ĸ	*	
PCB-1260		•	ND		54.6			•	•	*	
Surrogate(s):	TCX Decachlorobiphenyl			88.3% 110%			- 150 % - 150 %	ri ri		R H	<del>-</del>
SPE0059-13	(A4A(2)-0')		Soil	İ		Samp	led: 05/	08/06 07:45			A-01
PCB-1016		EPA 8082	ND		57.5	ug/kg dry	ix	6050110	05/12/06 14:37	05/16/06 04:59	
PCB-1221		*	ND	*****	57.5	•	*	•	•	•	
PCB-1232		*	ND		57.5	•			•	•	
PCB-1242		•	ND		57.5	•	•		•	*	
PCB-1248		•	359		57,5	•	*		m,	•	
PCB-1254		•	. ND	•	57.5	•	•	*	•	fr.	
PCB-1260		7	459		57.5	•	•	•	•	•	
Surrogate(s):	TCX			156%		50 -	150%		•	er	SR-4
	Decachlorobiphenyl			45.9%		50 -	150%			"	SR-4

TestAmerica - Spokane, WA

Dennis D Wells, Laboratory Director





Landau Associates - Spokane

10 N. Post Suite 218 Spokane, WA 99201 Project Name:

CDC-Mead

Project Number: Project Manager: [none] Tom Briggs Report Created: 06/02/06 14:07

## Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Spokane, WA

			Te	estAmerica	ı - Spok	ane, WA				<del> </del>		
Analyte		Method	Result	MDL*	MRL	Units	Đil	Batch	Prepared	Analyzed	N	otes
SPE0059-15	(A4A(2)-5')		Soi	l		Samp	oled: 05/0	08/06 08:00				
PCB-1016		EPA 8082	ND		53.8	ug/kg dry	lx	6050110	05/12/06 14:37	05/16/06 05:26		
PCB-1221		*	ND		53.8	*	11	•	*	<b>n</b>		
PCB-1232		×	ND		53.8	*	*	*	ч	a		
PCB-1242		•	ND		53.8	*	•	•	*	•		
PCB-1248		π.	ND		53.8	•	•		7	•		
PCB-1254		a	ND		53.8	•		H	н	U		
PCB-1260		11	ND		53.8	•	"	•	*	H	•	
Surrogate(s)	TCX			113%		50	- 150%	,		7		
	Decachlorobiphenyl			25.0%		50	- 150%	л		#	SR-4	
SPE0059-19	(A10A(2)-0')		Soi	1		Samp	oled: 05/0	8/06 08:45				A-0
PCB-1016		EPA 8082	ND		53,4	ug/kg dry	lx	6050110	05/12/06 14:37	05/16/06 05:54		
PCB-1221		•	ND		53.4	•	-	*		*		
PCB-1232		н	ND		53.4	•		*		•		
PCB-1242			ND		53.4	n	14	*	и	×		
PCB-1248		,	ND		53.4		*	•		ø		
PCB-1254		•	ND		53,4	•	*		•			
PCB-1260		4	55,6		53.4	•	*	•	•	н		
Surrogate(s).	TCX			109%		50	- 150%	,,		н		
	Decachlorobiphenyl			18.6%			- 150%	p		*	SR-4	
SPE0059-20	(A10A(2)-5')		Soi	ı	-	Samp	oled: 05/0	8/06 08:55				A-0
PCB-1016		EPA 8082	ND		54.2	ug/kg dry	lx	6050110	05/12/06 14:37	05/16/06 06:21		
PCB-1221			ND		54.2	•		7	•	•		
PCB-1232		•	ND		54.2					*		
PCB-1242		н	ND		54.2	•		•	•	,		
PCB-1248			ND		54,2	•	*	•	*	•		
PCB-1254			ND		54.2	*		*	•	•		
PCB-1260		я	76.2		54.2	•	*	•	•	•		
Surrogate(s):	TCX			107%		50 -	- 150%	ь		H		
	Decachlorobiphenyl			165%		50 -	- 150%	п		n	SR-4	

TestAmerica - Spokane, WA

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Landau Associates - Spokane

10 N. Post Suite 218 Spokane, WA 99201 Project Name:

CDC-Mead

Project Number: Project Manager:

[none] Tom Briggs Report Created:

06/02/06 14:07

## Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Spokane, WA

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Note	
SPE0059-24	(B46-0')		Soi	1		Samp	led: 05/	09/06 12:15				
PCB-1016		EPA 8082	ND		113	ug/kg đry	2×	6050131	05/16/06 09:53	05/19/06 13:44		
PCB-1221		*	ND		113	tr	*	•				
PCB-1232		*	ND		113	,		ч	*	•		
PCB-1242		•	ND		113	(*	*	D	*	•		
PCB-1248		•	ND		113	*		77	. "	*		
PCB-1254			ND		113	n	•	**	н	*		
PCB-1260		•	157		113	13-	*	*	Ħ	×		
Surrogate(s):	TCX			119%		50 -	150%	*		p		
	Decachlorobiphenyl			30.4%		50 -	150%	n		#	SR-4	
SPE0059-27	(B46-7.5')		Soil	)		Samp	led: 05/	09/06 07:40				
PCB-1016		EPA 8082	ND	****	55,7	ug/kg dry	lx	6050131	05/16/06 09:53	05/18/06 19:16		
PCB-1221		nt.	ND		55,7	•		*	•	•		
PCB-1232		•	ND		55.7	*	4	-	•			
PCB-1242		₩	ND		55,7	*	•		. н			
PCB-1248		,	ND		55.7				π	*		
PCB-1254			ND		55.7	•	•	•	•	*		
PCB-1260		# -	167		55.7	•	¥	*	w	*		
Surrogate(s):	TCX Decachlorobiphenyl	•		110% 78.6%			150 % 150 %	n		17 #		
SPE0059-29	(B46-15')		Soil	ł		Samp	led: 05/(	09/06 07:50				
PCB-1016		EPA 8082	NĐ		52.7	ug/kg dry	lx	6050131	05/16/06 09:53	05/18/06 19:44		
PCB-1221		н	ND		52.7	*	ø	*		*		
PCB-1232		n	ND		52.7	*		н	<del>.</del>	•		
PCB-1242			ND		52.7	*	•	•				
PCB-1248		•	ND		52.7	n .	*		a			
PCB-1254		•	ND	•	52.7	-	7	7	п			
PCB-1260		at .	136		52.7		•		•	*		
Surrogate(s):	TCX			117%		50 -	150 %	м		я		
	Decachlorobiphenyl		•	130%		50 -	150%	,		n)		

TestAmerica - Spokane, WA

Dennis D Wells, Laboratory Director





Landau Associates - Spokane

10 N. Post Suite 218 Spokane, WA 99201 Project Name: Project Number: CDC-Mead

Project Manager:

[none] Tom Briggs Report Created: 06/02/06 14:07

## Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Spokane, WA

Analyte		Method	Result	MDL*	MRL	Units	Dil :	Batch	Prepared	Analyzed	Note
SPE0059-32	(B48-0°)		Soi	ŀ		Samp	led: 05/(	09/06 12:30			
PCB-1016		EPA 8082	ND		123	ug/kg dry	lx	6050179	05/23/06 10:45	05/26/06 15:17	
PCB-1221		v	ND		123	*			u	*	
PCB-1232		•	ND		123	*	•	,1	. "	*	
PCB-1242			ND		123				o	•	
PCB-1248		*	ND		123	v	-	19	v	•	
PCB-1254		*	ND		123	n	•	**	0	•	
PCB-1260			ND		123		*	7)	н	•	
Surrogate(s):	TCX			92.7%		50 -	150%	*		#	
	Decachlorobiphenyl		1.	3700%		50 -	150%	7		#	SR-4
SPE0059-34	(B48-5')		Soi	]		Samp	led: 05/(	09/06 08:35			
PCB-1016		EPA 8082	ND		56.9	ug/kg dry	1x	6050131	05/16/06 09:53	05/18/06 20,11	
PCB-1221		•	ND		56.9	-	•	-	п	*	
PCB-1232		<b>n</b>	ND	•	56.9	*	ю	n	*	ж	
PCB-1242			ND		56.9	•	•	n	•		
PCB-1248		in	ND		56.9		7	11	H	•	
PCB-1254		•	ND		56,9		•	v	ъ.	•	
PCB-1260			104		56.9	•	*	*	W	. •	
Surrogate(s):	TCX Decachlorobiphenyl			130% 78.0%			150 % 150 %	#		zę H	
SPE0059-36	(B48-10')		Soi	1		Samp	led: 05/0	09/06 08:45			
PCB-1016		EPA 8082	ND		52,6	ug/kg dry	lx	6050131	05/16/06 09:53	05/18/06 20:39	
PCB-1221		n .	ND		52.6	•	*	•	<b>7</b>	•	
CB-1232		•	ND		52.6	÷	•	N	*	*	
CB-1242		•	ND		52.6	•	*	•	<b>n</b> .	•	
CB-1248			ND		52.6	•			•	o	
PCB-1254		•	ND		52,6	•		*	•	•	
PCB-1260		•	ND		52.6	•	•		•		
Surrogate(s):	TCX		94,4%		50 -	150%	*		n		
	Decachlorobiphenyl			112%		50 -	150%	n		*	

TestAmerica - Spokane, WA

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Landau Associates - Spokane

10 N. Post Suite 218 Spokane, WA 99201 Project Name:

CDC-Mead

Project Number: Project Manager; [none] Tom Briggs Report Created:

06/02/06 14:07

## Polychlorinated Biphenyls by EPA Method 8082

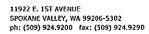
TestAmerica - Spokane, WA

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
SPE0059-38	(29B-0')		So	il		Samp	oled: 05/	08/06 13:20			
PCB-1016		EPA 8082	ND		55.2	ug/kg đry	lx	6050131	05/16/06 09:53	05/18/06 21:06	
PCB-1221		•	ND		55.2					No.	
PCB-1232			ND		55.2	-	•	*	39	9.	
PCB-1242		*	ND		55.2	•	•	*	et.	II•	
PCB-1248		u	ND		55.2	*	•	*		*	
PCB-1254			ND		55.2	•	*	*	n-	•	
PCB-1260		Ħ	146		55.2	•	ti-	•	ų	•	
Surrogate(s):	TCX			134%		50 -	- 150 %	н		*	
	Decachlorobiphenyl			35.1%		50 -	- 150 %	"		ø	SR-J
SPE0059-39	(29B-2.5')		Soi	il		Samp	led: 05/6	08/06 09:15			
PCB-1016		EPA 8082	ND		52.9	ug∕kg dry	1x	6050131	05/16/06 09:53	05/18/06 21:34	
PCB-1221			ND		52.9	•	*		н	14	
PCB-1232		u-	ND		52.9	•		•	•	18	
PCB-1242		n	ND		52.9	•		*		*	
PCB-1248			ND		52.9	н	*		×	н	
PCB-1254		*	ND		52.9	n	*	•	•	28	
PCB-1260		*	ND		52.9	•		. "	*	*	
Surrogate(s):	TCX			114%		50 -	150%	,		"	
	Decachlorobiphenyl			134%		50 -	150%	77		•	
SPE0059-44	(31A-0')		Soi	i		Samp	led: 05/0	9/06 10:45			
CB-1016		EPA 8082	ND		53.7	ug/kg dry	lx	6050131	05/16/06 09:53	05/19/06 15:06	
PCB-1221		н	ND		53.7	•		*	•	*	
CB-1232		п	ND		53.7	*	*	•	7	H	
CB-1242		•	ND		53,7	•		, н	•		
CB-1248		n .	ND		53.7	•			•	•	
PCB-1254		•	ND		53.7	•	h	*	•	•	
CB-1260		•	195		53.7	•	*	•		•	
Surrogate(s):	TCX			189%		50 -	150%	n		5	SR-4
	Decachlorobiphenyl			70.5%		50 -	150%			#	

TestAmerica - Spokane, WA

Dennis D Wells, Laboratory Director







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10 N. Post Suite 218 Spokane, WA 99201 Project Name: Project Number: CDC-Mead

Project Manager:

[none] Tom Briggs Report Created: 06/02/06 14:07

## Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Spokane, WA

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Note
SPE0059-45	(31A-2.5')		Soi			Samp	led: 05/	08/06 12:00			
PCB-1016		EPA 8082	ND		54.1	ug/kg dry	lx	6050131	05/16/06 09:53	05/19/06 16:47	
PCB-1221		•	ND		54,1	"		T		*	
PCB-1232		•	ND		54, 1			*	•	*	
PCB-1242		•	ND		54,1		•	tr		•	
CB-1248		•	ND		54.1	*	•	•	-	•	
CB-1254		*	ND		54.1	*	n	*		•	
CB-1260		ж	82.9		54.1	в	٠	#	*	ь	
Surrogate(s):	TCX			97.8%		50 -	- 150 %	н		,,	
	Decachlorobiphenyl			117%		50 -	- 150%	н		*	
SPE0059-50	(35A-0')		Soil								
CB-1016		EPA 8082	ND		52 2	ug/kg dry	lx	6050131	05/16/06 09,53	05/19/06 14:38	
CB-1221		*	ND		52.2		"	•	•	×	
CB-1232		•	ND		52.2	•	•	H	•	*	
CB-1242		•	ND		52.2		ď	=	-	•	
CB-1248		19	ND		52.2	•	•			y	
CB-1254		n	ND	•	52.2	,	D	70	•	•	
CB-1260		Ht.	68.6		52.2			*	*	•	
Surrogate(s):	TCX			112%		50 -	150 %	л		R	
	Decachlorobiphenyl			32.3%		50 -	150%	В		,	SR-4
PE0059-51	(35A-2.5')		Soil			Samp	led: 05/0	08/06 10:00			
CB-1016		EPA 8082	ND		54.5	ug∕kg dry	lx	6050131	05/16/06 09:53	05/19/06 17:14	
CB-1221		*	ND		54.5	<b>n</b>		•	•	• .	
CB-1232		*	ND	•	54.5			•			
CB-1242		*	ND		54.5	*				•	
CB-1248		₩'	ND		54.5	-	•	*		•	
CB-1254		wi	ND		54.5	•	٠		•	•	
CB-1260		•	ND		54.5	•	•	d	я	•	
Surrogate(s):	TCX			118%		50 -	150%	п		#	
	Decachlorobiphenyl			140%		50 -	150%	*		n	

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CDC-Mead

Project Number: [none] Project Manager: Tom Briggs

Report Created: 06/02/06 14:07

## Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Spokane, WA

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
SPE0059-56	(43B-0')		Soi	1		Samp	oled: 05/	09/06 11:45			
PCB-1016		EPA 8082	ND		53.2	ug/kg dry	lx	6050131	05/16/06 09:53	05/19/06 17:41	
PCB-1221			ND		53.2	*	*	*	*	и	
PCB-1232		•	ND		53.2	•	4	n	<b>P</b>	•	
PCB-1242		•	ND		53.2	я	•	"	•	•	
PCB-1248			ND		53.2	×		•	•	*	
PCB-1254		* .	ND	*****	53.2	•	15		n	n	
PCB-1260		n	230	•	53.2	•	*	*	•	я	
Surrogate(s):	TCX			135%		50 -	- 150 %			н	
	Decachlorobiphenyl			102%		50	- 150 %	σ		н	
SPE0059-59	(43B-7.5')		Soi	1		Samp	ied: 05/(	09/06 11:10			
PCB-1016		EPA 8082	ND		52.9	ug/kg dry	lx	6050131	05/16/06 09:53	05/19/06 18:09	-
PCB-1221		**	ND		52.9	•		•	•	•	
PCB-1232		*	ND		52.9		ь	•	*	•	•
PCB-1242		n	ND		52.9	*			*	•	
PCB-1248		•	ND		52.9	•			•	•	
PCB-1254	•	77	ND	•	52.9	•	*	•			
PCB-1260		•	ND		52.9	•	4	19		я	
Surrogate(s):	TCX	·		96.1%		50 -	150%	"		r	
	Decachlorobiphenyl			112%		50 -	150%	p		<i>n</i> ·	

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Dennis D Wells, Laboratory Director





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Project Name:

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10 N. Post Suite 218 Spokane, WA 99201 Project Number: Project Manager:

[none] Tom Briggs

Report Created: 06/02/06 14:07

## Conventional Chemistry Parameters by APHA/EPA Methods

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Analyte		Method	Result	MDL*	MRL	Units	Dii	Batch	Prepared	Analyzed	Notes
SPE0059-01	(B18-0')		Soil		,	Samp	oled: 05/0	9/06 10:30			
% Solids		Gravimetry	94,6		0.0100	% by Weight	İx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-03	(B18-5')		Soil			Samj	oled: 05/0	9/06 09:35			
% Solids		Gravimetry	90.8		0.0100	% by Weight	1x	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-04	(B18-7.5')		Soil			Samı	oled: 05/0	9/06 09:40		•	
% Solids		Gravimetry	94.1	*****	0.0100	% by Weight	lx	6050201	05/25/06 08:52	05/25/06 08:53	
SPE0059-05	(B18-10')		Soil			Samp	oled: 05/0	9/06 09:45			
% Solids		Gravimetry	94.3		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-07	(26B(2)-0')		Soil			Samp	oled: 05/0	8/06 13:20			
% Solids		Gravimetry	96.1		0.0100	% by Weight	lx	6050]13	05/12/06 16:33	05/12/06 16:36	
SPE0059-08	(26B(2)-2.5')		Soil			Sami	oled: 05/0	8/06 08:00			
% Solids		Gravimetry	94.0		0.0100	% by Weight	İx	6050201	05/25/06 08:52	05/25/06 08:53	
SPE0059-09	(26B(2)-5')		Soil			Samp	led: 05/0	8/06 08:05			
% Solids		Gravimetry	91,6		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-13	(A4A(2)-0')		Soil			Samp	led: 05/0	8/06 07:45			
% Solids	· · · · ·	Gravimetry	86.9		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-15	(A4A(2)-5')		Soil			Samp	led: 05/0	8/06 08:00			
% Solids		Gravimetry	93.0		0.0100	% by Weight	lx-	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-17	(A4A(2)-10')		Soil			Samp	led: 05/0	8/06 08:10			
% Solids	**************************************	Gravimetry	82.6		0.0100	% by Weight	lx	6050201	05/25/06 08:52	05/25/06 08;53	
SPE0059-19	(A10A(2)-0')		Soil			C	1. 3. 05/0	8/06 08:45			

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CDC-Mead

Project Number: Project Manager: [none] Tom Briggs Report Created:

06/02/06 14:07

## Conventional Chemistry Parameters by APHA/EPA Methods

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Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
SPE0059-19	(A10A(2)-0')		Soil			Samı	oled: 05/(	8/06 08:45			
% Solids		Gravimetry	93.7		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-20	(A10A(2)-5')		Soil			Samp	oled: 05/0	8/06 08:55			
% Solids		Gravimetry	92.2		0.0100	% by Weight	łx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-24	(B46-0')	·	Soil			Samţ	oled: 05/0	9/06 12:15			
% Solids		Gravimetry	88.6		0,0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-27	(B46-7.5')		Soil			Samp	oled: 05/0	9/06 07:40			
% Solids		Gravimetry	89.8		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-29	(B46-15')		Soil			Samp	led: 05/0	9/06 07:50			٠
% Solids		Gravimetry	94.9	+	0,0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-30	(B46-20')		Soil			Samp	oled: 05/0	9/06 07:55			
% Solids		Gravimetry	96.7		0.0100	% by Weight	1x	6050201	05/25/06 08:52	05/25/06 08:53	
SPE0059-32	(B48-0')		Soil			Samp	ited: 05/0	9/06 12:30			
% Solids		Gravimetry	86,6		0.0100	% by Weight	łx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-34	(B48-5')		Soil			Samp	led: 05/0	9/06 08:35			
% Solids		Gravimetry	87.8		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-36	(B48-10')		Soil			Samp	led: 05/0	9/06 08:45			
% Solids		Gravimetry	95.1	. —	0.0100	% by Weight	1x	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-38	(29B-0')		Soil			Samp	led: 05/0	8/06 13:20			
% Solids		Gravimetry	90.6		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-39	(29B-2.5')		Soil			Samp	led: 05/0	8/06 09:15			

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CDC-Mead

Project Number: Project Manager: [none] Tom Briggs

Report Created: 06/02/06 14:07

#### Conventional Chemistry Parameters by APHA/EPA Methods

TestAmerica - Spokane, WA

			10.	31711110110	з - орокс	1110, 1171					
Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
SPE0059-39	(29B-2.5')		Soil			Samj	oled: 05/(	8/06 09:15			
% Solids		Gravimetry	94.5		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-44	(31A-0')		Soil			Samı	oled: 05/0	9/06 10:45			
% Solids		Gravimetry	93.1		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-45	(31A-2.5')		Soil			Samj	oled: 05/0	8/06 12:00			
% Solids		Gravimetry	92.4		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-50	(35A-0')		Soil			Sampled: 05/09/06 11:15					
% Solids		Gravimetry	95.7		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-51	(35A-2.5')		Soil			Samp	oled; 05/0	8/06 10:00			•
% Solids	,	Gravimetry	91.7		0,0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-56	(43B-0')		Soil			Samp	oled: 05/0	9/06 11:45			
% Solids		Gravimetry	94.0		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	
SPE0059-59	(43B-7.5')		Soil			Samp	led: 05/0	9/06 11:10			
% Solids		Gravimetry	94,6		0.0100	% by Weight	lx	6050113	05/12/06 16:33	05/12/06 16:36	

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Dennis D Wells, Laboratory Director





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10 N. Post Suite 218 Spokane, WA 99201 Project Name:

CDC-Mead

Project Number: Project Manager: [none] Tom Briggs Report Created: 06/02/06 14:07

## Semivolatile Petroleum Products by NWTPH-Dx - Laboratory Quality Control Results

TestAmerica - Spokane, WA

QC Batch: 6050097	Soil Pro	paration N	lethod: E	PA 3550B										
Analyte	Method	Result	MDL	* MRL	Units	Đil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6050097-BLK1)		-						Ext	racted:	05/11/06 09	2:14		.,	
Diesel Range Hydrocarbons	NWTPH-Dx	ND		10.0	mg/kg wet	lx							05/13/06 03:17	***************************************
Heavy Oil Range Hydrocarbons	•	ND		25.0	*			••	••		-		19	
Surrogate(s): 2-FBP p-Terphenyl-d1-1		Recovery:	81.7% 81.7%	L	imits: 50-150% 50-150%	"				•			05/13/06 03:17	<del></del>
LCS (6050097-BS1)								Ext	racted:	05/11/06 09	2:14			
Diesel Range Hydrocarbons	$NWTPH\cdot D_X$	46.1	***	0.01	mg/kg wet	1x	••	83.3	55.3%	(50-150)	••		05/13/06 03:53	
Surrogate(s): 2-FBP		Recovery:	104%	L	imits: 50-150%	*							05/13/06 03:53	
p-Terphenyl-d14			88.3%		50-150%	*							8	
Duplicate (6050097-DUP1)				QC Source	e: SPE0059-05			Ext	acted:	05/11/06 09	:14			
Diesel Range Hydrocarbons	NWTPH-Dx	159		10,6	mg/kg đry	Ιx	227				35.2%	(25)	05/17/06 21:45	RP-1
Heavy Oil Range Hydrocarbons	*	36.6		26.5		ь	59.6		••	<b>←</b>	47.8%	•	•	RP-1
Surrogate(s): 2-FBP		Recovery:	57.5%	L	imits: 50-150%								05/17/06 21:45	
p-Terphenyl-d14			83.2%		50-150%	*							a a	
Matrix Spike (6050097-MS1)				QC Source	: SPE0059-05			Extr	acted:	05/11/06 <del>0</del> 9:	:14			
Diesel Range Hydrocarbons	NWTPH-D <sub>X</sub>	413		10.6	mg/kg dry	lx	227	87.]	214%	(70-130)	-	(	05/17/06 22:24	MS-3, RP-3
Surrogate(s): 2-FBP		Recovery:	109%	L	imits: 50-150%	"							05/17/06 22:24	
p-Terphenyl-d14			148%		50-150%	*							, r	

TestAmerica - Spokane, WA

Dennis D Wells, Laboratory Director







Landau Associates - Spokane

Project Name:

CDC-Mead

10 N. Post Suite 218 Spokane, WA 99201

Project Number: Project Manager: [none] Tom Briggs Report Created: 06/02/06 14:07

# Semivolatile Petroleum Products by NWTPH-Dx - Laboratory Quality Control Results

TestAmerica - Spokane, WA

						47.34	<u> </u>					<u> :</u>	<u> </u>	
Analyte   Method   Result   MDL^   MRL   Units   Dil   Source   Result   REC   (Limits)   RPD   (Limits)   Analyzed   Notes														
Analyte	Method	Result	MDL*	MRL	Units	Dii		Spike Amt	% REC	(Limits)	% RPD	(Limit	s) Analyzed	Notes
Blank (6050108-BLK1)								Extr	acted:	05/12/06 08	3:52			
Diesel Range Hydrocarbons	$NWTPH \cdot D_X$	ND	***	10.0	mg/kg wet	lx		••		**			05/12/06 18:51	
Heavy Oil Range Hydrocarbons	*	ND	***	25.0	n			**	**				#	
• .,		Recovery:		ī									05/12/06 18:51	
LCS (6050108-BS1)								Extr	acted:	05/12/06 08	:52			_
Diesel Range Hydrocarbons	NWTPH-Dx	91.8		10.0	mg/kg wet	ìx	••	83.3	110%	(50-150)	•-		05/12/06 19:27	
Surrogate(s): 2-FBP	, , , , , , , , , , , , , , , , , , , ,	Recovery:	97.5%	L	imits: 50-150%	v							05/12/06 19:27	
p-Terphenyl-d14			79.6%		50-150%	и								
Duplicate (6050108-DUP1)				QC Source	e: SPE0063-01			Extr	acted:	05/12/06 08	:52			
Diesel Range Hydrocarbons	NWTPH-Dx	59.8	***	13.4	mg/kg đry	1x	63.7				6.32%	(25)	05/12/06 17:39	
Heavy Oil Range Hydrocarbons	fe .	433		33.6	•	•	388				11.0%	•	•	
= ::		Recovery:		Li										
Matrix Spike (6050108-MS1)				QC Source	: SPE0063-01			Extr	acted:	05/12/06 08	:52			
Diesel Range Hydrocarbons	NWTPH-Dx	185	***	13.4	mg/kg dry	1x	63.7	111	109%	(70-130)			05/12/06 18:15	
Surrogate(s): 2-FBP		Recovery:	107%	Li	mits: 50-150%	×							05/12/06 18:15	
p-Terphenyl-d14			104%		50-150%	*							*	

TestAmerica - Spokane, WA

Dennis D Wells, Laboratory Director





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CDC-Mead

Project Number: Project Manager: [none] Tom Briggs Report Created: 06/02/06 14:07

Semivolatile Petr			

	Kara ya		Test	America - Spokane, W	A						
QC Batch: 6050178	Soil Pre	paration N	1ethod: EP/	A 3550B							
Analyte	Method	Result	MDL*	MRL Units	Dil	Source Result	Spike % Amt REC	(Limits)	% (I	imits) Analyzed	Notes
Blank (6050178-BLK1)							Extracted:	05/22/06 13	3:53		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	***	10.0 mg/kg wet	1×					05/23/06 23:58	
Heavy Oil Range Hydrocarbons	•	ND	***	25.0 *	•				••	"	
Surrogate(s): 2-FBP p-Terphenyl-d14		Recovery:	78.1% 67.8%	Limits: 50-150% 50-150%						05/23/06 23:58 "	
LCS (6050178-BSI)							Extracted:	05/22/06 13	3:53		
Diesel Range Hydrocarbons	NWTPH-Dx	101		10.0 mg/kg wet	lx		83.3 121%	(50-150)		05/24/06 00:35	
Surrogate(s): 2-FBP p-Terphenyl-d14		Recovery:	87.9% 72.0%	Limits: 50-150% 50-150%	<i>p</i>		-			05/24/06 00:35 "	
Duplicate (6050178-DUP1)				QC Source: SPE0059-04			Extracted:	05/22/06 13	3;53		RP-3
Diesel Range Hydrocarbons	NWTPH-Dx	2280		106 mg/kg đry	10x	4640		••	68.2% (	25) 05/25/06 13:44	
Heavy Oil Range Hydrocarbons	•	437	•-•	266 *	•	899			69.2%	n nt	
Surrogate(s): 2-FBP p-Terphenyl-d14		Recovery:	125% 282%	Limits: 50-150% 50-150%	# #					05/25/06 ]3:4‡ "	 SR-5
Matrix Spike (6050178-MS1)				QC Source: SPE0059-04			Extracted:	05/22/06 13	3:53		MS-5
Diesel Range Hydrocarbons	NWTPH-Dx	3190	***	106 mg/kg dry	10x	4640	88.6 -16409	6 (70-130)		05/25/06 14:20	
Surrogate(s): 2-FBP p-Terphenyl-d1-1		Recovery:	115% 340%	Limits: 50-150% 50-150%	"					05/25/06 14:20 "	SR-5

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Dennis D Wells, Laboratory Director





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Landau Associates - Spokane

Project Name:

CDC-Mead

10 N. Post Suite 218 Spokane, WA 99201 Project Number: Project Manager: [none] Tom Briggs Report Created:

06/02/06 14:07

 OC Patalo (050110	C. II D	TTD 1 3.55AT	
		TestAmerica - Spokane, WA	
	Polychlorinated Biphenyls b	y EPA Method 8082 - Laborate	ory Quality Control Results

Analyte		Method	Result	MDL	MRL	Units	Dil	Source	Spik	e %	(Limits)	%	Aimit	i) Analyzed	Notes
		memoa	100011		МКБ	Omis		Result	Amt	REC	(Limits)	RPD	Craine	o) Atlalyzed	110163
Blank (60501	10-BLK1)								Ext	racted:	05/12/06 14	:37			
PCB-1016		EPA 8082	ND	***	50.0	ug/kg wet	łx							05/15/06 23:57	
PCB-1221		7	ND		50.0		•		••		++	**	••	•	
PCB-1232		17	ND		50,0	•	19							4	
PCB-1242			ND		50,0	•	•								
PCB-1248		*	ND	***	50.0	•	٠					••	••	8	
PCB-1254		•	ND	***	50,0	•	•						••	v	
PCB-1260		•	ND		50.0	77	•		••		••		**	•	
Surrogate(s):	TCX		Recovery:	129%	L	imits: 50-150%	D							05/15/06 23:57	
	Decachlorobiphenyl			142%		50-150%	п							#	
LCS (6050110	-BS1)								Ext	racted:	05/12/06 14	:37			
PCB-1016		EPA 8032	163		50.0	ug/kg wet	lx		167	97.6%				05/16/06 00:25	
PCB-1260		*	170		50,0					102%				n	
Surrogate(s):	TCX		Recovery:	125%	Li	mits: 50-150%	4							05/16/06 00:25	
	Decachlorobiphenyl			136%		50-150%								я	
Matrix Spike	(6050110-MS1)				QC Source	: SPE0059-01			Ext	racted:	05/12/06 14	:37		MS	-3, SR-
PCB-1016		EPA 8082	38.7		52.9	ug/kg dry	lx	ND	176	22,0%	(70-130)	••	••	05/16/06 01:20	
PCB-1260		•	69.5		52.9	n		61.0		4.83%	,			4	
Surrogate(s):	TCX	······································	Recovery:	160%		mits: 50-150%							• • • • • • • • • • • • • • • • • • • •	05/16/06 01:20	
	Decachlorobiphenyl			36.7%	-	50-150%								я	
Matrix Spike E	up (6050110-MSI	D1)			OC Source	: SPE0059-01			Ext	racted:	05/12/06 14	:37		MS-	-3, SR-4
PCB-1016		EPA 8082	30,7	***	52.9	ug/kg dry	lx	ND	176	17,4%	(70-130)	23,1%	(25)	05/16/06 02:42	.,
PCB-1260		•	80.2	***	52.9		,,	61.0		10.9%	"	14.3%		n	
Surrogate(s):	TCX		Recovery:	143%	Li	mits: 50-150%								05/16/06 02:42	
,	Decachlorobiphenyl			38.3%		50-150%	,,								

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CDC-Mead

Project Number: Project Manager: [none] Tom Briggs Report Created:

06/02/06 14:07

## Polychlorinated Biphenyls by EPA Method 8082 - Laboratory Quality Control Results

				Test	America	Spokane, W	/A		,			ه و د خود			
QC Batcl	n: 6050131	Soil Pre	paration M	fethod: EP	A 3550B	:									
Analyte		Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (605013	1-BLK1)								Ext	racted:	05/16/06 09	2:53			
PCB-1016		EPA 8082	ND		50,0	ug/kg wet	1x	**	**					05/18/06 17:26	
PCB-1221		•	ND		50.0	υ	"							7	
PCB-1232			ND	•••	50.0	*								h	
PCB-1242			ND	*	50.0					••	••			•	
PCB-1248		b	ND	***	50.0	•	*							•	
PCB-1254		17	ND	•••	50.0		*						••	•	
PCB-1260		•	ND	•••	50.0	•	a						••	•	
Surrogaie(s):	TCX Decachlorobiphenyl		Recovery:	120% 109%	L	imits: 50-150% 50-150%	<del>.</del>							05/18/06 17:26	
LCS (6050131-	-BS1)								Ext	acted:	05/16/06 09	1:53			
PCB-1016		EPA 8082	132	•	50.0	ug/kg wet	1x		167	79.0%	(70-130)		_	05/18/06 17:53	
PCB-1260			127		50,0	•		-		76.0%			••	•	
Surrogate(s):	TCX Decachlorobiphenyl		Recovery:	120% 104%	Li	mits: 50-150% 50-150%	,							05/18/06 17:53	
Matrix Spike (	6050131-MS1)				QC Source	: SPE0059-36			Exti	acted:	05/16/06 09	:53			
PCB-1016		EPA 8082	150		52,6	ug/kg đry	1x	ND	172	87.2%	(70-130)			05/18/06 18:21	
PCB-1260			178		52.6		*	15.0		94.8%				•	
Surrogate(s):	TCX Decachlorobiphenyl		Recovery:	118%	Li	mits: 50-150%	*							05/18/06 18:21	
	Desactionous prensi			161%		50-150%	=								SR-
Matrix Spike D	<del>пр (6050131-MS</del> I	DI)			QC Source	: SPE0059-36			Exte	acted:	05/16/06 09	:53			
PCB-1016		EPA 8082	137		52.6	ug/kg dry	lx	ND	168	81.5%	(70-130)	9.06%	(25)	05/18/06 18:49	
PCB-1260		"	166		52.6	•	•	15.0	•	89.9%		6.98%		•	
	TCX Decachlorobiphenyl		Recovery:	110% 131%	Li	mits: 50-150% 50-150%	o o	The second second second second second second second second second second second second second second second se	The control of the co		manara a sana bibani mana milia ari an ari milian	g, g 1 sg 10 <sub>2</sub> 11 111 1 <sub>2</sub> 1		05/18/06 18:49	

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Dennis D Wells, Laboratory Director





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10 N. Post Suite 218 Spokane, WA 99201 Project Number: Project Manager: [none] Tom Briggs Report Created:

06/02/06 14:07

		Polychlorin	uated Biph	enyls by EP. Test		d 8082 - 1 Spokane, W	2 47 2 7 4 7	atory Qu	ality (	Contro	l Result	s			
QC Bate	h: 6050179	Soil Pr	eparation N	1ethod: EPA	A 3550B										
Analyte		Method	Result	MDL*	MRL	Units	Dit	Source Result	Spike Amt	e % REC	(Limits)	% RPD	(Limits	s) Analyzed	Notes
Blank (60501	79-BLK1)								Ext	racted:	05/23/06 10	:45			
PCB-1016		EPA 8082	ND	***	50.0	ug/kg wet	łx	••			-+			05/26/06 14:22	
PCB-1221		*	ND	•	50.0	,	,				••				
PCB-1232		-	ND		50,0	•				••			-		
PCB-1242		17	ND		50.0	•	*		**			**		×	
PCB-1248		<b>52</b>	ND	•••	50.0	•		••						п	
PCB-1254	•	7	ND	•	50,0	•	*				**			•	
PCB-1260		*	ND	***	50,0	•	n						**		
Surrogate(s):	TCX Decachlorobiphenyl		Recovery:	125% 145%	L	imits: 50-150% 50-150%	*					•••		05/26/06 14:22	
LCS (6050179	)-BS1)								Ext	racted:	05/23/06 10	:45			
PCB-1016		EPA 8082	159	***	50.0	ug/kg wet	lx		167	95.2%	(70-130)			05/26/06 14:49	
PCB-1260		•	182		50.0				•	109%					
Surrogate(s):	TCX Decachlorobiphenyl		Recovery:	103% 131%	L	imits: 50-150% 50-150%	n n			•				05/26/06 14:49	
Matrix Spike	(6050179-MS1)				QC Source	: SPE0059-32			Ext	racted:	05/23/06 10:	:45			MS-2
PCB-1016		EPA 8082	38,3		112	ug/kg đry	lx	ND	187	20,5%	(70-130)			05/26/06 15:45	
PCB-1260		•	25.3		112	•	11	ND	-	13.5%				•	
Surrogate(s):	TCX Decachlorobiphenyl		Recovery:	96.5% 13700%	Li	miss: 50-150% 50-150%	# p							05/26/06 15:45	
Matrix Spike I	up (6050179-MSI	01)			QC Source	: SPE0059-32			Extr	acted:	05/23/06 10:	45			MS-2
PCB-1016		EPA 8082	22.3	•••	108	ug∕kg dry	1x	ND	179	12.5%	(70-130)	52.8%	(25)	05/26/06 16:12	
PCB-1260		,	29.3	•••	108			ND		16.4%	, ,	14.7%			

Limits: 50-150%

50-150% "

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Surrogate(s):

TCX

Decachlorobiphenyl

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05/26/06 16:12

Recovery: 80.1%

13700%



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Landau Associates - Spokane

Project Name:

CDC-Mead

10 N. Post Suite 218 Spokane, WA 99201 Project Number:

[none]
Tom Briggs

Report Created:

Project Manager:

06/02/06 14:07

#### Notes and Definitions

#### Report Specific Notes:

- A-01 Sample appears to contain unknown Aroclor(s). Sample was quantitated as 1260 and is therefore an estimate.
- MS-2 The Matrix Spike and/or Matrix Spike Duplicate were below the acceptance limits due to sample matrix interference. See Laboratory Control Sample.
- MS-3 The Matrix Spike and/or Matrix Spike Duplicate were above the acceptance limits due to sample matrix interference. See Laboratory Control Sample.
- MS-5 No results were reported for the Matrix Spike/Matrix Spike Duplicate. The sample used for the MS/MSD required dilution due to the sample matrix. Because of this, the spike compounds were diluted below the detection limit.
- RP-1 The RPD exceeded the laboratory control limit due to sample matrix interference. The individual analyte QA/QC recoveries, however, were within laboratory control limits.
- RP-3 The RPD exceeded the laboratory control limit due to sample matrix effects.
- SR-1 Surrogate recovery was below the acceptance limits.
- SR-2 Surrogate recovery was above the acceptance limits.
- SR-4 Due to sample matrix effects, the surrogate recovery was outside laboratory control limits.
- SR-5 The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

#### Laboratory Reporting Conventions:

- DET Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA \_ Not Reported / Not Available
- dry Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL\* METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B.

  \*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and being percent solids, where applicable.
- Electronic

   Electronic Signature added in accordance with TestAmerica's Electronic Reporting and Electronic Signatures Policy.

  Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory.

  Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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