October 8, 2013
Project 101.00989.00005

Mr. Frank Stauff
Director of Construction & Development
PMF Investments, LLC
15015 Main Street, Suite 203
Bellevue, Washington 98007

Re: Remedial Excavation Report
Former Auto Service Garage – Kennewick Plaza Shopping Center
West Kennewick Avenue and South Ely Street
Kennewick, Washington

Dear Mr. Stauff,

SLR International Corporation (SLR) has prepared this report for PMF Investments, LLC (PMF) to present the results of remedial excavation activities in the area of a former auto service garage facility located at the Kennewick Plaza Shopping Center in Kennewick, Washington (the subject property)(see Figures 1 and 2). The primary objectives of the work were to remove impacted soil that contained petroleum hydrocarbon and/or metals concentrations that exceeded Model Toxics Control Act (MTCA) Method A cleanup levels, and to support PMF in obtaining a No Further Action (NFA) opinion from the Washington State Department of Ecology (Ecology).

BACKGROUND

The subject property consists of Benton County Tax Parcels 103891012524001, 1038911110000001, 103891012524003, 103891012524002, and 103891110000003 which comprise approximately 13.07 acres. The subject property was developed in 1979 as the Kennewick Plaza Shopping Center, although commercial activities were conducted on some of these parcels prior to this date.

In 1999, ATC Associates, Inc. (ATC) conducted a Phase I Environmental Site Assessment (Phase I ESA) of the subject property. The findings of the Phase I ESA identified that a former auto service garage had operated on the northwest portion of the subject property from the early 1950s to 1976 (ATC, 1999). The area of the subject property previously occupied by the auto service garage is currently an asphalt paved parking area for the Kennewick Plaza Shopping Center.

In December 1999, ATC conducted subsurface investigation and remedial excavation activities at the former auto service garage portion of the subject property. The investigation included a

ground penetrating radar (GPR) survey and the advancement and sampling of five soil borings (designated B-1 through B-5). One soil sample collected from boring B-1, at a depth of 13 to 14 feet below ground surface (bgs), contained a total petroleum hydrocarbons (TPH) as oil range organics (ORO) concentration [4,000 milligrams per kilogram (mg/kg)] that exceeded the current MTCA Method A cleanup level (2,000 mg/kg). Additionally, the sample collected from boring B-1 at 13 to 14 feet bgs contained several volatile organic compounds (VOCs) at relatively low concentrations that were below current MTCA cleanup levels. The remaining samples collected during the investigation did not contain TPH as gasoline range organics (GRO), diesel range organics (DRO), or ORO above the laboratory's method reporting limits (MRLs) (ATC, 2000a). The approximate locations of the borings are shown on Figure 3.

On December 27, 1999, ATC excavated the ORO-impacted soil at the location of boring B-1. Approximately 256 cubic yards of contaminated material was removed and hauled off-site for disposal. The final dimensions of the excavation measured approximately 24 feet by 18 feet by 16 feet deep. Confirmation soil samples collected at the final limits of the excavation did not contain GRO, DRO, ORO, or lead at concentrations greater than their current MTCA Method A cleanup levels (ATC, 2000a).

Between March 15 and 20, 2000, ATC performed additional investigation activities in the vicinity of the former auto service garage that included the drilling and sampling of four soil borings (designated HSA-1 through HSA-4) to maximum depths of approximately 31 feet bgs, and the excavation and sampling of seven test pits (designated SX-1 through SX-7) to maximum depths of approximately 10 feet bgs (ATC, 2000b). The boring and test pit locations are shown on Figure 3. The results of the investigation are summarized below:

- The soil sample collected from boring HSA-3, at a depth of approximately 16 feet bgs, contained an ORO concentration (4,700 mg/kg) that exceeded the current MTCA Method A cleanup level.
- The soil sample collected from test pit SX-1, at a depth of approximately 2.5 feet bgs, contained arsenic and lead concentrations (49 and 320 mg/kg, respectively) that exceeded the current MTCA Method A cleanup levels (20 mg/kg and 250 mg/kg, respectively).
- Soil samples collected from test pit SX-2 at approximately 2.0 feet bgs and test pit SX-7 at approximately 5.8 feet bgs contained cadmium concentrations (2.7 and 2.4 mg/kg, respectively) that exceeded the current MTCA Method A cleanup level (2.0 mg/kg).
- The soil sample collected from test pit SX-7 at approximately 2.5 feet bgs contained a total carcinogenic polycyclic aromatic hydrocarbons (cPAHs) concentration (0.13 mg/kg) that exceeded the current MTCA Method A cleanup level (0.1 mg/kg).

- All other soil samples collected during the investigation activities either contained analyte concentrations below current MTCA Method A cleanup levels, or did not contain concentrations above the laboratory's method reporting limits (MRLs).
- Groundwater was not encountered during investigation activities conducted at the subject property. Based on a review of Ecology well logs, ATC estimated that groundwater in the vicinity of the subject property is found at depths of greater than 60 feet bgs.

During June 2013, SLR performed subsurface investigation activities at the subject property to delineate the lateral and vertical extents of the impacted soil. Soil borings SB-1 through SB-5 were advanced at locations to the north, east, south, and west of the previous investigation locations to delineate the lateral extent of impacted shallow soil. The locations of the soil borings are shown on Figure 3. The soil samples collected by SLR did not contain petroleum hydrocarbons, cPAHs, or metals concentrations above the MTCA Method A soil cleanup levels (SLR, 2013).

The results of the recent and historical investigation activities conducted at the former auto service garage area indicated that the lateral and vertical extents of soil impacted with arsenic, cadmium, lead, ORO, and/or cPAHs concentrations greater than current MTCA Method A soil cleanup levels were effectively defined.

REMEDIAL EXCAVATION ACTIVITIES

To remediate the petroleum hydrocarbon- and/or metals-impacted soil at the area of the former auto service garage, soil with ORO, cPAH, and/or metals concentrations that exceed their respective MTCA Method A cleanup levels were excavated and transported to the Regional Disposal Company's Roosevelt Regional Landfill in Roosevelt, Washington for disposal. SLR identified four Areas of Concern (AOCs) at the following boring/test pit locations based on ORO, cPAH, and/or metals concentrations above MTCA Method A Cleanup Levels. The AOC's are summarized below and shown on Figure 3.

AOC ID	Boring/Test Pit ID	Soil impact	Impacted Sample Depth (feet bgs)
AOC-1	HSA-3	ORO > MTCA	16.0-16.5
AOC-2	SX-1	Arsenic and Lead > MTCA	2.5
AOC-3	SX-2	Cadmium > MTCA	2.0
AOC-4	SX-7	Cadmium and Total cPAHs > MTCA	2.5

Between September 5 and 20, 2013, Wyser Construction Co., Inc. (Wyser) of Snohomish, Washington, conducted the soil excavation activities at each AOC under the direction of an SLR field geologist. Prior to conducting the field activities, Wyser arranged for public and private utility locating services to identify and mark the locations of underground utilities within the planned excavation areas, and installed temporary security fencing around the work zone. SLR obtained a Grading Permit from the city of Kennewick prior to initiation of the excavation activities.

The excavations at each AOC extended laterally and vertically until the petroleum hydrocarbon and/or metals concentrations in the final confirmation sidewall samples were below MTCA Method A cleanup levels. Based on the historical size and/or orientation of the impacted borings/test pits, the initial dimensions of the excavation at AOC-1 was approximately 10 feet long, 10 feet wide, and 18 feet deep, and initial dimensions of the excavations at AOC-2, AOC-3, and AOC-4 were approximately 25 feet long, 15 feet wide, and 4 feet deep.

During the excavation activities, SLR collected at least one discrete soil sample from each sidewall and floor of each excavation to assess the remaining soil conditions. Depending upon the stability and depth of an excavation, and access, the samples were either collected from the backhoe bucket or directly from the sidewall/bottom. Each sidewall and floor sample was collected from any remaining area within sidewall/floor that exhibited the greatest evidence of contamination or if there was no field evidence of contamination [based on odors, physical appearance (staining and sheens), and volatile organic vapor concentrations (as measured with a photoionization detector (PID))], then the sample was collected at the center of the sidewall or floor. The sidewall and floor samples were submitted to Friedman & Bruya, Inc. (F&B) in Seattle, Washington, or Onsite Environmental (Onsite) in Redmond, Washington, for analysis using an expedited 24-hour turnaround time. The samples were analyzed for diesel-range organics (DRO) and ORO by Ecology Method NWTPH-Dx (after silica gel cleanup), cPAHs by EPA Method 8270D SIM, and RCRA 8 metals by EPA Method 200.8/6010.

When the analytical results of any sidewall samples contained petroleum hydrocarbon or metals concentrations greater than the MTCA Method A soil cleanup levels, the entire length of the sidewall within the AOC was over-excavated by up to 5 feet, and re-sampled. There were no floor samples that contained an analyte concentration that exceeded the MTCA Method A soil cleanup level.

During excavation at each area, SLR personnel field screened the excavated soil from each AOC for the presence of petroleum hydrocarbons based on physical appearance, odors, and volatile organic vapor concentrations (as measured with a PID). The soil that appeared to contain minimal contamination (weak or no petroleum odors, no staining or sheens, or PID readings less than 20 ppm) was temporarily stockpiled on plastic near each excavation area.

The excavated soil that exhibited the presence of more significant contamination was temporarily stockpiled separately on plastic sheeting pending off-site disposal.

SLR collected discrete soil samples from each soil stockpile to verify the field screening results. The number of samples and the sampling methods were in accordance with Ecology's *Guidance for Remediation of Petroleum Contaminated Soils*, dated September, 2011. The samples were submitted to F&B for analysis of DRO, ORO, cPAHs, and RCRA 8 metals on an expedited 24-hour turnaround. Following initial analytical results, selected stockpile soil samples were also analyzed for toxicity characteristic leachate procedure (TCLP) lead by EPA Methods 200.8 and 1311, as required by the soil disposal facility. The stockpile soil sample analytical results are presented in Tables 1, 2, and 3. Copies of the laboratory reports for all of the stockpile soil samples are presented in Appendix A.

A description of each soil excavation, including the sample analytical results, is presented below. The excavation sample analytical results are presented in Tables, 1, 2, and 3. Copies of the laboratory reports for all of the excavation sidewall and floor samples are presented in Appendix A.

AOC-1 Excavation

The AOC-1 excavation was located at the eastern portion of the area of the former auto service garage, and was approximately 15 feet long and approximately 10 feet wide. The excavation extended to a maximum depth of approximately 18 feet bgs. Figure 3 shows the approximate final area of the excavation. An estimated total of 100 bank cubic yards (BCY) of soil from the AOC-1 excavation was hauled to the Roosevelt Regional Landfill for disposal.

A total of 10 confirmation sidewall and floor samples were collected from the AOC-1 excavation. Based on the depth of the excavation, sidewall samples were collected at depths of approximately 9 feet bgs (designated AOC-1-N-9.0, AOC-1-E-9.0, AOC-1-S-9.0, and AOC-1-W-9.0) and at 16.5 feet bgs (designated AOC-1-N-16.5, AOC-1-E-16.5, AOC-1-S-16.5, and AOC-1-W-16.5). The approximate locations of the samples are shown on Figure 3. The western sidewall sample (designated AOC-1-W-16.5) contained a ORO concentration (2,900 mg/kg) that exceeded the MTCA Method A cleanup level (2,000 mg/kg). All of the other sidewall and floor samples did not contain petroleum hydrocarbon, cPAH, or metals concentrations greater than the MTCA Method A cleanup levels. To remove the remaining impacted soil in AOC-1, the western sidewall was extended by approximately 5 feet and the subsequent sidewall sample [designated AOC-1B-W-16.5], which was analyzed for DRO, ORO, cPAHs, and RCRA 8 metals, did not contain analyte concentrations greater than the MTCA Method A cleanup levels.

AOC-2 Excavation

The AOC-2 excavation was located at the northeastern portion of the area of the former auto service garage, and was approximately 25 feet long with an average width of approximately 15 feet. The excavation extended to an average depth of approximately 4 feet bgs, and a maximum depth of approximately 9 feet bgs at the southwest corner of the AOC-1 excavation. Figure 3 shows the approximate final area of the excavation. An estimated total of 60 BCY of soil from the AOC-2 excavation was hauled to the Roosevelt Regional Landfill for disposal.

A total of 7 confirmation sidewall and floor samples were collected from the AOC-2 excavation. The approximate locations of the samples are shown on Figure 3. Field screening results from the initial soil located at depths between 2.5 to 3.0 feet bgs in the southwest corner of the excavation exhibited evidence of contamination, and was over-excavated. Based on elevated PID readings [143.3 parts per million (ppm)] at this area, soil samples AOC-2-W-2.5 and AOC-2-WB-3.0 were also analyzed for gasoline range organics (GRO) by Ecology Method NWTPH-Gx, and volatile organic compounds (VOCs) by EPA Method 8260C.

During the excavation, an 18-inch-diameter concrete structure (assumed to be a historic dry well) was encountered at a depth of approximately 3 feet bgs in the southwest corner of AOC-2. The structure was removed, and the soil surrounding the structure did not exhibit evidence of contamination. A soil sample (AOC-2-Sump-9.0) was collected from beneath the structure at a depth of approximately 9 feet bgs.

All of the sidewall/floor samples collected from the AOC-2 excavation did not contain petroleum hydrocarbon, cPAH, or metals concentrations greater than the MTCA Method A cleanup levels. Soil samples AOC-2-W-2.5 and AOC-2-WB-3.0 did not contain detectable concentrations of GRO or VOCs.

AOC-3 Excavation

The AOC-3 excavation was located at the southeastern portion of the area of the former auto service garage, and was an “L” shaped excavation with approximate maximum dimensions of 35 feet long and approximately 35 feet wide. The excavation extended to a maximum depth of approximately 4 feet bgs. Figure 3 shows the approximate final area of the excavation. An estimated total of 160 BCY of soil from the AOC-3 excavation was hauled to the Roosevelt Regional Landfill for disposal.

A total of 13 confirmation sidewall and floor samples were collected from the AOC-3 excavation. The approximate locations of the samples are shown on Figure 3. The initial northwestern sidewall sample (designated AOC-3-NW-1.5) contained DRO and ORO concentrations (9,900 and 29,000 mg/kg, respectively) that exceeded the MTCA Method A cleanup levels (2,000 mg/kg for both). The northern sidewall sample (designated AOC-3B-N-2.0) contained an ORO

concentration (2,800 mg/kg) that exceeded the Method A cleanup level. The initial eastern and western sidewall samples (designated AOC-3-E-2.0 and AOC-3-W-2.0, respectively) contained lead concentrations (278 and 252 mg/kg, respectively) that exceeded the MTCA Method A cleanup level (250 mg/kg). All of the other sidewall samples and the floor sample did not contain petroleum hydrocarbon, cPAH, or metals concentrations greater than the Method A cleanup levels.

To remove the remaining impacted soil in AOC-3, the northern portion of the west sidewall was extended by approximately 10 feet, and the north sidewall was extended by approximately 17 feet and re-sampled (designated as AOC-3B-E-2.0, AOC-3B-S-2.0, AOC-3B-W-2.0, AOC-3B-N-2.0, AOC-3B-B-4.0, and AOC-3C-N-2.0). Following over-excavation of the northern portion of AOC-3, the sidewall samples collected at the final limits did not contain petroleum hydrocarbons, cPAHs, or metals concentrations greater than MTCA Method A cleanup levels. Additionally, the eastern and western sidewalls were extended by approximately 5 feet to remove the lead-impacted soil and the subsequent sidewall samples (designated AOC-3B-E-2.0 and AOC-3D-W-2.0, respectively] did not contain lead concentrations greater than MTCA Method A cleanup levels.

AOC-4 Excavation

The AOC-4 excavation was located at the northwestern portion of the area of the former auto service garage, and was approximately 25 feet long with an average width of approximately 15 feet. The excavation extended to an average depth of 4 feet bgs. Figure 3 shows the approximate final area of the excavation. An estimated total of 56 BCY of soil from the AOC-2 excavation was hauled to the Roosevelt Regional Landfill for disposal.

A total of 5 confirmation sidewall and floor samples were collected from the AOC-4 excavation. The approximate locations of the samples are shown on Figure 3. All of the confirmation sidewall and floor samples did not contain petroleum hydrocarbon, cPAHs, or metals concentrations greater than the MTCA Method A cleanup levels.

EXCAVATION BACKFILLING AND RESTORATON

After completing the excavation activities, Wyser backfilled all of the excavations with clean imported pit-run fill, and clean imported crushed rock near the ground surface from the Ray Poland & Sons facility located in Kennewick, Washington. Following compaction of the backfill material, Wyser installed 3 inches of asphalt pavement at each of the excavations, and re-striped the parking stalls on the new asphalt.

CONCLUSIONS

During September 2013, remedial excavation activities were completed at four AOCs (designated AOC-1 through AOC-4) at the area of a former auto service garage located in the northeast portion of the Kennewick Plaza Shopping Center in Kennewick, Washington. The primary objectives of the work were to remove impacted soil that contained petroleum hydrocarbon, cPAHs, and/or metals concentrations that exceeded MTCA Method A cleanup levels.

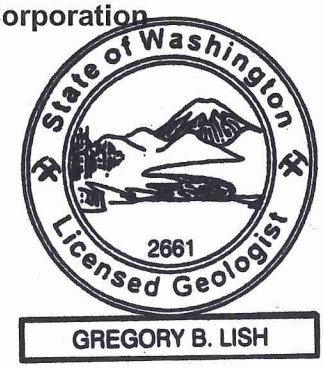
To remediate the impacted soils at the subject property, the soils at each AOC that contained petroleum hydrocarbon, cPAH, and/or metals concentrations greater than the MTCA Method A cleanup levels were excavated and hauled off-site for disposal. Each excavation was extended laterally and vertically until the petroleum hydrocarbon, cPAH, and/or metals concentrations in the final confirmation sidewall samples were below the Method A cleanup levels. Based on the analytical results of the final confirmation sidewall and floor samples from the excavation conducted at each AOC, the excavation activities effectively removed all of the impacted soil at each AOC.

A total of 612.57 tons of excavated soil were hauled to the Regional Disposal Company's Roosevelt Regional Landfill in Roosevelt, Washington for disposal. Disposal documentation is provided in Appendix B.

Based on the final confirmation sidewall and floor sample analytical results from each excavation, SLR believes that no further remedial action is necessary at the former auto service garage area of the subject property.

SLR appreciates the opportunity to provide our services. If you have any questions, please call Greg Lish at (425) 402-8800.

Sincerely,
SLR International Corporation



Gregory B. Lish, LG
Associate Geologist

Michael D. Staton, LG
Principal Geologist

Enc Limitations
References
Tables 1 through 3

Figures 1 through 3
Appendix A - Analytical Reports
Appendix B - Disposal Documents

Cc: William Carroll, Pacific Crest Environmental, LLC

LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report.

REFERENCES

ATC Associates, Inc. 1999. *Phase I Environmental Site Assessment, Kennewick Plaza, West Kennewick Avenue and South Ely Street, Kennewick, Washington 99336*. December 13.

ATC Associates, Inc. 2000a. *Interim Report of Site Characterization and Independent Cleanup Action, Kennewick Plaza Shopping Center, West Kennewick Avenue and South Ely Street, Kennewick, Washington.* February 9.

ATC Associates, Inc. 2000b. *Summary Report of Additional Site Characterization, Kennewick Plaza, West Kennewick Avenue and South Ely Street, Kennewick, Washington.* April 5.

SLR International Corporation. 2013. *Subsurface Investigation Report, Former Auto Service Garage – Kennewick Plaza Shopping Center, West Kennewick Avenue and South Ely Street, Kennewick, Washington*. July 22.

TABLES

Table 1
Excavation Soil Sample Analytical Results - TPH
Kennewick Plaza
Kennewick, Washington

Excavation Location	Sample	Approx. Sample Depth (feet)	Date Collected	Petroleum Hydrocarbons (mg/kg)		
				Gasoline Range Organics[1]	Diesel Range Organics[2]	Heavy-Oil Range Organics[2]
MTCA Method A Cleanup Level [3]				**100**	**2,000**	**2,000**
AOC-1	AOC-1-S-9.0	9.0	9/5/2013	NA	<50	<250
	AOC-1-W-9.0	9.0	9/5/2013	NA	330	1300
	AOC-1-E-9.0	9.0	9/5/2013	NA	<50	<250
	AOC-1-N-9.0	9.0	9/5/2013	NA	<50	<250
	AOC-1-B-18.0	18.0	9/5/2013	NA	<50	<250
	AOC-1-N-16.5	16.5	9/6/2013	NA	<50	<250
	AOC-1-E-16.5	16.5	9/6/2013	NA	<50	<250
	AOC-1-W-16.5	16.5	9/6/2013	NA	800	**2,900**
	AOC-1-S-16.5	16.5	9/6/2013	NA	<50	<250
	AOC-1B-W-16.5	16.5	9/12/2013	NA	110	410
AOC-2	AOC-2-W-2.5	2.5	9/6/2013	<2	<50	<250
	AOC-2-WB-3.0	3.0	9/6/2013	<2	<50	<250
	AOC-2-N-2.0	2.0	9/6/2013	NA	<50	<250
	AOC-2-E-2.5	2.5	9/6/2013	NA	<50	<250
	AOC-2-S-2.5	2.5	9/6/2013	NA	<50	<250
	AOC-2-Sump-9.0	9.0	9/6/2013	NA	120	840
	AOC-2-B-4.0	4.0	9/6/2013	NA	<50	<250
AOC-3	AOC-3-S-2.0	2.0	9/5/2013	NA	<50	<250
	AOC-3-E-2.0	2.0	9/5/2013	NA	<50	900
	AOC-3-W-2.0	2.0	9/5/2013	NA	<50	440
	AOC-3-NW-1.5	1.5	9/5/2013	NA	**9,900**	**29,000**
	AOC-3-B-4.0	4.0	9/5/2013	NA	<50	<250
	AOC-3A-E-2.0	2.0	9/12/2013	NA	<50	<250
	AOC-3B-S-2.0	2.0	9/12/2013	NA	120	1300
	AOC-3B-W-2.0	2.0	9/12/2013	NA	<50	<250
	AOC-3B-N-2.0	2.0	9/12/2013	NA	880	**2,800**
	AOC-3B-E-2.0	2.0	9/12/2013	NA	<50	<250
	AOC-3B-B-4.0	4.0	9/12/2013	NA	<50	<250
	AOC-3C-N-2.0	2.0	9/18/2013	NA	<29	<57
	AOC-3D-W-2.0	2.0	9/20/2013	NA	NA	NA

Table 1
Excavation Soil Sample Analytical Results - TPH
Kennewick Plaza
Kennewick, Washington

Excavation Location	Sample	Approx. Sample Depth (feet)	Date Collected	Petroleum Hydrocarbons (mg/kg)		
				Gasoline Range Organics[1]	Diesel Range Organics[2]	Heavy-Oil Range Organics[2]
MTCA Method A Cleanup Level [3]				**100**	**2,000**	**2,000**
AOC-4	AOC-4-N-2.0	2.0	9/6/2013	NA	<50	<250
	AOC-4-E-2.0	2.0	9/6/2013	NA	<50	<250
	AOC-4-W-2.0	2.0	9/6/2013	NA	<50	<250
	AOC-4-S-2.0	2.0	9/6/2013	NA	<50	<250
	AOC-4-B-4.0	4.0	9/6/2013	NA	57	<250
Stockpile Samples						
Stockpile-1	Stockpile-1-W	--	9/6/2013	NA	<50	<250
	Stockpile-1-S	--	9/6/2013	NA	<50	<250
	Stockpile-1-SE	--	9/6/2013	NA	230	1,000
	Stockpile-1-NE	--	9/6/2013	NA	<50	<250
	Stockpile-1-N	--	9/6/2013	NA	<50	<250
Stockpile-2	Stockpile-2-N	--	9/6/2013	NA	730	**4,200**
	Stockpile-2-S	--	9/6/2013	NA	**9,600**	**44,000**
	Stockpile-2-Top	--	9/6/2013	NA	<50	<250
Stockpile-3	Stockpile-3-N	--	9/6/2013	NA	<50	<250
	Stockpile-3-E	--	9/6/2013	NA	<50	<250
	Stockpile-3-W	--	9/6/2013	NA	<50	<250

Notes:

[1] Analyzed by Ecology Method NWTPH-Gx.

[2] Analyzed by Ecology Method NWTPH-Dx, after silica gel cleanup.

[3] Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Table 740-1, Method A Soil Cleanup Levels for Unrestriced Land Uses.

Values in bold indicate concentrations above the cleanup level.

Shaded cells indicate sample locations that have been over-excavated.

AOC = area of concern

TPH = total petroleum hydrocarbons

mg/kg = milligrams per kilogram

-- = not applicable

NA = not analyzed

Table 2
Excavation Soil Sample Analytical Results - cPAHs
Kennewick Plaza
Kennewick, Washington

Excavation Location	Sample	Approx. Sample Depth (feet)	Date Collected	cPAHs[1] (mg/kg)							
				Benzo[a]pyrene	Benz[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Indeno[1,2,3-cd]pyrene	Total cPAHs (< = 1/2 MRL
MTCA Method A Cleanup Level [2]				**0.1**	**B(a)P TEQ**	**B(a)P TEQ**	**B(a)P TEQ**	**B(a)P TEQ**	**B(a)P TEQ**	**B(a)P TEQ**	**0.1**
MTCA Method B Cleanup Level [3]				**0.14**	**1.4**	**1.4**	**14**	**140**	**0.14**	**1.4**	**--**
AOC-1	AOC-1-S-9.0	9.0	9/5/2013	0.020	0.012	0.032	<0.01	0.018	<0.01	0.025	0.03
	AOC-1-W-9.0	9.0	9/5/2013	0.025	0.011	0.038	0.014	0.014	<0.01	0.035	0.04
	AOC-1-E-9.0	9.0	9/5/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-1-N-9.0	9.0	9/5/2013	<0.01	<0.01	0.015	<0.01	<0.01	<0.01	0.012	0.01
	AOC-1-B-18.0	18.0	9/5/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-1-N-16.5	16.5	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-1-E-16.5	16.5	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-1-W-16.5	16.5	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-1-S-16.5	16.5	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-1B-W-16.5	16.5	9/12/2013	0.012	0.010	0.019	<0.01	0.014	<0.01	0.015	0.02
AOC-2	AOC-2-N-2.0	2.0	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-2-E-2.5	2.5	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-2-S-2.5	2.5	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-2-W-2.5	2.5	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-2-Sump-9.0	9.0	9/6/2013	<0.01	0.011	0.019	<0.01	0.016	<0.01	<0.01	0.01
	AOC-2-B-4.0	4.0	9/6/2013	0.036	0.028	0.060	0.021	0.039	<0.01	0.044	0.05
	AOC-2-WB-3.0	3.0	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AOC-3	AOC-3-S-2.0	2.0	9/5/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-3-E-2.0	2.0	9/5/2013	0.029	0.034	0.054	0.014	0.044	<0.01	0.031	0.04
	AOC-3-W-2.0	2.0	9/5/2013	<0.01	0.011	0.016	<0.01	0.014	<0.01	0.014	0.01
	AOC-3-NW-1.5	1.5	9/5/2013	<1	<1	<1	<1	<1	<1	<1	**<1**
	AOC-3-B-4.0	4.0	9/5/2013	0.015	0.015	0.023	<0.01	0.018	<0.01	0.011	0.02
	AOC-3A-E-2.0	2.0	9/12/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-3B-S-2.0	2.0	9/12/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-3B-W-2.0	2.0	9/12/2013	0.011	0.012	0.018	<0.01	0.014	<0.01	0.011	0.02
	AOC-3B-N-2.0	2.0	9/12/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-3B-E-2.0	2.0	9/12/2013	0.011	0.010	0.018	<0.01	0.012	<0.01	0.014	0.02
	AOC-3B-B-4.0	4.0	9/12/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-3C-N-2.0	2.0	9/18/2013	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076
	AOC-3D-W-2.0	2.0	9/20/2013	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Excavation Soil Sample Analytical Results - cPAHs
Kennewick Plaza
Kennewick, Washington

Excavation Location	Sample	Approx. Sample Depth (feet)	Date Collected	cPAHs[1] (mg/kg)							
				Benzo[a]pyrene	Benz[a]anthracene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Indeno[1,2,3-cd]pyrene	Total cPAHs (< = 1/2 MRL
MTCA Method A Cleanup Level [2]				**0.1**	**B(a)P TEQ**	**B(a)P TEQ**	**B(a)P TEQ**	**B(a)P TEQ**	**B(a)P TEQ**	**B(a)P TEQ**	**0.1**
MTCA Method B Cleanup Level [3]				**0.14**	**1.4**	**1.4**	**14**	**140**	**0.14**	**1.4**	**--**
AOC-4	AOC-4-N-2.0	2.0	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-4-E-2.0	2.0	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-4-W-2.0	2.0	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-4-S-2.0	2.0	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AOC-4-B-4.0	4.0	9/6/2013	0.031	0.031	0.047	0.016	0.038	<0.01	0.032	0.04
Stockpile Samples											
Stockpile-1	Stockpile-1-W	--	9/6/2013	0.015	0.014	0.024	<0.01	0.018	<0.01	0.018	0.022
	Stockpile-1-S	--	9/6/2013	0.011	0.011	0.020	<0.01	0.016	<0.01	0.015	0.017
	Stockpile-1-SE	--	9/6/2013	<0.01	0.017	<0.01	<0.01	0.039	<0.01	<0.01	0.009
	Stockpile-1-NE	--	9/6/2013	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	0.012	0.009
	Stockpile-1-N	--	9/6/2013	0.046	0.030	0.076	0.024	0.046	0.010	0.059	0.064
Stockpile-2	Stockpile-2-N	--	9/6/2013	0.040	0.033	0.072	0.031	0.059	0.010	0.047	0.057
	Stockpile-2-S	--	9/6/2013	<0.1	<0.1	<0.1	<0.1	0.28	<0.1	<0.1	0.010
	Stockpile-2-Top	--	9/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.008
Stockpile-3	Stockpile-3-N	--	9/6/2013	0.011	<0.01	0.017	<0.01	0.010	<0.01	0.011	0.015
	Stockpile-3-E	--	9/6/2013	0.070	0.059	0.11	0.035	0.075	0.015	0.071	0.096
	Stockpile-3-W	--	9/6/2013	0.076	0.066	0.11	0.039	0.084	0.016	0.080	**0.108**

Notes:

[1] Analyzed by EPA Method 8720D SIM.

[2]Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Table 740-1, Method A Soil Cleanup Levels for Unrestriced Land Uses.

[3]Standard formula values, direct contact Method B soil cleanup levels as published on Ecology's Cleanup Level and Risk Calculations (CLARC) on-line database (June 2013).

Values in bold indicate concentrations above the cleanup level.
Shaded cells indicate sample locations that have been over-excavated.
PAHs = polycyclic aromatic hydrocarbons
cPAHs = carcinogenic PAHs
mg/kg = milligrams per kilogram
-- = not applicable
B(a)P TEQ = Cleanup level is total carcinogenic PAH value using toxicity equivalency methodology.

Table 3
Excavation Soil Sample Analytical Results - Metals
Kennewick Plaza
Kennewick, Washington

Excavation Location	Sample	Approx. Sample Depth (feet)	Date Collected	Metals[1] (mg/kg)							
				Chromium	Arsenic	Selenium	Silver	Cadmium	Barium	Lead	Mercury
		MTCA Cleanup Level [2]		2,000	20	400 [3]	400 [3]	2	16,000 [3]	250	2
AOC-1	AOC-1-S-9.0	9.0	9/5/2013	3.38	6.93	<1	<1	<1	37.1	5.83	<0.1
	AOC-1-W-9.0	9.0	9/5/2013	3.18	8.61	<1	<1	<1	52.6	15.6	<0.1
	AOC-1-E-9.0	9.0	9/5/2013	3.19	7.86	<1	<1	<1	44.6	5.27	<0.1
	AOC-1-N-9.0	9.0	9/5/2013	5.11	11.8	<1	<1	<1	76.2	12.8	<0.1
	AOC-1-B-18.0	18.0	9/5/2013	3.82	7.37	<1	<1	<1	77.1	5.69	<0.1
	AOC-1-N-16.5	16.5	9/6/2013	3.59	8.97	<1	<1	<1	68.1	7.50	<0.1
	AOC-1-E-16.5	16.5	9/6/2013	2.98	7.23	<1	<1	<1	65.1	4.93	<0.1
	AOC-1-W-16.5	16.5	9/6/2013	3.53	5.44	<1	<1	<1	54.4	12.2	<0.1
	AOC-1-S-16.5	16.5	9/6/2013	3.60	3.43	<1	<1	<1	62.3	3.85	<0.1
	AOC-1B-W-16.5	16.5	9/12/2013	2.97	5.58	<1	<1	<1	63.6	17.6	<0.1
AOC-2	AOC-2-W-2.5	2.5	9/6/2013	11.2	9.19	<1	<1	<1	94.1	51.9	<0.1
	AOC-2-WB-3.0	3.0	9/6/2013	5.00	11.5	<1	<1	<1	90.9	100	<0.1
	AOC-2-N-2.0	2.0	9/6/2013	5.56	12.3	<1	<1	<1	95.2	99.1	<0.1
	AOC-2-E-2.5	2.5	9/6/2013	6.56	7.15	<1	<1	<1	79.7	34.6	<0.1
	AOC-2-S-2.5	2.5	9/6/2013	6.47	8.22	<1	<1	<1	80.5	79.4	<0.1
	AOC-2-Sump-9.0	9.0	9/6/2013	4.90	5.54	<1	<1	<1	62.7	38.1	0.1
	AOC-2-B-4.0	4.0	9/6/2013	5.61	10.1	<1	<1	<1	95.3	140	<0.1
AOC-3	AOC-3-S-2.0	2.0	9/5/2013	2.14	5.05	<1	<1	<1	37.5	5.12	<0.1
	AOC-3-E-2.0	2.0	9/5/2013	6.74	8.06	<1	<1	<1	173	**278**	<0.1
	AOC-3-W-2.0	2.0	9/5/2013	7.31	7.9	<1	<1	<1	133	**252**	<0.1
	AOC-3-NW-1.5	1.5	9/5/2013	5.85	9.5	<1	<1	<1	302	197	<0.1
	AOC-3-B-4.0	4.0	9/5/2013	4.77	9.84	<1	<1	<1	80.2	47.3	<0.1
	AOC-3A-E-2.0	2.0	9/12/2013	4.61	8.30	<1	<1	<1	71.8	11.9	<0.1
	AOC-3B-S-2.0	2.0	9/12/2013	3.92	6.52	<1	<1	<1	120	161.0	<0.1
	AOC-3B-W-2.0	2.0	9/12/2013	4.47	7.00	<1	<1	<1	84.5	7.98	<0.1
	AOC-3B-N-2.0	2.0	9/12/2013	4.71	11.4	<1	<1	<1	86.7	47.4	<0.1
	AOC-3B-E-2.0	2.0	9/12/2013	4.46	7.74	<1	<1	<1	74.5	48.3	<0.1
	AOC-3B-B-4.0	4.0	9/12/2013	2.86	8.14	<1	<1	<1	37.6	9.62	<0.1
	AOC-3C-N-2.0	2.0	9/18/2013	14	<11	<11	1.1	<0.57	120	9.9	<0.29
	AOC-3D-W-2.0	2.0	9/20/2013	13	<11	<11	1.1	<0.57	110	58	<0.28

Table 3
Excavation Soil Sample Analytical Results - Metals
Kennewick Plaza
Kennewick, Washington

Excavation Location	Sample	Approx. Sample Depth (feet)	Date Collected	Metals[1] (mg/kg)							
				Chromium	Arsenic	Selenium	Silver	Cadmium	Barium	Lead	Mercury
		MTCA Cleanup Level [2]		2,000	20	400 [3]	400 [3]	2	16,000 [3]	250	2
AOC-4	AOC-4-N-2.0	2.0	9/6/2013	5.47	11.7	<1	<1	<1	78.8	62.6	<0.1
	AOC-4-E-2.0	2.0	9/6/2013	7.24	14.8	<1	<1	<1	106	129	<0.1
	AOC-4-W-2.0	2.0	9/6/2013	6.51	12.2	<1	<1	<1	92.1	75.6	<0.1
	AOC-4-S-2.0	2.0	9/6/2013	6.54	14.6	<1	<1	<1	95.9	141	<0.1
	AOC-4-B-4.0	4.0	9/6/2013	5.36	9.46	<1	<1	<1	74.9	73.2	<0.1
Stockpile Samples											
Stockpile-1	Stockpile-1-W	--	9/6/2013	3.51	4.30	<1	<1	<1	58.1	62.0	<0.1
	Stockpile-1-S	--	9/6/2013	4.18	8.80	<1	<1	1.05	76.9	78.0	<0.1
	Stockpile-1-SE	--	9/6/2013	3.30	5.02	<1	<1	<1	58.9	7.32	<0.1
	Stockpile-1-NE	--	9/6/2013	5.08	8.78	<1	<1	<1	81.0	163	<0.1
	Stockpile-1-N	--	9/6/2013	8.12	7.03	<1	<1	1.30	77.4	122	<0.1
Stockpile-2	Stockpile-2-N	--	9/6/2013	5.79	7.10	<1	<1	<1	102	159	<0.1
	Stockpile-2-S	--	9/6/2013	5.01	7.88	<1	<1	1.36	219	**581**	<0.1
	Stockpile-2-Top	--	9/6/2013	5.89	10.2	<1	<1	<1	85.2	82.5	<0.1
Stockpile-3	Stockpile-3-N	--	9/6/2013	5.62	16.1	<1	<1	<1	92.6	143	<0.1
	Stockpile-3-E	--	9/6/2013	5.81	10.0	<1	<1	<1	78.1	115	<0.1
	Stockpile-3-W	--	9/6/2013	4.46	9.26	<1	<1	<1	72.9	46.9	<0.1

Notes:

[1] Except for mercury, all metals analyzed by EPA Method 200.8/6010. Mercury analyzed by EPA Method 1631/7471E.

[2] Ecology's Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 WAC), Table 740-1, Method A Soil Cleanup Levels for Unrestriced Land Uses.

[3] Standard formula values, direct contact Method B soil cleanup levels as published on Ecology's Cleanup Level and Risk Calculations (CLARC) on-line database (June 2013).

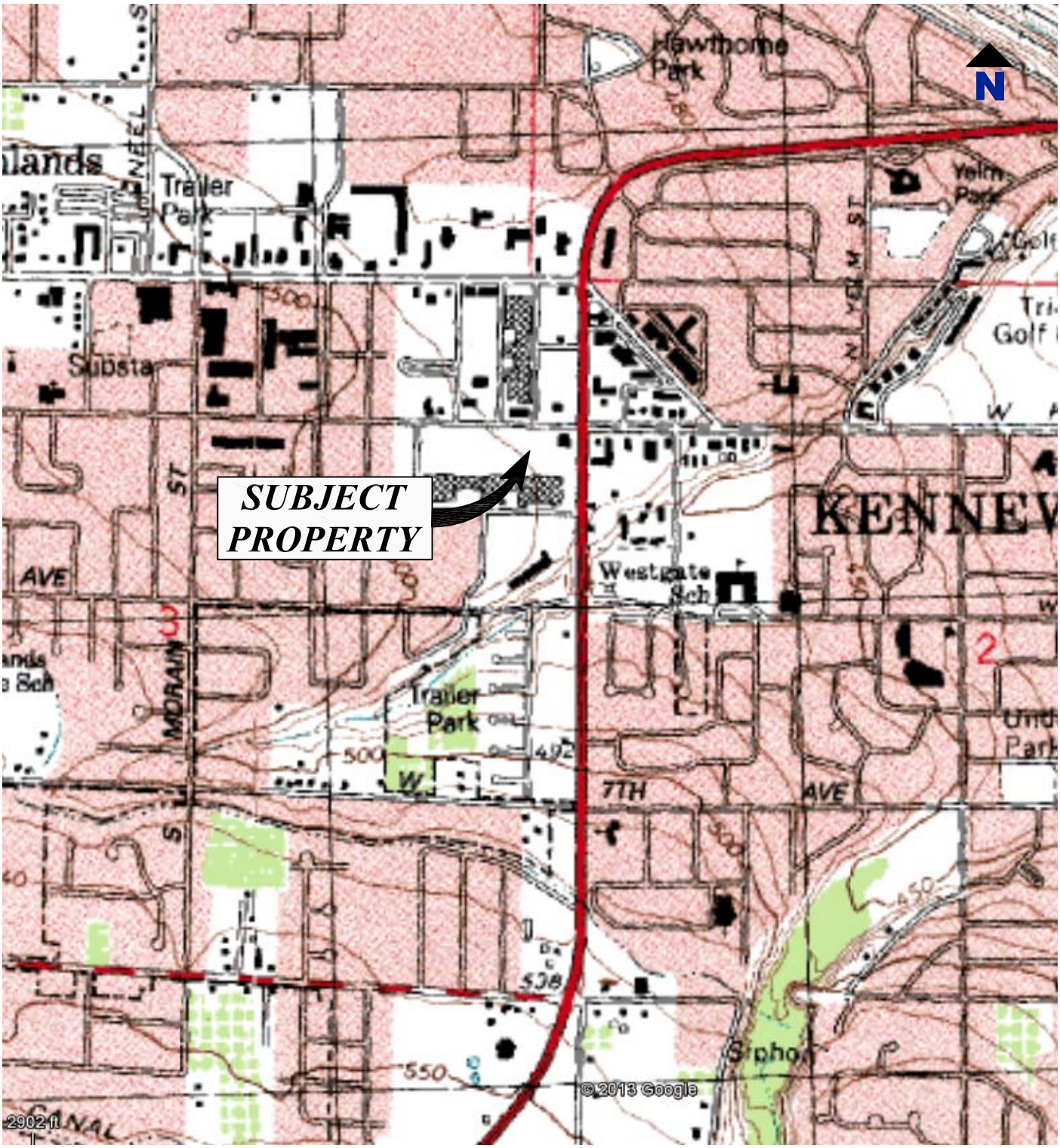
Values in bold indicate concentrations above the cleanup level.

Shaded cells indicate sample locations that have been over-excavated.

mg/kg = milligram per kilogram

-- = not applicable

FIGURES



REFERENCED FROM: USGS 7.5 MINUTE QUADRANGLE
KENNEWICK, WA

0 1,000 2,000 3,000'

THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

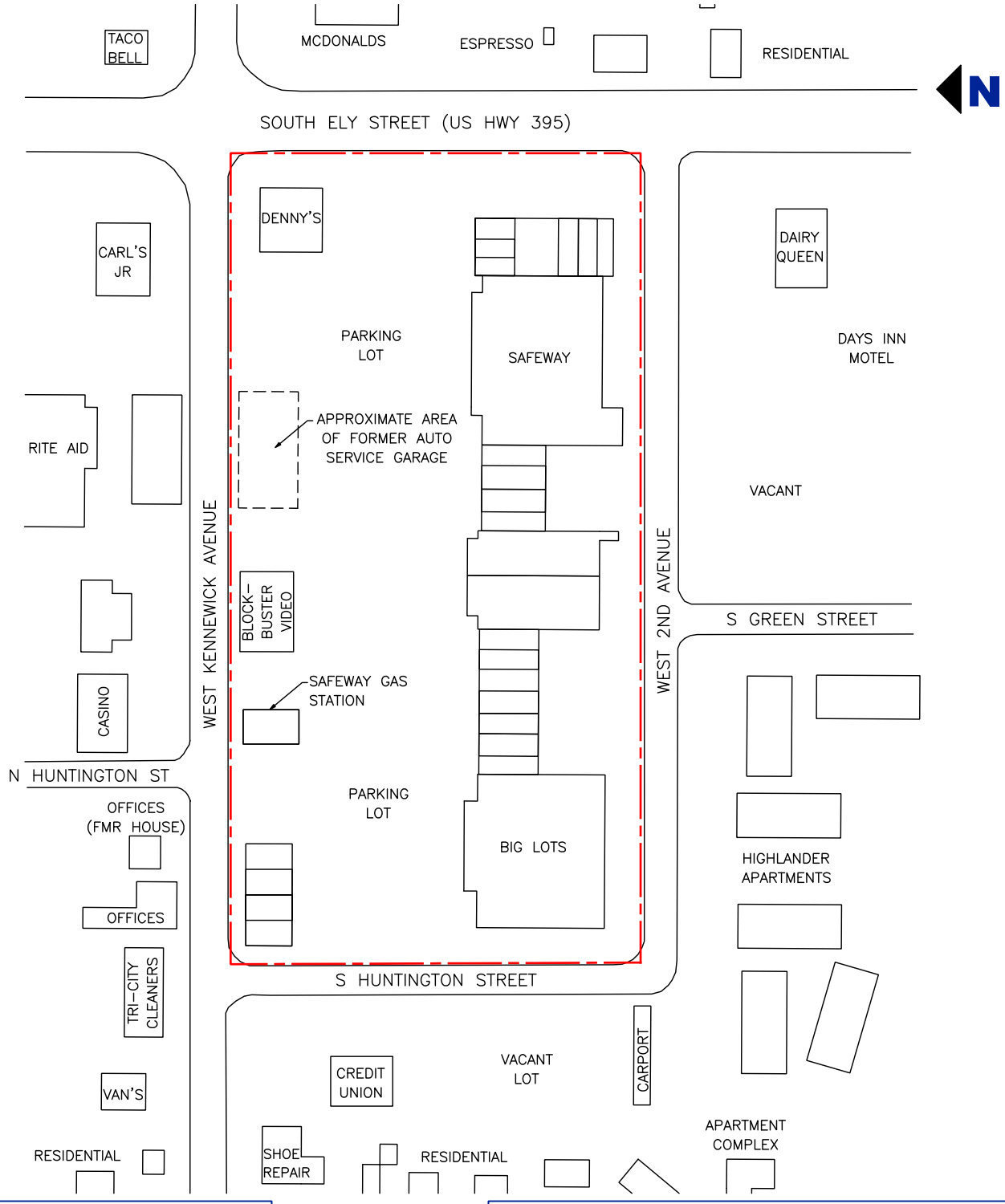
SLR

FORMER AUTO SERVICE GARAGE
KENNEWICK PLAZA
WEST KENNEWICK AVENUE AND SOUTH ELY STREET
KENNEWICK, WASHINGTON

Drawing
PROPERTY LOCATION MAP

Date September 26, 2013	Scale AS SHOWN	Fig. No. 1
File Name 01-01	Project No. 101.00989.00005	

Last Saved: September 26, 2013 4:23:10 PM by mhardman Drawing path: N:\Bothell\1 PROJECTS\PMF Investments - 989\00005 Kennewick Plaza - Remedial Excavation\FIGURES\01-01.dwg



LEGEND

KENNEWICK PLAZA

0 200 400 600'

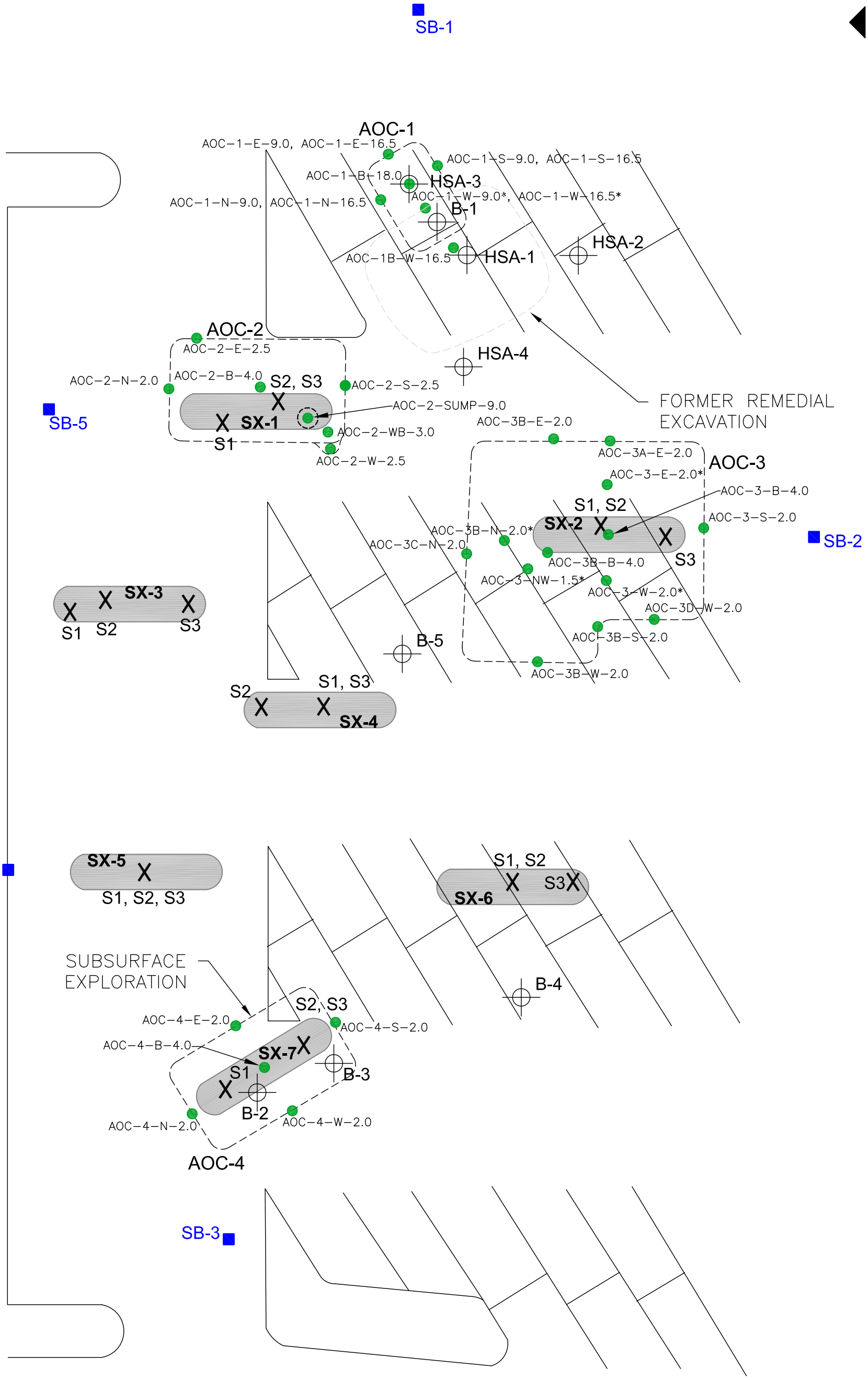
THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

FORMER AUTO SERVICE GARAGE - KENNEWICK PLAZA
WEST KENNEWICK AVE AND SOUTH ELY ST KENNEWICK, WASHINGTON

Drawing
PLAN VIEW OF SUBJECT PROPERTY

Date September 27, 2013	Scale AS SHOWN	Fig. No. 2
File Name 02-02	Project No. 101.00989.00005	

SLR
22118 20th AVE SE
BLDG. G, SUITE 202
BOTHELL, WA 98021
T: 425-402-8800
F: 425-402-8488



LEGEND

X S1	2000 SAMPLE LOCATION AND DESIGNATION
HSA-1	2000 BORING LOCATION AND DESIGNATION
SX-1	2000 TEST PIT LOCATION AND DESIGNATION
SB-1	2013 BORING LOCATION AND DESIGNATION
AOC-1	APPROXIMATE EXTENT OF EXCAVATION AND DESIGNATION
	LOCATION OF 18" – DIAMETER PERFORATED SUMP'
AOC-1-E-9.0	EXCAVATION SOIL SAMPLE LOCATION AND DESIGNATION

NOTE: * INDICATES SAMPLE LOCATION WAS OVER-EXCAVATED

0 15 30 45'

KENNEWICK PLAZA - FORMER AUTO SERVICE GARAGE
WEST KENNEWICK AVENUE AND SOUTH ELY STREET
KENNEWICK, WASHINGTON

Drawing
EXCAVATION SAMPLE LOCATIONS

Date	September 25, 2013	Scale	AS SHOWN
File Name	02-03	Project No.	101.00989.00005

Fig. No. 3

SLR

APPENDIX A

LABORATORY REPORTS

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Kurt Johnson, B.S.
Eric Young, B.S.

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Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

September 11, 2013

Greg Lish
SLR International Corp.
22118 20th Ave. SE., G-202
Bothell, WA 98021

Dear Mr. Lish:

Included are the results from the testing of material submitted on September 6, 2013 from the Kennewick Remedial Excavation 101.00989.00005, F&BI 309106 project. There are 82 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michele Costales Poquiz
Chemist

Enclosures
SLR0911R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 6, 2013 by Friedman & Bruya, Inc. from the SLR International Corp. Kennewick Remedial Excavation 101.00989.00005, F&BI 309106 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
309106 -01	Stockpile-1-W
309106 -02	Stockpile-1-S
309106 -03	Stockpile-1-SE
309106 -04	Stockpile-1-NE
309106 -05	Stockpile-1-N
309106 -06	Stockpile-2-N
309106 -07	Stockpile-2-S
309106 -08	Stockpile-2-Top
309106 -09	Stockpile-3-N
309106 -10	Stockpile-3-E
309106 -11	Stockpile-3-W
309106 -12	AOC-2-N-2.0
309106 -13	AOC-2-E-2.5'
309106 -14	AOC-2-S-2.5'
309106 -15	AOC-2-W-2.5'
309106 -16	AOC-2-Sump-9.0'
309106 -17	AOC-2-B-4.0'
309106 -18	AOC-2-WB-3.0'
309106 -19	AOC-1-N-16.5
309106 -20	AOC-1-E-16.5
309106 -21	AOC-1-W-16.5
309106 -22	AOC-1-S-16.5
309106 -23	AOC-4-N-2.0
309106 -24	AOC-4-E-2.0
309106 -25	AOC-4-W-2.0
309106 -26	AOC-4-S-2.0
309106 -27	AOC-4-B-4.0

The motor oil range response was above the valid instrument calibration range for the sample Stockpile-2-S. The reported concentration is an estimate.

The internal standard associated with several analytes was out of control limits for the 8270D analysis of the samples Stockpile-2-N, AOC-1-N-16.5 and AOC-1-W-16.5. The reported concentrations are estimates.

For the 8270D analysis of the sample Stockpile-2-S, the sample was diluted due to sample matrix effects. The reporting limits have been raised accordingly.

All other quality control requirements were acceptable.

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106
Date Extracted: 09/09/13
Date Analyzed: 09/09/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
AOC-2-W-2.5' 309106-15	<2	104
AOC-2-WB-3.0' 309106-18	<2	104
Method Blank 03-1744 MB	<2	105

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106
Date Extracted: 09/09/13
Date Analyzed: 09/09/13 and 09/10/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
Stockpile-1-W 309106-01	<50	<250	112
Stockpile-1-S 309106-02	<50	<250	114
Stockpile-1-SE 309106-03	230 x	1,000	117
Stockpile-1-NE 309106-04	<50	<250	112
Stockpile-1-N 309106-05	<50	<250	117
Stockpile-2-N 309106-06	730 x	4,200	114
Stockpile-2-S 309106-07	9,600 x	44,000 ve	86
Stockpile-2-Top 309106-08	<50	<250	110
Stockpile-3-N 309106-09	<50	<250	112
Stockpile-3-E 309106-10	<50	<250	119

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106
Date Extracted: 09/09/13
Date Analyzed: 09/09/13 and 09/10/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
Stockpile-3-W 309106-11	<50	<250	112
AOC-2-N-2.0 309106-12	<50	<250	111
AOC-2-E-2.5' 309106-13	<50	<250	114
AOC-2-S-2.5' 309106-14	<50	<250	112
AOC-2-W-2.5' 309106-15	<50	<250	121
AOC-2-Sump-9.0' 309106-16	120 x	840	114
AOC-2-B-4.0' 309106-17	<50	<250	124
AOC-2-WB-3.0' 309106-18	<50	<250	123
AOC-1-N-16.5 309106-19	<50	<250	122
AOC-1-E-16.5 309106-20	<50	<250	125

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106
Date Extracted: 09/09/13
Date Analyzed: 09/09/13 and 09/10/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
AOC-1-W-16.5 309106-21	800 x	2,900	104
AOC-1-S-16.5 309106-22	<50	<250	123
AOC-4-N-2.0 309106-23	<50	<250	123
AOC-4-E-2.0 309106-24	<50	<250	107
AOC-4-W-2.0 309106-25	<50	<250	112
AOC-4-S-2.0 309106-26	<50	<250	121
AOC-4-B-4.0 309106-27	57 x	<250	112
Method Blank 03-1781 MB	<50	<250	114
Method Blank 03-1782 MB	<50	<250	114

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AOC-2-W-2.5'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-15
Date Analyzed:	09/09/13	Data File:	090908.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	108	62	142
Toluene-d8	94	51	121
4-Bromofluorobenzene	95	32	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	AOC-2-WB-3.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-18
Date Analyzed:	09/09/13	Data File:	090909.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	62	142
Toluene-d8	96	51	121
4-Bromofluorobenzene	95	32	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	N/A	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	03-1714 mb
Date Analyzed:	09/09/13	Data File:	090907.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	94	51	121
4-Bromofluorobenzene	93	32	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Methylene chloride	<0.5	o-Xylene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.5
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.25
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.25
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.25

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-1-W	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-01 fl 1/5
Date Analyzed:	09/10/13	Data File:	091004.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	81	50	150
Benzo(a)anthracene-d12	103	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.014
Chrysene	0.018
Benzo(a)pyrene	0.015
Benzo(b)fluoranthene	0.024
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.018
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-1-S	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-02 1/5
Date Analyzed:	09/09/13	Data File:	090919.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	91	50	150
Benzo(a)anthracene-d12	81	50	129

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.011
Chrysene	0.016
Benzo(a)pyrene	0.011
Benzo(b)fluoranthene	0.020
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.015
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-1-SE	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-03 fl 1/5
Date Analyzed:	09/10/13	Data File:	091006.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	79	50	150
Benzo(a)anthracene-d12	95	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.017
Chrysene	0.039
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-1-NE	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-04 fl 1/5
Date Analyzed:	09/10/13	Data File:	091007.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	82	50	150
Benzo(a)anthracene-d12	75	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	0.013
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.012
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-1-N	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-05 fl 1/5
Date Analyzed:	09/10/13	Data File:	091008.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	81	50	150
Benzo(a)anthracene-d12	91	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.030
Chrysene	0.046
Benzo(a)pyrene	0.046
Benzo(b)fluoranthene	0.076
Benzo(k)fluoranthene	0.024
Indeno(1,2,3-cd)pyrene	0.059
Dibenz(a,h)anthracene	0.010

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-2-N	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-06 fl 1/5
Date Analyzed:	09/10/13	Data File:	091009.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	67	50	150
Benzo(a)anthracene-d12	101	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.033
Chrysene	0.059
Benzo(a)pyrene	0.040 J
Benzo(b)fluoranthene	0.072 J
Benzo(k)fluoranthene	0.031 J
Indeno(1,2,3-cd)pyrene	0.047 J
Dibenz(a,h)anthracene	0.010 J

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-2-S	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-07 fl 1/50
Date Analyzed:	09/10/13	Data File:	091011.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	72	50	150
Benzo(a)anthracene-d12	132	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.1
Chrysene	0.28
Benzo(a)pyrene	<0.1
Benzo(b)fluoranthene	<0.1
Benzo(k)fluoranthene	<0.1
Indeno(1,2,3-cd)pyrene	<0.1
Dibenz(a,h)anthracene	<0.1

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-2-Top	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-08 1/5
Date Analyzed:	09/09/13	Data File:	090926.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	50	150
Benzo(a)anthracene-d12	100	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-3-N	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-09 1/5
Date Analyzed:	09/09/13	Data File:	090927.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	86	50	150
Benzo(a)anthracene-d12	99	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	0.010
Benzo(a)pyrene	0.011
Benzo(b)fluoranthene	0.017
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.011
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-3-E	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-10 1/5
Date Analyzed:	09/09/13	Data File:	090928.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	82	50	150
Benzo(a)anthracene-d12	97	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.059
Chrysene	0.075
Benzo(a)pyrene	0.070
Benzo(b)fluoranthene	0.11
Benzo(k)fluoranthene	0.035
Indeno(1,2,3-cd)pyrene	0.071
Dibenz(a,h)anthracene	0.015

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Stockpile-3-W	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-11 fl 1/5
Date Analyzed:	09/10/13	Data File:	091005.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	82	50	150
Benzo(a)anthracene-d12	94	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.066
Chrysene	0.084
Benzo(a)pyrene	0.076
Benzo(b)fluoranthene	0.11
Benzo(k)fluoranthene	0.039
Indeno(1,2,3-cd)pyrene	0.080
Dibenz(a,h)anthracene	0.016

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-2-N-2.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-12 1/5
Date Analyzed:	09/09/13	Data File:	090929.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	86	50	150
Benzo(a)anthracene-d12	98	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-2-E-2.5'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-13 1/5
Date Analyzed:	09/09/13	Data File:	090930.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	84	50	150
Benzo(a)anthracene-d12	96	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-2-S-2.5'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-14 1/5
Date Analyzed:	09/09/13	Data File:	090931.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	50	150
Benzo(a)anthracene-d12	93	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-2-W-2.5'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-15 1/5
Date Analyzed:	09/09/13	Data File:	090932.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	84	50	150
Benzo(a)anthracene-d12	95	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-2-Sump-9.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-16 1/5
Date Analyzed:	09/10/13	Data File:	090933.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	87	50	150
Benzo(a)anthracene-d12	103	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.011
Chrysene	0.016
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	0.019
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-2-B-4.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-17 1/5
Date Analyzed:	09/10/13	Data File:	090934.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	89	50	150
Benzo(a)anthracene-d12	98	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.028
Chrysene	0.039
Benzo(a)pyrene	0.036
Benzo(b)fluoranthene	0.060
Benzo(k)fluoranthene	0.021
Indeno(1,2,3-cd)pyrene	0.044
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-2-WB-3.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-18 1/5
Date Analyzed:	09/10/13	Data File:	090935.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	86	50	150
Benzo(a)anthracene-d12	102	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-1-N-16.5	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-19 1/5
Date Analyzed:	09/10/13	Data File:	090936.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	85	50	150
Benzo(a)anthracene-d12	92	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01 J
Benzo(b)fluoranthene	<0.01 J
Benzo(k)fluoranthene	<0.01 J
Indeno(1,2,3-cd)pyrene	<0.01 J
Dibenz(a,h)anthracene	<0.01 J

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-1-E-16.5	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-20 1/5
Date Analyzed:	09/10/13	Data File:	090937.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	86	50	150
Benzo(a)anthracene-d12	92	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-1-W-16.5	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-21 fl 1/5
Date Analyzed:	09/10/13	Data File:	091010.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	65	50	150
Benzo(a)anthracene-d12	90 J	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01 J
Chrysene	<0.01 J
Benzo(a)pyrene	<0.01 J
Benzo(b)fluoranthene	<0.01 J
Benzo(k)fluoranthene	<0.01 J
Indeno(1,2,3-cd)pyrene	<0.01 J
Dibenz(a,h)anthracene	<0.01 J

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-1-S-16.5	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-22 1/5
Date Analyzed:	09/10/13	Data File:	090938.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	81	50	150
Benzo(a)anthracene-d12	91	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-4-N-2.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-23 1/5
Date Analyzed:	09/10/13	Data File:	090939.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	81	50	150
Benzo(a)anthracene-d12	92	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-4-E-2.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-24 1/5
Date Analyzed:	09/10/13	Data File:	090940.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	81	50	150
Benzo(a)anthracene-d12	89	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-4-W-2.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-25 1/5
Date Analyzed:	09/10/13	Data File:	090941.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	82	50	150
Benzo(a)anthracene-d12	91	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-4-S-2.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-26 1/5
Date Analyzed:	09/10/13	Data File:	090942.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	81	50	150
Benzo(a)anthracene-d12	91	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-4-B-4.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-27 1/5
Date Analyzed:	09/10/13	Data File:	090943.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	85	50	150
Benzo(a)anthracene-d12	94	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.031
Chrysene	0.038
Benzo(a)pyrene	0.031
Benzo(b)fluoranthene	0.047
Benzo(k)fluoranthene	0.016
Indeno(1,2,3-cd)pyrene	0.032
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	N/A	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	03-1778 mb 1/5
Date Analyzed:	09/09/13	Data File:	090925.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	77	50	150
Benzo(a)anthracene-d12	95	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	N/A	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	03-1779 mb fl 1/5
Date Analyzed:	09/10/13	Data File:	091003.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	79	50	150
Benzo(a)anthracene-d12	94	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-1-W	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-01
Date Analyzed:	09/09/13	Data File:	309106-01.025
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	100	60	125
Indium	88	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.51
Arsenic	4.30
Selenium	<1
Silver	<1
Cadmium	<1
Barium	58.1
Lead	62.0

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-1-S	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-02
Date Analyzed:	09/09/13	Data File:	309106-02.028
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	99	60	125
Indium	83	60	125
Holmium	88	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	4.18
Arsenic	8.80
Selenium	<1
Silver	<1
Cadmium	1.05
Barium	76.9
Lead	78.0

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-1-SE	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-03
Date Analyzed:	09/09/13	Data File:	309106-03.030
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	107	60	125
Indium	90	60	125
Holmium	95	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.30
Arsenic	5.02
Selenium	<1
Silver	<1
Cadmium	<1
Barium	58.9
Lead	7.32

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-1-NE	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-04
Date Analyzed:	09/09/13	Data File:	309106-06.031
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	88	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.08
Arsenic	8.78
Selenium	<1
Silver	<1
Cadmium	<1
Barium	81.0
Lead	163

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-1-N	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-05
Date Analyzed:	09/09/13	Data File:	309106-07.032
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	86	60	125
Holmium	90	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	8.12
Arsenic	7.03
Selenium	<1
Silver	<1
Cadmium	1.30
Barium	77.4
Lead	122

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-2-N	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-06
Date Analyzed:	09/09/13	Data File:	309106-08.033
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	102	60	125
Indium	87	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.79
Arsenic	7.10
Selenium	<1
Silver	<1
Cadmium	<1
Barium	102
Lead	159

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-2-S	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-07
Date Analyzed:	09/09/13	Data File:	309106-09.034
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	100	60	125
Indium	86	60	125
Holmium	90	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.01
Arsenic	7.88
Selenium	<1
Silver	<1
Cadmium	1.36
Barium	219
Lead	581

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-2-Top	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-08
Date Analyzed:	09/09/13	Data File:	309106-10.035
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	87	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.89
Arsenic	10.2
Selenium	<1
Silver	<1
Cadmium	<1
Barium	85.2
Lead	82.5

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-3-N	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-09
Date Analyzed:	09/09/13	Data File:	309106-11.036
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	101	60	125
Indium	85	60	125
Holmium	89	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.62
Arsenic	16.1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	92.6
Lead	143

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-3-E	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-10
Date Analyzed:	09/09/13	Data File:	309106-12.037
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125
Indium	87	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.81
Arsenic	10.0
Selenium	<1
Silver	<1
Cadmium	<1
Barium	78.1
Lead	115

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stockpile-3-W	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-11
Date Analyzed:	09/09/13	Data File:	309106-13.038
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	102	60	125
Indium	85	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	4.46
Arsenic	9.26
Selenium	<1
Silver	<1
Cadmium	<1
Barium	72.9
Lead	46.9

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-2-N-2.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-12
Date Analyzed:	09/09/13	Data File:	309106-14.039
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	98	60	125
Indium	82	60	125
Holmium	86	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.56
Arsenic	12.3
Selenium	<1
Silver	<1
Cadmium	<1
Barium	95.2
Lead	99.1

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-2-E-2.5'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-13
Date Analyzed:	09/10/13	Data File:	309106-13.009
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	116	60	125
Indium	98	60	125
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	6.56
Arsenic	7.15
Selenium	<1
Silver	<1
Cadmium	<1
Barium	79.7
Lead	34.6

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-2-S-2.5'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-14
Date Analyzed:	09/10/13	Data File:	309106-14.010
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	113	60	125
Indium	96	60	125
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	6.47
Arsenic	8.22
Selenium	<1
Silver	<1
Cadmium	<1
Barium	80.5
Lead	79.4

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-2-W-2.5'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-15
Date Analyzed:	09/10/13	Data File:	309106-15.011
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	113	60	125
Indium	94	60	125
Holmium	96	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	11.2
Arsenic	9.19
Selenium	<1
Silver	<1
Cadmium	<1
Barium	94.1
Lead	51.9

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-2-Sump-9.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-16
Date Analyzed:	09/10/13	Data File:	309106-16.012
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	115	60	125
Indium	92	60	125
Holmium	95	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	4.90
Arsenic	5.54
Selenium	<1
Silver	<1
Cadmium	<1
Barium	62.7
Lead	38.1

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-2-B-4.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-17
Date Analyzed:	09/10/13	Data File:	309106-17.013
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	115	60	125
Indium	95	60	125
Holmium	98	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.61
Arsenic	10.1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	95.3
Lead	140

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-2-WB-3.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-18
Date Analyzed:	09/10/13	Data File:	309106-18.014
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	112	60	125
Indium	93	60	125
Holmium	96	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.00
Arsenic	11.5
Selenium	<1
Silver	<1
Cadmium	<1
Barium	90.9
Lead	100

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-1-N-16.5	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-19
Date Analyzed:	09/10/13	Data File:	309106-19.015
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	114	60	125
Indium	89	60	125
Holmium	93	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.59
Arsenic	8.97
Selenium	<1
Silver	<1
Cadmium	<1
Barium	68.1
Lead	7.50

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-1-E-16.5	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-20
Date Analyzed:	09/10/13	Data File:	309106-20.016
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	117	60	125
Indium	90	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	2.98
Arsenic	7.23
Selenium	<1
Silver	<1
Cadmium	<1
Barium	65.1
Lead	4.93

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-1-W-16.5	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-21
Date Analyzed:	09/10/13	Data File:	309106-21.020
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	113	60	125
Indium	93	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.53
Arsenic	5.44
Selenium	<1
Silver	<1
Cadmium	<1
Barium	54.4
Lead	12.2

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-1-S-16.5	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-22
Date Analyzed:	09/10/13	Data File:	309106-22.023
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	109	60	125
Indium	88	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.60
Arsenic	3.43
Selenium	<1
Silver	<1
Cadmium	<1
Barium	62.3
Lead	3.85

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-4-N-2.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-23
Date Analyzed:	09/10/13	Data File:	309106-23.024
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	109	60	125
Indium	87	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.47
Arsenic	11.7
Selenium	<1
Silver	<1
Cadmium	<1
Barium	78.8
Lead	62.6

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-4-E-2.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-24
Date Analyzed:	09/10/13	Data File:	309106-24.025
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	109	60	125
Indium	86	60	125
Holmium	90	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	7.24
Arsenic	14.8
Selenium	<1
Silver	<1
Cadmium	<1
Barium	106
Lead	129

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-4-W-2.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-25
Date Analyzed:	09/10/13	Data File:	309106-25.026
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	110	60	125
Indium	87	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	6.51
Arsenic	12.2
Selenium	<1
Silver	<1
Cadmium	<1
Barium	92.1
Lead	75.6

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-4-S-2.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-26
Date Analyzed:	09/10/13	Data File:	309106-26.027
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	110	60	125
Indium	85	60	125
Holmium	89	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	6.54
Arsenic	14.6
Selenium	<1
Silver	<1
Cadmium	<1
Barium	95.9
Lead	141

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-4-B-4.0	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	309106-27
Date Analyzed:	09/10/13	Data File:	309106-27.028
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	111	60	125
Indium	87	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.36
Arsenic	9.46
Selenium	<1
Silver	<1
Cadmium	<1
Barium	74.9
Lead	73.2

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SLR International Corp.
Date Received:	N/A	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	I3-559 mb
Date Analyzed:	09/09/13	Data File:	I3-559 mb.023
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	92	60	125
Indium	91	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SLR International Corp.
Date Received:	N/A	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	I3-559 mb
Date Analyzed:	09/10/13	Data File:	I3-559 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	96	60	125
Holmium	96	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SLR International Corp.
Date Received:	N/A	Project:	Kennewick 101.00989.00005
Date Extracted:	09/09/13	Lab ID:	I3-565 mb
Date Analyzed:	09/10/13	Data File:	I3-565 mb.017
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	95	60	125
Indium	90	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106
Date Extracted: 09/09/13
Date Analyzed: 09/10/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL MERCURY
USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
Stockpile-1-W 309106-01	<0.1
Stockpile-1-S 309106-02	<0.1
Stockpile-1-SE 309106-03	<0.1
Stockpile-1-NE 309106-04	<0.1
Stockpile-1-N 309106-05	<0.1
Stockpile-2-N 309106-06	<0.1
Stockpile-2-S 309106-07	<0.1
Stockpile-2-Top 309106-08	<0.1
Stockpile-3-N 309106-09	<0.1
Stockpile-3-E 309106-10	<0.1
Stockpile-3-W 309106-11	<0.1

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106
Date Extracted: 09/09/13
Date Analyzed: 09/10/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL MERCURY
USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
AOC-2-N-2.0 309106-12	<0.1
AOC-2-E-2.5' 309106-13	<0.1
AOC-2-S-2.5' 309106-14	<0.1
AOC-2-W-2.5' 309106-15	<0.1
AOC-2-Sump-9.0' 309106-16	<0.1
AOC-2-B-4.0' 309106-17	<0.1
AOC-2-WB-3.0' 309106-18	<0.1
AOC-1-N-16.5 309106-19	<0.1
AOC-1-E-16.5 309106-20	<0.1
AOC-1-W-16.5 309106-21	<0.1
AOC-1-S-16.5 309106-22	<0.1

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106
Date Extracted: 09/09/13
Date Analyzed: 09/10/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL MERCURY
USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
AOC-4-N-2.0 309106-23	<0.1
AOC-4-E-2.0 309106-24	<0.1
AOC-4-W-2.0 309106-25	<0.1
AOC-4-S-2.0 309106-26	<0.1
AOC-4-B-4.0 309106-27	<0.1
Method Blank	<0.1

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 308384-04 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	95	71-131

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 309106-01 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	150	104	115	64-133	10

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	104	58-147

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 309106-21 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	2,300	97	83	64-133	16

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	144	58-147

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 309106-18 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	<0.5	17	16	10-142	6
Chloromethane	mg/kg (ppm)	2.5	<0.5	48	49	10-126	2
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	43	43	10-138	0
Bromomethane	mg/kg (ppm)	2.5	<0.5	55	55	10-163	0
Chloroethane	mg/kg (ppm)	2.5	<0.5	62	62	10-176	0
Trichlorofluoromethane	mg/kg (ppm)	2.5	<0.5	60	59	10-176	2
Acetone	mg/kg (ppm)	12.5	<0.5	90	87	10-163	3
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	72	71	10-160	1
Methylene chloride	mg/kg (ppm)	2.5	<0.5	70	73	10-156	4
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	91	92	21-145	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	81	82	14-137	1
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	84	86	19-140	2
2,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	78	80	10-158	3
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	87	88	25-135	1
Chloroform	mg/kg (ppm)	2.5	<0.05	86	87	21-145	1
2-Butanone (MEK)	mg/kg (ppm)	12.5	<0.5	104	97	19-147	7
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	89	89	12-160	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	87	87	10-156	0
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	79	80	17-140	1
Carbon tetrachloride	mg/kg (ppm)	2.5	<0.05	90	90	9-164	0
Benzene	mg/kg (ppm)	2.5	<0.03	82	83	29-129	1
Trichloroethene	mg/kg (ppm)	2.5	<0.03	86	86	21-139	0
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	94	91	30-135	3
Bromodichloromethane	mg/kg (ppm)	2.5	<0.05	94	91	23-155	3
Dibromomethane	mg/kg (ppm)	2.5	<0.05	95	95	23-145	0
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	<0.5	98	94	24-155	4
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	93	90	28-144	3
Toluene	mg/kg (ppm)	2.5	<0.05	86	85	35-130	1
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	100	100	26-149	0
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	97	96	10-205	1
2-Hexanone	mg/kg (ppm)	12.5	<0.5	104	103	15-166	1
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	95	93	31-137	2
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	87	86	20-133	1
Dibromochloromethane	mg/kg (ppm)	2.5	<0.05	101	101	28-150	0
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	100	98	28-142	2
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	94	93	32-129	1
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	91	89	32-137	2
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	97	98	31-143	1
m,p-Xylene	mg/kg (ppm)	5	<0.1	91	91	34-136	0
o-Xylene	mg/kg (ppm)	2.5	<0.05	90	89	33-134	1
Styrene	mg/kg (ppm)	2.5	<0.05	94	92	35-137	2
Isopropylbenzene	mg/kg (ppm)	2.5	<0.05	90	89	31-142	1
Bromoform	mg/kg (ppm)	2.5	<0.05	105	103	21-156	2
n-Propylbenzene	mg/kg (ppm)	2.5	<0.05	91	89	23-146	2
Bromobenzene	mg/kg (ppm)	2.5	<0.05	94	92	34-130	2
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	91	91	18-149	0
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	102	101	28-140	1
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	95	94	25-144	1
2-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	89	88	31-134	1
4-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	91	89	31-136	2
tert-Butylbenzene	mg/kg (ppm)	2.5	<0.05	91	91	30-137	0
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	89	87	10-182	2
sec-Butylbenzene	mg/kg (ppm)	2.5	<0.05	89	89	23-145	0
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	88	89	21-149	1
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	89	89	30-131	0
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	90	90	29-129	0
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	91	91	31-132	0
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.5	99	102	11-161	3
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	85	88	22-142	3
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.25	93	97	10-142	4
Naphthalene	mg/kg (ppm)	2.5	<0.05	89	92	14-157	3
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	88	92	20-144	4

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	49	45	10-146	9
Chloromethane	mg/kg (ppm)	2.5	74	74	27-133	0
Vinyl chloride	mg/kg (ppm)	2.5	69	68	22-139	1
Bromomethane	mg/kg (ppm)	2.5	78	75	38-114	4
Chloroethane	mg/kg (ppm)	2.5	89	88	10-163	1
Trichlorofluoromethane	mg/kg (ppm)	2.5	98	95	10-196	3
Acetone	mg/kg (ppm)	12.5	98	95	52-141	3
1,1-Dichloroethene	mg/kg (ppm)	2.5	96	96	47-128	0
Methylene chloride	mg/kg (ppm)	2.5	88	90	42-132	2
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	105	106	60-123	1
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	100	103	67-127	3
1,1-Dichloroethane	mg/kg (ppm)	2.5	101	102	68-115	1
2,2-Dichloropropane	mg/kg (ppm)	2.5	101	102	52-170	1
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	98	102	72-113	4
Chloroform	mg/kg(ppm)	2.5	100	101	66-120	1
2-Butanone (MEK)	mg/kg (ppm)	12.5	108	102	57-123	6
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	102	102	56-135	0
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	104	107	62-131	3
1,1-Dichloropropene	mg/kg (ppm)	2.5	95	96	69-128	1
Carbon tetrachloride	mg/kg (ppm)	2.5	111	112	60-139	1
Benzene	mg/kg (ppm)	2.5	93	94	68-114	1
Trichloroethene	mg/kg (ppm)	2.5	96	98	64-117	2
1,2-Dichloropropane	mg/kg (ppm)	2.5	100	102	72-127	2
Bromodichloromethane	mg/kg (ppm)	2.5	103	103	72-130	0
Dibromomethane	mg/kg (ppm)	2.5	104	104	70-120	0
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	104	99	45-145	5
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	102	99	75-136	3
Toluene	mg/kg (ppm)	2.5	95	95	66-126	0
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	109	103	72-132	6
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	102	102	75-113	0
2-Hexanone	mg/kg (ppm)	12.5	107	101	33-152	6
1,3-Dichloropropane	mg/kg (ppm)	2.5	100	97	72-130	3
Tetrachloroethene	mg/kg (ppm)	2.5	102	102	72-114	0
Dibromochloromethane	mg/kg (ppm)	2.5	113	109	74-125	4
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	108	103	74-132	5
Chlorobenzene	mg/kg (ppm)	2.5	101	99	76-111	2
Ethylbenzene	mg/kg (ppm)	2.5	99	99	64-123	0
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	108	111	69-135	3
m,p-Xylene	mg/kg (ppm)	5	99	104	78-122	5
o-Xylene	mg/kg (ppm)	2.5	99	103	77-124	4
Styrene	mg/kg (ppm)	2.5	100	100	74-126	0
Isopropylbenzene	mg/kg (ppm)	2.5	99	104	76-127	5
Bromoform	mg/kg (ppm)	2.5	119	115	56-132	3
n-Propylbenzene	mg/kg (ppm)	2.5	99	99	74-124	0
Bromobenzene	mg/kg (ppm)	2.5	97	98	72-122	1
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	101	102	76-126	1
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	105	108	56-143	3
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	101	96	61-137	5
2-Chlorotoluene	mg/kg (ppm)	2.5	96	97	74-121	1
4-Chlorotoluene	mg/kg (ppm)	2.5	99	98	75-122	1
tert-Butylbenzene	mg/kg (ppm)	2.5	103	103	73-130	0
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	99	99	76-125	0
sec-Butylbenzene	mg/kg (ppm)	2.5	102	102	71-130	0
p-Isopropyltoluene	mg/kg (ppm)	2.5	101	102	70-132	1
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	98	99	75-121	1
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	99	100	74-117	1
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	97	102	76-121	5
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	110	111	58-138	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	92	98	64-135	6
Hexachlorobutadiene	mg/kg (ppm)	2.5	105	109	50-153	4
Naphthalene	mg/kg (ppm)	2.5	92	98	63-140	6
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	92	98	63-138	6

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: 309106-01 fl 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	0.013	95	93	23-144	2
Chrysene	mg/kg (ppm)	0.17	0.017	94	94	45-122	0
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	0.023	98	90	31-144	9
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	88	89	45-130	1
Benzo(a)pyrene	mg/kg (ppm)	0.17	0.014	86	84	39-128	2
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	0.017	104	96	28-146	8
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	93	94	46-129	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	89	89	51-115	0
Chrysene	mg/kg (ppm)	0.17	90	92	55-129	2
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	87	92	56-123	6
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	91	90	54-131	1
Benzo(a)pyrene	mg/kg (ppm)	0.17	79	83	51-118	5
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	93	98	49-148	5
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	86	91	50-141	6

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: 309106-21 fl 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01 J	89	92	23-144	3
Chrysene	mg/kg (ppm)	0.17	<0.01 J	89	88	45-122	1
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01 J	90	87	31-144	3
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01 J	85	86	45-130	1
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01 J	83	83	39-128	0
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01 J	98	94	28-146	4
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01 J	91	86	46-129	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	93	93	51-115	0
Chrysene	mg/kg (ppm)	0.17	94	95	55-129	1
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	95	94	56-123	1
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	96	98	54-131	2
Benzo(a)pyrene	mg/kg (ppm)	0.17	82	83	51-118	1
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	102	98	49-148	4
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	98	94	50-141	4

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 309106-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/kg (ppm)	50	3.30	94	84	57-128	11
Arsenic	mg/kg (ppm)	10	4.04	112 b	97 b	70-118	14 b
Selenium	mg/kg (ppm)	5	<1	98	88	64-117	11
Silver	mg/kg (ppm)	10	<1	107	97	73-122	10
Cadmium	mg/kg (ppm)	10	<1	107	98	83-116	9
Barium	mg/kg (ppm)	50	54.6	139 b	170 b	60-141	20 b
Lead	mg/kg (ppm)	50	58.3	186 b	1020 b	59-148	138 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	106	78-121
Arsenic	mg/kg (ppm)	10	98	83-113
Selenium	mg/kg (ppm)	5	96	84-115
Silver	mg/kg (ppm)	10	101	81-116
Cadmium	mg/kg (ppm)	10	100	54-114
Barium	mg/kg (ppm)	50	98	85-116
Lead	mg/kg (ppm)	50	96	80-120

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 309106-21 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/kg (ppm)	50	3.28	72	76	57-128	5
Arsenic	mg/kg (ppm)	10	5.06	86 b	96 b	70-118	11 b
Selenium	mg/kg (ppm)	5	<1	82	89	64-117	8
Silver	mg/kg (ppm)	10	<1	92	98	73-122	6
Cadmium	mg/kg (ppm)	10	<1	92	100	83-116	8
Barium	mg/kg (ppm)	50	50.6	88 b	109 b	60-141	21 b
Lead	mg/kg (ppm)	50	11.3	90 b	101 b	59-148	12 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	99	78-121
Arsenic	mg/kg (ppm)	10	102	83-113
Selenium	mg/kg (ppm)	5	103	84-115
Silver	mg/kg (ppm)	10	106	81-116
Cadmium	mg/kg (ppm)	10	105	54-114
Barium	mg/kg (ppm)	50	102	85-116
Lead	mg/kg (ppm)	50	100	80-120

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 309106-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.1	94	99	62-140	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	88	63-131

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 309106-21(Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.1	97	99	62-140	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	103	63-131

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

309106

SAMPLE CHAIN OF CUSTODY

KJ 09/06/13

BI4/VS

Page # 1 of 3

Send Report To Greg Lish

Company SLR International Corp.

Address 22118 20th Ave SE, G202

City, State, ZIP Bothell, WA 98021

Phone #425-402-8800 Fax #425-402-8488

SAMPLERS (signature)

PROJECT NAME/NO.: Kennewick Remedial Excavation 101.00989.00005

PO#: 101.00989.00005

REMARKS: NWTPH-Dx after silica gel cleanup

RUSH -24 HOUR- Call Greg Lish ASAP

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 24 hours.

Rush charges authorized by

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

V=TCLP Pb added per Greg Lish 9/10/13

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	DRO+ORO by NWTPH-Dx	cPAH by 8270DSIM	RCRA 8 Metals by 6020A	TCLP Pb by EPA 1311	GRO by NWTPH-Gx	VOCs by EPA 8260	Notes
Stockpile-1-W	01A-B	9/6/13	0750	Soil	2							X	X	X				HOLD ALL for TCLP
Stockpile-1-S	02		0755															
Stockpile-1-SE	03		0800															
Stockpile-1-NE	04		0850												✓			
Stockpile-1-N	05		0855															
Stockpile-2-N	06		0907															
Stockpile-2-S	07		0913												✓			
Stockpile-2-Top	08A-B		1235		10													HOLD for GRO+ VOCs
Stockpile-3-N	09A-B		1100															HOLD ALL for TCLP
Stockpile-3-E	10A-B		1105															

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Magniot	SLR	9/6/13	1710
Received by:	Michael Erdahl	FB Inc	↓	↓
Relinquished by:		Samples received at	4	°C
Received by:				

309106

SAMPLE CHAIN OF CUSTODY

KJ 09/06/13

BDA/VS3

Page # 2 of 3

Send Report To Greg Lish

Company SLR International Corp.

Address 22118 20th Ave SE, G202

City, State, ZIP Bothell, WA, 98021

Phone # 425-402-8800 Fax # 425-402-8488

SAMPLERS (signature)

PROJECT NAME/NO.: Kennewick Remedial Excavation 101.00989.00005

PO#: 101.00989.00005

REMARKS: NWTPH-Dx after silica gel cleanup

RUSH - 24 hour - Call Greg Lish ASAP

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 24 hour

Rush charges authorized by

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270	HFS	DRO+ORO by NWTPH-Dx	cPAH by 8270D SIM	RCRA 8 Metals by 6020/7470/7471	GRO by NWTPH-Gx	TCLP by 1311		Notes
Stockpile-3-W	11 A-B	9/6/13	1110	Soil	2							X	X	X				HOLD for TCLP
AOC-2-N-2.0	12 T		1025															
AOC-2-E-2.5'	13		1019															
AOC-2-S-2.5	14		1200															
~~AOC-W-~~ AHM																		
AOC-2-W-2.5'	15 A-B	9/6/13	1130	Soil	10				X			X	X	X	X			
AOC-2-Sump-9.0'	16 A-B		1002		2													Samples received at 4 °C
AOC-2-B-4.0'	17 T		1030		2													
AOC-2-WB-3.0'	18 A-J		1145		10				X						X			
AOC-1-N-16.5	19 A-B		1205		2													

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Mengrist	SLR	9/6/13	1710
Received by:	Michael E-Clark	FCRne	↓	↓
Relinquished by:				
Received by:				

FORMS\COC\COC.DOC

309106

SAMPLE CHAIN OF CUSTODY

KJ 09/06/13 BI4 453

Page # 3 of 3

Send Report To Greg Lish
Company SLR International Corp.
Address 22118 20th Ave SE, G202
City, State, ZIP Bothell, WA 98021
Phone # 425-402-8800 Fax # 425-402-8488

SAMPLERS (signature)

PROJECT NAME/NO.: Kennewick Remedial Excavation 101.00989.0005

PO#: 101.00989.0005

REMARKS
NWTPH-Dx after silica gel cleanup
RUSH - 24 hour - Call Greg Lish ASAP

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 24 hour
Rush charges authorized by

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	Organochlorine Pesticides	NWTPH-Dx	CPAH's by 8270D SIM	RCRA 8 Metals by 6000/7000				Notes
AOC-1-E-16.5	20	9/6/13	1215	SOIL	2							X	X	X					
AOC-1-W-16.5	21	↓	1225	↓	↓							↓	↓	↓					
AOC-1-S-16.5	22	↓	1220	↓	↓							↓	↓	↓					
AOC-4-N-2.0	23	9/5/13	1705	SOIL	2							X	X	X					
AOC-4-E-2.0	24	↓	1700	↓	↓							↓	↓	↓					
AOC-4-W-2.0	25	↓	1710	↓	↓							↓	↓	↓					
AOC-4-S-2.0	26	↓	1725	↓	↓							↓	↓	↓					
AOC-4-B-4.0	27	↓	1720	↓	↓							↓	↓	↓					

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Mengrior	SLR	9/6/13	1710
Received by:	Michael Erdahl	FedEx	↓	↓
Relinquished by:		Samples received at 4 °C		
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Kurt Johnson, B.S.
Eric Young, B.S.

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September 12, 2013

Greg Lish
SLR International Corp.
22118 20th Ave. SE., G-202
Bothell, WA 98021

Dear Mr. Lish:

Included are the results from the additional testing of material submitted on September 6, 2013 from the Kennewick Remedial Excavation 101.00989.00005, F&BI 309106 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michele Costales Poquiz
Chemist

Enclosures
SLR0912R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 6, 2013 by Friedman & Bruya, Inc. from the SLR International Corp. Kennewick Remedial Excavation 101.00989.00005, F&BI 309106 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
309106 -01	Stockpile-1-W
309106 -02	Stockpile-1-S
309106 -03	Stockpile-1-SE
309106 -04	Stockpile-1-NE
309106 -05	Stockpile-1-N
309106 -06	Stockpile-2-N
309106 -07	Stockpile-2-S
309106 -08	Stockpile-2-Top
309106 -09	Stockpile-3-N
309106 -10	Stockpile-3-E
309106 -11	Stockpile-3-W
309106 -12	AOC-2-N-2.0
309106 -13	AOC-2-E-2.5'
309106 -14	AOC-2-S-2.5'
309106 -15	AOC-2-W-2.5'
309106 -16	AOC-2-Sump-9.0'
309106 -17	AOC-2-B-4.0'
309106 -18	AOC-2-WB-3.0'
309106 -19	AOC-1-N-16.5
309106 -20	AOC-1-E-16.5
309106 -21	AOC-1-W-16.5
309106 -22	AOC-1-S-16.5
309106 -23	AOC-4-N-2.0
309106 -24	AOC-4-E-2.0
309106 -25	AOC-4-W-2.0
309106 -26	AOC-4-S-2.0
309106 -27	AOC-4-B-4.0

All quality assurance was acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	Stockpile-1-NE	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/10/13	Lab ID:	309106-04
Date Analyzed:	09/11/13	Data File:	309106-04.028
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	84	60	125

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Lead	<1	5.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	Stockpile-2-S	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/10/13	Lab ID:	309106-07
Date Analyzed:	09/11/13	Data File:	309106-07.030
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	82	60	125

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Lead	<1	5.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Kennewick 101.00989.00005
Date Extracted:	09/10/13	Lab ID:	I3-570 mb
Date Analyzed:	09/11/13	Data File:	I3-570 mb.023
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	85	60	125

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Lead	<1	5.0

Date of Report: 09/12/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309106

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TCLP METALS USING EPA METHOD 200.8 AND 40 CFR PART 261

Laboratory Code: 309152-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/L (ppm)	1.0	8.25	99 b	100 b	50-150	1 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/L (ppm)	1.0	97	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

309106

SAMPLE CHAIN OF CUSTODY

KJ 09/06/13

BI4/VS

Page # 1 of 3

Send Report To Greg Lish

Company SLR International Corp.

Address 22118 20th Ave SE, G202

City, State, ZIP Bothell, WA 98021

Phone #425-402-8800 Fax #425-402-8488

SAMPLERS (signature)

PROJECT NAME/NO.: Kennewick Remedial Excavation 101.00989.00005

PO#: 101.00989.00005

REMARKS: NWTPH-Dx after silica gel cleanup

RUSH -24 HOUR- Call Greg Lish ASAP

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 24 hours.

Rush charges authorized by

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

V=TCLP Pb added per Greg Lish 9/10/13

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	DRO+ORO by NWTPH-Dx	cPAH by 8270DSIM	RCRA 8 Metals by 6020A	TCLP Pb by EPA 1311	GRO by NWTPH-Gx	VOCs by EPA 8260	Notes
Stockpile-1-W	01A-B	9/6/13	0750	Soil	2							X	X	X				HOLD ALL for TCLP
Stockpile-1-S	02		0755															
Stockpile-1-SE	03		0800															
Stockpile-1-NE	04		0850												✓			
Stockpile-1-N	05		0855															
Stockpile-2-N	06		0907															
Stockpile-2-S	07		0913												✓			
Stockpile-2-Top	08A-B		1235		10													HOLD for GRO+ VOCs
Stockpile-3-N	09A-B		1100															HOLD ALL for TCLP
Stockpile-3-E	10A-B		1105															

Friedman & Bruya, Inc.
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Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Magniot	SLR	9/6/13	1710
Received by:	Michael Erdahl	FB Inc	↓	↓
Relinquished by:		Samples received at	4	°C
Received by:				

309106

SAMPLE CHAIN OF CUSTODY

KJ 09/06/13

BDA/VS3

Page # 2 of 3

Send Report To Greg Lish

Company SLR International Corp.

Address 22118 20th Ave SE, G202

City, State, ZIP Bothell, WA, 98021

Phone # 425-402-8800 Fax # 425-402-8488

SAMPLERS (signature)

PROJECT NAME/NO.: Kennewick Remedial Excavation 101.00989.00005

PO#: 101.00989.00005

REMARKS: NWTPH-Dx after silica gel cleanup

RUSH - 24 hour - Call Greg Lish ASAP

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 24 hour

Rush charges authorized by

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270	HFS	DRO+ORO by NWTPH-Dx	cPAH by 8270D SIM	RCRA 8 Metals by 6020/7470/7471	GRO by NWTPH-Gx	TCLP by 1311		Notes
Stockpile-3-W	11 A-B	9/6/13	1110	Soil	2							X	X	X				HOLD for TCLP
AOC-2-N-2.0	12 T		1025															
AOC-2-E-2.5'	13		1019															
AOC-2-S-2.5	14		1200															
~~AOC-W-~~ AHM																		
AOC-2-W-2.5'	15 A-B	9/6/13	1130	Soil	10				X			X	X	X	X			
AOC-2-Sump-9.0'	16 A-B		1002		2													Samples received at 4 °C
AOC-2-B-4.0'	17 T		1030		2													
AOC-2-WB-3.0'	18 A-J		1145		10				X						X			
AOC-1-N-16.5	19 A-B		1205		2													

Friedman & Bruya, Inc.
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Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Mengrist	SLR	9/6/13	1710
Received by:	Michael E-Clark	FCRne	↓	↓
Relinquished by:				
Received by:				

FORMS\COC\COC.DOC

309106

SAMPLE CHAIN OF CUSTODY

KJ 09/06/13 BI4 453

Page # 3 of 3

Send Report To Greg Lish
Company SLR International Corp.
Address 22118 20th Ave SE, G202
City, State, ZIP Bothell, WA 98021
Phone # 425-402-8800 Fax # 425-402-8488

SAMPLERS (signature)

PROJECT NAME/NO.: Kennewick Remedial Excavation 101.00989.0005

PO#: 101.00989.0005

REMARKS
NWTPH-Dx after silica gel cleanup
RUSH - 24 hour - Call Greg Lish ASAP

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 24 hour
Rush charges authorized by

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	Organochlorine Pesticides	NWTPH-Dx	CPAH's by 8270D SIM	RCRA 8 Metals by 6000/7000				Notes
AOC-1-E-16.5	20	9/6/13	1215	SOIL	2							X	X	X					
AOC-1-W-16.5	21	↓	1225	↓	↓							↓	↓	↓					
AOC-1-S-16.5	22	↓	1220	↓	↓							↓	↓	↓					
AOC-4-N-2.0	23	9/5/13	1705	SOIL	2							X	X	X					
AOC-4-E-2.0	24	↓	1700	↓	↓							↓	↓	↓					
AOC-4-W-2.0	25	↓	1710	↓	↓							↓	↓	↓					
AOC-4-S-2.0	26	↓	1725	↓	↓							↓	↓	↓					
AOC-4-B-4.0	27	↓	1720	↓	↓							↓	↓	↓					

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Mengrior	SLR	9/6/13	1710
Received by:	Michael Erdahl	FedEx	↓	↓
Relinquished by:		Samples received at 4 °C		
Received by:				

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Kurt Johnson, B.S.
Eric Young, B.S.

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www.friedmanandbruya.com

September 11, 2013

Greg Lish, Project Manager
SLR International Corp.
22118 20th Ave. SE., G-202
Bothell, WA 98021

Dear Mr. Lish:

Included are the results from the testing of material submitted on September 6, 2013 from the Kennewick Remedial Excavation 101.00989.00005, F&BI 309070 project. There are 30 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michele Costales Poquiz
Chemist

Enclosures
SLR0911R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 6, 2013 by Friedman & Bruya, Inc. from the SLR International Corp. Kennewick Remedial Excavation 101.00989.00005, F&BI 309070 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
309070 -01	AOC-1-S-9.0'
309070 -02	AOC-1-W-9.0'
309070 -03	AOC-1-E-9.0'
309070 -04	AOC-1-N-9.0'
309070 -05	AOC-1-B-18.0'
309070 -06	AOC-3-S-2.0'
309070 -07	AOC-3-E-2.0'
309070 -08	AOC-3-W-2.0'
309070 -09	AOC-3-NW-1.5'
309070 -10	AOC-3-B-4.0'

The motor oil range response was above the valid instrument calibration range for the sample AOC-3-NW-1.5'. The reported concentration is an estimate.

The internal standard associated with several analytes was out of control limits for the 8270D analysis of the sample AOC-1-W-9.0'. The reported concentrations are estimates.

For the 8270D analysis of the sample AOC-3-NW-1.5', the sample was diluted due to sample matrix effects. The reporting limits have been raised accordingly.

All other quality control requirements were acceptable.

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309070
Date Extracted: 09/06/13
Date Analyzed: 09/06/13 and 09/07/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 48-168)
AOC-1-S-9.0' 309070-01	<50	<250	86
AOC-1-W-9.0' 309070-02	330 x	1,300	84
AOC-1-E-9.0' 309070-03	<50	<250	76
AOC-1-N-9.0' 309070-04	<50	<250	81
AOC-1-B-18.0' 309070-05	<50	<250	86
AOC-3-S-2.0' 309070-06	<50	<250	77
AOC-3-E-2.0' 309070-07	<50	900	75
AOC-3-W-2.0' 309070-08	<50	440	77
AOC-3-NW-1.5' 309070-09	9,900 x	29,000 ve	104
AOC-3-B-4.0' 309070-10	<50	<250	82
Method Blank 03-1769 MB	<50	<250	72

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-1-S-9.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-01 1/5
Date Analyzed:	09/06/13	Data File:	090624.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	95	50	150
Benzo(a)anthracene-d12	107	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.012
Chrysene	0.018
Benzo(a)pyrene	0.020
Benzo(b)fluoranthene	0.032
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.025
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-1-W-9.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-02 1/5
Date Analyzed:	09/09/13	Data File:	090916.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	92	50	150
Benzo(a)anthracene-d12	100	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.011
Chrysene	0.014
Benzo(a)pyrene	0.025 J
Benzo(b)fluoranthene	0.038 J
Benzo(k)fluoranthene	0.014 J
Indeno(1,2,3-cd)pyrene	0.035 J
Dibenz(a,h)anthracene	<0.01 J

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-1-E-9.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-03 fl 1/5
Date Analyzed:	09/06/13	Data File:	090625.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	90	50	150
Benzo(a)anthracene-d12	99	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-1-N-9.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-04 1/5
Date Analyzed:	09/06/13	Data File:	090626.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	94	50	150
Benzo(a)anthracene-d12	106	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	0.015
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.012
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-1-B-18.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-05 1/5
Date Analyzed:	09/06/13	Data File:	090629.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	90	50	150
Benzo(a)anthracene-d12	103	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3-S-2.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-06 1/5
Date Analyzed:	09/07/13	Data File:	090630.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	91	50	150
Benzo(a)anthracene-d12	98	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3-E-2.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-07 1/5
Date Analyzed:	09/07/13	Data File:	090631.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	81	50	150
Benzo(a)anthracene-d12	106	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.034
Chrysene	0.044
Benzo(a)pyrene	0.029
Benzo(b)fluoranthene	0.054
Benzo(k)fluoranthene	0.014
Indeno(1,2,3-cd)pyrene	0.031
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3-W-2.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-08 1/5
Date Analyzed:	09/09/13	Data File:	090915.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	104	50	150
Benzo(a)anthracene-d12	91	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.011
Chrysene	0.014
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	0.016
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.014
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3-NW-1.5'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-09 1/500
Date Analyzed:	09/07/13	Data File:	090635.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	246 ds	50	150
Benzo(a)anthracene-d12	210 ds	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<1
Chrysene	<1
Benzo(a)pyrene	<1
Benzo(b)fluoranthene	<1
Benzo(k)fluoranthene	<1
Indeno(1,2,3-cd)pyrene	<1
Dibenz(a,h)anthracene	<1

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3-B-4.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-10 1/5
Date Analyzed:	09/07/13	Data File:	090633.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	97	50	150
Benzo(a)anthracene-d12	105	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.015
Chrysene	0.018
Benzo(a)pyrene	0.015
Benzo(b)fluoranthene	0.023
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.011
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	N/A	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	03-1763 mb 1/5
Date Analyzed:	09/06/13	Data File:	090623A.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	89	50	150
Benzo(a)anthracene-d12	97	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-1-S-9.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-01
Date Analyzed:	09/09/13	Data File:	309070-01.013
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	113	60	125
Indium	92	60	125
Holmium	96	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.38
Arsenic	6.93
Selenium	<1
Silver	<1
Cadmium	<1
Barium	37.1
Lead	5.83

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-1-W-9.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-02
Date Analyzed:	09/09/13	Data File:	309070-02.014
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	109	60	125
Indium	92	60	125
Holmium	95	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.18
Arsenic	8.61
Selenium	<1
Silver	<1
Cadmium	<1
Barium	52.6
Lead	15.6

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-1-E-9.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-03
Date Analyzed:	09/09/13	Data File:	309070-03.015
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	118	60	125
Indium	95	60	125
Holmium	100	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.19
Arsenic	7.86
Selenium	<1
Silver	<1
Cadmium	<1
Barium	44.6
Lead	5.27

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-1-N-9.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-04
Date Analyzed:	09/09/13	Data File:	309070-04.016
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	116	60	125
Indium	94	60	125
Holmium	98	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.11
Arsenic	11.8
Selenium	<1
Silver	<1
Cadmium	<1
Barium	76.2
Lead	12.8

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-1-B-18.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-05
Date Analyzed:	09/09/13	Data File:	309070-05.017
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	120	60	125
Indium	94	60	125
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.82
Arsenic	7.37
Selenium	<1
Silver	<1
Cadmium	<1
Barium	77.1
Lead	5.69

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3-S-2.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-06
Date Analyzed:	09/09/13	Data File:	309070-06.019
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	109	60	125
Indium	93	60	125
Holmium	97	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	2.14
Arsenic	5.05
Selenium	<1
Silver	<1
Cadmium	<1
Barium	37.5
Lead	5.12

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3-E-2.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-07
Date Analyzed:	09/09/13	Data File:	309070-07.020
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	111	60	125
Indium	91	60	125
Holmium	96	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	6.74
Arsenic	8.06
Selenium	<1
Silver	<1
Cadmium	<1
Barium	173
Lead	278

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3-W-2.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-08
Date Analyzed:	09/09/13	Data File:	309070-08.021
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	110	60	125
Indium	90	60	125
Holmium	95	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	7.31
Arsenic	7.90
Selenium	<1
Silver	<1
Cadmium	<1
Barium	133
Lead	252

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3-NW-1.5'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-09
Date Analyzed:	09/09/13	Data File:	309070-09.022
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	108	60	125
Indium	90	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	5.85
Arsenic	9.50
Selenium	<1
Silver	<1
Cadmium	<1
Barium	302
Lead	197

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3-B-4.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	309070-10
Date Analyzed:	09/09/13	Data File:	309070-10.010
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	94	60	125
Indium	73	60	125
Holmium	78	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	4.77
Arsenic	9.84
Selenium	<1
Silver	<1
Cadmium	<1
Barium	80.2
Lead	47.3

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SLR International Corp.
Date Received:	N/A	Project:	Kennewick 101.00989.00005
Date Extracted:	09/06/13	Lab ID:	I3-560 mb
Date Analyzed:	09/09/13	Data File:	I3-560 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	93	60	125
Indium	94	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309070
Date Extracted: 09/06/13
Date Analyzed: 09/10/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL MERCURY
USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
AOC-1-S-9.0' 309070-01	<0.1
AOC-1-W-9.0' 309070-02	<0.1
AOC-1-E-9.0' 309070-03	<0.1
AOC-1-N-9.0' 309070-04	<0.1
AOC-1-B-18.0' 309070-05	<0.1
AOC-3-S-2.0' 309070-06	<0.1
AOC-3-E-2.0' 309070-07	<0.1
AOC-3-W-2.0' 309070-08	<0.1
AOC-3-NW-1.5' 309070-09	<0.1
AOC-3-B-4.0' 309070-10	<0.1
Method Blank	<0.1

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309070

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 309070-10 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	104	109	73-135	5

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	133	74-139

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309070

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: 309070-04 fl 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	88	88	23-144	0
Chrysene	mg/kg (ppm)	0.17	<0.01	94	93	45-122	1
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	0.014	86	81	31-144	6
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	87	93	45-130	7
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	83	85	39-128	2
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	0.011	88	89	28-146	1
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	95	96	46-129	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	85	88	51-115	3
Chrysene	mg/kg (ppm)	0.17	99	96	55-129	3
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	84	94	56-123	11
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	104	91	54-131	13
Benzo(a)pyrene	mg/kg (ppm)	0.17	85	84	51-118	1
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	79	94	49-148	17
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	93	96	50-141	3

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309070

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 309070-10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/kg (ppm)	50	4.39	83	82	57-128	1
Arsenic	mg/kg (ppm)	10	9.05	79 b	66 b	70-118	18 b
Selenium	mg/kg (ppm)	5	<1	92	87	64-117	6
Silver	mg/kg (ppm)	10	<1	96	95	73-122	1
Cadmium	mg/kg (ppm)	10	<1	97	96	83-116	1
Barium	mg/kg (ppm)	50	73.8	64 b	52 b	60-141	21 b
Lead	mg/kg (ppm)	50	43.5	107 b	140 b	59-148	27 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	108	78-121
Arsenic	mg/kg (ppm)	10	101	83-113
Selenium	mg/kg (ppm)	5	96	84-115
Silver	mg/kg (ppm)	10	99	81-116
Cadmium	mg/kg (ppm)	10	98	54-114
Barium	mg/kg (ppm)	50	99	85-116
Lead	mg/kg (ppm)	50	98	80-120

Date of Report: 09/11/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309070

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 309020-10(Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.1	108	104	62-140	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	103	63-131

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

309070

SAMPLE CHAIN OF CUSTODY

KJ 09/06/13

BI 3

Page # 1 of 1

Send Report To Greg Lish

Company SLR International Corp.

Address 22118 20th Ave. SE, G202

City, State, ZIP Bothell, WA 98021

Phone # 425-402-8800 Fax # 425-402-8488

SAMPLERS *(signature)*

PROJECT NAME/NO.: Kennewick Remedial Excavation 101.00989.00005

PO#: 101.00989.00005

REMARKS: NWTPH-Dx after silica gel cleanup
RUSH – 24 HOUR – Call Greg LISH ASAP

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 24 hour

Rush charges authorized by

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	DRO/ORO by NWTPH-Dx	cPAHs by 8270SIM	RCRA 8 Metals by 200.8				Notes
AOC-1-S-9.0'	01 A/B	9/5/13	1145	Soil	2							X	X	X				
AOC-1-W-9.0'	02 A/B		1150															
AOC-1-E-9.0'	03 A/B		1210															
AOC-1-N-9.0'	04 A/B		1215															
AOC-1-B-18.0'	05 A/B		1205															
AOC-3-S-2.0'	06 A/B		1435															
AOC-3-E-2.0'	07 A/B		1430															
AOC-3-W-2.0'	08 A/B		1440															
AOC-3-~~NE~~ NW-1.5'	09 A/B		1445															
AOC-3-B-4.0'	10 A/B		1510															

per Amanda M/NP 9/10/13

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Mengist	SLR	9/5/13	1535
Received by:	Nhan Phan	FEBI		
Relinquished by:				
Received by:		Samples received at 1 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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fbi@isomedia.com
www.friedmanandbruya.com

September 17, 2013

Greg Lish
SLR International Corp.
22118 20th Ave. SE., G-202
Bothell, WA 98021

Dear Mr. Lish:

Included are the results from the additional testing of material submitted on September 6, 2013 from the Kennewick Remedial Excavation 101.00989.00005, F&BI 309070 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michele Costales Poquiz
Chemist

Enclosures
SLR0917R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 6, 2013 by Friedman & Bruya, Inc. from the SLR International Corp. Kennewick Remedial Excavation 101.00989.00005, F&BI 309070 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
309070 -01	AOC-1-S-9.0'
309070 -02	AOC-1-W-9.0'
309070 -03	AOC-1-E-9.0'
309070 -04	AOC-1-N-9.0'
309070 -05	AOC-1-B-18.0'
309070 -06	AOC-3-S-2.0'
309070 -07	AOC-3-E-2.0'
309070 -08	AOC-3-W-2.0'
309070 -09	AOC-3-NW-1.5'
309070 -10	AOC-3-B-4.0'

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	AOC-3-E-2.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/17/13	Lab ID:	309070-07
Date Analyzed:	09/17/13	Data File:	309070-07.011
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	91	60	125

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Lead	<1	5.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	AOC-3-W-2.0'	Client:	SLR International Corp.
Date Received:	09/06/13	Project:	Kennewick 101.00989.00005
Date Extracted:	09/17/13	Lab ID:	309070-08
Date Analyzed:	09/17/13	Data File:	309070-08.014
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	91	60	125

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Lead	<1	5.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Kennewick 101.00989.00005
Date Extracted:	09/17/13	Lab ID:	I3-581 mb
Date Analyzed:	09/17/13	Data File:	I3-581 mb.009
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	93	60	125

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Lead	<1	5.0

Date of Report: 09/17/13
Date Received: 09/06/13
Project: Kennewick Remedial Excavation 101.00989.00005, F&BI 309070

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TCLP METALS USING EPA METHOD 200.8 AND 40 CFR PART 261

Laboratory Code: 309070-07 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/L (ppm)	1.0	<1	95	95	50-150	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/L (ppm)	1.0	95	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

309070

SAMPLE CHAIN OF CUSTODY

KJ 09/06/13

BI 3

Page # 1 of 1

Send Report To Greg Lish
Company SLR International Corp.
Address 22118 20th Ave. SE, G202
City, State, ZIP Bothell, WA 98021
Phone # 425-402-8800 Fax # 425-402-8488

SAMPLERS (signature)

PROJECT NAME/NO.: Kennewick Remedial Excavation 101.00989.00005

PO#: 101.00989.00005

REMARKS: NWTPH-Dx after silica gel cleanup
RUSH – 24 HOUR – Call Greg LISH ASAP

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 24 hour
Rush charges authorized by

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

⊗=added per Greg Lish via 9/16/13

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	DRO/RRO by NWTPH-Dx	cPAHs by 8270D SIM	RCRA 8 Metals by 200.8	TCLP Pb			Notes
AOC-1-S-9.0'	01 A/B	9/5/13	1145	Soil	2							X	X	X				
AOC-1-W-9.0'	02 A/B		1150															
AOC-1-E-9.0'	03 A/B		1210															
AOC-1-N-9.0'	04 A/B		1215															
AOC-1-B-18.0'	05 A/B		1205															
AOC-3-S-2.0'	06 A/B		1435															
AOC-3-E-2.0'	07 A/B		1430												⊗			
AOC-3-W-2.0'	08 A/B		1440												⊗			
per Amanda via KJ 9/16/13 AOC-3-~~NE~~ NW-1.5'	09 A/B		1445															
AOC-3-B-4.0'	10 A/B	↓	1510	↓	↓							↓	↓	↓				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Mengist	SLR	9/5/13	1535
Received by:	Nhan Phan	FBI		
Relinquished by:				
Received by:		Samples received at 1 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Kurt Johnson, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
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fbi@isomedia.com
www.friedmanandbruya.com

September 18, 2013

Greg Lish
SLR International Corp.
22118 20th Ave. SE., G-202
Bothell, WA 98021

Dear Mr. Lish:

Included are the results from the testing of material submitted on September 12, 2013 from the Kennewick Plaza 101.00989.00005, F&BI 309225 project. There are 24 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michele Costales Poquiz
Chemist

Enclosures
SLR0918R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 12, 2013 by Friedman & Bruya, Inc. from the SLR International Corp. Kennewick Plaza 101.00989.00005, F&BI 309225 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
309225-01	AOC-3A-E-2.0'
309225-02	AOC-1B-W-16.5'
309225-03	AOC-3B-S-2.0'
309225-04	AOC-3B-W-2.0'
309225-05	AOC-3B-N-2.0'
309225-06	AOC-3B-E-2.0'
309225-07	AOC-3B-B-4.0'

All quality control requirements were acceptable.

Date of Report: 09/18/13
Date Received: 09/12/13
Project: Kennewick Plaza 101.00989.00005, F&BI 309225
Date Extracted: 09/13/13
Date Analyzed: 09/13/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
AOC-3A-E-2.0' 309225-01	<50	<250	101
AOC-1B-W-16.5' 309225-02	110 x	410	98
AOC-3B-S-2.0' 309225-03	120 x	1,300	89
AOC-3B-W-2.0' 309225-04	<50	<250	109
AOC-3B-N-2.0' 309225-05	880 x	2,800	78
AOC-3B-E-2.0' 309225-06	<50	<250	105
AOC-3B-B-4.0' 309225-07	<50	<250	109
Method Blank 03-1816 MB2	<50	<250	104

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3A-E-2.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-01 1/5
Date Analyzed:	09/13/13	Data File:	091312.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	50	150
Benzo(a)anthracene-d12	90	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-1B-W-16.5'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-02 1/5
Date Analyzed:	09/13/13	Data File:	091313.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	78	50	150
Benzo(a)anthracene-d12	84	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.010
Chrysene	0.014
Benzo(a)pyrene	0.012
Benzo(b)fluoranthene	0.019
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.015
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3B-S-2.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-03 1/5
Date Analyzed:	09/16/13	Data File:	091612.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	74	50	150
Benzo(a)anthracene-d12	99	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3B-W-2.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-04 1/5
Date Analyzed:	09/13/13	Data File:	091315.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	80	50	150
Benzo(a)anthracene-d12	88	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.012
Chrysene	0.014
Benzo(a)pyrene	0.011
Benzo(b)fluoranthene	0.018
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.011
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3B-N-2.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-05 1/5
Date Analyzed:	09/13/13	Data File:	091316.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	72	50	150
Benzo(a)anthracene-d12	89	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3B-E-2.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-06 1/5
Date Analyzed:	09/13/13	Data File:	091317.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	84	50	150
Benzo(a)anthracene-d12	90	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.010
Chrysene	0.012
Benzo(a)pyrene	0.011
Benzo(b)fluoranthene	0.018
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	0.014
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	AOC-3B-B-4.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-07 1/5
Date Analyzed:	09/13/13	Data File:	091318.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	86	50	150
Benzo(a)anthracene-d12	92	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	N/A	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	03-1820 mb 1/5
Date Analyzed:	09/13/13	Data File:	091311.D
Matrix:	Soil	Instrument:	GCMS6
Units:	mg/kg (ppm)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	82	50	150
Benzo(a)anthracene-d12	91	35	159

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3A-E-2.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-01
Date Analyzed:	09/13/13	Data File:	309225-01.039
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	95	60	125
Indium	85	60	125
Holmium	88	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	4.61
Arsenic	8.30
Selenium	<1
Silver	<1
Cadmium	<1
Barium	71.8
Lead	11.9

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-1B-W-16.5'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-02
Date Analyzed:	09/13/13	Data File:	309225-02.019
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	111	60	125
Indium	92	60	125
Holmium	95	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	2.97
Arsenic	5.58
Selenium	<1
Silver	<1
Cadmium	<1
Barium	63.6
Lead	17.6

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3B-S-2.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-03
Date Analyzed:	09/13/13	Data File:	309225-03.020
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	105	60	125
Indium	92	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	3.92
Arsenic	6.52
Selenium	<1
Silver	<1
Cadmium	<1
Barium	120
Lead	161

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3B-W-2.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-04
Date Analyzed:	09/13/13	Data File:	309225-04.021
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	112	60	125
Indium	95	60	125
Holmium	95	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	4.47
Arsenic	7.00
Selenium	<1
Silver	<1
Cadmium	<1
Barium	84.5
Lead	7.98

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3B-N-2.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-05
Date Analyzed:	09/13/13	Data File:	309225-05.022
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	112	60	125
Indium	94	60	125
Holmium	95	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	4.71
Arsenic	11.4
Selenium	<1
Silver	<1
Cadmium	<1
Barium	86.7
Lead	47.4

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3B-E-2.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-06
Date Analyzed:	09/13/13	Data File:	309225-06.023
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	108	60	125
Indium	91	60	125
Holmium	94	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	4.46
Arsenic	7.74
Selenium	<1
Silver	<1
Cadmium	<1
Barium	74.5
Lead	48.3

Analysis For Total Metals By EPA Method 200.8

Client ID:	AOC-3B-B-4.0'	Client:	SLR International Corp.
Date Received:	09/12/13	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	309225-07
Date Analyzed:	09/13/13	Data File:	309225-07.024
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	113	60	125
Indium	97	60	125
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	2.86
Arsenic	8.14
Selenium	<1
Silver	<1
Cadmium	<1
Barium	37.6
Lead	9.62

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SLR International Corp.
Date Received:	N/A	Project:	Kennewick Plaza 101.00989.00005
Date Extracted:	09/13/13	Lab ID:	I3-569 mb
Date Analyzed:	09/13/13	Data File:	I3-569 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	JS

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	99	60	125
Holmium	98	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Date of Report: 09/18/13
Date Received: 09/12/13
Project: Kennewick Plaza 101.00989.00005, F&BI 309225
Date Extracted: 09/13/13
Date Analyzed: 09/17/13

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL MERCURY
USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
AOC-3A-E-2.0' 309225-01	<0.1
AOC-1B-W-16.5' 309225-02	<0.1
AOC-3B-S-2.0' 309225-03	<0.1
AOC-3B-W-2.0' 309225-04	<0.1
AOC-3B-N-2.0' 309225-05	<0.1
AOC-3B-E-2.0' 309225-06	<0.1
AOC-3B-B-4.0' 309225-07	<0.1
Method Blank	<0.1

Date of Report: 09/18/13
Date Received: 09/12/13
Project: Kennewick Plaza 101.00989.00005, F&BI 309225

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 309218-05 (Matrix Spike) Silica Gel

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	106	91	64-133	15

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	98	58-147

Date of Report: 09/18/13
Date Received: 09/12/13
Project: Kennewick Plaza 101.00989.00005, F&BI 309225

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PNA'S BY EPA METHOD 8270D SIM

Laboratory Code: 309225-07 fl 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	99	98	23-144	1
Chrysene	mg/kg (ppm)	0.17	<0.01	100	99	45-122	1
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	96	97	31-144	1
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	96	95	45-130	1
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	96	94	39-128	2
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	111	108	28-146	3
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	101	98	46-129	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.17	90	93	51-115	3
Chrysene	mg/kg (ppm)	0.17	96	96	55-129	0
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	90	93	56-123	3
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	94	96	54-131	2
Benzo(a)pyrene	mg/kg (ppm)	0.17	85	90	51-118	6
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	103	96	49-148	7
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	100	91	50-141	9

Date of Report: 09/18/13
Date Received: 09/12/13
Project: Kennewick Plaza 101.00989.00005, F&BI 309225

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 309225-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/kg (ppm)	50	4.10	91	89	57-128	2
Arsenic	mg/kg (ppm)	10	7.39	95 b	92 b	70-118	3 b
Selenium	mg/kg (ppm)	5	<1	87	91	64-117	4
Silver	mg/kg (ppm)	10	<1	102	98	73-122	4
Cadmium	mg/kg (ppm)	10	<1	100	98	83-116	2
Barium	mg/kg (ppm)	50	63.9	107 b	101 b	60-141	6 b
Lead	mg/kg (ppm)	50	10.6	98 b	93 b	59-148	5 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	108	78-121
Arsenic	mg/kg (ppm)	10	99	83-113
Selenium	mg/kg (ppm)	5	95	84-115
Silver	mg/kg (ppm)	10	104	81-116
Cadmium	mg/kg (ppm)	10	100	54-114
Barium	mg/kg (ppm)	50	102	85-116
Lead	mg/kg (ppm)	50	101	80-120

Date of Report: 09/18/13
Date Received: 09/12/13
Project: Kennewick Plaza 101.00989.00005, F&BI 309225

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 309225-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.1	88	87	62-140	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.250	92	63-131

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

309225

SAMPLE CHAIN OF CUSTODY

ME 09/12/13 E03

Page # 1 of 1

Send Report To Greg Lish

Company SLR International Corp

Address 22119 20th Ave SE, G 202

City, State, ZIP Bothell, WA 98021

Phone # 425-402-8800 Fax # 425-402-8488

SAMPLERS (signature)

PROJECT NAME/NO. Kennewick Plaza Remedial Excavation 64.00989.00005

PO# 1:1.00984.01.007

REMARKS
NWTPH-Dx after silica gel cleanup
RUSH - ASAP - Call Greg Lish

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH ASAP
Rush charges authorized by

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	RCRA 8 Metals 6020.8 200.8 DRO FOR NWTPH-Dx	CPAH 8270 SIM				Notes
AOC-3A-E-2.0'	01	9/12/13	0813	SOIL	2							X	X	X			
AOC-1B-W-16.5'	02		1040														
AOC-3B-S-2.0'	03		1210														
AOC-3B-W-2.0'	04		1215														
AOC-3B-N-2.0'	05		1225														
AOC-3B-E-2.0'	06		1235														
AOC-3B-B-4.0'	07		1245														

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Mengistu	SLR	9/12/13	1822
Received by:	Nhan Phan	FEBI	9/12/13	1825
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

Samples received at ____ °C

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 19, 2013

Greg Lish
SLR International Corp
22118 20th Avenue SE, Suite G202
Bothell, WA 98021

Re: Analytical Data for Project 101.00989.00005
Laboratory Reference No. 1309-158

Dear Greg:

Enclosed are the analytical results and associated quality control data for samples submitted on September 18, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

Case Narrative

Samples were collected on September 18, 2013 and received by the laboratory on September 18, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOC-3C-N-2.0**					
Laboratory ID:	09-158-01					
Diesel Range Organics	**ND**	29	NWTPH-Dx	9-18-13	9-18-13	X1
Lube Oil Range Organics	**ND**	57	NWTPH-Dx	9-18-13	9-18-13	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0918S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	9-18-13	9-18-13	X1
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	9-18-13	9-18-13	X1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*108*	*50-150*				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-155-02							
	ORIG	DUP						
Diesel Range Organics	**ND**	**ND**				NA	NA	
Lube Oil Range Organics	**ND**	**ND**				NA	NA	
Surrogate:								
o-Terphenyl			*87*	*80*	*50-150*			

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOC-3C-N-2.0**					
Laboratory ID:	09-158-01					
Benzo[a]anthracene	**ND**	0.0076	EPA 8270D/SIM	9-18-13	9-19-13	
Chrysene	**ND**	0.0076	EPA 8270D/SIM	9-18-13	9-19-13	
Benzo[b]fluoranthene	**ND**	0.0076	EPA 8270D/SIM	9-18-13	9-19-13	
Benzo(j,k)fluoranthene	**ND**	0.0076	EPA 8270D/SIM	9-18-13	9-19-13	
Benzo[a]pyrene	**ND**	0.0076	EPA 8270D/SIM	9-18-13	9-19-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0076	EPA 8270D/SIM	9-18-13	9-19-13	
Dibenz[a,h]anthracene	**ND**	0.0076	EPA 8270D/SIM	9-18-13	9-19-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*59*	*43 - 116*				
Pyrene-d10	*62*	*33 - 124*				
Terphenyl-d14	*57*	*38 - 125*				

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0918S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	9-18-13	9-19-13	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	9-18-13	9-19-13	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	9-18-13	9-19-13	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	9-18-13	9-19-13	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	9-18-13	9-19-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	9-18-13	9-19-13	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	9-18-13	9-19-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*92*	*43 - 116*				
Pyrene-d10	*104*	*33 - 124*				
Terphenyl-d14	*91*	*38 - 125*				

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

cPAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0918S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	**0.0992**	**0.0970**	0.0833	0.0833	119	116	58 - 120	2	13	
Chrysene	**0.0799**	**0.0789**	0.0833	0.0833	96	95	64 - 114	1	11	
Benzo[b]fluoranthene	**0.101**	**0.0996**	0.0833	0.0833	121	120	52 - 125	1	19	
Benzo(j,k)fluoranthene	**0.0761**	**0.0739**	0.0833	0.0833	91	89	50 - 126	3	22	
Benzo[a]pyrene	**0.0895**	**0.0874**	0.0833	0.0833	107	105	43 - 123	2	16	
Indeno(1,2,3-c,d)pyrene	**0.0876**	**0.0858**	0.0833	0.0833	105	103	55 - 118	2	16	
Dibenz[a,h]anthracene	**0.0884**	**0.0868**	0.0833	0.0833	106	104	57 - 120	2	15	
Surrogate:										
2-Fluorobiphenyl					*88*	*86*	*43 - 116*			
Pyrene-d10					*97*	*95*	*33 - 124*			
Terphenyl-d14					*84*	*83*	*38 - 125*			

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

TOTAL METALS
EPA 6010C/7471B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-158-01					
Client ID:	**AOC-3C-N-2.0**					
Arsenic	**ND**	11	6010C	9-19-13	9-19-13	
Barium	**120**	2.9	6010C	9-19-13	9-19-13	
Cadmium	**ND**	0.57	6010C	9-19-13	9-19-13	
Chromium	**14**	0.57	6010C	9-19-13	9-19-13	
Lead	**9.9**	5.7	6010C	9-19-13	9-19-13	
Mercury	**ND**	0.29	7471B	9-19-13	9-19-13	
Selenium	**ND**	11	6010C	9-19-13	9-19-13	
Silver	**ND**	1.1	6010C	9-19-13	9-19-13	

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

TOTAL METALS
EPA 6010C/7471B
METHOD BLANK QUALITY CONTROL

Date Extracted: 9-19-13
Date Analyzed: 9-19-13

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0919SM1&MB0919S1

Analyte	Method	Result	PQL
Arsenic	6010C	**ND**	10
Barium	6010C	**ND**	2.5
Cadmium	6010C	**ND**	0.50
Chromium	6010C	**ND**	0.50
Lead	6010C	**ND**	5.0
Mercury	7471B	**ND**	0.25
Selenium	6010C	**ND**	10
Silver	6010C	**ND**	1.0

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

TOTAL METALS
EPA 6010C/7471B
DUPLICATE QUALITY CONTROL

Date Extracted: 9-19-13
Date Analyzed: 9-19-13

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 09-158-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	10	
Barium	**104**	**110**	6	2.5	
Cadmium	**ND**	**ND**	NA	0.50	
Chromium	**12.0**	**14.1**	16	0.50	
Lead	**8.62**	**8.72**	1	5.0	
Mercury	**ND**	**ND**	NA	0.25	
Selenium	**ND**	**ND**	NA	10	
Silver	**ND**	**ND**	NA	1.0	

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

TOTAL METALS
EPA 6010C/7471B
MS/MSD QUALITY CONTROL

Date Extracted: 9-19-13
Date Analyzed: 9-19-13

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 09-158-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	**91.7**	92	**92.5**	92	1	
Barium	100	**201**	97	**202**	98	1	
Cadmium	50.0	**44.4**	89	**45.1**	90	2	
Chromium	100	**103**	91	**104**	92	1	
Lead	250	**230**	89	**234**	90	2	
Mercury	0.500	**0.451**	90	**0.447**	89	1	
Selenium	100	**84.2**	84	**87.4**	87	4	
Silver	25.0	**22.7**	91	**23.1**	92	2	

Date of Report: September 19, 2013
Samples Submitted: September 18, 2013
Laboratory Reference: 1309-158
Project: 101.00989.00005

% MOISTURE

Date Analyzed: 9-13&18-13

Client ID	Lab ID	% Moisture
AOC-3C-N-2.0	09-158-01	13

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 09-158

Company: SLR International Corp
Project Number: 101.00989.00005
Project Name: Kennewick Remedial Excavation
Project Manager: Greg Lisk
Sampled by: Amanda Mengniot

Turnaround Request (in working days)

(Check One)

- [x] Same Day
- [ ] 1 Day
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx after silica gel cleanup	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	cPAHs by 8270D/SIM	RCRA 8 Metals by 6020 (Lower detection limits)				% Moisture
1	AOC-3C-N-2.0	9/18/13	1150	SOIL	4				X												X	X				X

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		SLR	9/18/13	1641	Contact Greg Lisk ASAP w/ results
Received			9/18/13	1641	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 23, 2013

Greg Lish
SLR International Corp
22118 20th Avenue SE, Suite G202
Bothell, WA 98021

Re: Analytical Data for Project 101.00989.00005
Laboratory Reference No. 1309-183

Dear Greg:

Enclosed are the analytical results and associated quality control data for samples submitted on September 20, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 23, 2013
Samples Submitted: September 20, 2013
Laboratory Reference: 1309-183
Project: 101.00989.00005

Case Narrative

Samples were collected on September 20, 2013 and received by the laboratory on September 20, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: September 23, 2013
Samples Submitted: September 20, 2013
Laboratory Reference: 1309-183
Project: 101.00989.00005

TOTAL METALS
EPA 6010C/7471B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-183-01					
Client ID:	**AOL-3D-W-2.0**					
Arsenic	**ND**	11	6010C	9-20-13	9-20-13	
Barium	**110**	2.8	6010C	9-20-13	9-20-13	
Cadmium	**ND**	0.57	6010C	9-20-13	9-20-13	
Chromium	**13**	0.57	6010C	9-20-13	9-20-13	
Lead	**58**	5.7	6010C	9-20-13	9-20-13	
Mercury	**ND**	0.28	7471B	9-23-13	9-23-13	
Selenium	**ND**	11	6010C	9-20-13	9-20-13	
Silver	**ND**	1.1	6010C	9-20-13	9-20-13	

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TOTAL METALS
EPA 6010C/7471B
METHOD BLANK QUALITY CONTROL

Date Extracted:	9-20&23-13
Date Analyzed:	9-20&23-13
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB0920SM2&MB0923S1

Analyte	Method	Result	PQL
Arsenic	6010C	**ND**	10
Barium	6010C	**ND**	2.5
Cadmium	6010C	**ND**	0.50
Chromium	6010C	**ND**	0.50
Lead	6010C	**ND**	5.0
Mercury	7471B	**ND**	0.25
Selenium	6010C	**ND**	10
Silver	6010C	**ND**	1.0

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TOTAL METALS
EPA 6010C/7471B
DUPLICATE QUALITY CONTROL

Date Extracted: 9-20&23-13
Date Analyzed: 9-20&23-13

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 09-171-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	10	
Barium	**127**	**126**	1	2.5	
Cadmium	**ND**	**ND**	NA	0.50	
Chromium	**39.9**	**39.5**	1	0.50	
Lead	**158**	**155**	2	5.0	
Mercury	**ND**	**ND**	NA	0.25	
Selenium	**ND**	**ND**	NA	10	
Silver	**ND**	**ND**	NA	1.0	

Date of Report: September 23, 2013
Samples Submitted: September 20, 2013
Laboratory Reference: 1309-183
Project: 101.00989.00005

TOTAL METALS
EPA 6010C/7471B
MS/MSD QUALITY CONTROL

Date Extracted: 9-20&23-13
Date Analyzed: 9-20&23-13

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 09-171-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	**87.7**	88	**90.4**	90	3	
Barium	100	**230**	103	**236**	109	3	
Cadmium	50.0	**44.1**	88	**45.1**	90	2	
Chromium	100	**122**	83	**126**	86	3	
Lead	250	**371**	85	**382**	90	3	
Mercury	0.500	**0.428**	86	**0.415**	83	3	
Selenium	100	**87.6**	88	**90.0**	90	3	
Silver	25.0	**19.9**	80	**20.5**	82	3	

Date of Report: September 23, 2013
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Project: 101.00989.00005

% MOISTURE

Date Analyzed: 9-20-13

Client ID	Lab ID	% Moisture
AOL-3D-W-2.0	09-183-01	12

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: SLR International Corp.
Project Number: 101.00989.00005
Project Name: Kennewick Plaza Remedial Excavation
Project Manager: Greg Lish
Sampled by: Amanda Mengniot

Turnaround Request (in working days)
(Check One)
☒ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 09-183

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	RCRA 8 Metals						% Moisture
1	AOC-3D-W-2.0	9/20/13	1110	SOIL	2																X						X

	Signature	Company	Date	Time
Relinquished		SLR	9/20/13	1614
Received		CQSE	9/20/13	1614
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions
Call Greg Lish with results as soon as possible on Monday 9/23

Reviewed/Date _____ Reviewed/Date _____ Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

APPENDIX B

DISPOSAL DOCUMENTATION

Certification No. LW-13400
Billing Acct. No 12878
Product Code 66

BILL OF LADING

Contaminated Soil

REGIONAL DISPOSAL COMPANY
54 S. Dawson Street
Seattle, WA 98134
Telephone: (206) 332-7700 / Fax: (206) 332-7600

This Bill of Lading augments the Master Service Agreement ("Agreement") entered into by Wyser Construction Co. (Generator/Agent) and Regional Disposal Company ("RDC") on 9/17/13 (date). The terms herein are made a part of the Agreement. In the event of conflict between this Bill of Lading and the Agreement, the terms of the Agreement prevail.

RDC hereby authorizes the Wastes ("Waste") described in Certification No. LW-13400 signed by Generator/Agent on 9/17/13 (date), for disposal at Roosevelt Regional Landfill. Contractor shall present a copy of this Bill of Lading with each shipment delivered.

Location of Waste: 3001 West Kennewick Ave Kennewick Wa 99336

Method of Shipment: Customer

Additional Fees (e.g., laboratory fees, transportation fees, special handling fees, etc. If none, so state):

NA

PERFORMANCE DATE

FOR RDC TRANSPORTATION: Generator shall make the Waste available for shipment no later than _____ (date). RDC shall transport the Waste no later than _____ (date), unless RDC notifies the Generator in writing that Waste transport shall be suspended or canceled due to RDC's exercise of its right to inspect or analyze the Waste (as provided in the Agreement).

FOR GENERATOR TRANSPORTATION: Agent shall begin delivery of the Waste at [*check one*]:

■ Roosevelt Regional Landfill. ☐ Seattle Transfer Station located at Third and Lander.

Waste delivery shall begin no later than 9/17/2013 (date), and shall complete delivery of the Waste no later than 8/28/2014 (date), unless RDC notifies Generator/Agent in writing to suspend or cancel the waste delivery due to RDC's exercise of its right to inspect or analyze the Waste (As provided in the Agreement).

GENERATOR/AGENT

Signature

DAN REYNOLDS PM
Printed Name and Title

9/17/13
Date

REGIONAL DISPOSAL COMPANY

Dana Hopper
Signature

Dana Hopper SW Coordinator
Printed Name and Title

Sept 18 2013
Date

Activity By Job ID

Report period September 2013

Job ID: **LW-13400** **12,878** **Wyser Construction**

Date	Ticket #	Rail Car/Train	Address	Container	Material Code/Desc	Gross	Tare	Net	Tons	Origin/Facility	Dispatch Date
9/23/13 10:21 an	668,459				66 Cont Soil	108,380	39,880	68,500	34.25	Roosevelt Landfill	
9/23/13 10:55 an	668,478				66 Cont Soil	109,300	41,540	67,760	33.88	Roosevelt Landfill	
9/23/13 10:57 an	668,481				66 Cont Soil	107,160	41,060	66,100	33.05	Roosevelt Landfill	
9/23/13 11:06 an	668,483				66 Cont Soil	109,360	40,440	68,920	34.46	Roosevelt Landfill	
9/23/13 1:17 pm	668,549				66 Cont Soil	108,240	38,680	69,560	34.78	Roosevelt Landfill	
9/23/13 1:22 pm	668,550				66 Cont Soil	109,840	41,760	68,080	34.04	Roosevelt Landfill	
9/23/13 1:52 pm	668,552				66 Cont Soil	104,760	39,640	65,120	32.56	Roosevelt Landfill	
9/23/13 2:47 pm	668,577				66 Cont Soil	105,520	40,240	65,280	32.64	Roosevelt Landfill	
9/23/13 2:40 pm	668,579				66 Cont Soil	106,580	40,840	65,740	32.87	Roosevelt Landfill	
9/23/13 3:10 pm	668,580				66 Cont Soil	106,060	41,260	64,800	32.40	Roosevelt Landfill	
9/24/13 8:00 am	668,691				66 Cont Soil	103,460	38,260	65,200	32.60	Roosevelt Landfill	
9/24/13 8:14 am	668,692				66 Cont Soil	108,880	41,620	67,260	33.63	Roosevelt Landfill	
9/24/13 8:16 am	668,694				66 Cont Soil	107,420	41,140	66,280	33.14	Roosevelt Landfill	
9/24/13 8:02 am	668,698				66 Cont Soil	106,720	41,500	65,220	32.61	Roosevelt Landfill	
9/24/13 12:03 pn	668,814				66 Cont Soil	103,620	41,380	62,240	31.12	Roosevelt Landfill	
9/24/13 12:04 pn	668,815				66 Cont Soil	105,800	40,940	64,860	32.43	Roosevelt Landfill	
9/24/13 1:03 pm	668,868				66 Cont Soil	110,080	38,020	72,060	36.03	Roosevelt Landfill	
9/24/13 1:53 pm	668,869				66 Cont Soil	105,680	40,220	65,460	32.73	Roosevelt Landfill	
9/24/13 3:51 pm	668,944				66 Cont Soil	67,600	40,900	26,700	13.35	Roosevelt Landfill	
Total For Job	**LW-13400**					**19** Loads			**612.57** TN		