Date of Report: 01/29/15
Date Received: 01/27/15
Project: North Edge KV030772B, F&BI 501359

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

Laboratory Code: 501358-02 (Matrix Spike)

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	97	97	63-146	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	94	79-144

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

Laboratory Code: 501359-01 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.17	<0.01	89	90	44-129	1
Acenaphthylene	mg/kg (ppm)	0.17	<0.01	91	93	52-121	2
Acenaphthene	mg/kg (ppm)	0.17	<0.01	93	94	51-123	1
Fluorene	mg/kg (ppm)	0.17	<0.01	93	95	37-137	2
Phenanthrene	mg/kg (ppm)	0.17	<0.01	91	92	45-124	1
Anthracene	mg/kg (ppm)	0.17	<0.01	90	91	32-124	1
Fluoranthene	mg/kg (ppm)	0.17	<0.01	96	99	50-125	3
Pyrene	mg/kg (ppm)	0.17	<0.01	99	99	41-135	0
Benz(a)anthracene	mg/kg (ppm)	0.17	<0.01	103	105	23-144	2
Chrysene	mg/kg (ppm)	0.17	<0.01	97	101	45-122	4
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	<0.01	109	110	31-144	1
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	<0.01	107	109	45-130	2
Benzo(a)pyrene	mg/kg (ppm)	0.17	<0.01	101	105	39-128	4
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	<0.01	110	115	28-146	4
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	<0.01	104	109	46-129	5
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	<0.01	97	99	37-133	2

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.17	89	58-121
Acenaphthylene	mg/kg (ppm)	0.17	91	54-121
Acenaphthene	mg/kg (ppm)	0.17	93	54-123
Fluorene	mg/kg (ppm)	0.17	92	56-127
Phenanthrene	mg/kg (ppm)	0.17	91	55-122
Anthracene	mg/kg (ppm)	0.17	91	50-120
Fluoranthene	mg/kg (ppm)	0.17	100	54-129
Pyrene	mg/kg (ppm)	0.17	97	53-127
Benz(a)anthracene	mg/kg (ppm)	0.17	101	51-115
Chrysene	mg/kg (ppm)	0.17	101	55-129
Benzo(b)fluoranthene	mg/kg (ppm)	0.17	108	56-123
Benzo(k)fluoranthene	mg/kg (ppm)	0.17	107	54-131
Benzo(a)pyrene	mg/kg (ppm)	0.17	102	51-118
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.17	113	49-148
Dibenz(a,h)anthracene	mg/kg (ppm)	0.17	106	50-141
Benzo(g,h,i)perylene	mg/kg (ppm)	0.17	98	52-131

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.

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 the analyte were outside of acceptance criteria. The value reported is an estimate.

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

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

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

j - The analyte concentration is reported below the lowest calibration standard. 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 laboratory control sample(s) percent recovery and/or RPD were 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 analyte 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 with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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.

501359

SAMPLE CHAIN OF CUSTODY

ME 01/27/15 VS1/1 C01

Send Report To Frank Mocker

Company AESI

Address 911 Fifth Ave, Ste 100

City, State, ZIP Kirkland, WA 98033

Phone # 4257665112 Fax #

SAMPLERS (signature)

PROJECT NAME/NO. North Edge/ KVU30 | PO# 7728

REMARKS Call with Draft Results
Email Draft results

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

Rush charges authorized by F. S. Mocker

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	PAH						Notes
COM 17	01 AE	1/27/15	0850	Soil	1 4oz jar	X	X	X				X						
																		Samples received at 2 °C

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:	Frank Mocker	AESI	1/27/15	0915
Received by:	James Bruya	F&B	1/27/15	0915
Relinquished by:				
Received by:				

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