



March 26, 2018

Eagle Environmental Consulting, Inc.

Dan Coloccia

4101 Inca Street

Denver

CO 80211

Project Name - SRC - Ikenouye West Pit

Project Number - [none]

Attached are your analytical results for SRC - Ikenouye West Pit received by Origins Laboratory, Inc. March 23, 2018. This project is associated with Origins project number Y803413-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Dan Coloccia

Project Number: [none]

Project: SRC - Ikenouye West Pit

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N-02 @ 6'	Y803413-01	Soil	March 23, 2018 13:28	03/23/2018 14:57
S-01 @ 6'	Y803413-02	Soil	March 23, 2018 11:03	03/23/2018 14:57
E-01 @ 6'	Y803413-03	Soil	March 23, 2018 11:02	03/23/2018 14:57
W-01 @ 6'	Y803413-04	Soil	March 23, 2018 11:01	03/23/2018 14:57

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Dan Coloccia
Project Number: [none]
Project: SRC - Ikenouye West Pit

www.originslaboratory.com

Y403413

ORIGINS
LABORATORY, INC

Client: EAGLE

Address: 4101 INCA ST.

Telephone Number: 303-433-0479

Email Address: DANCOLLOCIA@EAGLE-ENVIRONMENTAL.COM

Project Manager: DANIEL COLOCCIA

Project Name: SRC - IKENOUYE WEST PIT

Project Number: -

Samples Collected By: SV

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis			Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other	BTEX	GR0	
N-0206'	3/23/18	1328	2	✓				✓				✓	✓	1
S-0106'		1103	1											2
E-0106'		1102	1											3
W-0106'		1101	1											4
														5
														6
														7
														8
														9
														10

Relinquished By: [Signature]

Date: 3/23/18

Time: 1457

Received By: [Signature]

Date: 3-23-18

Relinquished By: [Signature]

Date: 3/23/18

Time: 1457

Received By: [Signature]

Date: 3-23-18

Turnaround Time: ☐ 24 Hr ☐ 48 Hr ☒ 72 Hr

Standard ☐ MOUSE #1

Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Dan Coloccia

Project Number: [none]

Project: SRC - Ikenouye West Pit

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: Y803413

Client: Eagle

Client Project ID: SRC - Ikenouye West Pit

Checklist Completed by: JG

Shipped Via: HD

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 3/23/18

Airbill #: N/A

Matrix(s) Received: (Check all that apply): X Soil/Solid Water Other:

Cooler Number/Temperature: 1 134 °C °C °C (Describe)

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water — is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) (pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager)

3/23/18
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Dan Coloccia
Project Number: [none]
Project: SRC - Ikenouye West Pit

N-02 @ 6'
3/23/2018 1:28:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803413-01 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	ND	50.0	mg/kg	1	B8C2305	03/23/2018	03/23/2018	U
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Surrogate: o-Terphenyl	90.0 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B8C2304	"	03/23/2018	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	114 %	70-130			"	"	"	
Surrogate: Toluene-d8	92.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Dan Coloccia
Project Number: [none]
Project: SRC - Ikenouye West Pit

S-01 @ 6'

3/23/2018 11:03:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803413-02 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	ND	50.0	mg/kg	1	B8C2305	03/23/2018	03/23/2018	U
Surrogate: o-Terphenyl	85.0 %	59-131			"	"	"	

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	0.278	0.200	mg/kg	1	B8C2304	"	03/23/2018	
Benzene	0.004	0.002	"	"	"	"	"	
Toluene	0.006	0.002	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	0.029	0.002	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	114 %	70-130			"	"	"	
Surrogate: Toluene-d8	96.3 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Dan Coloccia
Project Number: [none]
Project: SRC - Ikenouye West Pit

E-01 @ 6'

3/23/2018 11:02:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y803413-03 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	ND	50.0	mg/kg	1	B8C2305	03/23/2018	03/23/2018	U
Surrogate: o-Terphenyl	84.3 %	59-131			"	"	"	

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B8C2304	"	03/23/2018	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	0.002	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	114 %	70-130			"	"	"	
Surrogate: Toluene-d8	96.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Dan Coloccia

Project Number: [none]

Project: SRC - Ikenouye West Pit

W-01 @ 6'

3/23/2018 11:01:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y803413-04 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	277	50.0	mg/kg	1	B8C2305	03/23/2018	03/23/2018
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Surrogate: o-Terphenyl	95.6 %	59-131			"	"	"
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	422	5.00	mg/kg	25	B8C2304	"	03/23/2018
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Benzene	1.66	0.050	"	"	"	"	"
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Toluene	26.9	0.498	"	250	"	"	03/24/2018
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Ethylbenzene	1.93	0.050	"	25	"	"	03/23/2018
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Xylenes, total	53.4	0.498	"	250	"	"	03/24/2018
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Surrogate: 1,2-Dichloroethane-d4	108 %	70-130			"	"	03/23/2018
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Surrogate: Toluene-d8	75.7 %	70-130			"	"	"
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Surrogate: 4-Bromofluorobenzene	130 %	70-130			"	"	"
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4101 Inca Street

Denver CO 80211

Dan Coloccia

Project Number: [none]

Project: SRC - Ikenouye West Pit

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8C2304 - EPA 5030 (soil)										
Blank (B8C2304-BLK1)					Prepared: 03/23/2018 Analyzed: 03/23/2018					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	76		ug/kg	62.5		122	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.2	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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4101 Inca Street

Denver CO 80211

Dan Coloccia

Project Number: [none]

Project: SRC - Ikenouye West Pit

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C2304 - EPA 5030 (soil)

LCS (B8C2304-BS1)

Prepared: 03/23/2018 Analyzed: 03/23/2018

Benzene	0.101	0.002	mg/kg	0.100		101	77.1-124			
Toluene	0.092	0.002	"	0.100		91.6	74.5-128			
Ethylbenzene	0.092	0.002	"	0.100		92.1	66.4-127			
m,p-Xylene	0.181	0.004	"	0.200		90.7	76.6-124			
o-Xylene	0.088	0.002	"	0.100		87.9	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		111	70-130			
Surrogate: Toluene-d8	59		"	62.5		95.2	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.8	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Dan Coloccia

Project Number: [none]

Project: SRC - Ikenouye West Pit

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C2304 - EPA 5030 (soil)

Matrix Spike (B8C2304-MS1)		Source: Y803412-01			Prepared: 03/23/2018 Analyzed: 03/23/2018					
Benzene	0.117	0.002	mg/kg	0.100	ND	117	71.8-126			
Toluene	0.108	0.002	"	0.100	ND	108	65.1-130			
Ethylbenzene	0.128	0.002	"	0.100	0.0007	127	62.2-130			
m,p-Xylene	0.247	0.004	"	0.200	0.001	123	46.5-137			
o-Xylene	0.120	0.002	"	0.100	0.001	119	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	73		ug/kg	62.5		117	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	77		"	62.5		123	70-130			

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Jen Pellegrini For Noelle Doyle Mathis, President

Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Dan Coloccia

Project Number: [none]

Project: SRC - Ikenouye West Pit

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C2304 - EPA 5030 (soil)

Matrix Spike Dup (B8C2304-MSD1)		Source: Y803412-01			Prepared: 03/23/2018 Analyzed: 03/23/2018					
Benzene	0.108	0.002	mg/kg	0.100	ND	108	71.8-126	8.35	11.3	
Toluene	0.095	0.002	"	0.100	ND	95.0	65.1-130	12.7	15.4	
Ethylbenzene	0.107	0.002	"	0.100	0.0007	106	62.2-130	17.9	19.6	
m,p-Xylene	0.204	0.004	"	0.200	0.001	101	46.5-137	19.3	19.2	QR-02
o-Xylene	0.098	0.002	"	0.100	0.001	97.0	54.2-134	20.1	17.9	QR-02
Surrogate: 1,2-Dichloroethane-d4	72		ug/kg	62.5		116	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.6	70-130			
Surrogate: 4-Bromofluorobenzene	73		"	62.5		116	70-130			

Origins Laboratory, Inc.



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4101 Inca Street
Denver CO 80211

Dan Coloccia
Project Number: [none]
Project: SRC - Ikenouye West Pit

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Extractable Petroleum Hydrocarbons by 8015C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C2305 - EPA 3550B

Blank (B8C2305-BLK1)

Prepared: 03/23/2018 Analyzed: 03/23/2018

Diesel (C10-C28)	ND	50.0	mg/kg							U
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Surrogate: o-Terphenyl

43

"

50.0

86.1

59-131

LCS (B8C2305-BS1)

Prepared: 03/23/2018 Analyzed: 03/23/2018

Diesel (C10-C28)	1020	50.0	mg/kg	1000		102	64-121			
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Surrogate: o-Terphenyl

49

"

50.0

97.4

59-131

Matrix Spike (B8C2305-MS1)

Source: Y803412-01

Prepared: 03/23/2018 Analyzed: 03/23/2018

Diesel (C10-C28)	1320	50.0	mg/kg	1000	372	94.8	53-125			
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Surrogate: o-Terphenyl

54

"

50.0

107

59-131

Matrix Spike Dup (B8C2305-MSD1)

Source: Y803412-01

Prepared: 03/23/2018 Analyzed: 03/23/2018

Diesel (C10-C28)	1470	50.0	mg/kg	1000	372	110	53-125	10.8	20	
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Surrogate: o-Terphenyl

54

"

50.0

108

59-131

Origins Laboratory, Inc.



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4101 Inca Street

Denver CO 80211

Dan Coloccia

Project Number: [none]

Project: SRC - Ikenouye West Pit

Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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