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Invoice Date: 05/15/17

To: Diamond Operating Inc.
6666 Gunpark Drive
Suite 200
Boulder, CO 80301

P.O. Number:

Account Code: DIAMOCOB Terms: NET 30
Project Code: DIAMOCOB16766

Attn: Dave Peterson

Project description: Loudder

QTY	MX	Code	Test	Test Description	T/A	Price	Amount
Job#:		D93093		Proj #:			
Date Rec:		04/19/17		Proj Mgr: Dave Peterson			
1	SO		%SOL	Percent Solids	14	0.00	0.00
1	SO		B8015DRO	DRO	14	90.00	90.00
1	SO		PH	pH	14	20.00	20.00
1	SO		SCON	Specific Conductance	14	25.00	25.00
1	SO		V8015GRO	GRO	14	68.00	68.00
1	SO		V8260BTX	BTEX	14	82.00	82.00
1	SO		XSAR	Sodium Absorpt.Ratio-Digestion/Analysis	14	120.00	120.00
1	SO		ENVIRO	Environmental / Recycling surcharge	14	9.50	9.50

Job Total: 414.50

Net 414.50

Total for Invoice 6086433 414.50

Total Due For Invoice 414.50

Base
Skim #3
pit

Remit to: SGS ACCUTEST INC.
PO BOX 2506 CAROL STREAM, IL 60132-2506
FED ID# 47-5645341

Phone: (732) 329-0200

Wire payments to:
Account Name: SGS Accutest Inc.
Account Number: 38805189
Routing Number: 031-100-209



ACCUTEST
Mountain States

05/02/17

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VERIFICATION, TESTING AND CERTIFICATION COMPANY.



e-Hardcopy 2.0
Automated Report

Technical Report for

Diamond Operating Inc.

Loudder

SGS Accutest Job Number: D93093

Sampling Date: 04/14/17

*Base # 3
pit only*

Report to:

Diamond Operating Inc.
6666 Gunpark Drive Suite 200
Boulder, CO 80301
davep@flatironenergy.com

ATTN: Dave Peterson

Total number of pages in report: 41



Test results contained within this data package meet the requirements
of the National Environmental Laboratory Accreditation Program
and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Jen Jorschumb 303-425-6021

Certifications: CO (CO00049), ID (CO00049), NE (NE-OS-06-04), ND (R-027), NJ (CO007), OK (D9942)
UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY (8TMS-L)

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Test results relate only to samples analyzed.

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Sample Summary

Diamond Operating Inc.

Job No: D93093

Loudder

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
D93093-1	04/14/17	10:00 SG	04/19/17	SO Soil	BASE PIT #3
D93093-1A	04/14/17	10:00 SG	04/19/17	SO Soil	BASE PIT #3

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Page 1 of 1

Job Number: D93093
Account: Diamond Operating Inc.
Project: Loudder
Collected: 04/14/17

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D93093-1	BASE PIT #3					
TPH-DRO (C10-C28)		36.6	10	9.4	mg/kg	SW846-8015B
Specific Conductivity		221	1.0		umhos/cm	SM 2510B-2011 MOD
pH		8.51			su	SW846 9045D
D93093-1A	BASE PIT #3					
Calcium		16.2	2.0		mg/l	SW846 6010C
Magnesium		3.95	1.0		mg/l	SW846 6010C
Sodium		32.2	2.0		mg/l	SW846 6010C
Sodium Adsorption Ratio ^a		1.86			ratio	USDA HANDBOOK 60

(a) Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BASE PIT #3	Date Sampled:	04/14/17
Lab Sample ID:	D93093-1	Date Received:	04/19/17
Matrix:	SO - Soil	Percent Solids:	94.6
Method:	SW846 8260B		
Project:	Loudder		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V41613.D	1	04/19/17	MB	n/a	n/a	V5V2334
Run #2							

	Initial Weight	Final Volume
Run #1	5.00 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.53	ug/kg	
108-88-3	Toluene	ND	2.1	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	0.53	ug/kg	
1330-20-7	Xylene (total)	ND	2.3	1.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	98%		65-142%
17060-07-0	1,2-Dichloroethane-D4	105%		70-130%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BASE PIT #3		
Lab Sample ID:	D93093-1	Date Sampled:	04/14/17
Matrix:	SO - Soil	Date Received:	04/19/17
Method:	SW846 8015B	Percent Solids:	94.6
Project:	Loudder		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA37829.D	1	04/25/17	MR	n/a	n/a	GGA1846
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	5.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	109%		60-140%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BASE PIT #3	Date Sampled:	04/14/17
Lab Sample ID:	D93093-1	Date Received:	04/19/17
Matrix:	SO - Soil	Percent Solids:	94.6
Method:	SW846-8015B SW846 3546		
Project:	Loudder		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI53334.D	1	04/26/17	GN	04/22/17	OP14904	GFI2240
Run #2							

	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	36.6	10	9.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	85%		41-134%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BASE PIT #3

Lab Sample ID: D93093-1

Matrix: SO - Soil

Project: Loudder

Date Sampled: 04/14/17

Date Received: 04/19/17

Percent Solids: 94.6

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
%solids							
Solids, Percent	94.6		%	1	04/20/17	SWT	SM2540G-2011 M
prep: DEPT.OF AG, BOOK N9							
Specific Conductivity	221	1.0	umhos/cm	1	04/24/17	TJ	SM 2510B-2011 MOD
pH	8.51		su	1	04/21/17 09:00	SK	SW846 9045D

RL = Reporting Limit

Report of Analysis

Client Sample ID: BASE PIT #3

Lab Sample ID: D93093-1A

Matrix: SO - Soil

Project: Loudder

Date Sampled: 04/14/17

Date Received: 04/19/17

Percent Solids: 94.6

SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	16.2	2.0	mg/l	1	04/24/17	04/26/17 SB	SW846 6010C ¹	SW846 3010A/M ²
Magnesium	3.95	1.0	mg/l	1	04/24/17	04/26/17 SB	SW846 6010C ¹	SW846 3010A/M ²
Sodium	32.2	2.0	mg/l	1	04/24/17	04/26/17 SB	SW846 6010C ¹	SW846 3010A/M ²

(1) Instrument QC Batch: MA8438

(2) Prep QC Batch: MP21517

Report of Analysis

Page 1 of 1

Client Sample ID: BASE PIT #3

Lab Sample ID: D93093-1A

Matrix: SO - Soil

Project: Loudder

Date Sampled: 04/14/17

Date Received: 04/19/17

Percent Solids: 94.6

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio ^a	1.86		ratio	1	04/26/17 15:32	SB	USDA HANDBOOK 60

(a) Calculated as: $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

1086 Youngfield Street, Wheat Ridge, CO 80033
TEL: 303-425-6021 FAX: 303-425-6854
www.accutest.com

FED-EX Tracking #

(Bodily Org./for Control) #

SGS Accountant Quote #

SGS Accounting Job #1-

D93093

[illegible]

D93093: Chain of Custody

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