

LABORATORY ANALYTICAL REPORT

Customer Name: Ida-Ore Zeolite, LLC

Order ID: 17061608

Project ID: Zeolite Mix

Report Date: 6/30/2017

Lab ID: 17061608-01

Date Time

Customer Sample ID: Horizontal Brine-Zeo Mix

Collection 6/13/2017

Matrix: Soil

Received: 6/16/2017 2:05 PM

Notes:

Analyses	Result	Units	RL	Qual.	Method	Analysis Date/Time	Analyst
Organic Compounds							
Benzene	290	ug/Kg	200		EPA 8021 B	6/22/2017 1:59	TMC
Surr: 4-Bromofluorobenzene (PID)	99.4	%	70-130		EPA 8021 B		
Toluene	530	ug/Kg	200		EPA 8021 B	6/22/2017 1:59	TMC
Surr: 4-Bromofluorobenzene (PID)	99.4	%	70-130		EPA 8021 B		
Ethyl Benzene	540	ug/Kg	200		EPA 8021 B	6/22/2017 1:59	TMC
Surr: 4-Bromofluorobenzene (PID)	99.4	%	70-130		EPA 8021 B		
m,p-Xylene	18000	ug/Kg	400		EPA 8021 B	6/22/2017 1:59	TMC
Surr: 4-Bromofluorobenzene (PID)	99.4	%	70-130		EPA 8021 B		
o Xylene	7400	ug/Kg	200		EPA 8021 B	6/22/2017 1:59	TMC
Surr: 4-Bromofluorobenzene (PID)	99.4	%	70-130		EPA 8021 B		
Gasoline Range Organics (GRO)	555900	ug/Kg	22000		EPA 8015 D	6/22/2017 1:59	TMC
Surr: 4-Bromofluorobenzene (FID)	99.2	%	70-130		EPA 8015 D		
Diesel Range Organics (DRO)	2494	mg/kg	500		EPA 8015 D	6/22/2017 0:40	TMC
Surr: o-Terphenyl	93.8	%	70-130		EPA 8015 D		
Total Petroleum Hydrocarbons	3050	mg/kg	5.5		EPA 8015 D	6/28/2017 16:14	JS

Definitions:

ND-Not Detected at the reporting limit

S-Spike Recovery outside accepted recovery limits

D-Diluted out of recovery limits

RL-Analyte Reporting Limit

J-Analyte detected below quantitation limits

L-Analyzed by a contract laboratory

H-Holding times for preparation or analysis exceeded

M-Matrix Effect

Documentation will be kept for five (5) years.

Laboratory Analytical Report

Customer Name: Ida-Ore Zeolite, LLC Order ID: 17061608
 Project ID: Zeolite Mix Report Date: 6/30/2017

Lab Sample ID: 17061608-01 Date: Time:
 Customer Sample ID: Horizontal Brine-Zeo Mix Collection: 6/13/2017
 Matrix: Soil Received: 6/16/2017 2:05 PM

Notes:

Analyses	Result	Units	RL	Qual.	Method	Analysis Date/Time	Analyst
Arsenic	ND	mg/kg	0.05		EPA 6010 C	6/26/2017 5:04:15 PM	MMC
Barium	1080	mg/kg	5		EPA 6010 C	6/26/2017 5:04:15 PM	MMC
Cadmium	ND	mg/kg	0.05		EPA 6010 C	6/26/2017 5:04:15 PM	MMC
Chloride	681.4	mg/kg	1		EPA 300.0	6/19/2017 8:32:00 PM	TMC
Chromium	ND	mg/kg	0.05		EPA 6010 C	6/26/2017 5:04:15 PM	MMC
Conductivity measured	2400	uS/cm	1		WREP-125: S-1.20	6/20/2017 1:30:00 PM	JS
Lead	ND	mg/kg	0.05		EPA 6010 C	6/26/2017 5:04:15 PM	MMC
Mercury	0.042	mg/kg	0.029	L	EPA 7471	6/25/2017 4:24:00 PM	CL
Selenium	ND	mg/kg	0.05		EPA 6010 C	6/26/2017 5:04:15 PM	MMC
Silver	ND	mg/kg	0.05		EPA 6010 C	6/26/2017 5:04:15 PM	MMC

Definitions:

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 S-Spike Recovery outside accepted recovery limits
 J-Analyte detected below quantitation limits
 M-Matrix Effect
 D-Diluted out of recovery limits
 L-Analyzed by a contract laboratory

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LABORATORY ANALYTICAL REPORT

Customer Name: Ida-Ore Zeolite, LLC	Order ID: 17061608	
Project ID: Zeolite Mix	Report Date: 6/30/2017	
Lab ID: 17061608-02	Date	Time
Customer Sample ID: Horizontal Brine-Zeo Mix	Collection: 6/13/2017	
Matrix: Leachate	Received: 6/16/2017	2:05 PM

Notes:

Analyses	Result	Units	RL	Qual.	Method	Analysis Date/Time	Analyst
Organic Compounds							
Oil & Grease (HEM) by WY Leachate	12.8	mg/L	1		EPA 1664 A	6/26/2017 12:30	TMC

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LABORATORY ANALYTICAL REPORT

Customer Name: Ida-Ore Zeolite, LLC

Order ID: 17061608

Project ID: Zeolite Mix

Report Date: 6/30/2017

Lab ID: 17061608-03

Date Time

Customer Sample ID: Horizontal Brine

Collection 6/13/2017

Matrix: Aqueous

Received: 6/16/2017 2:05 PM

Notes:

Analyses	Result	Units	RL	Qual.	Method	Analysis Date/Time	Analyst
Organic Compounds							
Benzene	664.0	ug/L	100		EPA 8021 B	6/22/2017 2:28	TMC
Surr: 4-Bromofluorobenzene	91.5	%	70-130		EPA 8021 B		
Toluene	1260	ug/L	100		EPA 8021 B	6/22/2017 2:28	TMC
Surr: 4-Bromofluorobenzene	91.5	%	70-130		EPA 8021 B		
Ethyl Benzene	1043	ug/L	100		EPA 8021 B	6/22/2017 2:28	TMC
Surr: 4-Bromofluorobenzene	91.5	%	70-130		EPA 8021 B		
m,p-Xylene	6278	ug/L	200		EPA 8021 B	6/22/2017 2:28	TMC
Surr: 4-Bromofluorobenzene	91.5	%	70-130		EPA 8021 B		
o Xylene	1728	ug/L	100		EPA 8021 B	6/22/2017 2:28	TMC
Surr: 4-Bromofluorobenzene	91.5	%	70-130		EPA 8021 B		
Gasoline Range Organics (GRO)	86130	ug/L	11000		EPA 8015 D	6/22/2017 2:28	TMC
Surr: 4-Bromofluorobenzene (FID)	99.7	%	70-130		EPA 8015 D		
Diesel Range Organics (DRO)	26640	mg/L	4100		EPA 8015 D	6/22/2017 3:38	TMC
Surr: o-Terphenyl	0.0	%	70-130		EPA 8015 D		
Oil & Grease (HEM)	13700	mg/L	1		EPA 1664 A	6/26/2017 12:30	TMC
TPH as DRO + GRO	26730	mg/L	0.1		Calculation	6/28/2017 16:14	JS

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Laboratory Analytical Report

Customer Name: Ida-Ore Zeolite, LLC Order ID: 17061608
 Project ID: Zeolite Mix Report Date: 6/30/2017

Lab Sample ID: 17061608-03 Date: Time:
 Customer Sample ID: Horizontal Brine Collection: 6/13/2017
 Matrix: Aqueous Received: 6/16/2017 2:05 PM

Notes:

Analyses	Result	Units	RL	Qual.	Method	Analysis Date/Time	Analyst
Arsenic	ND	mg/L	0.05		EPA 200.7	6/28/2017 12:07:40 PM	MMC
Barium	8.99	mg/L	0.05		EPA 200.7	6/28/2017 12:07:40 PM	MMC
Cadmium	ND	mg/L	0.05		EPA 200.7	6/28/2017 12:07:40 PM	MMC
Chloride	2235	mg/L	100		EPA 300.0	6/19/2017 7:57:00 PM	TMC
Chromium	ND	mg/L	0.05		EPA 200.7	6/28/2017 12:07:40 PM	MMC
Conductivity	13900	µS/cm	5		SM 2510 B	6/20/2017 1:30:00 PM	JS
Lead	ND	mg/L	0.05		EPA 200.7	6/28/2017 12:07:40 PM	MMC
Mercury	ND	ug/L	0.20	L	EPA 245.1	6/26/2017 7:20:00 PM	CL
Selenium	ND	mg/L	0.05		EPA 200.7	6/28/2017 12:07:40 PM	MMC
Silver	0.57	mg/L	0.05		EPA 200.7	6/28/2017 12:07:40 PM	MMC
TPH as DRO + GRO	26730	mg/L	0.1		Calculation	6/28/2017 4:14:12 PM	JS

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