

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 6, 2011

Company : Pennsylvania Brine Treatment
Address : 5148 US 322
Franklin, Pennsylvania 16323
Contact: Mr. Sparky DeLong
Project: PA Brine Treatment - Franklin Facility
Client Sample ID: Outfall 001
Sample ID: 289984001
Matrix: Water
Collect Date: 07-NOV-11 14:00
Receive Date: 10-NOV-11
Collector: Client

Project: PABR00211
Client ID: PABR001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
SW846 3005A/6020A Liquid "As Received"											
Uranium	U	ND	0.670	2.00	ug/L	10	SKJ	11/30/11	2234	1163651	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	BCD1	11/29/11	1114	1163648

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 3005A/6020A		

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 6, 2011

Company : Pennsylvania Brine Treatment
 Address : 5148 US 322

 Franklin, Pennsylvania 16323
 Contact: Mr. Sparky DeLong
 Project: PA Brine Treatment - Franklin Facility

Client Sample ID: Outfall 001
 Sample ID: 289984001
 Matrix: Water
 Collect Date: 07-NOV-11 14:00
 Receive Date: 10-NOV-11
 Collector: Client

Project: PABR00211
 Client ID: PABR001

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid (Standard List) "As Received"												
Radium-228	U	3.60	+/-14.6	28.4		pCi/L		KXG3	11/30/11	0857	1160380	1
Rad Gas Flow Proportional Counting												
GFPC, Gross Alpha Liquid "As Received"												
Alpha	U	156	+/-147	237	5.00	pCi/L		DXF3	12/05/11	1857	1163113	2
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.77	+/-0.640	0.699	1.00	pCi/L		KSD1	12/05/11	1320	1164633	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 901.1	
2	EPA 900.0/SW846 9310	
3	EPA 903.1 Modified	

Microbac Laboratories, Inc.

Erie Division

1962 Wager Road • Erie, PA 16509 • Phone: 814-825-8533 • Fax: 814-825-9254

Cheri Estes, Managing Director • E-mail: erie@microbac.com • http://www.microbac.com

CERTIFICATE OF ANALYSIS

Work Order Number:

11K1096

Pennsylvania Brine Treatment
Attn:
5148 Us 322
Franklin, PA 16323

Date Reported 11/18/2011
Date Received 11/08/2011
Account Number 00000016369



Purchase Order:

Subject: Weekly Wastewater Sample

ANALYSIS

SMP	TEST	METHOD	RESULT	UNITS	DATE	TIME	TECH	NOTES
01 Composite Sample								
Sample Date: 11/07/2011			Sample Time: 14:00					
Acidity		SM 2310 B	< 7	mg/L	11/11/11	9:00	CMF	
Alkalinity As CaCO3		SM 2320B	89.0	mg CaCO3/L	11/10/11	9:15	CMF	
Chloride		ASTM D512-89A	35800	mg/L	11/09/11	14:15	CMF	
Solids, Dissolved		SM 2540C	76700	mg/L	11/09/11	13:20	CMF	
Solids, Suspended		SM 2540 D	< 10	mg/L	11/08/11	16:15	MAD	
Sulfate		SM 4500-SO4 D	725	mg/L	11/14/11	8:45	CMF	
02 Grab Sample								
Sample Date: 11/07/2011			Sample Time: 9:00					
Oil & Grease		EPA 1664A	6.00	mg/L	11/09/11	7:00	CAP	
03 Composite Sample								
Sample Date: 11/07/2011			Sample Time: 14:00					
Barium		EPA 200.7	4.16	mg/L	11/09/11	20:38	MWR	
Copper		EPA 200.7	<0.100	mg/L	11/09/11	20:36	MWR	
Iron, Total		EPA 200.7	< 0.500	mg/L	11/09/11	16:18	MWR	
Silver		EPA 200.7	<0.100	mg/L	11/09/11	20:36	MWR	
Strontium		EPA 200.7	177	mg/L	11/16/11	15:14	MWR	
04 Composite Sample								
Sample Date: 11/07/2011			Sample Time: 14:00					
Bromide		EPA 300.0	376	mg/L	11/09/11	20:56	OST	

Order Notes

The Bromide analyses were sub-contracted to Microbac Laboratories, Inc./New York Division. PA DEP ID#68-01385.
(W.O. 1111201)

All samples received in proper condition and results conform to ISO 17025 unless otherwise noted

The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition

that it is not to be reproduced wholly or in part for advertising or other purposes without approval from the laboratory.

USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research

NELAP accredited by PA, NY. Visit our website to view our current NELAP accreditations for various drinking water, wastewater and solid & chemical materials, air & emissions analytes

AHA accredited for Environmental Lead. Visit our website to view our current AHA LAP, LLC accreditation.

MEMBER



GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 28, 2011

Company : Pennsylvania Brine Treatment
Address : 5148 US 322

Contact: Franklin, Pennsylvania 16323
Mr. Sparky DeLong
Project: PA Brine Treatment - Franklin Facility

Client Sample ID: Outfall 001 Project: PABR00211
Sample ID: 291176001 Client ID: PABR001
Matrix: Water
Collect Date: 28-NOV-11 15:00
Receive Date: 01-DEC-11
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
SW846 3005A/6020A Liquid "As Received"											
Uranium	U	ND	0.670	2.00	ug/L	10	SKJ	12/21/11	1217	1167960	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	AXG2	12/19/11	0730	1167959

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 28, 2011

Company : Pennsylvania Brine Treatment
 Address : 5148 US 322
 Franklin, Pennsylvania 16323
 Contact: Mr. Sparky DeLong
 Project: PA Brine Treatment - Franklin Facility

Client Sample ID: Outfall 001	Project: PABR00211
Sample ID: 291176001	Client ID: PABR001
Matrix: Water	
Collect Date: 28-NOV-11 15:00	
Receive Date: 01-DEC-11	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammascpec, Gamma, Liquid (Standard List) "As Received"												
Radium-228	U	-12.8	+/-23.0	43.0		pCi/L		KXG3	12/27/11	1403	1168749	1
Rad Gas Flow Proportional Counting												
GFPC, Gross Alpha Liquid "As Received"												
Alpha	U	-11.1	+/-98.5	187	5.00	pCi/L		CAS2	12/14/11	1817	1166974	2
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		3.46	+/-0.556	0.273	1.00	pCi/L		KSD1	12/14/11	1310	1167461	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 901.1	
2	EPA 900.0/SW846 9310	
3	EPA 903.1 Modified	

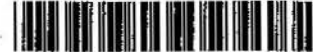
CERTIFICATE OF ANALYSIS

Work Order Number:

11K2216

Pennsylvania Brine Treatment
 Attn: Elton Delong, Jr. (Sparky)
 5148 Us 322
 Franklin, PA 16323

Date Reported 12/13/2011
 Date Received 11/29/2011
 Account Number 000000016369



Purchase Order:

Subject: Weekly Wastewater Sample

ANALYSIS

SMP	TEST	METHOD	RESULT	UNITS	DATE	TIME	TECH	NOTES
01	Composite Sample							
	Sample Date: 11/28/2011		Sample Time: 15:00					
	Acidity	SM 2310 B	16.0	mg/L	12/08/11	14:00	CMF	
	Alkalinity As CaCO3	SM 2320B	22.0	mg CaCO3/L	12/01/11	9:00	CMF	
	Chloride	ASTM D512-89A	50200	mg/L	12/01/11	12:00	CMF	
	Solids, Dissolved	SM 2540C	92000	mg/L	11/30/11	12:00	CMF	
	Solids, Suspended	SM 2540 D	< 10	mg/L	11/29/11	16:20	MAD	
	Sulfate	SM 4500-SO4 D	699	mg/L	11/30/11	10:00	CMF	
02	Grab Sample							
	Sample Date: 11/28/2011		Sample Time: 9:00					
	Oil & Grease	EPA 1664A	< 5	mg/L	12/05/11	7:00	CAP	
03	Composite Sample							
	Sample Date: 11/28/2011		Sample Time: 15:00					
	Barium	EPA 200.7	4.84	mg/L	11/30/11	17:48	MWR	
	Copper	EPA 200.7	<0.100	mg/L	11/30/11	17:46	MWR	
	Iron, Total	EPA 200.7	<0.500	mg/L	11/30/11	17:46	MWR	
	Silver	EPA 200.7	<0.100	mg/L	11/30/11	17:46	MWR	
	Strontium	EPA 200.7	233	mg/L	12/05/11	10:34	MWR	
04	Composite Sample							
	Sample Date: 11/28/2011		Sample Time: 15:00					
	Bromide	EPA 300.0	570	mg/L	11/30/11	16:58	OST	

Order Notes

The Bromide analyses were sub-contracted to Microbac Laboratories, Inc./New York Division. PA DEP ID#68-01385. (W.O. 1111556)

All samples received in proper condition and results conform to ISO 17025 unless otherwise noted

The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced wholly or in part for advertising or other purposes without approval from the laboratory.

USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research

NELAP accredited by PA, NY. Visit our website to view our current NELAC accreditations for various drinking water, wastewater and solid & chemical materials, air & emissions analytes

AIHA accredited for Environmental Lead. Visit our website to view our current AIHA LAP, LLC accreditation.

