

ENVIRONMENTAL

SERVICE LABORATORIES, INC.

1803 Philadelphia St., Indiana, PA 15701

(724) 463-TEST

(724) 465-4209

Report of Analysis

Name: Pennsylvania Brine Treatment INC.
Attn: Mr. Steve Davis
5148 US 322
Franklin, Pa 16323

Sample ID#: 11 28121
Sample Type: Waste Water
Sample Source: Grab
Sampler: CLIENT (Client)
Client Sample ID: 201

Sample Start Date: 7/19/2011 9:00 AM
Receipt Date: 7/20/2011 8:00 AM
Report Date: 8/11/2011

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Oil and Grease - HEM	LAW	08/08	n/a	22.1	mg/l	n/a	1664A	5.0

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382

Approved By:

Laboratory Supervisor



Report of Analysis

Name: Pennsylvania Brine Treatment INC.
 Attn: Mr. Steve Davis
 5148 US 322
 Franklin, Pa 16323

Sample Start Date: 7/19/2011 9:00 AM
Sample End Date: 7/19/2011 3:00 PM
Receipt Date: 7/20/2011 8:00 AM
Report Date: 8/11/2011

Sample ID#: 11 28122
Sample Type: Waste Water
Sample Source: Composite
Sampler: CLIENT (Client)
Client Sample ID: 202

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Barium - ICP	GJT	07/25	n/a	23.200	mg/l	n/a	200.7/6010	0.500
Iron - ICP	GJT	07/25	n/a	ND	mg/l	n/a	200.7/6010	1.000

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382

Approved By: _____

Laboratory Supervisor

Report of Analysis

Name: Pennsylvania Brine Treatment INC.
Attn: Mr. Steve Davis
5148 US 322
Franklin, Pa 16323
Sample Start Date: 7/19/2011 9:00 AM
Sample End Date: 7/19/2011 3:00 PM
Receipt Date: 7/20/2011 8:00 AM
Report Date: 8/11/2011

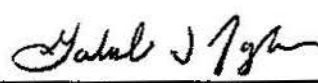
Sample ID#: 11 28123
Sample Type: Waste Water
Sample Source: Composite
Sampler: CLIENT (Client)
Client Sample ID: 203

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Acidity to pH=8.3	BH	07/26	n/a	ND	mg/l as CaCO3	n/a	SM2310B	2
Alkalinity to pH=4.5	BH	07/22	n/a	366	mg/l as CaCO3	n/a	SM2320B	20
Bromide	AJD	07/26	n/a	3600.00	mg/l	D	D1246-99	100.00
Chloride	BF	07/28	n/a	89196.4	mg/l	n/a	SM4500CIC	5.0
Sulfate ASTM	ZTR	07/25	n/a	425	mg/l	D	D516-02	125
Total Dissolved Solids (TDS)	LMB	08/08	n/a	201100	mg/l	H	SM2540C	25

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382
D - indicates an identified compound in an analysis that has been diluted H - Sample analyzed out of recommended hold time.

Approved By: 
Laboratory Supervisor

Report of Analysis

Name:	Pennsylvania Brine Treatment INC. Attn: Mr. Steve Davis 5148 US 322 Franklin, Pa 16323	Sample ID#:	11 28124
Sample Start Date:	7/19/2011 9:00 AM	Sample Type:	Waste Water
Sample End Date:	7/19/2011 3:00 PM	Sample Source:	Composite
Receipt Date:	7/20/2011 8:00 AM	Sampler:	CLIENT (Client)
Report Date:	8/11/2011	Client Sample ID:	203

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Osmotic Pressure	LL	07/26	n/a	4040	mOs/kg	n/a	OSP	1000

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382

Approved By: 
 Laboratory Supervisor

Report of Analysis

Name:	Pennsylvania Brine Treatment INC. Attn: Mr. Steve Davis 5148 US 322 Franklin, Pa 16323	Sample ID#:	11 28125
Sample Start Date:	7/19/2011 9:00 AM	Sample Type:	Waste Water
Sample End Date:	7/19/2011 3:00 PM	Sample Source:	Composite
Receipt Date:	7/20/2011 8:00 AM	Sampler:	CLIENT (Client)
Report Date:	8/11/2011	Client Sample ID:	204

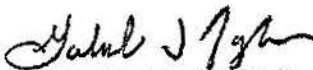
Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Total Suspended Solids	LMB	07/20	n/a	6	mg/l	n/a	SM2540D	5

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382

Approved By:



Laboratory Supervisor

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: *****

Company : Pennsylvania Brine Treatment
 Address : 5148 US 322

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

Client Sample ID: Outfall 001	Project: PABR00311
Sample ID: 283332001	Client ID: PABR001
Matrix: Water	
Collect Date: 02-AUG-11 13:00	
Receive Date: 04-AUG-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	20.7	+/-24.0	43.6		pCi/L		KXG3	08/25/11	2033	1132154	1
Rad Gas Flow Proportional Counting												
GFPC, Gross Alpha Liquid "As Received"												
Alpha	U	135	+/-105	163	5.00	pCi/L		DXF3	08/30/11	1928	1137568	2
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1.89	+/-0.576	0.533	1.00	pCi/L		KSD1	08/11/11	1235	1129803	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	



ENVIRONMENTAL
SERVICE LABORATORIES, INC.
1803 Philadelphia St., Indiana, PA 15701
(724) 463-TEST (724) 465-4209

Report of Analysis

Name: Pennsylvania Brine Treatment INC.
Attn: Mr. Steve Davis
5148 US 322
Franklin, Pa 16323
Sample Start Date: 8/2/2011 1:00 PM
Receipt Date: 8/2/2011 3:11 PM
Report Date: 8/12/2011

Sample ID#: 11 29973
Sample Type: Waste Water
Sample Source: Grab
Sampler: CLIENT (Client)
Client Sample ID: 201

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Oil and Grease - HEM	LAW	08/10	n/a	13.4	mg/l	n/a	1664A	5.0

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382

Approved By:

Laboratory Supervisor



Report of Analysis

Name: Pennsylvania Brine Treatment INC.
Attn: Mr. Steve Davis
5148 US 322
Franklin, Pa 16323

Sample Start Date: 8/2/2011 7:00 AM
Sample End Date: 8/2/2011 1:00 PM
Receipt Date: 8/2/2011 3:11 PM
Report Date: 8/12/2011

Sample ID#: 11 29975
Sample Type: Waste Water
Sample Source: Composite
Sampler: CLIENT (Client)
Client Sample ID: 203

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Acidity to pH=8.3	BH	08/04	n/a	ND	mg/l as CaCO3	n/a	SM2310B	2
Alkalinity to pH=4.5	BH	08/03	n/a	305	mg/l as CaCO3	n/a	SM2320B	20
Bromide	AJD	08/08	n/a	2360.00	mg/l	D	D1246-99	100.00
Chloride	BF	08/03	n/a	66990.99	mg/l	n/a	SM4500CID	5.00
Sulfate ASTM	ZTR	08/03	n/a	1250	mg/l	D	D516-02	250
Osmotic Pressure	LL	08/03	n/a	6140	mOs/kg	n/a	OSP	1000
Total Dissolved Solids (TDS)	LMB	08/08	n/a	149700	mg/l	n/a	SM2540C	25

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382
D - Indicates an identified compound in an analysis that has been diluted

Approved By:


 Laboratory Supervisor

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 20, 2011

Company : Pennsylvania Brine Treatment
Address : 5148 US 322

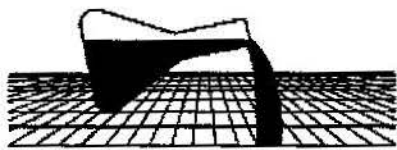
Franklin, Pennsylvania 16323
Contact: Mr. Sparky DeLong
Project: PA Brine Treatment - Josephine Facility

Client Sample ID: Outfall 001	Project: PABR00311
Sample ID: 284490001	Client ID: PABR001
Matrix: Water	
Collect Date: 17-AUG-11 20:00	
Receive Date: 22-AUG-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	11.9	+/-18.7	32.3		pCi/L		KXG3	09/12/11	0942	1136819	1
Rad Gas Flow Proportional Counting												
GFPC, Gross Alpha Liquid "As Received"												
Alpha	U	-34.3	+/-154	308	5.00	pCi/L		VXC2	09/04/11	1937	1136003	2
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		2.56	+/-0.664	0.590	1.00	pCi/L		KSD1	09/19/11	1400	1135129	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	



ENVIRONMENTAL
SERVICE LABORATORIES, INC.
1803 Philadelphia St., Indiana, PA 15701
(724) 463-TEST (724) 465-4209

Report of Analysis

Name: Pennsylvania Brine Treatment INC.
Attn: Mr. Steve Davis
5148 US 322
Franklin, Pa 16323
Sample Start Date: 8/17/2011 6:00 PM
Receipt Date: 8/18/2011 12:35 PM
Report Date: 8/23/2011

Sample ID#: 11 32592
Sample Type: Waste Water
Sample Source: Grab
Sampler: CLIENT (Client)
Client Sample ID: 201

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Oil and Grease - HEM	LAW	08/22	n/a	10.7	mg/l	n/a	1664A	5.0

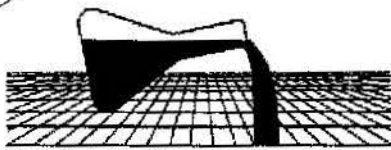
Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382

Approved By:

Laboratory Supervisor



ENVIRONMENTAL
SERVICE LABORATORIES, INC.
1803 Philadelphia St., Indiana, PA 15701
(724) 463-TEST (724) 465-4209

Report of Analysis

Name: Pennsylvania Brine Treatment INC.
Attn: Mr. Steve Davis
5148 US 322
Franklin, Pa 16323
Sample Start Date: 8/17/2011 2:00 PM
Sample End Date: 8/17/2011 8:00 PM
Receipt Date: 8/18/2011 12:35 PM
Report Date: 9/6/2011

Sample ID#: 11 32593
Sample Type: Waste Water
Sample Source: Composite
Sampler: CLIENT (Client)
Client Sample ID: 202

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Barium - ICP	GJT	08/23	n/a	9.700	mg/l	D	200.7/6010	0.500
Iron - ICP	GJT	08/23	n/a	ND	mg/l	D	200.7/6010	1.000

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382
D - Indicates an identified compound in an analysis that has been diluted

Approved By:

Laboratory Supervisor



ENVIRONMENTAL
SERVICE LABORATORIES, INC.
 1803 Philadelphia St., Indiana, PA 15701
 (724) 463-TEST (724) 465-4209

Report of Analysis

Name: Pennsylvania Brine Treatment INC.
 Attn: Mr. Steve Davis
 5148 US 322
 Franklin, Pa 16323
Sample Start Date: 8/17/2011 2:00 PM
Sample End Date: 8/17/2011 8:00 PM
Receipt Date: 8/18/2011 12:35 PM
Report Date: 9/6/2011

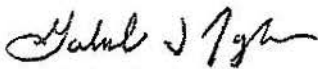
Sample ID#: 11 32594
Sample Type: Waste Water
Sample Source: Composite
Sampler: CLIENT (Client)
Client Sample ID: 203

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Acidity to pH=8.3	BH	08/23	n/a	ND	mg/l as CaCO3	n/a	SM2310B	2
Alkalinity to pH=4.5	BH	08/19	n/a	ND	mg/l as CaCO3	n/a	SM2320B	20
Bromide	SR	09/01	n/a	1720.00	mg/l	D	D1246-99	100.00
Chloride	BH	08/19	n/a	1752.10	mg/l	n/a	SM4500CID	5.00
Sulfate ASTM	ZTR	09/01	n/a	500	mg/l	D	D516-02	125
Osmotic Pressure	LL	08/23	n/a	3010	mOs/kg	n/a	OSP	1000
Total Dissolved Solids (TDS)	RLG	08/25	n/a	148000	mg/l	H	SM2540C	25

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382
 D - Indicates an identified compound in an analysis that has been diluted H - Sample analyzed out of recommended hold time.

Approved By: 
 Laboratory Supervisor

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: October 4, 2011

Company : Pennsylvania Brine Treatment
Address : 5148 US 322

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

Client Sample ID: Outfall 001	Project: PABR00311
Sample ID: 285621001	Client ID: PABR001
Matrix: Water	
Collect Date: 07-SEP-11 14:00	
Receive Date: 12-SEP-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	16.2	+/-14.5	23.3		pCi/L		KXG3	09/14/11	1804	1140784	1
Rad Gas Flow Proportional Counting												
GFPC, Gross Alpha Liquid "As Received"												
Alpha	U	-58	+/-121	240	5.00	pCi/L		CAS2	10/03/11	1213	1142326	2
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		2.83	+/-0.591	0.412	1.00	pCi/L		KSD1	09/26/11	1335	1142043	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	



Report of Analysis

Name:	Pennsylvania Brine Treatment INC. Attn: Mr. Steve Davis 5148 US 322 Franklin, Pa 16323	Sample ID#:	11 35642
Sample Start Date:	9/7/2011 10:00 AM	Sample Type:	Waste Water
Receipt Date:	9/8/2011 10:05 AM	Sample Source:	Grab
Report Date:	9/13/2011	Sampler:	CLIENT (Client)
		Client Sample ID:	201

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Oil and Grease - HEM	LAW	09/12	n/a	9.8	mg/l	n/a	1664A	5.0

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382

Approved By: _____
Yahel J. Fyfe
 Laboratory Supervisor

Report of Analysis

Name: Pennsylvania Brine Treatment INC.
Attn: Mr. Steve Davis
5148 US 322
Franklin, Pa 16323

Sample Start Date: 9/7/2011 8:00 AM
Sample End Date: 9/7/2011 2:00 PM
Receipt Date: 9/8/2011 10:05 AM
Report Date: 9/23/2011

Sample ID#: 11 35644
Sample Type: Waste Water
Sample Source: Composite
Sampler: CLIENT (Client)
Client Sample ID: 203

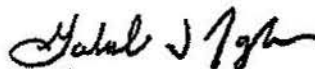
Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Acidity to pH=8.3	BH	09/14	n/a	ND	mg/l as CaCO3	n/a	SM2310B	2
Alkalinity to pH=4.5	BH	09/16	n/a	153	mg/l as CaCO3	n/a	SM2320B	20
Bromide	AJD	09/22	n/a	1110.00	mg/l	D	D1246-99	100.00
Chloride	BH	09/16	n/a	59500.00	mg/l	D	SM4500CID	5.00
Sulfate ASTM	ZTR	09/20	n/a	850	mg/l	D	D516-02	125
Osmotic Pressure	LL	09/14	n/a	2600	mOs/kg	n/a	OSP	1000
Total Dissolved Solids (TDS)	LMB	09/08	n/a	132000	mg/l	n/a	SM2540C	25

Comments:

ND=Not Detected

Note: DEP Certification #s 32-00382
D - Indicates an identified compound in an analysis that has been diluted

Approved By:



Laboratory Supervisor

