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

Certificate of Analysis

Report Date: June 2, 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: Sample ID:

Outfall 001

277604001

Matrix:

Water

Collect Date: Receive Date: 05-MAY-11 05:00 06-MAY-11

Collector:

Client

Parameter	Qualifier	Result	DL	RL	Units	DF Analyst Date	Time Batch Method
Metale Analysis ICP-MS	:						

Me

SW846 3005A/6020A Liquid "As Received"

1.34

4.00

ug/L

Analyst Comments

Project:

Client ID:

20 PRB 05/26/11 0455 1099749

PABR00311

PABR001

The following Prep Methods were performed:

Method Date Prep Batch Description Time Analyst SW846 3005A 0730 ICP-MS 3005A PREP 05/10/11 1099748 LYHI

The following Analytical Methods were performed:

Description Method

Project:

Client ID:

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

**Certificate of Analysis** 

Report Date: June 2, 2011

PABR00311

PABR001

Company:

Pennsylvania Brine Treatment

Address:

5148 US 322

520 T. AD 620 T. WES

Contact:

Franklin, Pennsylvania 16323 Mr. Sparky DeLong

Project:

PA Brine Treatment - Josephine Facility

Client Sample ID:

Outfall 001

277604001

Sample ID:

Water

Matrix: Collect Date:

05-MAY-11 05:00

Receive Date:

06-MAY-11

Collector:

Client

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analys	Date	Time	Batch	Method
Rad Gamma Spe	c Analysis		No.	No. of Section		VII			No.			
Gammaspec, Gar	mma, Liquid (Standa	ard List)	'As Received"									
Radium-228	U	5.11	+/-18.7	33.1		pCi/L		KXG3	06/01/11	1043	102599	1
Rad Gas Flow Pr	roportional Counting					***************************************						
GFPC, Gross Al	pha Liquid "As Rece	eived"										
Alpha	U	-74	+/-157	310	5.00	pCi/L		VXC2	06/01/11	1915	104018	2
Rad Radium-226						P <sub>2</sub>						
Lucas Cell, Ra22	26, liquid "As Receiv	ed"										
Radium-226		17.8	+/-1.65	0.437	1.00	<b>PCVL</b>		KSD1	05/12/11	1200	100065	3
The following A	analytical Methods w	vere perfo	rmed:									
Method	Description					Ana	alyst Co	mments				
1	EPA 901.1											1000

EPA 901.1 EPA 900.0/SW846 9310

3 EPA 903.1 Modified



Name:

Pennsylvania Brine Treatment INC.

Attn: Mr. Steve Davis

5148 US 322

Franklin, Pa 16323

Sample Start Date:

4/27/2011 8:30 AM

Receipt Date: Report Date: 5/4/2011 8:24 AM

5/5/2011

Sample ID#: 11 16822 Sample Type: Waste Wa

Waste Water CLIENT (Client)

Sampler: Client Sample ID:

Roadspreading

Analyte	Analyst	Analysis	Analysis	Sample	Units	Data	Method	RPL
		Date	Time	Result		Qualifier		
Bromide	AJD	05/04	n/a	2610.00	mg/l	D	D1246-99	100.00

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

Project:

Client ID:

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

## Certificate of Analysis

Report Date: June 17, 2011

PABR00311

PABR001

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

Sample ID:

278547001

Matrix:

Water

Collect Date:

18-MAY-11 11:30

Receive Date:

20-MAY-11

Collector:

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analys	t Date	Time	Batch	Method
Rad Gamma Spe	ec Analysis	-										
Gammaspec, Ga	mma, Liquid (Standa	ard List) '	'As Received"									
Radium-228	U	20.2	+/-22.6	32.6		pCi/L		KXG3	06/13/11	1342	109035	1
Rad Gas Flow Pr	roportional Counting	3										
GFPC, Gross Al	pha Liquid "As Rece	eived"										
Alpha	U	73.2	+/-188	331	5.00	pCI/L		DXF3	06/15/11	1909	111534	2
Rad Radium-226	6											
Lucas Cell, Ra22	26, liquid "As Receiv	ved"										
Radium-226	- •	88.6	+/-3.73	0.585	1.00	pCi/L		KSD1	05/23/11	1550	104475	3
The following A	Analytical Methods v	vere perfo	ormed:									
Method	Description			VIC		Ana	alyst Co	mments			- N	
1	EPA 901.1			100								
2	EPA 900.0/SV	V846 9310		(3)								
3	EPA 903.1 Mc	odified										

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

Certificate of Analysis

Project:

Client ID:

Report Date: June 17, 2011

PABR00311

PABR001

Company:

Pennsylvania Brine Treatment

Address:

5148 ŬS 322

Franklin, Pennsylvania 16323

Contact:

Mr. Sparky DeLong

Project:

PA Brine Treatment - Josephine Facility

Client Sample ID:

Outfall 001

Sample ID:

278547001

Matrix:

Water

Collect Date:

18-MAY-11 11:30

Receive Date:

20-MAY-11

Collector:

Parameter	Qualifier	Result	DL	RL	Units	DF Ar	alyst Date	Time Batc	h Method
Metals Analysis-I	CP-MS							<i>**</i>	
SW846 3005A/60	20A Liquid "As Re	eceived"							
Uranium	U	ND	1.68	5.00	ug/L	25 SF	J 06/16/11	1522 1104705	1
The following Pre	p Methods were pe	rformed:							
Method	Description	l.	A	nalyst	Date	Time	Prep Batch	h	
SW846 3005A	1CP-MS 3005	A PREP		YHI	05/25/11	0930	1104704		
The following An	alytical Methods v	vere performed:							
Method	Description				Ana	alyst Comm	nents		
1	SW846 3005A	/6020A			WA SALE		1/1		



Name:

Pennsylvania Brine Treatment INC.

Sample ID#:

11 19090

Attn: Mr. Steve Davis

Sample Type:

Waste Water

5148 US 322 Franklin, Pa 16323 Sample Source:

Comp

Sample Start Date:

5/18/2011 5:30 AM

Sampler: Client Sample ID:

CLIENT (Client) 203

Sample End Date:

5/18/2011 11:30 AM 5/19/2011 10:56 AM

Receipt Date: Report Date:

5/27/2011

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Acidity to pH=8.3	BF	05/25	n/a	ND	mg/l as CaCO3	n/a	SM2310B	2
Alkalinity to pH=4.5	SR	05/20	n/a	387	mg/l as CaCO3	n/a	SM2320B	20
Bromide	AJD	05/23	n/a	2080.00	mg/l	D	D1246-99	100.00
Chloride	BF	05/20	n/a	88687.9	tng/l	n/a	SM4500ClC	5.0
Sulfate ASTM	ZTR	05/23	n/a	ND	mg/l	n/a	D516-02	5
Osmotic Pressure	LL	05/24	n/a	3980	mOs/kg	n/a	OSP	1000
Total Dissolved Solids (TDS)	LAW	05/24	n/a	186600	ma/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:

Page 1 of 1



Name:

Pennsylvania Brine Treatment INC.

GJT

05/23

n/a

Attn: Mr. Steve Davis

5148 US 322

Franklin, Pa 16323

5/18/2011 5:30 AM

Sample Start Date: Sample End Date:

5/18/2011 11:30 AM 5/19/2011 10:56 AM

Receipt Date:

Iron - ICP

Sample ID#:

11 19089

Sample Type:

Waste Water

Sample Source:

Comp

n/a

Sampler:

mg/l

CLIENT (Client)

200.7/6010

0.010

Client Sample ID: 202

Report Date:	5/26/2011								
Analyte		Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Barium - ICP	***************************************	<b>GJT</b>	05/24	n/a	155.429	mg/l	n/a	200.7/6010	0.005

0.375

Comments:

ND=Not Detected

Note:

DEP Certification #s 32-00382

Approved By:

Page 1 of 1

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

Project:

Client ID:



**Certificate of Analysis** 

Report Date: June 24, 2011

PABR00311

PABR001

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

Sample ID:

279292001

Matrix:

Water

Collect Date:

02-JUN-11 05:00

Receive Date:

03-JUN-11

Collector:

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analys	t Date	Time	Batch	Method
Rad Gamma Spe	c Analysis	7/					177	14.	0000			
Gammaspec, Gar	mma, Liquid (Standa	ard List) '	'As Received"									
Radium-228	U	-7.07	+/-12.8	18.8		pCi/L		KXG3	06/16/11	1123	1109035	1
Rad Gas Flow Pr	roportional Counting	;										
GFPC, Gross Ah	pha Liquid "As Rece	eived"										
Aipha	U	-15.8	+/-122	231	5.00	pCi/L		CAS2	06/22/11	1415	1110079	2
Rad Radium-226	5											
Lucas Cell, Ra22	26, liquid "As Receiv	/ed"										
Radium-226		1.68	+/-0.519	0.306	1.00	pCi/L		KSD1	06/20/11	1245	1109688	3
The following A	nalytical Methods w	vere perfe	rmed:									
Method	Description					An	alyst Co	mment	5			
1	EPA 901.1											
2	EPA 900.0/SV	7846 9310										
3	EPA 903.1 Mc	dified										

#### GEL LABORA I URIES LLC

Project:

Client ID:

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

**Certificate of Analysis** 

Report Date: June 24, 2011

PABR00311

PABR001

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

Sample ID:

279292001

Matrix:

Water

Collect Date:

02-JUN-11 05:00

Receive Date:

03-JUN-11

Collector:

Client

Parameter	Qualifier	Result		DL	RL	Units	DF Ar	alyst Date	Time Ba	tch Method
Metals Analysis-I	CP-MS							-		
SW846 3005A/60	20A Liquid "As R	eceived"								
Uranjum	U	ND	+/-0.0346	0.670	2.00	ug/L	10 SK	J 06/23/11	0623 1108	783 1
The following Pre	p Methods were po	erformed:								
Method	Description	n			Analyst	Date	Time	Prep Batch	1	
SW846 3005A	ICP-MS 3005	A PREP			LYHI	06/07/11	0930	1108782		
The following An	alytical Methods v	were perfor	med:							
Method	Description					An	alvst Comm	nents		



Name:

Pennsylvania Brine Treatment INC.

Sample ID#:

11 20934

Attn: Mr. Steve Davis

Sample Type:

Waste Water Composite

5148 US 322 Franklin, Pa 16323 Sample Source: Sampler:

CLIENT (Client)

Sample Start Date:

6/1/2011 11:00 PM

Client Sample ID: 203

Sample End Date:

6/2/2011 5:00 AM 6/2/2011 11:05 AM

Receipt Date: Report Date:

6/20/2011

Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
BF	06/06	n/a	ND	mg/l as CaCO3	n/a	SM2310B	2
SR	06/14	n/a	273	mg/l as CaCO3	n/a	SM2320B	20
AJD	06/10	n/a	1200.00	mg/l	D	D1246-99	100.00
BF	06/17	n/a	59869.7	mg/l	n/a	SM4500ClC	5.0
ZTR	06/10	n/a	800	mg/l	D	D516-02	250
LL	06/07	n/a	2990	mOs/kg	n/a	OSP	1000
BF	06/09	n/a	130100	mg/l	n/a	SM2540C	2.5
	BF SR AJD BF ZTR LL	BF 06/06 SR 06/14 AJD 06/10 BF 06/17 ZTR 06/10 LL 06/07	BF 06/06 n/a  SR 06/14 n/a  AJD 06/10 n/a  BF 06/17 n/a  ZTR 06/10 n/a  LL 06/07 n/a	Date         Time         Result           BF         06/06         n/a         ND           SR         06/14         n/a         273           AJD         06/10         n/a         1200.00           BF         06/17         n/a         59869.7           ZTR         06/10         n/a         800           LL         06/07         n/a         2990	Date         Time         Result           BF         06/06         n/a         ND         mg/l as CaCO3           SR         06/14         n/a         273         mg/l as CaCO3           AJD         06/10         n/a         1200.00         mg/l           BF         06/17         n/a         59869.7         mg/l           ZTR         06/10         n/a         800         mg/l           LL         06/07         n/a         2990         mOs/kg	Date         Time         Result         Qualifier           BF         06/06         n/a         ND         mg/l as CaCO3         n/a           SR         06/14         n/a         273         mg/l as CaCO3         n/a           AJD         06/10         n/a         1200.00         mg/l         D           BF         06/17         n/a         59869.7         mg/l         n/a           ZTR         06/10         n/a         800         mg/l         D           LL         06/07         n/a         2990         mOs/kg         n/a	Date         Time         Result         Qualifier           BF         06/06         n/a         ND         mg/l as CaCO3         n/a         SM2310B           SR         06/14         n/a         273         mg/l as CaCO3         n/a         SM2320B           AJD         06/10         n/a         1200.00         mg/l         D         D1246-99           BF         06/17         n/a         59869.7         mg/l         n/a         SM4500ClC           ZTR         06/10         n/a         800         mg/l         D         D516-02           LL         06/07         n/a         2990         mOs/kg         n/a         OSP

Comments:

ND=Not Detected

Note:

DEP Certification #s 32-00382

D - Indicates an identified compound in an analysis that has been diluted

Approved By:

Hotal J 1gh Laboratory Supervisor



Name:

Pennsylvania Brine Treatment INC.

Attn: Mr. Steve Davis

5148 US 322

Franklin, Pa 16323

6/1/2011 11:00 PM

Sample Start Date: Sample End Date:

6/2/2011 5:00 AM 6/2/2011 11:05 AM

Receipt Date: Report Date:

6/20/2011

Sample ID#:

Sample Type:

11 20933 Waste Water Composite

202

Sample Source: Sampler:

CLIENT (Client)

Client Sample ID:

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Barium - ICP	DRM	06/06	n/a	12.600	mg/l	D	200.7/6010	0.500
Iron - ICP	DRM	06/06	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:

Halal J 1gh-

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

## Certificate of Analysis

Report Date: June 24, 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:

279403001

Client ID:

PABR001

Matrix:

Water

Collect Date:

06-JUN-11 16:00

Receive Date:

07-JUN-11

Collector:

Client

Parameter	Qualifier	Result		DL	RL	Units	DF A	nalyst Date	Time Batch	Method
Metals Analysis-I	CP-MS									
SW846 3005A/60	20A Liquid "As Re	eceived"								
Uranium	U	ND	+/-0.0281	0.670	2.00	ug/L	10 S	KJ 06/23/11	0723 1109616	1
The following Pre	p Methods were pe	erformed:								
Method	Description	n,			Analyst	Date	Time	Prep Batcl	1	100
SW846 3005A	ICP-MS 3005	A PREP			LYHI	06/10/11	0930	1109615		
The following An	alytical Methods v	vere perfori	med:							
Method	Description					An	alvst Com	ments		

Project:

Client ID:

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

# Certificate of Analysis

Report Date: June 24, 2011

PABR00311

PABR001

Company:

Pennsylvania Brine Treatment

Address:

5148 US 322

Franklin, Pennsylvania 16323

Contact:

Project:

Mr. Sparky DeLong

PA Brine Treatment - Josephine Facility

Sample ID:

Client Sample ID: Outfall 001

279403001

Matrix:

Water

Collect Date:

06-JUN-11 16:00

Receive Date:

07-JUN-11

Collector:

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF Analy	st Date	Time	Batch	Method
Rad Gamma Spec A	nalysis						- WA				
Gammaspec, Gamm	a, Liquid (Standa	ard List) '	'As Received"								
Radium-228	UI	0.00	+/-22.8	28.1		pCi/L	KXG3	06/22/11	0721 1	110967	1
Rad Gas Flow Propo	rtional Counting	5									
GFPC, Gross Alpha	Liquid "As Rece	eived"									
Alpha	Ū	20.3	+/-86.4	160	5.00	pCi/L	CAS2	06/22/11	1415 1	110079	2
Rad Radium-226											
Lucas Cell, Ra226, I	iquid "As Receiv	/ed"									
Radium-226	•	5.36	+/-0.892	0.452	1.00	pCi/L	KSD1	06/20/11	1245 1	109688	3
The following Analy	ytical Methods v	vere perfo	rmed:								
Method	Description					Ana	alyst Comment	:S			
1	EPA 901.1	Ador In	11 - New York - 12 - 15 - 1	74-34-34-34-34		79.					14
2	EPA 900.0/\$V	V846 9310									
3	EPA 903.1 Mc	dified									

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

# Certificate of Analysis

Project:

Client ID:

Analyst Comments

Report Date: July 14, 2011

PABR00311

PABR001

Company:

Pennsylvania Brine Treatment

Address:

5148 US 322

Franklin, Pennsylvania 16323

Contact:

Mr. Sparky DeLong

Project:

PA Brine Treatment - Josephine Facility

Client Sample ID: Sample ID:

Outfall 001

280195001

Matrix:

Water

Collect Date:

14-JUN-11 15:30 17-JUN-11

Receive Date: Collector:

Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-I	CP-MS										
SW846 3005A/60	20A Liquid "As R	eceived"									
Uranium	U	ND	0.670	2.00	ug/L	10	SKJ 0	6/23/11	2242 I	113910	1
The following Pre	p Methods were p	erformed:									
Method	Description	n	A	nalyst	Date	Tim	ne Pre	p Batcl	n T		
SW846 3005A	ICP-MS 300:	A PREP	A	XG2	06/23/11	0600	1111	3909			
The following An	alutical Mathada	vers performed									

The following Analytical Methods were performed:

Method Description

Project:

Client ID:

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

## Certificate of Analysis

Report Date: July 14, 2011

PABR00311

PABR001

Company:

Pennsylvania Brine Treatment

Address:

5148 US 322

Franklin, Pennsylvania 16323

Contact:

Mr. Sparky DeLong

Project:

PA Brine Treatment - Josephine Facility

Chem Samp

Client Sample ID: Outfall 001

Sample ID:

280195001

Matrix:

Water

Collect Date:

14-JUN-11 15:30

Receive Date: Collector: 17-JUN-11 Client

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF Analyst Date	Time Batch	Method
Rad Gamma Spec	Analysis								
Gammaspec, Gam	ıma, Liquid (Standa	ard List)	'As Received"						
Radium-228	U	11.0	+/-19.8	27.6		pCi/L	KXG3 07/03/11	1327 1116731	1
Rad Gas Flow Pro	portional Counting								
GFPC, Gross Alpi	ha Liquid "As Rece	ived"							
Alpha	Ü	-77	+/-196	375	5.00	pCi/L	DXF3 06/26/11	1047 1114339	2
Rad Radium-226									
Lucas Cell, Ra226	6, liquid "As Receiv	ed"							
Radium-226	AND REPORTED TO THE COURSE OF	3.01	+/-0.674	0.498	1.00	pCi/L	KSD1 07/11/11	1235 1113572	3
The following Ar	nalytical Methods v	ere perfo	ormed:						
Method	Description					Ana	alyst Comments		

 Method
 Description

 1
 EPA 901.1

 2
 EPA 900.0/SW846 9310

 3
 EPA 903.1 Modified



Name:

Pennsylvania Brine Treatment INC.

Attn: Mr. Steve Davis

5148 US 322

Franklin, Pa 16323

Sample Start Date: Sample End Date:

6/14/2011 9:30 AM 6/14/2011 3:30 PM

Receipt Date:

6/15/2011 10:34 AM

Report Date:

6/21/2011

Sample ID#:

11 22760

Sample Type:

Waste Water Composite

Sample Source: Sampler:

CLIENT (Client)

Client Sample ID:

202

Analyte	Analyst	Analysis Date	Analysis Time	Sample Result	Units	Data Qualifier	Method	RPL
Barium - ICP	DRM	06/17	n/a	19.480	mg/l	D	200.7/6010	0.050
Iron - ICP	DRM	06/16	n/a	0.300	mg/l	D	200.7/6010	0.100

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



Name:

Pennsylvania Brine Treatment INC.

Sample ID#:

11 22761

Attn: Mr. Steve Davis

Sample Type:

Waste Water Composite

5148 US 322 Franklin, Pa 16323 Sample Source: Sampler:

CLIENT (Client)

Sample Start Date: Sample End Date: 6/14/2011 9:30 AM 6/14/2011 3:30 PM

Chen

Client Sample ID: 203

Receipt Date:

6/15/2011 10:34 AM

Report Date:

6/23/2011

Analyte	Analyst	Analysis Date	Analysis : Time	Sample Result	Units	Data Qualifier	Method	RPL
Acidity to pH=8.3	BF	06/20	n/a	ND	mg/l as CaCO3	n/a	SM2310B	2
Alkalinity to pH=4.5	SR	06/16	n/a	363	mg/l as CaCO3	n/a	SM2320B	20
Bromide	AJD	06/20	n/a	2240.00	mg/l	D	D1246-99	100.00
Chloride	BF	06/17	n/a	84853.3	mg/I	n/a	SM4500ClC	5.0
Sulfate ASTM	ZTR	06/16	n/a	600	mg/l	D	D516-02	125
Osmotic Pressure	LL	06/21	n/a	3810	mOs/kg	n/a	OSP	1000
Total Dissolved Solids (TDS)	LMB	06/20	n/a	181500	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

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

## Certificate of Analysis

Project:

Client ID:

Report Date: August 5, 2011

PABR00311

PABR001

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 281631001

Sample ID:

Water

Matrix: Collect Date:

06-JUL-11 20:00

Receive Date:

Collector:

11-JUL-11 Client

Parameter	Qualifier	Result	DL	RL	Units	DF An	alyst Date	Time	Batch	Method
Metals Analysis-I	CP-MS					-38W - 10W				
SW846 3005A/603	20A Liquid "As R	eceived"								
Uranium	U	ND	0.670	2.00	ug/L	10 SK.	07/18/11	1529 11	20596	1
The following Pre	p Methods were po	erformed:								
Method	Description	n	A	nalyst	Date	Time	Prep Batcl	n	-	<del></del>
SW846 3005A	ICP-MS 3005	A PREP	L	YHI	07/12/11	0900	1120595			
The following An	alytical Methods v	vere performed:								
Method	Description				An	alyst Comm	ents			
		CALL DESCRIPTION OF THE PARTY O		0	(V)					

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

# **Certificate of Analysis**

Report Date: August 5, 2011

PABR00311

PABR001

Project:

Client ID:

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

Sample ID:

281631001

Matrix:

Water

Collect Date:

06-JUL-11 20:00

Receive Date:

11-JUL-11

Collector:

3

Client

EPA 903.1 Modified

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analys	t Date	Time	Batch	Method
Rad Gamma Spec	Analysis											
Gammaspec, Gam	ma, Liquid (Stand	ard List) '	'As Received"									
Radium-228	U	3.94		23.5		pCi/L		KXG3	07/22/11	1011	122954	1
Rad Gas Flow Pro	portional Counting	3										
GFPC, Gross Alph	na Liquid "As Rece	eived"										
Aipha	U	36.5	+/-252	455	5.00	pCi/L		CAS2	08/03/11	1226	1121309	2
Rad Radium-226												
Lucas Cell, Ra226	, liquid "As Receiv	ved"										
Radium-226	£ 38	12.2	+/-1.15	0.216	1.00	pCi/L		KSDI	08/02/11	1200	1121118	3
The following An	alytical Methods v	vere perfo	rmed;									
Method	Description					An	alyst Co	mment				- 989
1	EPA 901.1					CONTROL SECTION						
2	EPA 900.0/\$V	V846 9310										