Inspection Report For Well: UT20736 - 07126

U.S. Environmental Protection Agency
Underground Injection Control Program, 8ENF-T
999 18th Street, Suite 300, Denver, CO 80202-2466

This form was printed on 9/24/2013

INSPECTOR(S): Lead: Roberts, Sarah — Date: ~~10~~ 12/10/2013

Others: Ajayi, Christopher — Time: 1:10 am / pm

OPERATOR (only if different): _____

REPRESENTATIVE(S): Chad Stevinson

PRE-INSPECTION REVIEW

Petroglyph Operating Company, Inc

Well Name:	Ute Tribal 29-15
Well Type:	Enhanced Recovery (2R)
Operating Status:	AC (ACTIVE) as of 7/23/2007
Oil Field:	Antelope Creek (Duchesne)
Location:	SWSE S29 T5S R3W
Indian Country:	X, Uintah and Ouray

Last Inspection:	8/28/2012	***Allowable Inj Pressure:***	1575 /
Last MIT:	Pass 3/31/2012	***Annulus Pressure From Last MIT:***	990

BLACK = POSSIBLE VIOLATION GREY = DATA MISSING

INSPECTION TYPE: **(Select One)**

- [ ] Construction / Workover
- [ ] Plugging
- [ ] Post-Closure
- [ ] Response to Complaint
- [x] Routine
- [ ] Witness MIT
- [ ] Other

ICIS Entered
Date 12/27/13
Initials DB

OBSERVED VALUES:

Tubing Gauge:	[x] Yes / [ ] No	Pressure: U: 363 / L: ____ psig Gauge Range: Scada psig	Gauge Owner:	[ ] EPA / [x] Operator
Annulus Gauge:	[x] Yes / [ ] No	Pressure: 0 psig Gauge Range: opened psig	Gauge Owner:	[x] EPA / [ ] Operator
Bradenhead Gauge:	[ ] Yes / [ ] No	Pressure: ____ psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA / [ ] Operator
Pump Gauge:	[ ] Yes / [ ] No	Pressure: ____ psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA / [ ] Operator

Operating Status: (Select One)
- [ ] Active
- [ ] Being Reworked
- [x] Not Injecting
- [ ] Production
- [ ] Plugged and Abandoned
- [ ] Under Construction

TAB	GREEN	BLUE	CBI
		1	

See page 2 for photos, comments, and site conditions.

U2 Entered
Date 12/17/13
Initial SR

Inspection Report For Well: UT20736 - 07126 (PAGE 2)

PHOTOGRAPHS: ☐ Yes ☒ No List of photos taken: _____

Comments and site conditions observed during inspection: _____

GPS: GPS File ID: _____

Signature of EPA Inspector(s): _____ _____ _____

☐ Data Entry ☐ Compliance Staff ☐ Hard Copy Filing

NOTICE OF INSPECTION

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII, 999 18TH STREET - SUITE 500
DENVER, COLORADO 80202-2405

Date: 12/10/13
Hour: 8:00a

Notice of inspection is hereby given according to Section 1445(b) of the Safe Drinking Water Act (42 U.S.C. §300f et seq.).

Firm Name: Petroglyph Operating, Inc.

Firm Address: Roosevelt, UT, Antelope Creek Oil Field

REASON FOR INSPECTION:

For the purpose of inspecting records, files, papers, processes, controls and facilities, and obtaining samples to determine whether the person subject to an applicable underground injection control program has acted or is acting in compliance with the Safe Drinking Water Act and any applicable condition of permit or rule authorization.

SECTION 1445(b) of the SAFE DRINKING WATER ACT is quoted below:

Section 1445(b)(1): Except as provided in Paragraph (2), the Administrator, or representatives of the Administrator duly designated by him, upon presenting appropriate credentials, and a written notice to any supplier of water or other person subject to (a), or person subject (A) a national primary drinking water regulation prescribed under Section 1412(B) an applicable Underground Injection Control Program, or (C) any requirement to monitor an unregulated contaminant pursuant to subsection (a), or person in charge of any of the property of such supplier or other person referred to in clause (A), (B), or (C), is authorized to enter any establishment, ... facility, or other property of such supplier or other person in order to determine whether such supplier or other person has acted or is acting in compliance with this title, including for this purpose, inspection, at reasonable times, of records, files, papers, processes, controls, and facilities, or in order to test any feature of a public water system, including its raw water source. The Administrator or the Comptroller General (or any representative designated by either) shall have access for the purpose of audit and examination to any records, reports, or information of a grantee which are required to be maintained under subsection (a) or which are pertinent to any financial assistance under this title.

Sarah Roberts
Inspector's Name & Title (Print)

Inspector's Signature

EPA R8 3560-1 (8-89)

Original - Regional Office Copy
Yellow Copy - Operator Copy

OMB No. 2040-0042 Approval Expires 11/30/2014

EPA

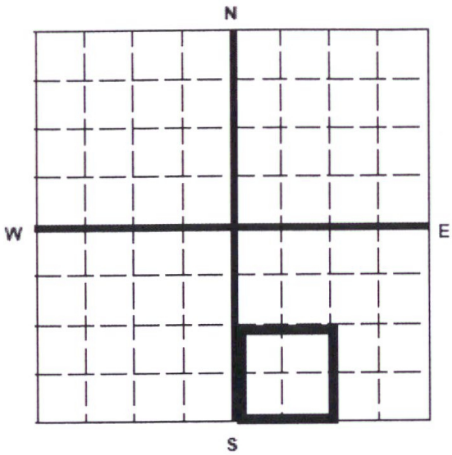
United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee
Petroglyph Operating Company, Inc. 2258
P.O. Box 7608
Boise, Idaho 83709

Name and Address of Surface Owner
Ute Indian Tribe
P.O. Box 70
Ft. Duchesne, Utah, 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736-07126

Surface Location Description
____ 1/4 of ____ 1/4 of SW 1/4 of SE 1/4 of Section 29 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 6490 ft. frm (N/S) S Line of quarter section
and 1831 ft. from (E/W) E Line of quarter section.

WELL ACTIVITY
- [ ] Brine Disposal
- [X] Enhanced Recovery
- [ ] Hydrocarbon Storage

TYPE OF PERMIT
- [ ] Individual
- [X] Area

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 29-15

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING – CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	16	1470	1501	818		0	0
February	16	1493	1513	956		0	0
March	16	1509	1518	1071		0	0
April	16	1461	1485	980		0	0
May	16	1492	1526	1058		0	0
June	16	1496	1521	1004		0	0
July	16	1493	1535	1166		0	0
August	16	1516	1548	1231		0	0
September	16	1486	1514	1013		0	0
October	16	1482	1495	1132		0	0
November	16	1463	1494	1003		0	0
December	16	1512	1526	1074		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		03/21/2017

GREEN BLUE CB
2

U2 Entered
Date 4/6/17
Initial DB

EPA Form 7520-11 (Rev. 12-11)

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

multi-chem
A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH OPERATING CO INC - EBUS**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 29-15 INJ, DUCHESNE**	Lab Tech:	**Kaitlyn Natelli**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2017**		
Sample ID:	**WA-345352**		

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics

Test Date:	1/25/2017
System Temperature 1 (°F):	300
System Pressure 1 (psig):	2000
System Temperature 2 (°F):	130
System Pressure 2 (psig):	50
Calculated Density (g/ml):	1.0011
pH:	8.00
Calculated TDS (mg/L):	5587.74
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	99.00
H_2S in Gas (%):	
H2S in Water (mg/L):	10.00
Tot. SuspendedSolids(mg/L):	
Corrosivity(LanglierSat.Indx)	0.00
Alkalinity:	

Analysis @ Properties in Sample Specifics

Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	1766.93	Chloride (Cl):	2000.00
Potassium (K):	11.57	Sulfate (SO_4):	60.00
Magnesium (Mg):	18.50	Bicarbonate (HCO_3):	1586.00
Calcium (Ca):	34.65	Carbonate (CO_3):	
Strontium (Sr):	2.07	Hydroxide(HO):	
Barium (Ba):	5.71	Acetic Acid (CH_3COO)	
Iron (Fe):	76.28	Propionic Acid (C_2H_5COO)	
Zinc (Zn):	12.52	Butanoic Acid (C_3H_7COO)	
Lead (Pb):	0.00	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Ammonia NH_3:		Fluoride (F):	
Manganese (Mn):	0.14	Bromine (Br):	
Aluminum (Al):	0.04	Silica (SiO_2):	13.37
Lithium (Li):	2.70	Calcium Carbonate ($CaCO_3$):	
Boron (B):	1.83	Phosphates (PO_4):	4.84
Silicon (Si):	6.25	Oxygen (O_2):	

Notes:

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
130.00	50.00	1.15	25.70	1.04	3.07	4.57	9.09	3.60	55.42	0.00	0.00	0.00	0.00	0.00	0.00	11.34	6.54
149.00	267.00	1.22	26.34	0.94	2.99	4.53	9.09	3.71	55.43	0.00	0.00	0.00	0.00	0.00	0.00	11.09	6.54
168.00	483.00	1.32	27.20	0.87	2.92	4.53	9.09	3.83	55.44	0.00	0.00	0.00	0.00	0.00	0.00	10.90	6.54
187.00	700.00	1.42	27.93	0.82	2.85	4.55	9.09	3.95	55.45	0.00	0.00	0.00	0.00	0.00	0.00	10.73	6.54
206.00	917.00	1.54	28.54	0.78	2.80	4.60	9.09	4.06	55.45	0.00	0.00	0.00	0.00	0.00	0.00	10.59	6.54
224.00	1133.00	1.67	29.02	0.76	2.77	4.66	9.09	4.17	55.46	0.00	0.00	0.00	0.00	0.00	0.00	10.47	6.54
243.00	1350.00	1.80	29.39	0.75	2.76	4.74	9.09	4.28	55.46	0.00	0.00	0.00	0.00	0.00	0.00	10.37	6.54
262.00	1567.00	1.93	29.67	0.75	2.76	4.83	9.09	4.38	55.46	0.00	0.00	0.00	0.00	0.00	0.00	10.29	6.54
281.00	1783.00	2.07	29.87	0.76	2.78	4.94	9.09	4.47	55.46	0.00	0.00	0.00	0.00	0.00	0.00	10.22	6.54
300.00	2000.00	2.21	30.01	0.78	2.80	5.05	9.09	4.55	55.46	0.00	0.00	0.00	0.00	0.00	0.00	10.17	6.54

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

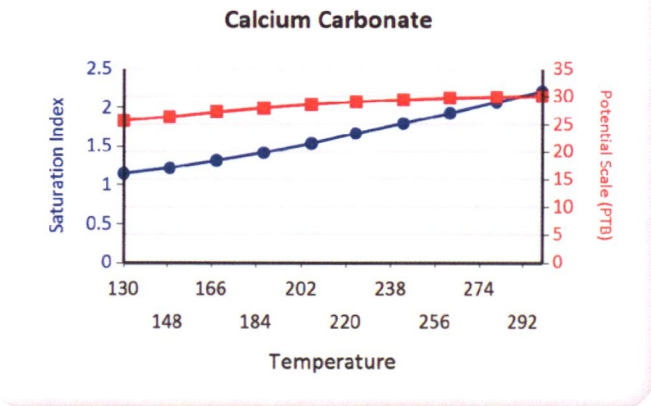
multi-chem®
A HALLIBURTON SERVICE

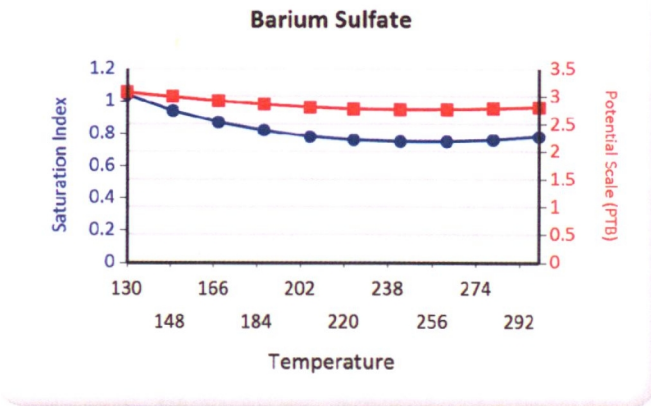
Water Analysis Report

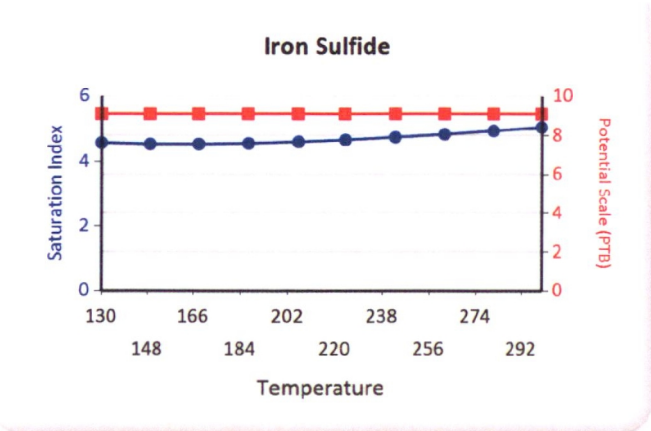
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
130.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	2.47	8.38	0.00	0.00	1.42	8.24	0.24	1.67	11.28	31.01
149.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	2.69	8.40	0.00	0.00	2.22	12.72	0.68	4.41	11.80	31.01
168.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	2.90	8.41	0.00	0.00	3.14	17.97	1.21	7.72	12.46	31.02
187.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	3.11	8.41	0.00	0.00	4.06	22.70	1.74	10.80	13.14	31.02
206.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	3.29	8.41	0.00	0.00	4.96	26.61	2.27	13.38	13.82	31.02
224.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46	8.42	0.00	0.00	5.84	29.58	2.80	15.29	14.51	31.02
243.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	3.61	8.42	0.00	0.00	6.71	31.68	3.31	16.53	15.18	31.02
262.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	3.75	8.42	0.00	0.00	7.54	33.06	3.82	17.24	15.85	31.02
281.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	3.87	8.42	0.00	0.00	8.34	33.89	4.30	17.64	16.49	31.02
300.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	3.97	8.42	0.00	0.00	9.11	34.34	4.77	17.84	17.12	31.02

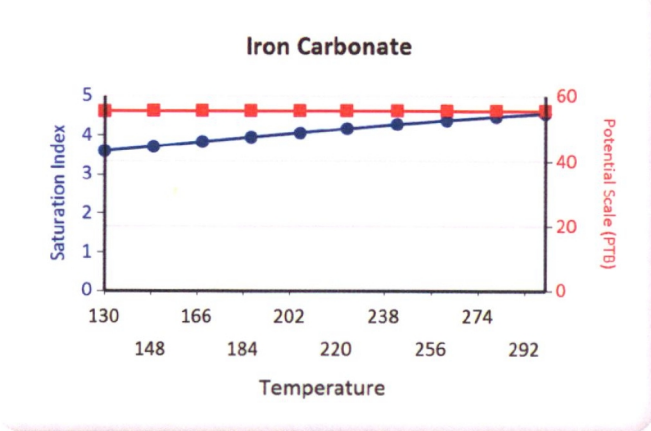
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

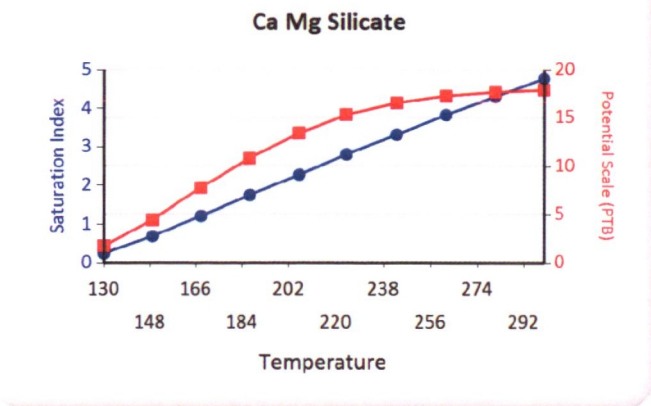
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

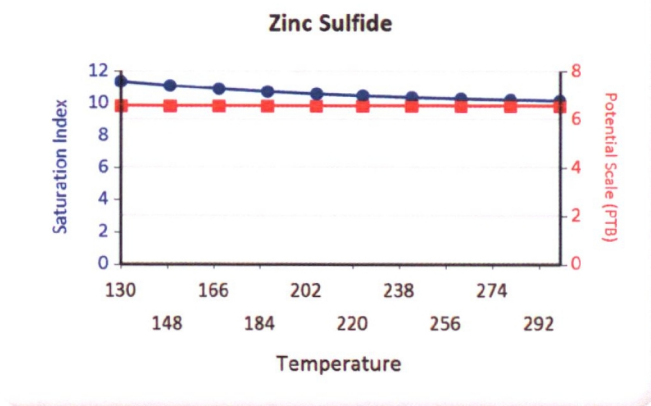


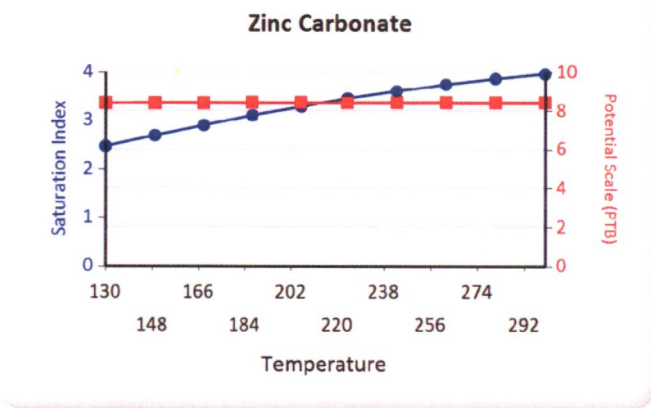







Ca Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


Zinc Sulfide
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
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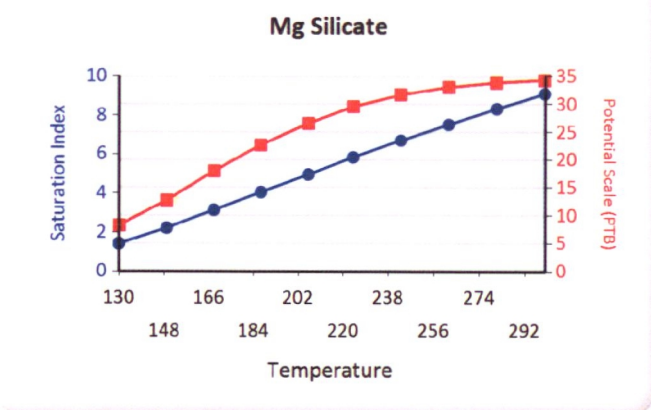
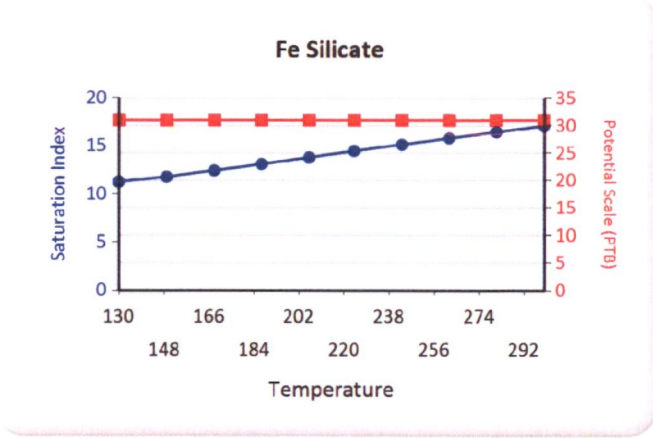
148 184 220 256 292


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
20
15
10
5
0
35
30
25
20
15
10
5
0
130
166
202
238
274
148
184
220
256
292

PETROGLYPH EXECUTIVE OFFICES

June 1, 2017

Gary Wang or Don Breffle
Underground Injection Control Enforcement
U.S. Environmental Protection Agency
Mail Code: 8ENF-UFO
US EPA Region 8
1595 Wyncoop Street
Denver, CO 80202-1129

RE: 5-year Mechanical Integrity Tests

Mr. Wang/ Mr. Breffle:

Please find enclosed 5-year Mechanical Integrity Tests for the following wells:

- Ute Tribal 04-01
- Ute Tribal 08-06
- Ute Tribal 16-16
- Ute Tribal 18-14
- Ute Tribal 28-11
- Ute Tribal 29-02
- Ute Tribal 29-08A
- Ute Tribal 29-10
- Ute Tribal 29-11
- Ute Tribal 29-15 UT20736-07126
- Ute Tribal 30-16
- Ute Tribal 33-16D3

	GREEN	BLUE	CBI
TAb		2	

Best Regards,

Nicole Colby
Manager, Land & Regulatory Compliance

U2 Entered
Date 6/14/17
Initial DB

PETROGLYPH ENERGY, INC.

960 Broadway Avenue, Suite 500 ▪ P.O. Box 70019 ▪ Boise, Idaho 83707 ▪ (208) 685-7600 ▪ Fax: (208) 685-7605 ▪ www.petroglyphenergy.com

Mechanical Integrity Test
Tubing/Casing Annulus Pressure Test

U.S. Environmental Protection Agency
Underground Injection Control Program
1595 Wynkoop Street, Denver, CO 80202

EPA Witness: _____ Date: 3/21/17
Test conducted by: CHAD STEVENSON
Others present: _____

Well Name: 29-15 Type: ER SWD **Status:** AC TA UC
Field: ANTELOPE CREEK
Location: 29-15 Sec: ____ T ____ N / S R ____ E / W County: DUCHESNE State: UT
Operator: PETROGLYPH ENERGY
Last MIT: ___/___/___ **Maximum Allowable Pressure:** _____ **PSIG**

Regularly scheduled test? [X] Yes [ ] No
Initial test for permit? [ ] Yes [ ] No
Test after well rework? [ ] Yes [ ] No

Well injecting during test? If Yes, rate: 37 **bpd**
Pre-test annulus pressure: _____ **psig**

MIT DATA TABLE	*Test #1*	*Test #2*	*Test #3*
TUBING		***PRESSURE RECORD***	
Initial Pressure	1465 psig	psig	psig
End of test pressure	1465 psig	psig	psig
CASING / TUBING ANNULUS		***PRESSURE RECORD***	
0 minutes	1870 psig	psig	psig
5 minutes	1870 psig	psig	psig
10 minutes	1870 psig	psig	psig
15 minutes	1870 psig	psig	psig
20 minutes	1870 psig	psig	psig
25 minutes	1870 psig	psig	psig
30 minutes	1870 psig	psig	psig
5 HOURS ~~minutes~~	1870 psig	psig	psig
_____ *minutes*	psig	psig	psig
RESULT	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail

Does the annulus pressure build back up after the test ? If Yes, _____ psig.

CALIBRATED CHARTS
BATAVIA, N.Y.
MW-MP 2000
METER NUMBER
29-15
TIME PUT ON
9:30 A.M.
DATE PUT ON
3-31-17
TIME TAKEN OFF
2:30 P.M.
DATE TAKEN OFF
3-31-17
PRINTED IN U.S.A.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 MIDNIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.

OMB No. 2040-0042 Approval Expires 11/30/2014

EPA

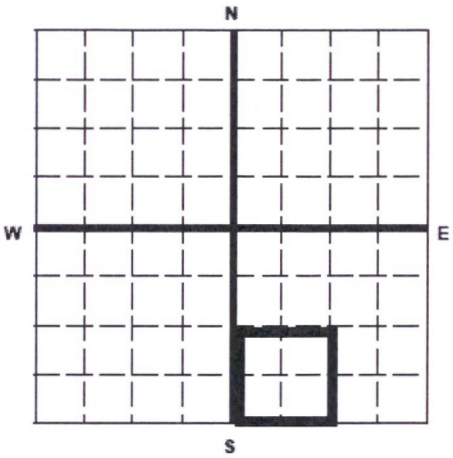
United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee
Petroglyph Operating Company, Inc. 2258
P.O. Box 7608
Boise, Idaho 83709

Name and Address of Surface Owner
Ute Indian Tribe
P.O. Box 70
Ft. Duchesne, Utah, 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736~~-04434~~ 07126

Surface Location Description
___ 1/4 of ___ 1/4 of SW 1/4 of SE 1/4 of Section 29 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 6490 ft. frm (N/S) S Line of quarter section
and 1831 ft. from (E/W) E Line of quarter section.

U2 Entered
Date 3/3/16
Initial DB

WELL ACTIVITY
- [ ] Brine Disposal
- [X] Enhanced Recovery
- [ ] Hydrocarbon Storage

TYPE OF PERMIT
- [ ] Individual
- [X] Area

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 29-15

MONTH	YEAR	INJECTION PRESSURE AVERAGE PSIG	INJECTION PRESSURE MAXIMUM PSIG	TOTAL VOLUME INJECTED BBL	TOTAL VOLUME INJECTED MCF	TUBING – CASING ANNULUS PRESSURE (OPTIONAL MONITORING) MINIMUM PSIG	TUBING – CASING ANNULUS PRESSURE (OPTIONAL MONITORING) MAXIMUM PSIG
January	15	1447	1489	1002		0	0
February	15	1482	1507	952		0	0
March	15	1503	1548	1048		0	0
April	15	1454	1532	896		0	0
May	15	1493	1526	970		0	0
June	15	1495	1516	892		0	0
July	15	1501	1533	886		0	0
August	15	1486	1496	834		0	0
September	15	1467	1505	651		0	0
October	15	1457	1457	764		0	0
November	15	1492	1496	767		0	0
December	15	1489	1525	792		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		02/08/2016

EPA Form 7520-11 (Rev. 12-11)

TAB	GREEN	BLUE	CBI
		2	

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

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Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH OPERATING CO INC - EBUS**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 29-15 INJ, DUCHESNE**	Lab Tech:	**Michele Pike**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2016**		
Sample ID:	**WA-327704**		

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics

Test Date:	1/14/2016
System Temperature 1 (°F):	60
System Pressure 1 (psig):	2000
System Temperature 2 (°F):	180
System Pressure 2 (psig):	50
Calculated Density (g/ml):	1.0054
pH:	8.50
Calculated TDS (mg/L):	11626.04
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	0.00
Tot. SuspendedSolids(mg/L):	
Corrosivity(LanglierSat.Indx)	0.00
Alkalinity:	

Analysis @ Properties in Sample Specifics

Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	3975.94	Chloride (Cl):	5000.00
Potassium (K):	22.00	Sulfate (SO_4):	250.00
Magnesium (Mg):	39.66	Bicarbonate (HCO_3):	2196.00
Calcium (Ca):	99.69	Carbonate (CO_3):	
Strontium (Sr):	5.82	Acetic Acid (CH_3COO)	
Barium (Ba):	8.62	Propionic Acid (C_2H_5COO)	
Iron (Fe):	2.51	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.59	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.29	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	3.10	Silica (SiO_2):	21.82
Aluminum (Al):	0.02	Calcium Carbonate ($CaCO_3$):	
Lithium (Li):	1.68	Phosphates (PO_4):	10.95
Boron (B):	4.38	Oxygen (O_2):	
Silicon (Si):	10.20		

Notes:

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	2.22	84.56	1.35	4.90	0.00	0.00	2.81	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
167.00	267.00	2.14	83.53	1.37	4.91	0.00	0.00	2.71	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	483.00	2.07	82.67	1.40	4.93	0.00	0.00	2.62	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	700.00	2.00	81.70	1.45	4.95	0.00	0.00	2.52	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
127.00	917.00	1.95	80.62	1.50	4.97	0.00	0.00	2.43	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	1133.00	1.89	79.45	1.56	4.99	0.00	0.00	2.34	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	1350.00	1.84	78.22	1.64	5.02	0.00	0.00	2.25	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.00	1567.00	1.80	76.96	1.74	5.04	0.00	0.00	2.16	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	1783.00	1.76	75.70	1.85	5.06	0.00	0.00	2.07	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	2000.00	1.72	74.48	1.97	5.08	0.00	0.00	1.98	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Multi-Chem Analytical Laboratory
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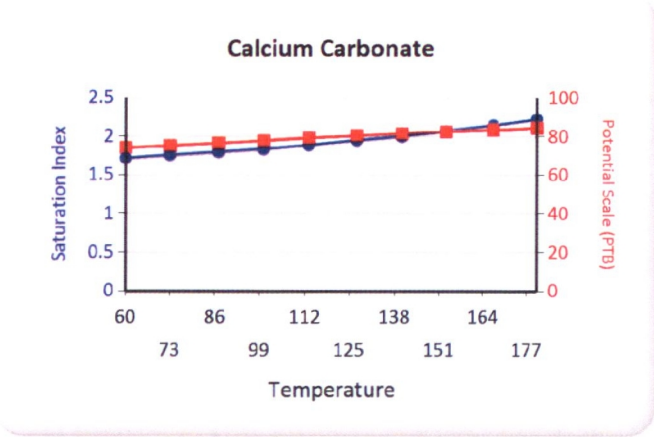
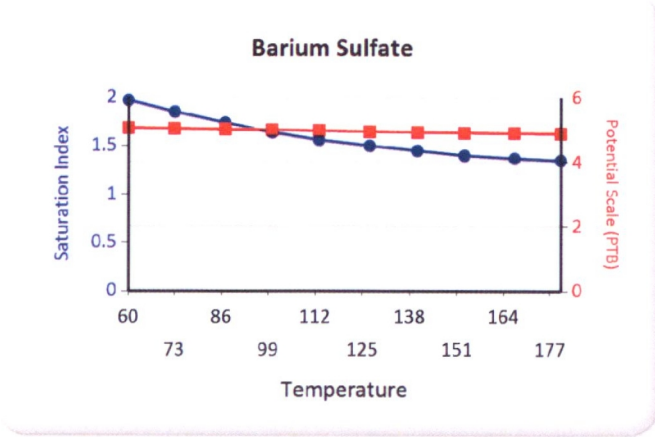
Water Analysis Report

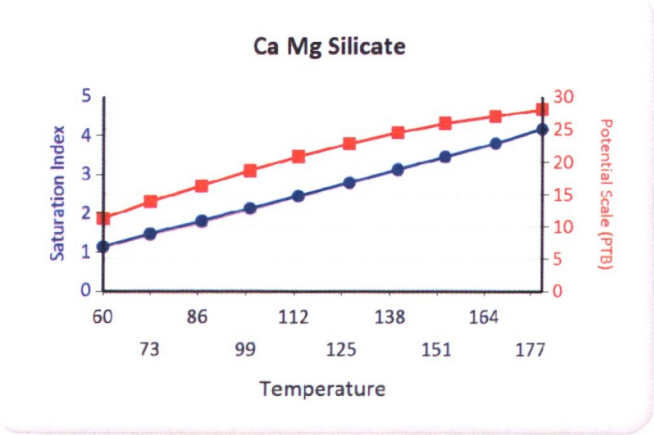
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.39	0.00	0.00	7.30	53.46	4.17	28.10	10.98	1.95
167.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	1.89	0.39	0.00	0.00	6.67	50.09	3.80	27.10	10.52	1.95
153.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	1.74	0.39	0.00	0.00	6.08	46.77	3.46	25.99	10.11	1.95
140.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58	0.39	0.00	0.00	5.49	42.99	3.13	24.57	9.70	1.95
127.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	0.38	0.00	0.00	4.90	38.94	2.80	22.87	9.30	1.95
113.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24	0.38	0.00	0.00	4.30	34.77	2.46	20.93	8.91	1.95
100.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.36	0.00	0.00	3.70	30.54	2.13	18.79	8.53	1.95
87.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.34	0.00	0.00	3.09	26.22	1.80	16.48	8.15	1.95
73.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.30	0.00	0.00	2.48	21.76	1.47	14.01	7.78	1.95
60.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.24	0.00	0.00	1.86	17.04	1.14	11.35	7.42	1.95

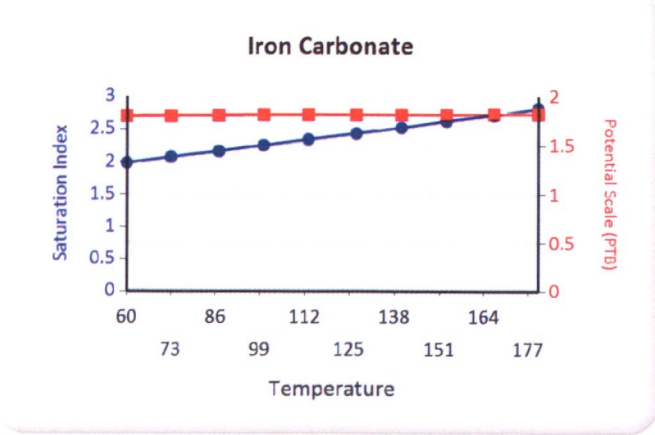
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

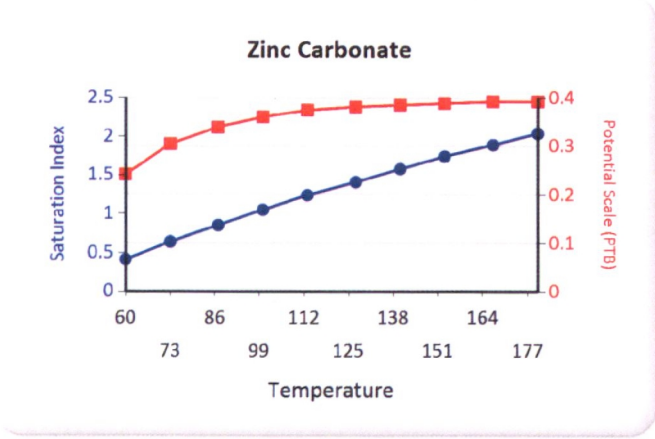
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

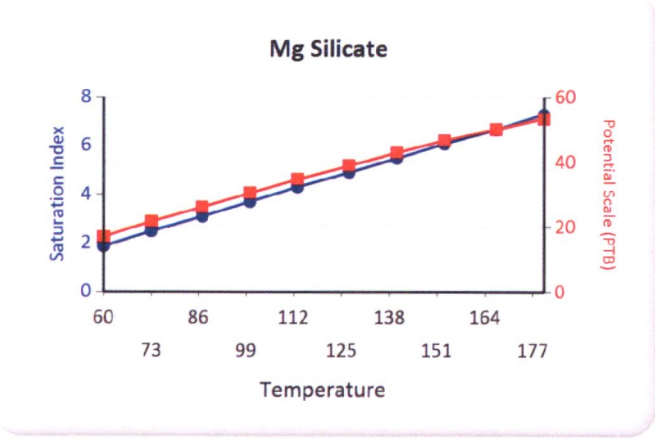


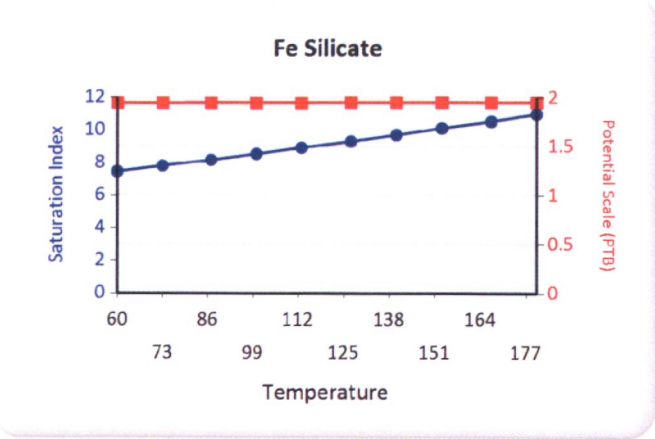







Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
2.5
2
1.5
1
0.5
0
0.4
0.3
0.2
0.1
0
60
86
112
138
164
73
99
125
151
177


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
8
6
4
2
0
60
40
20
0
60
86
112
138
164
73
99
125
151
177


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
12
10
8
6
4
2
0
2
1.5
1
0.5
0
60
86
112
138
164
73
99
125
151
177

OMB No. 2040-0042 Approval Expires 12/31/2011

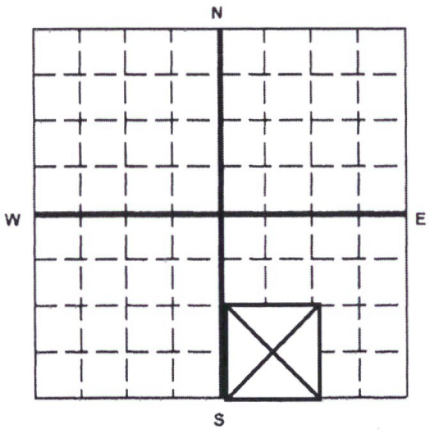
EPA

United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee	Name and Address of Surface Owner
Petroglyph Operating Company, Inc. 2258 P.O. Box 7608 Boise, Idaho 83709	Ute Indian Tribe P.O. Box 70 Ft. Duchesne, Utah 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736-07126

Surface Location Description

___ 1/4 of ___ 1/4 of SW 1/4 of SE 1/4 of Section 29 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 6490 ft. frm (N/S) S Line of quarter section and 1831 ft. from (E/W) E Line of quarter section.

WELL ACTIVITY
- [ ] Brine Disposal
- [X] Enhanced Recovery
- [ ] Hydrocarbon Storage

TYPE OF PERMIT
- [ ] Individual
- [X] Area

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 29-15

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING -- CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	14	365	369	0		0	0
February	14	704	1519	74		0	0
March	14	1481	1501	916		0	0
April	14	1503	1525	994		0	0
May	14	1492	1524	836		0	0
June	14	1466	1487	876		0	0
July	14	1455	1534	1088		0	0
August	14	1488	1528	1019		0	0
September	14	1486	1528	945		0	0
October	14	1503	1542	1032		0	0
November	14	1466	1497	900		0	0
December	14	1469	1510	950		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		2/10/2015

EPA Form 7520-11 (Rev. 12-08)

U2 Entered
Date 3/31/15
Initial GW

	GREEN	BLUE	CBI
TAB		2	

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

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Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH OPERATING CO INC - EBUS**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 29-15 INJ, DUCHESNE**	Lab Tech:	**Gary Winegar**
Sample Point:	**WELLHEAD**		
Sample Date:	**1/7/2015**		
Sample ID:	**WA-297533**		

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics	
Test Date:	1/14/2015
System Temperature 1 (°F):	160
System Pressure 1 (psig):	1300
System Temperature 2 (°F):	80
System Pressure 2 (psig):	15
Calculated Density (g/ml):	1.0005
pH:	8.00
Calculated TDS (mg/L):	4978.37
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	5.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	1084.19	Chloride (Cl):	2000.00
Potassium (K):	23.54	Sulfate (SO_4):	168.00
Magnesium (Mg):	56.92	Bicarbonate (HCO_3):	1464.00
Calcium (Ca):	105.60	Carbonate (CO_3):	
Strontium (Sr):	4.78	Acetic Acid (CH_3COO)	
Barium (Ba):	4.33	Propionic Acid (C_2H_5COO)	
Iron (Fe):	24.10	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	14.57	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.08	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.18	Silica (SiO_2):	28.08

Notes:
B=2.76 Al=.01 Li=.59

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
80.00	14.00	1.51	73.14	1.77	2.53	4.01	4.54	2.76	17.47	0.00	0.00	0.00	0.00	0.00	0.00	11.93	5.03
88.00	157.00	1.48	71.08	1.68	2.52	3.90	4.54	2.76	17.47	0.00	0.00	0.00	0.00	0.00	0.00	11.71	5.03
97.00	300.00	1.51	72.24	1.61	2.51	3.85	4.54	2.82	17.48	0.00	0.00	0.00	0.00	0.00	0.00	11.56	5.03
106.00	443.00	1.53	73.44	1.54	2.50	3.81	4.54	2.87	17.49	0.00	0.00	0.00	0.00	0.00	0.00	11.42	5.03
115.00	585.00	1.56	74.68	1.47	2.49	3.78	4.54	2.93	17.49	0.00	0.00	0.00	0.00	0.00	0.00	11.28	5.03
124.00	728.00	1.60	75.93	1.42	2.48	3.75	4.54	2.99	17.49	0.00	0.00	0.00	0.00	0.00	0.00	11.16	5.03
133.00	871.00	1.63	77.18	1.36	2.47	3.74	4.54	3.04	17.50	0.00	0.00	0.00	0.00	0.00	0.00	11.05	5.03
142.00	1014.00	1.67	78.42	1.32	2.45	3.73	4.54	3.09	17.50	0.00	0.00	0.00	0.00	0.00	0.00	10.94	5.03
151.00	1157.00	1.70	79.63	1.28	2.44	3.73	4.54	3.15	17.50	0.00	0.00	0.00	0.00	0.00	0.00	10.85	5.03
160.00	1300.00	1.74	80.81	1.24	2.43	3.73	4.54	3.20	17.51	0.00	0.00	0.00	0.00	0.00	0.00	10.76	5.03

		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
80.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.83	9.60	11.94	0.03	0.66	3.97	0.02	0.22	8.31	18.40
88.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.92	9.64	11.61	0.03	0.76	4.33	0.03	0.30	8.25	18.35
97.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	2.05	9.68	11.35	0.03	1.19	6.92	0.27	1.66	8.52	18.43
106.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	2.17	9.71	11.11	0.03	1.63	9.70	0.51	3.09	8.81	18.50
115.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	2.29	9.73	10.88	0.03	2.08	12.65	0.76	4.58	9.10	18.55
124.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	2.41	9.75	10.67	0.03	2.53	15.73	1.02	6.12	9.41	18.60
133.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	2.53	9.76	10.47	0.03	2.99	18.87	1.28	7.65	9.72	18.63
142.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	2.64	9.77	10.28	0.03	3.44	21.96	1.54	9.17	10.05	18.66
151.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	2.74	9.78	10.10	0.03	3.90	24.87	1.80	10.62	10.38	18.68
160.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	2.84	9.78	9.94	0.03	4.36	27.45	2.07	11.96	10.71	18.70

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

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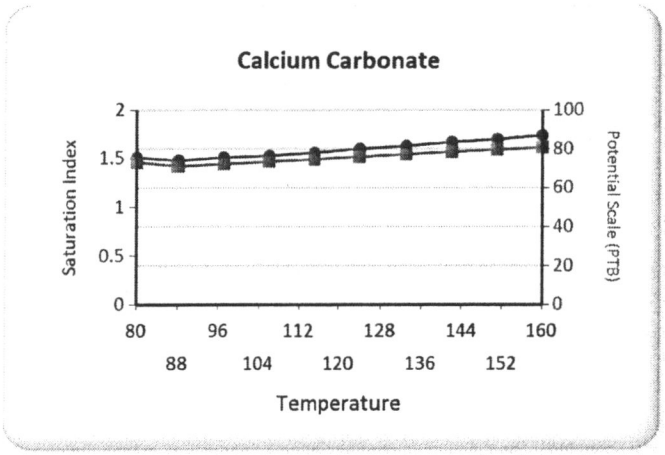
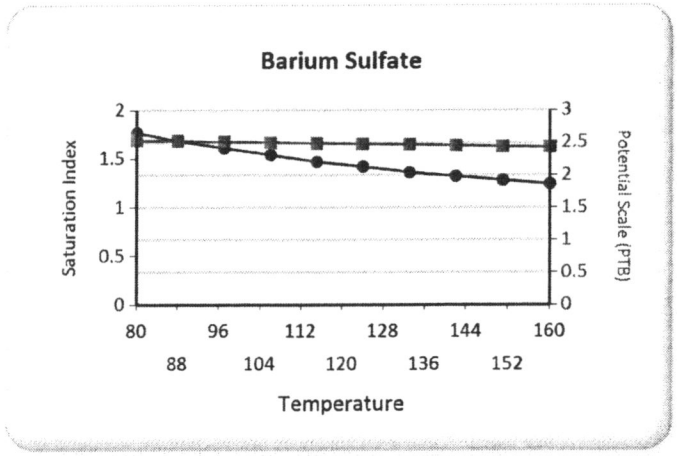
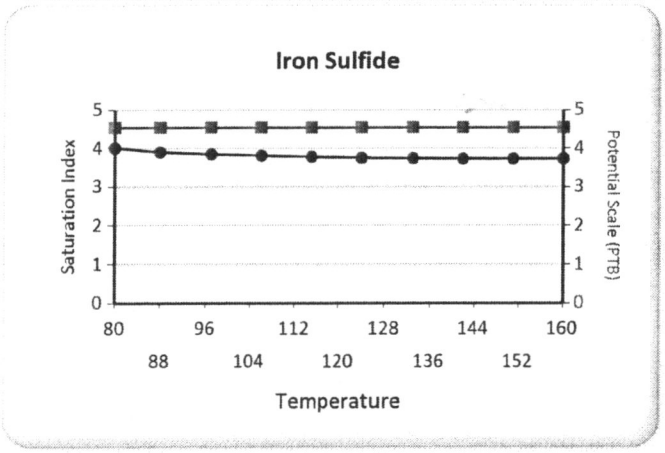
Water Analysis Report

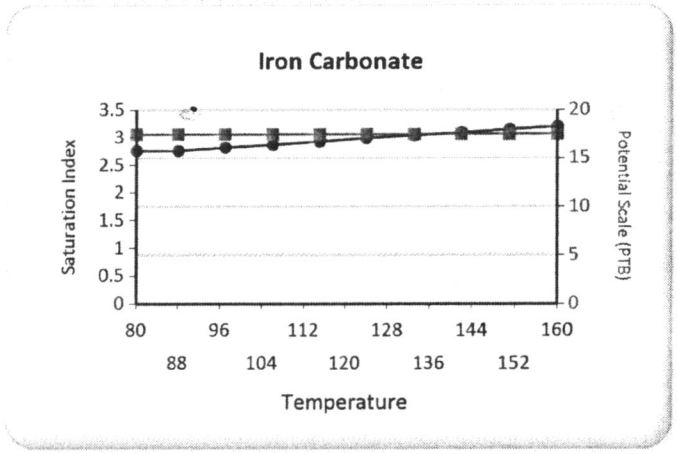
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

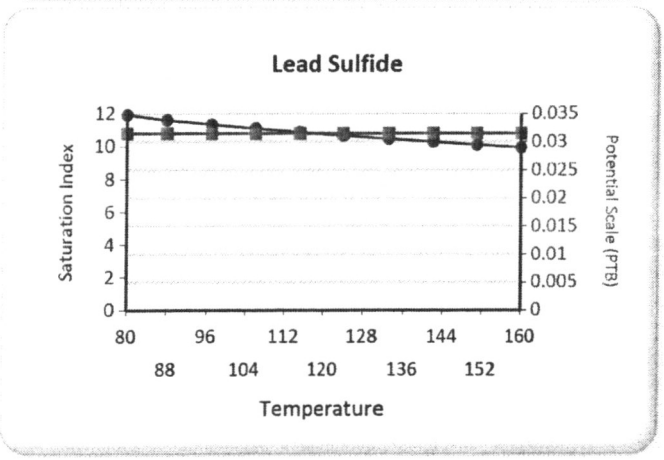
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

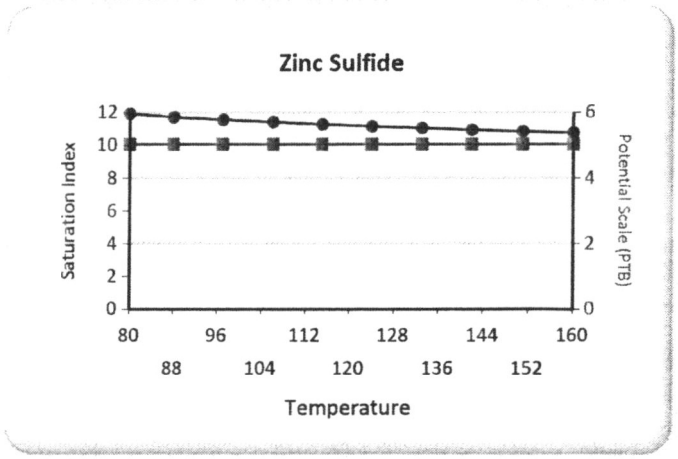


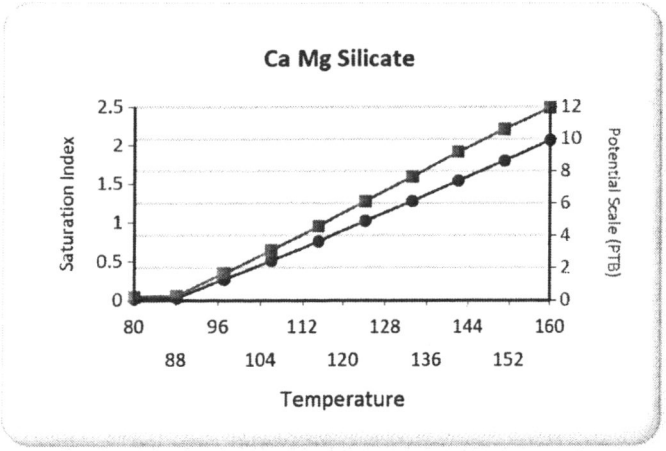


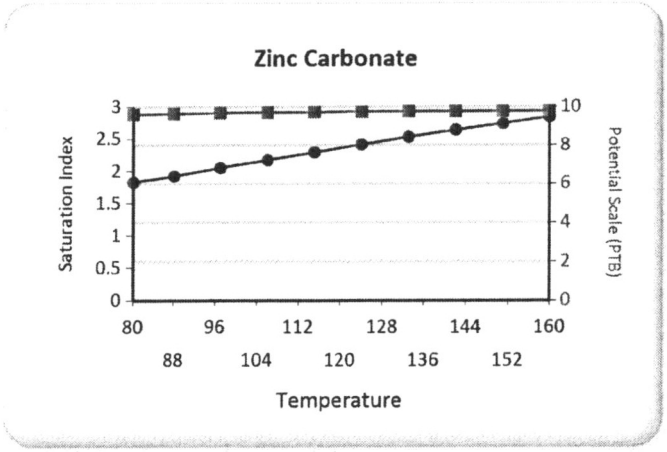


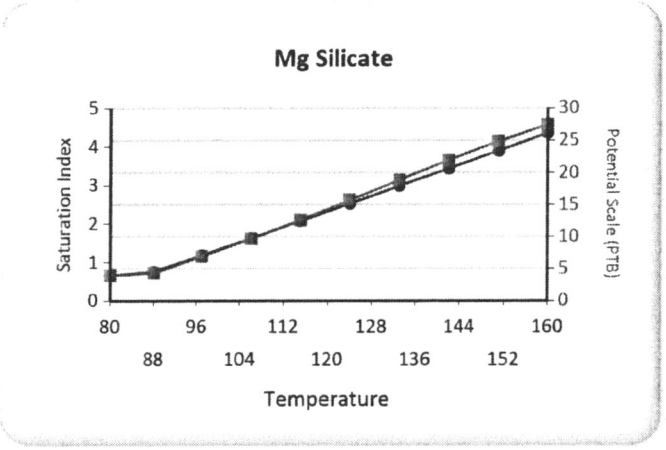







Ca Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
80 88 96 104 112 120 128 136 144 152 160


Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
80 88 96 104 112 120 128 136 144 152 160


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
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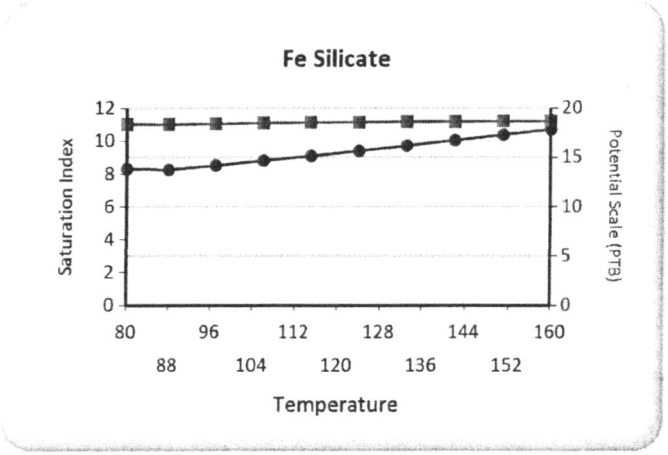

Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
80 88 96 104 112 120 128 136 144 152 160

OMB No. 2040-0042 Approval Expires 12/31/2011

EPA

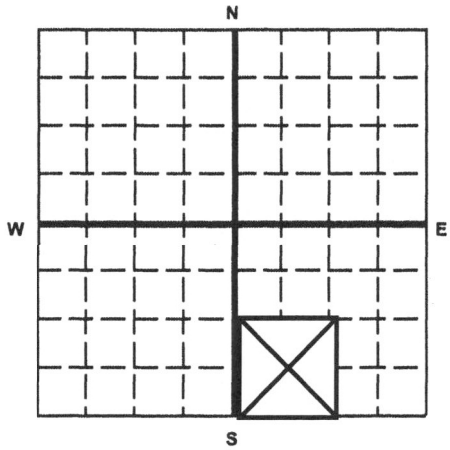
United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee
Petroglyph Operating Company, Inc. 2258
P.O. Box 7608
Boise, Idaho 83709

Name and Address of Surface Owner
Ute Indian Tribe
P.O. Box 70
Ft. Duchesne, Utah 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736-07126

Surface Location Description
____ 1/4 of ____ 1/4 of SW 1/4 of SE 1/4 of Section 29 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 6490 ft. frm (N/S) S Line of quarter section
and 1831 ft. from (E/W) E Line of quarter section.

WELL ACTIVITY
- ☐ Brine Disposal
- ☒ Enhanced Recovery
- ☐ Hydrocarbon Storage

TYPE OF PERMIT
- ☐ Individual
- ☒ Area

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 29-15

MONTH	YEAR	INJECTION PRESSURE AVERAGE PSIG	INJECTION PRESSURE MAXIMUM PSIG	TOTAL VOLUME INJECTED BBL	TOTAL VOLUME INJECTED MCF	TUBING -- CASING ANNULUS PRESSURE (OPTIONAL MONITORING) MINIMUM PSIG	TUBING -- CASING ANNULUS PRESSURE (OPTIONAL MONITORING) MAXIMUM PSIG
January	13	622	852	0		0	0
February	13	508	1379	0		0	0
March	13	353	378	0		0	0
April	13	393	400	0		0	0
May	13	404	411	0		0	0
June	13	419	422	0		0	0
July	13	445	458	0		0	0
August	13	351	460	0		0	0
September	13	339	345	0		0	0
October	13	349	361	0		0	0
November	13	351	366	0		0	0
December	13	364	367	0		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		2/11/2014

EPA Form 7520-11 (Rev. 12-08)

GREEN BLUE CB AB 2

U2 Entered
Date 3/21/14
Initial DB

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Vernal, UT 84078

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Units of Measurement: **Standard**

Water Analysis Report

Production Company: **PETROGLYPH ENERGY INC**
Well Name: **UTE TRIBAL 29-15 INJ**
Sample Point: **Wellhead**
Sample Date: **1/8/2014**
Sample ID: **WA-262992**

Sales Rep: **James Patry**
Lab Tech: **Gary Winegar**

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics	
Test Date:	1/15/2014
System Temperature 1 (°F):	180
System Pressure 1 (psig):	1300
System Temperature 2 (°F):	60
System Pressure 2 (psig):	15
Calculated Density (g/ml):	1.001
pH:	8.50
Calculated TDS (mg/L):	4846.01
CO_2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H_2S in Water (mg/L):	3.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	1284.29	Chloride (Cl):	1000.00
Potassium (K):	15.00	Sulfate (SO_4):	369.00
Magnesium (Mg):	58.00	Bicarbonate (HCO_3):	1952.00
Calcium (Ca):	120.00	Carbonate (CO_3):	
Strontium (Sr):	4.00	Acetic Acid (CH_3COO)	
Barium (Ba):	0.73	Propionic Acid (C_2H_5COO)	
Iron (Fe):	21.00	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.30	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.06	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.23	Silica (SiO_2):	21.40

Notes:
B=1.2 Al=0 Li=.15

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum $CaSO_4 \cdot 2H_2O$		Celestite $SrSO_4$		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	2.08	93.45	1.52	0.42	4.40	2.72	3.15	15.26	0.00	0.00	0.00	0.00	0.00	0.00	10.93	0.16
73.00	157.00	2.10	92.95	1.37	0.42	4.27	2.72	3.22	15.26	0.00	0.00	0.00	0.00	0.00	0.00	10.63	0.16
86.00	300.00	2.12	94.00	1.24	0.41	4.16	2.72	3.30	15.26	0.00	0.00	0.00	0.00	0.00	0.00	10.36	0.16
100.00	443.00	2.15	95.10	1.13	0.40	4.07	2.72	3.37	15.26	0.00	0.00	0.00	0.00	0.00	0.00	10.12	0.16
113.00	585.00	2.18	96.22	1.03	0.40	4.01	2.72	3.45	15.26	0.00	0.00	0.00	0.00	0.00	0.00	9.90	0.16
126.00	728.00	2.22	97.31	0.95	0.39	3.96	2.72	3.52	15.26	0.00	0.00	0.00	0.00	0.00	0.00	9.71	0.16
140.00	871.00	2.26	98.35	0.88	0.38	3.93	2.72	3.59	15.26	0.00	0.00	0.00	0.00	0.00	0.00	9.53	0.16
153.00	1014.00	2.31	99.33	0.82	0.37	3.91	2.72	3.66	15.27	0.00	0.00	0.00	0.00	0.00	0.00	9.37	0.16
166.00	1157.00	2.36	100.23	0.77	0.36	3.90	2.72	3.73	15.27	0.00	0.00	0.00	0.00	0.00	0.00	9.23	0.16
180.00	1300.00	2.41	101.03	0.73	0.35	3.91	2.72	3.80	15.27	0.00	0.00	0.00	0.00	0.00	0.00	9.10	0.16

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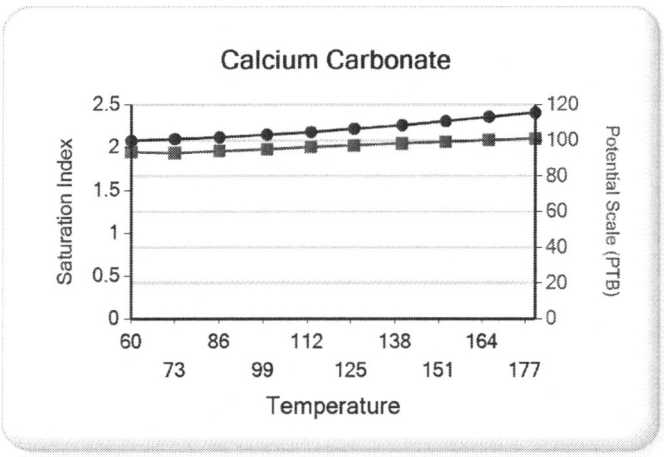
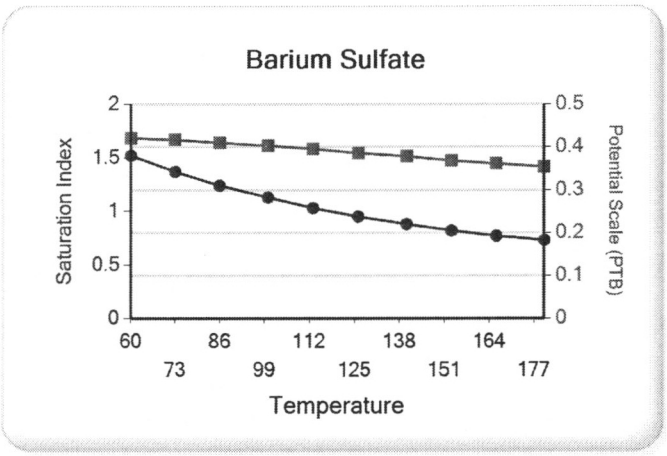
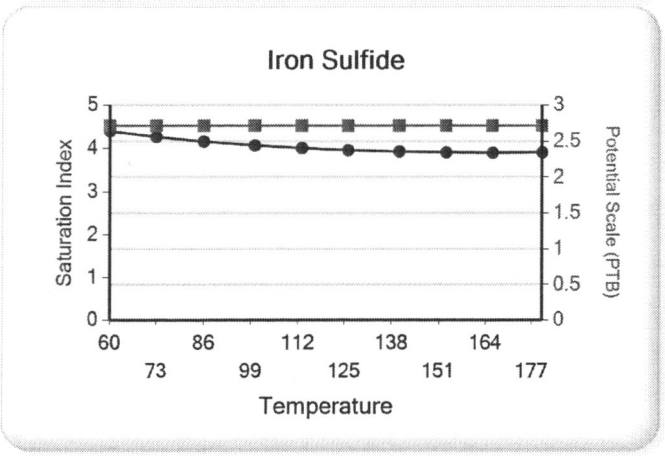
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.12	12.77	0.02	2.45	15.67	1.28	7.59	10.31	16.28
73.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.15	12.29	0.02	2.92	17.65	1.51	8.49	10.53	16.29
86.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.17	11.85	0.02	3.48	20.03	1.80	9.57	10.83	16.30
100.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.18	11.45	0.02	4.05	22.10	2.10	10.54	11.16	16.31
113.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	0.19	11.09	0.02	4.64	23.70	2.42	11.35	11.52	16.32
126.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	1.33	0.19	10.75	0.02	5.23	24.77	2.74	11.99	11.90	16.32
140.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	1.48	0.20	10.45	0.02	5.84	25.38	3.08	12.48	12.29	16.32
153.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	0.20	10.17	0.02	6.45	25.69	3.42	12.83	12.70	16.33
166.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.77	0.20	9.91	0.02	7.06	25.83	3.76	13.07	13.12	16.33
180.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.90	0.20	9.68	0.02	7.67	25.89	4.10	13.23	13.54	16.33

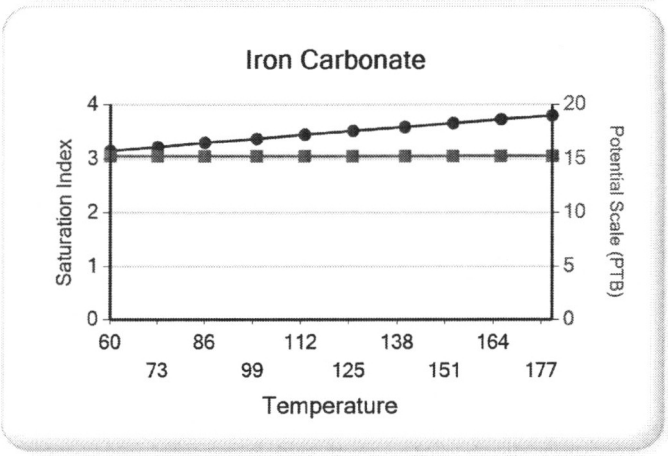
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate









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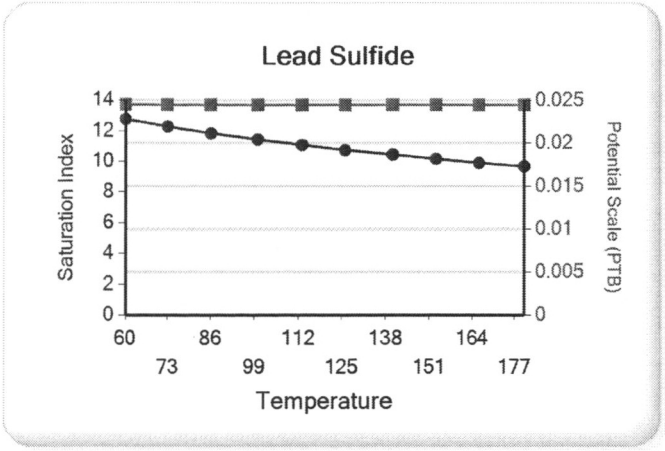

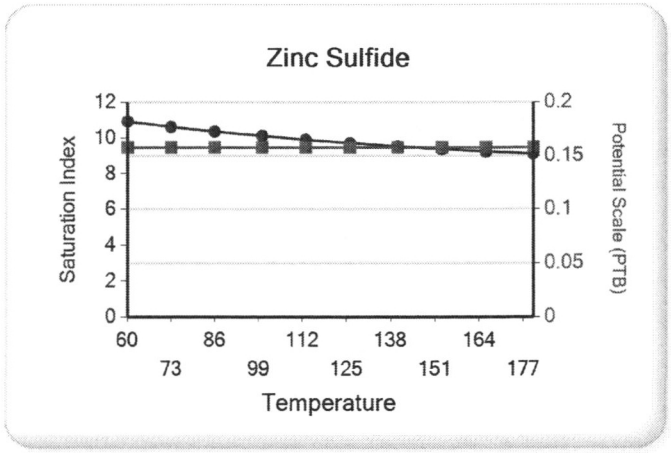

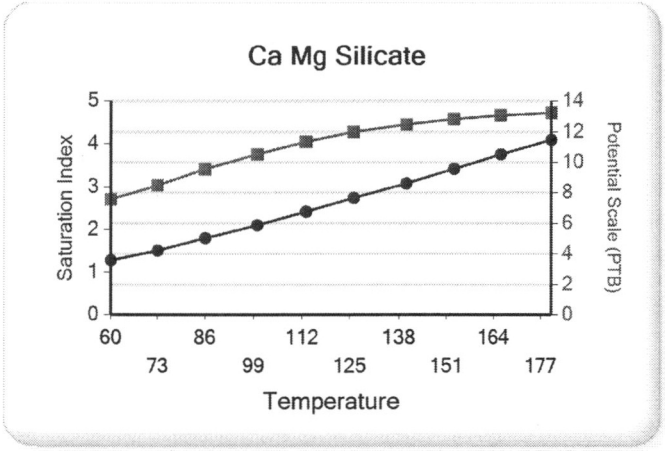

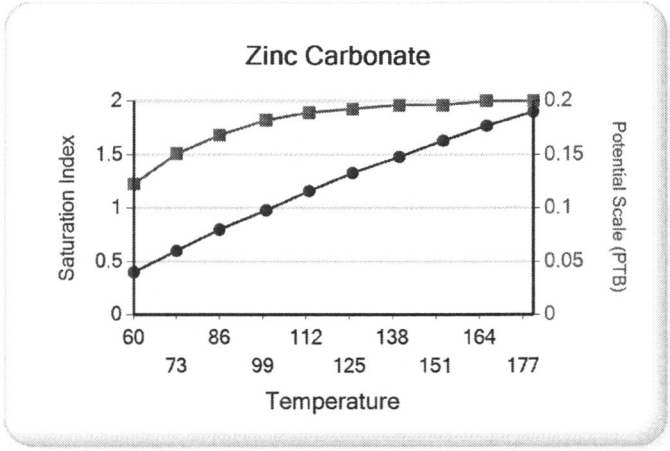

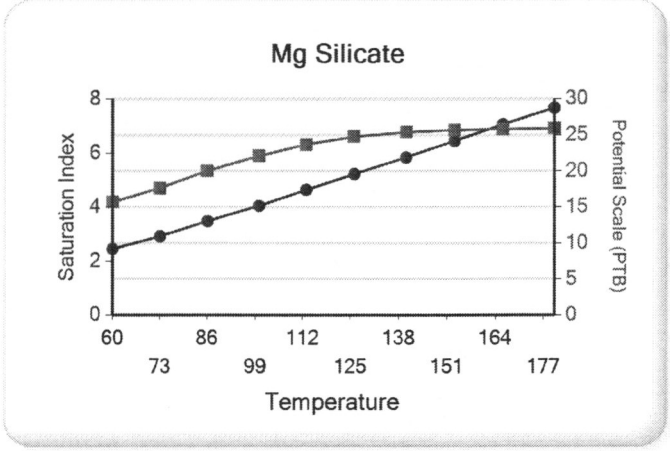

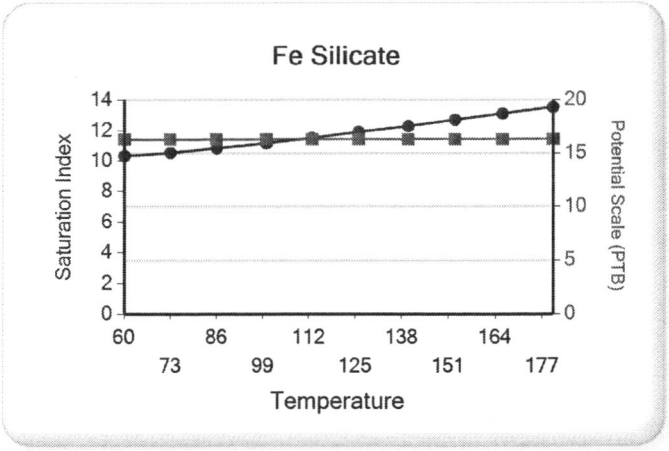
Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
14
12
10
8
6
4
2
0
20
15
10
5
0
60
86
112
138
164
73
99
125
151
177

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

JUL 23 2007

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Steve Wall, District Manager
Petroglyph Energy, Inc.
4116 West 3000 So. Ioka Lane
Roosevelt, UT 84066

RE: Authorization to Inject
UIC Permit No. UT20736-00000
Well ID: UT20736-07126
Ute Tribal No. 29-15
Duchesne County, Utah

Dear Mr. Wall:

Thank you for submitting information pertaining to the newly constructed or converted Ute Tribal No. 29-15 enhanced recovery injection well to the Region 8 Ground Water Program office of the Environmental Protection Agency (EPA). The "Prior To Commencing Injection" requirements for the Ute Tribal No. 29-15 injection well required well owner and operator Petroglyph Operating Company, Inc. to submit the following information to the Director:

I. A successful mechanical integrity test (MIT) demonstrating Part I Internal MI,
II. Pore pressure calculation of the proposed injection zone, and
III. Completed EPA Form No. 7520-12.

All required information has been submitted, and has been reviewed and approved by the EPA. Therefore, effective upon your receipt of this letter, Administrative approval hereby is granted for injection into the Ute Tribal No. 29-15 enhanced recovery injection well under the conditions of the Authorization for Additional Well and UIC Area Permit UT20736-00000 as modified.

As of this approval, responsibility for permit compliance and enforcement is transferred to the Region 8 UIC Technical Enforcement Program office. Therefore, please direct all future notification, reporting, monitoring and compliance correspondence to the following address, referencing your well and UIC Permit number on all correspondence regarding this well.

Technical Enforcement Program - UIC
U.S. EPA Region 8, Mail Code 8ENF-UFO
1595 Wynkoop Street
Denver, Colorado 80202-1129

The Director has determined that the maximum allowable surface injection pressure (MAIP) for the Ute Tribal No. 29-15 shall not exceed **1575** psig. This MAIP value has been recalculated with the use the new top perforation located at a depth of 4341 ft. Please be reminded that it is the responsibility of the owner/operator to be aware of, and to comply with, all conditions of Authorization for Additional Well UT20736-07126 and EPA UIC Area Permit UT20736-00000 and relevant modifications as issued.

If you have any questions regarding this Authorization, please call Linda Bowling of my staff at (303) 312-6254. For questions regarding notification, testing, monitoring, reporting or other Permit requirements, please contact Nathan Wiser of the UIC Technical Enforcement Program by calling (303) 312-6211.

Sincerely,

for Stephen S. Tuber
Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance

cc:

Curtis Cesspooch, Chairperson
Uintah & Ouray Business Committee
Ute Indian Tribe

Ronald Groves, Councilman
Uintah & Ouray Business Committee
Ute Indian Tribe

Irene Cuch, Vice-Chairperson
Uintah & Ouray Business Committee
Ute Indian Tribe

Steven Cesspooch, Councilman
Uintah & Ouray Business Committee
Ute Indian Tribe

Shawn Chapoose, Director
Land Use Department
Ute Indian Tribe

Gil Hunt
Technical Services Manager
Utah Division of Oil, Gas, and Mining

Fluid Minerals Engineering Office
BLM - Vernal Office

Lynn Becker, Director
Energy and Minerals Department
Ute Indian Tribe

Phillip Chimbraus, Councilman
Uintah & Ouray Business Committee
Ute Indian Tribe

Francis Poowegup, Councilman
Uintah & Ouray Business Committee
Ute Indian Tribe

Chester Mills, Superintendent
BIA - Uintah & Ouray Indian Agency

Mr. Kenneth Smith
Executive Vice President and Chief
Operating Officer
Petroglyph Energy, Inc.