Inspection Report For Well: UT20736 - 04636

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: 10/10/2013 (12)

Others: Ajayi, Christopher — Time: 9:43 am / pm

OPERATOR (only if different): Chad Stennson

REPRESENTATIVE(S):

PRE-INSPECTION REVIEW

Petroglyph Operating Company, Inc

Well Name:	Ute Tribal 04-13		
Well Type:	Enhanced Recovery (2R)		
Operating Status:	AC (ACTIVE) as of 12/31/2002		
Oil Field:	Antelope Creek (Duchesne)		
Location:	SWSW S4 T5S R3W		
Indian Country:	X, Uintah and Ouray		
Last Inspection:	8/28/2012	***Allowable Inj Pressure:***	1900 /
Last MIT:	Pass 9/6/2011	***Annulus Pressure From Last MIT:***	1210

BLACK = POSSIBLE VIOLATION GREY = DATA MISSING

INSPECTION TYPE: **(Select One)**

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

IGIS Entered
Date 12/30/13
Initials DB

OBSERVED VALUES:

Tubing Gauge:	[x] Yes [ ] No	Pressure: U: 1834 / L: ____ psig Gauge Range: Scada psig	Gauge Owner:	[ ] EPA [x] Operator
Annulus Gauge:	[x] Yes [ ] No	Pressure: 0 psig Gauge Range: opened on MIT 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)
- [x] Active
- [ ] Being Reworked
- [ ] Not Injecting
- [ ] Production
- [ ] Plugged and Abandoned
- [ ] Under Construction

U2 Entered
Date 12/13/13
Initial JR

	GREEN	BLUE	CBI
FB		1	

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

Inspection Report For Well: UT20736 - 04636 (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: 12/16/13
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

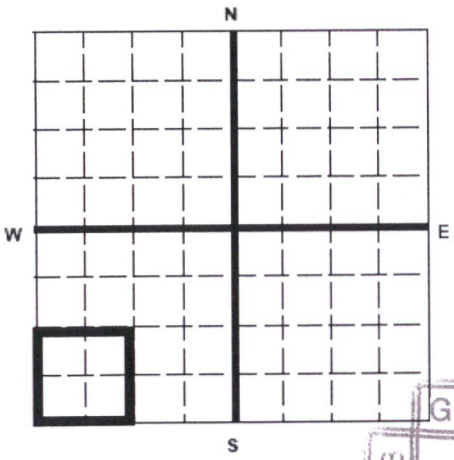
United States Environmental Protection Agency
Washington, DC 20460

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	UT2736-04636

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

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

Surface Location 807 ft. frm (N/S) S Line of quarter section
and 886 ft. from (E/W) W Line of quarter section.

U2 Entered
Date 3/24/17
Initial JS

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 04-13

GREEN BLUE CBI
TAE 2

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	16	1794	1825	1422		0	0
February	16	1851	1868	1635		0	0
March	16	1844	1861	1336		0	0
April	16	1820	1837	1036		0	0
May	16	1829	1845	1184		0	0
June	16	1782	1853	1103		0	0
July	16	1823	1842	1230		0	0
August	16	1816	1851	1058		0	0
September	16	1814	1841	1126		0	0
October	16	1835	1854	1383		0	0
November	16	1808	1844	1177		0	0
December	16	1824	1836	1365		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

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 04-13, TT, DUCHESNE**	Lab Tech:	**Kaitlyn Natelli**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2017**		
Sample ID:	**WA-345338**		

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):	1.0036
pH:	8.40
Calculated TDS (mg/L):	9147.95
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):	3191.04	Chloride (Cl):	4000.00
Potassium (K):	19.18	Sulfate (SO_4):	70.00
Magnesium (Mg):	17.65	Bicarbonate (HCO_3):	1769.00
Calcium (Ca):	33.71	Carbonate (CO_3):	
Strontium (Sr):	3.22	Hydroxide(HO):	
Barium (Ba):	8.90	Acetic Acid (CH_3COO)	
Iron (Fe):	15.72	Propionic Acid (C_2H_5COO)	
Zinc (Zn):	2.39	Butanoic Acid (C_3H_7COO)	
Lead (Pb):	0.18	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Ammonia NH_3:		Fluoride (F):	
Manganese (Mn):	0.17	Bromine (Br):	
Aluminum (Al):	0.15	Silica (SiO_2):	16.79
Lithium (Li):	2.87	Calcium Carbonate ($CaCO_3$):	
Boron (B):	3.32	Phosphates (PO_4):	15.88
Silicon (Si):	7.85	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	1.43	27.15	1.13	4.87	0.00	0.00	3.19	11.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
149.00	267.00	1.49	27.44	1.03	4.76	0.00	0.00	3.28	11.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
168.00	483.00	1.56	27.81	0.95	4.66	0.00	0.00	3.37	11.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
187.00	700.00	1.64	28.15	0.90	4.58	0.00	0.00	3.46	11.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
206.00	917.00	1.73	28.44	0.86	4.51	0.00	0.00	3.55	11.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
224.00	1133.00	1.83	28.68	0.83	4.46	0.00	0.00	3.63	11.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
243.00	1350.00	1.93	28.88	0.82	4.43	0.00	0.00	3.70	11.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
262.00	1567.00	2.04	29.04	0.82	4.43	0.00	0.00	3.77	11.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
281.00	1783.00	2.16	29.16	0.82	4.44	0.00	0.00	3.83	11.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	2000.00	2.27	29.25	0.83	4.46	0.00	0.00	3.89	11.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

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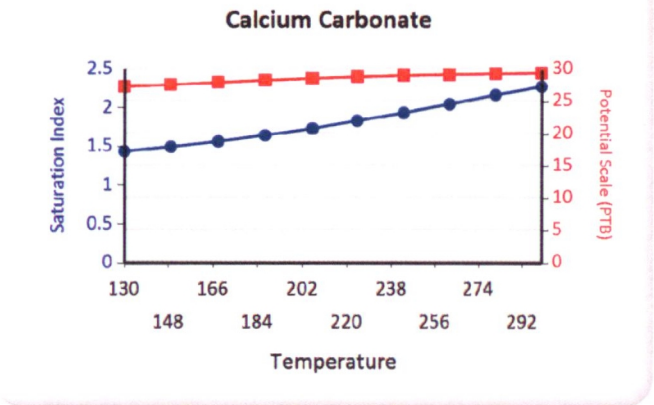
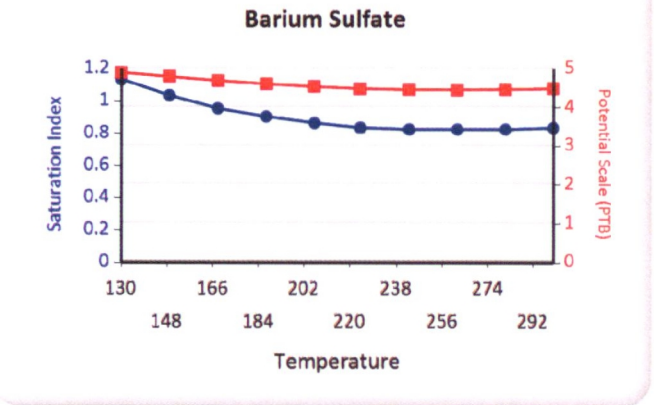
Water Analysis Report

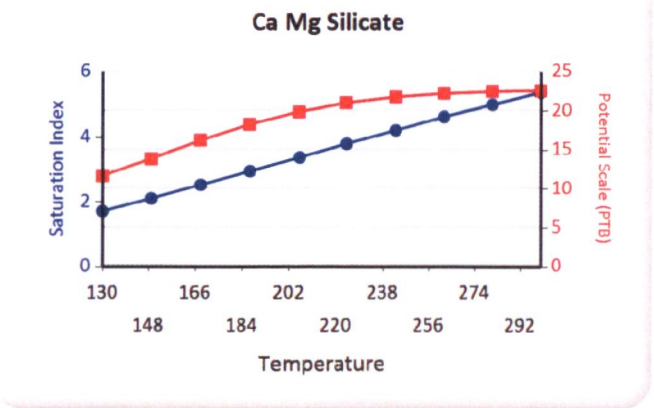
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
130.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	2.01	1.59	0.00	0.00	3.54	19.91	1.70	11.66	11.31	12.22
149.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	2.21	1.60	0.00	0.00	4.26	23.14	2.09	13.82	11.75	12.22
168.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	2.41	1.60	0.00	0.00	5.02	26.56	2.52	16.15	12.25	12.22
187.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	2.58	1.60	0.00	0.00	5.77	29.44	2.94	18.19	12.76	12.23
206.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	2.73	1.61	0.00	0.00	6.52	31.65	3.36	19.81	13.27	12.23
224.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	2.87	1.61	0.00	0.00	7.24	33.18	3.78	20.97	13.79	12.23
243.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	1.61	0.00	0.00	7.95	34.13	4.19	21.70	14.31	12.23
262.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	3.10	1.61	0.00	0.00	8.64	34.67	4.60	22.14	14.81	12.23
281.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	3.19	1.61	0.00	0.00	9.29	34.96	4.98	22.38	15.31	12.23
300.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	3.27	1.61	0.00	0.00	9.92	35.10	5.36	22.52	15.78	12.23

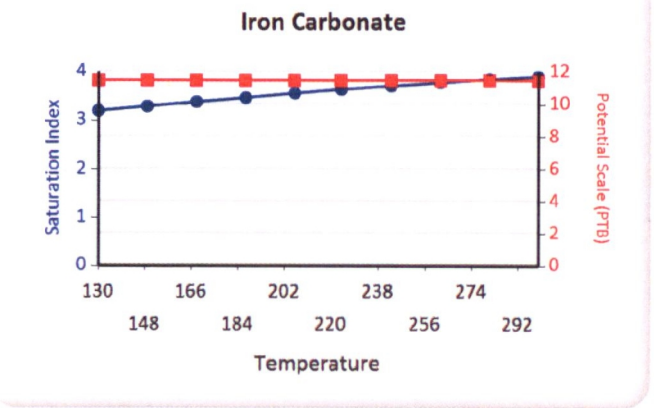
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

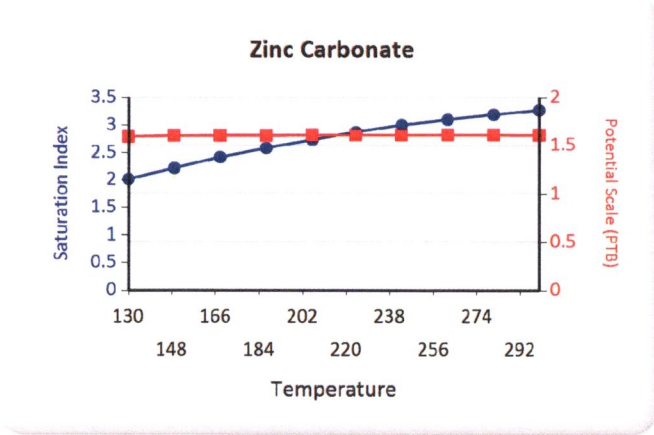
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

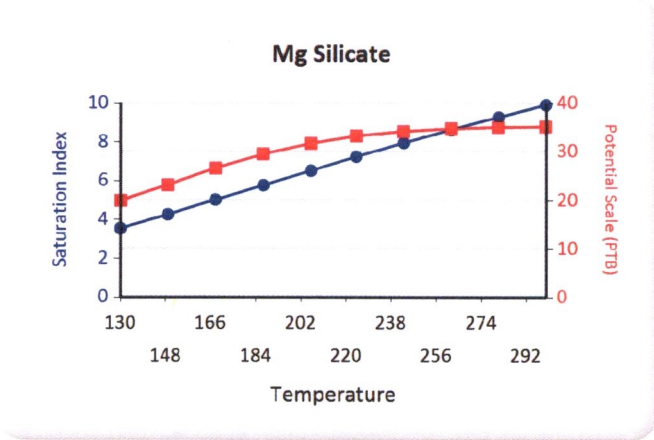


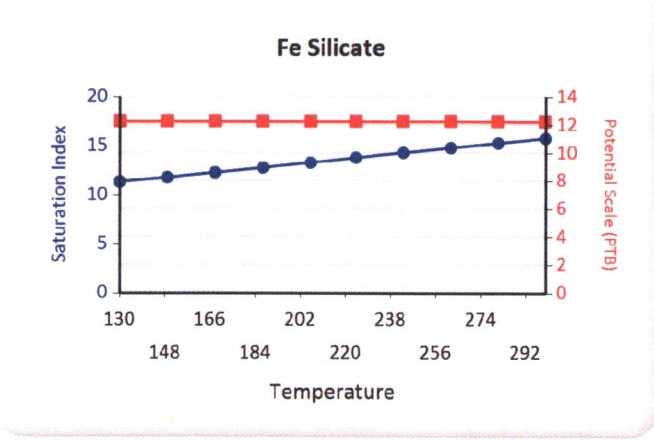







Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
3.5
3
2.5
2
1.5
1
0.5
0
2
1.5
1
0.5
0
130
148
166
184
202
220
238
256
274
292


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
10
8
6
4
2
0
40
30
20
10
0
130
148
166
184
202
220
238
256
274
292


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
20
15
10
5
0
14
12
10
8
6
4
2
0
130
148
166
184
202
220
238
256
274
292

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

EPA

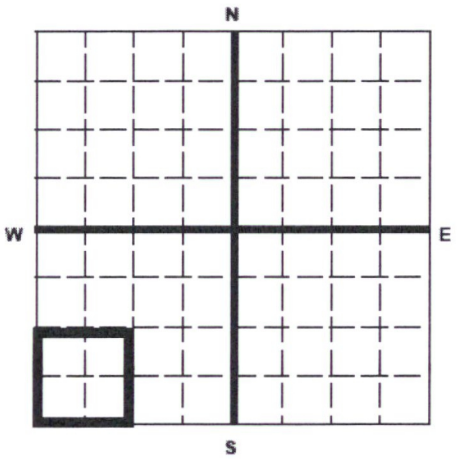
United States Environmental Protection Agency
Washington, DC 20460

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~~ 04636

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

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

Surface Location 807 ft. frm (N/S) S Line of quarter section
and 886 ft. from (E/W) W Line of quarter section.

U2 Entered
Date 2/29/16
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 04-13

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING – CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	15	1793	1808	1268		0	0
February	15	1812	1849	1210		0	0
March	15	1802	1863	1244		0	0
April	15	1804	1835	1351		0	0
May	15	1809	1829	1254		0	0
June	15	1751	1842	1184		0	0
July	15	1846	1863	1329		0	0
August	15	1815	1838	1419		0	0
September	15	1783	1856	1424		0	0
October	15	1834	1834	1661		0	0
November	15	1850	1866	1493		0	0
December	15	1842	1858	1490		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

GREEN BLUE CBI TAB

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

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 04-13,DUCHESNE**	Lab Tech:	**Michele Pike**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2016**		
Sample ID:	**WA-327680**		

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

Sample Specifics

Test Date:	1/13/2016
System Temperature 1 (°F):	60
System Pressure 1 (psig):	2000
System Temperature 2 (°F):	180
System Pressure 2 (psig):	50
Calculated Density (g/ml):	1.0081
pH:	7.70
Calculated TDS (mg/L):	15626.82
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	80.00
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):	5613.68	Chloride (Cl):	8000.00
Potassium (K):	13.53	Sulfate (SO_4):	310.00
Magnesium (Mg):	60.05	Bicarbonate (HCO_3):	1464.00
Calcium (Ca):	125.57	Carbonate (CO_3):	
Strontium (Sr):	4.86	Acetic Acid (CH_3COO)	
Barium (Ba):	3.90	Propionic Acid (C_2H_5COO)	
Iron (Fe):	3.19	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	2.41	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.70	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.03	Silica (SiO_2):	24.90
Aluminum (Al):	0.04	Calcium Carbonate ($CaCO_3$):	
Lithium (Li):	1.24	Phosphates (PO_4):	5.25
Boron (B):	1.47	Oxygen (O_2):	
Silicon (Si):	11.64		

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	1.50	90.34	0.97	2.07	0.00	0.00	2.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
167.00	267.00	1.36	83.68	0.99	2.09	0.00	0.00	1.85	2.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	483.00	1.27	78.90	1.03	2.10	0.00	0.00	1.74	2.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	700.00	1.18	73.88	1.07	2.12	0.00	0.00	1.63	2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
127.00	917.00	1.10	68.74	1.12	2.15	0.00	0.00	1.51	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	1133.00	1.02	63.61	1.19	2.17	0.00	0.00	1.40	2.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	1350.00	0.95	58.59	1.26	2.19	0.00	0.00	1.29	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.00	1567.00	0.88	53.78	1.36	2.22	0.00	0.00	1.17	2.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	1783.00	0.81	49.27	1.46	2.24	0.00	0.00	1.06	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	2000.00	0.75	45.10	1.59	2.26	0.00	0.00	0.95	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Multi-Chem Analytical Laboratory
1553 East Highway 40
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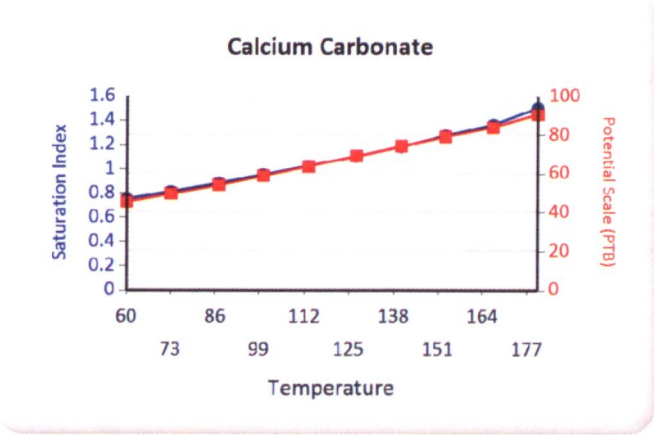
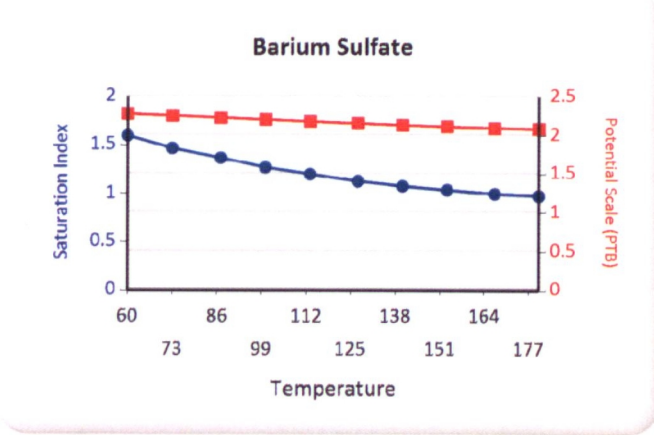
Water Analysis Report

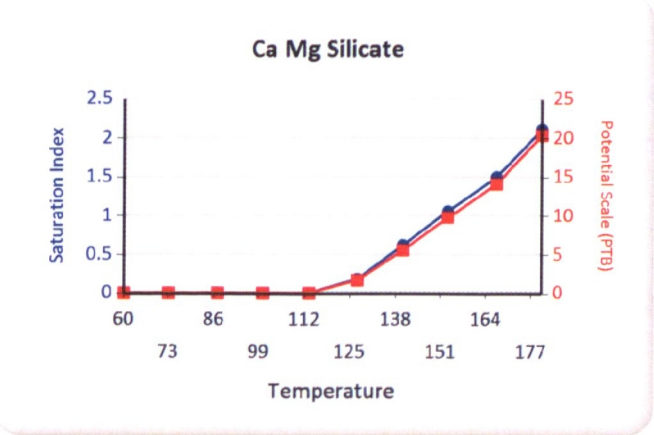
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	1.77	1.59	0.00	0.00	4.18	42.29	2.11	20.33	7.43	2.47
167.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57	1.57	0.00	0.00	3.20	30.59	1.50	14.13	6.62	2.46
153.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.55	0.00	0.00	2.47	22.45	1.06	9.76	6.06	2.45
140.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22	1.52	0.00	0.00	1.72	14.82	0.62	5.56	5.51	2.44
127.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	1.46	0.00	0.00	0.98	7.92	0.18	1.68	4.96	2.41
113.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	1.37	0.00	0.00	0.23	1.84	0.00	0.00	4.42	2.38
100.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	1.22	0.00	0.00	0.00	0.00	0.00	0.00	3.89	2.32
87.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.95	0.00	0.00	0.00	0.00	0.00	0.00	3.37	2.24
73.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.48	0.00	0.00	0.00	0.00	0.00	0.00	2.86	2.13
60.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36	1.97

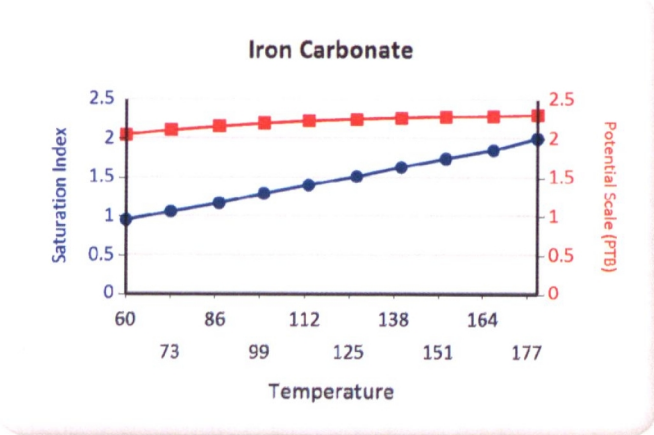
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

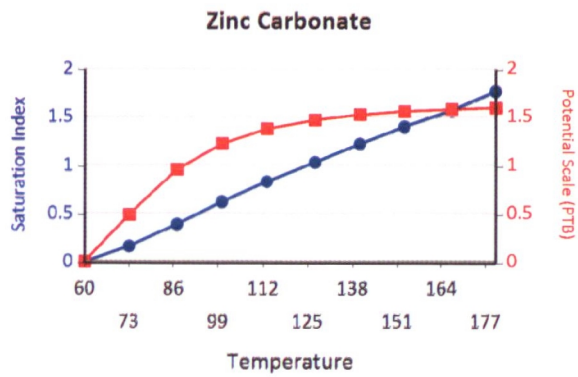
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Fe Silicate

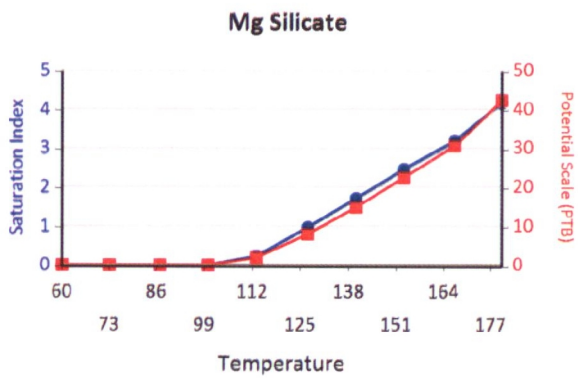


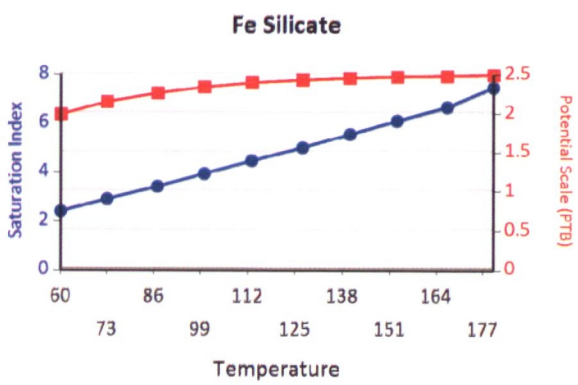







Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
0
0.5
1
1.5
2
60
86
112
138
164
73
99
125
151
177


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
1
2
3
4
5
0
10
20
30
40
50
60
86
112
138
164
73
99
125
151
177


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
2
4
6
8
0
0.5
1
1.5
2
2.5
60
86
112
138
164
73
99
125
151
177

PETROGLYPH EXECUTIVE OFFICES

RECEIVED
OCT 03 2016
Office of Enforcement, Compliance
and Environmental Justice (UFO)

September 21, 2016

Gary Wang
Mail Code: 8ENF-UFO
US EPA Region 8
1595 Wyncoop Street
Denver, CO 80202-1129

RE: EPA AREA PERMIT NO. UT2736-00000
Mechanical Integrity Tests

Mr. Wang:

Please find enclosed the Mechanical Integrity Tests for the following wells:

- Ute Tribal 28-03 UT20736-04389
- Ute Tribal 04-13 UT20736-04636

If any questions, please reach me at (208) 685-9711.

Best Regards,

U2 Entered
Date 10/7/16
Initial

Nicole Colby
Manager, Land & Regulatory Compliance

Encl: test results

TAB	GREEN	BLUE	CBI
		2	

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: 9 / 6 / 16
Test conducted by: CHAD STEVENSON
Others present: _____

Well Name: 04-13 Type: ER SWD **Status:** AC TA UC
Field: ANTELOPE CREEK
Location: 04-13 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: 42 **bpd**
Pre-test annulus pressure: **psig**

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING		**PRESSURE RECORD**	
Initial Pressure	1852 psig	psig	psig
End of test pressure	1852 psig	psig	psig
CASING / TUBING ANNULUS		**PRESSURE RECORD**	
0 minutes	990 psig	psig	psig
5 minutes	990 psig	psig	psig
10 minutes	990 psig	psig	psig
15 minutes	990 psig	psig	psig
20 minutes	990 psig	psig	psig
25 minutes	990 psig	psig	psig
30 minutes	990 psig	psig	psig
4 1/2 HOURS minutes	990 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.

12 NOON
1
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 NIGHT
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.
CALIBRATED CHARTS BATAVIA, N.Y.
MW-MB 2000
PRINTED IN U.S.A.
METER NUMBER
04-13
TIME PUT ON
9:00 AM
DATE PUT ON
9-6-16
TIME TAKEN OFF
1:30 PM
DATE TAKEN OFF
9-6-16
Start
9:00 AM
Casing
PSI 990
Stop
Casing
1:30 PM
PSI 990

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

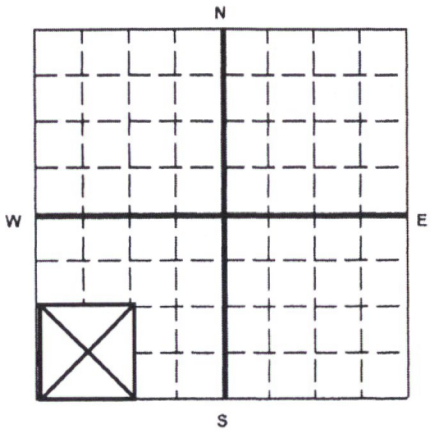
EPA

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	UT2736-04636

Surface Location Description

____ 1/4 of ____ 1/4 of SW 1/4 of SW 1/4 of Section 4 Township 5S Range 3W

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

Surface Location 807 ft. frm (N/S) S Line of quarter section and 886 ft. from (E/W) W 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 04-13

		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	1818	1847	947		0	0
February	14	1846	1854	795		0	0
March	14	1776	1848	754		0	0
April	14	1850	1861	858		0	0
May	14	1857	1865	935		0	0
June	14	1833	1864	929		0	0
July	14	1781	1817	1367		0	0
August	14	1817	1859	~~1293~~	1149 inj mnthly	0	0
September	14	1789	1828	1353		0	0
October	14	1805	1829	1505		0	0
November	14	1847	1857	1575		0	0
December	14	1848	1864	1436		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 possiblity 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 3/20/15
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:	PETROGLYPH, U.T. 04-13, DUCHESNE	Lab Tech:	Gary Winegar
Sample Point:	WELLHEAD		
Sample Date:	1/7/2015		
Sample ID:	WA-298183		

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

Sample Specifics	
Test Date:	1/21/2015
System Temperature 1 (°F):	160
System Pressure 1 (psig):	1300
System Temperature 2 (°F):	80
System Pressure 2 (psig):	15
Calculated Density (g/ml):	1.0011
pH:	7.70
Calculated TDS (mg/L):	5924.12
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	24.00
H_2S in Gas (%):	
H2S in Water (mg/L):	5.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	1336.71	Chloride (Cl):	3000.00
Potassium (K):	21.59	Sulfate (SO_4):	384.00
Magnesium (Mg):	60.25	Bicarbonate (HCO_3):	976.00
Calcium (Ca):	108.84	Carbonate (CO_3):	
Strontium (Sr):	4.87	Acetic Acid (CH_3COO)	
Barium (Ba):	1.44	Propionic Acid (C_2H_5COO)	
Iron (Fe):	1.43	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.38	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.07	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.08	Silica (SiO_2):	28.46

Notes:
B=2.97 Al=0 Li=.92

(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	1.01	51.30	1.58	0.83	2.37	0.79	0.97	0.93	0.00	0.00	0.00	0.00	0.00	0.00	9.98	0.20
88.00	157.00	0.97	48.25	1.49	0.83	2.24	0.78	0.95	0.92	0.00	0.00	0.00	0.00	0.00	0.00	9.75	0.20
97.00	300.00	1.00	49.95	1.42	0.82	2.20	0.78	1.01	0.94	0.00	0.00	0.00	0.00	0.00	0.00	9.60	0.20
106.00	443.00	1.03	51.77	1.35	0.82	2.16	0.78	1.07	0.95	0.00	0.00	0.00	0.00	0.00	0.00	9.47	0.20
115.00	585.00	1.06	53.69	1.28	0.81	2.14	0.78	1.13	0.96	0.00	0.00	0.00	0.00	0.00	0.00	9.34	0.20
124.00	728.00	1.10	55.70	1.23	0.81	2.12	0.78	1.19	0.97	0.00	0.00	0.00	0.00	0.00	0.00	9.23	0.20
133.00	871.00	1.14	57.78	1.17	0.80	2.11	0.78	1.25	0.98	0.00	0.00	0.00	0.00	0.00	0.00	9.12	0.20
142.00	1014.00	1.18	59.91	1.13	0.79	2.11	0.78	1.31	0.99	0.00	0.00	0.00	0.00	0.00	0.00	9.02	0.20
151.00	1157.00	1.22	62.08	1.09	0.79	2.11	0.78	1.37	1.00	0.00	0.00	0.00	0.00	0.00	0.00	8.93	0.20
160.00	1300.00	1.27	64.28	1.05	0.78	2.12	0.78	1.43	1.00	0.00	0.00	0.00	0.00	0.00	0.00	8.85	0.20

		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	0.00	0.00	11.52	0.03	0.00	0.00	0.00	0.00	2.64	0.94
88.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.17	0.03	0.00	0.00	0.00	0.00	2.47	0.92
97.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.92	0.03	0.00	0.00	0.00	0.00	2.77	0.96
106.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.04	10.69	0.03	0.00	0.00	0.00	0.00	3.08	0.99
115.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.09	10.47	0.03	0.37	2.09	0.00	0.00	3.41	1.02
124.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.13	10.26	0.03	0.85	4.95	0.00	0.00	3.75	1.04
133.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.16	10.07	0.03	1.34	8.07	0.16	0.99	4.09	1.06
142.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.18	9.88	0.03	1.83	11.39	0.44	2.67	4.44	1.07
151.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.20	9.71	0.03	2.32	14.86	0.73	4.42	4.80	1.08
160.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.21	9.55	0.03	2.82	18.38	1.02	6.19	5.17	1.09

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

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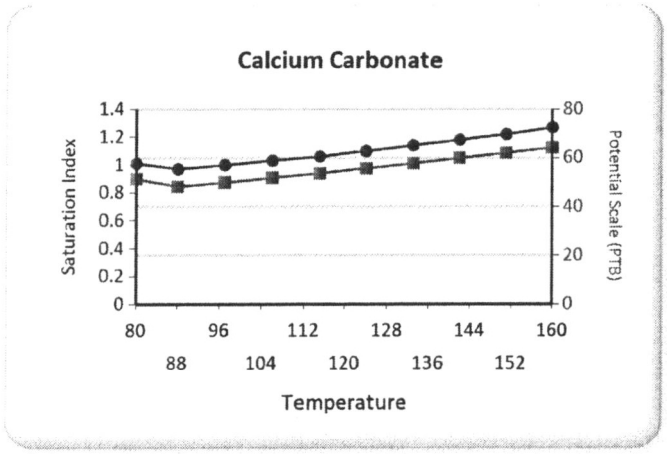
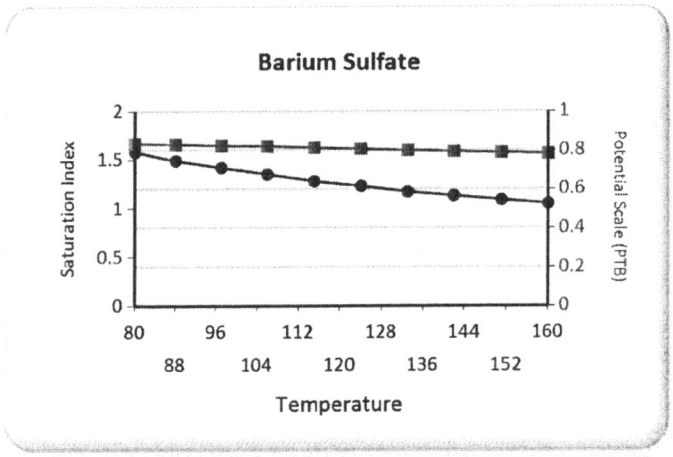
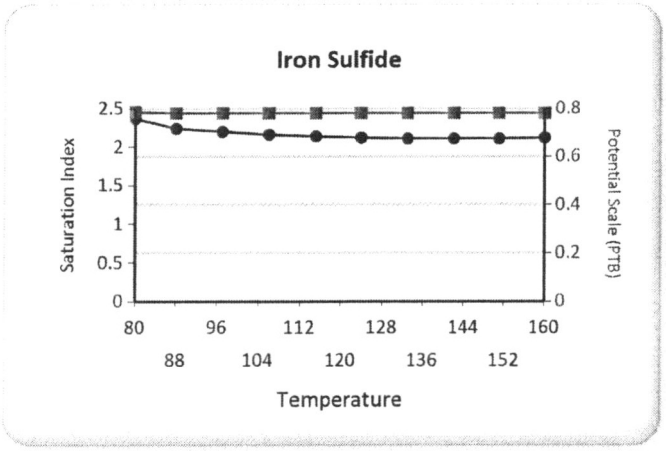
Water Analysis Report

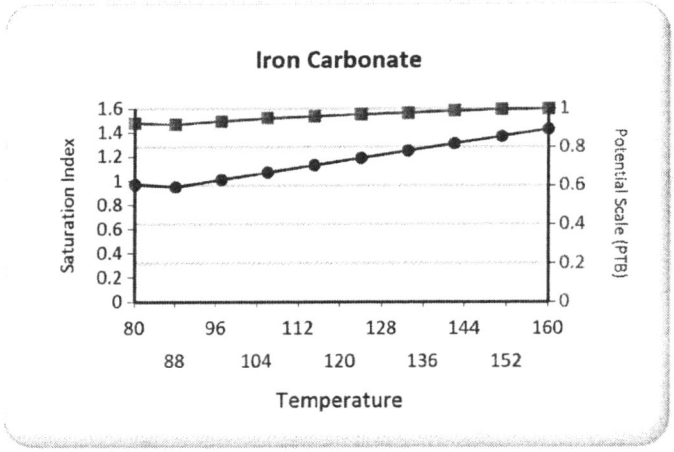
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Lead Sulfide Fe Silicate

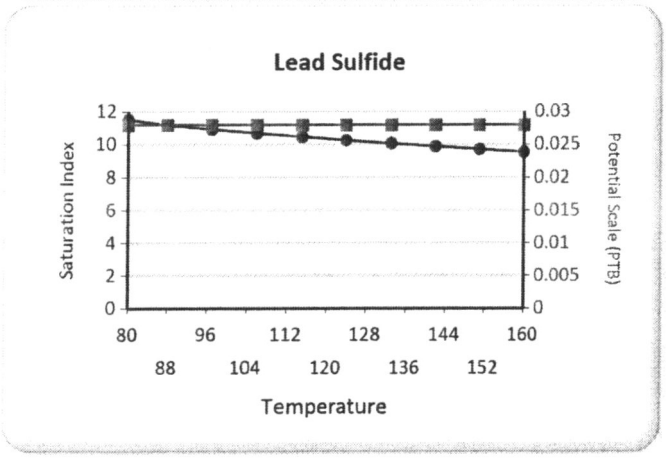
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

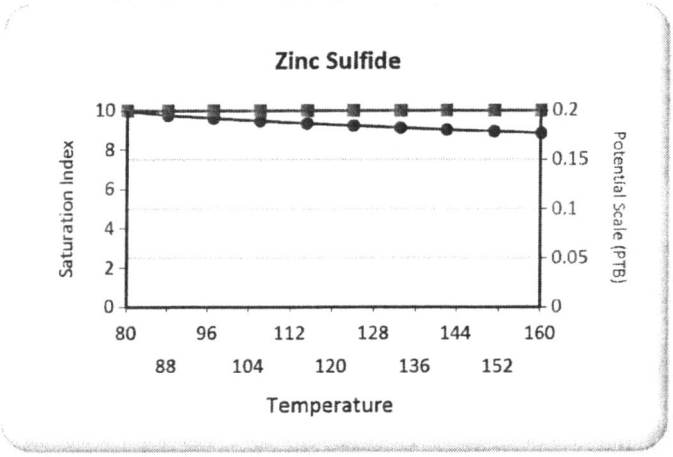


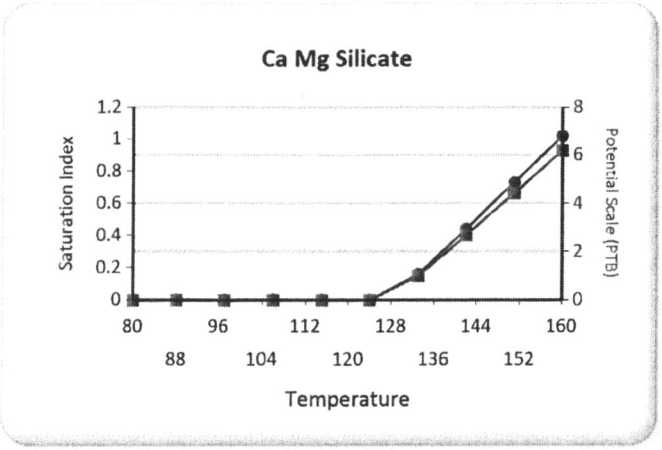











Ca Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
1.2
1
0.8
0.6
0.4
0.2
0
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4
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0
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88
96
104
112
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128
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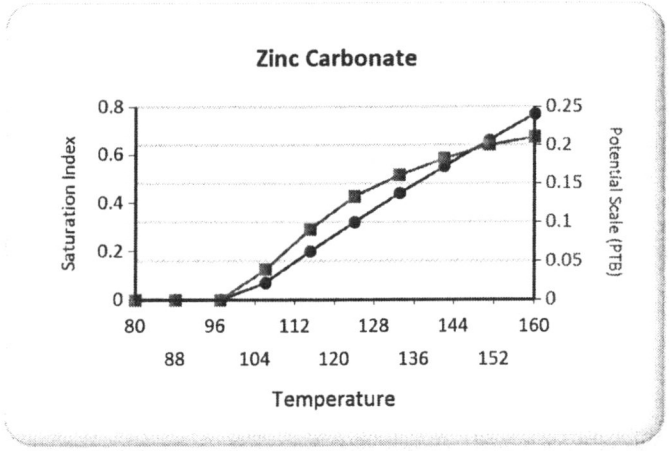
144
152
160


Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
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0.6
0.4
0.2
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136
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152
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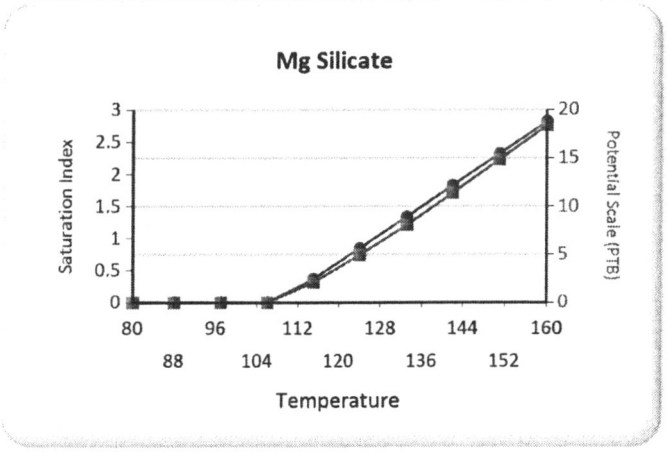
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Saturation Index
Potential Scale (PTB)
Temperature
3
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2
1.5
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112
120
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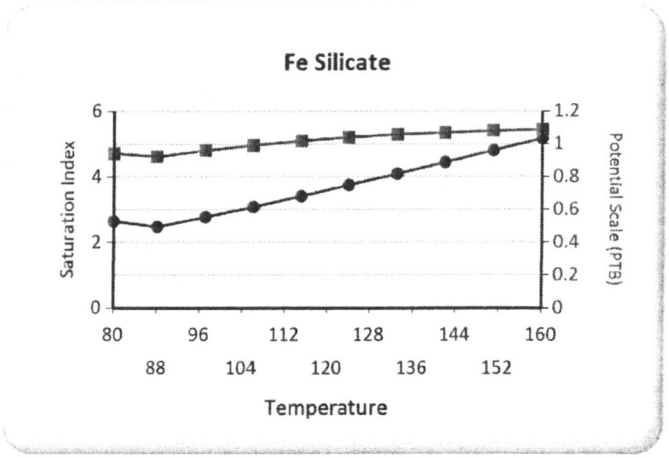
144
152
160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Saturation Index
Potential Scale (PTB)
Temperature
6
4
2
0
1.2
1
0.8
0.6
0.4
0.2
0
80
88
96
104
112
120
128
136
144
152
160

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

EPA

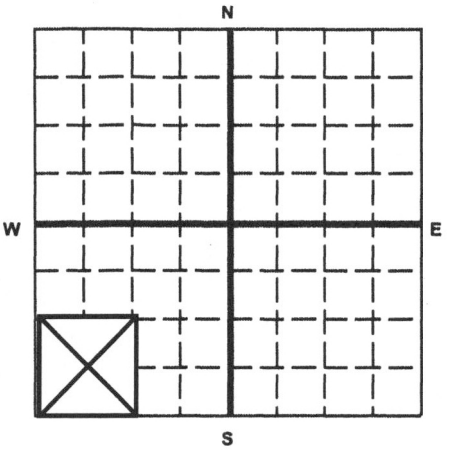
United States Environmental Protection Agency
Washington, DC 20460

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	UT2736-04636

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

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

Surface Location 807 ft. frm (N/S) S Line of quarter section
and 886 ft. from (E/W) W 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 04-13

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	1763	1824	493		0	0
February	13	1760	1835	561		0	0
March	13	1805	1831	436		0	0
April	13	1838	1865	499		0	0
May	13	1835	1857	560		0	0
June	13	1832	1841	442		0	0
July	13	1838	1851	533		0	0
August	13	1836	1858	483		0	0
September	13	1830	1851	504		0	0
October	13	1831	1857	599		0	0
November	13	1827	1837	733		0	0
December	13	1825	1839	824		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)

TAB	GREEN	BLUE	CBI
	2		

R2 Entered
Date 3/18/14
Initial DB

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 ENERGY INC**
Well Name: **UTE TRIBAL 04-13 INJ**
Sample Point: **Wellhead**
Sample Date: **1/8/2014**
Sample ID: **WA-263021**

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):	1.005
pH:	8.50
Calculated TDS (mg/L):	10840.23
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	0.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	3792.13	Chloride (Cl):	5000.00
Potassium (K):	68.00	Sulfate (SO_4):	143.00
Magnesium (Mg):	19.00	Bicarbonate (HCO_3):	1708.00
Calcium (Ca):	50.00	Carbonate (CO_3):	
Strontium (Sr):	5.00	Acetic Acid (CH_3COO)	
Barium (Ba):	2.90	Propionic Acid (C_2H_5COO)	
Iron (Fe):	30.00	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.42	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.09	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.29	Silica (SiO_2):	21.40

Notes:
B=5 Al=.2 Li=.94

(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	1.53	39.40	1.44	1.66	0.00	0.00	3.08	21.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	157.00	1.54	39.35	1.29	1.64	0.00	0.00	3.14	21.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.00	300.00	1.56	39.63	1.17	1.61	0.00	0.00	3.21	21.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	443.00	1.58	39.93	1.05	1.57	0.00	0.00	3.28	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	585.00	1.61	40.25	0.96	1.54	0.00	0.00	3.35	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126.00	728.00	1.64	40.58	0.87	1.49	0.00	0.00	3.41	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	871.00	1.68	40.91	0.80	1.45	0.00	0.00	3.48	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	1014.00	1.72	41.23	0.74	1.41	0.00	0.00	3.54	21.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166.00	1157.00	1.76	41.54	0.68	1.37	0.00	0.00	3.60	21.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	1300.00	1.81	41.83	0.64	1.33	0.00	0.00	3.66	21.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

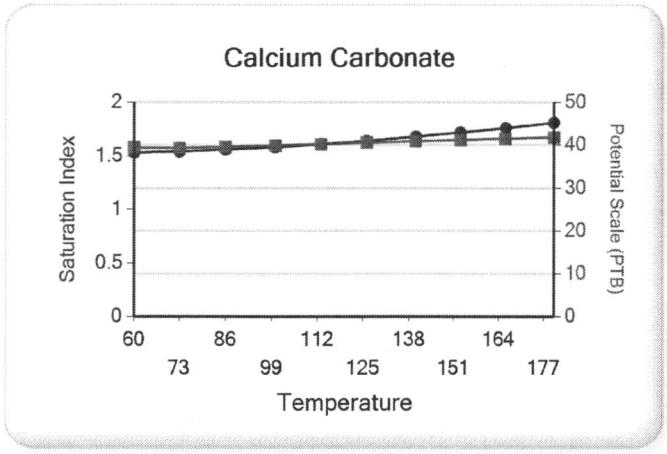
multi-chem®
A HALLIBURTON SERVICE

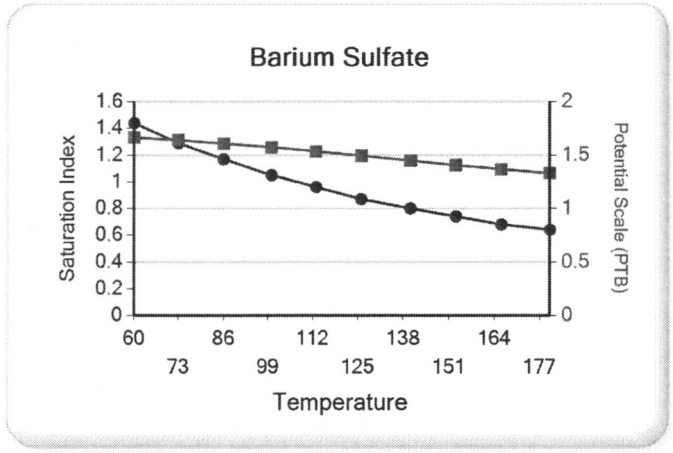
Water Analysis Report

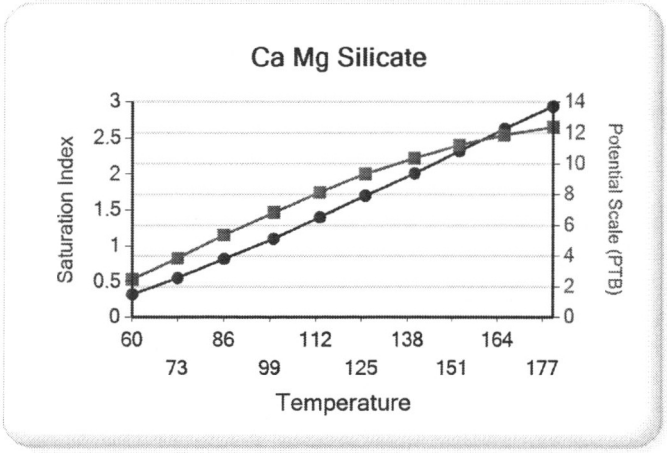
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.14	0.00	0.00	0.83	5.61	0.32	2.49	10.48	22.62
73.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.20	0.00	0.00	1.30	8.22	0.55	3.86	10.69	22.66
86.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.23	0.00	0.00	1.83	11.00	0.82	5.38	10.97	22.75
100.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.25	0.00	0.00	2.37	13.63	1.10	6.82	11.27	22.84
113.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.26	0.00	0.00	2.92	16.10	1.40	8.16	11.59	22.91
126.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	1.21	0.27	0.00	0.00	3.48	18.37	1.70	9.35	11.93	22.97
140.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	0.27	0.00	0.00	4.04	20.40	2.01	10.37	12.28	23.03
153.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.27	0.00	0.00	4.60	22.13	2.32	11.21	12.64	23.07
166.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	0.28	0.00	0.00	5.16	23.52	2.63	11.87	13.01	23.11
180.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75	0.28	0.00	0.00	5.71	24.53	2.94	12.38	13.39	23.14

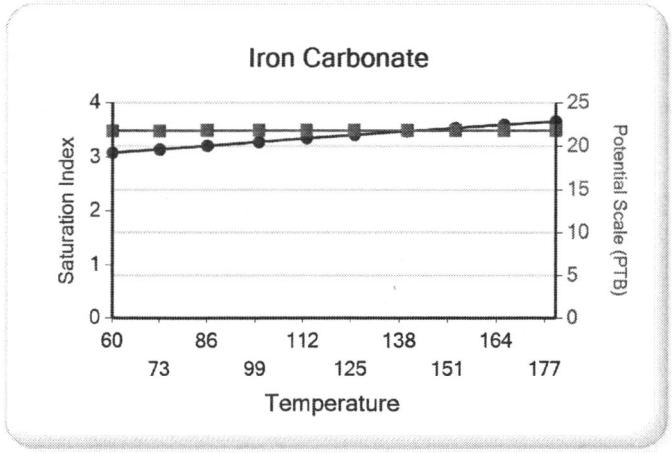
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

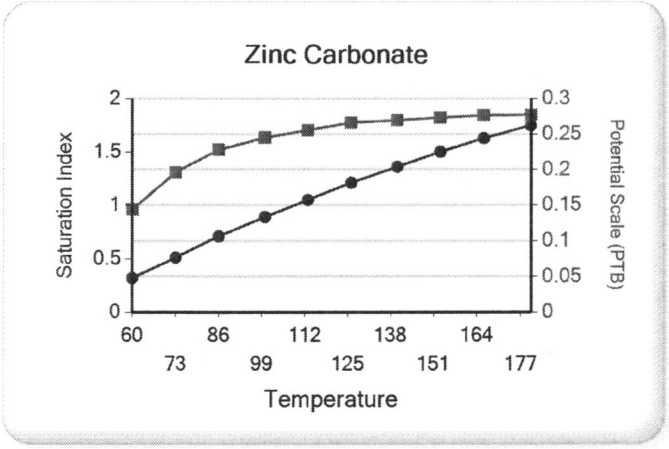
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate










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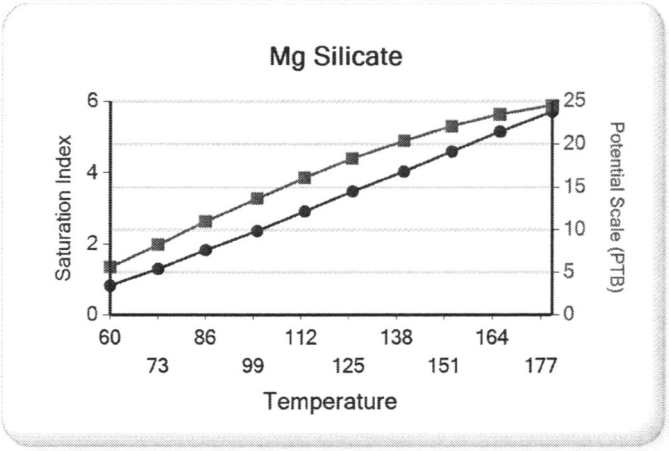
0.3
60
73
86
99
112
125
138
151
164
177


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
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0
5
10
15
20
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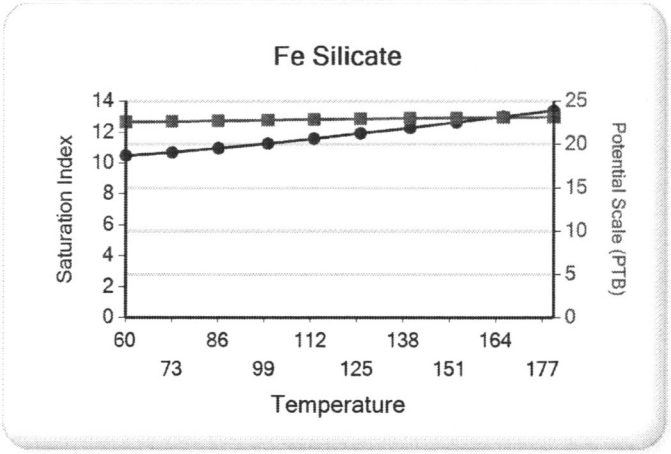
86
99
112
125
138
151
164
177


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
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2
4
6
8
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12
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5
10
15
20
25
60
73
86
99
112
125
138
151
164
177

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466

AUG 30 2001

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Micheal Safford
Operations Coordinator
Petroglyph Operating Company, Inc.
P.O. Box 607
Roosevelt, UT 84066

Re: AUTHORIZATION TO COMMENCE INJECTION
Ute Tribal #04-13 (UT04636)
Antelope Creek Field
EPA AREA PERMIT UT2736-00000
Duchesne County, Utah

Dear Mr. Safford:

Thank you for submitting information pertaining to Ute Tribal #04-13 to the Environmental Protection Agency (EPA) Region VIII Ground Water Program. Requirements of UIC Area Permit UT2736-00000 Part II Sections (C)(2) "Prior To Commencing Injection" required submittal of the following information:

1. **Well Rework Record (*EPA Form 7520-12*) with after conversion well schematic;** and

2. the well has successfully completed and passed a Mechanical Integrity Test (MIT), with pressure chart demonstrating **Part I (internal) mechanical integrity;** and

3. a **pore pressure survey has been determined** of the injection zones.

The conversion plan for this production well has been reviewed, and found satisfactory. EPA analysis of the cement bond log (CBL) for this well identified a minimum interval of adequate cement above, within and below the confining zone (3978' to 4102'), pursuant to Region VIII Ground Water Section Guidance No. 34. Therefore, it is determinant that the annulus cement in the Ute Tribal #04-13 provides an effective barrier to upper movement of fluids through vertical channels adjacent to the wellbore.

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All required information has been submitted, and has been reviewed and approved by the EPA. Petroglyph has complied with all pertinent conditions of UIC Area Permit UT2736-00000 Part II Section (C)(2). Therefore, effective upon your receipt of this letter, Administrative approval hereby is granted for injection into the Ute Tribal #04-13 under the conditions of UIC Area Permit UT2736-00000. The Director has determined that the **maximum surface injection pressure for the Ute Tribal #04-13 shall not exceed 1900 psig. per UIC Final Area Permit UT2736-00000, Part II. Section C.5.(b), dated July 12, 1994. Until such time that a step-rate injectivity test (SRT) has been performed and approved by the EPA, the initial maximum surface injection pressure (MSIP) for the Ute Tribal #04-13 shall not exceed 1900 psig.**

Please be reminded that it is the responsibility of the permittee to be aware of, and to comply with, all conditions of the Permit. Effective upon receipt of this letter, EPA administration of this well is transferred to Mr. Al Craver, Compliance Officer in the Office of Enforcement, Compliance, and Environmental Justice Technical Enforcement Program, who is your point of contact for routine compliance matters and reports.

Please send all reporting forms and other required correspondence to Mr. Craver at the address listed below, referencing **EPA WELL ID: UT04636** on all reports and correspondence.

Mr. Al Craver,
Technical Enforcement Program, Mail Code 8ENF-T
U.S. Environmental Protection Agency
999 18th Street, Suite 300
Denver, Colorado, USA, 80202-2466

If you have any questions concerning this authorization or the Permit, please contact Mr. Dan Jackson of my staff at 303.312.6155 or Mr. Craver at 303.312.7821.

Sincerely,

D. Edwin Hogle
Director
Ground Water Program

cc: Mr. D. Floyd Wopsock, Chairman
Uintah & Ouray Business Committee
Ute Indian Tribe

Ms. Elaine Willie, Environmental Coordinator
Ute Indian Tribe

Mr. Norman Cambridge
BIA - Uintah & Ouray Agency

Mr. Gil Hunt
State of Utah Natural Resources
Division of Oil, Gas, and Mining

Mr. Jerry Kenczka
BLM - Vernal District Office

Mr. Nathan Wiser, 8ENF-T
USEPA

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: 8/30/01 CW 4156C – 4158C

Mr. Micheal Safford
Operations Coordinator
Petroglyph Operating Co., Inc.
P.O. Box 607
Roosevelt, UT 84066

AUG 30 2001

(UT 04636)
UTE TRIBAL #04-13

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* B. Date of Delivery 9-4-01

C. Signature
X [signature] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

rec'd 26
SEP 10 2001

3. Service Type
XX Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* 7001 0320 0005 9387 1833

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here
AUG 30 2001

Sent To Mr. Micheal Safford
Operations Coordinator
Street, Apt. No., or PO Box No. Petroglyph Operating Co., Inc.
P.O. BOX 607
City, State, ZIP+4 Roosevelt, UT 84066

7001 0320 0005 9387 1833

PS Form 3800, January 2001 See Reverse for Instructions

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466

AUG 30 2001

CONCURRENCE COPY

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Micheal Safford
Operations Coordinator
Petroglyph Operating Company, Inc.
P.O. Box 607
Roosevelt, UT 84066

Re: AUTHORIZATION TO COMMENCE INJECTION
Ute Tribal #04-13 (UT04636)
Antelope Creek Field
EPA AREA PERMIT UT2736-00000
Duchesne County, Utah

Dear Mr. Safford:

Thank you for submitting information pertaining to Ute Tribal #04-13 to the Environmental Protection Agency (EPA) Region VIII Ground Water Program. Requirements of UIC Area Permit UT2736-00000 Part II Sections (C)(2) "Prior To Commencing Injection" required submittal of the following information:

1. **Well Rework Record (*EPA Form 7520-12*) with after conversion well schematic**; and

2. the well has successfully completed and passed a Mechanical Integrity Test (MIT), with pressure chart demonstrating **Part I (internal) mechanical integrity**; and

3. a **pore pressure survey has been determined** of the injection zones.

The conversion plan for this production well has been reviewed, and found satisfactory. EPA analysis of the cement bond log (CBL) for this well identified a minimum interval of adequate cement above, within and below the confining zone (3978' to 4102'), pursuant to Region VIII Ground Water Section Guidance No. 34. Therefore, it is determinant that the annulus cement in the Ute Tribal #04-13 provides an effective barrier to upper movement of fluids through vertical channels adjacent to the wellbore.

Concur

CEW 8/27/01

8P-W-GW 8/29/01

8P-W-GW 8/29/01 LS mailed

8/29/01

Printed on Recycled Paper

All required information has been submitted, and has been reviewed and approved by the EPA. Petroglyph has complied with all pertinent conditions of UIC Area Permit UT2736-00000 Part II Section (C)(2). Therefore, effective upon your receipt of this letter, Administrative approval hereby is granted for injection into the Ute Tribal #04-13 under the conditions of UIC Area Permit UT2736-00000. The Director has determined that the **maximum surface injection pressure for the Ute Tribal #04-13 shall not exceed 1900 psig. per UIC Final Area Permit UT2736-00000, Part II. Section C.5.(b), dated July 12, 1994. Until such time that a step-rate injectivity test (SRT) has been performed and approved by the EPA, the initial maximum surface injection pressure (MSIP) for the Ute Tribal #04-13 shall not exceed 1900 psig.**

Please be reminded that it is the responsibility of the permittee to be aware of, and to comply with, all conditions of the Permit. Effective upon receipt of this letter, EPA administration of this well is transferred to Mr. Al Craver, Compliance Officer in the Office of Enforcement, Compliance, and Environmental Justice Technical Enforcement Program, who is your point of contact for routine compliance matters and reports.

Please send all reporting forms and other required correspondence to Mr. Craver at the address listed below, referencing **EPA WELL ID: UT04636** on all reports and correspondence.

Mr. Al Craver,
Technical Enforcement Program, Mail Code 8ENF-T
U.S. Environmental Protection Agency
999 18th Street, Suite 300
Denver, Colorado, USA, 80202-2466

If you have any questions concerning this authorization or the Permit, please contact Mr. Dan Jackson of my staff at 303.312.6155 or Mr. Craver at 303.312.7821.

Sincerely,

D. Edwin Hogle
Director
Ground Water Program

cc: Mr. D. Floyd Wopsock, Chairman
Uintah & Ouray Business Committee
Ute Indian Tribe

Ms. Elaine Willie, Environmental Coordinator
Ute Indian Tribe

Mr. Norman Cambridge
BIA - Uintah & Ouray Agency

Mr. Gil Hunt
State of Utah Natural Resources
Division of Oil, Gas, and Mining

Mr. Jerry Kenczka
BLM - Vernal District Office

Mr. Nathan Wiser, 8ENF-T
USEPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466

AUG 30 2001

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Micheal Safford
Operations Coordinator
Petroglyph Operating Company, Inc.
P.O. Box 607
Roosevelt, UT 84066

Re: AUTHORIZATION TO COMMENCE INJECTION
Ute Tribal #04-13 (UT04636)
Antelope Creek Field
EPA AREA PERMIT UT2736-00000
Duchesne County, Utah

Dear Mr. Safford:

Thank you for submitting information pertaining to Ute Tribal #04-13 to the Environmental Protection Agency (EPA) Region VIII Ground Water Program. Requirements of UIC Area Permit UT2736-00000 Part II Sections (C)(2) "Prior To Commencing Injection" required submittal of the following information:

1. **Well Rework Record (*EPA Form 7520-12*) with after conversion well schematic;** and

2. the well has successfully completed and passed a Mechanical Integrity Test (MIT), with pressure chart demonstrating **Part I (internal) mechanical integrity;** and

3. a **pore pressure survey has been determined** of the injection zones.

The conversion plan for this production well has been reviewed, and found satisfactory. EPA analysis of the cement bond log (CBL) for this well identified a minimum interval of adequate cement above, within and below the confining zone (3978' to 4102'), pursuant to Region VIII Ground Water Section Guidance No. 34. Therefore, it is determinant that the annulus cement in the Ute Tribal #04-13 provides an effective barrier to upper movement of fluids through vertical channels adjacent to the wellbore.

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All required information has been submitted, and has been reviewed and approved by the EPA. Petroglyph has complied with all pertinent conditions of UIC Area Permit UT2736-00000 Part II Section (C)(2). Therefore, effective upon your receipt of this letter, Administrative approval hereby is granted for injection into the Ute Tribal #04-13 under the conditions of UIC Area Permit UT2736-00000. The Director has determined that the **maximum surface injection pressure for the Ute Tribal #04-13 shall not exceed 1900 psig. per UIC Final Area Permit UT2736-00000, Part II. Section C.5.(b), dated July 12, 1994. Until such time that a step-rate injectivity test (SRT) has been performed and approved by the EPA, the initial maximum surface injection pressure (MSIP) for the Ute Tribal #04-13 shall not exceed 1900 psig.**

Please be reminded that it is the responsibility of the permittee to be aware of, and to comply with, all conditions of the Permit. Effective upon receipt of this letter, EPA administration of this well is transferred to Mr. Al Craver, Compliance Officer in the Office of Enforcement, Compliance, and Environmental Justice Technical Enforcement Program, who is your point of contact for routine compliance matters and reports.

Please send all reporting forms and other required correspondence to Mr. Craver at the address listed below, referencing **EPA WELL ID: UT04636** on all reports and correspondence.

Mr. Al Craver,
Technical Enforcement Program, Mail Code 8ENF-T
U.S. Environmental Protection Agency
999 18th Street, Suite 300
Denver, Colorado, USA, 80202-2466

If you have any questions concerning this authorization or the Permit, please contact Mr. Dan Jackson of my staff at 303.312.6155 or Mr. Craver at 303.312.7821.

Sincerely,

D. Edwin Hogle
Director
Ground Water Program

cc: Mr. D. Floyd Wopsock, Chairman
Uintah & Ouray Business Committee
Ute Indian Tribe

Ms. Elaine Willie, Environmental Coordinator
Ute Indian Tribe

Mr. Norman Cambridge
BIA - Uintah & Ouray Agency

Mr. Gil Hunt
State of Utah Natural Resources
Division of Oil, Gas, and Mining

Mr. Jerry Kenczka
BLM - Vernal District Office

Mr. Nathan Wiser, 8ENF-T
USEPA