Inspection Report For Well: UT20736 - 06477

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: 12:00 am / pm

OPERATOR (only if different): _____

REPRESENTATIVE(S): Chad Stevinson

PRE-INSPECTION REVIEW

Petroglyph Operating Company, Inc

Well Name:	Ute Tribal 21-02		
Well Type:	Enhanced Recovery (2R)		
Operating Status:	AC (ACTIVE) as of 1/25/2005		
Oil Field:	Antelope Creek (Duchesne)		
Location:	NWNE S21 T5S R3W		
Indian Country:	X, Uintah and Ouray		
Last Inspection:	8/28/2012	***Allowable Inj Pressure:***	2235 /
Last MIT:	Pass 1/20/2010	***Annulus Pressure From Last MIT:***	1110

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 12/20/13
Initials DB

OBSERVED VALUES:

Tubing Gauge:	[x] Yes [ ] No	Pressure: U: 2006 / L: ____ psig Gauge Range: Scada psig	Gauge Owner:	[ ] EPA [x] Operator
Annulus Gauge:	[x] Yes [ ] No	Pressure: 0 psig Gauge Range: open 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

GREEN	BLUE	
	1	

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

U2 Entered
Date 12/17/13
Initial SB

Inspection Report For Well: UT20736 - 06477 (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

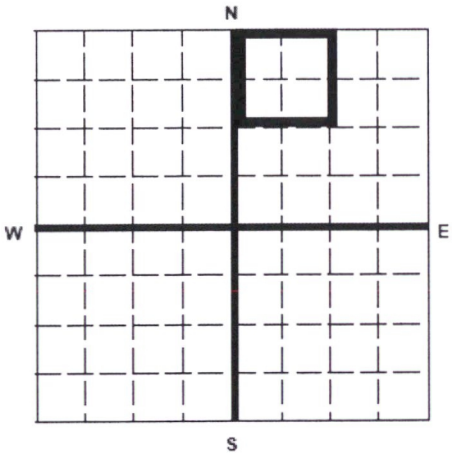
United States Environmental Protection Agency
Washington, DC 20460

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	UT2736-06477

Surface Location Description
___ 1/4 of ___ 1/4 of NW 1/4 of NE 1/4 of Section 21 Township 5S Range 3W

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

Surface Location 548 ft. frm (N/S) N Line of quarter section
and 3248 ft. from (E/W) W Line of quarter section.

U2 Entered
Date 4/4/17
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 21-02

GREEN | CBI | TAB | 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	1884	1932	391		0	0
February	16	1974	2001	573		0	0
March	16	1979	1985	607		0	0
April	16	1933	1980	464		0	0
May	16	1939	1962	510		0	0
June	16	1941	1994	467		0	0
July	16	1954	1979	530		0	0
August	16	1939	1970	536		0	0
September	16	1906	1933	414		0	0
October	16	1931	1956	559		0	0
November	16	1864	1928	328		0	0
December	16	1894	1911	603		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

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 21-02 INJ, DUCHESNE**	Lab Tech:	**Kaitlyn Natelli**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2017**		
Sample ID:	**WA-345301**		

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):	1.0003
pH:	8.00
Calculated TDS (mg/L):	4434.97
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	5.00
Tot. SuspendedSolids(mg/L):	
Corrosivity(LanglierSat.Indx)	0.00
Alkalinity:	

Analysis @ Properties in Sample Specifics

Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	1360.79	Chloride (Cl):	1500.00
Potassium (K):	9.73	Sulfate (SO_4):	130.00
Magnesium (Mg):	23.21	Bicarbonate (HCO_3):	1281.00
Calcium (Ca):	51.67	Carbonate (CO_3):	
Strontium (Sr):	2.13	Hydroxide(HO):	
Barium (Ba):	4.95	Acetic Acid (CH_3COO)	
Iron (Fe):	36.73	Propionic Acid (C_2H_5COO)	
Zinc (Zn):	20.73	Butanoic Acid (C_3H_7COO)	
Lead (Pb):	0.00	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Ammonia NH_3:		Fluoride (F):	
Manganese (Mn):	0.32	Bromine (Br):	
Aluminum (Al):	1.21	Silica (SiO_2):	13.71
Lithium (Li):	2.66	Calcium Carbonate ($CaCO_3$):	
Boron (B):	1.75	Phosphates (PO_4):	4.14
Silicon (Si):	6.41	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	1.26	36.67	1.37	2.82	3.96	4.54	3.20	26.67	0.00	0.00	0.00	0.00	0.00	0.00	11.31	5.04
149.00	267.00	1.33	37.79	1.28	2.79	3.92	4.54	3.31	26.68	0.00	0.00	0.00	0.00	0.00	0.00	11.06	5.04
168.00	483.00	1.43	39.37	1.20	2.76	3.92	4.54	3.43	26.69	0.00	0.00	0.00	0.00	0.00	0.00	10.87	5.04
187.00	700.00	1.54	40.74	1.15	2.73	3.95	4.54	3.55	26.69	0.00	0.00	0.00	0.00	0.00	0.00	10.70	5.04
206.00	917.00	1.66	41.89	1.11	2.72	4.00	4.54	3.67	26.70	0.00	0.00	0.00	0.00	0.00	0.00	10.56	5.04
224.00	1133.00	1.78	42.81	1.09	2.71	4.06	4.54	3.78	26.70	0.00	0.00	0.00	0.00	0.00	0.00	10.45	5.04
243.00	1350.00	1.91	43.51	1.09	2.70	4.14	4.54	3.89	26.70	0.00	0.00	0.00	0.00	0.00	0.00	10.35	5.04
262.00	1567.00	2.04	44.03	1.09	2.70	4.23	4.54	3.99	26.70	0.00	0.00	0.00	0.00	0.00	0.00	10.27	5.04
281.00	1783.00	2.18	44.40	1.10	2.71	4.33	4.54	4.08	26.70	0.00	0.00	0.00	0.00	0.00	0.00	10.20	5.04
300.00	2000.00	2.32	44.66	1.12	2.72	4.44	4.54	4.16	26.70	0.00	0.00	0.00	0.00	0.00	0.00	10.14	5.04

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

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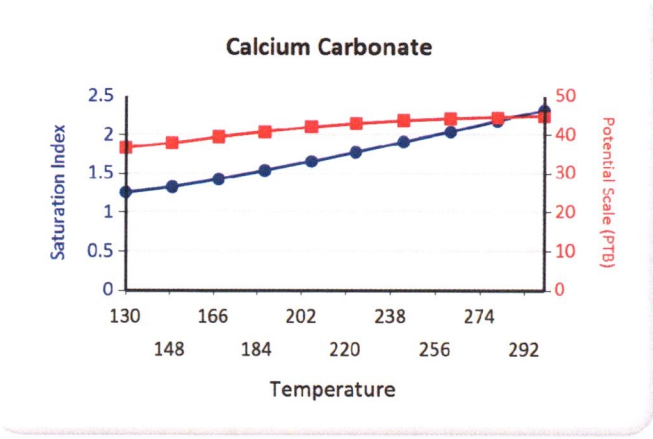
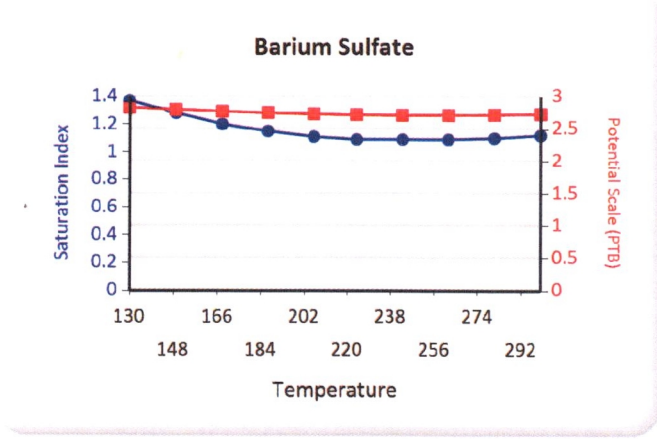
Water Analysis Report

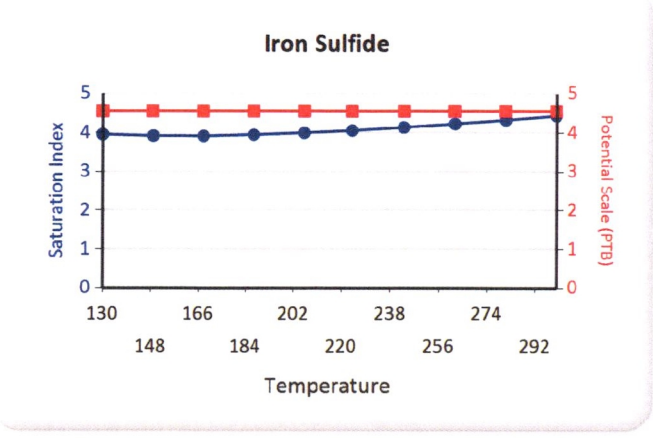
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
130.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	2.64	13.89	0.00	0.00	1.80	9.49	0.57	3.32	10.35	28.05
149.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	2.86	13.91	0.00	0.00	2.60	13.92	1.01	5.80	10.87	28.22
168.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	3.08	13.92	0.00	0.00	3.53	19.42	1.55	8.93	11.55	28.37
187.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	3.29	13.93	0.00	0.00	4.45	24.58	2.08	11.86	12.23	28.46
206.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	3.48	13.93	0.00	0.00	5.35	28.93	2.62	14.30	12.92	28.51
224.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	3.65	13.93	0.00	0.00	6.23	32.12	3.14	16.08	13.61	28.54
243.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80	13.94	0.00	0.00	7.09	34.07	3.65	17.20	14.28	28.55
262.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	3.93	13.94	0.00	0.00	7.92	35.01	4.15	17.83	14.94	28.56
281.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	4.05	13.94	0.00	0.00	8.71	35.38	4.63	18.17	15.58	28.56
300.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	4.15	13.94	0.00	0.00	9.46	35.50	5.08	18.34	16.19	28.57

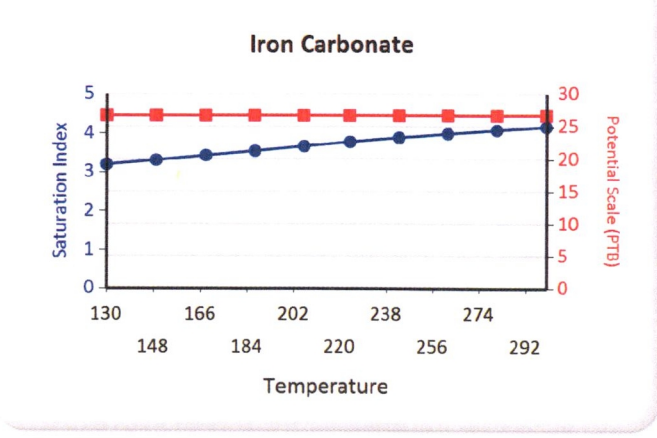
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

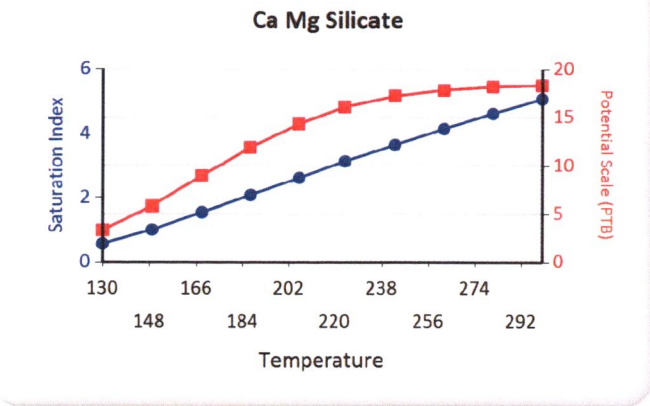
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

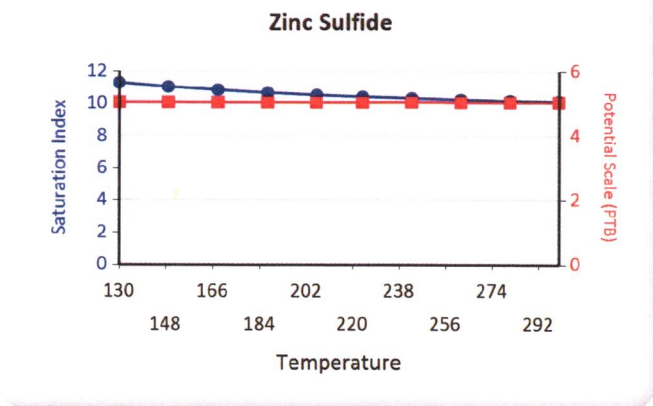


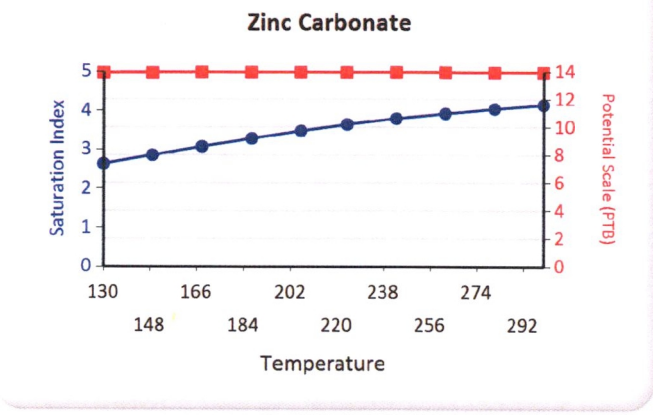







Ca Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


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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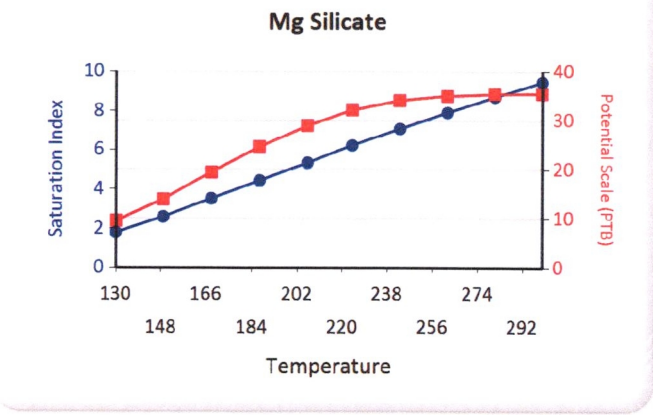
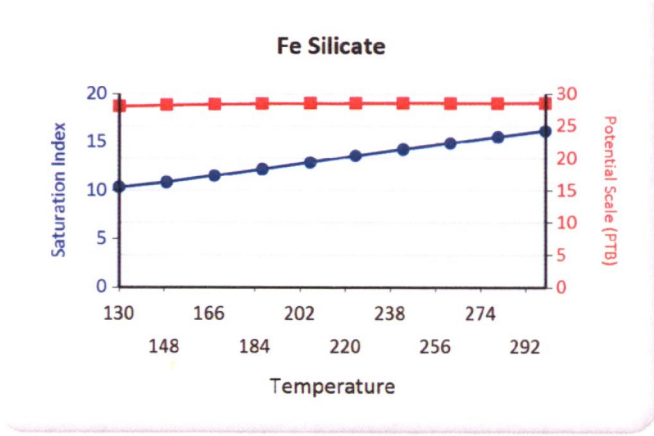
148 184 220 256 292


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
30
25
20
15
10
5
0
130
166
202
238
274
148
184
220
256
292

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

EPA

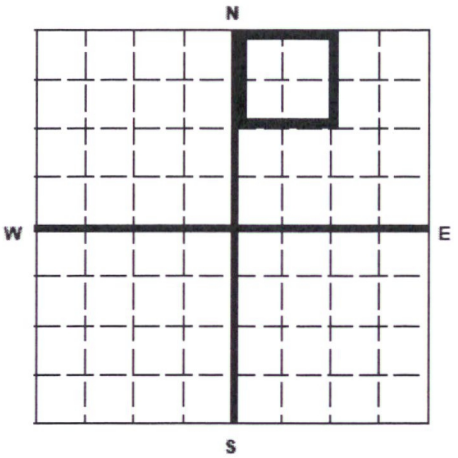
United States Environmental Protection Agency
Washington, DC 20460

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~~ 06477

Surface Location Description
___ 1/4 of ___ 1/4 of NW 1/4 of NE 1/4 of Section 21 Township 5S Range 3W

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

Surface Location 548 ft. frm (N/S) N Line of quarter section
and 3248 ft. from (E/W) W Line of quarter section.

U2 Entered
Date 3/2/16
Initial DJ

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 21-02

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	1894	1944	438		0	0
February	15	1952	1991	595		0	0
March	15	1971	2001	667		0	0
April	15	1942	1987	580		0	0
May	15	1958	1975	607		0	0
June	15	1955	1982	585		0	0
July	15	1975	1982	620		0	0
August	15	1959	1976	593		0	0
September	15	1925	1979	480		0	0
October	15	1919	1945	574		0	0
November	15	1920	1938	533		0	0
December	15	1960	1978	561		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 2 | CBL

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

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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 21-02 INJ, DUCHESNE**	Lab Tech:	**Michele Pike**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2016**		
Sample ID:	**WA-327632**		

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):	1.0032
pH:	7.70
Calculated TDS (mg/L):	8511.42
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	60.00
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):	2839.03	Chloride (Cl):	4000.00
Potassium (K):	8.86	Sulfate (SO_4):	420.00
Magnesium (Mg):	70.51	Bicarbonate (HCO_3):	976.00
Calcium (Ca):	150.03	Carbonate (CO_3):	
Strontium (Sr):	5.30	Acetic Acid (CH_3COO)	
Barium (Ba):	2.88	Propionic Acid (C_2H_5COO)	
Iron (Fe):	8.86	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	2.30	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.20	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.17	Silica (SiO_2):	27.28
Aluminum (Al):	0.03	Calcium Carbonate ($CaCO_3$):	
Lithium (Li):	0.57	Phosphates (PO_4):	4.17
Boron (B):	0.51	Oxygen (O_2):	
Silicon (Si):	12.75		

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	90.65	1.17	1.60	0.00	0.00	2.38	6.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
167.00	267.00	1.36	81.14	1.19	1.61	0.00	0.00	2.22	6.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	483.00	1.26	74.79	1.22	1.61	0.00	0.00	2.10	6.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	700.00	1.17	68.51	1.26	1.62	0.00	0.00	1.98	6.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
127.00	917.00	1.08	62.41	1.31	1.63	0.00	0.00	1.86	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	1133.00	1.00	56.60	1.37	1.64	0.00	0.00	1.74	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	1350.00	0.93	51.16	1.45	1.65	0.00	0.00	1.62	6.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.00	1567.00	0.85	46.16	1.54	1.66	0.00	0.00	1.50	6.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	1783.00	0.79	41.64	1.65	1.68	0.00	0.00	1.39	6.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	2000.00	0.73	37.64	1.78	1.69	0.00	0.00	1.27	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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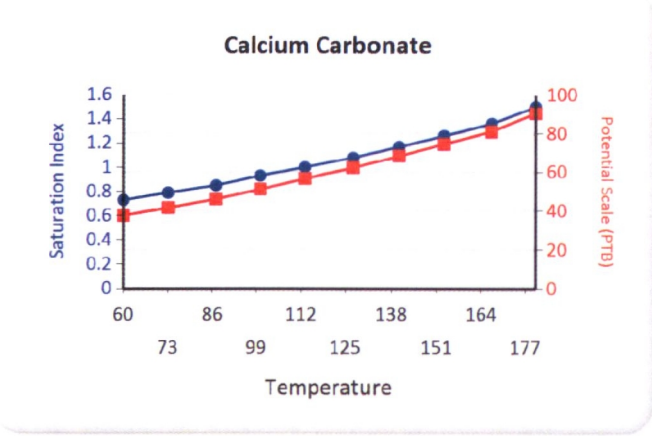
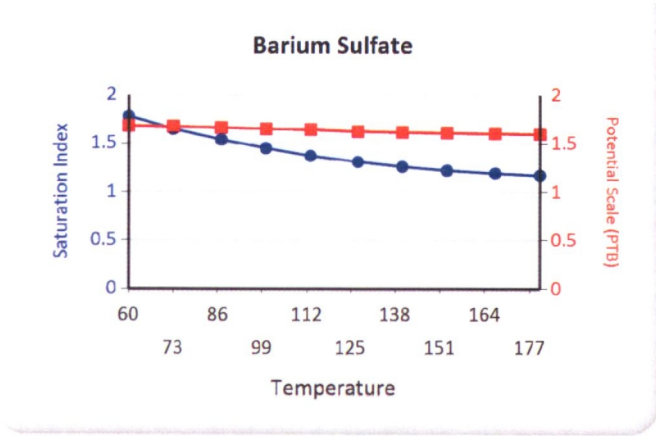
Water Analysis Report

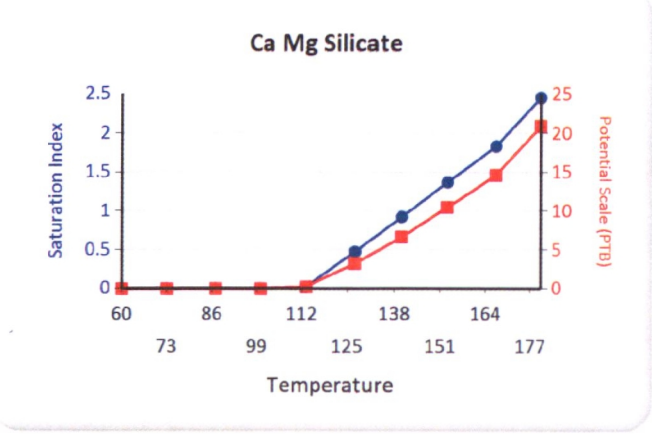
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76	1.52	0.00	0.00	4.65	41.95	2.45	20.95	9.04	6.88
167.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	1.50	0.00	0.00	3.64	29.96	1.83	14.69	8.20	6.86
153.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	1.38	1.48	0.00	0.00	2.88	22.07	1.37	10.51	7.61	6.85
140.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19	1.44	0.00	0.00	2.12	14.97	0.92	6.66	7.03	6.82
127.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	0.99	1.38	0.00	0.00	1.36	8.81	0.47	3.22	6.46	6.78
113.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	1.28	0.00	0.00	0.60	3.57	0.02	0.22	5.89	6.71
100.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	1.11	0.00	0.00	0.00	0.00	0.00	0.00	5.34	6.61
87.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.82	0.00	0.00	0.00	0.00	0.00	0.00	4.80	6.47
73.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.31	0.00	0.00	0.00	0.00	0.00	0.00	4.27	6.27
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	3.75	5.99

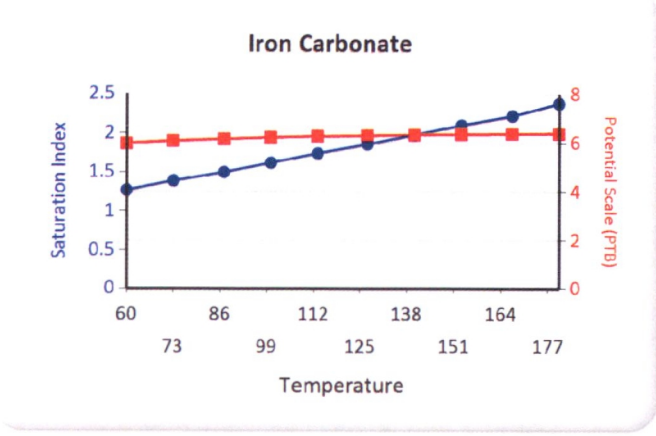
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

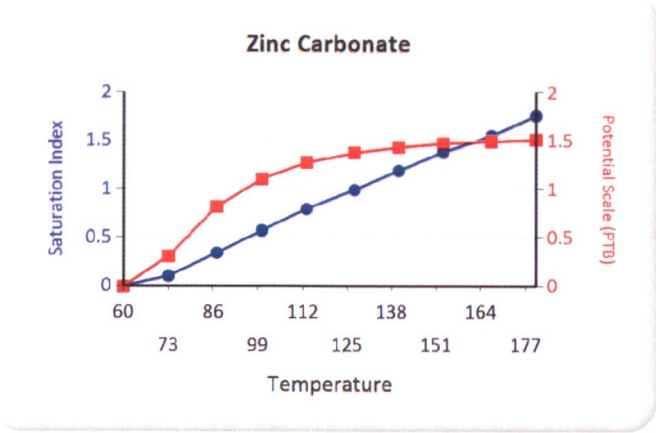
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Fe Silicate

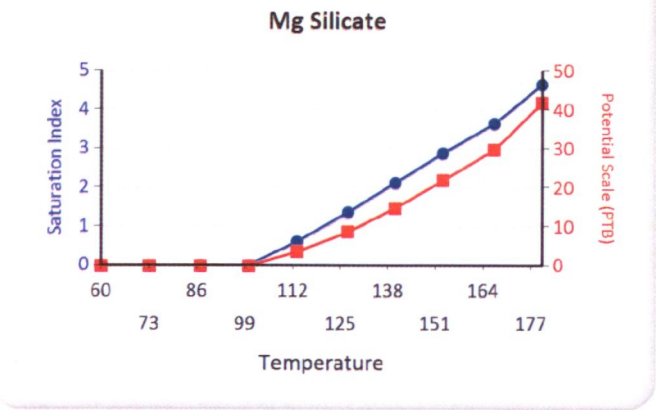


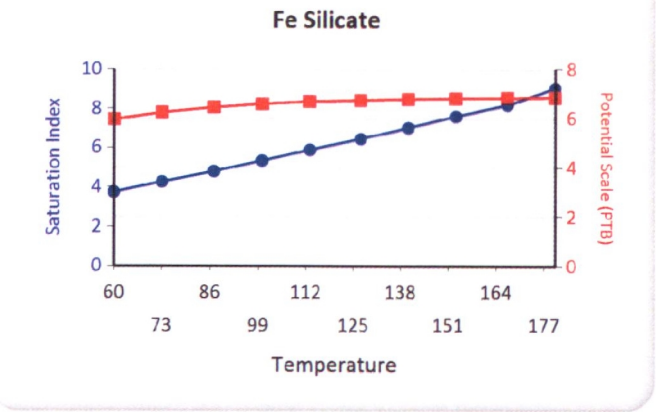







Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
0
0.5
1
1.5
2
60
86
112
138
164
73
99
125
151
177


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
10
0
2
4
6
8
60
86
112
138
164
73
99
125
151
177

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

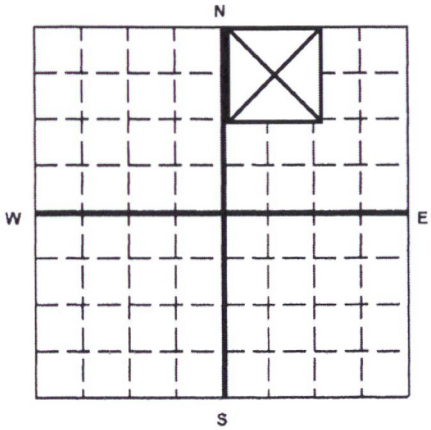
EPA

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	UT2736-06477

Surface Location Description

____ 1/4 of ____ 1/4 of NW 1/4 of NE 1/4 of Section 21 Township 5S Range 3W

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

Surface Location 548 ft. frm (N/S) N Line of quarter section and 3248 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 21-02

		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	1991	2013	598		0	0
February	14	2031	2040	572		0	0
March	14	2028	2090	156		0	0
April	14	2070	2090	444		0	0
May	14	2000	1998	615		0	0
June	14	1123	2011	578		0	0
July	14	1939	1997	798		0	0
August	14	1906	1999	863		0	0
September	14	1925	1968	593		0	0
October	14	1975	1976	755		0	0
November	14	1986	1999	618		0	0
December	14	1980	2000	649		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 possibility 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 3/30/15
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 21-02 INJ, DUCHESNE**	Lab Tech:	**Gary Winegar**
Sample Point:	**WELLHEAD**		
Sample Date:	**1/7/2015**		
Sample ID:	**WA-297480**		

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):	1.0045
pH:	8.20
Calculated TDS (mg/L):	11349.52
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	20.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	2686.14	Chloride (Cl):	6000.00
Potassium (K):	44.86	Sulfate (SO_4):	298.00
Magnesium (Mg):	29.44	Bicarbonate (HCO_3):	2196.00
Calcium (Ca):	50.62	Carbonate (CO_3):	
Strontium (Sr):	5.21	Acetic Acid (CH_3COO)	
Barium (Ba):	7.60	Propionic Acid (C_2H_5COO)	
Iron (Fe):	2.91	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	6.95	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.00	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.09	Silica (SiO_2):	21.70

Notes:
B=5.94 Al=.06 Li=1.25

(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	1.46	40.16	1.99	4.48	3.84	1.61	2.13	2.10	0.00	0.00	0.00	0.00	0.00	0.00	12.27	3.63
88.00	157.00	1.45	39.79	1.91	4.47	3.75	1.61	2.15	2.10	0.00	0.00	0.00	0.00	0.00	0.00	12.07	3.63
97.00	300.00	1.47	40.02	1.83	4.46	3.69	1.61	2.19	2.10	0.00	0.00	0.00	0.00	0.00	0.00	11.91	3.63
106.00	443.00	1.49	40.27	1.76	4.45	3.64	1.61	2.24	2.10	0.00	0.00	0.00	0.00	0.00	0.00	11.76	3.63
115.00	585.00	1.51	40.52	1.69	4.43	3.60	1.61	2.28	2.10	0.00	0.00	0.00	0.00	0.00	0.00	11.62	3.63
124.00	728.00	1.53	40.78	1.63	4.42	3.57	1.61	2.33	2.11	0.00	0.00	0.00	0.00	0.00	0.00	11.48	3.63
133.00	871.00	1.56	41.04	1.58	4.41	3.54	1.61	2.37	2.11	0.00	0.00	0.00	0.00	0.00	0.00	11.36	3.63
142.00	1014.00	1.58	41.29	1.53	4.39	3.52	1.61	2.42	2.11	0.00	0.00	0.00	0.00	0.00	0.00	11.24	3.63
151.00	1157.00	1.61	41.54	1.49	4.38	3.50	1.61	2.46	2.11	0.00	0.00	0.00	0.00	0.00	0.00	11.13	3.63
160.00	1300.00	1.64	41.78	1.45	4.36	3.50	1.61	2.50	2.11	0.00	0.00	0.00	0.00	0.00	0.00	11.03	3.63

		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	1.71	4.57	0.00	0.00	0.66	4.80	0.00	0.00	6.49	2.24
88.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.81	4.60	0.00	0.00	0.88	6.00	0.01	0.34	6.54	2.24
97.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.93	4.61	0.00	0.00	1.26	8.44	0.22	1.70	6.76	2.25
106.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	4.63	0.00	0.00	1.65	10.86	0.43	3.05	6.99	2.25
115.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	2.16	4.64	0.00	0.00	2.05	13.23	0.64	4.37	7.23	2.25
124.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	2.26	4.64	0.00	0.00	2.45	15.53	0.86	5.65	7.48	2.25
133.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37	4.65	0.00	0.00	2.86	17.70	1.09	6.86	7.74	2.26
142.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	2.47	4.65	0.00	0.00	3.26	19.69	1.32	7.99	8.01	2.26
151.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56	4.66	0.00	0.00	3.67	21.43	1.55	9.02	8.29	2.26
160.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	2.65	4.66	0.00	0.00	4.09	22.88	1.78	9.93	8.57	2.26

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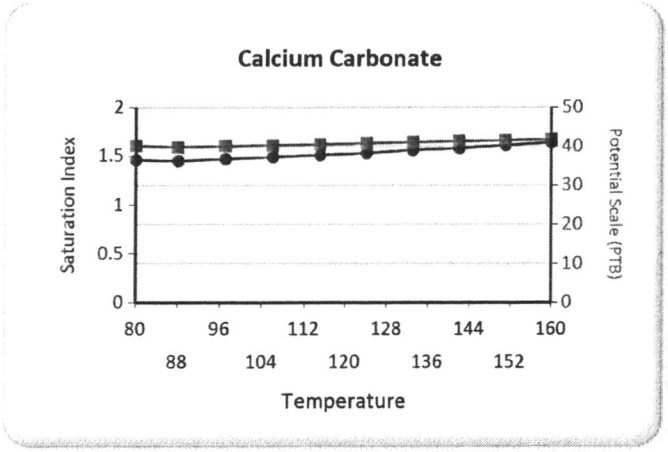
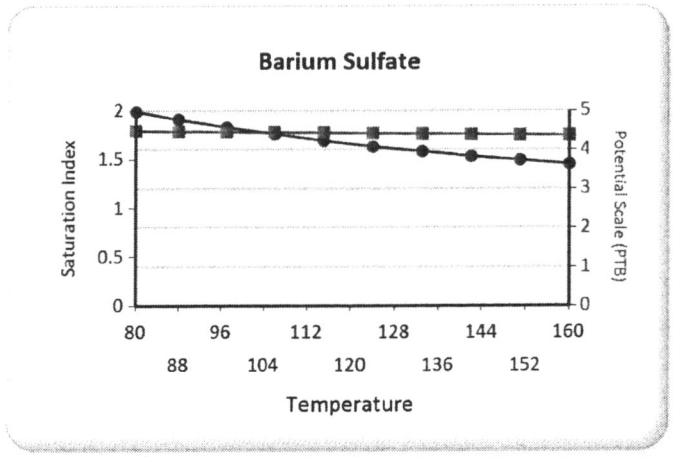
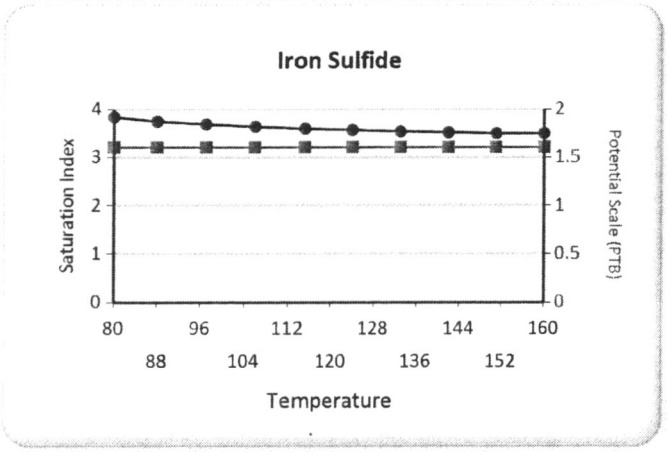
Water Analysis Report

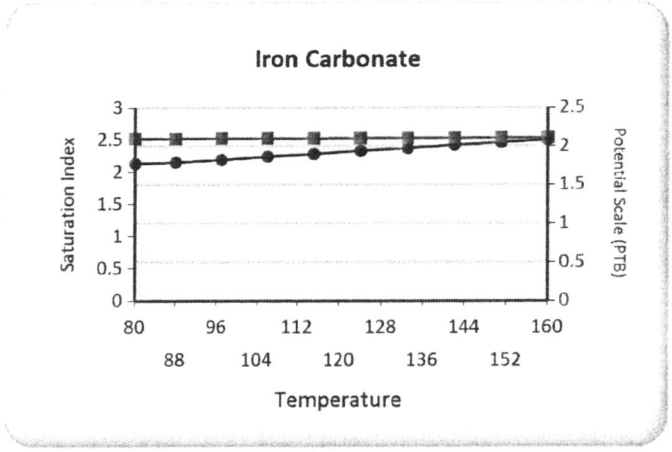
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Fe Silicate

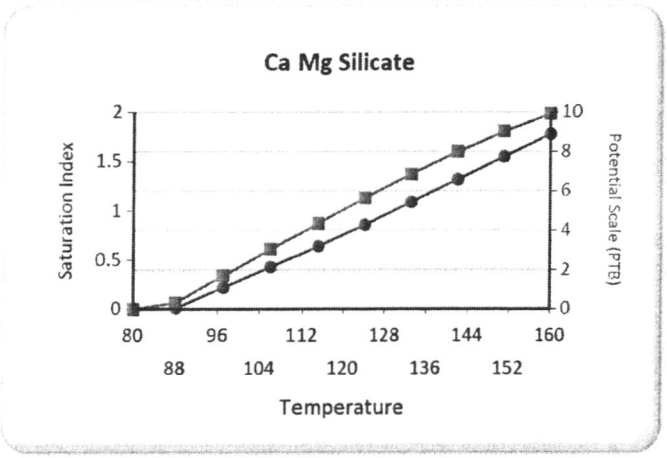
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

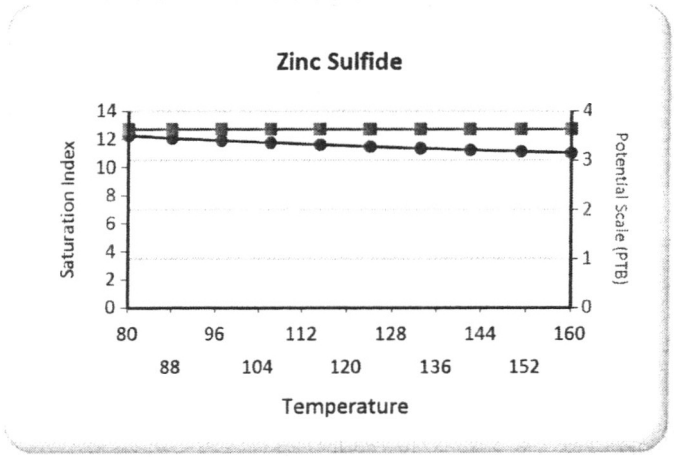


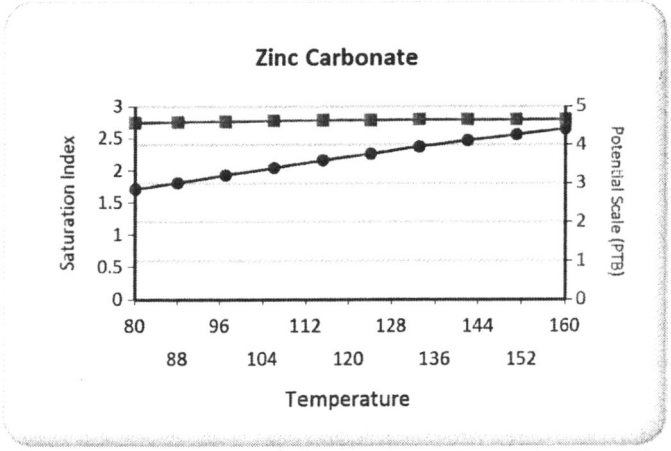


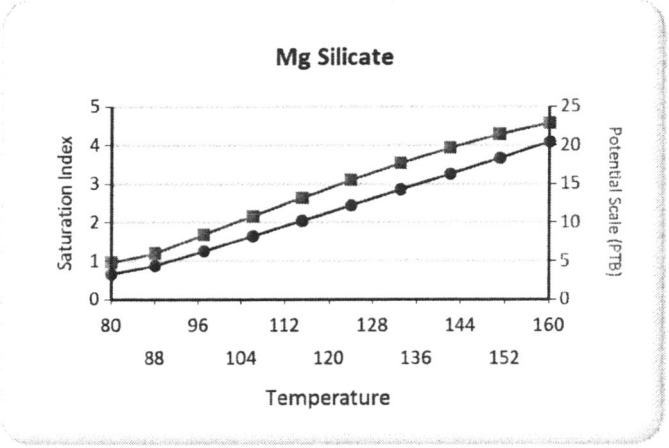


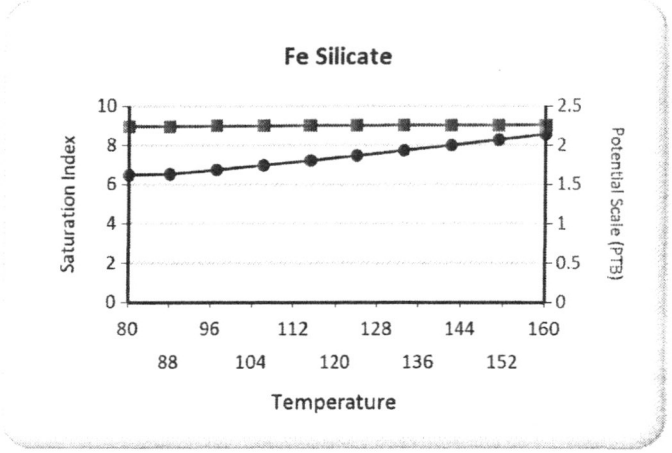







Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
0
0.5
1
1.5
2
2.5
3
0
1
2
3
4
5
80
88
96
104
112
120
128
136
144
152
160


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
1
2
3
4
5
0
5
10
15
20
25
80
88
96
104
112
120
128
136
144
152
160


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
2
4
6
8
10
0
0.5
1
1.5
2
2.5
80
88
96
104
112
120
128
136
144
152
160

January 27, 2014

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

RE: EPA AREA PERMIT NO. UT2736-06477
Mechanical Integrity Test
Standard Five year retesting for Ute Tribal 21-02

Mr. Breffle:
The enclose Mechanical Integrity Test was performed on the above referenced well on January 19, 2015. This MIT was performed because the well was due for the regular five year Mechanical Integrity Test.

If you need any more information please call at (435) 722-5302.

Sincerely,
Petroglyph Operating Co., Inc.

Rodrigo Jurado
Regulatory Compliance Specialist

Encl: MIT for the Ute Tribal 21-02

U2 Entered
Date 2/5/15
Initial DB

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: 1/19/15
Test conducted by: CHAD STEVENSON
Others present: _____

Well Name: 21-02 Type: ER SWD **Status: AC TA UC**
Field: ANTELOPE CREEK
Location: 21-02 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: 16 **bpd**
Pre-test annulus pressure: _____ **psig**

MIT DATA TABLE	*Test #1*	*Test #2*	*Test #3*
TUBING		***PRESSURE RECORD***	
Initial Pressure	1860 psig	psig	psig
End of test pressure	1860 psig	psig	psig
CASING / TUBING ANNULUS		***PRESSURE RECORD***	
0 minutes	1010 psig	psig	psig
5 minutes	1010 psig	psig	psig
10 minutes	1010 psig	psig	psig
15 minutes	1010 psig	psig	psig
20 minutes	1010 psig	psig	psig
25 minutes	1010 psig	psig	psig
30 minutes	1010 psig	psig	psig
2 1/2 HOURS *minutes*	1010 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.

Stop
TUBING
2:15 pm
PSI 1860
Stop
CASING
2:15 pm
PSI 1010
Start
TUBING
11:30 AM
PSI 1860
Start
CASING
11:30 AM
PSI 1010
CALIBRATED CHARTS
TIME & DATE ON
TIME TAKEN OFF
2:15
DATE TAKEN OFF
1-19-95
TIME & DATE ON
TIME PUT ON
11:30 AM
DATE PUT ON
1-19-95
MW-MP 2000
12 NOON
1 P.M.
2
3
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.

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

EPA

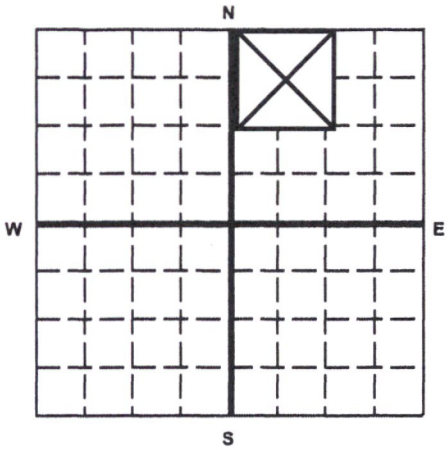
United States Environmental Protection Agency
Washington, DC 20460

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	UT2736-06477

Surface Location Description
___ 1/4 of ___ 1/4 of NW 1/4 of NE 1/4 of Section 21 Township 5S Range 3W

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

Surface Location 548 ft. frm (N/S) N Line of quarter section
and 3248 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 21-02

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	768	775	0		0	0
February	13	747	752	0		0	0
March	13	1602	2014	205		0	0
April	13	2025	2055	173		0	0
May	13	2041	2069	139		0	0
June	13	2034	2067	91		0	0
July	13	2020	2074	85		0	0
August	13	2030	2090	95		0	0
September	13	1998	2035	415		0	0
October	13	2007	2037	610		0	0
November	13	2011	2030	857		0	0
December	13	1999	2010	640		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 possibility 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)

U2 Entered
Date 3/20/14
Initial 03

TAB GREEN BLUE CB
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 ENERGY INC**
Well Name: **UTE TRIBAL 21-02 INJ**
Sample Point: **Wellhead**
Sample Date: **1/8/2014**
Sample ID: **WA-263038**

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:	8.30
Calculated TDS (mg/L):	10595.74
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):	3721.99	Chloride (Cl):	5000.00
Potassium (K):	62.00	Sulfate (SO_4):	219.00
Magnesium (Mg):	31.00	Bicarbonate (HCO_3):	1464.00
Calcium (Ca):	67.00	Carbonate (CO_3):	
Strontium (Sr):	5.00	Acetic Acid (CH_3COO)	
Barium (Ba):	2.70	Propionic Acid (C_2H_5COO)	
Iron (Fe):	0.86	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.47	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.11	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.21	Silica (SiO_2):	21.40

Notes:
B=4 Al=0 Li=.69

(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	1.39	44.50	1.60	1.57	0.00	0.00	1.27	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	157.00	1.40	44.05	1.45	1.55	0.00	0.00	1.33	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.00	300.00	1.42	45.06	1.33	1.53	0.00	0.00	1.40	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	443.00	1.45	46.14	1.21	1.51	0.00	0.00	1.47	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	585.00	1.48	47.28	1.12	1.48	0.00	0.00	1.54	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126.00	728.00	1.52	48.44	1.03	1.46	0.00	0.00	1.61	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	871.00	1.56	49.60	0.96	1.43	0.00	0.00	1.68	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	1014.00	1.60	50.72	0.90	1.40	0.00	0.00	1.75	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166.00	1157.00	1.65	51.79	0.84	1.38	0.00	0.00	1.81	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	1300.00	1.70	52.79	0.80	1.35	0.00	0.00	1.87	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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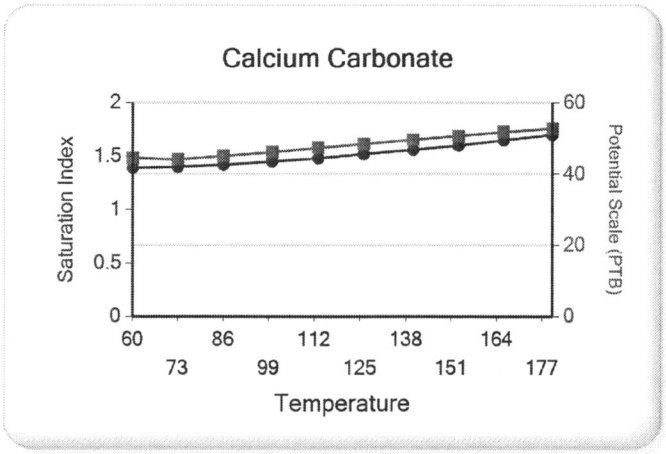
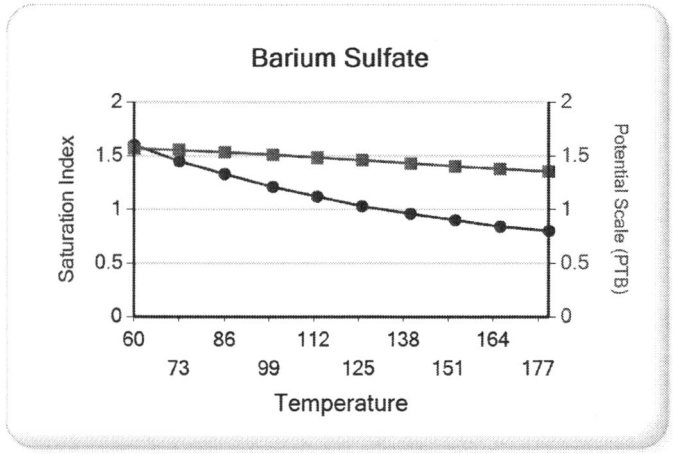
Water Analysis Report

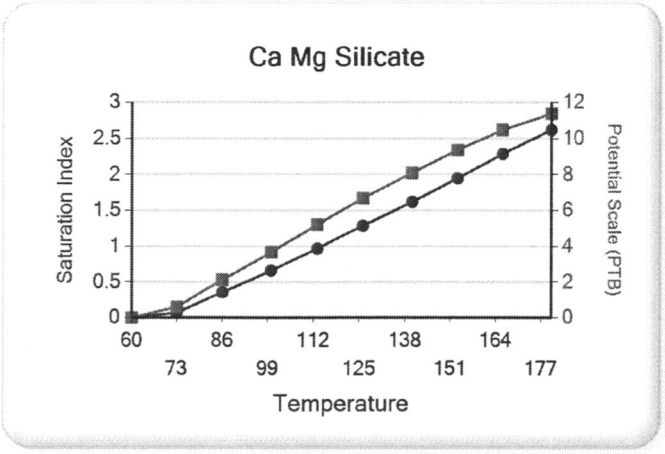
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.07	0.00	0.00	0.26	1.60	0.00	0.00	4.61	0.65
73.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.16	0.00	0.00	0.71	3.84	0.07	0.60	4.80	0.65
86.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.21	0.00	0.00	1.26	6.58	0.36	2.13	5.09	0.66
100.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.25	0.00	0.00	1.82	9.34	0.66	3.68	5.42	0.66
113.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.27	0.00	0.00	2.40	12.14	0.97	5.20	5.77	0.66
126.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.28	0.00	0.00	2.99	14.95	1.29	6.69	6.14	0.66
140.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17	0.29	0.00	0.00	3.58	17.70	1.62	8.10	6.52	0.67
153.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.30	0.00	0.00	4.17	20.23	1.95	9.38	6.91	0.67
166.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.30	0.00	0.00	4.76	22.38	2.29	10.48	7.32	0.67
180.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57	0.31	0.00	0.00	5.35	23.96	2.62	11.38	7.72	0.67

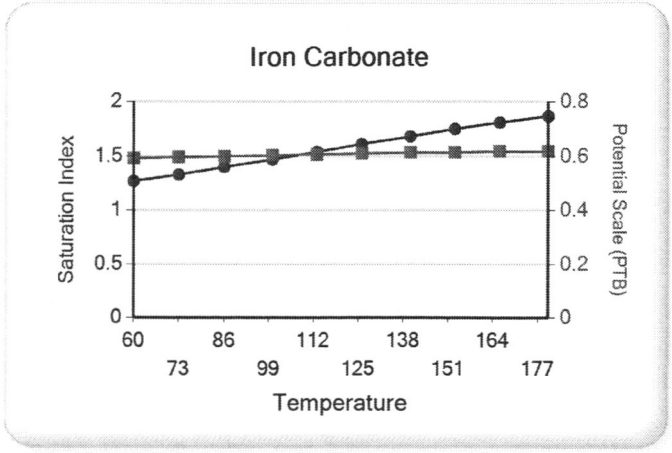
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Fe Silicate

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









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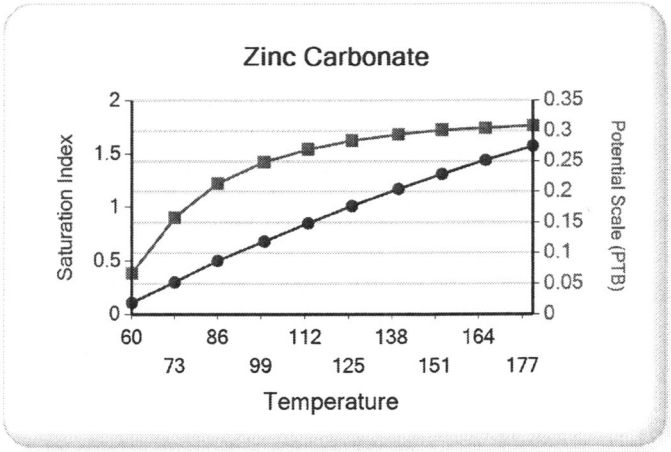
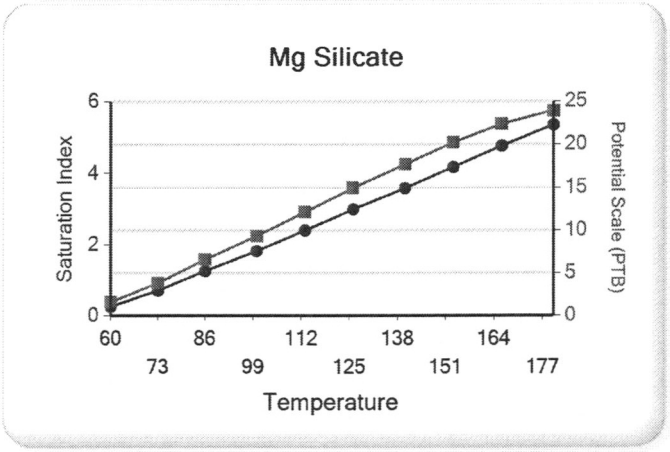
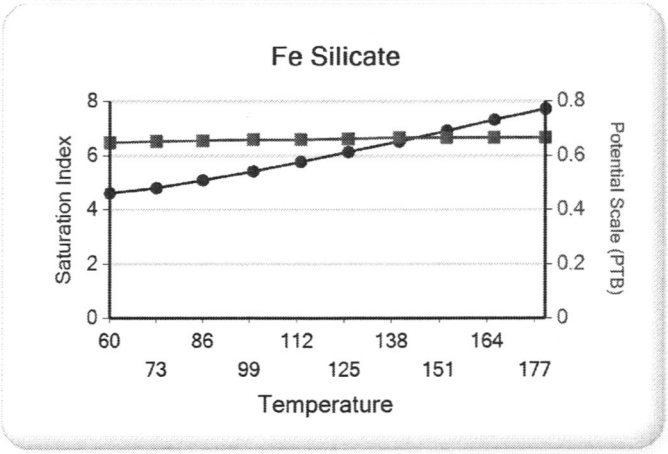
Water Analysis Report







UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
http://www.epa.gov/region08

JAN 25 2005

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Matt Corser
District Engineer
Petroglyph Operating Company, Inc.
4116 W 3000 South Ioka Lane
P.O. Box 607
Roosevelt, UT 84066

RE: **AUTHORIZATION TO INJECT**
Ute Tribal No. 21-02
EPA Well ID: **UT20736-06477**
EPA UIC Area Permit No. UT20736-00000

Dear Mr. Corser:

Thank you for submitting information pertaining to the newly constructed or converted Ute Tribal No. 21-02 enhanced recovery injection well to the Region 8 Ground Water Program office of the Environmental Protection Agency (EPA). The "Prior To Commencing Injection" requirements of Authorization for Additional Well UT20736-06477, for the Ute Tribal No. 21-02 injection well, required well owner and operator Petroglyph Operating Company, Inc. to submit the following information to the Director:

- A successful **mechanical integrity test (MIT)** demonstrating Part I Internal MI,
- **Pore pressure calculation** of the proposed injection zone, and
- 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. 21-02 enhanced recovery injection well under the

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conditions of Authorization for Additional Well UT20736-06477 and EPA UIC Area Permit UT20736-00000 and relevant modifications as issued.

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
999 18th Street, Suite 300
Denver, Colorado 80202-2466

The Director has determined that the maximum allowable surface injection pressure (MAIP) for the Ute Tribal No. 21-02 shall not exceed **2235** psig. 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 UT20736-06477 and EPA UIC Area Permit UT20736-00000 and relevant modifications as issued.

If you have any questions regarding this Authorization, please call Dan Jackson of my staff at (303) 312-6155. For questions regarding notification, testing, monitoring, reporting or other Permit requirements, the UIC Technical Enforcement Program may be reached by calling (800) 227-8917.

Sincerely,

Sandra A. Stavnes
Director
Ground Water Program

cc: Maxine Natchees, Chairperson
Uintah & Ouray Business Committee
Ute Indian Tribe
P.O. Box 190
Fort Duchesne, UT 84026

Chester Mills
BIA - Uintah & Ouray Indian Agency
P.O. Box 130
Fort Duchesne, UT 84026

Elaine Willie
Environmental Coordinator
Ute Indian Tribe
P.O. Box 460
Fort Duchesne, UT 84026

Gil Hunt
Technical Services Manager
Utah Division of Oil, Gas, and Mining
1594 West North Temple - Suite 1220
Salt Lake City, UT 84114-5801

Ed Forsman
Sr. Petroleum Engineer
BLM - Vernal District
170 South 500 East
Vernal, UT 84078

Nathan Wiser, 8ENF-UFO

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: UTE Tribal 21-05
UT20736-06478

Mr Matt Corser, District Engineer
Petroglyph Operating Company, Inc.
4116 W 3000 S Ioka Lane
Roosevelt, UT 84066

PWGW K JAN 25 2005

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Callie Duncan ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery

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

EPA Region 8 Ground Water Program
RECEIVED JAN 31 2005

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

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

2. Article Number
(Transfer from service label) 7001 0320 0005 9389 5181

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

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

Postmark Here
JAN 25 2005

Sent To
Mr Matt Corser, District Engineer
Petroglyph Operating Company, Inc.
Street, Apt. No.; or PO Box No. 4116 W 3000 S Ioka Lane
City, State, ZIP+4 Roosevelt, UT 84066

7001 0320 0005 9389 5181

PS Form 3800, January 2001 See Reverse for Instructions