Inspection Report For Well: UT20736 - 04412

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: 10:32 am / pm

OPERATOR (only if different): _____

REPRESENTATIVE(S): Chad Stevenson

PRE-INSPECTION REVIEW

Petroglyph Operating Company, Inc

Well Name:	Ute Tribal 16-02		
Well Type:	Enhanced Recovery (2R)		
Operating Status:	AC (ACTIVE) as of 12/31/2002		
Oil Field:	Antelope Creek (Duchesne)		
Location:	NWNE S16 T5S R3W		
Indian Country:	X, Uintah and Ouray		
Last Inspection:	8/28/2012	***Allowable Inj Pressure:***	2481 /
Last MIT:	Pass 3/17/2013	***Annulus Pressure From Last MIT:***	1085

ICIS Entered
Date 12/19/13
Initials JB

BLACK = POSSIBLE VIOLATION GREY = DATA MISSING

INSPECTION TYPE: **(Select One)**

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

OBSERVED VALUES:

Tubing Gauge:	[x] Yes [ ] No	Pressure: U: 2010 / L: ____ psig Gauge Range: Scale 0-3000 psig	Gauge Owner:	[x] EPA [ ] Operator
Annulus Gauge:	[x] Yes [ ] No	Pressure: 0 psig Gauge Range: opened annul psig	Gauge Owner:	[x] EPA [ ] Operator
Bradenhead Gauge:	[ ] Yes [ ] No	Pressure: ____ psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA [ ] Operator
Pump Gauge:	[ ] Yes [ ] No	Pressure: ____ psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA [ ] Operator

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

U2 Entered
Date 12/17/13
Initial AR

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

TAB	GREEN	BLUE	CBI
		1	

Inspection Report For Well: UT20736 - 04412 (PAGE 2)

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

Comments and site conditions observed during inspection: _____

Scada system temporarily down

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

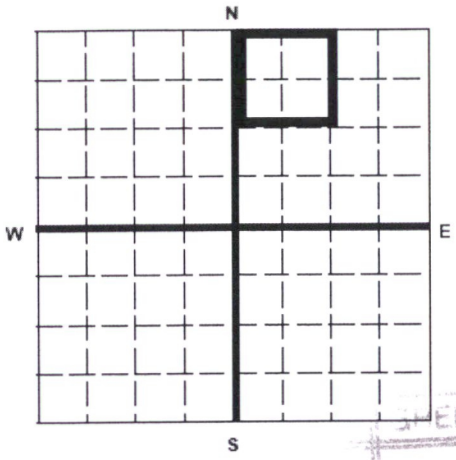
United States Environmental Protection Agency
Washington, DC 20460

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	UT2736-04412

Surface Location Description
___ 1/4 of ___ 1/4 of NW 1/4 of NE 1/4 of Section 16 Township 5S Range 3W

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

Surface Location 660 ft. frm (N/S) N Line of quarter section
and 1980 ft. from (E/W) E Line of quarter section.

U2 Entered
Date 3/30/17
Initial JB

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 16-02

GREEN BLUE OBI
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	1939	1980	2573		0	0
February	16	2018	2042	3066		0	0
March	16	2025	2039	3197		0	0
April	16	1987	2013	2915		0	0
May	16	1996	2021	2971		0	0
June	16	1974	2032	2675		0	0
July	16	1954	2004	2637		0	0
August	16	1914	2012	2621		0	0
September	16	1953	1989	2576		0	0
October	16	1988	2000	2967		0	0
November	16	1911	1975	2358		0	0
December	16	1954	1972	2512		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 16-02 INJ, DUCHESNE**	Lab Tech:	**Michele Pike**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2017**		
Sample ID:	**WA-345360**		

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):	1.0054
pH:	8.50
Calculated TDS (mg/L):	11736.04
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	0.00
Tot. SuspendedSolids(mg/L):	
Corrosivity(LanglierSat.Indx)	0.00
Alkalinity:	

Analysis @ Properties in Sample Specifics

Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	3813.73	Chloride (Cl):	5000.00
Potassium (K):	357.86	Sulfate (SO_4):	0.00
Magnesium (Mg):	8.78	Bicarbonate (HCO_3):	2379.00
Calcium (Ca):	29.40	Carbonate (CO_3):	
Strontium (Sr):	7.63	Hydroxide(HO):	
Barium (Ba):	36.52	Acetic Acid (CH_3COO)	
Iron (Fe):	52.24	Propionic Acid (C_2H_5COO)	
Zinc (Zn):	5.10	Butanoic Acid (C_3H_7COO)	
Lead (Pb):	4.56	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Ammonia NH_3:		Fluoride (F):	
Manganese (Mn):	0.38	Bromine (Br):	
Aluminum (Al):	2.45	Silica (SiO_2):	40.84
Lithium (Li):	4.16	Calcium Carbonate ($CaCO_3$):	
Boron (B):	7.08	Phosphates (PO_4):	47.94
Silicon (Si):	19.09	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	1.54	24.64	0.00	0.00	0.00	0.00	3.91	37.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
149.00	267.00	1.59	24.76	0.00	0.00	0.00	0.00	3.99	37.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
168.00	483.00	1.66	24.90	0.00	0.00	0.00	0.00	4.08	37.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
187.00	700.00	1.73	25.04	0.00	0.00	0.00	0.00	4.16	37.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
206.00	917.00	1.81	25.17	0.00	0.00	0.00	0.00	4.24	37.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
224.00	1133.00	1.91	25.28	0.00	0.00	0.00	0.00	4.31	37.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
243.00	1350.00	2.00	25.38	0.00	0.00	0.00	0.00	4.38	37.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
262.00	1567.00	2.11	25.46	0.00	0.00	0.00	0.00	4.44	37.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
281.00	1783.00	2.22	25.52	0.00	0.00	0.00	0.00	4.50	37.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	2000.00	2.33	25.58	0.00	0.00	0.00	0.00	4.55	37.98	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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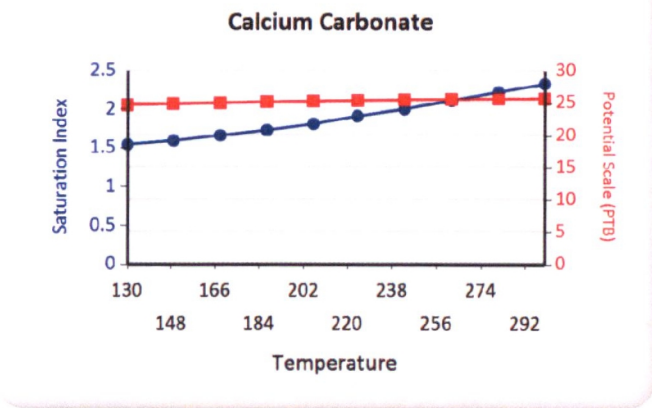
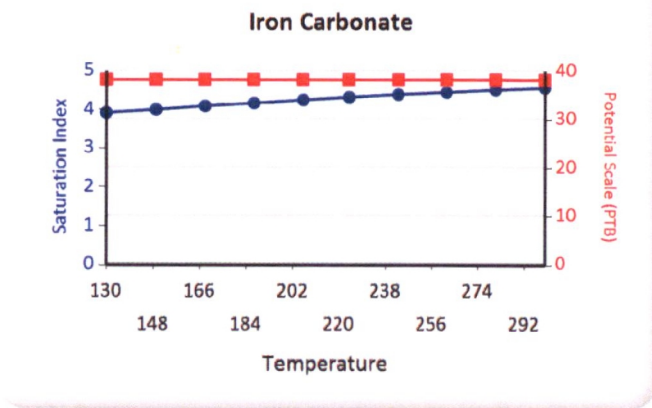
Water Analysis Report

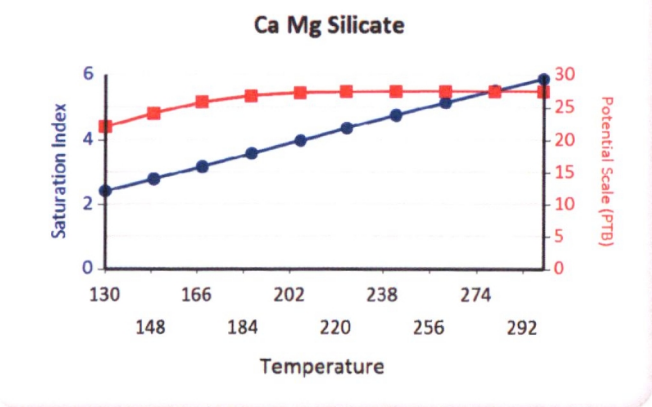
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
130.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	2.49	3.42	0.00	0.00	3.85	15.72	2.41	21.98	14.18	40.62
149.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	2.69	3.42	0.00	0.00	4.55	16.46	2.78	24.02	14.59	40.62
168.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	2.87	3.42	0.00	0.00	5.28	16.94	3.17	25.74	15.04	40.63
187.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	3.03	3.42	0.00	0.00	5.99	17.21	3.57	26.74	15.51	40.63
206.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	3.18	3.43	0.00	0.00	6.69	17.36	3.97	27.18	15.99	40.63
224.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	3.31	3.43	0.00	0.00	7.39	17.44	4.36	27.34	16.47	40.63
243.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	3.43	3.43	0.00	0.00	8.06	17.48	4.75	27.40	16.95	40.63
262.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	3.53	3.43	0.00	0.00	8.72	17.51	5.14	27.41	17.43	40.63
281.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	3.43	0.00	0.00	9.36	17.53	5.51	27.42	17.90	40.63
300.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	3.69	3.43	0.00	0.00	9.97	17.53	5.87	27.42	18.36	40.63

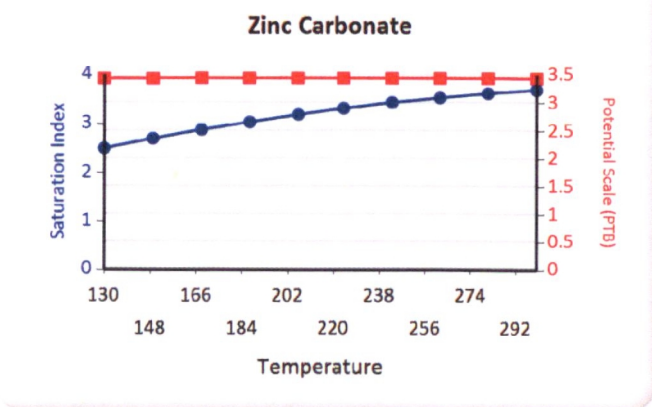
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

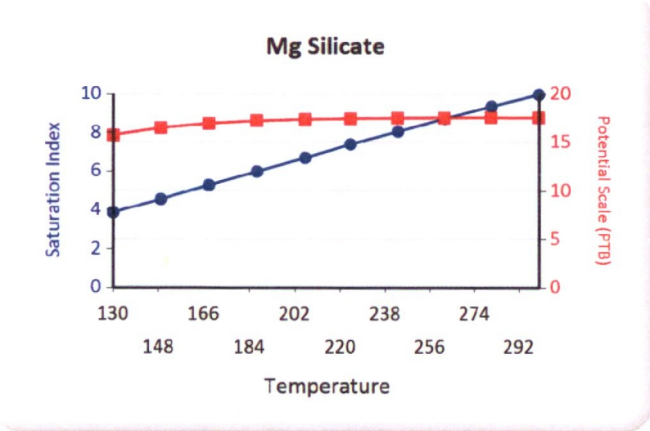
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

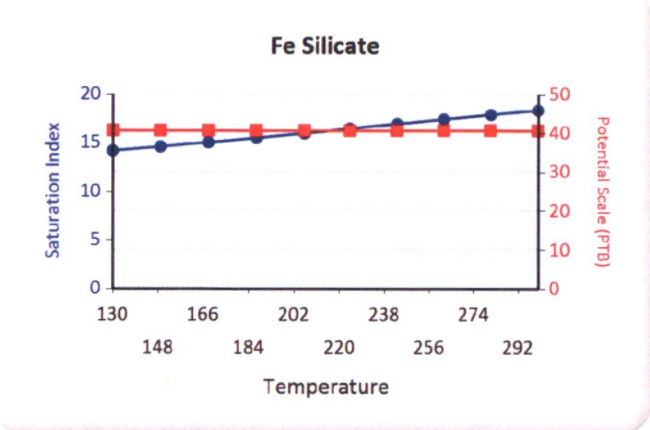









Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
2
4
6
8
10
0
5
10
15
20
130
148
166
184
202
220
238
256
274
292


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
5
10
15
20
0
10
20
30
40
50
130
148
166
184
202
220
238
256
274
292

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

EPA

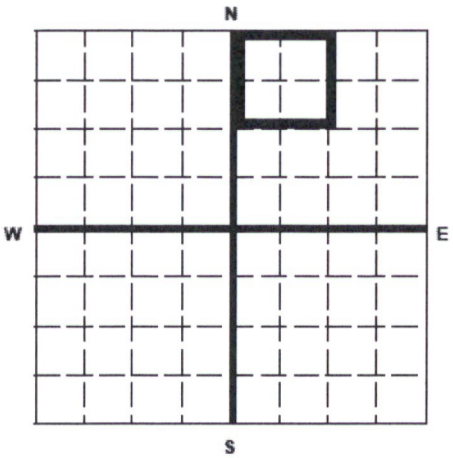
United States Environmental Protection Agency
Washington, DC 20460

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~~ 04412

Surface Location Description
___ 1/4 of ___ 1/4 of NW 1/4 of NE 1/4 of Section 16 Township 5S Range 3W

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

Surface Location 660 ft. frm (N/S) N Line of quarter section
and 1980 ft. from (E/W) E Line of quarter section

U2 Entered
Date 3/1/16
Initial B3

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 16-02

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING – CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	15	1859	1961	2765		0	0
February	15	1944	1979	3099		0	0
March	15	1936	1985	3146		0	0
April	15	1920	1966	2687		0	0
May	15	1954	1983	2716		0	0
June	15	1936	1971	2339		0	0
July	15	2003	2023	2827		0	0
August	15	1971	2010	2714		0	0
September	15	1961	2020	2740		0	0
October	15	2007	2007	3199		0	0
November	15	1999	2009	2939		0	0
December	15	1995	2016	3023		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 | CBI

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 16-02 INJ, DUCHESNE**	Lab Tech:	**Michele Pike**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2016**		
Sample ID:	**WA-327644**		

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):	1.0010
pH:	7.10
Calculated TDS (mg/L):	5324.63
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	30.00
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):	1571.22	Chloride (Cl):	2000.00
Potassium (K):	5.04	Sulfate (SO_4):	500.00
Magnesium (Mg):	74.80	Bicarbonate (HCO_3):	976.00
Calcium (Ca):	157.18	Carbonate (CO_3):	
Strontium (Sr):	4.49	Acetic Acid (CH_3COO)	
Barium (Ba):	1.29	Propionic Acid (C_2H_5COO)	
Iron (Fe):	5.75	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.38	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.52	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.06	Silica (SiO_2):	27.90
Aluminum (Al):	0.05	Calcium Carbonate ($CaCO_3$):	
Lithium (Li):	0.30	Phosphates (PO_4):	3.06
Boron (B):	0.05	Oxygen (O_2):	
Silicon (Si):	13.04		

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	1.05	86.91	1.02	0.69	0.00	0.00	1.78	4.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
167.00	267.00	0.88	75.05	1.04	0.70	0.00	0.00	1.59	4.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	483.00	0.78	66.96	1.07	0.70	0.00	0.00	1.45	4.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	700.00	0.67	58.86	1.11	0.71	0.00	0.00	1.32	3.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
127.00	917.00	0.58	50.88	1.16	0.72	0.00	0.00	1.18	3.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	1133.00	0.49	43.16	1.22	0.72	0.00	0.00	1.05	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	1350.00	0.40	35.82	1.30	0.73	0.00	0.00	0.92	3.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.00	1567.00	0.32	28.96	1.39	0.74	0.00	0.00	0.80	3.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	1783.00	0.25	22.68	1.50	0.74	0.00	0.00	0.67	3.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	2000.00	0.19	17.04	1.62	0.75	0.00	0.00	0.55	2.95	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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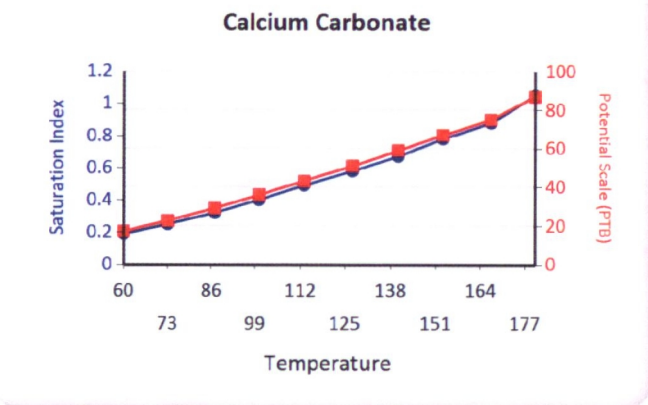
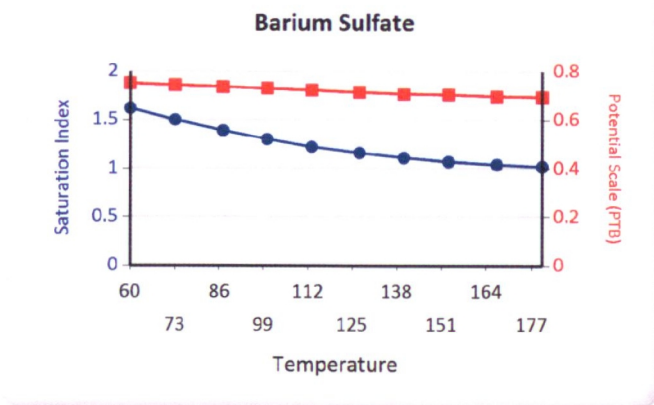
Water Analysis Report

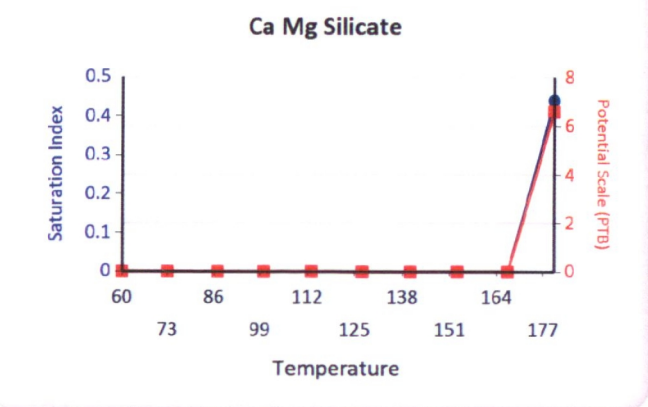
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.19	0.00	0.00	1.64	24.74	0.44	6.61	5.53	4.39
167.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.14	0.00	0.00	0.48	7.10	0.00	0.00	4.53	4.30
153.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.07	0.00	0.00	0.00	0.00	0.00	0.00	3.86	4.19
140.00	700.00	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	3.21	4.01
127.00	917.00	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	2.57	3.72
113.00	1133.00	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	1.95	3.28
100.00	1350.00	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	1.34	2.64
87.00	1567.00	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	0.75	1.72
73.00	1783.00	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	0.18	0.48
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	0.00	0.00

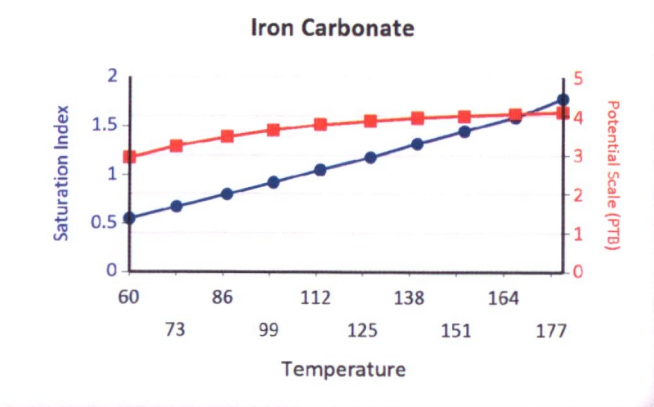
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

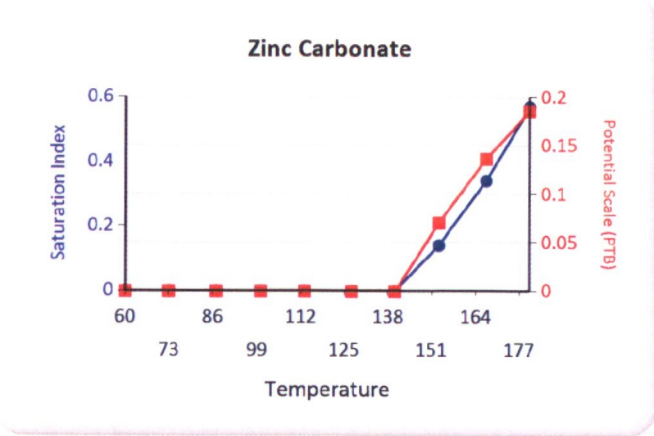
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate

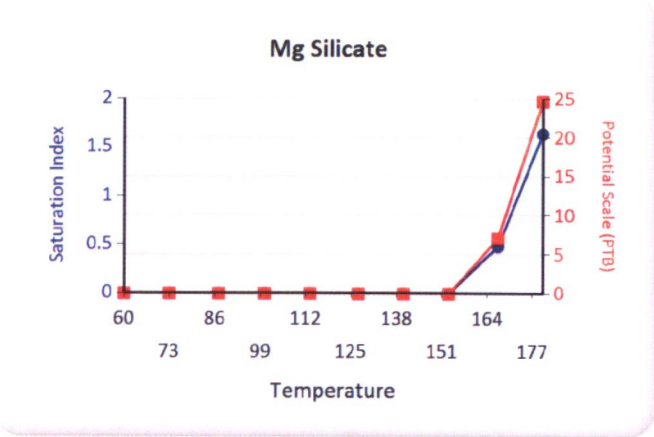


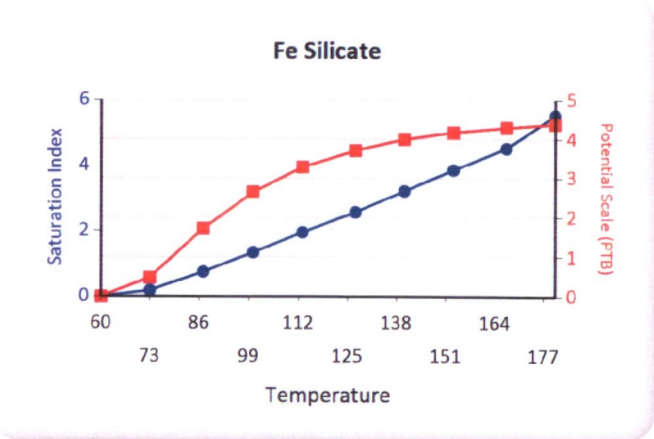







Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
0.6
0.4
0.2
0
0.2
0.15
0.1
0.05
0
60
86
112
138
164
73
99
125
151
177


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
2
1.5
1
0.5
0
25
20
15
10
5
0
60
86
112
138
164
73
99
125
151
177


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
6
4
2
0
5
4
3
2
1
0
60
86
112
138
164
73
99
125
151
177

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

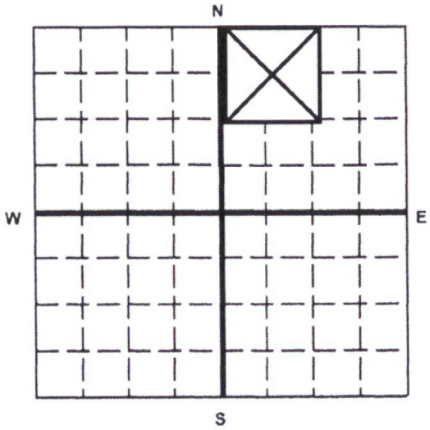
EPA

United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

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

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736-04412

Surface Location Description

___ 1/4 of ___ 1/4 of NW 1/4 of NE 1/4 of Section 16 Township 5S Range 3W

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

Surface Location 660 ft. frm (N/S) N Line of quarter section and 1980 ft. from (E/W) E Line of quarter section.

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

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

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 16-02

		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	2018	2047	4090		0	0
February	14	2038	2046	3522		0	0
March	14	2004	2032	3788		0	0
April	14	2032	2047	4034		0	0
May	14	2017	2022	4226		0	0
June	14	2013	2038	4111		0	0
July	14	1964	2014	3790		0	0
August	14	1989	2014	4286		0	0
September	14	1932	1990	3508		0	0
October	14	1973	1988	3874		0	0
November	14	1969	1989	3371		0	0
December	14	1950	1975	3263		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 3/20/15
Initial GW

	GREEN	BLUE	CBI
TAB		2	

Multi-Chem Analytical Laboratory
1553 East Highway 40
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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 16-02 INJ, DUCHESNE**	Lab Tech:	**Gary Winegar**
Sample Point:	**WELLHEAD**		
Sample Date:	**1/7/2015**		
Sample ID:	**WA-297517**		

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):	0.9986
pH:	7.10
Calculated TDS (mg/L):	2268.18
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	48.00
H_2S in Gas (%):	
H2S in Water (mg/L):	5.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	150.32	Chloride (Cl):	1000.00
Potassium (K):	1.75	Sulfate (SO_4):	274.00
Magnesium (Mg):	71.46	Bicarbonate (HCO_3):	610.00
Calcium (Ca):	129.35	Carbonate (CO_3):	
Strontium (Sr):	4.37	Acetic Acid (CH_3COO)	
Barium (Ba):	0.47	Propionic Acid (C_2H_5COO)	
Iron (Fe):	4.63	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.68	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.00	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.08	Silica (SiO_2):	21.07

Notes:
B=.69 Al=.04 Li=.2

(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	0.41	26.58	1.21	0.26	2.23	2.52	0.78	2.78	0.00	0.00	0.00	0.00	0.00	0.00	9.65	0.35
88.00	157.00	0.36	22.95	1.13	0.26	2.08	2.50	0.76	2.75	0.00	0.00	0.00	0.00	0.00	0.00	9.40	0.35
97.00	300.00	0.39	25.14	1.05	0.26	2.06	2.50	0.83	2.83	0.00	0.00	0.00	0.00	0.00	0.00	9.27	0.35
106.00	443.00	0.43	27.50	0.98	0.25	2.04	2.50	0.89	2.91	0.00	0.00	0.00	0.00	0.00	0.00	9.15	0.35
115.00	585.00	0.47	30.02	0.92	0.25	2.03	2.50	0.96	2.97	0.00	0.00	0.00	0.00	0.00	0.00	9.04	0.35
124.00	728.00	0.51	32.67	0.86	0.24	2.03	2.50	1.03	3.02	0.00	0.00	0.00	0.00	0.00	0.00	8.94	0.35
133.00	871.00	0.56	35.45	0.81	0.24	2.04	2.50	1.09	3.07	0.00	0.00	0.00	0.00	0.00	0.00	8.85	0.35
142.00	1014.00	0.60	38.34	0.77	0.23	2.05	2.50	1.16	3.12	0.00	0.00	0.00	0.00	0.00	0.00	8.77	0.35
151.00	1157.00	0.65	41.32	0.73	0.23	2.07	2.50	1.22	3.15	0.00	0.00	0.00	0.00	0.00	0.00	8.69	0.35
160.00	1300.00	0.70	44.38	0.70	0.22	2.09	2.51	1.29	3.18	0.00	0.00	0.00	0.00	0.00	0.00	8.62	0.35

		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	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.88
88.00	157.00	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	0.26	0.51
97.00	300.00	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	0.58	1.07
106.00	443.00	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	0.92	1.56
115.00	585.00	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	1.28	1.99
124.00	728.00	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	1.65	2.34
133.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	2.03	2.64
142.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.17	0.00	0.00	0.00	0.00	0.00	0.00	2.42	2.87
151.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.24	0.00	0.00	0.00	0.00	0.00	0.00	2.81	3.06
160.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.29	0.00	0.00	0.00	0.00	0.00	0.00	3.22	3.20

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

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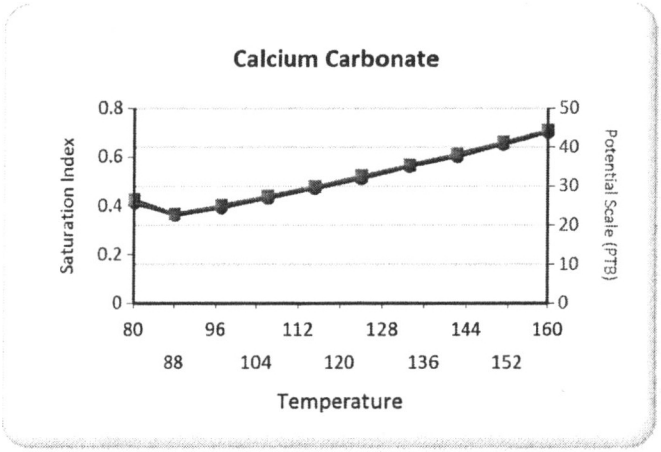
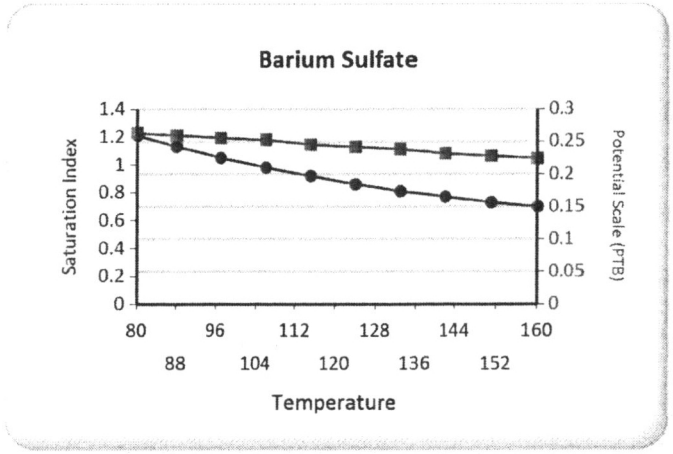
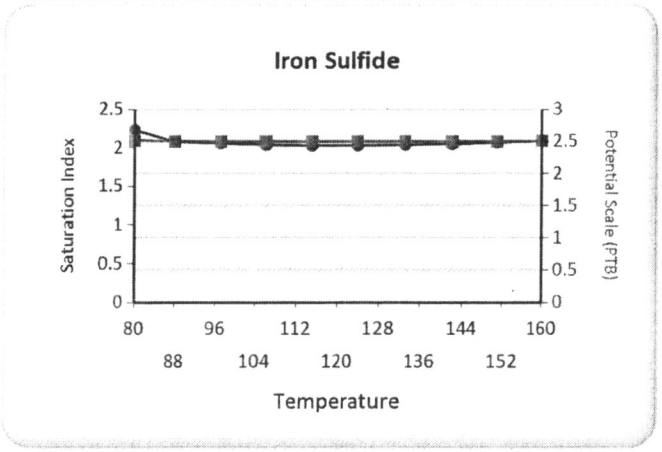
Water Analysis Report

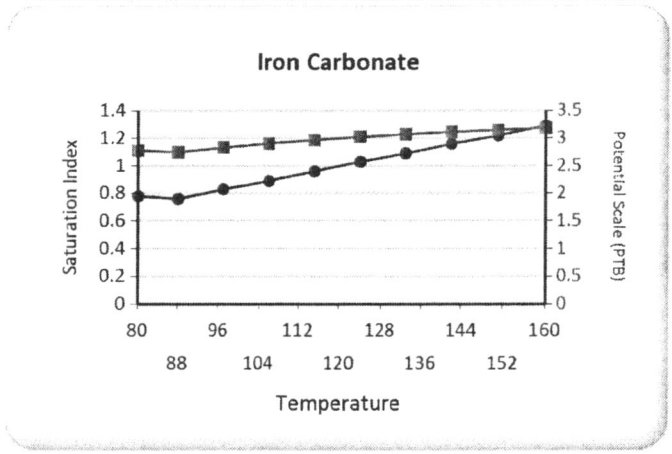
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Fe Silicate

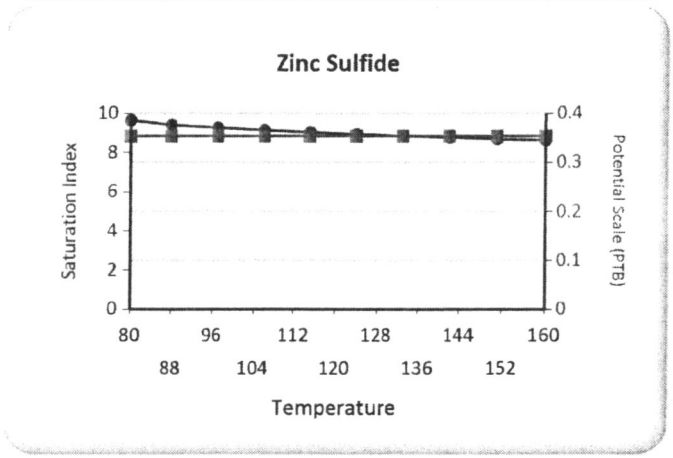
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Fe Silicate

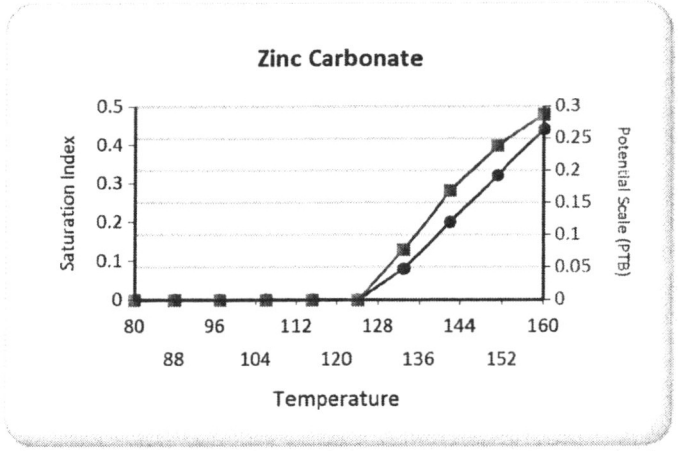


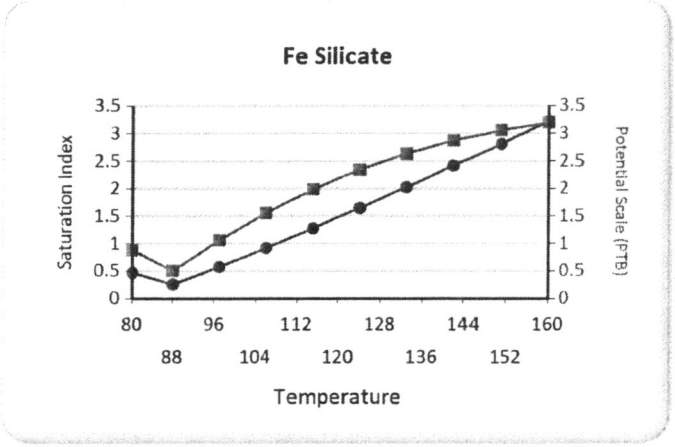









Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
0.5
0.4
0.3
0.2
0.1
0
0.3
0.25
0.2
0.15
0.1
0.05
0
80
88
96
104
112
120
128
136
144
152
160


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
3.5
3
2.5
2
1.5
1
0.5
0
80
88
96
104
112
120
128
136
144
152
160

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

EPA

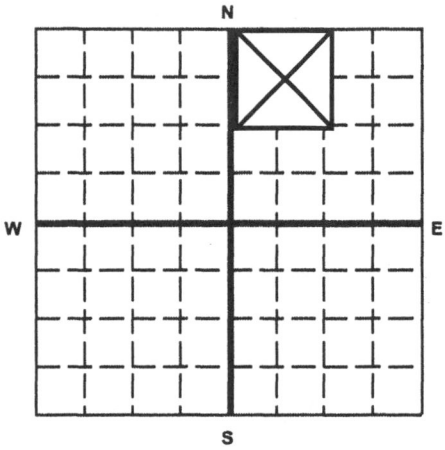
United States Environmental Protection Agency
Washington, DC 20460

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	UT2736-04412

Surface Location Description
___ 1/4 of ___ 1/4 of NW 1/4 of NE 1/4 of Section 16 Township 5S Range 3W

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

Surface Location 660 ft. frm (N/S) N Line of quarter section
and 1980 ft. from (E/W) E Line of quarter section.

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

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

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 16-02

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	2022	2049	2942		0	0
February	13	2055	2078	3694		0	0
March	13	2029	2062	3518		0	0
April	13	2066	2090	4487		0	0
May	13	2075	2086	4520		0	0
June	13	2052	2074	3424		0	0
July	13	1997	2086	3799		0	0
August	13	2044	2103	4259		0	0
September	13	2030	2088	4125		0	0
October	13	2035	2057	4457		0	0
November	13	2034	2054	4141		0	0
December	13	2022	2032	3890		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
		✓	

UIC Entered
Date 3/18/14
Initial DB

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 16-02 INJ**
Sample Point: **Wellhead**
Sample Date: **1/8/2014**
Sample ID: **WA-263380**

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):	0.999
pH:	7.60
Calculated TDS (mg/L):	2507.25
CO_2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H_2S in Water (mg/L):	0.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	126.00	Chloride (Cl):	1000.00
Potassium (K):	4.00	Sulfate (SO_4):	425.00
Magnesium (Mg):	74.00	Bicarbonate (HCO_3):	683.20
Calcium (Ca):	166.00	Carbonate (CO_3):	
Strontium (Sr):	4.00	Acetic Acid (CH_3COO)	
Barium (Ba):	0.21	Propionic Acid (C_2H_5COO)	
Iron (Fe):	1.20	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.00	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.07	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.03	Silica (SiO_2):	23.54

Notes:
B=.58 Al=.01 Li=.07

(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	0.94	49.02	1.21	0.12	0.00	0.00	0.54	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	157.00	0.93	47.73	1.06	0.12	0.00	0.00	0.58	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.00	300.00	0.98	50.83	0.93	0.11	0.00	0.00	0.68	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	443.00	1.03	54.33	0.82	0.11	0.00	0.00	0.78	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	585.00	1.09	58.19	0.72	0.10	0.00	0.00	0.89	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126.00	728.00	1.16	62.35	0.64	0.10	0.00	0.00	0.99	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	871.00	1.23	66.78	0.57	0.09	0.00	0.00	1.09	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	1014.00	1.31	71.41	0.52	0.09	0.00	0.00	1.19	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166.00	1157.00	1.39	76.21	0.47	0.08	0.00	0.00	1.29	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	1300.00	1.47	81.12	0.44	0.08	0.00	0.00	1.39	0.84	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

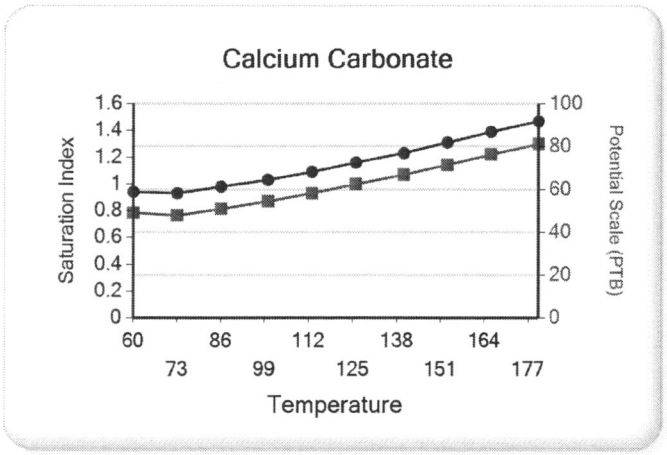
multi-chem®
A HALLIBURTON SERVICE

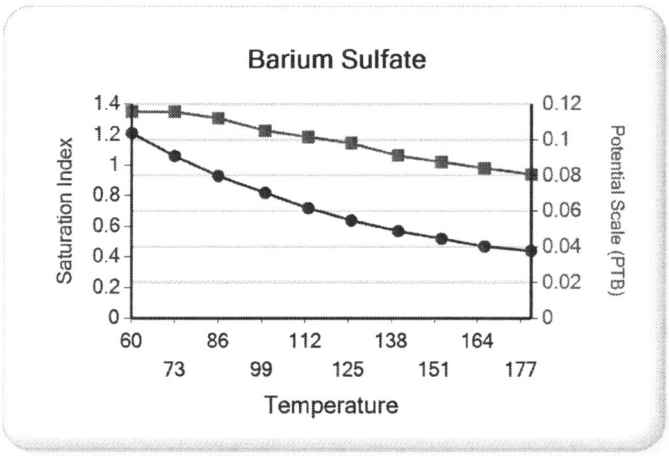
Water Analysis Report

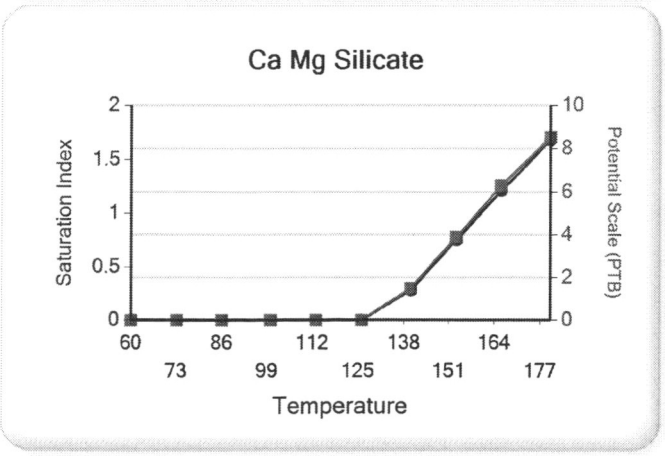
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.45
73.00	157.00	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	1.00	0.46
86.00	300.00	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	1.46	0.60
100.00	443.00	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	1.95	0.70
113.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.12	0.00	0.00	2.48	0.77
126.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	4.08	0.00	0.00	3.03	0.83
140.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57	8.57	0.28	1.49	3.60	0.87
153.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36	13.39	0.75	3.88	4.19	0.89
166.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16	18.14	1.21	6.29	4.79	0.91
180.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.95	22.27	1.68	8.53	5.39	0.91

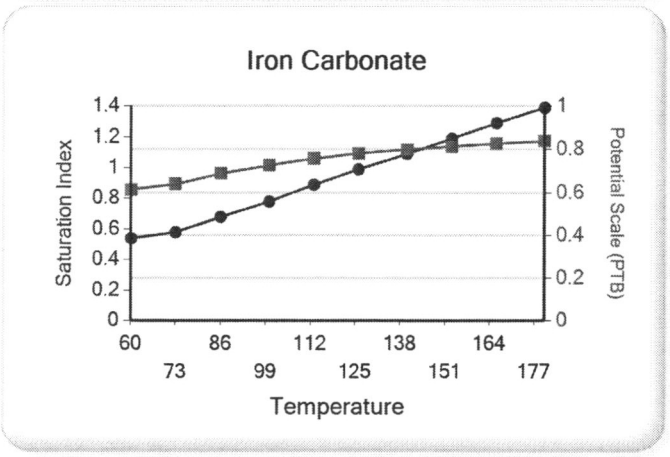
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Fe Silicate

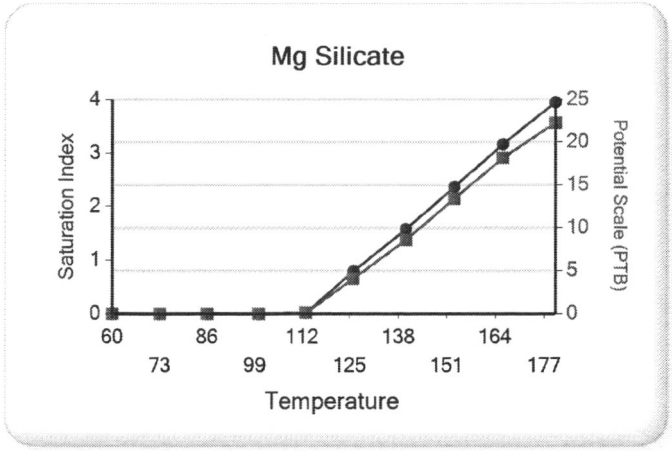
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

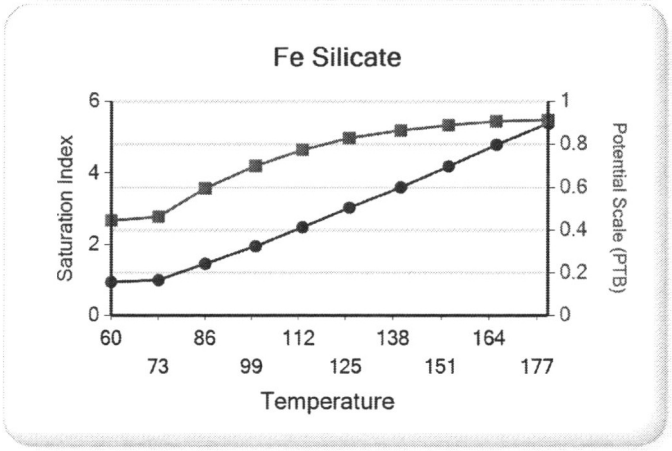









Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
1
2
3
4
0
5
10
15
20
25
60
73
86
99
112
125
138
151
164
177


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
2
4
6
0
0.2
0.4
0.6
0.8
1
60
73
86
99
112
125
138
151
164
177

March 25, 2013

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

RECEIVED
MAR 28 2013
Office of Legal Enforcement Program
Region 8 EPA

RE: EPA AREA PERMIT NO. UT2736-04412
Mechanical Integrity Test
Standard Five year retesting for Ute Tribal 16-02

Mr. Breffle:
The enclose Mechanical Integrity Test was performed on the above referenced well on March 17, 2013. 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 16-02

U2 Entered
Date 4/8/13
Initial DB

	GREEN	BLUE	CBI
TAB		2	

Mechanical Integrity Test
Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program, UIC Direct Implementation Program 8P-W-GW
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: 3/17/2013
Test conducted by: CHAD STEVENSON
Others present: _____

Well Name: 16-02 Type: ER SWD Status: AC TA UC
Field: ANTELOPE CREEK
Location: 16-02 Sec: ____ T ____ N/S R ____ E/W County: DUCHESNE State: UT
Operator: PETROGLYPH ENERGY
Last MIT: / / Maximum Allowable Pressure: _____ PSIG

Is this a regularly scheduled test? [X] Yes [ ] No
Initial test for permit? [ ] Yes [ ] No
Test after well rework? [ ] Yes [ ] No
Well injecting during test? [X] Yes [ ] No If Yes, rate: 3 bpd

Pre-test casing/tubing annulus pressure: _____ psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	1930 psig	psig	psig
End of test pressure	1930 psig	psig	psig
CASING / TUBING ANNULUS PRESSURE			
0 minutes	1085 psig	psig	psig
5 minutes	1085 psig	psig	psig
10 minutes	1085 psig	psig	psig
15 minutes	1085 psig	psig	psig
20 minutes	1085 psig	psig	psig
25 minutes	1085 psig	psig	psig
30 minutes	1085 psig	psig	psig
4 Hours minutes	1085 psig	psig	psig
minutes	psig	psig	

CALIBRATED CHARTS
BATAVIA N.Y.
METER NUMBER
16-02
TIME PUT ON
10:00 A.M.
DATE PUT ON
3-17-13
TIME TAKEN OFF
2:15 P.M.
DATE TAKEN OFF
3-17-13
MW-MP 3000
PRINTED IN U.S.A.
START PUMPING 10:00 AM
STOP PUMPING 2:15 PM

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

MAR 13 1998

Ref: 8P2-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Kathy Turner
Petroleum Engineering Technician
Petroglyph Operating Company, Inc.
P. O. Box 1839
Hutchinson, KS 67504-1839

RE: UNDERGROUND INJECTION CONTROL (UIC)
Authorization to Inject
Ute Tribal #16-02 (UT04412)
Antelope Creek Waterflood
EPA Area Permit No. UT2736-00000
Duchesne County, Utah

Dear Ms. Turner:

Thank you for the recently submitted information pertaining to the above-referenced area permit and well. The Well Rework Record, injection zone fluid pore pressure survey, and the successfully run mechanical integrity test (MIT), with chart, on the Ute Tribal #16-02 (UT2736-04412) have been reviewed and approved. Petroglyph Operating Company, Inc, has complied with all of the pertinent permit conditions (Part II, Section C. 2.) for the Antelope Creek Waterflood Area Permit.

Pleased be advised that administrative approval has been granted for injection of Class II fluids into the above referenced well for enhanced recovery of oil and gas. Please also be aware of the monitoring, recordkeeping and reporting requirements described in Part II, Section D of the permit and that the current **maximum surface injection pressure (Pmax) is limited to 2481 psig**, as modified by UIC Minor Area Permit Modification dated January 6, 1998.

Upon receipt of this letter, the Compliance Officer, Mr. John Carson will then take over routine matters involving well operations, future correspondence, forms, and reports. Please direct all correspondence to the attention of Mr. Carson at the above letterhead **(MAIL CODE ENF-T)** or contact Mr. Carson at (303) 312-6203. Thank you for your continued cooperation.

Sincerely,

D. Edwin Hogle
Director, Groundwater Program
Office of Pollution Prevention
State and Tribal Assistance

Printed on Recycled Paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

MAR 13 1998

Ref: 8P2-W-GW

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Petroleum Engineering Technician
Petroglyph Operating Company, Inc.
P. O. Box 1839
Hutchinson, KS 67504-1839

Scan under
UT 20736 - 04412
Authorization to
Inject - Final

RE: UNDERGROU
Authoriza
Ute Tri
Antelope
EPA Area
Duchesne

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Director, Groundwater Program
Office of Pollution Prevention
State and Tribal Assistance

Printed on Recycled Paper

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

Ms. Elaine Willie, Environmental Director
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

3/13/98 CW 3250C (Ute Tribal #16-02)

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

MAR 13 1998

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Ms. Kathy Turner
Geology/Petroleum Engineering Technician
Petroglyph Operating Company, Inc.
P.O. Box 1839
Hutchinson, KS 67504-1839

4a. Article Number
P 213 403 755

4b. Service Type
☐ Registered ■ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
MAR 16 1998

5. Received By: *(Print Name)*
Kristie Brown

6. Signature: *(Addressee or Agent)*
X (Kristie Brown)

8. Addressee's Address *(Only if requested and fee is paid)*
(mail 24) MAR 24 1998

PS Form **3811**, December 1994 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

P 213 403 755

3/13/98 C 3250C

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Ms. Kathy Turner	
Street & Number Geology/Petroleum Engineering Technician	
Post Office, State, & ZIP Code Petroglyph Operating Company, Inc. P.O. Box 1839 Hutchinson, KS 67504-1839	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, April 1995

CONCURRENCE COPY

Ref: 8P2-W-GW

MAR 13 1998

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Petroglyph Operating Company, Inc.
P. O. Box 1839
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Director, Groundwater Program
Office of Pollution Prevention
State and Tribal Assistance

8P2-W-GW
3/12/98 LG
mailed 3/13/98 LG

8P2-W-GW
3/12/98

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Uintah & Ouray Business Committee
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Ms. Elaine Willie, Environmental Director
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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

FCD: March 11, 1998, Chuck W., F:\DATA\WP\PETROGLF\AUT-IN16.02