Facility Well Name Northern (Bushton) #1 **UIC Permit #** KS-01-159-003 **Month** August **Year** 2020

Submitted 12/18/2020 **Approved** 01/07/2021 **KOLAR Document ID** 1539616

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 23

Barrels per Day Maximum: 3,840

			Annulus Pressure psig min 60		Injection Pressure		
	Injection Volume Barrels per Day	Injection Rate Barrels per Minute	Gauge psig	Cont. Record psig	Gauge psig	Cont. Record psig	Amount Added to Seal Pot
Monthly Average	152	0.25	121	118	-27.3	-24.8	0
Monthly Maximum	1,391	2.29	125	121	-26.0	-24.0	0
Monthly Minimum	0	0.00	110	108	-28.0	-25.4	0
Monthly Total	4,702						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
125.00	97.70	-26.00	0.00

Comments:

8/27/20 injection for Fall-Off Test, 8/28/20 remaining left from fall off test. The original msubmittal was on time but had to be deleted bedause it could not be editted. The original document was 1527818.

Northern (Bushton) #1 08/2020

Daily Recorder Data

Day	Time 24 hr	Injection Volume Barrels Per Day	Injection Rate Barrels Per Minute	Annulus Pressure (Gauge) psig	Annulus Pressure (Continuous Recorder) psig	Injection Pressure (Gauge) + / -	Injection Pressure (Continuous Recorder) + / -	Seal Pot Fluid Level inches	Type of Fluid Added to Seal Pot	Amount of Fluid Added to Seal Pot gallons	Initials of Collector of Field Recordings		
1	08:00	78.29	0.00	121	117.8	-27	-25.0	12	N	0	RB		
2	10:00	161.24	0.00	120	117.8	-27	-25.0	12	N	0	RB		
3	06:00	66.74	1.81	119	114.4	-27	-24.5	12	N	0	MU		
4	06:00	51.98	0.00	120	117.8	-27	-25.1	12	N	0	MU		
5	06:00	157.64	0.00	119	115.2	-27	-25.4	12	N	0	MU		
6	05:30	84.29	0.00	120	116.8	-27	-24.8	12	N	0	MU		
7	07:55	78.45	0.00	122	116.4	-28	-24.8	12	N	0	LM		
8	07:30	78.45	0.00	122	118.7	-28	-24.8	12	N	0	LM		
9	10:00	134.38	0.00	122	118.4	-28	-24.8	12	N	0	LM		
10	09:15	87.64	0.00	120	117.2	-27	-24.8	12	N	0	DJ		
11	09:20	76.31	0.00	121	119.0	-27	-24.9	12	N	0	RB		
12	08:00	82.31	0.00	120	118.0	-27	-24.9	12	N	0	RB		
13	13:00	157.69	0.00	120	118.0	-27	-24.9	12	N	0	RB		
14	07:00	0.00	0.00	120	118.0	-27	-24.9	12	N	0	MW		
15	06:20	139.38	0.00	120	118.2	-28	-25.0	12	N	0	MW		
16	07:00	275.02	0.00	120	118.6	-28	-25.0	12	N	0	MW		
17	08:00	155.93	0.00	122	118.1	-28	-25.1	12	N	0	LM		
18	07:30	0.00	0.00	123	119.4	-28	-25.0	12	N	0	DJ		
19	08:50	78.55	0.00	123	119.6	-28	-25.0	12	N	0	LM		
20	07:50	157.64	0.00	122	119.0	-28	-25.1	12	N	0	LM		
21	08:20	0.00	0.00	124	120.0	-28	-24.7	12	N	0	LM		
22	08:04	0.00	0.00	124	120.2	-28	-24.7	12	N	0	LM		
23	11:00	0.00	0.00	124	121.2	-27	-24.7	12	N	0	MU		
24	11:00	0.00	0.00	125	120.6	-28	-24.8	12	N	0	MU		
25	11:00	0.00	0.00	125	120.3	-28	-24.7	12	N	0	MW		
26	13:30	0.00	0.00	125	121.0	-27	-24.5	12	N	0	MW		
27	07:30	1,390.86	1.86	110	108.0	-27	-24.3	11	N	0	MW		
28	09:30	765.43	2.29	116	112.0	-26	-24.3	11	N	0	RB		
29	07:00	84.88	0.00	120	116.0	-27	-24.0	11	N	0	RB		
30	08:00	172.19	0.00	124	119.8	-26	-24.7	11	N	0	RB		
31	10:00	186.67	1.79	117	119.5	-26	-24.2	12	N	0	MU		

Northern (Bushton) #1 08/2020

Weekly Injectate Samples

Kansas Lab Certificate Number

Week	Temperature		pH		Chloride				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	70.00	08/03/2020	8.70	08/03/2020	N/A				
2	73.00	08/10/2020	8.18	08/10/2020	N/A				
3	76.00	08/17/2020	7.99	08/17/2020	N/A				
4	68.00	08/28/2020	7.62	08/28/2020	N/A				
5	68.00	08/31/2020	7.57	08/31/2020	N/A				

No monthly injectate samples required.

Northern (Bushton) #1 08/2020

Quarterly Injectate Samples

Quarter 3
Date Sample Collected 08/25/2020
Kansas Lab Certificate Number E-10146
Lab Name Pace Analytical-Salina

These samples shall be representative of injection activity and shall therefore be collected on days of injection.

Constituent	Value	Units
Calcium	703.000	mg/l
Chloride	516.000	mg/l
Conductivity	248.000	Mmhos
Diethanolamine	<100.000	mg/l
Iron	9.280	mg/l
Magnesium	10.200	mg/l
Sulfate	36.800	mg/l
Total Alkalinity as CaCO3	529.000	mg/l
Total Dissolved Solids	1,520.000	mg/l
Total Hardness as CaCO3	217.000	mg/l