Facility Well Name Northern (Bushton) #1 **UIC Permit #** KS-01-159-003 **Month** December **Year** 2021

Submitted 01/12/2022 **Approved** 01/25/2022 **KOLAR Document ID** 1606742

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 12

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	63	0.04	128	124	-23.6	-22.0	0
Monthly Maximum	654	1.33	132	128	-18.0	-18.1	0
Monthly Minimum	0	0.00	120	115	-28.0	-24.8	0
Monthly Total	1,967						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
130.20	113.30	-14.40	-25.80

Comments:

Weekly temperature and pH readings were only taken the first 2 weeks of the month due to a staff shortage caused by Covid.

Northern (Bushton) #1 12/2021

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	10:00	0.00	0.00	131	126.2	-25	-23.3	8	N	0	RB		
2	08:00	0.00	0.00	130	126.0	-25	-23.0	8	N	0	RB		
3	06:25	0.00	0.00	131	126.6	-22	-21.5	7	N	0	DJ		
4	08:30	0.00	0.00	130	125.1	-21	-20.0	7	N	0	DJ		
5	08:30	5.69	0.00	130	126.0	-26	-23.5	7	N	0	DJ		
6	07:40	74.05	0.00	127	123.0	-26	-24.3	6	N	0	LM		
7	09:00	0.00	0.00	127	123.0	-22	-21.2	6	N	0	LM		
8	07:45	0.00	0.00	127	123.0	-20	-18.5	7	N	0	LM		
9	08:18	0.00	0.00	127	124.0	-26	-23.6	7	N	0	LM		
10	08:00	73.12	0.00	130	125.8	-24	-22.2	7	N	0	MU		
11	07:00	0.00	0.00	128	124.2	-21	-21.4	7	N	0	MU		
12	10:00	5.71	0.00	130	126.5	-21	-19.9	7	N	0	MU		
13	06:15	0.00	0.00	130	124.8	-19	-18.7	7	N	0	DJ		
14	06:30	72.88	0.00	130	125.2	-26	-24.1	7	N	0	DJ		
15	17:00	0.00	0.00	131	126.7	-25	-23.3	7	N	0	DJ		
16	08:30	0.00	0.00	130	127.2	-23	-22.1	7	N	0	DJ		
17	10:00	6.71	0.00	131	127.0	-25	-22.8	7	N	0	RB		
18	09:30	0.00	0.00	128	123.0	-22	-20.5	7	N	0	RB		
19	11:30	0.00	0.00	129	124.2	-18	-18.1	7	N	0	RB		
20	11:30	295.43	0.00	127	123.8	-25	-23.4	6	N	0	MU		
21	06:00	0.00	0.00	127	122.5	-22	-21.0	6	N	0	MU		
22	06:30	0.00	0.00	127	121.3	-21	-20.0	6	N	0	MU		
23	06:30	0.00	0.00	128	124.0	-23	-22.0	6	N	0	MU		
24	09:20	42.33	0.00	130	126.0	-26	-23.5	6	N	0	LM		
25	08:00	0.00	0.00	131	127.0	-24	-22.3	6	N	0	LM		
26	09:30	0.00	0.00	132	128.2	-22	-20.3	6	N	0	LM		
27	11:00	654.38	0.00	122	118.3	-28	-24.8	4	N	0	MW		
28	07:30	646.14	1.33	120	115.4	-28	-24.2	4	N	0	MW		
29	08:10	17.14	0.00	121	117.5	-28	-24.5	5	N	0	RB		
30	08:25	0.00	0.00	125	121.9	-20	-19.1	5	N	0	RB		
31	06:20	73.50	0.00	128	122.5	-27	-24.3	6	N	0	DJ		

Northern (Bushton) #1 12/2021

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	63.00	12/10/2021	6.87	12/10/2021	N/A				
2	60.00	12/16/2021	6.88	12/16/2021	N/A				
3					N/A				
4					N/A				
5					N/A				

No monthly injectate samples required.

Northern (Bushton) #1 12/2021

Quarterly Injectate Samples

Quarter 4
Date Sample Collected 11/23/2021
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	59.300	mg/l
Chloride	83.100	mg/l
Conductivity	11.000	Mmhos
Diethanolamine	413.000	mg/l
Iron	13.900	mg/l
Magnesium	11.800	mg/l
Sulfate	5.400	mg/l
Total Alkalinity as CaCO3	661.000	mg/l
Total Dissolved Solids	607.000	mg/l
Total Hardness as CaCO3	197.000	mg/l