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

Submitted 06/21/2021 **Approved** 06/21/2021 **KOLAR Document ID** 1578659

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 5

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	9	0.00	123	119	-25.8	-24.4	0
Monthly Maximum	119	0.00	125	120	-24.0	-20.8	0
Monthly Minimum	0	0.00	119	117	-27.0	-25.2	0
Monthly Total	257						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
121.10	111.80	-25.80	-6.80

Comments:

During this month we experienced more flow meter issues. The flow meter was inaccurate. We manually injected for diagnosing purposes. We removed the meter and cleaned on May 24th. During meter removal we found the automatic flow control valve had issues as well. We fixed the flow meter and manually injected 3,000 gallons on 5/24/21, and 5,000 gallons on 5/27/21. PH test was taken on 5/24/21 injection. Waiting on a new control valve. PH and Temp not taken when no injection occurred. Manual injection will occur until a new automatic flow control valve comes in.

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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	07:20	0.00	0.00	123	119.0	-26	-24.9	7	N	0	LM		
2	09:00	0.00	0.00	124	119.6	-26	-24.5	7	N	0	LM		
3	07:30	0.00	0.00	124	119.5	-26	-24.5	7	N	0	MW		
4	08:00	2.50	0.00	122	118.3	-26	-24.9	7	N	0	MW		
5	07:30	0.00	0.00	122	118.3	-26	-25.0	7	N	0	MW		
6	08:00	46.29	0.00	120	117.2	-26	-22.8	7	N	0	MW		
7	08:30	0.00	0.00	121	118.2	-27	-23.5	7	N	0	RB		
8	09:00	0.00	0.00	124	120.1	-24	-21.3	7	N	0	RB		
9	08:30	0.00	0.00	120	118.0	-24	-20.8	7	N	0	RB		
10	08:30	0.00	0.00	121	119.0	-24	-21.1	7	N	0	MU		
11	09:00	0.00	0.00	119	118.0	-25	-25.1	7	N	0	MU		
12	08:30	0.00	0.00	124	119.7	-26	-25.2	7	N	0	MU		
13	08:30	0.00	0.00	121	120.1	-25	-25.0	7	N	0	MU		
14	08:30	0.00	0.00	122	118.0	-26	-24.4	7	N	0	LM		
15	07:45	17.98	0.00	123	119.0	-26	-25.0	7	N	0	LM		
16	07:42	0.00	0.00	124	119.9	-26	-24.8	7	N	0	LM		
17	08:00	0.00	0.00	124	118.0	-26	-24.9	7	N	0	TM		
18	08:00	0.00	0.00	125	118.0	-26	-24.9	7	N	0	TM		
19	10:30	0.00	0.00	124	119.0	-26	-24.8	7	N	0	RB		
20	09:00	0.00	0.00	123	119.0	-26	-24.8	7	N	0	RB		
21	08:00	0.00	0.00	125	119.8	-26	-24.9	7	N	0	MW		
22	09:00	0.00	0.00	125	120.1	-26	-25.1	7	N	0	MW		
23	07:30	0.00	0.00	125	119.9	-26	-25.0	7	N	0	LM		
24	07:45	0.00	0.00	124	120.0	-26	-24.9	7	N	0	LM		
25	09:00	71.43	0.00	125	120.0	-26	-24.9	7	N	0	LM		
26	07:49	0.00	0.00	125	119.9	-26	-25.0	7	N	0	LM		
27	07:45	0.00	0.00	125	120.0	-26	-25.0	7	N	0	MU		
28	08:00	119.05	0.00	124	119.3	-26	-25.0	7	N	0	MU		
29	08:00	0.00	0.00	125	119.4	-26	-25.0	7	N	0	MU		
30	08:00	0.00	0.00	124	120.1	-26	-25.0	7	N	0	MU		
31	08:00			124	119.4	-26	-25.0	7	N	0	MW		

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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	61.00	05/24/2021	7.26	05/24/2021	N/A				
2					N/A				
3					N/A				
4					N/A				
5					N/A				

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 2
Date Sample Collected 05/24/2021
Kansas Lab Certificate Number E-10116
Lab Name Pace Analytical-Lenexa

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

Constituent	Value	Units
Calcium	233.000	mg/l
Chloride	1,160.000	mg/l
Conductivity	43.700	Mmhos
Diethanolamine	<50.000	mg/l
Iron	14.000	mg/l
Magnesium	24.200	mg/l
Sulfate	1.500	mg/l
Total Alkalinity as CaCO3	416.000	mg/l
Total Dissolved Solids	2,830.000	mg/l
Total Hardness as CaCO3	428.000	mg/l