Facility Well Name Northern (Cunningham) #3 **UIC Permit #** KS-05-151-003 **Month** December **Year** 2021

Submitted 01/04/2022 **Approved** 01/25/2022 **KOLAR Document ID** 1605287

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

Barrels per Day Maximum: 4,000

			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	411	0.56	85	87	-20.0	-20.6	0
Monthly Maximum	475	0.62	87	135	-16.0	-14.0	0
Monthly Minimum	256	0.52	80	83	-25.0	-24.0	0
Monthly Total	12,751						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
149.99	71.85	-9.79	-29.35

Comments:

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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	09:45	451.74	0.57	84	86.0	-24	-23.0	19		0	KS		
2	09:25	474.76	0.57	84	86.0	-25	-23.0	18		0	KS		
3	09:20	348.14	0.52	85	87.8	-24	-23.0	19		0	KS		
4	07:20	409.07	0.55	86	85.4	-16	-14.0	18		0	KS		
5	07:55	440.14	0.57	85	86.2	-18	-18.0	18		0	KS		
6	08:40	454.43	0.55	86	84.6	-19	-21.0	18		0	AB		
7	08:30	432.02	0.57	86	85.2	-21	-23.0	18		0	AB		
8	08:25	430.60	0.55	86	85.0	-21	-22.0	18		0	BD		
9	08:15	416.31	0.57	86	86.1	-22	-22.0	19		0	BD		
10	08:35	441.24	0.55	86	85.9	-22	-23.0	18		0	BD		
11	09:15	434.79	0.57	86	84.9	-20	-22.0	18		0	AB		
12	08:50	454.38	0.55	86	84.7	-20	-21.0	18		0	AB		
13	09:20	449.10	0.55	86	85.7	-21	-21.0	19		0	WV		
14	09:10	458.48	0.55	87	86.6	-22	-23.0	19		0	WV		
15	10:15	256.02	0.57	87	86.8	-22	-23.0	18		0	WV		
16	09:05	312.10	0.57	87	86.1	-23	-24.0	19		0	WV		
17	09:15	468.88	0.57	85	84.2	-22	-23.0	18		0	WV		
18	09:25	341.33	0.55	84	83.6	-23	-24.0	17		0	WV		
19	09:55	275.90	0.55	85	84.5	-22	-24.0	18		0	WV		
20	08:20	413.05	0.57	85	134.7	-22	-24.0	17		0	GH		
21	08:25	454.74	0.55	84	83.7	-17	-18.0	17		0	GH		
22	07:55	433.21	0.60	84	84.4	-17	-18.0	17		0	GH		
23	08:35	439.19	0.57	85	84.5	-17	-18.0	17		0	GH		
24	07:25	404.60	0.57	85	85.1	-17	-18.0	17		0	GH		
25	07:05	439.31	0.55	85	84.8	-17	-18.0	17		0	GH		
26	07:05	432.74	0.55	85	84.9	-17	-18.0	17		0	GH		
27	09:45	389.95	0.52	86	84.3	-17	-18.0	17		0	KS		
28	08:25	302.33	0.62	85	86.1	-18	-18.0	17		0	KS		
29	09:20	447.07	0.57	81	82.5	-17	-18.0	17		0	KS		
30	09:35	424.10	0.57	80	82.7	-18	-18.0	16		0	KS		
31	09:20	420.81	0.55	81	83.4	-18	-17.0	17		0	KS		

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Weekly Injectate Samples

Kansas Lab Certificate Number E-10146

Week	**Temperature**		**pH**		**Chloride**				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	65.00	12/06/2021	6.45	12/06/2021	N/A				
2	82.00	12/13/2021	6.60	12/13/2021	N/A				
3	66.00	12/20/2021	6.60	12/20/2021	N/A				
4	52.00	12/27/2021	6.70	12/27/2021	N/A				
5					N/A				

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 4
Date Sample Collected 10/15/2021
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	1,430.000	mg/l
Chloride	27,300.000	mg/l
Conductivity	70.000	Mmhos
Magnesium	384.000	mg/l
Sodium	10,800.000	mg/l
Sulfate	3,230.000	mg/l
Total Alkalinity as CaCO3	280.000	mg/l
Total Dissolved Solids	56,000.000	mg/l
Total Suspended Solids	80.000	mg/l