Facility Well Name Northern (Cunningham) WIW #2 **UIC Permit #** KS-05-151-002 **Month** September **Year** 2022

Submitted 10/05/2022 **Approved** 10/21/2022 **KOLAR Document ID** 1667964

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 28

Barrels per Day Maximum: 4,000

	Injection Volume Barrels per Day	Injection Rate Barrels per Minute	Annulus Pressure psig min 60 Gauge psig	Annulus Pressure Cont. Record psig	Injection Pressure Gauge psig	Injection Pressure Cont. Record psig	Amount Added to Seal Pot
Monthly Average	821	0.97	105	105	-16.9	-15.8	0
Monthly Maximum	1,221	1.31	111	111	0.0	0.0	0
Monthly Minimum	0	0.00	101	101	-26.0	-24.5	0
Monthly Total	24,618						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
114.94	99.87	-0.15	-28.55

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	08:59	549.64	0.95	101	101.3	-24	-23.1	21		0	GKB		
2	09:30	941.76	0.93	110	109.6	-9	-7.9	22		0	GKB		
3	08:44	947.10	0.90	110	109.4	-9	-7.5	23		0	GKB		
4	10:00	937.81	1.29	105	107.4	-23	-21.2	23		0	GKB		
5	07:20	926.02	1.24	105	105.3	-23	-17.9	23		0	GKB		
6	08:15	926.36	1.29	102	103.8	-26	-11.0	23		0	DMH		
7	07:50	897.60	1.19	101	103.4	-20	-8.1	23		0	KS		
8	16:40	840.14	1.31	102	103.2	-23	-23.0	22		0	DMH		
9	09:14	921.90	0.88	103	104.7	-22	-22.0	23		0	DMH		
10	07:30	919.40	0.90	102	103.4	-8	-8.3	22		0	KS		
11	14:20	912.24	0.88	106	107.4	-8	-7.9	23		0	DMH		
12	08:59	915.79	0.83	105	104.4	-7	-7.0	23		0	BD		
13	10:20	914.17	0.88	104	104.8	-7	-7.7	23		0	BD		
14	08:29	892.93	1.29	102	103.3	-24	-23.9	23		0	BD		
15	08:57	923.64	0.81	104	104.1	-6	-6.0	23		0	BD		
16	09:28	908.90	0.83	102	103.6	-8	-7.2	23		0	BD		
17	07:00	902.62	1.26	102	103.3	-23	-23.8	23		0	BD		
18	09:21	890.71	0.81	103	103.5	-7	-7.3	23		0	BD		
19	13:30	584.02	1.26	101	100.7	-23	-23.9	20		0	HS		
20	08:14	513.05	1.29	106	107.8	-23	-23.2	20		0	CWA		
21	09:25	0.00	0.00	102	101.2	0	0.0	20		0	CWA		
22	08:30	0.00	0.00	105	103.1	0	0.0	19		0	HS		
23	13:55	577.24	1.12	101	100.5	-24	-24.0	17		0	HS		
24	06:10	414.07	1.14	110	111.4	-23	-23.3	19		0	HS		
25	09:55	791.76	1.26	106	105.5	-25	-24.5	19		0	HS		
26	08:20	1,221.36	1.00	110	109.6	-20	-21.0	20		0	AB		
27	08:30	1,158.48	1.10	111	111.2	-24	-22.9	21		0	AB		
28	09:30	1,196.69	0.52	110	110.3	-22	-22.9	22		0	DV		
29	09:15	882.10	1.05	105	101.8	-23	-23.4	20		0	DV		
30	08:55	1,210.48	0.76	110	109.2	-22	-22.8	21		0	DV		
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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	72.00	09/06/2022	6.40	09/06/2022	N/A				
2	85.00	09/12/2022	6.52	09/12/2022	N/A				
3	99.40	09/19/2022	6.34	09/19/2022	N/A				
4	78.00	09/26/2022	6.60	09/26/2022	N/A				
5					N/A				

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 3
Date Sample Collected 07/18/2022
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	2,150.000	mg/l
Chloride	28,300.000	mg/l
Conductivity	77.400	Mmhos
Magnesium	482.000	mg/l
Sodium	15,700.000	mg/l
Sulfate	2,240.000	mg/l
Total Alkalinity as CaCO3	293.000	mg/l
Total Dissolved Solids	57,100.000	mg/l
Total Suspended Solids	43.000	mg/l