Facility Well Name Northern (Cunningham) #3 **UIC Permit #** KS-05-151-003 **Month** July **Year** 2020

Submitted 08/25/2020 **Approved** 08/25/2020 **KOLAR Document ID** 1527815

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 24

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	367	0.41	106	106	-21.5	-19.3	0
Monthly Maximum	685	0.60	114	113	-17.0	-15.1	0
Monthly Minimum	0	0.00	99	99	-24.0	-22.1	0
Monthly Total	11,386						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
118.40	87.10	-12.60	-24.20

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	08:05	0.00	0.00	104	103.0	-21	-18.5	17		0	LF		
2	08:55	148.52	0.00	104	103.0	-21	-18.4	17		0	LF		
3	08:30	684.50	0.55	105	106.0	-18	-16.3	18		0	LF		
4	08:45	594.19	0.52	107	108.4	-18	-16.1	19		0	LF		
5	07:40	553.64	0.52	107	107.8	-17	-15.4	19		0	LF		
6	08:05	185.38	0.60	109	109.1	-20	-17.5	19		0	WV		
7	09:00	0.00	0.00	102	102.8	-24	-21.9	17		0	WV		
8	08:45	0.00	0.00	102	102.5	-24	-21.7	17		0	WV		
9	11:10	0.00	0.00	102	102.6	-24	-21.4	17		0	WV		
10	14:40	0.00	0.00	102	102.7	-24	-21.5	17		0	WV		
11	11:50	0.00	0.00	102	102.7	-24	-21.2	17		0	WV		
12	10:10	0.00	0.00	102	102.7	-24	-21.1	17		0	WV		
13	08:20	181.14	0.60	102	102.5	-23	-20.8	17		0	GH		
14	10:50	398.62	0.60	99	98.9	-24	-21.6	15		0	GH		
15	11:00	534.79	0.52	103	102.1	-21	-18.3	17		0	GH		
16	08:10	543.81	0.55	106	105.1	-21	-19.2	18		0	GH		
17	09:40	545.55	0.60	108	106.4	-22	-19.4	18		0	GH		
18	07:20	547.40	0.55	108	108.3	-21	-17.7	19		0	GH		
19	07:30	516.17	0.55	108	107.4	-23	-21.3	19		0	GH		
20	09:00	544.76	0.57	108	109.5	-22	-19.2	19		0	KS		
21	11:45	526.98	0.60	110	108.2	-22	-20.8	19		0	KS		
22	09:55	538.48	0.52	110	110.3	-23	-19.1	20		0	KS		
23	10:50	510.29	0.55	110	109.5	-20	-18.6	19		0	KS		
24	09:10	561.10	0.52	110	111.2	-23	-20.1	20		0	KS		
25	07:00	564.48	0.55	114	112.0	-22	-19.8	20		0	KS		
26	06:30	557.69	0.52	112	112.6	-21	-19.3	20		0	KS		
27	08:40	246.60	0.60	106	105.9	-24	-22.1	18		0	LF		
28	09:10	569.90	0.52	109	108.4	-19	-18.1	19		0	LF		
29	08:15	491.62	0.55	112	111.2	-17	-15.1	20		0	GH		
30	09:25	353.90	0.52	105	104.3	-22	-20.7	18		0	LF		
31	11:00	486.05	0.57	108	107.7	-19	-17.1	19		0	LF		

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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	91.00	07/03/2020	5.90	07/03/2020	N/A				
2	98.00	07/06/2020	6.20	07/06/2020	N/A				
3	76.00	07/13/2020	6.40	07/13/2020	N/A				
4	96.50	07/20/2020	6.50	07/20/2020	N/A				
5	84.00	07/27/2020	6.10	07/27/2020	N/A				

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 3
Date Sample Collected 07/15/2020
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	2,160.000	mg/l
Chloride	28,600.000	mg/l
Conductivity	68.800	Mmhos
Magnesium	556.000	mg/l
Sodium	15,200.000	mg/l
Sulfate	3,360.000	mg/l
Total Alkalinity as CaCO3	226.000	mg/l
Total Dissolved Solids	58,600.000	mg/l
Total Suspended Solids	9.500	mg/l