Facility Well Name ONEOK (Hillside) #2 **UIC Permit #** KS-01-155-007 **Month** September **Year** 2019

Submitted 10/24/2019 **Approved** 10/28/2019 **KOLAR Document ID** 1476904

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 19

Barrels per Day Maximum: 23,810

			Annulus Pressure psig min 40		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	1,429	0.99	80	80	-25.3	-25.2	0
Monthly Maximum	3,652	2.55	86	88	-22.0	-21.0	0
Monthly Minimum	0	0.00	69	68	-28.0	-28.8	0
Monthly Total	42,881						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
92.90	68.10	0.20	-29.50

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	18:40	0.00	0.00	80	81.3	-28	-28.7	16		0	SN		
2	18:35	0.00	0.00	83	83.2	-27	-28.7	16		0	SN		
3	18:05	0.00	0.00	83	83.8	-28	-28.8	16		0	SN		
4	18:55	0.00	0.00	82	82.3	-28	-28.7	16		0	SN		
5	18:03	0.00	0.00	82	83.7	-28	-28.7	16		0	TR		
6	18:12	0.00	0.00	82	82.4	-28	-28.7	16		0	TR		
7	18:14	0.00	0.00	83	83.5	-28	-28.5	16		0	TR		
8	17:30	0.00	0.00	80	80.2	-27	-28.5	16		0	CS		
9	18:33	0.00	0.00	81	81.1	-27	-28.4	16		0	ZS		
10	18:34	409.52	0.29	69	68.2	-24	-24.8	15		0	SS		
11	18:25	2,392.86	1.67	79	79.7	-24	-24.0	16		0	SS		
12	18:56	2,450.00	1.69	76	75.9	-24	-24.4	15		0	ZS		
13	18:31	2,223.81	1.55	79	78.7	-24	-23.4	15		0	ZS		
14	19:42	2,766.67	1.93	82	82.0	-24	-24.5	15		0	ZS		
15	19:24	2,564.29	1.79	80	80.5	-24	-21.0	15		0	ZS		
16	19:03	2,559.52	1.79	80	80.2	-23	-22.7	15		0	ZS		
17	18:26	2,523.81	1.76	80	80.1	-23	-22.6	15		0	ZS		
18	18:58	2,716.67	1.88	79	79.3	-24	-21.0	15		0	ZS		
19	18:35	2,457.14	1.71	80	79.3	-24	-21.1	15		0	CS		
20	18:45	2,583.33	1.79	78	77.6	-24	-23.7	15		0	CS		
21	04:55	3,652.38	2.55	76	76.1	-24	-21.3	15		0	CS		
22	18:35	1,483.33	1.02	76	76.6	-24	-22.9	15		0	CS		
23	18:10	1,873.81	1.31	83	82.6	-22	-24.2	15		0	CS		
24	18:05	2,571.43	1.79	82	81.0	-24	-24.1	15		0	CS		
25	18:20	2,583.33	1.79	81	80.5	-23	-24.1	15		0	CS		
26	18:35	2,626.19	1.83	78	77.8	-24	-24.1	15		0	SN		
27	18:30	1,907.14	1.33	86	87.9	-27	-27.3	16		0	SN		
28	18:20	0.00	0.00	85	86.4	-28	-27.2	16		0	SN		
29	18:30	0.00	0.00	86	86.7	-27	-26.8	16		0	SN		
30	18:35	535.71	0.38	75	74.9	-24	-24.1	15		0	SN		
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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									
2	78.50	09/10/2019	6.15	09/10/2019	195,000.0	09/10/2019	09/17/2019		
3	73.10	09/15/2019	6.19	09/15/2019	200,000.0	09/15/2019	09/23/2019		
4	71.00	09/22/2019	7.20	09/22/2019	190,000.0	09/22/2019	10/02/2019		
5	74.90	09/30/2019	6.12	09/30/2019	57.5	09/30/2019	10/07/2019		

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 3
Date Sample Collected 07/16/2019
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	1,470.000	mg/l
Conductivity	241,000.000	Mmhos
Iron	30.600	mg/l
Magnesium	401.000	mg/l
Sulfate	3,170.000	mg/l
Total Alkalinity as CaCO3	135.000	mg/l
Total Dissolved Solids	310,000.000	mg/l
Total Hardness as CaCO3	5,330.000	mg/l