Facility Well Name CHS Refinery #1 **UIC Permit #** KS-01-113-008 **Month** February **Year** 2019

Submitted 03/13/2019 **Approved** 04/09/2019 **KOLAR Document ID** 1453940

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 28

Barrels per Day Maximum: 51,429

			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	21,948	15.24	98	97	9.0	9.7	
Monthly Maximum	22,790	15.83	108	108	14.0	14.1	
Monthly Minimum	18,737	13.00	94	94	2.0	1.0	
Monthly Total	614,538						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
110.68	0.00	14.10	0.00

Comments:

Annulus Continuous Recorder was calibrated on 2/26/19.

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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	07:00	22,356.21	15.52	98	96.0	13	12.1	4			ZB		
2	07:00	22,470.57	15.60	99	96.1	7	6.4	5			ZB		
3	07:00	22,452.93	15.60	94	93.7	13	12.3	5			ZB		
4	07:00	22,477.02	15.62	96	95.8	12	11.4	5			AS		
5	07:00	22,427.55	15.57	95	94.8	2	7.3	5			AS		
6	07:00	22,270.05	15.48	98	95.6	11	7.2	5			ZB		
7	07:00	22,298.29	15.48	98	96.3	2	6.7	4			ZB		
8	07:00	21,990.95	15.26	96	96.0	13	6.9	3			AS		
9	07:00	22,749.12	15.81	97	96.4	14	13.0	3			AS		
10	07:00	22,790.45	15.83	95	94.9	13	12.7	3			RI		
11	07:00	22,712.40	15.76	100	97.0	13	12.6	4			JC		
12	07:00	22,147.26	15.38	98	96.0	7	6.2	4			JC		
13	07:00	22,411.17	15.57	96	95.2	14	12.8	4			AS		
14	07:00	22,535.07	15.64	96	95.1	14	12.5	5			AS		
15	07:00	22,331.00	15.50	98	95.1	13	13.0	5			JC		
16	07:00	22,239.60	15.45	98	95.6	13	12.9	4			JC		
17	07:00	21,809.60	15.14	100	95.0	3	12.8	4			JC		
18	07:00	21,606.93	15.00	98	96.3	14	11.8	3			RM		
19	07:00	22,210.45	15.43	96	95.7	13	12.2	4			RM		
20	07:00	22,088.69	15.33	98	97.6	13	14.0	4			JC		
21	07:00	22,084.88	15.33	100	100.3	13	12.1	4			JC		
22	07:00	20,881.17	14.50	95	95.2	3	2.1	4			BF		
23	07:00	22,033.81	15.31	96	95.2	3	1.7	4			JW		
24	07:00	21,953.00	15.24	102	101.6	4	6.5	3			RM		
25	07:00	22,004.21	15.29	101	100.0	2	2.7	3			TB		
26	07:00	20,295.52	14.10	108	107.5	4	1.0	2			TB		
27	07:00	18,737.07	13.00	100	101.4	2	14.1	2			BF		
28	07:00	20,172.88	14.00	104	103.9	4	14.0	2			RM		
29	07:00												
30	07:00												
31	07:00												

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Weekly Injectate Samples

Kansas Lab Certificate Number E-10116

Week	**Temperature**		**pH**		**Chloride**				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	75.00	02/05/2019	7.22	02/05/2019	954.0	02/05/2019	02/19/2019		
2	80.00	02/12/2019	6.44	02/12/2019	947.0	02/12/2019	02/22/2019		
3	76.20	02/19/2019	7.20	02/19/2019	909.0	02/19/2019	02/28/2019		
4	71.00	02/26/2019	7.04	02/26/2019	816.0	02/26/2019	03/05/2019		
5									

No monthly injectate samples required.