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

Submitted 06/21/2019 **Approved** 07/05/2019 **KOLAR Document ID** 1463783

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

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	18,656	12.96	103	103	11.1	10.2	
Monthly Maximum	20,509	14.24	112	110	15.0	13.7	
Monthly Minimum	15,685	10.88	95	94	2.0	0.6	
Monthly Total	578,332						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
117.54	94.14	14.27	0.45

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	07:00	19,170.38	13.31	103	102.7	13	11.8	4			ZB		
2	07:00	17,929.64	12.45	102	101.3	5	4.2	5			TB		
3	07:00	17,712.26	12.31	102	101.2	2	0.8	5			AS		
4	07:00	17,606.74	12.24	98	97.9	2	1.1	4			AS		
5	07:00	19,119.26	13.29	104	103.4	13	11.7	4			AS		
6	07:00	20,323.90	14.12	104	106.5	13	12.4	5			JC		
7	07:00	20,333.12	14.12	106	106.2	13	12.6	6			JC		
8	07:00	20,352.52	14.14	105	103.2	13	12.6	5			AS		
9	07:00	20,509.10	14.24	98	97.0	13	12.4	4			AS		
10	07:00	20,214.21	14.05	96	94.6	12	12.0	4			JC		
11	07:00	19,112.62	13.26	98	94.5	2	1.1	4			JC		
12	07:00	17,997.07	12.50	98	97.3	2	1.0	4			JC		
13	07:00	19,065.71	13.24	98	99.0	2	0.6	4			RM		
14	07:00	17,888.90	12.43	107	105.4	14	13.1	5			RM		
15	07:00	19,383.05	13.45	106	108.0	14	13.4	6			JC		
16	07:00	19,203.48	13.33	108	110.2	14	13.2	6			JC		
17	07:00	19,161.19	13.31	112	110.0	14	12.6	6			RM		
18	07:00	19,210.67	13.33	112	110.2	14	13.3	6			RM		
19	07:00	18,917.05	13.14	106	104.0	14	13.2	6			RM		
20	07:00	18,677.79	12.98	101	100.1	13	12.1	5			ZB		
21	07:00	18,504.10	12.86	100	97.8	13	12.3	4			ZB		
22	07:00	18,483.12	12.83	95	94.4	15	13.7	4			BF		
23	07:00	18,471.83	12.83	100	99.3	14	13.1	4			BF		
24	07:00	18,366.26	12.76	102	101.1	10	9.7	4			ZB		
25	07:00	15,685.17	10.88	103	104.4	14	13.7	4			ZB		
26	07:00	16,966.57	11.79	104	103.2	14	13.0	5			ZB		
27	07:00	18,164.71	12.62	105	104.3	14	13.2	5			AS		
28	07:00	18,158.60	12.62	109	108.3	14	12.9	6			AS		
29	07:00	18,064.10	12.55	103	104.6	14	13.1	6			ZB		
30	07:00	17,861.52	12.40	102	103.3	5	3.7	6			ZB		
31	07:00	17,717.02	12.31	107	106.3	14	13.6	6			AS		

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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	74.00	05/07/2019	6.58	05/07/2019	808.0	05/07/2019	05/23/2019		
2	76.60	05/14/2019	6.68	05/14/2019	836.0	05/14/2019	05/22/2019		
3	71.00	05/21/2019	7.17	05/21/2019	682.0	05/21/2019	06/04/2019		
4	85.00	05/28/2019	7.17	05/28/2019	877.0	05/28/2019	06/12/2019		
5									

No monthly injectate samples required.