Facility Well Name CHS Refinery #3 **UIC Permit #** KS-01-113-010 **Month** October **Year** 2019

Submitted 11/20/2019 **Approved** 11/26/2019 **KOLAR Document ID** 1482939

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	2,054	1.43	98	100	3.3	2.5	
Monthly Maximum	6,002	4.17	112	114	16.0	15.2	
Monthly Minimum	78	0.05	84	87	0.0	0.4	
Monthly Total	63,671						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
125.79	84.95	16.86	0.33

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	4,573.45	3.17	110	112.3	16	15.2	11			MH		
2	07:00	6,001.71	4.17	98	100.2	16	14.7	10			JC		
3	07:00	5,411.69	3.76	98	98.9	1	1.6	7			MH		
4	07:00	4,974.00	3.45	98	100.6	1	0.8	7			MH		
5	07:00	4,771.48	3.31	105	108.6	2	0.7	7			BF		
6	07:00	3,533.14	2.45	97	98.9	1	0.7	7			BF		
7	07:00	3,448.76	2.40	96	97.7	1	0.6	6			ZB		
8	07:00	2,040.45	1.43	100	102.3	3	2.1	6			ZB		
9	07:00	634.83	0.45	104	102.8	3	2.0	6			ZB		
10	07:00	1,175.48	0.81	105	108.1	1	0.6	7			ZB		
11	07:00	2,741.90	1.90	100	102.0	1	0.7	4			TB		
12	07:00	960.90	0.67	103	105.5	3	1.9	4			TB		
13	07:00	145.88	0.10	109	110.9	4	3.2	4			ZB		
14	07:00	294.33	0.21	108	108.9	3	2.1	4			AS		
15	07:00	687.55	0.48	112	113.6	3	2.1	4			AS		
16	07:00	299.05	0.21	102	105.2	2	1.1	4			ZB		
17	07:00	970.81	0.67	105	110.3	2	1.6	4			ZB		
18	07:00	1,188.43	0.83	110	110.0	2	0.7	4			AS		
19	07:00	2,064.45	1.43	90	92.3	2	0.9	7			AS		
20	07:00	995.26	0.69	88	88.6	2	0.6	5			AS		
21	07:00	1,571.21	1.10	84	88.2	0	0.9	5			JC		
22	07:00	1,040.50	0.71	90	87.6	1	0.5	4			JC		
23	07:00	863.81	0.60	93	93.9	2	0.8	6			AS		
24	07:00	1,154.21	0.81	87	87.2	2	1.6	6			AS		
25	07:00	874.62	0.62	90	88.7	2	1.1	4			JC		
26	07:00	396.62	0.29	90	92.6	3	1.5	4			JC		
27	07:00	83.45	0.05	96	94.6	5	3.3	4			JC		
28	07:00	78.17	0.05	90	91.6	5	3.9	4			BF		
29	07:00	352.45	0.24	86	89.6	1	0.4	2			RM		
30	07:00	4,410.12	3.07	106	109.7	6	6.5	7			JC		
31	07:00	5,932.57	4.12	100	102.5	5	4.0	6			MW		

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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	95.00	10/01/2019	7.71	10/01/2019	720.0	10/01/2019	10/09/2019		
2	76.50	10/08/2019	7.52	10/08/2019	658.0	10/08/2019	10/31/2019		
3	74.00	10/15/2019	7.35	10/15/2019	726.0	10/15/2019	10/31/2019		
4	70.00	10/22/2019	7.23	10/22/2019	755.0	10/22/2019	11/06/2019		
5	75.00	10/29/2019	7.52	10/29/2019	692.0	10/29/2019	11/14/2019		

No monthly injectate samples required.