Facility Well Name CHS Refinery #3 **UIC Permit #** KS-01-113-010 **Month** February **Year** 2020

Submitted 03/16/2020 **Approved** 03/16/2020 **KOLAR Document ID** 1510126

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 29

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	3,182	2.21	94	94	3.0	1.9	
Monthly Maximum	4,119	2.86	102	103	16.0	15.7	
Monthly Minimum	2,364	1.64	84	86	1.0	0.5	
Monthly Total	92,283						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
115.25	0.02	19.32	0.24

Comments:

The annulus pressure continuous recorder was calibrated on 2/4/2020. Thus it gave a reading below permit requirements during the calibration.

CHS Refinery #3 02/2020

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	4,117.12	2.86	98	97.5	5	4.6	4			TB		
2	07:00	4,116.81	2.86	98	100.6	4	1.3	5			TB		
3	07:00	4,082.62	2.83	100	102.7	2	0.9	6			MH		
4	07:00	4,119.12	2.86	94	92.7	2	1.0	4			MH		
5	07:00	3,370.60	2.33	85	85.9	1	0.6	3			MW		
6	07:00	2,400.76	1.67	86	86.0	1	0.6	2			WK		
7	07:00	2,378.50	1.64	88	89.4	2	0.6	2			MH		
8	07:00	2,380.81	1.64	88	87.9	2	0.9	2			MH		
9	07:00	2,374.93	1.64	90	91.6	2	0.9	2			MH		
10	07:00	2,364.17	1.64	92	86.7	1	0.7	2			JC		
11	07:00	2,381.19	1.64	90	88.9	2	0.6	2			MW		
12	07:00	2,373.90	1.64	90	89.3	2	0.8	2			MH		
13	07:00	2,382.83	1.64	88	87.0	2	0.5	2			MH		
14	07:00	2,568.83	1.79	84	87.6	2	0.6	1			JC		
15	07:00	2,769.31	1.93	96	94.5	2	0.7	1			JC		
16	07:00	2,982.29	2.07	100	99.3	3	0.8	3			JC		
17	07:00	3,055.33	2.12	102	102.3	2	0.9	3			BF		
18	07:00	2,499.57	1.74	97	96.7	2	1.0	3			BF		
19	07:00	3,246.55	2.26	98	97.3	1	0.7	3			MW		
20	07:00	3,288.79	2.29	90	90.1	1	0.9	2			MW		
21	07:00	3,303.50	2.29	92	91.6	2	0.9	2			MW		
22	07:00	3,305.05	2.29	96	95.5	2	0.8	2			BF		
23	07:00	3,307.21	2.29	102	101.4	2	1.0	3			BF		
24	07:00	3,327.05	2.31	98	98.0	2	0.8	3			ZB		
25	07:00	3,697.98	2.57	100	99.9	16	15.7	3			ZB		
26	07:00	4,065.71	2.83	95	93.2	15	14.1	3			MW		
27	07:00	4,066.17	2.83	96	94.4	2	1.0	3			MW		
28	07:00	4,027.93	2.79	98	97.3	2	0.9	4			ZB		
29	07:00	3,928.71	2.74	100	99.5	2	0.9	4			ZB		
30													
31													

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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	71.10	02/04/2020	7.79	02/04/2020	951.0	02/04/2020	02/11/2020		
2	70.00	02/11/2020	7.98	02/11/2020	847.0	02/11/2020	02/21/2020		
3	84.00	02/18/2020	7.44	02/18/2020	1,110.0	02/18/2020	02/24/2020		
4	70.00	02/25/2020	7.48	02/25/2020	743.0	02/25/2020	03/02/2020		
5									

No monthly injectate samples required.