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

Submitted 03/13/2019 **Approved** 04/09/2019 **KOLAR Document ID** 1453942

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 26

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	4,061	2.82	96	97	3.1	2.3	
Monthly Maximum	9,182	6.38	110	112	15.0	13.8	
Monthly Minimum	384	0.26	84	87	1.0	0.6	
Monthly Total	105,576						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
121.18	0.00	16.87	0.12

Comments:

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

CHS Refinery #3 02/2019

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	4,174.93	2.90	96	93.1	3	1.6	2			TB		
2	07:00	3,839.57	2.67	98	97.9	2	0.8	3			ZB		
3	07:00	3,892.29	2.71	103	104.6	3	0.8	4			ZB		
4	07:00	4,385.86	3.05	96	95.0	2	1.6	4			AS		
5	07:00	5,435.29	3.79	92	92.0	2	1.2	3			AS		
6	07:00	6,147.57	4.26	91	92.8	2	0.9	3			ZB		
7	07:00	5,326.52	3.69	84	86.9	2	1.9	2			TB		
8	07:00	3,836.19	2.67	88	89.8	2	1.3	1			AS		
9	07:00	383.60	0.26	98	99.1	2	1.1	3			AS		
10	07:00			105	105.4	2	1.1	3			RI		
11	07:00			104	106.7	2	1.1	4			JC		
12	07:00	954.19	0.67	94	92.0	1	0.9	2			JC		
13	07:00	1,463.62	1.02	95	94.9	2	1.1	1			AS		
14	07:00	1,259.74	0.88	96	95.4	2	1.1	1			AS		
15	07:00	1,271.62	0.88	94	91.7	2	1.0	1			JC		
16	07:00	1,019.88	0.71	90	90.6	2	1.3	1			JC		
17	07:00	1,198.76	0.83	94	93.1	2	1.2	1			JC		
18	07:00	825.43	0.57	92	89.8	2	1.1	1			RM		
19	07:00	779.71	0.55	92	91.6	2	10.9	1			RM		
20	07:00	789.10	0.55	92	91.9	2	0.7	1			JC		
21	07:00	4,314.93	3.00	108	110.8	15	13.4	5			JC		
22	07:00	9,149.21	6.36	108	110.5	2	0.7	6			BF		
23	07:00	8,270.12	5.74	110	112.0	15	13.8	6			JW		
24	07:00	9,181.67	6.38	100	101.5	2	0.6	4			RM		
25	07:00	6,660.45	4.62	98	100.3	2	0.6	3			TB		
26	07:00	6,561.74	4.55	96	94.7	4	1.8	1			TB		
27	07:00	7,586.38	5.26	94	93.9	3	0.7	3			BF		
28	07:00	6,867.29	4.76	92	93.4	2	0.7	2			RM		
29	07:00												
30	07:00												
31	07:00												

CHS Refinery #3 02/2019

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	67.00	02/05/2019	7.70	02/05/2019	711.0	02/05/2019	02/19/2019		
2	62.00	02/12/2019	6.70	02/12/2019	397.0	02/12/2019	02/22/2019		
3	52.00	02/19/2019	7.72	02/19/2019	444.0	02/19/2019	02/28/2019		
4	69.00	02/26/2019	7.00	02/26/2019	883.0	02/26/2019	03/05/2019		
5									

No monthly injectate samples required.