Facility Well Name CHS Refinery #1 **UIC Permit #** KS-01-113-008 **Month** February **Year** 2020

Submitted 03/16/2020 **Approved** 03/16/2020 **KOLAR Document ID** 1510124

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 18

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	12,281	8.53	105	103	1.8	1.1	
Monthly Maximum	19,962	13.86	118	119	3.0	2.0	
Monthly Minimum	544	0.38	96	96	1.0	0.7	
Monthly Total	221,065						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
128.37	0.00	14.03	0.00

Comments:

The #1 disposal well was put back online on 2/12/2020 after a workover to replace the disposal tubing and packer. Before wastewater was directed to the well, the annulus pressure was within permit limits.

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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										TB		
2	07:00										TB		
3	07:00										MH		
4	07:00										MH		
5	07:00										MW		
6	07:00										WK		
7	07:00										MH		
8	07:00										MH		
9	07:00										MH		
10	07:00										MW		
11	07:00			110	108.5			12			JC		
12	07:00	544.48	0.38	109	107.8			13			MH		
13	07:00	5,649.17	3.93	110	107.9	1	0.8	12			MH		
14	07:00	13,662.36	9.48	108	104.7	2	0.7	11			MW		
15	07:00	10,877.81	7.55	105	106.0	2	1.0	10			JC		
16	07:00	11,727.24	8.14	118	118.6	2	1.2	14			JC		
17	07:00	13,762.52	9.55	106	104.5	2	1.2	14			BF		
18	07:00	15,058.38	10.45	96	95.8	1	1.0	12			BF		
19	07:00	11,673.50	8.10	100	96.0	1	0.8	12			JC		
20	07:00	11,698.86	8.12	105	101.3	2	1.5	13			MW		
21	07:00	12,643.57	8.79	105	99.9	2	1.4	12			MW		
22	07:00	15,493.29	10.76	102	100.9	2	0.8	12			BF		
23	07:00	13,478.17	9.36	106	104.2	2	0.9	12			BF		
24	07:00	14,889.40	10.33	108	105.7	3	2.0	13			ZB		
25	07:00	19,961.64	13.86	103	101.1	2	1.2	12			ZB		
26	07:00	17,983.02	12.50	100	97.7	2	0.9	11			MW		
27	07:00	11,648.17	8.10	104	99.2	2	0.9	12			RM		
28	07:00	10,819.90	7.52	103	101.6	1	1.5	13			TB		
29	07:00	9,493.93	6.60	104	102.0	2	0.9	12			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									
2									
3	83.00	02/18/2020	7.51	02/18/2020	1,200.0	02/18/2020	02/21/2020		
4	82.50	02/25/2020	7.17	02/25/2020	971.0	02/25/2020	03/03/2020		
5									

No monthly injectate samples required.