Facility Well Name CHS Refinery #1 **UIC Permit #** KS-01-113-008 **Month** March **Year** 2021

Submitted 04/19/2021 **Approved** 04/26/2021 **KOLAR Document ID** 1569050

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	11,199	7.78	101	99	5.2	5.4	
Monthly Maximum	13,151	9.14	108	106	15.0	14.0	
Monthly Minimum	9,312	6.48	92	90	2.0	1.5	
Monthly Total	347,163						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
116.86	85.87	14.59	1.29

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	10,728.00	7.45	92	89.7	3	2.9	7			AS		
2	07:00	10,759.55	7.48	105	103.4	3	2.8	7			AS		
3	07:00	12,411.10	8.62	105	100.4	3	2.3	6			MW		
4	07:00	12,023.67	8.36	107	104.7	2	2.0	8			MW		
5	07:00	10,558.62	7.33	104	101.1	2	1.7	8			AS		
6	07:00	10,127.31	7.02	102	98.7	2	2.1	8			AS		
7	07:00	11,065.02	7.69	98	95.4	2	1.6	8			MH		
8	07:00	10,611.76	7.38	100	95.4	2	1.5	6			JC		
9	07:00	11,210.05	7.79	100	96.7	2	1.5	7			JC		
10	07:00	11,465.83	7.95	104	100.6	2	1.5	7			MH		
11	07:00	11,391.76	7.90	100	97.8	2	2.0	7			MH		
12	07:00	10,559.67	7.33	100	98.3	2	1.6	7			JC		
13	07:00	10,651.19	7.40	100	98.3	2	3.3	7			JC		
14	07:00	12,210.86	8.48	102	100.3	14	13.5	7			JC		
15	07:00	9,650.05	6.69	98	95.6	3	2.9	7			MB		
16	07:00	11,146.29	7.74	100	95.9	15	13.8	7			MB		
17	07:00	13,042.62	9.05	100	97.8	14	13.8	7			JC		
18	07:00	12,098.05	8.40	100	96.4	2	9.6	5			JC		
19	07:00	11,371.19	7.90	97	96.1	4	5.2	5			RM		
20	07:00	12,150.52	8.43	106	104.7	2	4.0	6			RM		
21	07:00	10,521.95	7.31	105	102.9	2	3.8	6			RM		
22	07:00	13,151.31	9.14	108	106.3	7	7.0	7			MW		
23	07:00	12,970.29	9.00	103	100.5	15	13.6	7			BE		
24	07:00	9,312.00	6.48	100	96.0	2	2.5	6			MB		
25	07:00	11,392.12	7.90	96	95.0	13	11.7	6			RM		
26	07:00	10,743.43	7.45	98	97.3	14	13.6	7			BF		
27	07:00	10,328.90	7.17	102	99.2	2	2.5	7			BF		
28	07:00	11,389.02	7.90	100	98.1	14	14.0	8			MW		
29	07:00	11,500.45	7.98	100	97.9	3	2.7	8			AS		
30	07:00	10,544.90	7.33	98	94.7	3	2.6	6			MH		
31	07:00	10,075.88	7.00	105	101.8	2	3.3	7			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	78.20	03/02/2021	7.45	03/02/2021	727.0	03/02/2021	03/22/2021		
2	86.00	03/09/2021	7.62	03/09/2021	827.0	03/09/2021	03/22/2021		
3	84.00	03/15/2021	7.23	03/15/2021	756.0	03/16/2021	04/02/2021		
4	82.00	03/23/2021	8.32	03/23/2021	744.0	03/23/2021	04/06/2021		
5	83.00	03/30/2021	7.23	03/30/2021	877.0	03/30/2021	04/06/2021		

No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 1
Date Sample Collected 03/23/2021
Kansas Lab Certificate Number E-10116
Lab Name Pace Analytical-Lenexa

These samples shall be representative of injection activity and shall therefore be collected on days of injection.

Constituent	Value	Units
Ammonia	4.000	mg/l
Benzene	0.173	mg/l
Calcium	192.000	mg/l
Conductivity	3.000	Mmhos
Ethylbenzene	0.015	mg/l
Iron	10.500	mg/l
Magnesium	19.400	mg/l
Oil & Grease	20.200	mg/l
Sodium	556.000	mg/l
Sulfate	812.000	mg/l
Toluene	0.169	mg/l
Total Alkalinity as CaCO3	465.000	mg/l
Total Dissolved Solids	2,270.000	mg/l
Total Suspended Solids	64.000	mg/l
Xylene	0.117	mg/l