Facility Well Name CHS Refinery #1 **UIC Permit #** KS-01-113-008 **Month** June **Year** 2023

Submitted 07/17/2023 **Approved** 07/28/2023 **KOLAR Document ID** 1721856

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 30

Barrels per Day Maximum: 34,286

	Injection Volume Barrels per Day	Injection Rate Barrels per Minute	Annulus Pressure psig min 60 Gauge psig	Annulus Pressure Cont. Record psig	Injection Pressure Gauge psig	Injection Pressure Cont. Record psig	Amount Added to Seal Pot
Monthly Average	14,278	9.91	96	93	2.6	3.3	
Monthly Maximum	20,602	14.31	110	107	9.0	4.4	
Monthly Minimum	8,691	6.02	86	86	2.0	1.7	
Monthly Total	428,347						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
111.18	83.39	8.84	1.60

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	10,538.40	7.31	90	87.7	2	2.5	8			CG		
2	07:00	9,533.83	6.62	86	88.8	2	2.8	8			TY		
3	07:00	9,094.29	6.31	92	89.3	2	2.6	9			TY		
4	07:00	8,691.10	6.02	96	92.4	2	2.6	9			TY		
5	07:00	10,017.60	6.95	92	89.2	2	2.7	7			NB		
6	07:00	11,397.26	7.90	95	92.7	2	3.4	9			NB		
7	07:00	12,275.31	8.52	99	95.1	3	3.6	11			TY		
8	07:00	15,968.57	11.10	104	100.5	3	3.6	10			TY		
9	07:00	14,737.02	10.24	92	87.8	2	2.9	7			NB		
10	07:00	9,132.33	6.33	90	87.3	2	4.0	6			NB		
11	07:00	8,849.83	6.14	90	89.1	2	3.1	6			NB		
12	07:00	8,780.90	6.10	92	89.5	2	1.7	6			NB		
13	07:00	8,912.24	6.19	90	87.4	2	2.0	7			NB		
14	07:00	10,504.81	7.29	100	97.6	2	3.2	11			BD		
15	07:00	19,224.00	13.36	104	102.3	2	3.3	10			BD		
16	07:00	20,345.14	14.12	102	102.2	2	3.4	11			BD		
17	07:00	20,300.90	14.10	100	98.9	2	3.7	10			BD		
18	07:00	19,964.24	13.86	100	96.7	2	3.8	10			BD		
19	07:00	20,601.95	14.31	102	99.4	3	3.6	11			MH		
20	07:00	16,794.52	11.67	88	86.1	2	3.1	8			MH		
21	07:00	12,840.33	8.93	90	87.9	2	3.1	8			MB		
22	07:00	12,421.02	8.62	90	85.6	2	3.4	8			MB		
23	07:00	12,129.60	8.43	110	107.1	9	4.4	11			CG		
24	07:00	18,232.45	12.67	100	97.8	4	4.1	9			CG		
25	07:00	20,325.60	14.12	104	99.9	4	4.1	11			CG		
26	07:00	20,419.55	14.19	100	98.9	4	3.9	11			JC		
27	07:00	19,299.76	13.40	98	93.7	3	3.9	11			TY		
28	07:00	16,857.95	11.71	90	87.5	3	3.8	9			CG		
29	07:00	14,814.17	10.29	91	87.8	2	3.6	9			CG		
30	07:00	15,342.17	10.64	90	88.1	2	3.9	10			TY		
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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	98.00	06/06/2023	7.58	06/06/2023	994.0	06/06/2023	06/14/2023		
2	86.00	06/13/2023	7.08	06/13/2023	939.0	06/13/2023	06/27/2023		
3	93.20	06/20/2023	7.39	06/20/2023	711.0	06/20/2023	07/02/2023		
4	82.00	06/28/2023	7.45	06/28/2023	987.0	06/28/2023	07/02/2023		
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No monthly injectate samples required.

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Quarterly Injectate Samples

Quarter 2
Date Sample Collected 06/13/2023
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	3.100	mg/l
Benzene	0.061	mg/l
Calcium	425.000	mg/l
Conductivity	4.880	Mmhos
Ethylbenzene	0.005	mg/l
Iron	6.010	mg/l
Magnesium	42.600	mg/l
Oil & Grease	14.900	mg/l
Sodium	522.000	mg/l
Sulfate	850.000	mg/l
Toluene	0.056	mg/l
Total Alkalinity as CaCO3	566.000	mg/l
Total Dissolved Solids	3,140.000	mg/l
Total Hardness as CaCO3	1,240.000	mg/l
Total Suspended Solids	45.000	mg/l
Xylene	0.082	mg/l