Facility Well Name Deffenbaugh #2 **UIC Permit #** KS-01-091-002 **Month** March **Year** 2023

Submitted 04/28/2023 **Approved** 05/10/2023 **KOLAR Document ID** 1711638

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

Barrels per Day Maximum: 14,286

			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	2,144	1.84	77	77	-12.7	-13.0	0
Monthly Maximum	3,491	4.95	80	80	-11.0	-11.0	0
Monthly Minimum	917	0.00	76	76	-13.0	-13.5	0
Monthly Total	66,470						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
87.07	79.89	-10.14	-13.83

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	pH Standard Units	Temperature degrees F
1	06:25	2,610.24	0.00	77	76.7	-12	-12.6	19	N/A	0	DWK	8.00	70.90
2	06:15	3,209.00	1.74	76	76.4	-12	-13.0	21	N/A	0	DWK	8.10	74.30
3	06:30	3,161.33	4.95	76	76.5	-12	-12.9	20	N/A	0	DWK	8.10	74.50
4	09:55	2,316.48	3.33	79	79.1	-12	-13.1	21	N/A	0	ARN	8.10	75.90
5	06:25	3,164.57	1.74	76	76.3	-13	-13.3	21	N/A	0	DWK	8.10	74.40
6	06:15	2,569.81	3.38	76	76.1	-13	-13.0	21	N/A	0	DWK	8.00	78.60
7	06:15	2,960.33	1.98	76	76.0	-13	-13.5	21	N/A	0	DWK	7.90	74.60
8	06:20	2,453.48	3.36	77	77.1	-13	-13.2	21	N/A	0	DWK	8.00	76.40
9	06:15	1,687.24	0.55	77	77.0	-13	-13.3	21	N/A	0	DWK	8.00	74.90
10	06:15	1,490.76	2.12	77	76.7	-13	-13.4	20	N/A	0	DWK	8.00	72.20
11	10:00	1,587.81	0.00	77	76.5	-11	-11.0	19	N/A	0	RLW	8.00	67.80
12	09:20	916.57	0.36	77	78.5	-12	-12.7	19	N/A	0	ARN	8.00	73.20
13	06:40	1,532.10	0.62	78	77.1	-12	-13.2	19	N/A	0	ARN	8.10	70.60
14	06:30	1,235.52	3.12	78	77.4	-13	-13.5	19	N/A	0	DWK	8.00	68.60
15	06:30	1,404.00	1.83	76	76.3	-13	-13.1	19	N/A	0	DWK	8.10	70.00
16	06:40	1,185.24	1.90	78	77.8	-13	-13.2	19	N/A	0	DWK	8.10	72.20
17	06:30	3,491.14	0.52	77	76.9	-13	-13.3	19	N/A	0	DWK	8.10	68.90
18	10:00	2,052.10	1.62	76	76.0	-13	-13.5	19	N/A	0	RLW	8.00	72.80
19	07:00	2,956.76	3.79	77	76.8	-13	-13.3	20	N/A	0	DWK	8.10	72.40
20	06:30	2,666.38	3.83	77	77.2	-13	-13.1	20	N/A	0	DWK	8.00	72.00
21	06:10	3,195.52	1.60	77	77.1	-13	-13.0	20	N/A	0	DWK	8.10	75.00
22	06:25	1,793.52	3.83	78	77.7	-13	-13.0	21	N/A	0	DWK	8.10	76.60
23	06:15	1,344.10	0.40	76	76.1	-13	-12.9	20	N/A	0	DWK	8.10	73.80
24	06:10	2,835.81	2.93	76	76.2	-13	-13.3	20	N/A	0	DWK	8.00	71.10
25	08:00	2,117.52	1.71	80	80.3	-13	-12.8	21	N/A	0	ARN	8.10	76.00
26	06:15	1,529.33	2.95	76	76.1	-13	-13.2	20	N/A	0	DWK	8.10	74.70
27	06:15	1,893.71	0.00	77	77.3	-13	-12.8	20	N/A	0	DWK	8.10	71.90
28	06:15	1,349.24	0.00	78	77.5	-13	-12.9	20	N/A	0	DWK	8.00	73.50
29	06:25	2,299.43	0.62	78	77.7	-13	-13.2	19	N/A	0	DWK	8.10	70.30
30	06:20	1,712.86	1.74	78	78.2	-13	-13.4	19	N/A	0	DWK	8.10	70.50
31	06:30	1,748.19	0.57	79	78.4	-13	-12.7	19	N/A	0	DWK	8.00	75.90

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Quarterly Injectate Samples

Quarter 1
Date Sample Collected 03/06/2022
Kansas Lab Certificate Number E-10277
Lab Name Pace Analytical National Center for Testing & Training

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

Constituent	Value	Units
1,1,1-Trichloroethane	<0.005	mg/l
1,1-Dichloroethane	<0.006	mg/l
1,2-Dichlorobenzene	<0.005	mg/l
1,2-Dichloroethane	<0.005	mg/l
1,1-Dichloroethylene	<0.009	mg/l
1,2-Dichloropropane	<0.010	mg/l
1,3-Dichloropropene	0.011	mg/l
Acetone	2.140	mg/l
Arsenic	0.055	mg/l
Benzene	0.004	mg/l
Calcium	84.100	mg/l
Chloride	1,850.000	mg/l
Chlorobenzene	<0.007	mg/l
Chloroethane	<0.007	mg/l
Chloroform	<0.004	mg/l
Cis-1,2-Dichloroethylene	<0.005	mg/l
Conductivity	13.530	Mmhos
Copper	0.430	mg/l
Dichloromethane (Methylene Chloride)	<0.054	mg/l
Ethylbenzene	<0.008	mg/l
Heptachlor	<0.000	mg/l
Iron	7.900	mg/l
Lead	0.010	mg/l

Quarterly Injectate Samples (continued)

Constituent	Value	Units
Magnesium	116.000	mg/l
Methyl Ethyl Ketone (2-Butanone)	1.820	mg/l
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	<0.041	mg/l
Nitrobenzene	<0.010	mg/l
Phenol	0.407	mg/l
Pyrene	<0.001	mg/l
Silver	<0.005	mg/l
Sulfate	124.000	mg/l
Tetrachloroethylene	<0.010	mg/l
Thallium	<0.002	mg/l
Toluene	0.022	mg/l
Total Alkalinity as CaCO3	688.000	mg/l
Total Dissolved Solids	7,260.000	mg/l
Total Hardness as CaCO3	5,980.000	mg/l
Total Suspended Solids	32.000	mg/l
Trichloroethylene	<0.008	mg/l
Trichlorofluoromethane	<0.007	mg/l
Vinyl Chloride	<0.006	mg/l
Xylene	<0.016	mg/l
Zinc	0.254	mg/l