Facility Well Name Deffenbaugh #2 **UIC Permit #** KS-01-091-002 **Month** June **Year** 2020

Submitted 08/03/2020 **Approved** 08/04/2020 **KOLAR Document ID** 1525651

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 30

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	2,335	1.66	78	77	-13.0	-12.8	0
Monthly Maximum	3,424	2.95	80	80	-13.0	-12.5	0
Monthly Minimum	1,599	0.83	76	76	-13.0	-13.2	0
Monthly Total	70,055						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
79.54	74.58	-9.96	-13.38

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	Temp-ature degrees F
1	06:40	2,377.67	2.00	76	75.6	-13	-12.9	25	N/A	0	DWK	7.40	85.00
2	06:50	2,378.43	2.00	76	75.8	-13	-12.8	25	N/A	0	DWK	7.40	86.60
3	06:40	2,549.05	1.95	76	75.8	-13	-12.8	25	N/A	0	DWK	7.40	86.90
4	06:40	2,513.43	2.55	76	76.2	-13	-13.2	25	N/A	0	DWK	7.40	84.90
5	06:50	3,358.48	1.10	77	76.6	-13	-12.7	25	N/A	0	DWK	7.40	86.70
6	10:00	2,122.67	1.79	76	75.8	-13	-13.1	25	N/A	0	RLW	7.40	89.70
7	07:05	2,264.86	1.02	77	76.4	-13	-12.8	25	N/A	0	DWK	7.40	87.10
8	06:50	2,666.95	1.83	77	76.7	-13	-12.7	25	N/A	0	DWK	7.40	86.70
9	06:50	2,518.57	2.57	77	76.8	-13	-13.0	25	N/A	0	DWK	7.20	85.60
10	06:45	2,033.14	1.81	78	77.1	-13	-12.5	25	N/A	0	DWK	7.30	88.90
11	06:45	2,044.38	0.98	78	78.0	-13	-12.9	25	N/A	0	DWK	7.30	84.10
12	06:40	2,057.86	1.05	78	78.1	-13	-12.9	25	N/A	0	DWK	7.40	86.90
13	06:54	2,070.62	1.69	78	78.3	-13	-12.7	25	N/A	0	AWK	7.40	86.60
14	06:55	1,826.76	1.88	80	79.5	-13	-12.9	25	N/A	0	DWK	7.40	87.60
15	06:45	1,599.14	0.83	78	77.8	-13	-12.8	25	N/A	0	DWK	7.40	87.50
16	06:40	2,371.86	0.88	78	77.8	-13	-12.6	25	N/A	0	DWK	7.50	88.10
17	06:40	2,540.81	0.93	78	77.4	-13	-12.8	25	N/A	0	DWK	7.40	87.40
18	06:40	2,095.38	1.98	78	77.8	-13	-13.2	25	N/A	0	DWK	7.20	87.60
19	06:45	2,792.10	1.48	78	77.4	-13	-12.8	25	N/A	0	DWK	7.40	88.00
20	10:00	2,037.57	2.10	78	77.1	-13	-12.8	25	N/A	0	RLW	7.40	90.60
21	06:58	1,872.00	1.86	78	77.6	-13	-12.7	25	N/A	0	AWK	7.30	87.60
22	06:55	1,894.57	0.95	78	77.0	-13	-12.5	25	N/A	0	DWK	7.40	87.80
23	06:55	1,998.29	2.12	78	77.6	-13	-12.8	25	N/A	0	DWK	7.40	87.80
24	06:45	2,032.62	2.07	78	77.7	-13	-12.7	25	N/A	0	DWK	7.40	88.30
25	06:50	1,877.67	1.05	78	77.3	-13	-12.7	25	N/A	0	DWK	7.40	87.50
26	06:45	2,481.05	0.93	78	77.1	-13	-12.7	25	N/A	0	DWK	7.40	88.10
27	09:40	2,188.29	1.83	78	77.3	-13	-13.1	25	N/A	0	RLW	7.30	90.50
28	06:55	2,705.52	1.88	78	77.3	-13	-12.6	26	N/A	0	DWK	7.10	89.90
29	06:40	3,361.52	1.79	78	77.2	-13	-12.6	26	N/A	0	DWK	7.30	89.50
30	06:40	3,424.05	2.95	78	76.9	-13	-12.9	26	N/A	0	DWK	6.90	88.30
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Quarterly Injectate Samples

Quarter 2
Date Sample Collected 04/14/2020
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	0.007	mg/l
Acetone	18.700	mg/l
Arsenic	0.042	mg/l
Benzene	0.004	mg/l
Calcium	113.000	mg/l
Chloride	1,430.000	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	1,320.000	Mmhos
Copper	0.070	mg/l
Dichloromethane (Methylene Chloride)	0.054	mg/l
Ethylbenzene	0.008	mg/l
Heptachlor	0.000	mg/l
Iron	2.200	mg/l
Lead	0.005	mg/l

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Quarterly Injectate Samples (continued)

Constituent	Value	Units
Magnesium	117.000	mg/l
Methyl Ethyl Ketone (2-Butanone)	3.170	mg/l
Methyl Isobutyl Ketone (4-Methyl 2-Pentanone)	0.071	mg/l
Nitrobenzene	0.010	mg/l
Phenol	0.328	mg/l
Pyrene	0.002	mg/l
Silver	0.005	mg/l
Sulfate	165.000	mg/l
Tetrachloroethylene	0.010	mg/l
Thallium	0.002	mg/l
Toluene	0.021	mg/l
Total Alkalinity as CaCO3	5,170.000	mg/l
Total Dissolved Solids	7,380.000	mg/l
Total Hardness as CaCO3	766.000	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	0.234	mg/l