Facility Well Name Kansas Ethanol #5 **UIC Permit #** KS-01-159-007 **Month** January **Year** 2020

Submitted 02/04/2020 **Approved** 02/04/2020 **KOLAR Document ID** 1494289

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

Barrels per Day Maximum: 13,714

			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	3,972	2.69	70	72	-22.6	-19.6	
Monthly Maximum	5,524	3.17	76	79	-1.0	-0.2	
Monthly Minimum	238	0.00	69	70	-27.0	-22.3	
Monthly Total	123,119						

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
82.50	70.00	3.20	-22.50

Comments:

Kansas Ethanol #5 01/2020

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	Conduc-tivity	
1	09:00	4,738.10	2.95	71	73.0	-24	-20.3	10	N/A		CP	2,839.00	
2	06:45	3,857.14	2.95	70	72.4	-24	-20.7	10	N/A		BF	2,919.00	
3	07:04	4,309.52	3.17	70	71.3	-24	-20.7	10	N/A		LB	3,000.00	
4	09:20	4,761.90	2.93	70	70.9	-24	-21.6	10	N/A		AT	2,589.00	
5	08:55	4,119.05	2.95	70	71.0	-24	-21.4	10	N/A		AT	2,461.00	
6	06:45	3,880.95	2.98	70	70.8	-24	-21.5	10	N/A		BF	2,666.00	
7	06:45	4,261.90	2.98	70	70.5	-24	-21.6	10	N/A		BF	2,870.00	
8	06:45	4,238.10	2.95	70	71.0	-24	-21.1	10	N/A		BF	2,919.00	
9	06:45	4,238.10	2.95	70	71.9	-24	-20.6	10	N/A		BF	2,990.00	
10	06:45	4,261.90	2.98	70	71.6	-24	-21.1	10	N/A		BF	2,824.00	
11	08:00	4,571.43	2.98	70	70.5	-25	-21.2	10	N/A		CP	2,632.00	
12	08:30	4,357.14	2.95	70	70.4	-24	-21.2	10	N/A		CP	3,103.00	
13	06:45	3,952.38	2.98	70	71.2	-24	-20.1	10	N/A		BF	2,919.00	
14	06:45	4,238.10	2.95	70	73.0	-24	-20.0	10	N/A		BF	3,111.00	
15	06:45	4,214.29	2.95	70	73.6	-24	-19.9	10	N/A		BF	3,229.00	
16	06:45	4,285.71	2.98	70	70.8	-24	-21.5	10	N/A		BF	3,150.00	
17	01:45	5,523.81	2.95	69	70.9	-24	-20.8	10	N/A		KV	3,110.00	
18	10:10	3,595.24	2.98	70	72.0	-24	-20.6	10	N/A		AT	3,018.00	
19	10:00	4,214.29	2.95	70	71.6	-24	-21.0	10	N/A		AT	3,030.00	
20	06:45	3,690.48	2.95	70	71.1	-24	-21.3	10	N/A		BF	3,116.00	
21	06:45	4,238.10	2.93	69	70.1	-24	-21.7	10	N/A		BF	3,441.00	
22	09:15	4,690.48	2.98	70	71.1	-24	-20.8	10	N/A		BF	2,760.00	
23	06:45	3,452.38	3.10	70	72.7	-24	-20.1	10	N/A		BF	2,990.00	
24	06:45	3,880.95	3.00	70	72.3	-24	-20.5	10	N/A		BF	3,185.00	
25	08:00	4,261.90	2.90	69	71.8	-24	-20.8	10	N/A		PH	2,708.00	
26	08:15	3,952.38	0.00	69	72.4	-27	-22.3	10	N/A		PH	2,608.00	
27	06:45	3,333.33	2.93	70	73.2	-24	-20.2	10	N/A		BF	2,721.00	
28	06:45	4,023.81	2.98	70	71.9	-24	-20.7	10	N/A		BF	2,616.00	
29	07:30	1,880.95	3.14	69	76.2	-24	-20.8	11	N/A		BF	2,777.00	
30	06:45	3,857.14	0.00	71	74.0	-1	-0.2	11	N/A		BF	2,649.00	
31	06:45	238.10	0.00	76	79.3	-1	-0.3	12	N/A		BF	2,581.00	

Kansas Ethanol #5 01/2020

Weekly Injectate Samples

Kansas Lab Certificate Number E-10152

Week	**Temperature**		**pH**		**Chloride**				
	Degrees Fahrenheit	Date	Standard Units	Date	Cl concentration (mg/l)	Date Sample Collected	Date Sampl Analysed		
1	60.70	01/08/2020	7.37	01/08/2020	365.0	01/08/2020	01/10/2020		
2	58.10	01/15/2020	7.40	01/15/2020	390.0	01/15/2020	01/17/2020		
3	63.40	01/21/2020	8.11	01/21/2020	400.0	01/21/2020	01/27/2020		
4	56.60	01/29/2020	7.77	01/29/2020	370.0	01/29/2020	01/31/2020		
5									

No monthly injectate samples required.

Kansas Ethanol #5 01/2020

Quarterly Injectate Samples

Quarter 1
Date Sample Collected 01/08/2020
Kansas Lab Certificate Number E-10152
Lab Name SDK Laboratories (Hutchinson)

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

Constituent	Value	Units
Calcium	327.000	mg/l
Iron	0.435	mg/l
Magnesium	60.200	mg/l
Sulfate	375.000	mg/l
Total Alkalinity as CaCO3	772.000	mg/l
Total Dissolved Solids	2,250.000	mg/l
Total Hardness as CaCO3	1,064.000	mg/l