**Facility Well Name** ONEOK (Bushton) #3 **UIC Permit #** KS-01-053-002 **Month** October **Year** 2021

**Submitted** 11/22/2021 **Approved** 11/29/2021 **KOLAR Document ID** 1600023

# Class I-V Injection Well Monthly Monitoring

## Summary of Monthly Report

**Number of days injection occurred:** 31

**Barrels per Day Maximum:** 30,952

| | | | 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** | 1,505 | 1.04 | 76 | 76 | -27.4 | -27.9 | 0 |
| **Monthly Maximum** | 2,341 | 1.62 | 81 | 83 | -24.0 | -23.6 | 0 |
| **Monthly Minimum** | 690 | 0.48 | 69 | 70 | -29.0 | -29.3 | 0 |
| **Monthly Total** | 46,665 | | | | | | 0 |

## Summary of Continuous Recorder Data

| Maximum Annulus Pressure psig | Minimum Annulus Pressure psig | Maximum Injection Pressure psig | Minimum Injection Pressure psig |
|---|---|---|---|
| 86.12 | 70.33 | -1.78 | -29.32 |

### Comments:

The minimum annulus pressure data submitted in the report has been verified. The minor differential is due to brief seconds of delay in the priorities on the communications system.

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# Daily Recorder Data

| Day | Time<br>24 hr | Injection Volume<br>Barrels Per Day | Injection Rate<br>Barrels Per Minute | Annulus Pressure (Gauge)<br>psig | Annulus Pressure (Continuous Recorder)<br>psig | Injection Pressure (Gauge)<br>+ / - | Injection Pressure (Continuous Recorder)<br>+ / - | Seal Pot Fluid Level<br>inches | Type of Fluid Added to Seal Pot | Amount of Fluid Added to Seal Pot<br>gallons | Initials of Collector of Field Recordings | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 07:13 | 1,286.00 | 0.90 | 74 | 75.1 | -24 | -23.6 | 8 | | 0 | DL | | |
| 2 | 05:45 | 1,345.38 | 0.93 | 76 | 76.5 | -28 | -28.3 | 8 | | 0 | DL | | |
| 3 | 06:16 | 1,528.07 | 1.07 | 75 | 74.7 | -29 | -28.9 | 8 | | 0 | DL | | |
| 4 | 06:02 | 1,616.50 | 1.12 | 75 | 75.4 | -28 | -28.9 | 8 | | 0 | DL | | |
| 5 | 06:01 | 1,463.07 | 1.02 | 75 | 73.6 | -28 | -29.0 | 8 | | 0 | DL | | |
| 6 | 06:23 | 2,220.81 | 1.55 | 75 | 73.8 | -28 | -28.9 | 8 | | 0 | DL | | |
| 7 | 05:54 | 718.00 | 0.50 | 75 | 73.7 | -28 | -28.7 | 8 | | 0 | DL | | |
| 8 | 05:51 | 1,759.93 | 1.21 | 75 | 74.7 | -24 | -23.8 | 8 | | 0 | DL | | |
| 9 | 05:37 | 2,022.62 | 1.40 | 75 | 75.1 | -28 | -28.4 | 8 | | 0 | DL | | |
| 10 | 06:40 | 1,796.43 | 1.24 | 75 | 74.8 | -26 | -27.1 | 8 | | 0 | DL | | |
| 11 | 05:27 | 1,880.19 | 1.31 | 72 | 72.5 | -25 | -25.7 | 8 | | 0 | BL | | |
| 12 | 05:55 | 1,568.00 | 1.10 | 72 | 72.2 | -28 | -28.7 | 8 | | 0 | JI | | |
| 13 | 05:28 | 1,652.31 | 1.14 | 71 | 72.1 | -27 | -27.5 | 8 | | 0 | BL | | |
| 14 | 06:30 | 1,010.50 | 0.69 | 69 | 70.3 | -28 | -28.0 | 8 | | 0 | KK | | |
| 15 | 06:20 | 1,590.12 | 1.10 | 70 | 70.9 | -28 | -29.0 | 8 | | 0 | NZ | | |
| 16 | 06:02 | 690.40 | 0.48 | 77 | 77.5 | -28 | -28.8 | 8 | | 0 | JI | | |
| 17 | 06:22 | 1,271.07 | 0.88 | 78 | 77.6 | -29 | -29.0 | 8 | | 0 | JI | | |
| 18 | 05:35 | 1,520.38 | 1.05 | 78 | 78.1 | -29 | -29.3 | 8 | | 0 | BL | | |
| 19 | 06:36 | 1,550.19 | 1.07 | 80 | 80.1 | -28 | -28.8 | 8 | | 0 | KK | | |
| 20 | 05:30 | 2,275.69 | 1.57 | 80 | 79.8 | -25 | -25.4 | 8 | | 0 | BL | | |
| 21 | 05:34 | 1,956.50 | 1.36 | 78 | 77.5 | -26 | -26.4 | 8 | | 0 | MC | | |
| 22 | 05:27 | 2,340.81 | 1.62 | 78 | 78.2 | -28 | -28.9 | 8 | | 0 | MC | | |
| 23 | 05:32 | 1,648.62 | 1.14 | 80 | 79.9 | -27 | -28.3 | 8 | | 0 | MC | | |
| 24 | 05:38 | 1,796.26 | 1.24 | 81 | 82.7 | -27 | -28.0 | 8 | | 0 | MC | | |
| 25 | 05:34 | 732.19 | 0.50 | 78 | 78.3 | -26 | -26.1 | 8 | | 0 | MC | | |
| 26 | 05:37 | 1,146.00 | 0.79 | 79 | 78.8 | -28 | -28.5 | 8 | | 0 | MC | | |
| 27 | 05:46 | 1,256.69 | 0.88 | 80 | 81.1 | -27 | -28.9 | 8 | | 0 | MC | | |
| 28 | 05:43 | 989.31 | 0.69 | 79 | 78.7 | -28 | -28.8 | 8 | | 0 | DL | | |
| 29 | 06:11 | 900.81 | 0.62 | 78 | 77.8 | -27 | -26.7 | 8 | | 0 | DL | | |
| 30 | 06:28 | 1,157.88 | 0.81 | 77 | 76.8 | -29 | -28.8 | 8 | | 0 | DL | | |
| 31 | 06:45 | 1,973.76 | 1.38 | 77 | 77.4 | -29 | -29.1 | 8 | | 0 | DL | | |

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# Weekly Injectate Samples

**Kansas Lab Certificate Number** E-10146

| **Week** | **Temperature** | | **pH** | | **Chloride** | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Degrees Fahrenheit | Date | Standard Units | Date | Cl concentration (mg/l) | Date Sample Collected | Date Sampl Analysed | | |
| 1 | 69.20 | 10/03/2021 | 7.61 | 10/03/2021 | 1,430.0 | 10/03/2021 | 10/21/2021 | | |
| 2 | 70.10 | 10/10/2021 | 7.60 | 10/10/2021 | 1,290.0 | 10/10/2021 | 10/27/2021 | | |
| 3 | 68.00 | 10/17/2021 | 7.30 | 10/17/2021 | 1,740.0 | 10/17/2021 | 10/28/2021 | | |
| 4 | 71.00 | 10/24/2021 | 8.11 | 10/24/2021 | 1,640.0 | 10/24/2021 | 11/09/2021 | | |
| 5 | 71.30 | 10/31/2021 | 8.34 | 10/31/2021 | 1,190.0 | 10/31/2021 | 11/16/2021 | | |

## No monthly injectate samples required.

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# Quarterly Injectate Samples

**Quarter** 3
**Date Sample Collected** 08/17/2021
**Kansas Lab Certificate Number** E-10146
**Lab Name** Pace Analytical-Salina

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

| Constituent | Value | Units |
|---|---|---|
| Benzene | ND | mg/l |
| Calcium | 416.000 | mg/l |
| Conductivity | 6,300.000 | Mmhos |
| Iron | 342.000 | mg/l |
| Magnesium | 70.000 | mg/l |
| Sulfate | 1,240.000 | mg/l |
| Total Alkalinity as CaCO3 | 359.000 | mg/l |
| Total Dissolved Solids | 4,270.000 | mg/l |
| Total Hardness as CaCO3 | 1,320.000 | mg/l |
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