**Facility Well Name** Hutch #1 **UIC Permit #** KS-01-155-011 **Month** December **Year** 2021

**Submitted** 01/03/2022 **Approved** 01/25/2022 **KOLAR Document ID** 1605211

# Class I-V Injection Well Monthly Monitoring

## Summary of Monthly Report

**Number of days injection occurred:** 31

**Barrels per Day Maximum:** 54,762

| | | | 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** | 21,938 | 14.51 | 130 | 128 | -24.8 | -24.1 | 0 |
| **Monthly Maximum** | 28,762 | 27.19 | 146 | 141 | -20.0 | -21.0 | 0 |
| **Monthly Minimum** | 13,857 | 2.14 | 120 | 121 | -28.0 | -25.6 | 0 |
| **Monthly Total** | 680,071 | | | | | | 0 |

## Summary of Continuous Recorder Data

| Maximum Annulus Pressure psig | Minimum Annulus Pressure psig | Maximum Injection Pressure psig | Minimum Injection Pressure psig |
|---|---|---|---|
| 145.13 | 118.75 | -14.17 | -25.99 |

**Comments:**

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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 | 08:19 | 23,761.90 | 2.19 | 124 | 121.1 | -25 | -25.4 | 16 | | 0 | JWH | | |
| 2 | 10:20 | 22,880.95 | 17.21 | 130 | 127.6 | -26 | -24.0 | 16 | | 0 | MP | | |
| 3 | 11:20 | 25,214.29 | 20.26 | 130 | 127.9 | -26 | -23.6 | 16 | | 0 | RT | | |
| 4 | 16:44 | 27,642.86 | 14.83 | 125 | 126.1 | -26 | -24.0 | 16 | | 0 | MP | | |
| 5 | 09:24 | 16,619.05 | 13.50 | 125 | 122.9 | -26 | -24.5 | 16 | | 0 | MP | | |
| 6 | 08:58 | 23,166.67 | 13.21 | 125 | 122.1 | -24 | -25.2 | 15 | | 0 | CM | | |
| 7 | 15:08 | 28,761.90 | 24.33 | 126 | 126.0 | -24 | -23.2 | 16 | | 0 | CM | | |
| 8 | 07:55 | 13,857.14 | 2.17 | 125 | 121.2 | -23 | -25.6 | 16 | | 0 | JAD | | |
| 9 | 08:42 | 19,666.67 | 2.24 | 131 | 127.7 | -26 | -25.0 | 16 | | 0 | JWH | | |
| 10 | 10:47 | 22,333.33 | 13.71 | 130 | 128.8 | -27 | -24.0 | 15 | | 0 | CM | | |
| 11 | 12:00 | 23,619.05 | 2.67 | 135 | 129.2 | -27 | -25.1 | 15 | | 0 | RT | | |
| 12 | 11:40 | 22,642.86 | 20.21 | 135 | 129.3 | -26 | -23.8 | 15 | | 0 | RT | | |
| 13 | 08:45 | 19,809.52 | 2.19 | 125 | 122.8 | -25 | -25.3 | 15 | | 0 | MP | | |
| 14 | 11:38 | 22,571.43 | 15.48 | 132 | 130.9 | -27 | -24.2 | 15 | | 0 | MP | | |
| 15 | 11:32 | 17,404.76 | 9.67 | 135 | 134.1 | -28 | -24.2 | 16 | | 0 | MP | | |
| 16 | 13:52 | 23,190.48 | 17.62 | 130 | 131.9 | -27 | -23.7 | 16 | | 0 | MP | | |
| 17 | 09:00 | 18,857.14 | 25.95 | 125 | 124.8 | -20 | -21.0 | 15 | | 0 | MP | | |
| 18 | 09:08 | 21,214.29 | 14.64 | 120 | 122.1 | -23 | -25.2 | 16 | | 0 | RLT | | |
| 19 | 09:25 | 23,404.76 | 17.02 | 130 | 129.5 | -23 | -24.2 | 16 | | 0 | RLT | | |
| 20 | 08:28 | 20,619.05 | 25.76 | 130 | 127.1 | -23 | -22.6 | 15 | | 0 | CM | | |
| 21 | 08:56 | 21,666.67 | 16.98 | 130 | 129.1 | -23 | -24.6 | 15 | | 0 | CM | | |
| 22 | 10:00 | 23,523.81 | 14.69 | 135 | 134.0 | -25 | -24.4 | 15 | | 0 | MP | | |
| 23 | 09:02 | 19,023.81 | 18.19 | 134 | 130.1 | -24 | -24.2 | 15 | | 0 | JWH | | |
| 24 | 13:52 | 23,238.10 | 16.36 | 146 | 141.4 | -28 | -23.2 | 15 | | 0 | CM | | |
| 25 | 08:11 | 19,190.48 | 2.14 | 130 | 126.8 | -24 | -25.2 | 15 | | 0 | CM | | |
| 26 | 08:10 | 21,809.52 | 27.19 | 131 | 127.9 | -22 | -22.5 | 15 | | 0 | CM | | |
| 27 | 08:30 | 23,523.81 | 10.67 | 130 | 127.1 | -24 | -24.5 | 15 | | 0 | JWH | | |
| 28 | 09:13 | 27,500.00 | 24.45 | 130 | 132.3 | -24 | -22.4 | 15 | | 0 | MP | | |
| 29 | 10:38 | 21,119.05 | 15.81 | 134 | 129.7 | -24 | -24.8 | 15 | | 0 | CM | | |
| 30 | 10:19 | 20,404.76 | 10.88 | 135 | 132.0 | -24 | -24.8 | 15 | | 0 | RT | | |
| 31 | 09:55 | 21,833.33 | 17.71 | 140 | 137.9 | -26 | -24.0 | 15 | | 0 | MP | | |

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# Weekly Injectate Samples

**Kansas Lab Certificate Number** E-60649

| **Week** | **Temperature** | | **pH** | | **Chloride** | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Degrees Fahrenheit | Date | Standard Units | Date | Cl concentration (mg/l) | Date Sample Collected | Date Sampl Analysed | | |
| 1 | 57.40 | 12/06/2021 | 7.30 | 12/06/2021 | 660.0 | 12/06/2021 | 12/06/2021 | | |
| 2 | 58.80 | 12/14/2021 | 7.50 | 12/14/2021 | 650.0 | 12/14/2021 | 12/14/2021 | | |
| 3 | 59.40 | 12/21/2021 | 7.90 | 12/21/2021 | 690.0 | 12/21/2021 | 12/21/2021 | | |
| 4 | 61.00 | 12/28/2021 | 7.80 | 12/28/2021 | 660.0 | 12/28/2021 | 12/28/2021 | | |
| 5 | | | | | | | | | |

## No monthly injectate samples required.