**Facility Well Name** Hutch #2 **UIC Permit #** KS-01-155-009 **Month** September **Year** 2019

**Submitted** 10/08/2019 **Approved** 10/25/2019 **KOLAR Document ID** 1474155

# Class I-V Injection Well Monthly Monitoring

## Summary of Monthly Report

**Number of days injection occurred:** 30

**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** | 24,773 | 16.82 | 133 | 131 | -27.7 | -26.0 | 0 |
| **Monthly Maximum** | 32,429 | 20.79 | 145 | 140 | -20.0 | -15.7 | 0 |
| **Monthly Minimum** | 17,357 | 10.88 | 129 | 125 | -28.0 | -27.1 | 0 |
| **Monthly Total** | 743,190 | | | | | | 0 |

## Summary of Continuous Recorder Data

| Maximum Annulus Pressure psig | Minimum Annulus Pressure psig | Maximum Injection Pressure psig | Minimum Injection Pressure psig |
|---|---|---|---|
| 142.08 | 123.22 | -14.41 | -28.50 |

**Comments:**

Hutch #2 09/2019

# 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 | 12:30 | 20,857.14 | 11.79 | 135 | 133.1 | -28 | -27.1 | 15 | | 0 | RT | | |
| 2 | 15:30 | 27,380.95 | 19.64 | 145 | 139.8 | -28 | -26.2 | 16 | | 0 | RT | | |
| 3 | 08:12 | 18,285.71 | 14.90 | 130 | 130.5 | -28 | -26.3 | 15 | | 0 | CM | | |
| 4 | 13:58 | 32,428.57 | 20.38 | 140 | 138.3 | -28 | -26.5 | 15 | | 0 | RT | | |
| 5 | 09:05 | 21,357.14 | 18.50 | 134 | 132.4 | -28 | -26.2 | 15 | | 0 | CM | | |
| 6 | 10:20 | 25,809.52 | 20.00 | 134 | 134.4 | -28 | -26.0 | 16 | | 0 | MP | | |
| 7 | 08:48 | 25,761.90 | 17.07 | 132 | 129.6 | -28 | -26.7 | 15 | | 0 | JWH | | |
| 8 | 08:08 | 25,809.52 | 14.36 | 131 | 129.6 | -28 | -26.7 | 15 | | 0 | JWH | | |
| 9 | 08:40 | 25,809.52 | 18.19 | 135 | 131.4 | -28 | -26.4 | 15 | | 0 | RT | | |
| 10 | 10:10 | 28,761.90 | 15.95 | 135 | 133.0 | -28 | -26.4 | 15 | | 0 | RT | | |
| 11 | 08:44 | 23,976.19 | 16.10 | 131 | 130.9 | -28 | -26.5 | 15 | | 0 | CM | | |
| 12 | 08:40 | 23,595.24 | 16.52 | 130 | 130.1 | -28 | -26.5 | 15 | | 0 | RT | | |
| 13 | 08:36 | 25,571.43 | 14.26 | 130 | 126.5 | -28 | -27.0 | 15 | | 0 | JWH | | |
| 14 | 08:06 | 23,833.33 | 17.45 | 130 | 128.9 | -28 | -26.3 | 15 | | 0 | CM | | |
| 15 | 08:05 | 24,047.62 | 13.31 | 130 | 129.4 | -28 | -26.8 | 15 | | 0 | CM | | |
| 16 | 09:01 | 25,357.14 | 19.90 | 135 | 131.6 | -28 | -25.9 | 16 | | 0 | JWH | | |
| 17 | 09:12 | 27,404.76 | 17.95 | 134 | 131.3 | -28 | -26.1 | 15 | | 0 | JWH | | |
| 18 | 08:59 | 23,666.67 | 16.81 | 135 | 131.4 | -28 | -26.1 | 15 | | 0 | JWH | | |
| 19 | 10:57 | 26,428.57 | 17.40 | 135 | 136.3 | -28 | -26.1 | 15 | | 0 | RLT | | |
| 20 | 09:17 | 23,476.19 | 16.64 | 130 | 124.5 | -28 | -26.5 | 15 | | 0 | RLT | | |
| 21 | 10:50 | 24,142.86 | 19.21 | 130 | 131.8 | -28 | -25.7 | 15 | | 0 | MP | | |
| 22 | 09:35 | 23,142.86 | 14.76 | 129 | 128.7 | -28 | -26.3 | 15 | | 0 | MP | | |
| 23 | 09:03 | 23,214.29 | 10.88 | 129 | 126.8 | -28 | -26.9 | 15 | | 0 | CM | | |
| 24 | 09:18 | 24,833.33 | 19.36 | 130 | 129.6 | -28 | -25.6 | 15 | | 0 | CM | | |
| 25 | 09:17 | 26,000.00 | 20.79 | 130 | 130.1 | -20 | -15.7 | 15 | | 0 | CM | | |
| 26 | 11:18 | 28,595.24 | 16.69 | 131 | 130.9 | -28 | -26.1 | 15 | | 0 | MP | | |
| 27 | 11:16 | 24,928.57 | 17.74 | 139 | 136.2 | -28 | -25.8 | 15 | | 0 | CM | | |
| 28 | 14:15 | 26,857.14 | 15.14 | 130 | 130.0 | -28 | -26.3 | 15 | | 0 | RT | | |
| 29 | 11:40 | 24,500.00 | 15.12 | 138 | 135.2 | -28 | -26.3 | 15 | | 0 | RT | | |
| 30 | 09:20 | 17,357.14 | 17.74 | 130 | 131.2 | -28 | -26.1 | 15 | | 0 | MP | | |
| 31 | | | | | | | | | | | | | |

Hutch #2 09/2019

# 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 | 68.40 | 09/03/2019 | 7.60 | 09/03/2019 | 500.0 | 09/03/2019 | 09/03/2019 | | |
| 2 | 66.70 | 09/09/2019 | 7.40 | 09/09/2019 | 570.0 | 09/09/2019 | 09/13/2019 | | |
| 3 | 67.10 | 09/16/2019 | 7.30 | 09/16/2019 | 570.0 | 09/16/2019 | 09/19/2019 | | |
| 4 | 65.30 | 09/23/2019 | 7.20 | 09/23/2019 | 530.0 | 09/23/2019 | 09/25/2019 | | |
| 5 | 67.30 | 09/30/2019 | 7.50 | 09/30/2019 | 590.0 | 09/30/2019 | 10/02/2019 | | |

## No monthly injectate samples required.