**Facility Well Name** Compass #3 **UIC Permit #** KS-01-159-005 **Month** July **Year** 2020

**Submitted** 08/17/2020 **Approved** 08/18/2020 **KOLAR Document ID** 1526867

# Class I-V Injection Well Monthly Monitoring

## Summary of Monthly Report

**Number of days injection occurred:** 31

**Barrels per Day Maximum:** 20,571

| | | | Annulus Pressure psig min 50 | | 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** | 12,137 | 8.72 | 81 | 78 | -17.0 | -18.7 | |
| **Monthly Maximum** | 14,116 | 9.81 | 83 | 80 | 0.0 | 0.0 | |
| **Monthly Minimum** | 1,168 | 0.00 | 80 | 77 | -26.0 | -30.7 | |
| **Monthly Total** | 376,251 | | | | | | |

## Summary of Continuous Recorder Data

| Maximum Annulus Pressure psig | Minimum Annulus Pressure psig | Maximum Injection Pressure psig | Minimum Injection Pressure psig |
|---|---|---|---|
| 80.90 | 76.70 | 0.90 | -31.20 |

**Comments:**

F Disposal well was shut down July 7th for an electrical issue on the supply pump and started July 11th.

Compass #3 07/2020

# 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 | Conductivity Mmhos | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 09:03 | 10,858.00 | 9.74 | 82 | 79.3 | -17 | -18.0 | 7 | | | KB | 2,611.00 | |
| 2 | 08:58 | 13,953.21 | 9.55 | 81 | 78.8 | -17 | -18.3 | 7 | | | KB | 2,593.00 | |
| 3 | 08:39 | 13,945.90 | 9.67 | 81 | 78.3 | -17 | -18.4 | 7 | | | KB | 2,585.00 | |
| 4 | 08:32 | 13,924.83 | 9.69 | 81 | 78.4 | -17 | -18.3 | 7 | | | KB | 2,584.00 | |
| 5 | 09:58 | 13,907.50 | 9.76 | 82 | 79.1 | -17 | -17.9 | 7 | | | BW | 2,578.00 | |
| 6 | 07:18 | 14,116.07 | 9.81 | 82 | 78.9 | -17 | -17.9 | 7 | | | BW | 2,570.00 | |
| 7 | 07:18 | 4,142.86 | 9.79 | 82 | 78.5 | -17 | -18.0 | 7 | | | BW | 2,311.00 | |
| 8 | 08:41 | 1,215.64 | 0.00 | 82 | 78.9 | 0 | 0.0 | 8 | | | KB | 0.00 | |
| 9 | 09:49 | 1,205.00 | 0.71 | 81 | 78.2 | -26 | -30.5 | 7 | | | KB | 8.00 | |
| 10 | 10:17 | 1,167.76 | 0.88 | 81 | 78.3 | -25 | -30.7 | 7 | | | KB | 5.00 | |
| 11 | 08:01 | 13,093.79 | 9.40 | 81 | 78.4 | -17 | -18.8 | 7 | | | KB | 2,671.00 | |
| 12 | 08:15 | 13,700.14 | 9.50 | 81 | 78.3 | -17 | -18.8 | 7 | | | KB | 2,653.00 | |
| 13 | 08:21 | 13,704.81 | 9.50 | 81 | 78.6 | -17 | -18.7 | 7 | | | KB | 2,671.00 | |
| 14 | 12:33 | 13,657.55 | 9.45 | 82 | 79.0 | -17 | -18.6 | 7 | | | KB | 2,650.00 | |
| 15 | 09:57 | 13,671.57 | 9.45 | 81 | 77.8 | -17 | -18.7 | 7 | | | BW | 2,636.00 | |
| 16 | 06:53 | 13,676.07 | 9.57 | 81 | 78.0 | -17 | -18.8 | 7 | | | BW | 2,606.00 | |
| 17 | 09:19 | 13,705.64 | 9.60 | 81 | 78.1 | -17 | -18.8 | 7 | | | BW | 2,641.00 | |
| 18 | 11:02 | 13,709.83 | 9.45 | 82 | 79.2 | -17 | -18.6 | 7 | | | BW | 2,630.00 | |
| 19 | 09:00 | 13,735.10 | 9.67 | 81 | 78.4 | -17 | -18.5 | 7 | | | BW | 2,641.00 | |
| 20 | 08:22 | 13,817.00 | 9.50 | 81 | 78.7 | -17 | -18.5 | 7 | | | BW | 2,631.00 | |
| 21 | 10:58 | 13,641.24 | 9.62 | 81 | 77.8 | -17 | -18.7 | 7 | | | BW | 2,635.00 | |
| 22 | 09:52 | 13,774.17 | 9.57 | 81 | 78.5 | -17 | -18.7 | 7 | | | KB | 2,614.00 | |
| 23 | 14:47 | 13,773.57 | 9.50 | 83 | 79.8 | -17 | -18.7 | 7 | | | KB | 2,619.00 | |
| 24 | 12:29 | 13,798.55 | 9.71 | 82 | 78.9 | -17 | -18.7 | 7 | | | KB | 2,624.00 | |
| 25 | 08:23 | 13,754.48 | 9.69 | 81 | 78.5 | -17 | -18.7 | 7 | | | KB | 2,635.00 | |
| 26 | 08:51 | 13,756.33 | 9.62 | 81 | 78.8 | -17 | -18.7 | 7 | | | KB | 2,638.00 | |
| 27 | 08:49 | 13,757.21 | 9.57 | 81 | 78.1 | -17 | -18.8 | 7 | | | KB | 2,622.00 | |
| 28 | 11:17 | 13,753.14 | 9.60 | 81 | 77.9 | -17 | -18.6 | 7 | | | KB | 2,617.00 | |
| 29 | 09:07 | 13,766.62 | 9.60 | 81 | 78.2 | -17 | -18.5 | 7 | | | BW | 2,611.00 | |
| 30 | 13:00 | 13,771.67 | 9.52 | 81 | 77.9 | -17 | -18.5 | 7 | | | BW | 2,624.00 | |
| 31 | 07:11 | 13,796.00 | 9.60 | 80 | 76.8 | -17 | -18.6 | 7 | | | BW | 2,629.00 | |

Compass #3 07/2020

# Weekly Injectate Samples

**Kansas Lab Certificate Number** E-30320

| **Week** | **Temperature** | | **pH** | | **Chloride** | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Degrees Fahrenheit | Date | Standard Units | Date | Cl concentration (mg/l) | Date Sample Collected | Date Sampl Analysed | | |
| 1 | 60.40 | 07/05/2020 | 7.26 | 07/05/2020 | 590.0 | 07/05/2020 | 07/05/2020 | | |
| 2 | 59.00 | 07/13/2020 | 7.25 | 07/13/2020 | 567.0 | 07/13/2020 | 07/13/2020 | | |
| 3 | 60.60 | 07/19/2020 | 7.26 | 07/19/2020 | 583.0 | 07/19/2020 | 07/19/2020 | | |
| 4 | 61.10 | 07/27/2020 | 7.23 | 07/27/2020 | 578.0 | 07/27/2020 | 07/27/2020 | | |
| 5 | | | | | | | | | |

## No monthly injectate samples required.

Compass #3 07/2020

# Quarterly Injectate Samples

**Quarter** 3
**Date Sample Collected** 07/07/2020
**Kansas Lab Certificate Number** E-10116
**Lab Name** Pace Analytical-Lenexa

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

| Constituent | Value | Units |
|---|---|---|
| Calcium | 112.000 | mg/l |
| Iron | <0.050 | mg/l |
| Magnesium | 13.800 | mg/l |
| Sulfate | 115.000 | mg/l |
| Total Alkalinity as CaCO3 | 308.000 | mg/l |
| Total Dissolved Solids | 1,510.000 | mg/l |
| Total Hardness as CaCO3 | 337.000 | mg/l |
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