

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form U3C

June 2015

**Form must be Typed**  
**Form must be completed**  
**on a per well basis**

# ANNUAL REPORT OF PRESSURE MONITORING, FLUID INJECTION AND ENHANCED RECOVERY

*Complete all blanks - add pages if needed. Copy to be retained for five (5) years after filing date.*

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

Lease Name: \_\_\_\_\_

Well Number: \_\_\_\_\_

API No.: \_\_\_\_\_

Permit No: \_\_\_\_\_

Reporting Year: \_\_\_\_\_  
(January 1 to December 31)

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_ ☐ E ☐ W  
(a/a/a/a)

\_\_\_\_\_ feet from ☐ N / ☐ S Line of Section

\_\_\_\_\_ feet from ☐ E / ☐ W Line of Section

County: \_\_\_\_\_

## I. Injection Fluid:

Type (Pick one): ☐ Fresh Water ☐ Treated Brine ☐ Untreated Brine ☐ Water/Brine

Source: ☐ Produced Water ☐ Other (Attach list)

Quality: Total Dissolved Solids: \_\_\_\_\_ mg/l Specific Gravity: \_\_\_\_\_ Additives: \_\_\_\_\_  
(Attach water analysis, if available)

## II. Well Data:

Maximum Authorized Injection Pressure: \_\_\_\_\_ psi Injection Zone: \_\_\_\_\_

Maximum Authorized Injection Rate: \_\_\_\_\_ barrels per day

Total Number of Enhanced Recovery Injection Wells Covered by this Permit: \_\_\_\_\_ (Include TA's)

| III. | Month:       | Total Fluid Injected<br>BBL | Maximum Fluid<br>Pressure | Total Gas Injected<br>MCF | Maximum Gas<br>Pressure | # Days of<br>Injection |
|------|--------------|-----------------------------|---------------------------|---------------------------|-------------------------|------------------------|
|      | January      | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | February     | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | March        | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | April        | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | May          | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | June         | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | July         | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | August       | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | September    | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | October      | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | November     | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | December     | _____                       | _____                     | _____                     | _____                   | _____                  |
|      | <b>TOTAL</b> | _____                       | _____                     | _____                     | _____                   | _____                  |

Submitted Electronically



Central Area Laboratory  
12701 N. Santa Fe Ave, Suite 151  
Oklahoma City, Oklahoma 73114

Upstream Chemicals

REPORT DATE: 12/9/2021

## COMPLETE WATER ANALYSIS REPORT SSP v.2010

CUSTOMER: BELPORT OIL, INC.  
DISTRICT: KANSAS  
AREA/LEASE: OSCAR WEST  
SAMPLE POINT NAME: OSCAR WEST 503  
SITE TYPE: WELL SITES  
SAMPLE POINT DESCRIPTION: NOT PROVIDED

ACCOUNT REP: KENTON MEYER  
SAMPLE ID: 202110007136  
SAMPLE DATE: 10/26/2021  
ANALYSIS DATE: 12/8/2021  
ANALYST: BS

### BELPORT OIL, INC., OSCAR WEST, OSCAR WEST 503

| FIELD DATA                                     |     | ANALYSIS OF SAMPLE                          |         |          |                                 |         |        |
|------------------------------------------------|-----|---------------------------------------------|---------|----------|---------------------------------|---------|--------|
|                                                |     | ANIONS:                                     |         | CATIONS: |                                 |         |        |
|                                                |     |                                             | mg/L    | meq/L    |                                 | mg/L    | meq/L  |
| Initial Temperature (°F):                      | 250 | Chloride (Cl <sup>-</sup> ):                | 57063.0 | 1609.7   | Sodium (Na <sup>+</sup> ):      | 34527.3 | 1502.5 |
| Final Temperature (°F):                        | 87  | Sulfate (SO <sub>4</sub> <sup>2-</sup> ):   | 687.0   | 14.3     | Potassium (K <sup>+</sup> ):    | 121.6   | 3.1    |
| Initial Pressure (psi):                        | 100 | Borate (H <sub>3</sub> BO <sub>3</sub> ):   | 32.9    | 0.5      | Magnesium (Mg <sup>2+</sup> ):  | 1280.4  | 105.4  |
| Final Pressure (psi):                          | 15  | Fluoride (F <sup>-</sup> ):                 | ND      |          | Calcium (Ca <sup>2+</sup> ):    | 2713.3  | 135.4  |
| pH:                                            |     | Bromide (Br <sup>-</sup> ):                 | ND      |          | Strontium (Sr <sup>2+</sup> ):  | 349.0   | 8.0    |
| pH at time of sampling:                        |     | Nitrite (NO <sub>2</sub> <sup>-</sup> ):    | ND      |          | Barium (Ba <sup>2+</sup> ):     | 3.1     | 0.0    |
| SI Residual:                                   |     | Nitrate (NO <sub>3</sub> <sup>-</sup> ):    | ND      |          | Iron (Fe <sup>2+</sup> ):       | 0.0     | 0.0    |
| Compound:                                      |     | Phosphate (PO <sub>4</sub> <sup>3-</sup> ): | 0.5     | 0.0      | Manganese (Mn <sup>2+</sup> ):  | 0.1     | 0.0    |
| Residual (ppm):                                |     | Silica (SiO <sub>2</sub> ):                 | ND      |          | Lead (Pb <sup>2+</sup> ):       | ND      |        |
| ALKALINITY BY TITRATION:                       |     |                                             |         |          | Zinc (Zn <sup>2+</sup> ):       | ND      |        |
| Bicarbonate (HCO <sub>3</sub> <sup>-</sup> ):  |     |                                             |         |          | Aluminum (Al <sup>3+</sup> ):   | ND      |        |
| Carbonate (CO <sub>3</sub> <sup>2-</sup> ):    |     |                                             |         |          | Chromium (Cr <sup>3+</sup> ):   | ND      |        |
| Hydroxide (OH <sup>-</sup> ):                  |     |                                             |         |          | Cobalt (Co <sup>2+</sup> ):     | ND      |        |
|                                                |     | ORGANIC ACIDS:                              |         |          | Copper (Cu <sup>2+</sup> ):     | ND      |        |
| aqueous CO <sub>2</sub> (ppm):                 |     | Formic Acid:                                | ND      |          | Molybdenum (Mo <sup>2+</sup> ): | ND      |        |
| aqueous H <sub>2</sub> S (ppm):                |     | Acetic Acid:                                | ND      |          | Nickel (Ni <sup>2+</sup> ):     | ND      |        |
| aqueous O <sub>2</sub> (ppb):                  |     | Propionic Acid:                             | ND      |          | Tin (Sn <sup>2+</sup> ):        | ND      |        |
|                                                |     | Butyric Acid:                               | ND      |          | Titanium (Ti <sup>2+</sup> ):   | ND      |        |
| Calculated TDS (mg/L):                         |     | Valeric Acid:                               | ND      |          | Vanadium (V <sup>2+</sup> ):    | ND      |        |
| Density/Specific Gravity (g/cm <sup>3</sup> ): |     |                                             |         |          | Zirconium (Zr <sup>2+</sup> ):  | ND      |        |
| Measured Specific Gravity                      |     |                                             |         |          | Lithium (Li):                   | ND      |        |
| Conductivity (mmhos):                          |     |                                             |         |          | Total Hardness:                 | 12458   | N/A    |
| Resistivity:                                   |     |                                             |         |          |                                 |         |        |
| MCF/D:                                         |     | No Data                                     |         |          |                                 |         |        |
| BOPD:                                          |     | No Data                                     |         |          |                                 |         |        |
| BWPD:                                          |     | No Data                                     |         |          |                                 |         |        |
|                                                |     | Anion/Cation Ratio:                         | 0.93    |          |                                 |         |        |

SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA; FUTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.

| Conditions |         | Barite (BaSO <sub>4</sub> ) |           | Calcite (CaCO <sub>3</sub> ) |           | Gypsum (CaSO <sub>4</sub> ·2H <sub>2</sub> O) |           | Anhydrite (CaSO <sub>4</sub> ) |           |
|------------|---------|-----------------------------|-----------|------------------------------|-----------|-----------------------------------------------|-----------|--------------------------------|-----------|
| Temp       | Press.  | Index                       | Amt (ptb) | Index                        | Amt (ptb) | Index                                         | Amt (ptb) | Index                          | Amt (ptb) |
| 87°F       | 15 psi  | 0.87                        | 1.593     | 0.59                         | 67.076    | -0.72                                         | 0.000     | -0.89                          | 0.000     |
| 105°F      | 24 psi  | 0.74                        | 1.509     | 0.59                         | 66.956    | -0.71                                         | 0.000     | -0.80                          | 0.000     |
| 123°F      | 34 psi  | 0.63                        | 1.411     | 0.62                         | 68.773    | -0.70                                         | 0.000     | -0.71                          | 0.000     |
| 141°F      | 43 psi  | 0.54                        | 1.303     | 0.66                         | 71.206    | -0.69                                         | 0.000     | -0.61                          | 0.000     |
| 159°F      | 53 psi  | 0.45                        | 1.187     | 0.70                         | 73.930    | -0.68                                         | 0.000     | -0.51                          | 0.000     |
| 177°F      | 62 psi  | 0.38                        | 1.068     | 0.75                         | 76.871    | -0.67                                         | 0.000     | -0.41                          | 0.000     |
| 196°F      | 72 psi  | 0.32                        | 0.949     | 0.81                         | 80.019    | -0.65                                         | 0.000     | -0.30                          | 0.000     |
| 214°F      | 81 psi  | 0.26                        | 0.833     | 0.87                         | 83.714    | -0.64                                         | 0.000     | -0.19                          | 0.000     |
| 232°F      | 91 psi  | 0.22                        | 0.722     | 0.95                         | 87.590    | -0.63                                         | 0.000     | -0.07                          | 0.000     |
| 250°F      | 100 psi | 0.18                        | 0.616     | 1.03                         | 91.579    | -0.61                                         | 0.000     | 0.04                           | 27.784    |

| Conditions |         | Celestite (SrSO <sub>4</sub> ) |           | Halite (NaCl) |           | Iron Sulfide (FeS) |           | Iron Carbonate (FeCO <sub>3</sub> ) |           |
|------------|---------|--------------------------------|-----------|---------------|-----------|--------------------|-----------|-------------------------------------|-----------|
| Temp       | Press.  | Index                          | Amt (ptb) | Index         | Amt (ptb) | Index              | Amt (ptb) | Index                               | Amt (ptb) |
| 87°F       | 15 psi  | 0.09                           | 33.773    | -1.53         | 0.000     | 0                  | 0.000     |                                     | 0.000     |
| 105°F      | 24 psi  | 0.10                           | 35.805    | -1.54         | 0.000     | 0                  | 0.000     |                                     | 0.000     |
| 123°F      | 34 psi  | 0.11                           | 38.433    | -1.55         | 0.000     | 0                  | 0.000     |                                     | 0.000     |
| 141°F      | 43 psi  | 0.12                           | 42.084    | -1.56         | 0.000     | 0                  | 0.000     |                                     | 0.000     |
| 159°F      | 53 psi  | 0.13                           | 47.001    | -1.56         | 0.000     | 0                  | 0.000     |                                     | 0.000     |
| 177°F      | 62 psi  | 0.15                           | 53.266    | -1.56         | 0.000     | 0                  | 0.000     |                                     | 0.000     |
| 196°F      | 72 psi  | 0.18                           | 60.821    | -1.56         | 0.000     | 0                  | 0.000     |                                     | 0.000     |
| 214°F      | 81 psi  | 0.21                           | 69.493    | -1.56         | 0.000     | 0                  | 0.000     |                                     | 0.000     |
| 232°F      | 91 psi  | 0.24                           | 79.028    | -1.56         | 0.000     | 0                  | 0.000     |                                     | 0.000     |
| 250°F      | 100 psi | 0.28                           | 89.121    | -1.56         | 0.000     | 0                  | 0.000     |                                     | 0.000     |

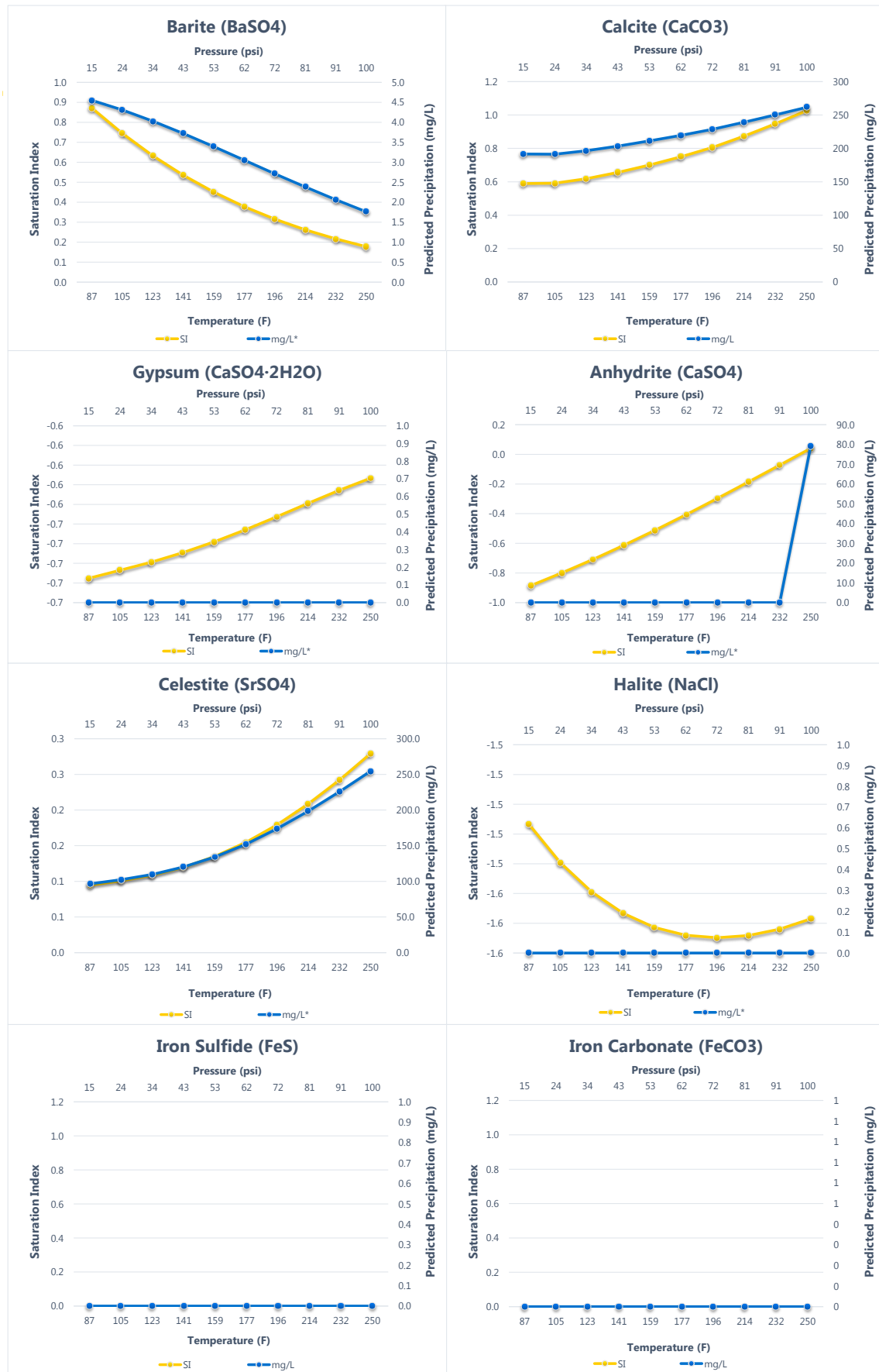
Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the eight (8) scales.

Note 3: Saturation Index predictions on this sheet use pH and alkalinity; %CO<sub>2</sub> is not included in the calculations.

ScaleSoftPitzer™  
SSP2010

Comments:



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