

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 BBL	Maximum Fluid Pressure	Total Gas Injected MCF	Maximum Gas Pressure	# Days of Injection
	January	_____	_____	_____	_____	_____
	February	_____	_____	_____	_____	_____
	March	_____	_____	_____	_____	_____
	April	_____	_____	_____	_____	_____
	May	_____	_____	_____	_____	_____
	June	_____	_____	_____	_____	_____
	July	_____	_____	_____	_____	_____
	August	_____	_____	_____	_____	_____
	September	_____	_____	_____	_____	_____
	October	_____	_____	_____	_____	_____
	November	_____	_____	_____	_____	_____
	December	_____	_____	_____	_____	_____
	TOTAL	_____	_____	_____	_____	_____

Submitted Electronically

COMPLETE WATER ANALYSIS REPORT SSP v.2010

CUSTOMER: FOSSIL ENERGY
DISTRICT: KANSAS
AREA/LEASE: SIEFERS
SAMPLE POINT NAME: SIEFERS 2 SWD
SITE TYPE: WELL SITES
SAMPLE POINT DESCRIPTION: NOT PROVIDED
CUSTOMER SAMPLE POINT ID:

ACCOUNT REP: BILL FOSTER
SAMPLE ID: 202510000587
SAMPLE DATE: 1/21/2025
ANALYSIS DATE: 2/3/2025
ANALYST: BS/RH

FOSSIL ENERGY, SIEFERS, SIEFERS 2 SWD

FIELD DATA			ANALYSIS OF SAMPLE					
			ANIONS:	mg/L	meq/L	CATIONS:	mg/L	meq/L
Initial Temperature (°F):	250		Chloride (Cl ⁻):	57465.0	1621.0	Sodium (Na ⁺):	28959.4	1260.2
Final Temperature (°F):	80		Sulfate (SO ₄ ²⁻):	1235.0	25.7	Potassium (K ⁺):	169.9	4.3
Initial Pressure (psi):	100		Borate (H ₃ BO ₃):	46.6	0.8	Magnesium (Mg ²⁺):	1960.2	161.3
Final Pressure (psi):	15		Fluoride (F ⁻):	ND		Calcium (Ca ²⁺):	5977.0	298.3
			Bromide (Br ⁻):	ND		Strontium (Sr ²⁺):	273.4	6.2
pH:			Nitrite (NO ₂ ⁻):	ND		Barium (Ba ²⁺):	2.5	0.0
pH at time of sampling:	6.4		Nitrate (NO ₃ ⁻):	ND		Iron (Fe ²⁺):	5.1	0.2
			Phosphate (PO ₄ ³⁻):	0.0	0.0	Manganese (Mn ²⁺):	0.4	0.0
			Silica (SiO ₂):	ND		Lead (Pb ²⁺):	ND	
						Zinc (Zn ²⁺):	0.4	0.0
ALKALINITY BY TITRATION:	mg/L	meq/L						
Bicarbonate (HCO ₃ ⁻):	410.0	6.7				Aluminum (Al ³⁺):	ND	
Carbonate (CO ₃ ²⁻):	ND					Chromium (Cr ³⁺):	ND	
Hydroxide (OH ⁻):	ND					Cobalt (Co ²⁺):	ND	
			ORGANIC ACIDS:	mg/L	meq/L	Copper (Cu ²⁺):	ND	
aqueous CO ₂ (ppm):	65.0		Formic Acid:	ND		Molybdenum (Mo ²⁺):	ND	
aqueous H ₂ S (ppm):	20.0		Acetic Acid:	ND		Nickel (Ni ²⁺):	ND	
aqueous O ₂ (ppb):	ND		Propionic Acid:	ND		Tin (Sn ²⁺):	ND	
			Butyric Acid:	ND		Titanium (Ti ²⁺):	ND	
Calculated TDS (mg/L):	96458		Valeric Acid:	ND		Vanadium (V ²⁺):	ND	
Density/Specific Gravity (g/cm ³):	1.0643					Zirconium (Zr ²⁺):	ND	
Measured Specific Gravity	ND					Lithium (Li):	ND	
Conductivity (mmhos):	ND							
Resistivity:	ND					Total Hardness:	23332	N/A
MCF/D:	No Data							
BOPD:	No Data							
BWPD:	No Data		Anion/Cation Ratio:		0.96			ND = Not Determined

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

Conditions		Barite (BaSO ₄)		Calcite (CaCO ₃)		Gypsum (CaSO ₄ ·2H ₂ O)		Anhydrite (CaSO ₄)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
80°F	15 psi	1.06	1.382	0.85	69.468	-0.17	0.000	-0.37	0.000
99°F	24 psi	0.92	1.334	0.90	72.029	-0.16	0.000	-0.28	0.000
118°F	34 psi	0.81	1.278	0.98	75.749	-0.14	0.000	-0.18	0.000
137°F	43 psi	0.71	1.217	1.07	79.527	-0.13	0.000	-0.07	0.000
156°F	53 psi	0.62	1.153	1.16	83.071	-0.11	0.000	0.04	46.887
174°F	62 psi	0.55	1.089	1.25	86.316	-0.09	0.000	0.15	171.655
193°F	72 psi	0.49	1.026	1.34	89.268	-0.07	0.000	0.27	272.994
212°F	81 psi	0.44	0.966	1.44	92.220	-0.05	0.000	0.40	353.321
231°F	91 psi	0.40	0.910	1.55	94.901	-0.03	0.000	0.52	415.682
250°F	100 psi	0.36	0.858	1.65	97.323	-0.01	0.000	0.64	463.275

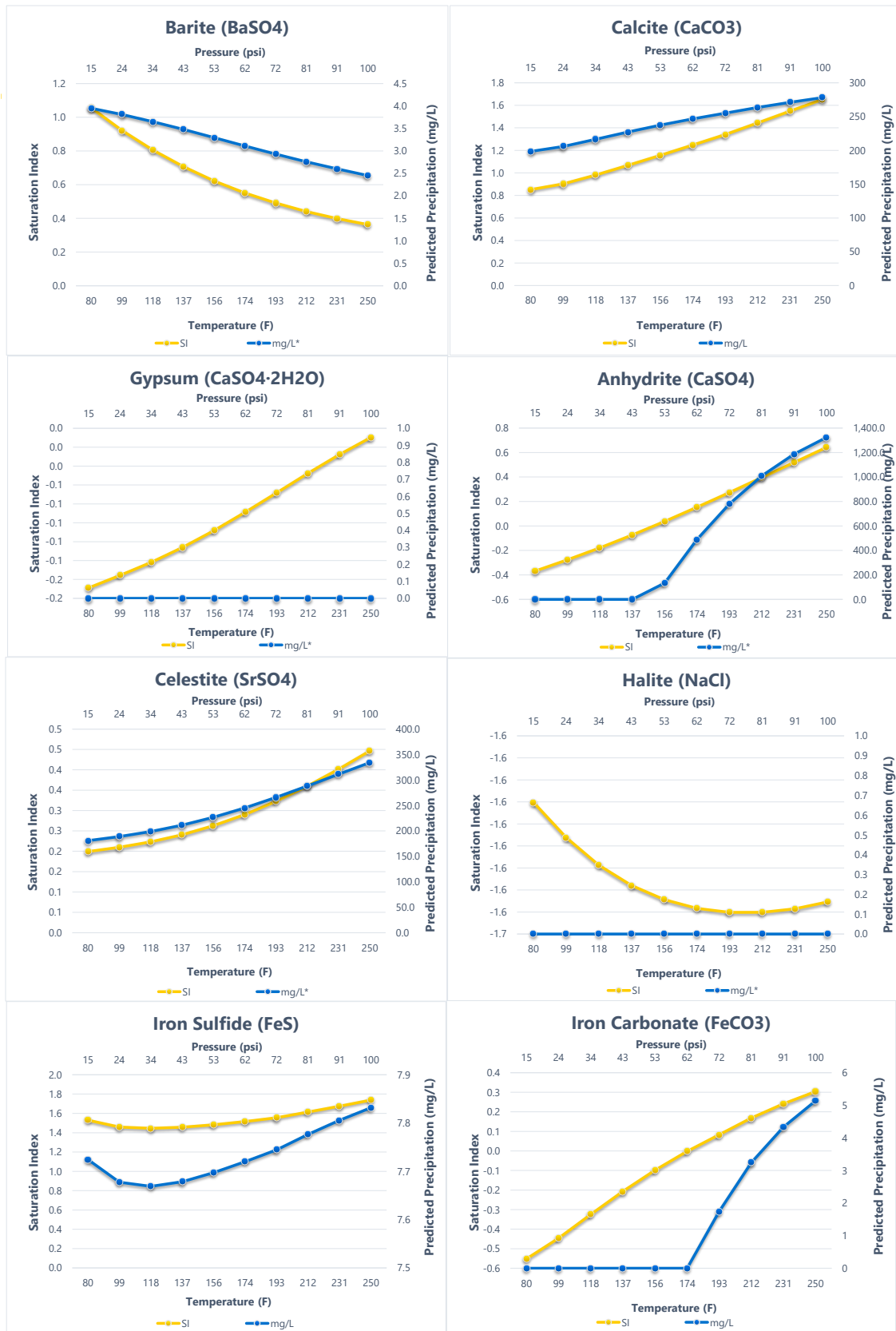
Conditions		Celestite (SrSO ₄)		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate (FeCO ₃)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
80°F	15 psi	0.20	63.297	-1.59	0.000	1.53	2.703	-0.55	0.000
99°F	24 psi	0.21	66.111	-1.61	0.000	1.46	2.687	-0.45	0.000
118°F	34 psi	0.22	69.564	-1.62	0.000	1.45	2.684	-0.32	0.000
137°F	43 psi	0.24	73.949	-1.63	0.000	1.46	2.688	-0.21	0.000
156°F	53 psi	0.26	79.373	-1.63	0.000	1.48	2.694	-0.10	0.000
174°F	62 psi	0.29	85.788	-1.64	0.000	1.52	2.702	0.00	0.000
193°F	72 psi	0.32	93.026	-1.64	0.000	1.56	2.711	0.08	0.612
212°F	81 psi	0.36	100.835	-1.64	0.000	1.61	2.722	0.17	1.134
231°F	91 psi	0.40	108.922	-1.64	0.000	1.67	2.732	0.24	1.516
250°F	100 psi	0.45	116.991	-1.64	0.000	1.74	2.741	0.30	1.798

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; %CO₂ is not included in the calculations.

Comments:



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