



**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	_____	_____	_____	_____	_____



DownHole SAT®
SURFACE WATER CHEMISTRY INPUT

Falcon Exploration
Josserand Supply Well
Tim Schiffelbein

Report Date: 02-20-2017 Sampled: 01-24-2017
Sample #: 1622 at 1616

CATIONS

Calcium (as Ca) 64.90
Magnesium (as Mg) 17.30
Barium (as Ba) 0.00
Strontium (as Sr) 3.68
Sodium (as Na) 69810
Iron (as Fe) 3.10
Manganese (as Mn) 0.100

ANIONS

Chloride (as Cl) 108000
Sulfate (as SO₄) 1212
Dissolved CO₂ (as CO₂) 30.00
Bicarbonate (as HCO₃) 12.20
Carbonate (as CO₃) 0.00
H₂S (as H₂S) 0.00

PARAMETERS

Calculated T.D.S. 172139
Molar Conductivity 279279
Resistivity 3.58
Sp.Gr.(g/mL) 1.11
Pressure(psia) 30.00
pCO₂(atm) 0.00133
pH₂S(atm) 0.00
Temperature (°F) 72.00
pH 6.70

COMMENTS

Analyst: Davida Lowery

ROCKWATER ENERGY SOLUTIONS
7906 West Highway 80, Midland, TX 79706



DownHole SAT®
SURFACE WATER
DEPOSITION POTENTIAL INDICATORS

Falcon Exploration
Josserand
Tim Schiffelbein

Supply Well

Report Date: 02-20-2017 Sampled: 01-24-2017
Sample #: 1622 at 1616

SATURATION LEVEL

Calcite (CaCO ₃)	0.00177
Aragonite (CaCO ₃)	0.00154
Witherite (BaCO ₃)	0.00
Strontianite (SrCO ₃)	< 0.001
Magnesite (MgCO ₃)	< 0.001
Anhydrite (CaSO ₄)	0.0101
Gypsum (CaSO ₄ *2H ₂ O)	0.0136
Barite (BaSO ₄)	0.00
Celestite (SrSO ₄)	0.0167
Siderite (FeCO ₃)	0.0565
Halite (NaCl)	0.136
Iron sulfide (FeS)	0.00

MOMENTARY EXCESS (Lbs/1000 Barrels)

Calcite (CaCO ₃)	-1.61
Aragonite (CaCO ₃)	-1.83
Witherite (BaCO ₃)	-26.29
Strontianite (SrCO ₃)	-7.49
Magnesite (MgCO ₃)	-4.08
Anhydrite (CaSO ₄)	-1368
Gypsum (CaSO ₄ *2H ₂ O)	-1303
Barite (BaSO ₄)	-0.0888
Celestite (SrSO ₄)	-124.11
Siderite (FeCO ₃)	-0.0552
Halite (NaCl)	-101556
Iron sulfide (FeS)	-0.387

SIMPLE INDICES

Langelier	-14.00
Ryznar	14.00
Puckorius	-5.92
Larson-Skold Index	15853
Stiff Davis Index	-2.76
Oddo-Tomson	-3.51

BOUND IONS

Calcium	64.90	61.51
Barium	0.00	0.00
Carbonate	0.793	0.00504
Sulfate	1212	692.92

TOTAL

FREE

OPERATING CONDITIONS

Temperature (°F)	72.00
Time(mins)	3.00

ROCKWATER ENERGY SOLUTIONS
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