



Pacific Coast Area Laboratory
3901 Fanucchi Way E,
Shafter, California 93263

Upstream Chemicals

REPORT DATE: 1/5/2017

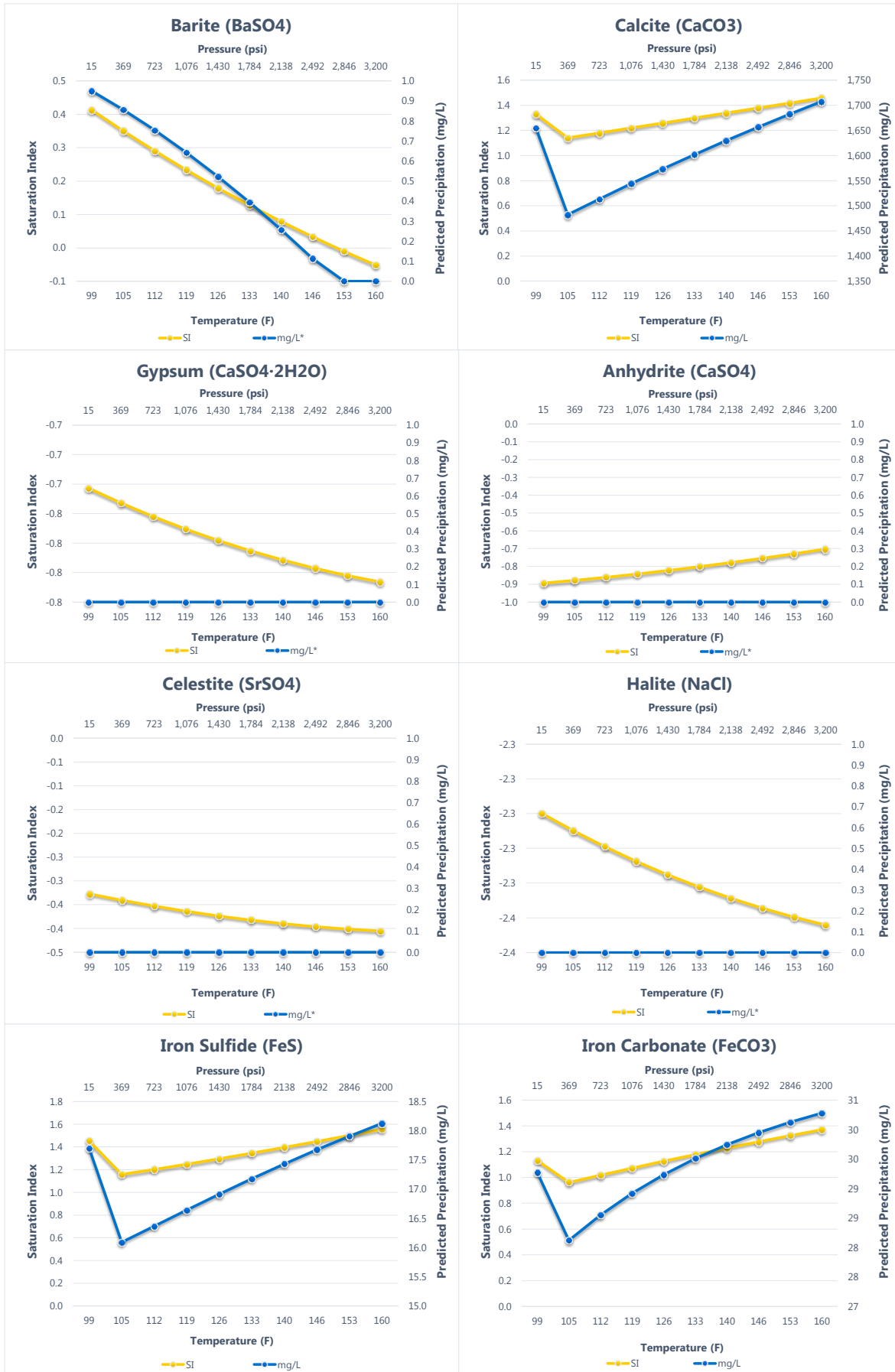
COMPLETE WATER ANALYSIS REPORT SSP v.2010

CUSTOMER: CHEVRON
DISTRICT: WESTERN DIVIDE
AREA/LEASE: RANGELY
SAMPLE POINT NAME: FACILITY WATER PLANT - MAIN SKIM TANK 2 INLET
SITE TYPE: FACILITY
SAMPLE POINT DESCRIPTION: INLET

ACCOUNT REP: PRESTON M. STEWART
SAMPLE ID: 201606049027
SAMPLE DATE: 12/14/2016
ANALYSIS DATE: 1/5/2017
ANALYST: ER/IL

CHEVRON, RANGELY, FACILITY WATER PLANT - MAIN SKIM TANK 2 INLET

FIELD DATA			ANALYSIS OF SAMPLE							
			ANIONS:		mg/L	meq/L	CATIONS:		mg/L	meq/L
Initial Temperature (°F):	160		Chloride (Cl⁻):		23832.1		672.3	Sodium (Na⁺):	15268.6	664.4
Final Temperature (°F):	99		Sulfate (SO₄²⁻):		463.1		9.6	Potassium (K⁺):	440.1	11.3
Initial Pressure (psi):	3200		Borate (H₃BO₃):		ND			Magnesium (Mg²⁺):	348.4	28.7
Final Pressure (psi):	11		Fluoride (F⁻):		ND			Calcium (Ca²⁺):	1846.9	92.2
			Bromide (Br⁻):		ND			Strontium (Sr²⁺):	108.5	2.5
pH:			Nitrite (NO₂⁻):		ND			Barium (Ba²⁺):	0.9	0.0
pH at time of sampling:	6.4		Nitrate (NO₃⁻):		ND			Iron (Fe²⁺):	15.3	0.5
			Phosphate (PO₄³⁻):		5.3	0.2	Manganese (Mn²⁺):	0.8	0.0	
			Silica (SiO₂):		38.9		Lead (Pb²⁺):	ND		
							Zinc (Zn²⁺):	0.1	0.0	
ALKALINITY BY TITRATION:		mg/L	meq/L							
Bicarbonate (HCO₃⁻):	2816.0	46.1						Aluminum (Al³⁺):	ND	
Carbonate (CO₃²⁻):	ND							Chromium (Cr³⁺):	ND	
Hydroxide (OH⁻):	ND							Cobalt (Co²⁺):	ND	
			ORGANIC ACIDS:		mg/L	meq/L	Copper (Cu²⁺):		ND	
aqueous CO₂ (ppm):	900.0		Formic Acid:		ND			Molybdenum (Mo²⁺):	ND	
aqueous H₂S (ppm):	3.5		Acetic Acid:		ND			Nickel (Ni²⁺):	ND	
aqueous O₂ (ppm):	0.0		Propionic Acid:		ND			Tin (Sn²⁺):	ND	
			Butyric Acid:		ND			Titanium (Ti²⁺):	ND	
Calculated TDS (mg/L):	45180		Valeric Acid:		ND			Vanadium (V²⁺):	ND	
Density/Specific Gravity (g/cm³):	1.0294							Zirconium (Zr²⁺):	ND	
Measured Specific Gravity	ND									
Conductivity (mmhos):	55.0							Total Hardness:	6177	N/A
Resistivity:	ND									
MCF/D:	No Data									
BOPD:	No Data									
BWPD:	No Data		Anion/Cation Ratio:				0.91	ND = Not Determined		



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