



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	_____	_____	_____	_____	_____

Bachman Production Specialties, Inc.

307 C Street, Airport Addition
Great Bend, Kansas 67530

Phone: (620-792-2549)
Fax: (620-792-1412)

WATER ANALYSIS REPORT

Company: Zetetic
Source: Gupton

Date Sampled: 4-2-09
Date Analyzed: 4-7-09

pH:	7.00	Total Dissolved Solids (mg/L):	37,658
Dissolved H ₂ S:	0		
Dissolved CO ₂ :	15	Total Ionic Strength:	0.724
Specific Gravity:	1.020	Resistivity @ 75°F(Ohm-Meters):	0.18
Density, (lbs/gal):	8.51		

	mg/L	Meq/L
Anions		
Bicarbonate:	366	6
Chloride:	22,126	623
Sulfate:	800	17
Cations		
Calcium:	2,509	125
Magnesium:	128	11
Sodium:	11,729	510
Barium:	0	
Strontium:	0	
Total Hardness:	6,800	
Total Dissolved Iron:	0.0	
Ferrous Iron:	Not Determined	

PROBABLE MINERAL COMPOSITION

125 Ca	6 HCO ₃		
11 Mg	17 SO ₄	Meq/L	mg/L
510 Na	623 Cl		
Saturation Values			
In Distilled Water @ 20°C			
CaCO ₃	13 mg/L	Calcium Bicarbonate:	6 486
CaSO ₄ * 2H ₂ O	2,090 mg/L	Calcium Sulfate:	17 1,135
MgCO ₃	103 mg/L	Calcium Chloride:	103 5,703
		Magnesium Bicarbonate:	0 0
		Magnesium Sulfate:	0 0
		Magnesium Chloride:	11 502
		Sodium Bicarbonate:	0 0
		Sodium Sulfate:	0 0
		Sodium Chloride:	510 29,813

Remarks
0



P. 2

Bachman Production Specialties, Inc.

Phone: (620) 792-2549

Scale Deposition Potential Analysis

Company: Zetetic
Source: Gupton

Date Sampled: 4-2-09
Date Analyzed: 4-7-09

Brine Composition

pH:	7.00	Ca, mg/L:	2,509	Total Hardness, mg/L:	6,800
Specific Gravity:	1.020	Mg, mg/L:	128	Total Dissolved Solids, mg/L:	37,658
HCO ₃ , mg/L:	366	Na, mg/L:	11,729	Total Ionic Strength:	0.724
Cl, mg/L:	22,126	Ba, mg/L:	0	Total Dissolved Iron, mg/L:	0.0
SO ₄ , mg/L:	800	Sr, mg/L:	0		

Calcium Carbonate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	80	140
Stiff-Davis Index:	0.19	0.48	0.85	1.32	0.24	1.15
Deposition, lbs/1,000 Bbls:	80.0	145.9	181.6	199.4	96.7	194.5

Calcium Sulfate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	80	140
Supersaturation Ratio:	0.407	0.406	0.409	0.419	0.407	0.415
Deposition, lbs/1,000 Bbls:	-577.9	-581.4	-573.6	-549.9	-579.1	-560.5

Barium Sulfate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	80	140
Supersaturation Ratio:	0.000	0.000	0.000	0.000	0.000	0.000
Deposition, lbs/1,000 Bbls:	-0.1	-0.1	-0.1	-0.2	-0.1	-0.2



Brine Water Analysis Software