



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 Services, Inc.

307 C Street
Great Bend, KS 67530

Phone: 620-792-2549

Fax:

WATER ANALYSIS REPORT

Company: JACKBOWLES
Water Source: WHITESIDE #1
Sample Point: WELL HEAD

Lab ID Number:
Date Sampled: 12-9-15
Date Analyzed: 12-9-15

Production Data: **BOPD:** 0 **BWPD:** 0 **MMCFD:** 0

pH:	7.30	Total Dissolved Solids (mg/L):	74,936
Dissolved H ₂ S:	20.0	Total Ionic Strength:	1.427
Dissolved CO ₂ :	65.0	Specific Gravity:	1.035
Resistivity @ 75°F (Ohm-Meters):	0.09250	Density, (lbs/gal):	8.63

Cations	mg/L	Meq/L	Anions	mg/L	Meq/L
Calcium:	3,374	169	Carbonate:	0	0
Magnesium:	721	59	Bicarbonate:	439	7
Sodium:	24,376	1,060	Chloride:	43,826	1,235
Barium:	0		Sulfate:	2,200	46
Strontium:	0		Total Hardness:	11,400	
Ferrous Iron:	0.0				
Total Dissolved Iron:	0.3				

PROBABLE MINERAL COMPOSITION

	mg/L	Meq/L
Calcium Bicarbonate:	583	7
Calcium Sulfate:	3,120	46
Calcium Chloride:	6,418	116
Magnesium Bicarbonate:	0	0
Magnesium Sulfate:	0	0
Magnesium Chloride:	2,813	59
Sodium Bicarbonate:	0	0
Sodium Sulfate:	0	0
Sodium Chloride:	61,957	1,060

Remarks



Analyst: _____

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SCALE DEPOSITION POTENTIAL ANALYSIS

Company:	JACKBOWLES	Lab ID Number:	
Water Source:	WHITESIDE #1	Date Sampled:	12-9-15
Sample Point:	WELL HEAD	Date Analyzed:	12-9-15

Brine Composition

pH:	7.30	Ca, mg/L:	3,374	Total Hardness, mg/L:	11,400
Specific Gravity:	1.035	Mg, mg/L:	721	Total Dissolved Solids, mg/L:	74,936
HCO ₃ , mg/L:	439	Na, mg/L:	24,376	Total Ionic Strength:	1.427
Cl, mg/L:	43,826	Ba, mg/L:	0		
SO ₄ , mg/L:	2,200	Sr, mg/L:	0	Total Dissolved Iron, mg/L:	0.3

Calcium Carbonate Scale Indices

Specified Temperatures

Temperature, °F:	75	100	125	150	80	140
Stiff-Davis Index:	0.62	0.89	1.28	1.76	0.67	1.56
Deposition, lbs/1,000 Bbls:	185.6	216.5	236.9	247.0	193.3	244.4

Calcium Sulfate Scale Indices

Specified Temperatures

Temperature, °F:	75	100	125	150	80	140
Supersaturation Ratio:	0.849	0.850	0.861	0.877	0.848	0.871
Deposition, lbs/1,000 Bbls:	-194.7	-193.1	-176.2	-152.9	-195.8	-162.5

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:	-0.0	-0.0	-0.1	-0.1	-0.0	-0.1

Strontium 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:	-0.0	-0.0	-0.1	-0.1	-0.0	-0.1



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SCALE DEPOSITION POTENTIAL TRENDS

Company: JACKBOWLES
Water Source: WHITESIDE #1
Sample Point: WELL HEAD

Lab ID Number:
Date Sampled: 12-9-15
Date Analyzed: 12-9-15

