

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	_____	_____	_____	_____	_____
	<b>TOTAL</b>	_____	_____	_____	_____	_____



# Innospec Oilfield Services

100 Prospect Avenue Oklahoma City, OK 73129

0

Phone: (405) 677-8296

Fax: (405) 677-7483

## WATER ANALYSIS REPORT

Company: Jack Bowles

Date Sampled: 2/18/2020

Source: Whiteside SWD

Date Analyzed: 2/19/2020

pH:	7.00	Total Dissolved Solids (mg/L):	64,808
Dissolved H <sub>2</sub> S:	250.0	Total Ionic Strength:	1.207
Dissolved CO <sub>2</sub> :	110.0	Specific Gravity:	1.050
Resistivity @ 75°F(Ohm-Meters):	0.11375	Density, (lbs/gal):	8.76

<b>Cations</b>	<b>mg/L</b>	<b>Meq/L</b>	<b>Anions</b>	<b>mg/L</b>	<b>Meq/L</b>
Calcium:	1,814	91	Carbonate:	0	0
Magnesium:	939	77	Bicarbonate:	976	16
Sodium:	21,875	951	Chloride:	39,000	1,099
Barium:	4		Sulfate:	200	4
Strontium:	0		Total Hardness:	8,400	
Ferrous Iron:	0.00				
Total Dissolved Iron:	0.00				

### PROBABLE MINERAL COMPOSITION

	<b>mg/L</b>	<b>Meq/L</b>
<b>Calcium Bicarbonate:</b>	1,297	16
<b>Calcium Sulfate:</b>	284	4
<b>Calcium Chloride:</b>	3,916	71
<b>Magnesium Bicarbonate:</b>	0	0
<b>Magnesium Sulfate:</b>	0	0
<b>Magnesium Chloride:</b>	3,665	77
<b>Sodium Bicarbonate:</b>	0	0
<b>Sodium Sulfate:</b>	0	0
<b>Sodium Chloride:</b>	55,600	951

### Remarks



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*HydroMax*  
Brine Water Analysis Software

## SCALE DEPOSITION POTENTIAL TRENDS

Company: Jack Bowles

Date Sampled: 2/18/2020

Source: Whiteside SWD

Date Analyzed: 2/19/2020

### Brine Composition

pH:	7.00	Ca, mg/L:	1,814	Total Hardness, mg/L:	8,400
Specific Gravity:	1.050	Mg, mg/L:	939	Total Dissolved Solids, mg/L:	64,808
HCO <sub>3</sub> , mg/L:	976	Na, mg/L:	21,875	Total Ionic Strength:	1.207
Cl, mg/L:	39,000	Ba, mg/L:	4	Total Dissolved Iron, mg/L:	0.0
SO <sub>4</sub> , mg/L:	200	Sr, mg/L:	0		

### Calcium Carbonate Scale Indices

Temperature, °F:	75	100	125	150	Specified Temperatures	
Stiff-Davis Index:	0.38	0.67	1.04	1.53	40	180
Deposition, lbs/1,000 Bbls:	285.1	398.2	490.0	534.8	0.09	2.12
					92.2	553.3

### Calcium Sulfate Scale Indices

Temperature, °F:	75	100	125	150	Specified Temperatures	
Supersaturation Ratio:	0.069	0.069	0.070	0.071	40	180
Deposition, lbs/1,000 Bbls:	-1348.8	-1345.4	-1326.0	-1300.4	0.069	0.073
					-1340.1	-1257.5

### Barium Sulfate Scale Indices

Temperature, °F:	75	100	125	150	Specified Temperatures	
Supersaturation Ratio:	5.473	4.708	3.227	2.184	40	180
Deposition, lbs/1,000 Bbls:	1.9	1.9	1.6	1.3	9.418	1.483
					2.1	0.8



## SCALE DEPOSITION POTENTIAL TRENDS

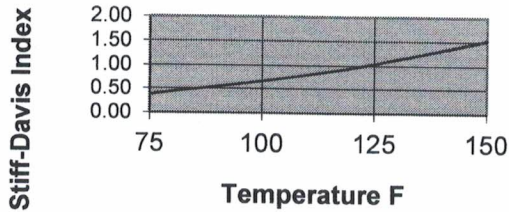
Company: Jack Bowles

Date Sampled: 2/18/2020

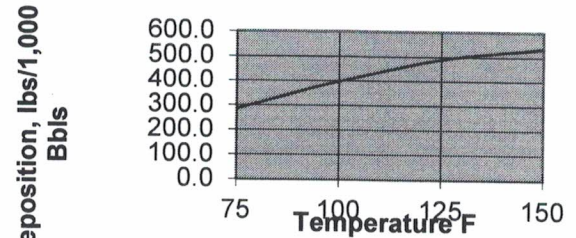
Source: Whiteside SWD

Date Analyzed: 2/19/2020

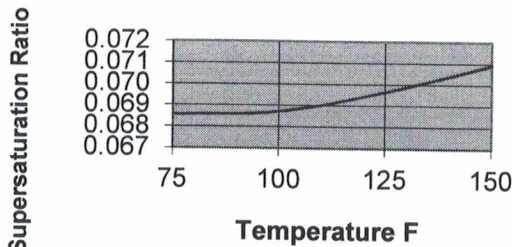
### Calcium Carbonate



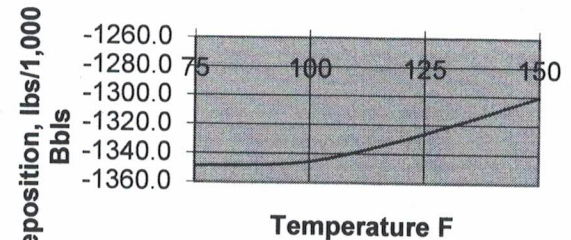
### Calcium Carbonate



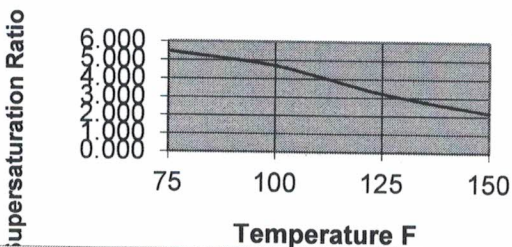
### Calcium Sulfate



### Calcium Sulfate



### Barium Sulfate



### Barium Sulfate

