

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 # 31142
Name: Petroleum Property Services, Inc.
Address 1: 125 N MARKET SUITE 1251
Address 2: _____
City: WICHITA State: KS Zip: 67202 + 1719
Contact Person: CYNDE WOLF
Phone: (316) 265-3351
Lease Name: BARKLEY
Well Number: 4

API No.: 15-007-20624-00-02
Permit No.: D19450.0
Reporting Year: 2017
(January 1 to December 31)
____ - NE - SW - NE Sec. 16 Twp. 32 S. R. 14 ☐ E ☒ W
(a/a/a/a)
3403 feet from ☐ N / ☒ S Line of Section
1674 feet from ☒ E / ☐ W Line of Section
County: Barber

I. Injection Fluid:

Type (Pick one): ☐ Fresh Water ☐ Treated Brine ☒ Untreated Brine ☐ Water/Brine
Source: ☒ Produced Water ☐ Other (Attach list)
Quality: Total Dissolved Solids: 238557 mg/l Specific Gravity: 1.15 Additives: NONE
(Attach water analysis, if available)

II. Well Data:

Maximum Authorized Injection Pressure: 0 psi Injection Zone: Stone Corral
Maximum Authorized Injection Rate: 100 barrels per day
Total Number of Enhanced Recovery Injection Wells Covered by this Permit: 1 (Include TA's)

III.	Month:	Total Fluid Injected BBL	Maximum Fluid Pressure	Total Gas Injected MCF	Maximum Gas Pressure	# Days of Injection
	January	<u>1328</u>	<u>3100</u>	<u>0</u>		<u>31</u>
	February	<u>1089</u>	<u>2800</u>	<u>0</u>		<u>28</u>
	March	<u>1433</u>	<u>3100</u>	<u>0</u>		<u>31</u>
	April	<u>1787</u>	<u>3000</u>	<u>0</u>		<u>30</u>
	May	<u>1886</u>	<u>3100</u>	<u>0</u>		<u>31</u>
	June	<u>1633</u>	<u>3000</u>	<u>0</u>		<u>30</u>
	July	<u>2081</u>	<u>3100</u>	<u>0</u>		<u>31</u>
	August	<u>1581</u>	<u>3100</u>	<u>0</u>		<u>31</u>
	September	<u>775</u>	<u>3000</u>	<u>0</u>		<u>30</u>
	October	<u>1615</u>	<u>3100</u>	<u>0</u>		<u>31</u>
	November	<u>1738</u>	<u>3000</u>	<u>0</u>		<u>30</u>
	December	<u>1443</u>	<u>3100</u>	<u>0</u>		<u>31</u>
	TOTAL	<u>18389</u>		<u>0</u>		

Submitted Electronically

Bachman Services, Inc.307 C Street
Great Bend, KS 67530

Phone: 620-792-2549

Fax:

WATER ANALYSIS REPORT

Company:	P P S I	Lab ID Number:	
Water Source:	BARKLEY #4	Date Sampled:	2-15-16
Sample Point:	WELL HEAD	Date Analyzed:	2-16-16

Production Data:	BOPD:	0	BWPD:	0	MMCFD:	0
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pH:	6.00	Total Dissolved Solids (mg/L):	234,873
Dissolved H ₂ S:	0.0	Total Ionic Strength:	4.475
Dissolved CO ₂ :	40.0	Specific Gravity:	1.155
Resistivity @ 75°F (Ohm-Meters):	0.04800	Density, (lbs/gal):	9.63

Cations	mg/L	Meq/L	Anions	mg/L	Meq/L
Calcium:	12,542	627	Carbonate:	0	0
Magnesium:	1,906	156	Bicarbonate:	30	0
Sodium:	75,724	3,292	Chloride:	144,670	4,075
Barium:	0		Sulfate:	0	0
Strontium:	0		Total Hardness:	39,200	
Ferrous Iron:	0.0				
Total Dissolved Iron:	0.0				

PROBABLE MINERAL COMPOSITION

	mg/L	Meq/L
Calcium Bicarbonate:	41	0
Calcium Sulfate:	0	0
Calcium Chloride:	34,778	627
Magnesium Bicarbonate:	0	0
Magnesium Sulfate:	0	0
Magnesium Chloride:	7,440	156
Sodium Bicarbonate:	0	0
Sodium Sulfate:	0	0
Sodium Chloride:	192,471	3,292

Remarks*Hydro*  *Pax***Analyst:** _____

SCALE DEPOSITION POTENTIAL ANALYSIS

Company:	P P S I	Lab ID Number:	
Water Source:	BARKLEY #4	Date Sampled:	2-15-16
Sample Point:	WELL HEAD	Date Analyzed:	2-16-16

Brine Composition

pH:	6.00	Ca, mg/L:	12,542	Total Hardness, mg/L:	39,200
Specific Gravity:	1.155	Mg, mg/L:	1,906	Total Dissolved Solids, mg/L:	234,873
HCO ₃ , mg/L:	30	Na, mg/L:	75,724	Total Ionic Strength:	4.475
Cl, mg/L:	144,670	Ba, mg/L:	0		
SO ₄ , mg/L:	0	Sr, mg/L:	0	Total Dissolved Iron, mg/L:	0.0

Calcium Carbonate Scale Indices

Specified Temperatures

Temperature, °F:	75	100	125	150	80	140
Stiff-Davis Index:	-0.17	0.31	0.96	1.86	-0.09	1.51
Deposition, lbs/1,000 Bbls:	-12.2	7.1	14.8	17.1	-8.1	16.7

Calcium 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:	-393.5	-396.5	-406.6	-412.9	-393.1	-410.8

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:	-14.1	-16.0	-18.3	-21.3	-14.4	-20.0

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:	-14.1	-16.0	-18.3	-21.3	-14.4	-20.0

SCALE DEPOSITION POTENTIAL TRENDS

Company: P P S I
Water Source: BARKLEY #4
Sample Point: WELL HEAD

Lab ID Number:
Date Sampled: 2-15-16
Date Analyzed: 2-16-16

