

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	_____	_____	_____	_____	_____
	TOTAL	_____	_____	_____	_____	_____

Submitted Electronically

Chemical Services Inc.

32 NE 40th Ave.

P.O. Box 1113

Great Bend, Kansas 67530

Office 620-792-6886

Fax 620-792-6882

WATER ANALYSIS REPORT

Sample No.: 6219

Submitted : 04/19/17

Company : Berenergy

Supplier : Chemical Services

Location :

Sampler : Andy Kirkpatrick

Field :

Sample Pt : Bleeder

Lease/Unit: Roetzel A-5

Sampled :

BWPD :

BOPD :

MMCF/day:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	11802.8	513.2	Chloride	22000.0	620.2
Calcium	1920.0	95.8	Bicarbonate	483.0	7.9
Magnesium	583.0	47.9	Sulfate	1400.0	29.1
Iron	2.5	0.1	Carbonate		
Barium	16.0	0.2	Hydroxide		
Strontium			Sulfide	85.0	
Manganese			Carbon dioxide	326.0	
			Oxygen		

pH 9.00

Specific Gravity 1.02815

Total Dissolved Solids : 38207.29 mg/l

Resistivity, ohm-meters 0.00000 at °F Calc 0.18491

SCALING INDICES

Temp, °F	Calcium Carbonate CaCO ₃	Calcium Sulfate CaSO ₄	Barium Sulfate BaSO ₄
50	2.12	-19.03	2.59
75	2.29	-17.94	2.47
100	2.58	-16.68	2.36
125	2.95	-15.25	2.24
150	3.37	-13.63	2.12
175	3.82	-11.83	2.00
200	4.25	-9.81	1.88

A positive scaling index indicates scaling potential.

Remarks:

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WATER ANALYSIS REPORT

Sample No.: 6220

Submitted : 04/19/17

Company : Berenergy

Supplier : Chemical Services

Location :

Sampler : Andy Kirkpatrick

Field :

Sample Pt : Bleeder

Lease/Unit: Roetzel A-21

Sampled :

BWPD :

BOPD :

MMCF/day:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	18595.3	808.6	Chloride	33000.0	930.2
Calcium	2040.0	101.8	Bicarbonate	488.0	8.0
Magnesium	608.0	50.0	Sulfate	1075.0	22.4
Iron	3.0	0.1	Carbonate		
Barium	15.0	0.2	Hydroxide		
Strontium			Sulfide	65.0	
Manganese			Carbon dioxide	299.0	
			Oxygen		

pH 9.00

Specific Gravity 1.00362

Total Dissolved Solids : 55824.28 mg/l

Resistivity, ohm-meters 0.00000 at

`F Calc 0.13040

SCALING INDICES

Temp, `F	Calcium Carbonate CaCO3	Calcium Sulfate CaSO4	Barium Sulfate BaSO4
50	2.04	-31.75	2.31
75	2.22	-30.95	2.19
100	2.51	-29.96	2.06
125	2.88	-28.78	1.94
150	3.31	-27.40	1.82
175	3.76	-25.80	1.70
200	4.20	-23.98	1.57

A positive scaling index indicates scaling potential.

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WATER ANALYSIS REPORT

Sample No.: 6219

Submitted : 04/19/17

Company : Berenergy

Supplier : Chemical Services

Location :

Sampler : Andy Kirkpatrick

Field :

Sample Pt : Bleeder

Lease/Unit: Roetzel A-5

Sampled :

BWPD :

BOPD :

MMCF/day:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	11802.8	513.2	Chloride	22000.0	620.2
Calcium	1920.0	95.8	Bicarbonate	483.0	7.9
Magnesium	583.0	47.9	Sulfate	1400.0	29.1
Iron	2.5	0.1	Carbonate		
Barium	16.0	0.2	Hydroxide		
Strontium			Sulfide	85.0	
Manganese			Carbon dioxide	326.0	
			Oxygen		

pH 9.00

Specific Gravity 1.02815

Total Dissolved Solids : 38207.29 mg/l

Resistivity, ohm-meters 0.00000 at °F Calc 0.18491

SCALING INDICES

Temp, °F	Calcium Carbonate CaCO3	Calcium Sulfate CaSO4	Barium Sulfate BaSO4
50	2.12	-19.03	2.59
75	2.29	-17.94	2.47
100	2.58	-16.68	2.36
125	2.95	-15.25	2.24
150	3.37	-13.63	2.12
175	3.82	-11.83	2.00
200	4.25	-9.81	1.88

A positive scaling index indicates scaling potential.

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WATER ANALYSIS REPORT

Sample No.: 6226

Submitted : 04/19/17

Company : Berenergy

Supplier : Chemical Services

Location :

Sampler : Andy Kirkpatrick

Field :

Sample Pt : Bleeder

Lease/Unit: Roetzel 22

Sampled :

BWPD :

BOPD :

MMCF/day:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	18054.8	785.1	Chloride	32000.0	902.0
Calcium	2080.0	103.8	Bicarbonate	478.0	7.8
Magnesium	632.0	52.0	Sulfate	1500.0	31.2
Iron	2.3	0.1	Carbonate		
Barium	17.0	0.2	Hydroxide		
Strontium			Sulfide	50.0	
Manganese			Carbon dioxide	414.0	
			Oxygen		

pH 9.00

Specific Gravity 1.03919

Total Dissolved Solids : 54764.02 mg/l

Resistivity, ohm-meters 0.00000 at

°F Calc 0.13310

SCALING INDICES

Temp, °F	Calcium Carbonate CaCO ₃	Calcium Sulfate CaSO ₄	Barium Sulfate BaSO ₄
50	2.04	-24.64	2.52
75	2.22	-23.82	2.40
100	2.51	-22.81	2.28
125	2.88	-21.61	2.15
150	3.31	-20.19	2.03
175	3.76	-18.57	1.91
200	4.20	-16.71	1.78

A positive scaling index indicates scaling potential.

Remarks:

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WATER ANALYSIS REPORT

Sample No.: 6221

Submitted : 04/19/17

Company : Berenergy

Supplier : Chemical Services

Location :

Sampler : Andy Kirkpatrick

Field :

Sample Pt : Bleeder

Lease/Unit: Roetzel AA-26

Sampled :

BWPD :

BOPD :

MMCF/day:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	12870.5	559.7	Chloride	23000.0	648.3
Calcium	1720.0	85.8	Bicarbonate	439.0	7.2
Magnesium	510.0	41.9	Sulfate	1550.0	32.3
Iron	3.3	0.1	Carbonate		
Barium	26.0	0.4	Hydroxide		
Strontium			Sulfide	25.0	
Manganese			Carbon dioxide	255.0	
			Oxygen		

pH 9.00

Specific Gravity 1.02942

Total Dissolved Solids : 40118.76 mg/l

Resistivity, ohm-meters 0.00000 at

`F Calc 0.17730

SCALING INDICES

Temp, `F	Calcium Carbonate CaCO3	Calcium Sulfate CaSO4	Barium Sulfate BaSO4
50	2.01	-21.11	2.83
75	2.19	-20.01	2.71
100	2.48	-18.74	2.59
125	2.85	-17.28	2.48
150	3.27	-15.64	2.36
175	3.71	-13.78	2.24
200	4.15	-11.71	2.12

A positive scaling index indicates scaling potential.

Remarks:

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WATER ANALYSIS REPORT

Sample No.: 6219

Submitted : 04/19/17

Company : Berenergy

Supplier : Chemical Services

Location :

Sampler : Andy Kirkpatrick

Field :

Sample Pt : Bleeder

Lease/Unit: Roetzel A-5

Sampled :

BWPD :

BOPD :

MMCF/day:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	11802.8	513.2	Chloride	22000.0	620.2
Calcium	1920.0	95.8	Bicarbonate	483.0	7.9
Magnesium	583.0	47.9	Sulfate	1400.0	29.1
Iron	2.5	0.1	Carbonate		
Barium	16.0	0.2	Hydroxide		
Strontium			Sulfide	85.0	
Manganese			Carbon dioxide	326.0	
			Oxygen		

pH 9.00

Specific Gravity 1.02815

Total Dissolved Solids : 38207.29 mg/l

Resistivity, ohm-meters 0.00000 at °F Calc 0.18491

SCALING INDICES

Temp, °F	Calcium Carbonate CaCO3	Calcium Sulfate CaSO4	Barium Sulfate BaSO4
50	2.12	-19.03	2.59
75	2.29	-17.94	2.47
100	2.58	-16.68	2.36
125	2.95	-15.25	2.24
150	3.37	-13.63	2.12
175	3.82	-11.83	2.00
200	4.25	-9.81	1.88

A positive scaling index indicates scaling potential.

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WATER ANALYSIS REPORT

Sample No.: 6222

Submitted : 04/19/17

Company : Berenergy

Location :

Field :

Lease/Unit: Roetzel A-27

Supplier : Chemical Services

Sampler : Andy Kirkpatrick

Sample Pt : Bleeder

Sampled :

BWPD :

BOPD :

MMCF/day:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	42803.6	1861.3	Chloride	93000.0	2621.6
Calcium	10120.0	505.0	Bicarbonate	98.0	1.6
Magnesium	3159.0	259.8	Sulfate	150.0	3.1
Iron	7.8	0.3	Carbonate		
Barium	17.0	0.2	Hydroxide		
Strontium			Sulfide		
Manganese			Carbon dioxide	317.0	
			Oxygen		

pH 5.00

Specific Gravity 1.10229

Total Dissolved Solids :149355.37 mg/l

Resistivity, ohm-meters 0.00000 at °F Calc 0.05254

SCALING INDICES

Temp, °F	Calcium Carbonate CaCO ₃	Calcium Sulfate CaSO ₄	Barium Sulfate BaSO ₄
50	-1.70	-20.98	1.13
75	-1.50	-21.38	0.99
100	-1.17	-21.61	0.86
125	-0.74	-21.67	0.72
150	-0.23	-21.55	0.59
175	0.31	-21.25	0.46
200	0.86	-20.78	0.32

A positive scaling index indicates scaling potential.

Remarks:

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WATER ANALYSIS REPORT

Sample No.: 5123

Submitted : 03/07/17

Company : Berenergy

Supplier : Chemical Services

Location :

Sampler : Andy Kirkpatrick

Field :

Sample Pt : Bleeder

Lease/Unit: Roetzel B-25

Sampled :

BWPD :

BOPD :

MMCF/day:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	13936.3	606.0	Chloride	27000.0	761.1
Calcium	2440.0	121.8	Bicarbonate	620.0	10.2
Magnesium	729.0	60.0	Sulfate	800.0	16.7
Iron	5.5	0.2	Carbonate		
Barium	14.0	0.2	Hydroxide		
Strontium			Sulfide	115.0	
Manganese			Carbon dioxide	326.0	
			Oxygen		

pH 9.00

Specific Gravity 1.03304

Total Dissolved Solids : 45544.79 mg/l

Resistivity, ohm-meters 0.00000 at

°F Calc 0.15647

SCALING INDICES

Temp, °F	Calcium Carbonate CaCO3	Calcium Sulfate CaSO4	Barium Sulfate BaSO4
50	2.27	-26.44	2.22
75	2.44	-25.58	2.10
100	2.73	-24.55	1.98
125	3.11	-23.36	1.86
150	3.53	-22.00	1.74
175	3.97	-20.46	1.62
200	4.41	-18.74	1.50

A positive scaling index indicates scaling potential.

Remarks: