

ILLINOIS STATE GEOLOGICAL SURVEY

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WATERFLOOD PROJECT

ELECTRIC LOG TOPS from Company

	<u>Top</u>	<u>Bottom</u>
Glen Dean	2399	2408
Beech Creek	2545	2566
Cypress	2595	2742
Aux Vases	2870	2859
Ste Genevieve	2915	
St Louis	3040	3343
Salem	3343	
Total Depth:		3700

Date Drilling Began: 4/20/2014

Casing 8 5/8" - 415' , cemented with 300 sacks
 5 1/2" - 3694' , cemented with 505 sacks

Permit Date: 3/14/2014 **Permit #:** 63443 **Reference #:** 215627

COMPANY	Citation Oil & Gas Corp.	
FARM	Pflaum, E.	NO. A-9
DATE DRILLED	June 23, 2014	COUNTY NO. 26406
AUTHORITY	Company	
ELEVATION	484' GL - Permit	
LOCATION	344'N line, 364'W line of NW NE	
COUNTY	Richland	API# 1215926406 00 5-3N-9E

ILLINOIS STATE GEOLOGICAL SURVEY

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Perforated:	3016' - 3020',	8 shots
	3094' - 3097',	6 shots
	3128' - 3132',	8 shots
	3188' - 3192',	8 shots
	3194' - 3196',	4 shots
	3229' - 3234',	10 shots
	3240' - 3243',	6 shots
	3254' - 3262',	16 shots
	3304' - 3307',	6 shots
	3310' - 3313',	6 shots
	3322' - 3325',	6 shots
	3346' - 3352',	12 shots
	3355' - 3358',	6 shots
	3398' - 3404',	12 shots
	3432' - 3435',	6 shots
	3446' - 3450',	8 shots
	3458' - 3462',	8 shots
	3484' - 3490',	12 shots
	3500' - 3504',	8 shots
Acidized:	3016' - 3020',	300 gallons 15% NEFE acid
	3094' - 3262',	1450 gallons 15% HCl acid
	3304' - 3404',	1200 gallons 15% HCl acid
	3432' - 3504',	1050 gallons 15% HCl acid
Fractured:	3094' - 3262',	94,080 gallons (2240 bbls.) slickwater and 58,001 lbs. 40/70 sand
	3304' - 3404',	81,396 gallons (1938 bbls.) slickwater and 48,000 lbs. 40/70 sand
	3432' - 3504',	71,904 gallons (1712 bbls.) slickwater and 42,000 lbs. 40/70 sand
Perforated:	3014' - 3020',	12 shots, squeezed off
	3023' - 3026',	6 shots, squeezed off

I.P. 50 bbls. of oil, 392 bbls. of water per day, and 50 MCF of gas per day, pumping from the McClosky (3016'-3020'), St Louis (3094'-3504')

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Array Induction Gamma Ray Log filed.

Photo Density Compensated Neutron Microlog GR filed.

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Density Log

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Induction Electric Log

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Scanned Documents

Permit Date: 3/14/2014 **Permit #:** 63443 **Reference #:** 215627

COMPANY Citation Oil & Gas Corp.

FARM Pflaum, E.

NO. A-9

DATE DRILLED June 23, 2014

COUNTY NO. 26406

AUTHORITY Company

ELEVATION 484' GL - Permit

LOCATION 344'N line, 364'W line of NW NE

COUNTY Richland

API# 1215926406 00

5-3N-9E

ILLINOIS STATE GEOLOGICAL SURVEY

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WATER INJECTION CONVERSION

Total Depth: 3700

Plugged Back Total Depth: 3617

Casing 8 5/8" - 427' , cemented with 300 sacks
 5 1/2" - 3694' , cemented with 505 sacks
 Tubing 2 7/8" - 2968' , set with AD-1 packer

Perforated: 3016' - 3020' , shots not reported

3094' - 3097' , shots not reported

3128' - 3132' , shots not reported

3188' - 3192' , shots not reported

3194' - 3196' , shots not reported

3229' - 3234' , shots not reported

3240' - 3243' , shots not reported

3254' - 3262' , shots not reported

3304' - 3307' , shots not reported

3310' - 3313' , shots not reported

3322' - 3325' , shots not reported

3346' - 3352' , shots not reported

3355' - 3358' , shots not reported

3398' - 3404' , shots not reported

3432' - 3435' , shots not reported

3446' - 3450' , shots not reported

3458' - 3462' , shots not reported

3484' - 3490' , shots not reported

3500' - 3504' , shots not reported

Acidized: 3016' - 3020' , 300 gallons 15% NEFE acid

3094' - 3262' , 3,000 gallons 15% NEFE acid

3304' - 3404' , 3,000 gallons 15% NEFE acid

3432' - 3504' , 2,500 gallons 15% NEFE acid

Completed as a water input well, injecting 250 bbls. of water per day at 150 psi into the McClosky (3016'-3020'), Salem (3346'-3504'), St Louis (3094'-3325').

Permit Date: 10/21/2015 **Permit #:** 204450 **Reference #:** 215627

COMPANY Citation Oil & Gas Corp.

FARM Pflaum, E.

NO. A-9

DATE DRILLED January 5, 2016

COUNTY NO. 26406

AUTHORITY Company

ELEVATION 484' GL - Permit

LOCATION 344'N line, 364'W line of NW NE

COUNTY Richland

API# 1215926406 01

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Permit Date:	10/21/2015	Permit #:	204450	Reference #:	215627
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COMPANY	Citation Oil & Gas Corp.
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FARM	Pflaum, E.
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NO.	A-9
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DATE DRILLED	January 5, 2016
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COUNTY NO.	26406
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AUTHORITY	Company
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ELEVATION	484' GL - Permit
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LOCATION	344'N line, 364'W line of NW NE
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COUNTY	Richland
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API#	1215926406 01
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5-3N-9E

Permit Date:	4/11/2018	Permit #:	65549	Reference #:	215627
COMPANY	Citation Oil & Gas Corp.			NO.	A-9
FARM	Pflaum, Elizabeth			COUNTY NO.	26406
DATE DRILLED				COUNTY NO.	26406
AUTHORITY					
ELEVATION	484' GL - Permit				
LOCATION	344'N line, 364'W line of NW NE				
COUNTY	Richland	API#	1215926406 02	5-3N-9E	