

RECEIVED: 7/21/2017	REVIEWER: M Am	TYPE: DHC	APP NO: PMAM170239809
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Geological & Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

<b>Applicant:</b> Cimarex Energy Co. Of Colorado	<b>OGRID Number:</b> 162683
<b>Well Name:</b> Adrienne 6 Federal #1	<b>API:</b> 30-015-34319
<b>Pool:</b> Walnut Canyon; Upper Penn (G), Purple Sage, Wolfcamp (Gas)	<b>Pool Code:</b> 97566, 98220

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW**

DHC - 4797

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
- A. Location - Spacing Unit - Simultaneous Dedication  
 NSL       NSP (PROJECT AREA)       NSP (PRORATION UNIT)       SD
- B. Check one only for [I] or [II]
- [I] Commingling - Storage - Measurement  
 DHC    CTB    PLC    PC    OLS    OLM
- [II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX    PMX    SWD    IPI    EOR    PPR

- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.
- A.  Offset operators or lease holders  
 B.  Royalty, overriding royalty owners, revenue owners  
 C.  Application requires published notice  
 D.  Notification and/or concurrent approval by SLO  
 E.  Notification and/or concurrent approval by BLM  
 F.  Surface owner  
 G.  For all of the above, proof of notification or publication is attached, and/or,  
 H.  No notice required

FOR OCD ONLY	
<input type="checkbox"/>	Notice Complete
<input type="checkbox"/>	Application Content Complete

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Amithy Crawford  
 \_\_\_\_\_  
 Print or Type Name

\_\_\_\_\_  
 Signature

7/5/2017  
 \_\_\_\_\_  
 Date

432-620-1909  
 \_\_\_\_\_  
 Phone Number

acrawford@cimarex.com  
 \_\_\_\_\_  
 e-mail Address

Cimarex Energy Co.  
202 S. Cheyenne Ave.  
Suite 1000  
Tulsa, Oklahoma 74103-4346  
PHONE: 918.585.1100  
FAX: 918.585.1133



Michael McMillian  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
1220 South Saint Francis Drive  
Santa Fe, New Mexico 87505

Re: Adrienne 6 Federal 1  
API 30-015-34319  
Section 6, Township 25 South, Range 26 East, N.M.P.M.  
Eddy County, New Mexico.

Dear Mr. McMillian:

The Adrienne 6 Federal 1 well is located in the NW/4 of Sec. 6, 25S, 26E, Eddy County NM.

Cimarex is the operator of the NW/4 of Sec. 6, 25S, 26E, Eddy County, NM as to all depths from the surface of the earth to the base of the Morrow formation. Ownership in the W/2 is common as to all depths from the surface of the earth to the base of the Morrow formation.

Sincerely,

A handwritten signature in cursive script that reads "Caitlin Pierce".

Caitlin Pierce

Production Landman

[cpierce@cimarex.com](mailto:cpierce@cimarex.com)

Direct: 432-571-7862

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# Schlumberger

## PS Platform



### Interpretation Results - Final Report

**Client:** Cimarex Energy Company

**Well:** Adrienne 6 Federal #1

**Field:** Chosa Draw

**County:** Eddy, New Mexico

**API:** 30-015-34319

**Log Date:** 7-Apr-2017

**Analyst:** Leonid Kolomytsev

Daniel Amyotte

Casey Chadwick

Production logging  
with confidence

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees.

These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

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Cimarex Energy Company  
Adrienne 6 Federal #1  
7-Apr-2017



Logging Objective:  
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Flow contribution from each perforation.

Well Bore Information:  
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Production Tubing: 2-3/8" 4.7# L-80 @ 8399.5' MD

Production Casing: 5-1/2" 17# P-110 @ 12235' MD

Perforations: 6 Stages / 48 Perforations Clusters

Correlation: by Field Engineer to Haliburton Radial Cement Bond Log dated 02-Mar-2006.

Logging Tool: Standard PSP-DEFT w/ 2.25" FBS on Digital Slickline (DSL)

General Logging Procedure:  
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RU & RIH w/ Gauge Ring. Report Tag Depth. ROH.

RU & RIH w/ PSP. Record Main Flowing Passes at variable logging speeds (based on well conditions) from Top Log Interval (TLI) to Bottom Log Interval (BLI).

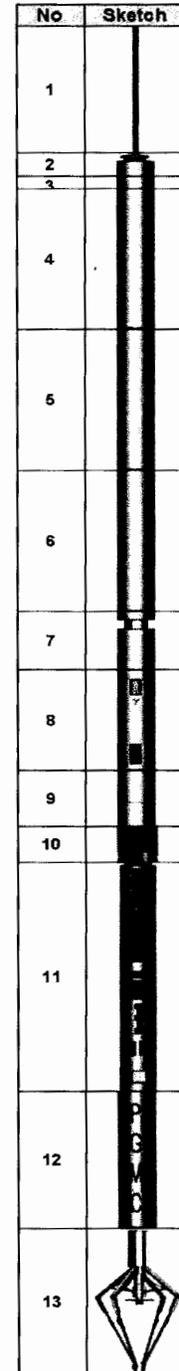
Record Main Station Stops (at least 2 minutes each) between perforations, stages, major changes in flow regime, or as directed by client or production log analyst.

Record any addition Flowing Passes and/or Station Stops as needed or requested.

ROH. Delivery data to interpreter.

PL Tool Diagram:

Tool String							
No	Tool	Tool S/N	Length (ft)	Weight (lbm)	Diam. (In)	Sensors (ft) Cumulative Offsets	Offset (ft)
1	DSL125				0.15		
2	DIH	001	0.82	4.85	1.69		
3	XOverGoGoBox 1.6875	004	0.44	1.50	1.69		
4	ESB 1.6875 5ft	001	4.95	70.55	1.69		
5	ESB 1.6875 5ft	002	4.95	70.55	1.69		
6	ESB 1.6875 5ft	003	4.95	70.55	1.69		
7	BMC	001	2.07	10.80	1.69	DSL.DHTE (-26.25) DSL.BMCTemp (-25.93) DSL.SHCK (-25.76) DSL.FORCE (-25.76) DSL.DRFT (-25.76)	0.00 -1.15 0.00 0.00 -0.98
8	DCC	004	3.54	18.08	1.69	DSL.GR (-24.09) DSL.CCLN (-22.05)	-2.85 -0.82
9	DCR		1.98	13.23	1.69		
10	DPI		1.25	6.83	1.69		
11	PBMS-A		8.17	33.95	1.69	PBMS.WELL_T (-11.34) PBMS.SAPPHIRE_P (-11.24)	-1.50 -1.40
12	PGMC-B		4.76	23.37	1.69	PGMC.ACCELERO_IN C (-8.29) PGMC.WFDE_COMP (-8.29)	-3.20 -3.20
13	PFCS-A		5.09	19.71	1.69	PFCS.RELATIVE_BEARING (-3.48) PFCS.CALIPER_Y (-1.90) PFCS.SPINNER_FREQ (-1.90) PFCS.CALIPER_X (-1.90) PFCS.PROBE_AVG_C LK_CPS (-1.50) PFCS.PROBE_AVG_BUBBLE_CPS (-1.50)	-3.48 -1.90 -1.90 -1.90 -1.50 -1.50



13 tools	<b>Total</b>	<b>42.97</b>	<b>343.97</b>	<b>Zero @ Bottom</b>
	<b>DSL</b>	<b>42.97</b>	<b>343.97</b>	
	<b>Pyro</b>			
	<b>Mech / Others</b>			
	<b>Mobile Weight</b>			

Surface Equipment	
<b>Unit</b>	ASEP
<b>Computer</b>	Laptop
<b>DTR</b>	DTR-A
<b>PCE</b>	PCE-Generic

Cimarex Energy Company  
 Adrienne 6 Federal #1  
 7-Apr-2017



Interpretation Results: Surface Flowrate Results - Stage

Formation	Stage	Perforations	Gas (mcfpd)	Oil (bpd)	Water (bpd)	Gas (%)	Oil (%)	Water (%)	
Wolfcamp	6	8446	8641	30	--	100	3.4%	--	17.9%
	5	9038	9244	180	--	65	20.3%	--	11.6%
	4	9294	9510	45	--	100	5.1%	--	17.9%
	3	9694	9896	325	--	100	36.7%	--	17.9%
Cisco Canyon	2	9952	10146	50	--	145	5.6%	--	25.9%
	1	10196	10304	255	--	50	28.8%	--	8.9%
<b>Total</b>				885	--	560	100.0%	--	100.0%

6690

3400

Interpretation Results: Surface Flowrate Results - Detail

Formation	Stage	Perforations		Gas (mcfpd)	Oil (bpd)	Water (bpd)	Gas (%)	Oil (%)	Water (%)
Wolfcamp	6	8446	8447	trace	--	0	trace	--	0.0%
		8497	8498	trace	--	0	trace	--	0.0%
		8523	8524	trace	--	0	trace	--	0.0%
		8542	8543	10	--	0	1.1%	--	0.0%
		8576	8577	10	--	20	1.1%	--	3.6%
		8599	8600	10	--	30	1.1%	--	5.4%
		8617	8618	0	--	20	0.0%	--	3.6%
		8640	8641	0	--	30	0.0%	--	5.4%
Wolfcamp	5	9038	9039	155	--	0	17.5%	--	0.0%
		9049	9050	0	--	0	0.0%	--	0.0%
		9069	9070	15	--	15	1.7%	--	2.7%
		9091	9092	trace	--	20	trace	--	3.6%
		9142	9143	0	--	10	0.0%	--	1.8%
		9159	9160	10	--	10	1.1%	--	1.8%
		9183	9184	trace	--	0	trace	--	0.0%
		9215	9216	trace	--	0	trace	--	0.0%
		9243	9244	trace	--	10	trace	--	1.8%
Wolfcamp	4	9294	9295	10	--	0	1.1%	--	0.0%
		9313	9314	0	--	10	0.0%	--	1.8%
		9335	9336	10	--	10	1.1%	--	1.8%
		9364	9365	0	--	0	0.0%	--	0.0%
		9387	9388	0	--	10	0.0%	--	1.8%
		9409	9410	10	--	10	1.1%	--	1.8%
		9425	9426	0	--	10	0.0%	--	1.8%
		9467	9468	15	--	20	1.7%	--	3.6%
		9508	9510	0	--	30	0.0%	--	5.4%
Wolfcamp	3	9694	9695	210	--	0	23.7%	--	0.0%
		9713	9714	45	--	30	5.1%	--	5.4%
		9739	9740	25	--	10	2.8%	--	1.8%
		9763	9764	10	--	20	1.1%	--	3.6%
		9821	9822	25	--	0	2.8%	--	0.0%
		9844	9845	10	--	20	1.1%	--	3.6%
		9868	9869	trace	--	10	trace	--	1.8%
		9895	9896	0	--	10	0.0%	--	1.8%

continued on next page

Interpretation Results: Surface Flowrate Results - Detail (Continued)

Formation	Stage	Perforations		Gas (mcfpd)	Oil (bpd)	Water (bpd)	Gas (%)	Oil (%)	Water (%)
Cisco Canyon	2	9952	9953	trace	--	10	trace	--	1.8%
		9981	9982	10	--	0	1.1%	--	0.0%
		10010	10011	15	--	20	1.7%	--	3.6%
		10037	10038	10	--	10	1.1%	--	1.8%
		10061	10062	0	--	20	0.0%	--	3.6%
		10091	10092	15	--	40	1.7%	--	7.1%
		10114	10115	trace	--	30	trace	--	5.4%
		10145	10146	0	--	15	0.0%	--	2.7%
Cisco Canyon	1	10196	10197	240	--	0	27.1%	--	0.0%
		10223	10224	0	--	0	0.0%	--	0.0%
		10236	10237	0	--	10	0.0%	--	1.8%
		10263	10264	15	--	20	1.7%	--	3.6%
		10291	10293	0	--	10	0.0%	--	1.8%
		10302	10304	0	--	10	0.0%	--	1.8%
<b>Total</b>				885	--	560	100.0%	--	100.0%

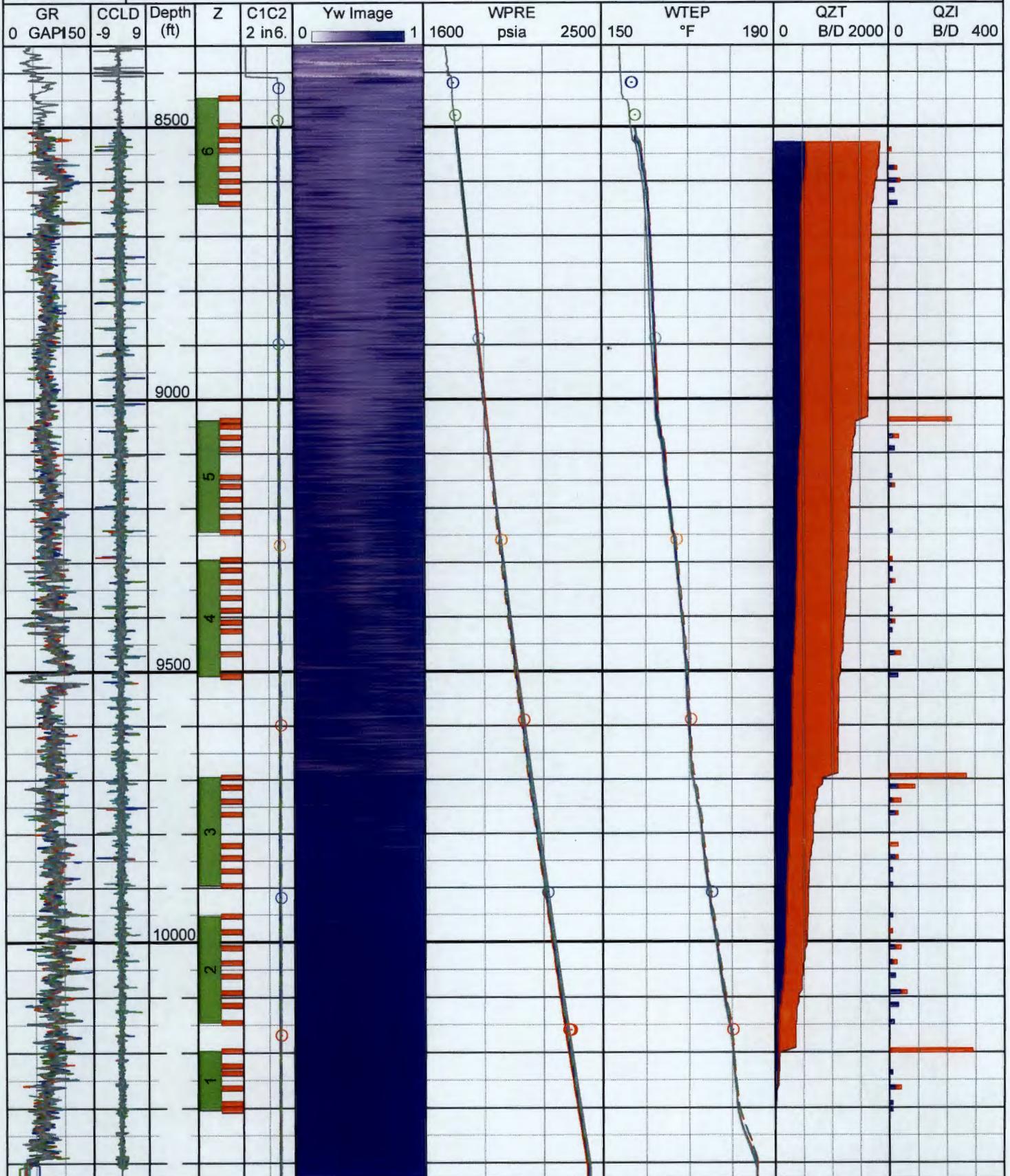


PSP Production Log - Interpretation Results

Cimarex\_Adrienne\_6\_Fed\_1\_PSP\_D...

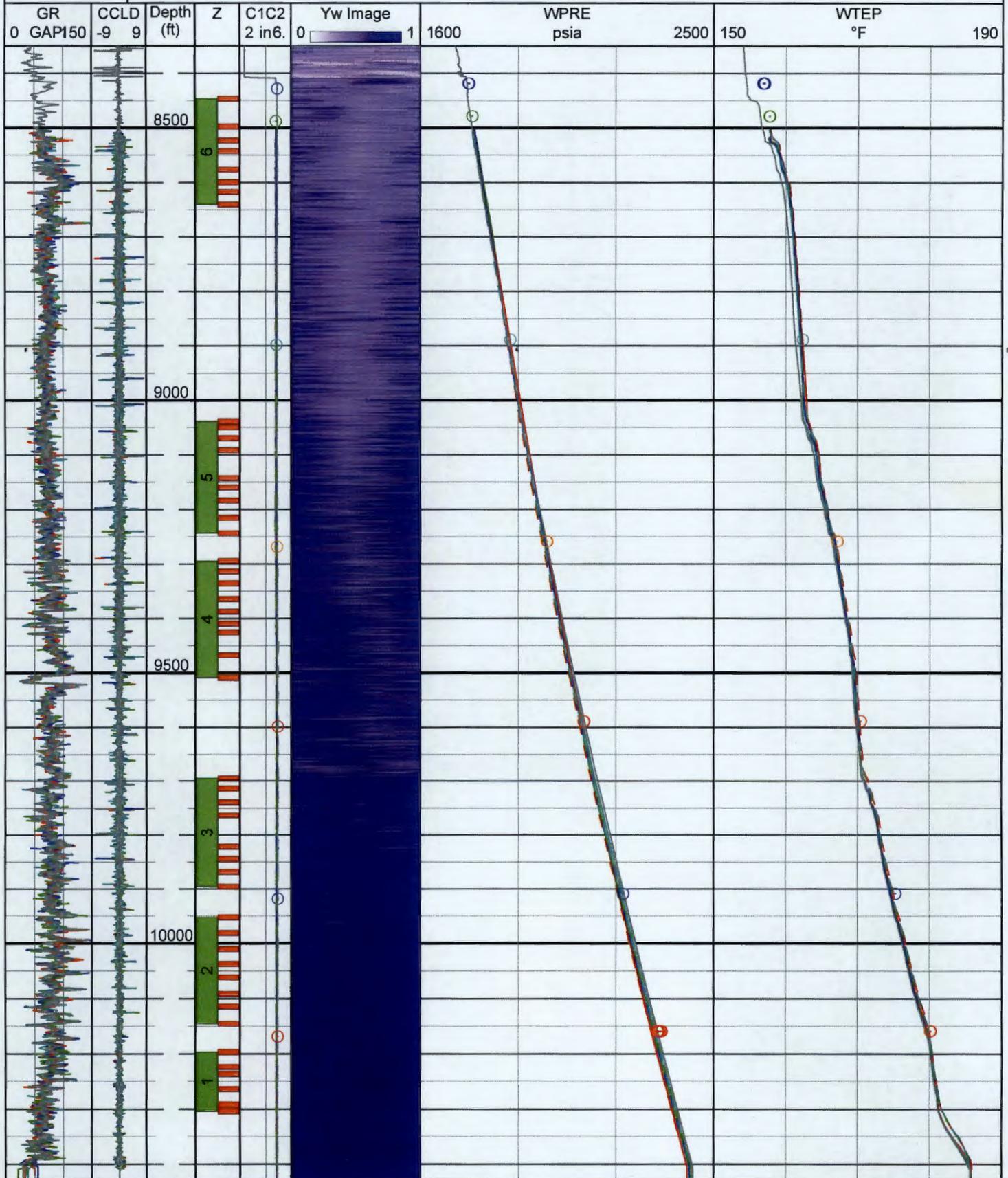
Company: Cimarex Energy Company  
Field: Chosa Draw  
Well: Adrienne 6 Federal 1

Test: PSP Production Log  
Date: 07-Apr-2017  
Survey: Flowing



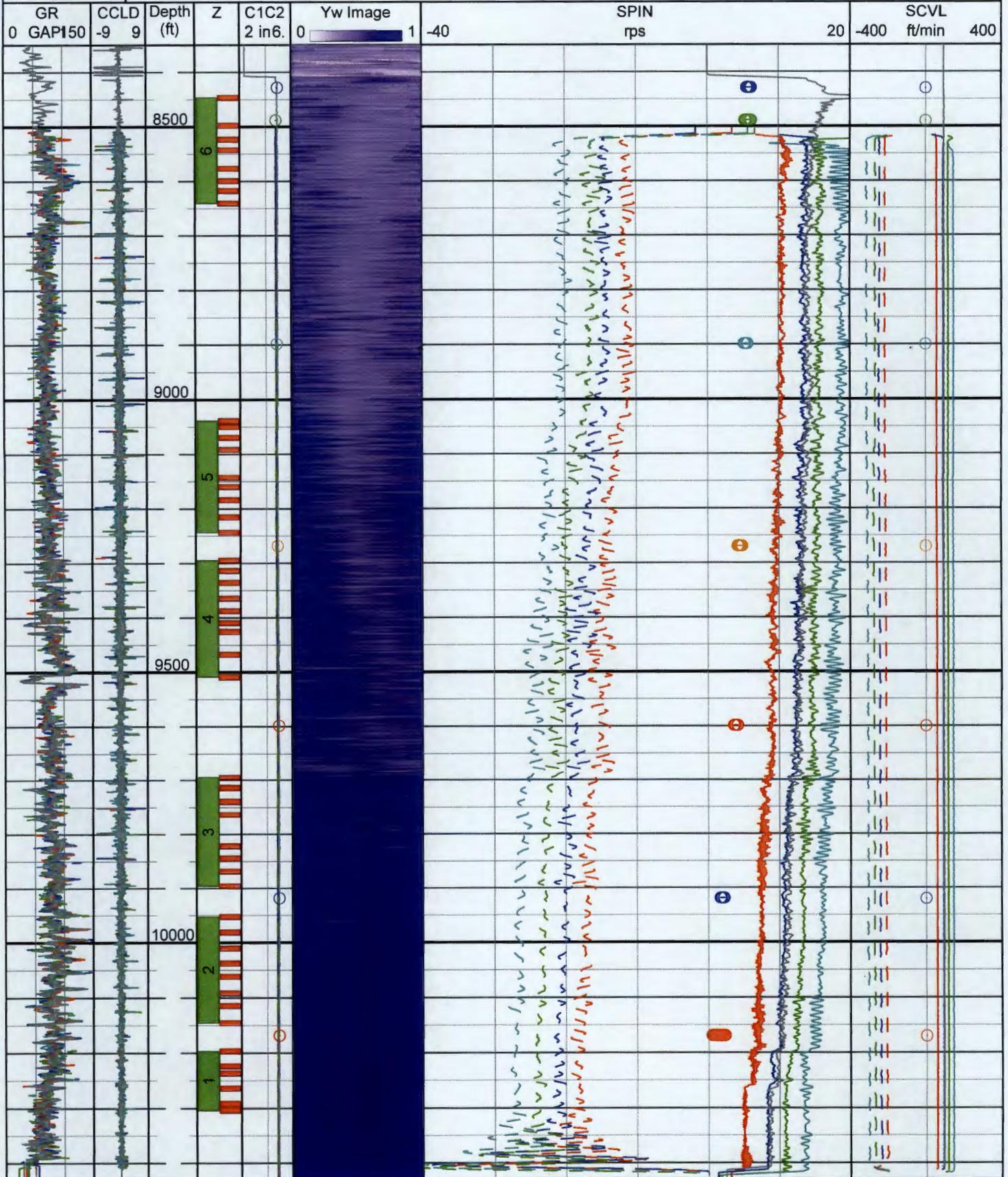
Company: Cimarex Energy Company  
 Field: Chosa Draw  
 Well: Adrienne 6 Federal 1

Test: PSP Production Log  
 Date: 07-Apr-2017  
 Survey: Flowing



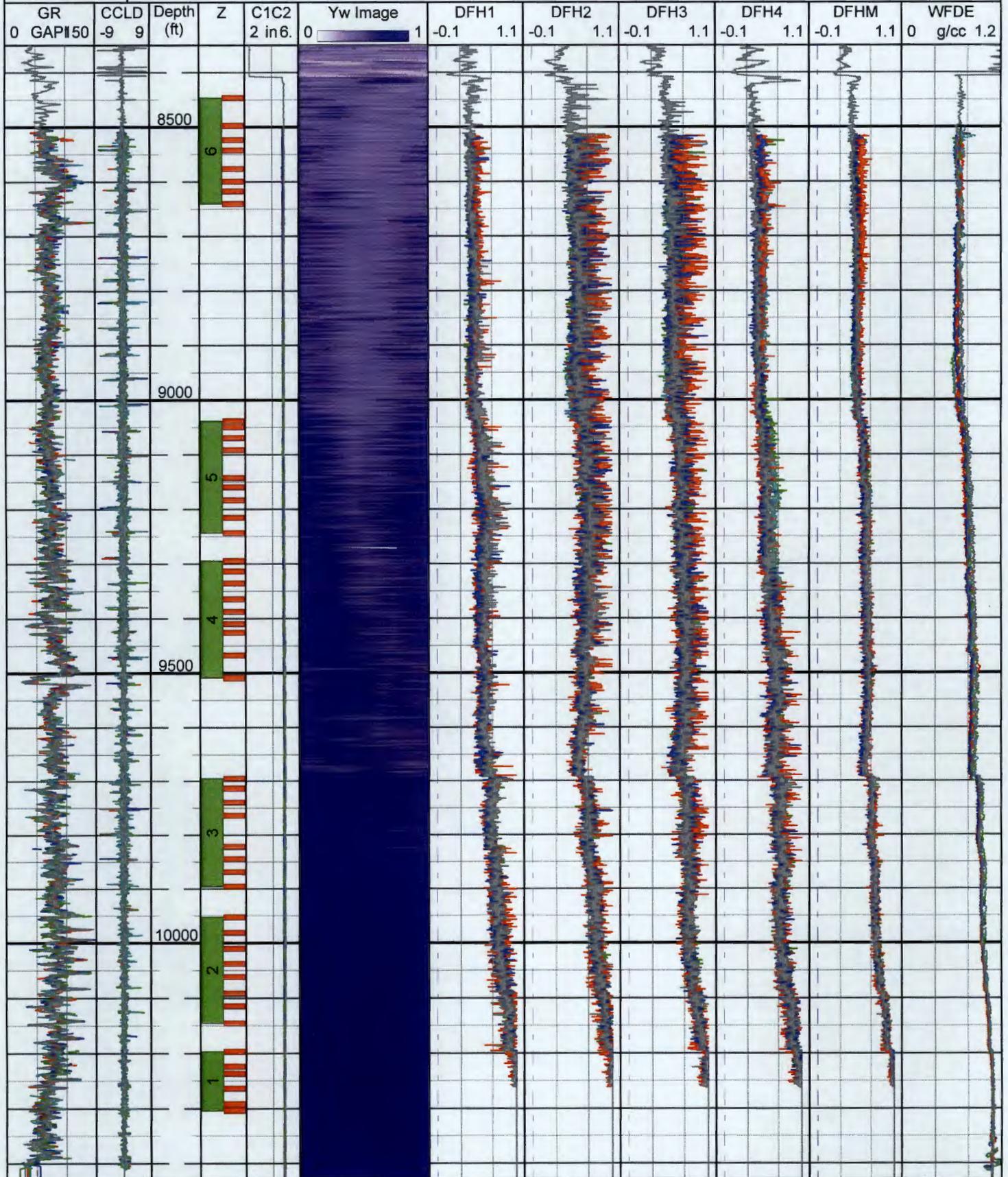
Company: Cimarex Energy Company  
 Field: Chosa Draw  
 Well: Adrienne 6 Federal 1

Test: PSP Production Log  
 Date: 07-Apr-2017  
 Survey: Flowing



Company: Cimarex Energy Company  
 Field: Chosa Draw  
 Well: Adrienne 6 Federal 1

Test: PSP Production Log  
 Date: 07-Apr-2017  
 Survey: Flowing



## Interpretation Remarks

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This interpretation is based on PSP Production Log data recorded on 07-Apr-2017 in memory on slickline. The Field Engineer (FE) is Blake Melcher. Four down and up main logging passes were recorded over the main logging interval under flowing conditions. Color coding is as follows: D1/U1-Red, D2/U2-Dk Blue, D3/U3-Green, D4/U4-Lt Blue, D5-Grey (correlation pass). Down pass curves have solid coding. Up pass have dashed coding. Station stops are presented as circles at their respective depths.

Main logging passes are correlated by Field Engineer to Haliburton Radial Cement Bond Log dated 02-Mar-2006. Top Log Interval (TLI) is observed @ 8300' MD. Bottom Log Interval (BLI) is observed @ 10434' MD.

EOT is observed on the averaged X-Y caliper measurement (C1C2) @ 8408" MD. The average X-Y caliper measurement (C1C2) is consistent and agrees with nominal ID. A nominal ID of 4.892" is used in the interpretation calculations.

Downhole pressure (WPRE) is stable during the main passes. Down and Up passes are used in the interpretation calculations.

Downhole temperature (WTEP) trends are repeatable. Down pass temperatures are used preferentially in the interpretation calculations.

All DEFT (electrical) probes are functioning properly and the basis of the water holdup (Yw) image. DEFT (electrical) probe measurements are most consistent on down passes which are used preferentially in the interpretation calculations. DEFT (electrical) probes provide a confident measurement of water holdup, independent of PVT information, by counting the hydrocarbon bubbles during a dominate water flow regime or water droplets during a dominate gas or oil flow regime.

The gradiomanometer density measurement (WFDE) is confident and used in the interpretation calculations.

Spinner response is consistent and provides a confident slope and liquid threshold for downhole in-situ spinner calibrations. All spinner passes are used in the spinner calibrations and apparent velocity calculations.

Total downhole rates (QZT) are calculated using the apparent spinner velocity, a nominal casing ID, averaged water holdup (Yw), fluid density (WFDE) and an established water-hydrocarbons flow model. Rates are calculated downhole and presented in downhole barrels on the log snapshots. Calculated downhole rates are then converted to surface rates at standard conditions and presented in the above table.

PVT Information: Oil gravity of 52.2 API, Gas gravity of 0.6824 s.g. Water salinity 52257 ppm was provided by Cimarex .

- \* A report of "trace" gas production is based on temperature, water holdup and density but does not appear to be of sufficient volume to observed on the spinner. Therefore, "trace" gas suggests minimal or negligible gas production, if any, into the wellbore.

Some interference between the logging tool and End of Assy is observed near the top perforation interval. Unable to get contribution for the top perforation interval. Gray shading is used in the table above to indicate this region.

Overall, data quality is high and the downhole environment is stable resulting in a high level of confidence in gas/water interpretation calculations and results.

Leonid Kolomytsev, Production Engineer  
Schlumberger, Houston, TX, USA

Casey Chadwick, Production Logging Domain Champion,  
North America Wireline, Houston, TX, USA

# PSP & FSI Interpretation Mnemonics

CALI_FSI	Flow Scanner Caliper
CCLC/CCLD	Casing Collar Locator
CVEL/SCVL	Cable Velocity
D1RB	DEFT Relative Bearing Probe 1
DFBFx_FSI (0-5)	FSI Vertical DEFT Bubble Count Array (0-Bot, 5-Top)
DFBM	PSP Mean DEFT Bubble Count
DFBx (1-4)	PSP Individual Probe DEFT Bubble Count
DFHFx_FSI (0-5)	FSI Vertical DEFT Water Holdup Array (0-Bot, 5-Top)
DFHM	PSP Mean DEFT Water Holdup
DFHx (1-4)	PSP Individual Probe DEFT Water Holdup
GHBfx_FSI (0-5)	FSI Vertical GHOST Bubble Count Array (0-Bot, 5-Top)
GIBM2	PSP Mean GHOST Bubble Count
GHBx (5-8)	PSP Individual Probe GHOST Bubble Count
GHHFx_FSI (0-5)	FSI Vertical GHOST Gas Holdup Array (0-Bot,5-Top)
GHHM2	PSP Mean GHOST Gas Holdup
GHHx (5-8)	PSP Individual Probe GHOST Gas Holdup
GR	Gamma Ray
HTEN	Head Tension/Compression
MWFD	Pressure Derived Density
PFC1	PSP Caliper 1 (X)
PFC2	PSP Caliper 2 (Y)
RB_FSI	FSI Relative Bearing
SPIN/SPI1	Full Bore Spinner / Inline Spinner
SPIFx_FSI (0-4)	FSI Vertical Micro-Spinner Array (0-Bot, 4-Top)
WFDE	Gradio Well Fluid Density
WPRE	Well Pressure
WTEP	Well Temperature

Color Coding is typically the same for all the curves that belong to the same pass  
 RED – Pass One / Dk Blue – Pass Two / Green – Pass Three / Lt Blue – Pass Four

VAFV/VAPP	Apparent fluid velocity (gas, water & oil)
QGI, QOI, QWI	Interval Gas, Oil, Water Rates (down hole unless stated otherwise)
QGT, QOT, QWT	Cumulative Gas, Oil, Water Rates (down hole unless stated otherwise)

## Tool Mnemonics List

DEFT	Digital Fluid Entry Tool (Resistivity Probes)
GHOST	Gas Holdup Optical Sensor Tool (Optical Probes)
FSI	Flow Scanner Imager
PSP	Production Services Platform
PBMS	Production Basic Measurement Sonde (Temperature, Pressure, CCL, GR)
PCMS	Production Compression Measurement Sonde
PGMC	Production GradioManometer Carrier (Density)
PFCS	Production Flowmeter Caliper Sonde (Holdup, Caliper, Full Bore Spinner)
PILS	Production In-Line Spinner

State of New Mexico  
Energy, Minerals and Natural Resources Department

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Susana Martinez  
Governor

Tony Delfin  
Acting Cabinet Secretary

David R. Catanach, Division Director  
Oil Conservation Division



Administrative Order DHC-4797  
Order Date: September 30, 2016  
Application Reference Number: pMAM1627133682

Cimarex Energy Co. of Colorado  
600 North Marienfeld Street, Suite 600  
Midland, Tx. 79701

Attention: Ms. Amithy Crawford

Adrienne 6 Federal Well No. 1  
API No. 30-015-34319  
Lot 3, Section 6, Township 25 South, Range 26 East, NMPM  
Eddy County, New Mexico

Pool	WHITE CITY; PENN (GAS)	Gas (87280)
Names:	SAGE DRAW; WOLFCAMP, EAST (G)	Gas (96890)

Reference is made to your recent application for an exception to Division Rule 19.15.12.9A. NMAC of the Division Rules and Regulations to permit the above-described well to commingle production from the subject pools in the wellbore.

It appears that the subject well qualifies for approval for such exception pursuant to the provisions of Division Rule 19.15.12.11A. NMAC, and since reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion or otherwise required separation of the zones is hereby placed in abeyance.

In accordance with Division Rule 19.15.12.11A (6) NMAC, the production attributed to any commingled pool within the well shall not exceed the allowable applicable to that pool.

As per the application, the assignment of allowable and allocation of oil and gas production from the subject well for the White City; Penn (Gas) Pool and Sage Draw; Wolfcamp, East (G) shall be based on the remaining gas in place (RGIP) calculations, which in turn is based on offset analogy production and well log analysis for each pool.

Administrative Order DHC-4797  
Cimarex Energy Co. of Colorado  
September 30, 2016  
Page 2 of 2

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Assignment of allowable and allocation of production from the well shall be as follows:

SAGE DRAW; WOLFCAMP, EAST (G) POOL	Pct. Oil: 78	Pct. Gas: 78
WHITE CITY; PENN (GAS)	Pct. Oil: 22	Pct. Gas: 22

It is also understood that notice of this application, pursuant to Division Rule 19.15.4.12 A (6), is not required since the interest ownership between the zones to be commingled is common throughout.

REMARKS: The operator shall notify the Division's District II office upon implementation of commingling operations.

This Order is subject to like approval from the Bureau of Land Management.

Pursuant to Division Rule 19.15.12.11B. NMAC, the commingling authority granted herein may be rescinded by the Division Director if conservation is not being best served by such commingling.



**David R. Catanach**  
**Director**

DRC/mam

cc: New Mexico Oil Conservation Division – Artesia  
Bureau of Land Management - Carlsbad

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

JUL 10 2017

**RECEIVED**

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-6720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3463

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> APN Number <b>30-015-34319</b>		<sup>2</sup> Pool Code <b>97566</b>		<sup>3</sup> Pool Name <b>Walnut Canyon; Upper Penn (G)</b>	
<sup>4</sup> Property Code <b>35072</b>		<sup>5</sup> Property Name <b>Adrienne 6 Federal</b>			<sup>6</sup> Well Number <b>1</b>
<sup>7</sup> OGRID No. <b>162683</b>		<sup>8</sup> Operator Name <b>Cimarex Energy of Colorado</b>			<sup>9</sup> Elevation <b>3454'</b>

**Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	6	25S	26E		200	North	1700	West	Eddy

**Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	6	25S	26E		763	North	863	West	Eddy

<sup>10</sup> Decedent Acres <b>320</b>	<sup>11</sup> Joint or Infill <b>N</b>	<sup>12</sup> Consolidation Code	<sup>13</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<p><b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Amithy Crawford</i> 11/15/16 Signature Date</p> <p>Amithy Crawford Printed Name</p> <p>acrawford@cimarex.com E-mail Address</p> <p><b>SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date of Survey Signature and Seal of Professional Surveyor:</p> <p>Certificate Number</p>
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**NM OIL CONSERVATION**  
ARTESIA DISTRICT

JUN 22 2017

District I  
1623 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 746-9720  
District III  
1000 Rio Brazos Road, Artec, NM 87416  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

**RECEIVED**

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-015-34319	<sup>2</sup> Pool Code 98220	<sup>3</sup> Pool Name Purple Sage Wolfcamp (Gas)
<sup>4</sup> Property Code 35072	<sup>5</sup> Property Name Adrienne 6 Federal	
<sup>7</sup> OGRID No. 162683	<sup>8</sup> Operator Name Cimarex Energy of Colorado	<sup>6</sup> Well Number 1
<sup>9</sup> Elevation 3454'		

**Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	6	25S	26E		200	North	1700	West	Eddy

**Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	6	25S	26E		763	North	863	West	Eddy

<sup>12</sup> Dedicated Acres 320	<sup>13</sup> Joint or Infill N	<sup>11</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<p><b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this certification either owns a working interest or released mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to an agreement with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.</p> <p>Signature: <i>Terr Stathem</i> Date: 6/15/17 Printed Name: Terr Stathem E-mail Address: tstathem@cimarex.com</p>
	<p><b>SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date of Survey: Signature and Seal of Professional Surveyor:</p>
	<p>Certificate Number</p>

## McMillan, Michael, EMNRD

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**From:** Amithy Crawford <acrawford@cimarex.com>  
**Sent:** Friday, July 21, 2017 9:52 AM  
**To:** McMillan, Michael, EMNRD  
**Subject:** Amend DHC-4797 Adrienne 6 Federal #1  
**Attachments:** DHC4797 Approval Adrienne 6 Fed 1.pdf; Adrienne 6 Federal #1 Ownership letter.pdf; Cimarex Adrienne 6 Federal 1\_Interp\_Final\_Rpt\_SIS\_DS.pdf; Admin checklist to Amend Adrienne 6 Fed 1 DHC.pdf

Mr. McMillan,

Based on the fact that ownership is identical and there are no adversely affected parties, please amend the percentages to 66% Wolfcamp & 34% Cisco Canyon.

**Amithy Crawford**  
600 N. Marienfeld St. Suite 600  
Midland, TX 79701  
Direct Phone: 432-620-1909



**From:** Amithy Crawford  
**Sent:** Friday, July 21, 2017 8:27 AM  
**To:** 'McMillan, Michael, EMNRD' <[Michael.McMillan@state.nm.us](mailto:Michael.McMillan@state.nm.us)>  
**Subject:** Amend DHC-4797 Adrienne 6 Federal #1

Mr. McMillan,

Please amend DHC-4794 to reflect 65.6% Wolfcamp and 34.4% Cisco Canyon as shown from the attached production log. The initial application was for a 78% wolfcamp and 22% Cisco Canyon breakout. All interest is identical. Will you also amend the pool on the DHC to the Purple Sage, Wolfcamp (Gas)?

Attached:

- Original DHC approval for reference
- Letter from Land stating ownership
- Production Log
- Administrative Checklist form

Please let me know if you have any questions.

Thank you,

State of New Mexico  
Energy, Minerals and Natural Resources Department

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Susana Martinez  
Governor

Tony Delfin  
Acting Cabinet Secretary

David R. Catanach, Division Director  
Oil Conservation Division



Administrative Order DHC-4797  
Order Date: September 30, 2016  
Application Reference Number: pMAM1627133682

Cimarex Energy Co. of Colorado  
600 North Marienfeld Street, Suite 600  
Midland, Tx. 79701

Attention: Ms. Amithy Crawford

Adrienne 6 Federal Well No. 1  
API No. 30-015-34319  
Lot 3, Section 6, Township 25 South, Range 26 East, NMPM  
Eddy County, New Mexico

Pool	WHITE CITY; PENN (GAS)	Gas (87280)
Names:	SAGE DRAW; WOLFCAMP, EAST (G)	Gas (96890)

Reference is made to your recent application for an exception to Division Rule 19.15.12.9A. NMAC of the Division Rules and Regulations to permit the above-described well to commingle production from the subject pools in the wellbore.

It appears that the subject well qualifies for approval for such exception pursuant to the provisions of Division Rule 19.15.12.11A. NMAC, and since reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion or otherwise required separation of the zones is hereby placed in abeyance.

In accordance with Division Rule 19.15.12.11A (6) NMAC, the production attributed to any commingled pool within the well shall not exceed the allowable applicable to that pool.

As per the application, the assignment of allowable and allocation of oil and gas production from the subject well for the White City; Penn (Gas) Pool and Sage Draw; Wolfcamp, East (G) shall be based on the remaining gas in place (RGIP) calculations, which in turn is based on offset analogy production and well log analysis for each pool.

Administrative Order DHC-4797  
Cimarex Energy Co. of Colorado  
September 30, 2016  
Page 2 of 2

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Assignment of allowable and allocation of production from the well shall be as follows:

SAGE DRAW; WOLFCAMP, EAST (G) POOL	Pct. Oil: 78	Pct. Gas: 78
WHITE CITY; PENN (GAS)	Pct. Oil: 22	Pct. Gas: 22

It is also understood that notice of this application, pursuant to Division Rule 19.15.4.12 A (6), is not required since the interest ownership between the zones to be commingled is common throughout.

REMARKS: The operator shall notify the Division's District II office upon implementation of commingling operations.

This Order is subject to like approval from the Bureau of Land Management.

Pursuant to Division Rule 19.15.12.11B. NMAC, the commingling authority granted herein may be rescinded by the Division Director if conservation is not being best served by such commingling.



**David R. Catanach**  
**Director**

DRC/mam

cc: New Mexico Oil Conservation Division – Artesia  
Bureau of Land Management - Carlsbad