



Interpretation Results - Prelim 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

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FORM OIL CONSERVATION
ARTESIA DISTRICT

JUN 01 2017

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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%
	2	9952	10146	50	--	145	5.6%	--	25.9%
Cisco Canyon	1	10196	10304	255	--	50	28.8%	--	8.9%
Total				885	--	560	100.0%	--	100.0%

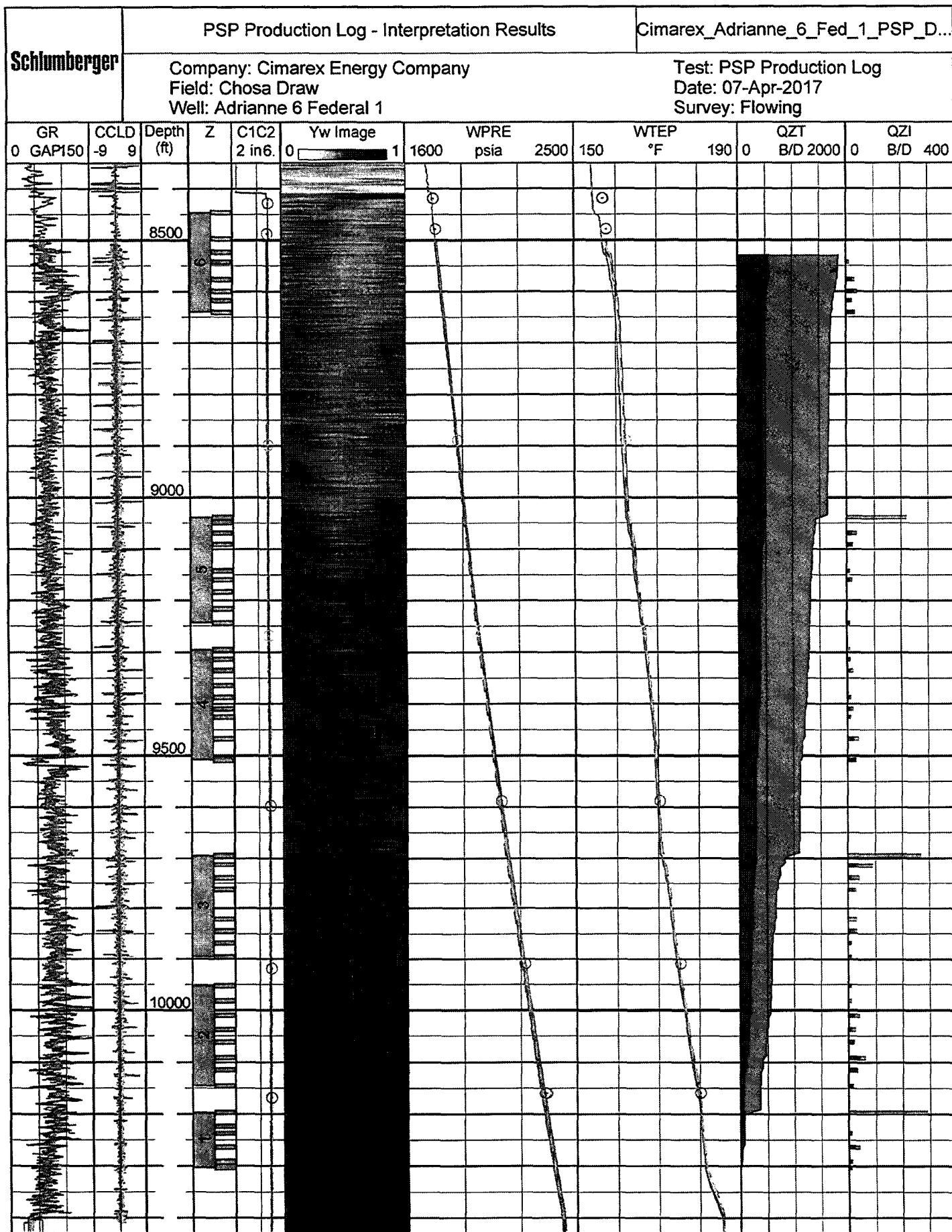
Interpretation Results: Surface Flowrate Results - Detail

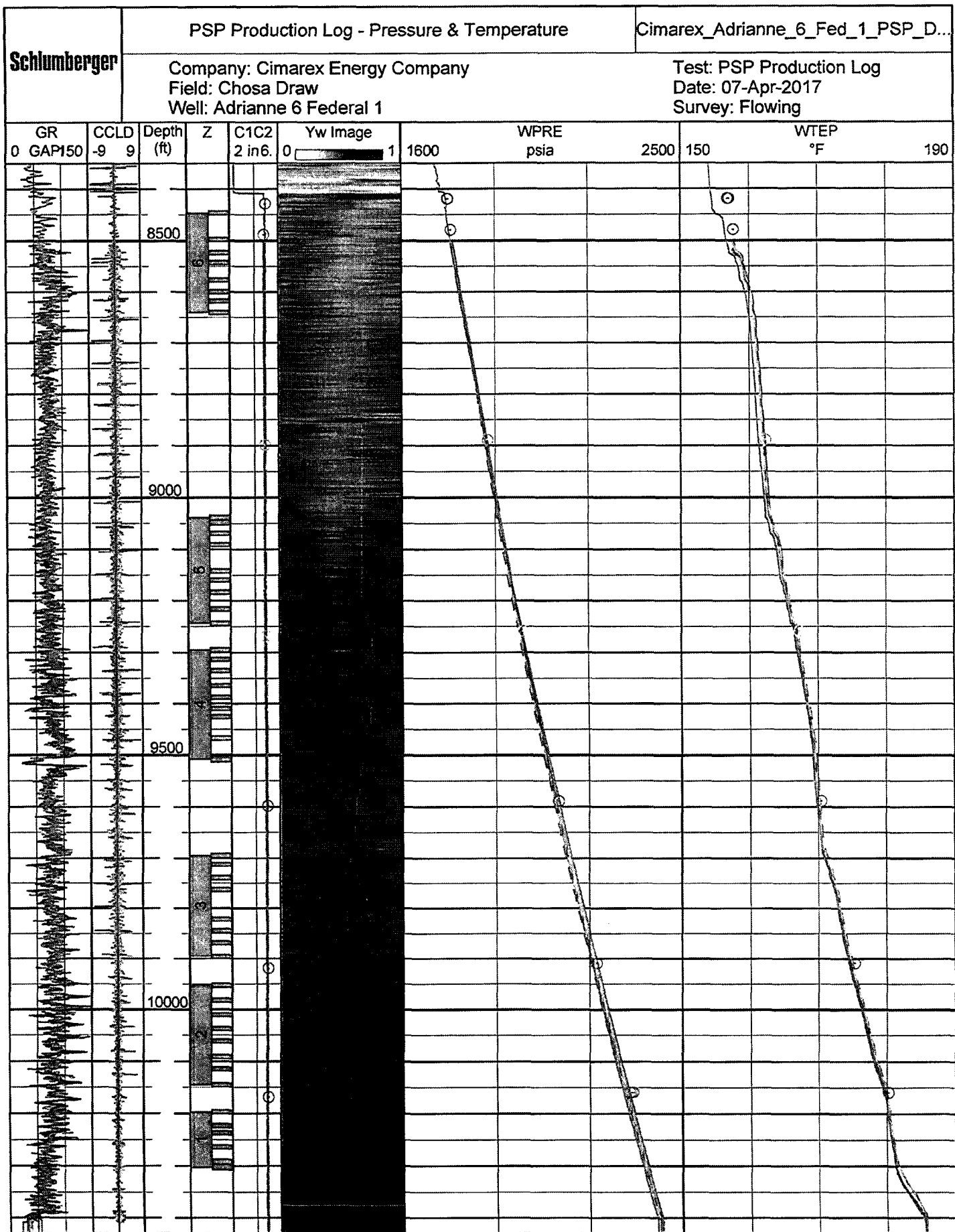
Formation	Stage	Perforations		Gas (mcfpd)	Oil (bpd)	Water (bpd)	Gas (%)	Oil (%)	Water (%)
Wolfcamp	6	8446	8447	trace	--	0	trace	--	0.0%
		8497	8498	trace	--	0	trace	--	0.0%
		8523	8524	trace	--	0	trace	--	0.0%
		8542	8543	10	--	0	1.1%	--	0.0%
		8576	8577	10	--	20	1.1%	--	3.6%
		8599	8600	10	--	30	1.1%	--	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%
Wolfcamp	4	9243	9244	trace	--	10	trace	--	1.8%
		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%
Wolfcamp	3	9467	9468	15	--	20	1.7%	--	3.6%
		9508	9510	0	--	30	0.0%	--	5.4%
		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%
Wolfcamp		9868	9869	trace	--	10	trace	--	1.8%
		9895	9896	0	--	10	0.0%	--	1.8%

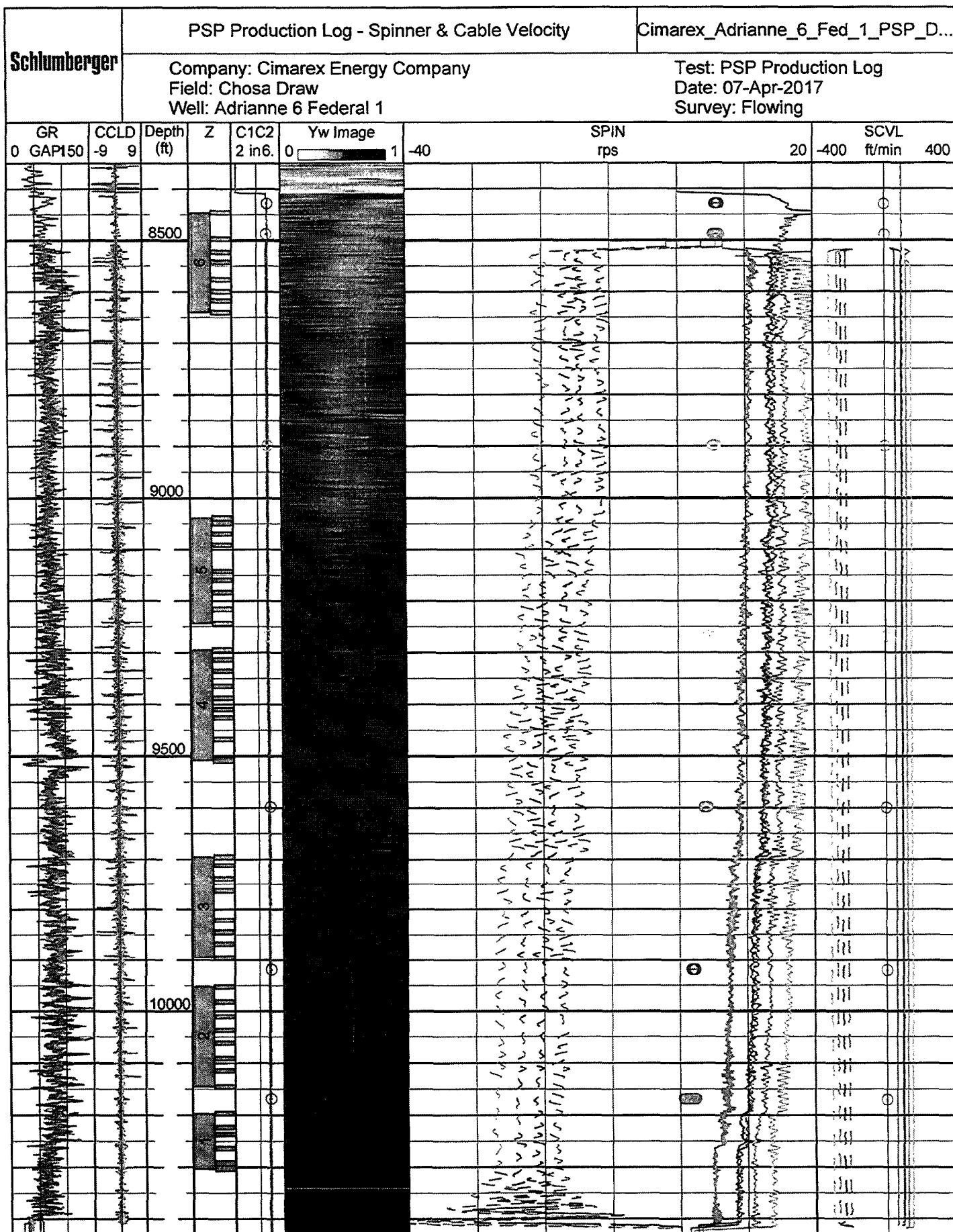
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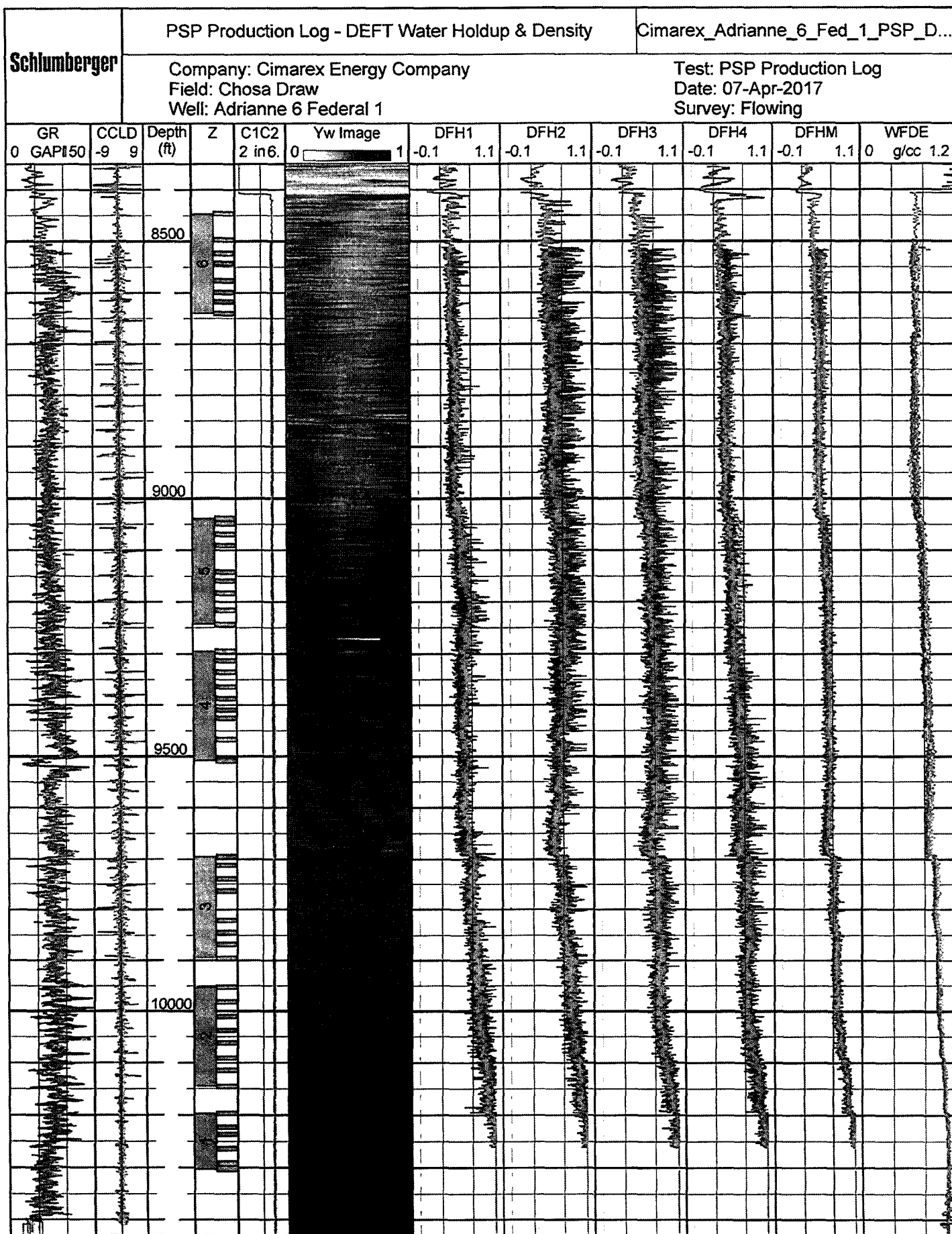
Interpretation Results: Surface Flowrate Results - Detail (Continued)

Wolfcamp	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%
Wolfcamp	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%
Total				885	--	560	100.0%	--	100.0%









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/SP11	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