LEETH EVALUATION

Company	YOUNGER ENERGY COMPANY		
Well	MOSIER-BAUER UNIT #1		
Field	HURRAY NORTH		
County	PAWNEE	State	KANSAS

Location	SEC	27	TWP	21S	RGE	15W
Spot	2250FSL 2550FWL					
API Well Number	15-145-21820				Elevation	
Permanent Datum	GROUND LEVEL		Elevation		K.B.	
Log Measured From	K.B.		A.G.L.		D.F.	
Drilling Measured From	KELLY BUSHING				G.L.	

Description	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Date	8/10/2016					
Top Parameter Depth	3200	3810	3894			
Bottom Parameter Depth	3810	3894	3980			
Bit Size	7.875					
BHT	116					
Rmf @ FT	0.500	0.500	0.500			
Rw @ FT	0.040	0.080	0.150			
Location	WICHITA					
Evaluation By	R. LEETH					
Recommended Perf / SPF						
Recommended Perf / SPF						

LOG DATA

Name	Description
DEPTH.FT	depth
CNPOR.PU	Compensated Neutron porosity
DCAL.IN	Compensated Density caliper
DPOR.PU	Compensated Density porosity
GR.API	gamma ray
MEL15.OHM-M	1.5 inch Microinverse resistivity
MEL20.OHM-M	2 inch Micronormal resistivity
MELCAL.IN	Microlog caliper
PE.	Photoelectric Pffect
RHOC.G/CC	Compensated Density correction
RILD.OHM-M	Deep Induction resistivity
RILM.OHM-M	Medium Induction resistivity
RLL3.OHM-M	Short Guard resistivity
RxoRt.	ratio of shallow resistivity to deep resistivity
SP.MV	spontaneous potential
SPOR.PU	Sonic porosity

EVALUATION DATA

Name	Description
DEPTH.FT	depth
BIT.IN	bit size
BVWb.V/V	bulk volume water in matrix porosity system
BVWs.V/V	bulk volume water in secondary porosity system
BVWsgxo.V/V	bulk volume water in the flushed zone system
CALI.IN	caliper
Dh.G/CC	hydrocarbon density
DMAA.G/CC	apparent matrix density
DSRGIP.MMCFG	delta sum recoverable gas in place
DSROIP.BO	delta sum recoverable oil in place
DSUMQg.MCFGPD	delta sum of productive gas
DSUMQo.BOPD	delta sum of productive oil
DSUMQw.BWPD	delta sum of productive water
GR.API	gamma ray
Khb.MD	permeabiliy to hydrocarbon from matrix porosity system
Khs.MD	permeabiliy to hydrocarbon from secondary porosity system
ms.DEC	cementation exponent for secondary porosity system
OOM.DEC	oomoldic flag
PSGC.V/V	gas corrected sonic porosity
PX.V/V	crossplot porosity
Rds.OHMM	calculated deep resistivity
SP.MV	spontaneous potential
SUMQg.MCFGPD	sum of productive gas
SUMQo.BOPD	sum of productive oil
SUMQw.BWPD	sum of productive water
SUMRGIP.MMCFG	sum of recoverable gas in place
SUMROIP.BO	sum of recoverable oil in place
Swb.V/V	water saturation in matrix porosity system
Sws.V/V	water saturation in secondary porosity system
Sxo.V/V	water saturation of the flushed zone
VSH.V/V	shale volume

Format: Resistivity Density Neutron GR 3Track Format Vertical Scale: 5" per 100 feet Creation Date: Fri, Aug 05, 2016, 10:03:21 AM

(MEL20)		
0.75	OHM-M	408
(GR)		
20	GAPI	400
(RILM)		
0.049	OHM-M	490
(CNPOR)		
100	PU	1
(RILD)		
0.04	OHM-M	400
(DPOR)		
100	PU	1
(RLL3)		
0.154	OHM-M	1540

(MELCAL)		
6	IN	16
(RxoRt)		
-100		100
(DCAL)		
6	IN	16
(SP)		
-100	MV	100
(GR)		
0	GAPI	150

(RLL3)		
0.2	OHM-M	200
(MEL20)		
0.2	OHM-M	200
(MEL15)		
0.2	OHM-M	200
(RILM)		
0.2	OHM-M	200
(RILD)		
0.2	OHM-M	200
Apparent Perm		

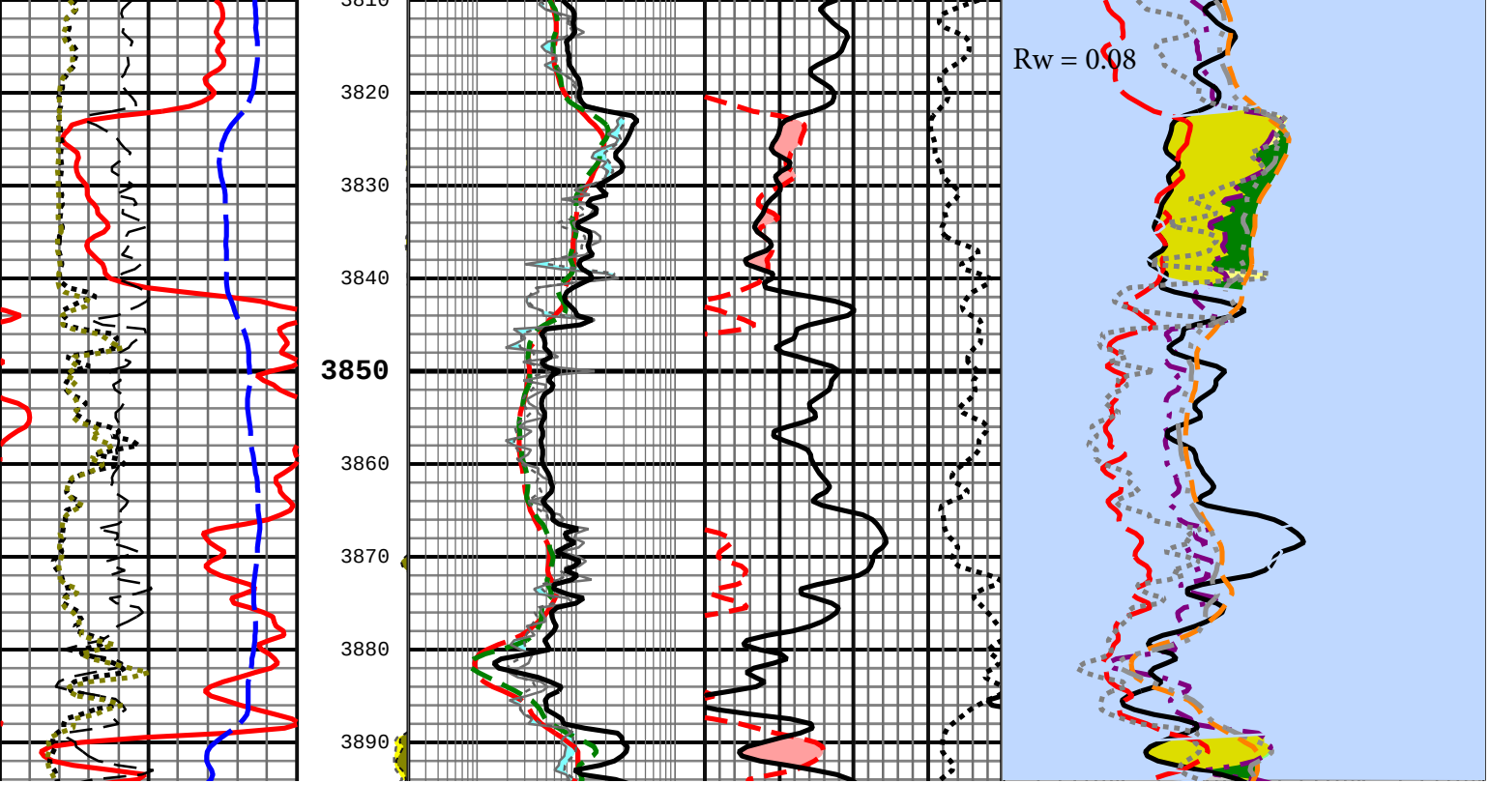
(RHOC)		
-0.33	G/CC	0.17
(DPOR)		
30	PU	-10
(CNPOR)		
30	PU	-10
Apparent Gas / Quartz		

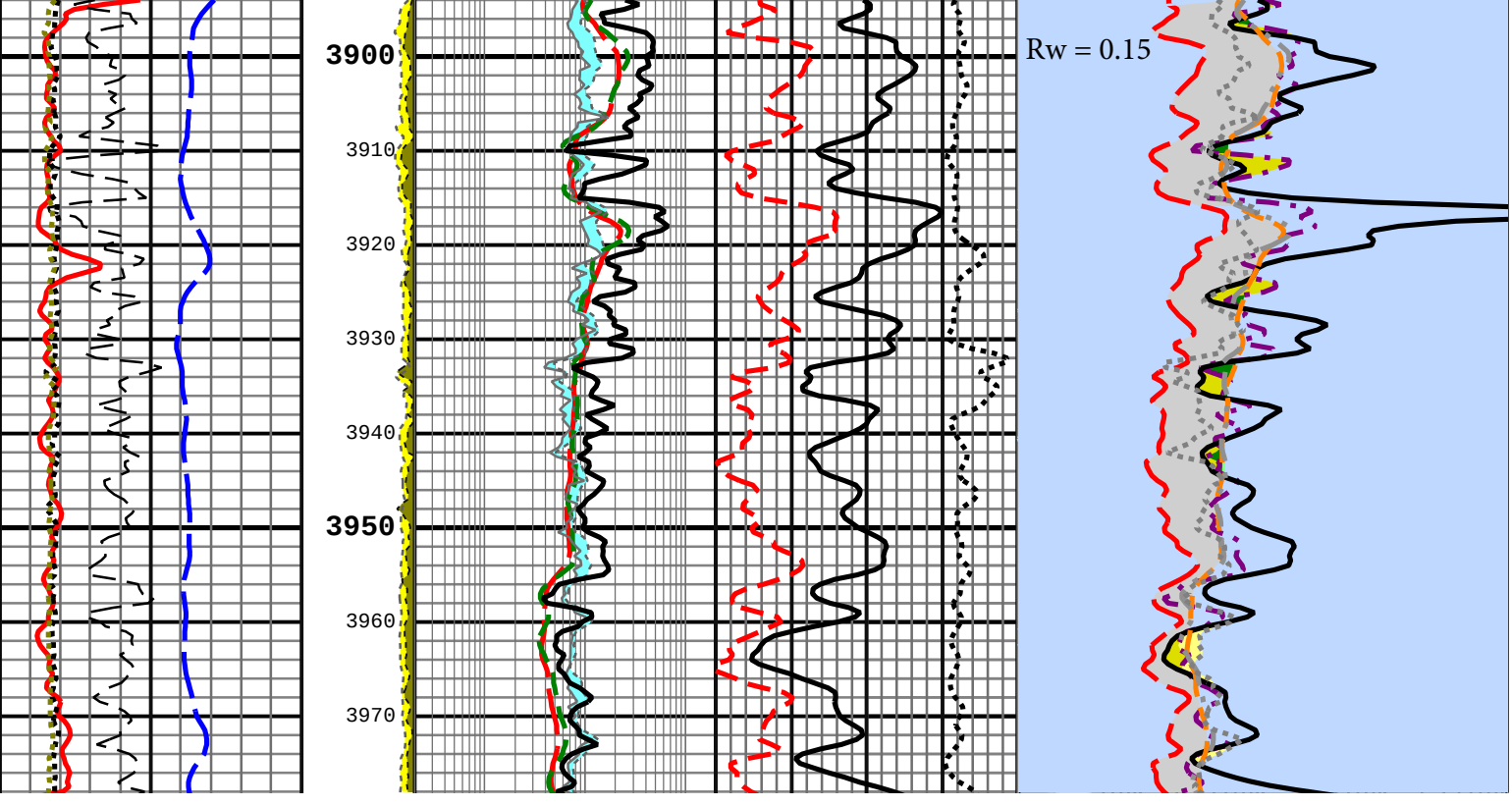
(DCAL) 5 IN 8

(MELCAL 5 IN 8

Residual
Residual
Moveable
Water
Neutron Density Window

3180 3190 **3200** 3210 3220 3230 3240 **3250** 3260 3270 3280 3290 **3300** 3310 3320 3330 3340 **3350** 3360 3370 3380 3390 **3400** 3410 3420 3430 3440 **3450** 3460 3470 3480 3490 **3500** 3510 3520 3530 3540 **3550** 3560 3570 3580 3590 **3600** 3610 3620 3630 3640 **3650** 3660 3670 3680 3690 **3700** 3710 3720 3730 37 **3750** 3760 3770 3780 3790 **3800** 3810


3820
3830
3840
3850
3860
3870
3880
3890
Rw = 0.08


3900
3910
3920
3930
3940
3950
3960
3970
Rw = 0.15

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