

# LEETH EVALUATION

<b>Company</b>		<b>RITCHIE EXPLORATION, INC.</b>			
<b>Well</b>		<b>NAU 25C 1</b>			
<b>Field</b>		<b>WILDCAT</b>			
<b>County</b>		<b>FORD</b>		<b>State KANSAS</b>	
<b>Location Spot</b>	<b>SEC 25 TWP 26S RGE 23W</b>				
<b>API Well Number</b>		<b>15-057-20848</b>			
<b>Permanent Datum</b>	<b>GROUND LEVEL</b>	<b>Elevation</b>			
<b>Log Measured From</b>	<b>K.B.</b>	<b>A.G.L.</b>		<b>K.B. D.F. G.L.</b>	
<b>Drilling Measured From</b>	<b>KELLY BUSHING</b>				
<b>Description</b>	<b>Zone 1</b>	<b>Zone 2</b>	<b>Zone 3</b>	<b>Zone 4</b>	<b>Zone 5</b>
<b>Date</b>	11/8/2012				
<b>Top Parameter Depth</b>	4300				
<b>Bottom Parameter Depth</b>	5060				
<b>Bit Size</b>	7.875				
<b>BHT</b>	128				
<b>Rmf @ FT</b>	0.320				
<b>Rw @ FT</b>	0.040				
<b>Location</b>	<b>WICHITA</b>				
<b>Evaluation By</b>	<b>R. LEETH</b>				
<b>Recommended Perf / SPF</b>					
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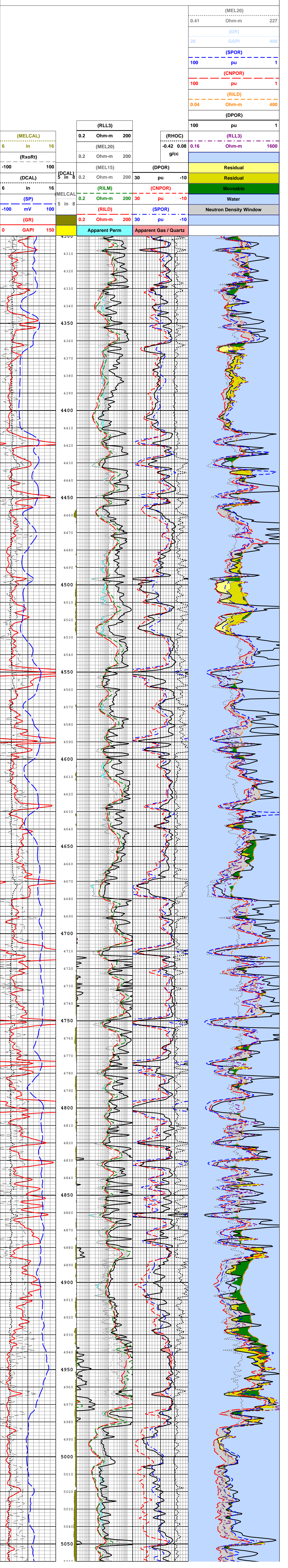
**We do not guarantee results, nor make warranties either expressly or implied. Under no circumstances shall we be liable damages relative to this evaluation.**

### 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	permeability to hydrocarbon from matrix porosity system
Khs.MD	permeability 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



<b>(GR)</b>		
0	API	150
<b>(VSH)</b>		
0	V/V	1
<b>(SP)</b>		
-100	MV	100
<b>(CALI)</b>		
6	IN	16

Clay Shale

Mudcake

<b>(BVWsgxo)</b>		
0	V/V	0.4

<b>(BVWs)</b>		
0	V/V	0.4

<b>(PX)</b>		
0	V/V	0.4

<b>Hydrocarbon</b>		
0	V/V	0.4

<b>Light Hydrocarbon</b>		
0	V/V	0.4

<b>Water</b>		
0	V/V	0.4

<b>(PSGC)</b>		
0	V/V	0.4

<b>(BVWb)</b>		
0	V/V	0.4

<b>Hydrocarbon</b>		
0	V/V	0.4

<b>Water</b>		
0	V/V	0.4

<b>(Sxo)</b>		
1	V/V	0

<b>(Sws)</b>		
1	V/V	0

<b>Moveable</b>		
1	V/V	0

<b>Residual</b>		
1	V/V	0

<b>(Swb)</b>		
1	V/V	0

<b>(Khb)</b>		
0.1	MD	1000

<b>(Khs)</b>		
0.1	MD	1000

