



# COMPENSATED DENSITY NEUTRON LOG

Company	Palomino Petroleum	State	Kansas
Well	Jarvis Heirs #1	County	Ness
Field	Vermillion	Location:	SEC 6 TWP 17S RGE 24W
County	Ness	Log Measured from	KB 5 AGCL
State	Kansas	Drilling Measured from	KB
Location:	526' TNL & 965' FNL	Elevation	2483'
API #: 15 135 2562		Other Services	DIL
Permanent datum	KB 5 AGCL	Elevation	K 2488'
Log Measured from	KB 5 AGCL	DT	2487'
Drilling Measured from	KB	GT	2485'
Date	4-5-13		
Run Number	4325		
Depth (ft)	4325		
Depth (m)	4325		
Bottom Log Interval	4325		
Top Log Interval	3700		
Casing Diameter	8.66 @ 218'		
Bit Size	7.75		
Type Fluid in Hole	Chemical		
API Fluid Density	8.075		
API Fluid Viscosity	10.0		
Source of Sample	PH		
Run @ Mass Temp	1.0@62degF		
Run @ Mass Temp	2.0@62degF		
Source of Run/Temp	Calculated		
Run @ BHT	36@14degF		
Time Cooper on Bottom	1:00 p.m.		
Maximum Recorded Temperature	117degF		
Equipment Number	1127		
Location	Hqn, KS		
Recorded By	Guil Phanetsiel		
Witnessed By	Mr Ryan Seeb		

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 interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

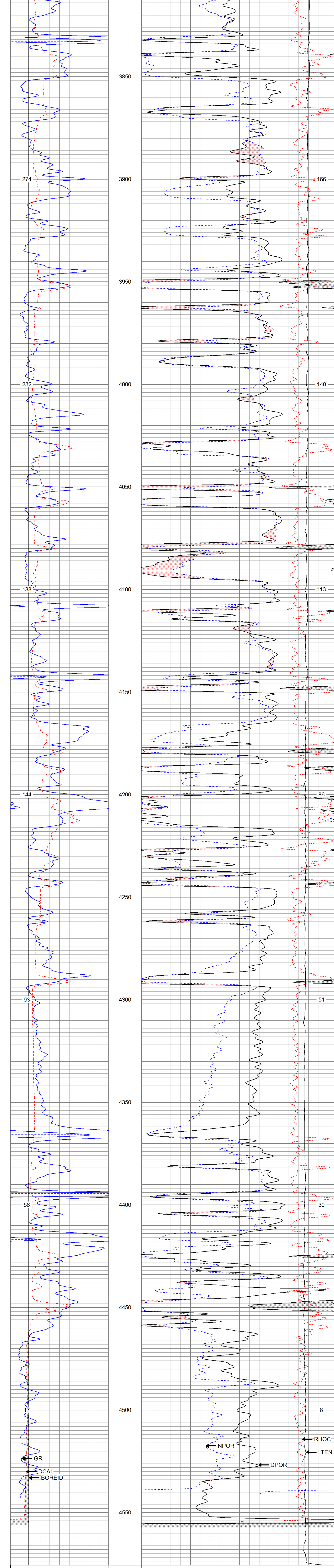
Comments

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## Main Pass

Database File	ppjarvisheirs#10h.db
Dataset Pathname	pass2
Presentation Format	kcdnl
Dataset Creation	Fri Apr 05 20:52:14 2013
Charted by	Depth in Feet scaled 1:240

0	GR (GAPI)	150	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
6	BOREID (in)	16	70	DPOR (pu)	30
TBHV (ft3)			8000	LTEN (lb)	0



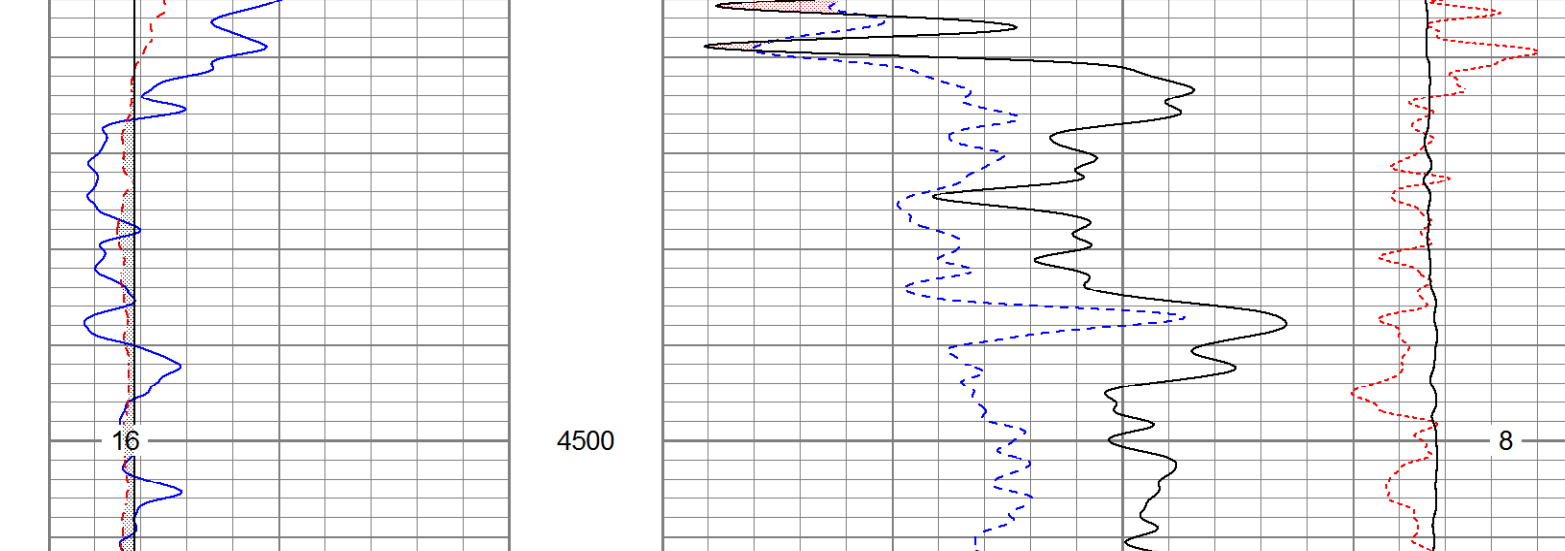
0	GR (GAPI)	150	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
6	BOREID (in)	16	70	DPOR (pu)	30
TBHV (ft3)			8000	LTEN (lb)	0

-0.25 RHOC (g/cc) 0.25 ABHV (ft3)

## Repeat Pass

Database File	ppjarvisheirs#10h.db
Dataset Pathname	pass1
Presentation Format	kcdnl
Dataset Creation	Fri Apr 05 20:44:50 2013
Charted by	Depth in Feet scaled 1:240

0	GR (GAPI)	150	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
6	BOREID (in)	16	70	DPOR (pu)	30
TBHV (ft3)			8000	LTEN (lb)	0



0	GR (GAPI)	150	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
6	BOREID (in)	16	70	DPOR (pu)	30
TBHV (ft3)			8000	LTEN (lb)	0

-0.25 RHOC (g/cc) 0.25 ABHV (ft3)

### Calibration Report

Database File	ppjarvisheirs#10h.db
Dataset Pathname	pass1
Dataset Creation	Fri Apr 05 20:44:50 2013

#### Dual Induction Calibration Report

Serial-Model:	1842-ADM
Surface Cal Performed:	Fri Mar 15 09:09:15 2013
Downhole Cal Performed:	Fri Mar 15 09:09:22 2013
After Survey Verification Performed:	Fri Mar 15 09:09:24 2013

#### Surface Calibration

Loop:	Readings			References		Results	
	Air	Loop		Air	Loop	m	b
Deep	0.018	0.665	V	0.000	350.000	mmho/m	540.578
Medium	0.004	0.768	V	0.000	400.000	mmho/m	523.869

#### Downhole Calibration

Internal:	Readings			References		Results	
	Zero	Cal		Zero	Cal	m	b
Deep	0.122	350.000	mmho/m	0.059	350.125	mmho/m	1.001
Medium	0.022	399.981	mmho/m	0.010	399.827	mmho/m	1.000
Shallow	2.549	0.021	V	500.000	2.000	Ohm-m	196.997

#### After Survey Verification

Internal:	Readings			Targets		Results	
	Zero	Cal		Zero	Cal	m'	b'
Deep	0.000	0.000	mmho/m	0.122	350.000	mmho/m	1.001
Medium	0.000	0.000	mmho/m	0.022	399.981	mmho/m	1.000
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000

#### Compensated Density Neutron Calibration Report

Serial-Model:	2388DHT-DHT
Source / Verifier:	/
Master Calibration Performed:	Fri Mar 15 09:09:56 2013
Before Survey Verification Performed:	
After Survey Verification Performed:	

#### Master Calibration

	Density			Far Detector	Near Detector
	1.750	2.620			
Magnesium				677.63	298.90
Aluminum				127.62	185.00

Spine Angle = 73.97 Density/Spine Ratio = 0.501

	Size			Reading
	8.05	14.00		
Small Ring				5771.32
Large Ring				10165.20

#### Before Survey Verification

	Target	Measured
	g/cc	g/cc
	g/cc	g/cc

#### After Survey Verification

	Target	Measured
	g/cc	g/cc
	g/cc	g/cc

#### Gamma Ray Calibration Report

Serial Number:	2001
Tool Model:	OH
Performed:	Wed Jan 23 08:35:52 2013
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.2300 GAPI/cps

#### Neutron Calibration Report

Serial Number:	5108
Tool Model:	PROBE
Performed:	Mon Mar 04 15:15:14 2013
Calibrator Value:	1 NAPI
Calibrator Reading:	1 cps
Sensitivity:	1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
NEU	36.50		None	0.75	1.50	5.00
			NEU-PROBE (5108)	4.92	3.63	85.00
GR	30.56		GR-OH (2001)	3.56	3.25	40.00
LSD	22.02		DHT (2388DHT)	9.69	4.00	201.00
DCAL	21.73		Digital High Temp ODL Tool			
SSD	21.48					
HEADVOLT	19.71		DIL-ADM (1842)	19.71	4.00	300.00
			Dual Induction			
SP	10.60					
CILD	10.60					
CILM	6.89					
RLL3	1.70					

Dataset: ppjarvisheirs#10h.db; field/well/run/1/pass1  
 Total length: 38.63 ft  
 Total weight: 631.00 lb  
 O.D.: 4.00 in