

Company: LaVeta Oil and Gas  
 Address: PO Box 780  
 Middleburg, VA 20118

Contact Geologist:  
 Contact Phone Nbr:  
 Well Name: #15 Paul Spangenberg  
 Location: Section 29-22S-11W  
 Pool:  
 State: Kansas

API: 15-185-23971  
 Field: Richardson  
 Country: USA

Scale 1:240 Imperial

Well Name: #15 Paul Spangenberg  
 Surface Location: Section 29-22S-11W  
 Bottom Location:  
 API: 15-185-23971  
 License Number:  
 Spud Date: 11/1/2016  
 Region: Stafford County  
 Drilling Completed: 11/8/2016  
 Surface Coordinates: 735' FSL & 1225' FWL  
 Bottom Hole Coordinates:  
 Ground Elevation: 1827.00ft  
 K.B. Elevation: 1837.00ft  
 Logged Interval: 3000.00ft  
 Total Depth: 3570.00ft  
 Formation:  
 Drilling Fluid Type: Chemical (MudCo)

Time: 11:30 AM  
 Time: 10:15 AM  
 To: 3570.00ft

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude:  
 N/S Co-ord: 735' FSL  
 E/W Co-ord: 1225' FWL

Latitude:

**LOGGED BY**



Company: TerraTech Energy Service LLC.  
 Address: 1632 S. West St. Suite 12  
 Wichita, KS 67208

Phone Nbr: 316-617-3959  
 Logged By: Geologist  
 Name: Bruce Reed

**CONTRACTOR**

Contractor: EC Services  
 Rig #: 6  
 Rig Type: mud rotary  
 Spud Date: 11/1/2016  
 TD Date: 11/8/2016  
 Rig Release: 11/9/2016

Time: 11:30 AM  
 Time: 10:15 AM  
 Time: 7:30 AM

**ELEVATIONS**

K.B. Elevation: 1837.00ft  
 K.B. to Ground: 10.00ft  
 Ground Elevation: 1827.00ft

**NOTES**

Surface Casing: 8-5/8" at 257'  
 Production Casing: None

Daily Penetration:  
 11/01/16 SPUD @ 11:30 AM  
 11/02/16 400'  
 11/03/16 1600'  
 11/04/16 2488'  
 11/05/16 2875'  
 11/06/16 3422'  
 11/07/16 3560'  
 11/08/16 3560' RTD @ 10:15 AM  
 11/09/16 3570' Rig released @ 7:30 AM

**DRILL STEM TESTS**

DST #1 3526'-3560' Simpson. Weak, 1/2 inch blow during the first flow period. No blow during the second flow period. Recovered: 5' Mud  
 IFP/30" 15-18 psi, ISIP/30" 38 psi, FFP/30" 16-16 psi, FSIP/30" 35 psi

DST #2 3564'-3570' Arbuckle. Strong blow, BOB in 2 minutes during the first flow period. Strong blow, BOB in 2 minutes on the second flow period.  
 Recovered: 186' GIP, 130' Oil, 126' GOMCW (20% G, 24% O, 50% W, 6% M), 1071' Water  
 IFP/15" 54-256 psi, ISIP/30" 1250 psi, FFP/30" 262-590 psi, FSIP/60" 1248 psi

**GEOLOGICAL TOPS**

Formation	Log Tops	Datum	Sample Top	Datum Comparison*
Heebner	3090'	-1253	3085'	-1248 flat
Brown Lime	3227'	-1390	3222'	-1385 flat
Lansing	3252'	-1415	3247'	-1410 +1
Base KC	3500'	-1663	3496'	-1659 -1
Arbuckle	NL	NL	3564'	-1727 -3

\*Reference well: LaVeta Oil & Gas, #12 Spangenberg, 1430' FSL / 1870' FWL  
 Section 29-22S-11W, Stafford County, Kansas

**ROCK TYPES**

- Dolprim
- shale, gry
- Ss
- Lmst fw7>
- Carbon Sh

**ACCESSORIES**

- MINERAL**
- Dolomitic
  - Chert White

**OTHER SYMBOLS**

- INTERVALS**
- Core
  - DST
- Oil Show**
- Good Show
  - Fair Show
  - Poor Show
  - Spotted or Trace
  - Questionable Stn
  - Dead Oil Stn
  - Fluorescence
  - Gas
- DST**
- DST Int
  - DST alt
  - Core
  - Tail pipe

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

