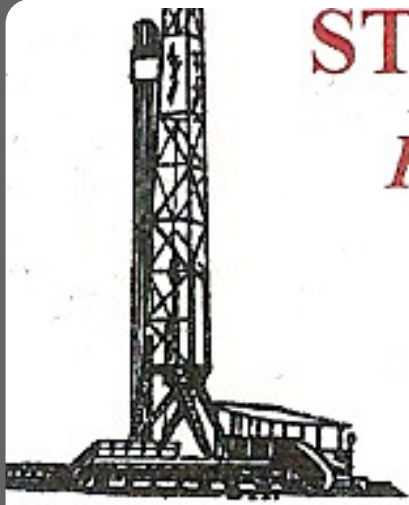


# STEVEN P. MURPHY, P.G.

*Petroleum Geologist (KS #228)*



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RR#1, Box 69

Otis, Kansas 67565

geomurphy@gbta.net

Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: Delbert Walt #13-6  
API: 12-179-21365-00-00

Location: Sheridan County

License Number: 8914

Spud Date: 7/19/2014

Region: Kansas

Drilling Completed: 7/27/2014

Surface Coordinates: 2310' FSL & 2310' FWL (Approx. NE NE SW)

Section 13-T10S-R26W

Bottom Hole Coordinates: Same as above (Vertical well w/min deviation)

Ground Elevation (ft): 2578'

K.B. Elevation (ft): 2585'

Logged Interval (ft): 3450' To: TD

Total Depth (ft): LTD - 4120'

Formation: Topeka through BKC

Type of Drilling Fluid: Chemical

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

## OPERATOR

Company: H&C Oil Operating Inc.  
Address: P.O. BOX 86  
Plainville KS 67663

## GEOLOGIST

Name: Steven P. Murphy, PG (KS License #228) & Anthony Luna  
Company: Consulting Petroleum Geologist  
Address: 3365 CR 390  
Otis, KS 67565

## LogTops (Datum)

Open-hole logging was performed by Pioneer Log-Tech. The following are formation tops w/associated datums:

Anhydrite Top - 2217 (+368)  
Anhydrite Base - 2250 (+335)  
Topeka - 3590 (-1005)  
Heebner - 3803 (-1218)  
Toronto - 3824 (-1239)  
Lansing - 3840 (-1255)  
Muncie Creek - 3957 (-1372)  
Stark - 4028 (-1443)  
Base KC - 4070 (-1485)

### DSTs

Drillstem testing was performed by Trilobite Testing (Hays shop):

DST #1 3880-3902 LKC ("CD")  
Misrun - Hit Bridge

DST#2 3880-3902 LKC ("CD")  
Misrun - Packer Failure

DST #3 3950-4024 LKC ("HIJ")

30:60:30:60

IF: BOB in 10min, 1/2" return

FF: BOB in 13min, 1 3/4" return

Recovery: 397' GIP, 25' CO (100%O), 25' MWCO (40%O, 35%W, 25%M), 62' OMCW (15%O, 50%W, 35%M), 125' OMCW (3%O, 67%W, 30%M), 125' MCW (80%W, 20%M)

IHP: 1953      FHP: 1838

IFP: 31-117      ISIP: 997

FFP: 110-183      FSIP: 998

BHT - 126 F


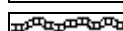
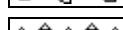
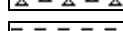






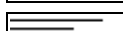


Chlorides - 19,000 ppm

Oil Gravity - 34 API

### COMMENTS

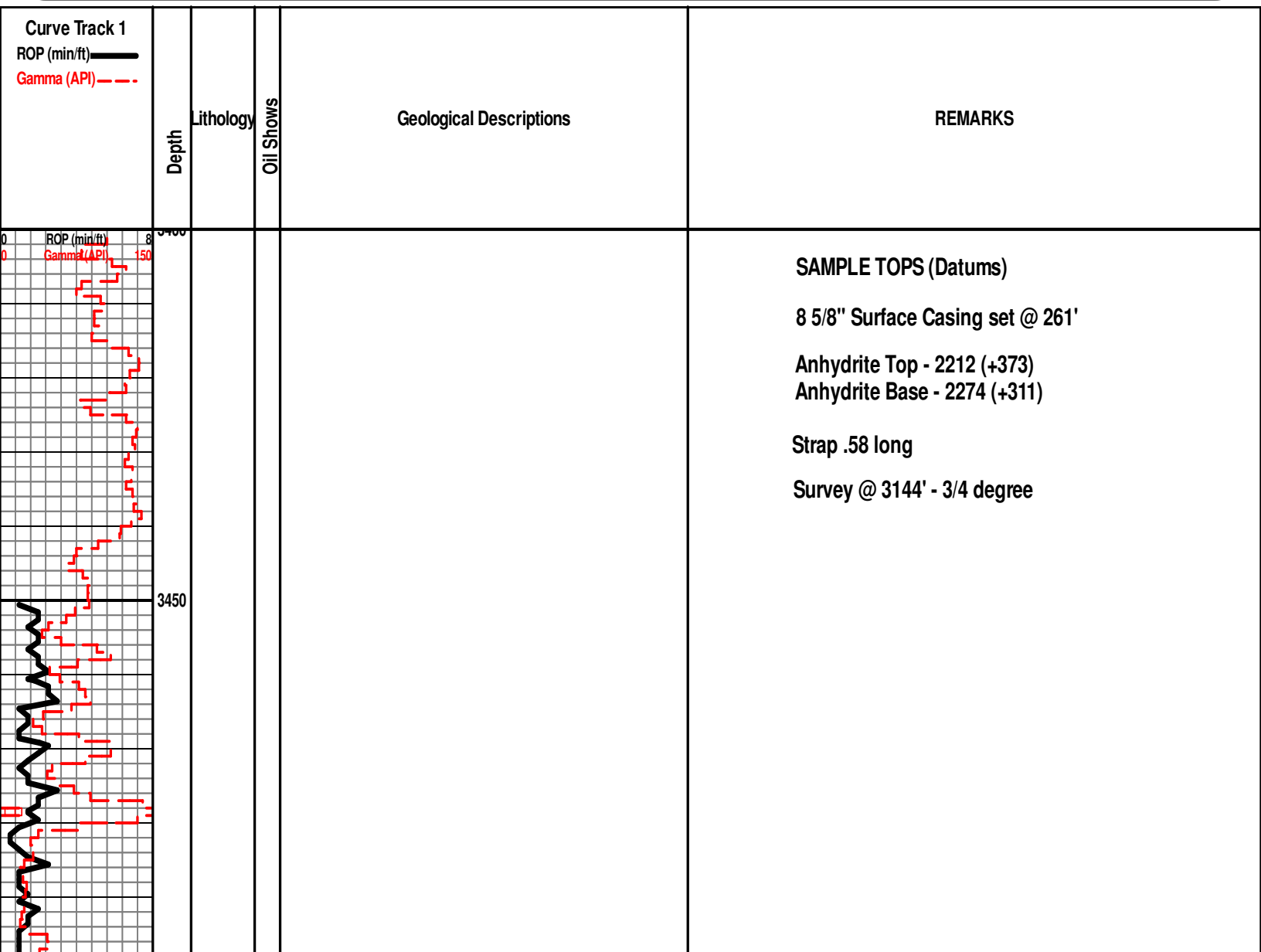
Based on the results of DSTs and log & sample analysis, 5-1/2" casing was set for production.

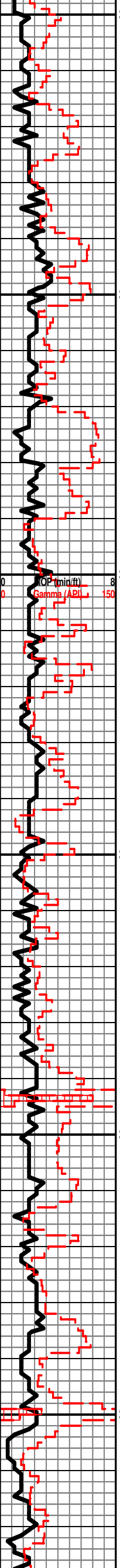
### ROCK TYPES

 Anhy  Bent  Brec  Cht  Clyst	 Coal  Congl  Dol  Gyp  Igne	 Lmst  Meta  Mrlst  Salt  Shale	 Shcol  Shgy  Sltst  Ss  Till
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### OTHER SYMBOLS

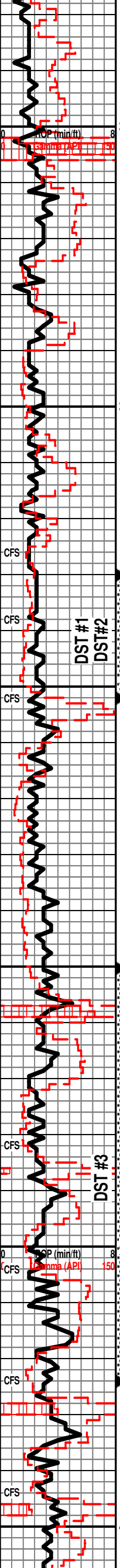
<b>OIL SHOW</b>  Even  Spotted  Ques	 Dead Gas  Gas	<b>INTERVAL</b>  Core  Dst	<b>EVENT</b>  Conn  Rft  Sidewall
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Topeka 3584 (-999)

- LS: wht-crm-gry, vfxln, sl cherty, sl fos, NS
- SH: gry-grn-brn-blk
- LS: wht-crm-gry, vfxln, sl fos, NS
- SH: gry-grn-brn-blk
- LS: wht-tan-gry, vfxln, sl cherty, sl ool, sl fos, NS
- SH: blk, carb
- LS: wht-crm-gry, vfxln, sl fos, NS
- LS: wht-tan-gry, vfxln, sl cherty, sl ool, sl fos, NS



LS: same as above

LS: wht-crm-gry, vfxln, sl ool, sl fos, NS

SH: blk, carb

SH: gry-grn-brn

LS: wht-crm-gry, vfxln, sl ool, sl fos, NS

SH: gry-grn-brn

LS: wht-tan-gry, vfxln, sl cherty, sl ool, sl fos, NS

LS: wht-crm-gry, vfxln, sl cherty, sl ool, NS

SH: gry-grn-brn

LS: wht-crm-gry, vfxln, pr intr-ool por, tight, tr fo on brk, no odor

LS: same as above w/sl odor

LS: wht-crm-gry, vfxln, dense, pr intr-ool por, tr fo on brk, wk odor

LS: wht-crm-gry, fxln, pr-fr ool & ppt por, tr fo on brk, sl odor

LS: same as above

SH: gry-grn-brn-blk

LS: wht-crm-gry, vfxln, sl ool, sl fos, NS

LS: same as above

LS: wht-crm-gry, vfxln, sl cherty, sl ool, NS

LS: wht-tan-gry, vfxln, oolitic, pr por, tr fo on brk, wk odor

SH: blk, carb

SH: gry-grn-brn-blk

LS: wht-crm-gry, fxln, pr-fr ool & ppt inxln por, ssofo, wk odor

LS: wht-crm-gry, fxln, pr intr-ool por, pr-fr ppt inxln por, ssofo, wk odor

SH: gry-grn-brn

LS: wht-crm-gry, fxln, pr-fr intr-ool & inxln por, highly stn, vssfo, wk odor

SH: gry-grn-brn

LS: wht-crm-gry, fxln, dense, oolitic, pr-fr por, ssofo, sl odor

SH: blk, carb

LS: wht-crm-gry, vfxln, pr intr-ool por, tr fo on brk, wk odor

SH: blk

SH: gry-grn-brn-blk

Heebner 3797 (-1212)

Toronto 3818 (-1233)

Lansing 3840 (-1255)

DST #1 3880-3902 LKC ("CD")  
 Misrun - Hit Bridge

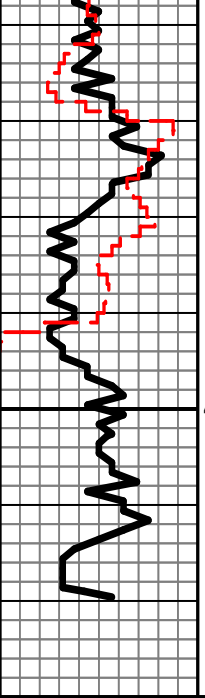
DST #2 3880-3902 LKC ("CD")  
 Misrun - Packer Failure

Survey @ 3902' - 3/4 degree

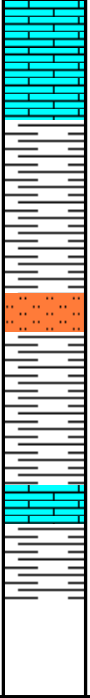
Muncie Creek 3953 (-1368)

DST #3 3950-4024 LKC ("HIJ")  
 30:60:30:60  
 IF: BOB in 10min, 1/2" return  
 FF: BOB in 13min, 1 3/4" return  
 Recovery: 397' GIP, 25' CO (100%O), 25'  
 MWCO (40%O, 35%W, 25%M), 62' OMCW  
 (15%O, 50%W, 35%M), 125' OMCW (3%O,  
 67%W, 30%M), 125' MCW (80%W, 20%M)  
 IHP: 1953            FHP: 1838  
 IFP: 31-117        ISIP: 997  
 FFP: 110-183      FSIP: 998  
 BHT - 126 F  
 Chlorides - 19,000 ppm  
 Oil Gravity - 34 API

Stark 4024 (-1439)



4100



LS: wht-crm-gry, vfxln, sl ool, sl fos, dense, NS

SH: gry-grn-brn

SH: same as above

Sst: red, vfgd, fr-w std, sub-rd, friable, wash red, NS

SH: gry-grn-brn

LS: wht-crm-gry, vfxln, sl fos, NS

SH: gry-grn-brn

RTD - 4120'

LTD - 4120'

BKC 4067 (-1482)

Survey @ 4120' - 3/4 deg