WELLSITE GEOLOGIST'S REPORT

NEW HORIZON
CONSULTANT DIVISION

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

Well Name: CROSBY A NO 1-23
Well Id:
Location: SEC-23-T-20S-R-15W
License Number: 0-0-0-0-0-0-0-0
Spud Date: AUG-01-2014
Bottom Hole Coordinates: 2420' FWL, 1840' FNL, 1107' W, 4.0' N, OF C E/2 SE NW
Ground Elevation (ft): 1934'
Logged Interval (ft): 1750' To: 3650'
Formation: LANSING-KC AND ARBUCKLE
Type of Drilling Fluid: STARCH CHEMICAL
Region: Barton Co
Drilling Completed: AUG 01 2014
K.B. Elevation (ft): 1942'
Total Depth (ft): 3650'

Powered by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR:

Company: F.G. Holl Company LLC
Address: 9431 E. Central, Suite 100
Wichita, Kansas 67206

DRILLING CONTRACTOR:

DUKE RIG #2
Rig Manager: jack; drill pipe 4.5" X H (16.68); collars 6.25 x2.25 x46'; BIT: 7-7/8, JZH420Q, #141064D, 3-15%;
Reference datum 8 ft above ground level. Poor Boy's (Martin- Becker) mechanical geolograph. Dion Vasquez -Tooljusher

SURFACE CASING:

SURFACE CASING 8 5/8 INCHES 28 LBS AT 0 FEET WITH 400 SAXS OF CEMENT
PRODUCTION CASING 5 1/2 INCHES SET AT 3650 FT WITH 125 SAXS

SURFACE CASING:

Pump Make: EWCO,Pump model: 14P400, liner size 6 ,stroke 14, Starch mud @ 1700' to 2550', Chemical mud 2550' to TD
Mud Co/Service Mud, Inc-Jason Whiting-Great Bend, Ks-620-282-6356

GAS DETECTION SYSTEM:

MBC Well Logging and Leasing -Analog Gas Detector.

OPEN HOLE LOGS:

DN (PE)-HRD RES FROM B.H.C TO TD-DOLO MATRIX AND FRACFINDER OVER ARBUCKLE, DI (SP)-GAMMA RAY FROM SURFACE TO TD, ML,Sonic, Fracfinder, ; Pioneer Energy Services, Hays, KS. ; Log total depth (3648') was 2 ft short to rotary total depth (3650').

COMPLETION:

PRODUCTION CASING SET ON ARBUCKLE

DRILL STEM TEST#4

DST #4
3602-3650
FIRST 5-FT CLEAN OIL,540 FT -10% OIL 85% MUD
525 FT -20% GAS 80% OIL 20% WATER
625 FT-10% GAS 5% OIL 35% WATER
441 FT-0% GAS 30% OIL 60% WATER
200 FT-60% GAS 40% OIL 20% WATER
125 FT-0% GAS 5% OIL 95% WATER
126 FT-0% MUD 30% WATER
IBLW-STRING BLW BOB IN 50 SEC,NO BLWBK
FBLW-STRING BLW BOB IN 55 SEC,NO BLWBK
SLOW BLOW-BOB AND DIED TO 10 INCHES AT END OF SHUT IN
ISIP-1353
IHP-1751-1674
SIP-1231-1231
FHP-1674
FFP-200-207
GAS RATE
FIRST GAS- CK- 20,SPSIG-19-MCF-D,22.99
LAST GAS-CK- -13,PSIG-0-MCF-D-7.26
MAX GAS-CK- -13,PSIG-2-MCF-D-13.26
NOTE-PACKER LEAKED BUT HELD WHEN SHT

DRILL STEM TEST #5:

DST #5
REC-40 FT -2.5% OIL 20% MUD ,37.5% WATER
-126 FT-10% MUD,20% WATER
ISIP-1230-1229
IBLW-BOB IN 50 SEC,NO BLWBK
FBLW-BOB IN 1 MIN AND 10 SEC,GAS TO SURF IN 15 MIN
IHP-1674-1653,ADJUSTABLE -NO BLWBK
SIP-1230-1229
IHP-1738-1645
FHP-1653-1626
IFP-35-40
FFP-53-104

DRILL STEM TEST #6:

DST #6
REC-60 FT WATER
IBLW-GD BLW BOB IN 3 MIN,NO BLWBK
FBLW-FR BLW BOB IN 5 MIN,NO BLWBK
SIP-1653-1653
IHP-1819-1841
SIP-1231-1229
IFP-25-49
FFP-53-104

WELLSITE GEOLOGIST:

RENE HUSTEAD
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GARDNER, KANSAS 66030
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Geologist Contact Info:

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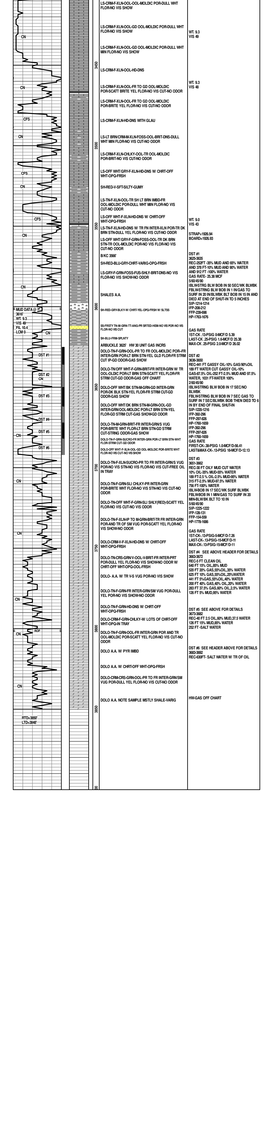
ROP
ROP (min/ft)
DST
Lithology
Geological Descriptions
TG, C1-C4 / REMARKS
1750
1800
1850
1900
1950
2000
2050
2100
2150
2200
2250
2300
2350
2400
2450
2500
2550
2600
2650
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150
3200
3250
3300
3350
3400
3450
3500
3550
3600
3650
CFS
DST #5
IFP-35-40
FFP-53-104
ISIP-1230-1229
DST #6
IFP-25-49
FFP-53-104
ISIP-1653-1653
DST #4
IHP-1751-1674
ISIP-1353-1231
FHP-1674-1626
FFP-200-207
IHP-1819-1841
FHP-1738-1645
FHP-1653-1626
SIP-1231-1231
SIP-1230-1229
SIP-1230-1229
SIP-1653-1653
SIP-1353-1231
MT: 5.1
VIS: 46
SURVEYS
DEPTH DEGREE
1/4 1/4
500 1
1000 1
3600 1
LS-THIN ELABORT FOSS-OOL-TR SH,1-7 GRY MBD-TR INTER-SLIGHT FORAM VIS FLORAD VIS SHOW
LS-LT BRNF-ELA-OOL-TR FOSS-MD-DNS
SH-GRY-SLBKY
LS-CRMF-ELA-SUB OOL-FR FOS-MDLDSC FORAD VIS FLORAD VIS SHOW
LS-CRMF-ELA-NO-ONE-TR CHRT-GRY MD-DPG-PRSH
LS 4.A.
LS-CRMF-ELA-FOS-SHLY MDLY,DNS WITH-TR OOLOLDSC WITH FLORAD VIS FLORAD VIS
LS-GRY MRF-GRY-ELA-TR FOS,MD VIS FLORAD VIS SHOW
HEEBNER 323' (-1294')
SHALE-CARB
FRF 35 CMT GAS INCRS
TORONTO 325' (-1311')
LS-GRY MRF-VF-GRN-KD-DNS
DOUGLAS SH 326' (-1324')
SHLY GRY-W-SLTY
MT: 5.0
VIS: 47
SLTSS-FRETY GRY-F-GRN-SKD-LT MICA-HEM
SH-GRY-SFT-BLK-SLTY
SH 4.A.
SHLY GRY-BLKY-TR MICA-HEM
MT: 5.0
VIS: 47
SH-GRY-BLKY-TR MICA-HEM
MT: 5.0
VIS: 47
BROWN LS 333' (-1388')
LS-BRN-LT-SUN-DNS
LANSING-KC 335' (-1398')
LS-GRY MRF-ELA-TR FOS-HD-DNS-SOLL WHT IN FLORAD VIS SHOW
LS-GRY MRF-ELA-NO-ONE-WTH TR LT BRN STAND VIS FLORAD VIS LST
LS-CRMF-GRN-FOSS-TR PYR-HD-DNS
MT: 5.2
VIS: 47
LS-GRY-GRN-BRT-BLK OOL-DNS
LS-GRY MRF-ELA-NO-ONE-W CHRT-GRY MT-CPG-PRSH
LS-GRY-GRN-SHLY HD-DNS TR FOSS
LS-GRY MRF-ELA-NO-WTH-DNS
LS 4.A.
LS-CRMF-ELA-OOL-OOL-MDLDSC POR-SOLL WHT FLORAD VIS SHOW
LS-CRMF-ELA-OOL-OOL-MDLDSC PORSOLL WHT FLORAD VIS SHOW
MT: 5.3
VIS: 48
LS-CRMF-ELA-OOL-OOL-MDLDSC PORSOLL WHT MR-FLORAD VIS SHOW
LS-CRMF-ELA-OOL-HD-DNS
LS-CRMF-ELA-OOLY-OOL-TR OOL-MDLDSC PORSOLL WHT VIS FLORAD VIS
MT: 5.2
VIS: 48
LS-CRMF-ELA-OOL-TR OO-OOL-MDLDSC PORLDST WHT VIS FLORAD VIS LST-DST-NO CONS
LS-CRMF-ELA-OOL-TR OO-OOL-MDLDSC PORWHTE VIS FLORAD VIS CONS
LS-CRMF-ELA-HD-DNS WTH-OLAU
LS-LT BRNCRMF-ELA-FOSS-OOL-MRT,DNS-SOLL WHT MR-FLORAD VIS CUT-NO CONS
LS-CRMF-ELA-OOLY-OOL-TR OOL-MDLDSC PORLDST WHT MR-FLORAD VIS CONS
LS-CRMF-ELA-OOL-HD
LS-CRMF-ELA-OOL-OOL-MDLDSC PORLDST WHT VIS FLORAD VIS CUT-NO CONS
LS-CRMF-ELA-OOLY-OOL-TR OOL-MDLDSC PORWHTE VIS CONS
LS-CRMF-WHT-GRY-ELA-HD-DNS-W CHRT-GRY MT-CPG-PRSH
SH-RED-SFT-SLTY-GLMY
LS-TN-ELA-OOL-TR SH,1-7 GRN MBD-PR OOL-MDLDSC PORSOLL WHT MR-FLORAD VIS CUT-NO CONS
LS-CRMF-WHT-ELA-HD-DNS-W CHRT-GRY MT-CPG-PRSH
LS-TN-ELA-HD-DNS W TR INTER-SLIFLORAD TR FS-OOL-MDLDSC PORWHTE VIS FLORAD VIS CUT-NO CONS
LS-CRMF-WHT-GRY-GRN-FOS-OOL-TR SH BRN CTN-TR OOL-MDLDSC PORWHTE VIS FLORAD VIS
SH-RC 3MM
SH-RED-BLUGRY-CHRT-VARG-DPG-PRSH
SHALE 4.A.
SH-RED-GRN-BLKY-LT CHRT-RS-DPG-PRSH W-TR-TR
SH-PRKY TR-SH-GRN-TT-VAG-RF-SRTSD-VSB-NO VIS-NO SO-NO SHOW-NO FLORAD
SH-SLI-PRSH-SPLKY
ARBUCKLE 3647 HIP 30 UNIT GAS INCRS
DOLO-TN-F-GRN-OOL-FR TR FOS-MD-DNS-POR-VIS-SOLL-SOME-PP-VUG-NO SO-NO SHOW-NO FLORAD
CUT-F-GOD-DOR-NO SHOW
DOLO-TN-VFP WHT-CRMBWHTTR INTER-GRN-W-TR-OOL-MDLDSC PORWHTE VIS FLORAD VIS
STRM-CUT-GOD-DOR-NO CHT-GRAY
DOLO-VFP WHT-SM STRN-GRN-GD INTER-GRN-PORGOR BLK STN-VIS FLORAD STRM CUT-GD DOR-NO SHOW
DOLO-VFP WHT-SM STRN-STN-GRN-GD-INTER-GRN-PORGOR BLK STN-VIS FLORAD STRM CUT-GD-DOR-NO SHOW
DOLO-TN-GN-BWHTTR INTER-GRN-VUG PORWHTE WH FLORAD STRN STN-GD STRM CUT-STRNG DOR-GAS SHOW
DOLO-TN-F-GN-BWHTTR INTER-GRN-VUG PORWHTE WH FLORAD STRN STN-GD STRM CUT-STRNG DOR-GAS SHOW
DOLO-VFP WHT-4.BLK-OOL-GD-WOLC-POR-WHTS-SOT-SUBHED-NO SHOW
DOLO-TN-F-BLKSUGRN-FR TR INTER-GRN-VUG PORWHTE WH FLORAD VIS STRNG VIS CUT-FRE-W-TRACE
DOLO-TN-F-GRN-SLI CHLY-FR INTER-GRN PORWHTE WHT FLORAD VIS STRNG VIS CUT-NO DOOR
DOLO-TN-VFP WHT-F-GRN-SLI INTER-GRN-VIS FLORAD VIS CUT-NO VIS DOOR
DOLO-TN-F-BLKF TO BGRN-WHTTR-TR INTER-GRN-VIS-NO FR-VF SM VUG CUT-NO VIS FLORAD VIS SHOW-NO DOOR
DOLO-TN-GN-BWHTTR INTER-GRN-VUG PORWHTE WH FLORAD STRN STN-GD STRM CUT-STRNG DOOR-GAS SHOW
DOLO-VFP-