ROBERT E. O'DELL
Petroleum Geologist

GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY: Eagle Creek Corporation
FIELD: Bemis-Shutts
LOCATION: 330' FSL & 1770' FEL
Sec. 5 Twp. 15S Rge. 16W
COUNTY: Ellis STATE: Kansas
CONTRACTOR: Sorocco Drlg.
RTD: 3600' DTD: 3604'
MUD UP: 2700' TYPE MUD: Chemical
SAMPLES SAVED FROM: 2800' TO: 3220'
SAMPLES EXAMINED FROM: 2800' TO: 3220'
GEOLOGICAL SUPERVISION FROM: 2700' to RTD
GEOLOGIST ON WELL: Bob O'Dell
DRILLING TIME AND SAMPLE SURVEYS: Sheridan Log Service

ELEVATIONS
KB: 1913'
DF:
GL: 1908'
Measurements Are All From KB

CASING
CONDUCTOR: 8 5/8" @ 256'
SURFACE: 4 1/2" @ 3600'
PRODUCTION:

TOPS (Log)
Anhydrite 1187 (+ 726)
Base Anhydrite 1215 (+ 698)
Topeka 2969 (- 1056)
Heebner Shale 3096 (- 1183)
Toronto 3118 (-1205)
Lansing 3140 (-1227)
Base Lansing
Arbuckle
Total Depth 3604 (-1691)

LOG TOPS
Anhydrite 1191 (+ 722)
Base Anhydrite 1215 (+ 698)
Topeka 2969 (- 1056)
Heebner Shale 3096 (- 1183)
Toronto 3118 (-1205)
Lansing 3140 (-1227)
Base Lansing
Arbuckle
Total Depth 3604 (-1691)

REMARKS: *Due to the results of structural position relative to nearby production, drillstem testing and electric log analysis, decision was made to plug and abandon the #1-14 Linn on 9/13/2013.*

Respectfully submitted,

Bob O'Dell
9/13/2013

LEASE NO. OR UNIT
Linn
#1
14

LEGEND
Anhydrite | Dolostone | Limestone | Shale | Carb Sh | Cherty LS | Chert | Conglomerate

DRILLING TIME IN MINUTES PER FOOT
Note of Penetration Decreases

DEPTH | LITHOLOGY | GAS SCALE | SAMPLE DESCRIPTION | REMARKS

GAS SCALE: 10 50 100 500

9/13/2013 - Geologist on location 4:30 p.m.
9/13/2013 - 7:00 a.m. 256' Surface
9/13/2013 - 7:00 a.m. 2700 ft. 8.9/70
9/13/2013 - 7:00 a.m. 2TOH after 53T #3 @ 3220'
9/13/2013 - 7:00 a.m. 2TI @ 3225
9/13/2013 - 7:00 a.m. 2TI @ 3460

Anhydrite
1187 (+ 722)

Base Anhydrite
1215 (+ 698)

Topeka
2969 (- 1056)

Heebner Shale
3096 (- 1183)

Toronto
3118 (-1205)

Lansing
3140 (-1227)

Base Lansing

Arbuckle
3467 (-1554)

Total Depth
3600 (-1691)

Lt brn, grey, f-vn stn, granular, part argill matrix, scattered fossiliferous, no vis porosity

Shale-dark gray

Lt white, pale grey, f-vn, part chalky, soft, part cherty, no vis porosity

Shale-grey, part calcareous

Shale-4 grey, slightly sandy to grey, dark grey, soft

Shale-grey, dark grey

Lt white, f grey, f-vn, part granular, scattered fossiliferous, no vis porosity

Shale-grey, dark grey, scattered sandy

Lt white, lt grey, f-vn, granular, scattered fossiliferous, calcitic, no vis porosity

Lt grey, f-vn, part argillaceous, part chalky, dense, no vis porosity

Lt white, lgy, grey, f-vn stn, scattered fossiliferous, calcitic, dense, no vis porosity, no show

Lt white, f-vn, granular, part calcitic, no visible porosity

Shale-grey, fissile

Lt white, lt grey, f-vn, granular, part argillaceous, scattered fossiliferous, no vis porosity

Lt brn, f-vn, granular, scattered fossil debris, part calcitic, no vis porosity

Lt brn above
Shale-dark gray, grey, part calcareous

Shale-grey, dark gray, fissile

Lt white, lt grey, f-vn, granular, part argillaceous, scattered fossiliferous, no vis porosity

Lt white, lt grey, f-vn, granular, part argillaceous, scattered fossiliferous, no vis porosity

Shale-grey, soft

Shale-black, dark gray

Lt brn, f-vn, granular, scattered fossiliferous, part chalky, poor vin porosity, no vis stain, no show, no odor, part lt brn to dark brn, no odor, part lt brn to lt saturation

Lt brn, wht, f-vn, fossiliferous, part granular, part chalky, poor vis porosity, no vis stain, no odor, part lt brn to lt saturation

Lt white, lt grey, f-vn, part calcitic, dense, part chalky, no vis porosity

Shale-black, hard

Shale-grey/green, slightly sandy

Lt white, scattered f-vn stn, chalky, finely fossiliferous, scattered calcitic, poor vis porosity, no vis stain, no odor, part lt brn to brn, show of free oil, faint odor, scattered dark patchy stn

Lt white, lt grey, f-vn, f-m, part calcareous, part chalky, part granular, no vis porosity

Shale-dark gray, dark red, part calcareous

Lt white, lt grey, f-vn, wh vn, mod chalky, dense, scattered granular, no vis porosity

Shale-grey, calcareous
Lt white, lt grey, f-vn, fossiliferous, argillaceous, no vis porosity

Lt white, lgy, f-vn, vn, finely fossiliferous, part calcitic, poor scattered vis porosity, no vis stain, no odor, part lt brn to brn, scattered dark fill & saturation

Lt grey, lgy, wh, f-vn, part chalky, dense, no vis porosity

Lt white, lt, wh, fossiliferous, part chalky, no vis porosity

Lt white, lgy, f-vn, fossiliferous, calcitic, part granular, part chalky, poor vin & scattered vis porosity, no vis stain, no odor, part lt brn to brn, scattered dark patchy stn

Lt white, lt grey, f-vn, f-m, part calcitic, part chalky, no vis porosity

Lt brn, f grey, white, f-vn stn, calcareous, finely fossiliferous, part granular, no vis porosity, no vis stain, no odor, part lt brn to brn, scattered dark patchy stn

Lt brn, f-vn, wh, f-m, calcareous, fossiliferous, part granular, part chalky, poor vis porosity, no vis stain, no odor, part lt brn to brn, scattered dark patchy stn

Shale-dark gray, dark green, grey

Shale-black, dark gray

Lt white, lt grey, f-vn, fossiliferous, calcitic, dense, no vis porosity

Lt white, f grey, wh, f-vn, wh, mod chalky, dense, scattered poor vin porosity, no vis stain, no odor, scattered dark patchy stn

Lt brn, f grey, f-vn, chalky, dense, no vis porosity

Shale-dark gray, black

Lt brn, f-vn, fossiliferous, calcitic, granular, poor vis porosity, no vis stain, no odor, part lt brn to brn, scattered dark patchy stn

Lt brn, f grey, white, f-vn, wh, part chalky, scattered calcitic, mod dense, no vis porosity

Lt white, lgy, vf, wh, dense, no vis porosity

Lt white, f-m, wh, fossiliferous, calcitic, part chalky, poor vis porosity, very slight show, oilcut free oil, no odor, patchy stn

Lt white, vf-f wh, scattered calcitic, dense, no vis porosity

Shale-dark gray, grey, dark green

Shale-dark red, grey, green, yellow
Chert-amber, sharp, flesh, angular

Chert-as above to white, wh/translucent, no vis porosity, no vis stain, no odor, wh/translucent
Shale-green, f green, well-sorted, semi-calcareous, soft

Chert-as above
Shale-dark grey, translucent, flesh, sharp, angular

Chert-as above

Shale-dark red, dark grey, dark green

Dolomite-green, f-vn, chunky, poor vis porosity, slight show heavy free oil, good odor, fair cut fluor
Shale-turquoise, waxy, finely cyrstln

Shale-as above

Dolomite-white, fair, f-vn stn, part sandy, scattered calcitic, poor vis porosity, slight show free lt, good odor, scattered dk stain saturation

Dolomite-lt grey, tan, f-vn, succrosic, semi-friable, fair to good vis porosity, slight show free oil, good odor, light dk & saturation

Dolomite-white, lt grey, f-vn, succrosic, mod friable, fair to good vis porosity, no stain, no show free oil, fair odor, light saturation

Dolomite-wh, white, vf-f wh, most dense, scattered calcitic, poor vis porosity, no show free oil, faint odor, scattered wh

DST #1
3460-3475
30-30-30-30
1st open: Weak blow building to 1/2"
2nd open: No blow

Rec. 20' Mud

FP: 17-22/24-25#
SIP: 1023-1023#
HP: 1535-1485#
Temp: 105°

DST #2
3475-3500
30-30-30-30
1st open: Weak blow building to 1"
2nd open: No blow

Rec. 5' Mud

FP: 17-19/19-20#
SIP: 1004-1004#
HP: 1555-1521#
Temp: 104°

DST #3
3203-3234
30-30-30-30
1st open: Weak Surface Blow
2nd open: No blow

Rec. 10' Mud

FP: 19-20/22-20#
SIP: 342-342#
HP: 1577-1548#
Temp: 107°

DST #4
3460-3475
30-45-60-60
1st open: Strong blow OBBS in 12"
2nd open: Strong blow OBBS7

Rec. 180' GIP, 514' SOCM, 60' HOCM, 60' wtrcy. w/trace, 1.7%M
WWrs.com sd

FP: 64-390/340-750#
SIP: 1139-1139#
HP: 1577-1548#
Temp: 114°
CHC: 16,000 ppm
Wtr: 3,000 ppm

Eagle Creek Corporation
Linn #1-14
330' FSL & 1770' FEL
Section 14-15s-16w
Ellis County, Kansas

Elev: 1913 KB

API # 15-051-26,592