



MIDWEST SURVEYS
LOGGING - PERFORATING - CONSULTING SERVICES
P.O. Box 68, Osawatomie, KS 66064
913 / 755 - 2128

GAMMA RAY / NEUTRON / CCL

File No.

Company **A & L Energy Operations, LLC.**

Well **Thoren No.- 55**

Field **Little Wakarusa**

County **Douglas** State **Kansas**

Location **860' FNL & 860' FEL**

NE-SW-NE-NE

Other Services

Perforate

Sec. 6 Twp. 14S Rge. 21E

Permanent Datum GL GL Elevation NA

Log Measured From GL GL

Drilling Measured From GL GL

Elevation K/B NA D/F NA G.L. NA

Date 07-09-2012

Run Number One

Depth Drier 758.0

Depth Logger 745.5

Bottom Logged Interval 744.5

Top Log Interval 20.0

Fluid Level Full

Type Fluid Water

Density / Viscosity NA

Salinity - PPM Cl NA

Max Recorded Temp NA

Estimated Cement Top 0.0

Equipment No. 104

Location Osawatomie

Recorded By Gary Wirsich

Witnessed By Jerid Heelm

BORE-HOLE RECORD

CASING RECORD

TO 44.3

FROM 0.0

SIZE 7.00"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0

TO 748.8

FROM 0.0

SIZE 2.875"

WGT. 0.0