

Computer Inventoried

3-10-202
SW, SW SW SW

WESTERN HORIZONTAL DRILLING

OKLAHOMA CITY, OKLAHOMA

KLM EXPLORATION

Lease	: BANKERS LIFE 1-AH
County	: LEAVENWORTH
State	: KANSAS
	:
Date Surveyed	: 3-16-92
	:
Performed By	: SCOTT CROSBY

K C C

MAY 13 1994

This survey is correct to the best of my knowledge
and is supported by actual field data.

..... COMPANY REPRESENTATIVE

WESTERN HORIZONTAL DRILLING

Customer : KLM EXPLORATION
Lease : BANKERS LIFE 1-AH
County : LEAVENWORTH
State : KANSAS
:

Date 3-16-92
Filename : KLM

No Interpolation

Plane of Vertical Section : 20.00°
Latitude & Departure relate to : SLOT CENTER
Vertical Section Originates at : SLOT CENTER
Slot Coordinates : Lat 0.000ft
: Dep 0.000ft
Directions Referenced To : PLATFORM NORTH
Depth at Drill Floor : 0.00 ft

Calculation Method : MINIMUM CURVATURE

Magnetic Declination : +0° 0.000'E
Platform north : +0° 0' 0'' (T)
Grid convergence : +0.0000°

WESTERN HORIZONTAL DRILLING

Customer : KLM EXPLORATION
Lease : BANKERS LIFE 1-AH
County : LEAVENWORTH
State : KANSAS

Page 1 of 1
Date 3-16-92
Filename : KLM

No Interpolation

MD ft	INC deg	DIR deg	C\L ft	TVD ft	VS ft	N/-S ft	E/-W ft	D'LEG °/100
1581.00	69.50	19.90	0	1477.20	253.56	237.00	90.20	0.00
1591.00	68.10	20.80	10	1480.82	262.88	245.74	93.44	16.32
1621.00	73.50	23.00	30	1490.68	291.18	272.01	104.01	19.29
1652.00	78.90	25.60	31	1498.07	321.19	299.43	116.40	19.23
1679.00	83.70	27.20	27	1502.16	347.70	323.33	128.27	18.71
1764.00	89.30	15.20	85	1507.36	432.34	402.26	158.86	15.55
1833.00	92.50	16.90	69	1506.28	501.15	468.56	177.93	5.25
1858.00	93.00	16.90	25	1505.08	526.09	492.45	185.19	2.00
1952.00	94.00	16.70	94	1499.34	619.76	582.27	212.30	1.08
2075.00	95.10	17.50	123	1489.58	742.22	699.46	248.35	1.10
2125.00	95.40	17.80	50	1485.01	791.97	746.90	263.45	0.85
2155.00	95.40	17.80	30	1482.18	821.81	775.34	272.58	0.00
2198.00	95.00	18.80	43	1478.29	864.61	816.00	286.03	2.50
2248.00	94.30	18.80	50	1474.23	914.44	863.17	302.09	1.40
2448.00	91.50	19.00	200	1464.11	1114.12	1052.13	366.78	1.40
2468.00	89.00	19.00	20	1464.03	1134.12	1071.04	373.29	12.50
2701.00	88.30	19.00	233	1469.52	1367.02	1291.28	449.13	0.30

Origin of Bottom Hole Closure SLOT
Bottom Hole Closure 1367 ft 19.18°

True Vertical Depth Scale 1 inch = 100 ft

Latitude Scale 1 inch = 400 ft

Departure Scale 1 inch = 400 ft

Vertical Section Scale 1 inch = 100 ft

PLANE OF VERT SECTN 020°

