



Survey Report

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INTEQ

MIN. CURVATURE CALCULATIONS (SPE-3362)

OPERATOR: D.H.Arrington Oil & Gas
WELL: John's Hopper #1
LOCATION: Lea County, New Mexico

START: 9/28/01
FINISH:
JOB #: 211075

SUA: 0-30-155-35e 760/S & 170D/E
BHL: P-30-155-35e 684/S & 721/E
30-025-32468

PROPOSED DIRECTION: 95.49
MAGNETIC TO GRID: 7.67

STATION NUMBER	SURVEY DEPTH	INC	TRUE AZM	TVD	N-S	E-W	VERT. SECTION	DLS/ 100
TIE IN	8900	1.40	132.0	8899.08	-5.20	55.53	55.8	0.0
1	8986	1.4	131.0	8985.1	-6.6	57.1	57.5	0.0
2	9021	1.8	107.5	9020.0	-7.0	58.0	58.4	2.2
3	9052	2.4	89.7	9051.0	-7.2	59.1	59.5	2.8
4	9114	3.1	94.3	9112.9	-7.3	62.0	62.4	1.2
5	9176	4.1	95.4	9174.8	-7.6	65.9	66.3	1.6
6	9236	5.1	93.2	9234.6	-8.0	70.7	71.2	1.7
7	9298	5.9	96.0	9296.3	-8.5	76.6	77.1	1.4
8	9357	6.0	98.0	9355.0	-9.2	82.7	83.2	0.4
9	9420	6.6	96.3	9417.6	-10.1	89.6	90.1	1.0
10	9483	7.5	92.5	9480.2	-10.7	97.3	97.8	1.6
11	9545	8.1	94.4	9541.6	-11.2	105.7	106.2	1.1
12	9607	8.4	95.0	9603.0	-11.9	114.5	115.1	0.5
13	9669	8.9	93.4	9664.2	-12.6	123.8	124.5	0.9
14	9732	9.1	93.2	9726.5	-13.1	133.7	134.3	0.3
15	9794	9.4	92.5	9787.7	-13.6	143.6	144.3	0.5
16	9857	9.9	91.9	9849.8	-14.0	154.2	154.8	0.8
17	9919	10.6	90.4	9910.8	-14.3	165.2	165.8	1.2
18	9981	11.4	94.2	9971.6	-14.7	177.0	177.6	1.7
19	10044	11.7	94.3	10033.4	-15.7	189.6	190.2	0.5
20	10106	12.3	95.4	10094.0	-16.8	202.4	203.1	1.0
21	10169	12.5	93.5	10155.5	-17.8	215.9	216.6	0.7
22	10232	13.2	94.5	10217.0	-18.8	229.9	230.6	1.2
23	10295	14.6	94.5	10278.1	-20.0	245.0	245.8	2.2
24	10358	14.2	95.9	10339.1	-21.4	260.6	261.4	0.8
25	10419	14.7	92.6	10398.2	-22.5	275.8	276.7	1.6
26	10482	14.4	94.2	10459.2	-23.5	291.6	292.5	0.8

BHI DIRECTIONAL DRILLER: NICK FREDRICK

