## WELL LOG

OPERATOR: Liberty Enterprises, Inc.			
			LOCATION ON OF NEW / 440 470
WELL NAME: Orlan Carmichael #1			LOCATION: SW SE NE 4-11S-17W
COUNTY: Ellis			STATE: Kansas
WELL (	COMMENCED:	February 4, 1980	WELL COMPLETED: February 13, 1980
ELEVATION:		1926' K.B.	TOTAL DEPTH: 3540'
PRODUCTION:		Oil	RIG NO: #1
CASING	G - 8-5/8":	201.89' of 28# cemen	nted with 130 sxs common 2% gel 3% cc
	5-1/2":	3535' of 14# cement	ed with 200 sxs 60-40 poz 8% salt
AT! MI	PARHREMENTS	TAKEN FROM THE TOP (	yellow wrap, Plug down @ 11:40 P.M.
NUL III	TAGORETICATES	TARDA THOU THE TOU	DEVIATION
			FROM
FROM	TO	FORMATION	VERTICAL REMARKS:
0 '	210'	surface sand	
210'	524	sand and clay	
524 <b>'</b>	1157'	sands and shales	800! - 1 degree
1157'	1159'	sand and shale	
1159'	1193 <b>'</b>	Anhydrite	
1193'	1808 <b>'</b>	sand and shale	•
1809'	1925 <b>'</b>	shale and sand	1925' - 1 degree
1925'	1995'	shale and lime	
1995	2210'	shales and shells	
2210'		shale and lime	
	2726'	shale and lime	
	2904 <b>'</b>	limes and shales	
	2950 <b>'</b>	limes and shale	
	30351	shale and lime	
3035 '	315 <b>7'</b>	lime and shale	
3157'	3250 <b>'</b>	limes and shales	3250' - 1 3/4 degrees
3250 <b>'</b>	3250 <b>'</b>	lime and shale	
3250'	3340 <b>'</b>	lime and shale	
3340'	3380'	lime and shale	
3380'	3462	limes and shales	3462' - 1 3/4 degrees
34621	3498 <b>'</b>	lime and shale	
3498	3500 <b>'</b>	shale and lime	
3500	3513 <b>'</b>	lime and shale	
3513	3540'	shale and lime	
3540	TTR		