

Results of Directional Survey

30-041-20832

H L BROWN OPERATING LLC
FEDERAL 27 A # 1

	MD	N/S	E/W	VD
	7987	-256.64	-27.40	7943.02
TOP PERFS/OH	7989	-258.32	-27.23	7944.07
	8047	-307.02	-22.20	7974.64
	9700	-1955.81	-40.51	7993.34
BOT PERFS/OH	9700	-1955.81	-40.51	7993.34

NEXT TO LAST	9669	-1924.84	-41.87	7993.34
LAST READING	9700	-1988.81	-40.51	7993.34
TD	9700	-1988.81	-40.51	7993.34

Surface Location	660	FN	1980	FW
Projected BHL	2649	FN	1939	FW
Location of				
Top Perfs/OH	918	FN	1953	FW
Bottom Perfs/OH	2616	FN	1939	FW

SUMMARY of Subsurface Locations

Surface Location	C-27-7S-37E	660	FN	1980	FW	Vert. Depth
Top Perfs/OH	C-27-7S-37E	918	FN	1953	FW	7944.07
Bottom Perfs/OH	F-27-7S-37E	2616	FN	1939	FW	7993.34
Projected TD	F-27-7S-37E	2649	FN	1939	FW	7993.34