

Results of Directional Survey

API number:	30-025-39889		
OGRID:		Operator:	CIMAREX ENERGY CO. OF COLORADO
		Property:	SOUTHERN CALIFORNIA 29 FEDERAL # 18H

surface	ULSTR:	A	29	T 19S	R 32E
				1140 FNL	330 FEL

BH Loc	ULSTR:	D	29	T 19S	R 32E
13965	MD	9317.1	TVD	352 FNL	4964 FEL
					316 FWL

Top Perf/OH	ULSTR:	A	29	T 19S	R 32E
9270	MD	9244.9	TVD	1286 FNL	412 FEL

Bot Perf/OH	ULSTR:	D	29	T 19S	R 32E
12969	MD	9325.9	TVD	528 FNL	3984 FEL
					1296 FWL

	MD	N/S	E/W	VD
	9213	-133.66	-52.00	9197.98
TOP PERFS/OH	9270	-145.96	-81.72	9244.88
	9277	-147.47	-85.37	9250.64
	12963	610.29	-3648.44	9325.95
BOT PERFS/OH	12969	611.65	-3654.28	9325.92
	13026	624.52	-3709.81	9325.62

NEXT TO LAST	13790	762.15	-4460.94	9322.27
LAST READING	13853	771.56	-4523.21	9320.40
TD	13965	788.29	-4633.91	9317.08

Surface Location	1140	FN	330	FE
Projected BHL	352	FN	4964	FE
Location of				
Top Perfs/OH	1286	FN	412	FE
Bottom Perfs/OH	528	FN	3984	FE

SUMMARY of Subsurface Locations

Surface Location	A-29-19S-32E	1140	FN	330	FE	Vert. Depth
Top Perfs/OH	A-29-19S-32E	1286	FN	412	FE	9244.88
Bottom Perfs/OH	D-29-19S-32E	528	FN	3984	FE	9325.92
Projected TD	D-29-19S-32E	352	FN	4964	FE	9317.08