

Results of Directional Survey

API number:	30-025-35988		
OGRID:		Operator:	COG OPERATING LLC
		Property:	JC FEDERAL # 3

surface	ULSTR:	L	22	T	17S	R	32E
			2310	FSL	330	FWL	

BH Loc	ULSTR:	J	22	T	17	R	32E
			2318	FSL	400	FWL	

	MD	N/S	E/W	VD
	6000	4.92	54.57	5999.26
TOP PERFS/OH	6030	4.66	55.25	6029.25
	6100	4.05	56.83	6099.23
	6700	5.72	67.26	6699.13
BOT PERFS/OH	6790	6.04	68.07	6789.13
	6800	6.08	68.16	6799.13

NEXT TO LAST	6800	6.08	68.16	6799.13
LAST READING	6890	6.67	68.85	6889.12
TD	7020	7.52	69.85	7019.11

Surface Location	2310	FS	330	FW
Projected BHL	2318	FS	400	FW
Location of				
Top Perfs/OH	2315	FS	385	FW
Bottom Perfs/OH	2316	FS	398	FW

SUMMARY of Subsurface Locations

Surface Location	L-22-17S-32E	2310	FS	330	FW	Vert. Depth
Top Perfs/OH	L-22-17S-32E	2315	FS	385	FW	6029.25
Bottom Perfs/OH	L-22-17S-32E	2316	FS	398	FW	6789.13
Projected TD	L-22-17S-32E	2318	FS	400	FW	7019.11