OIL CONSERVATION DIVISION

Directional Survey Log

MESA GRANDE RESOURCES, INC. 1200 Philtower Building

Tulsa, Oklahoma 74103 FEDERAL HELLCAT #1 Operator Well Name No. Sec. Twp. Range

Rio Arriba County, New Mexico

	iation	Dev	Depth	Date
	degree 📜	1/2	500'	9/27/84
RECEIVED	degree	3/4	851'	9/28/84
IN TO BUY ELL	degree	3/4	1,050'	9/28/84
ព្យ	degree U	3/4	1,365'	9/29/84
NOV 0 4 1985	degree	3/4	1,721'	9/29/84
. •	degree /	3/4	2,121'	9/29/84
OIL CON. DIV.	degree	1	2,750'	9/30/84
DIST. 3	degree	1	3,063'	9/30/84
	degree	1/4	3,614'	10/01/84
	degree	1	4,115'	10/03/84
	degree	1	4,738'	10/04/84
	degree	1/2	5,141'	10/05/84
	degrees	3	5,754'	10/06/84
	degree	3/4	6,204'	10/09/84
	degree	3/4	6,890'	10/10/84
	degrees	1 1/2	7,468'	10/13/84
T.D.	degrees T.	2	8,024'	10/16/84

Christopher L. Phillips

STATE OF OKLAHOMA SS. COUNTY OF TULSA

On this 30 day of October, 1985, before me personally appeared Christopher L. Phillips, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

IN WITNESS WHEREOF, I have set my hand and seal of office the 30 day of October, 1985.

My Commission Expires: