

SCIENTIFIC DRILLING											
HORIZONTAL SURVEY PROGRAM											
MINIMUM CURVATURE CALCULATIONS(SPE-3362)											
OPERATOR: BP		WELL: WASH,33 STATE 1		START: 04/10/2001							
LOCATION: EDDY COUNTY, TEXAS		FINISH:		INFORMATION PROVIDED BY: SDI							
JOB NO: 32D0401207		DIR. COORDINATORS: B. HOFFMAN, DHALE									
DIP1 = -7.94 deg		= 82.05 deg		DIP2 = -7.94 deg		= 82.05					
TARGET1 = 2482.70 R TVD				TARGET2 = 3415.80 R TVD							
VS1 = 159.00 R				VS2 = 1000.00 R							
DATE: 04/10/2001		TIME: 5:24		DECLINATION= 9.35		DIRECTION: 198.66					
TRUE CENTER											
SVY MEASURED	INCL	AZMUTH	VERTICAL	DLS/	ACTUAL	BUR	ABOVE(+)	RIGHT(+)	NORTH(+)	EAST(+)	
#	DEPTH	(DRIFT)	(DR)	DEPTH	SECTION	100	BUR	BELOW(-)	LEFT(-)	SOUTH(-)	WEST(-)
TD	3440	84.10	181.00	2597.20	991.17	1.3	-0.6	2.5	1.5	-10.8	-852.66
											-273.81