* BIT # 19   SMITH F2   BIT DIAMETER : 12.25 inch   NOZZ 16/16/16

MUD RHEOLOGICAL PARAMETERS : PV = 11 YP = 9 GEL = 2

TIME Hr:mn	MEASURED feet	VERTCL feet	LAGGED feet	ROP ft/h	WOB klbs	RPM rpm	TORQ ftlb	PRESS psi	FLOW IN gpm	PIT VOL bbls	DENS IN ppg	DENS OUT ppg	TEMP IN degF	TEMP OUT degF	RES IN ohm	RES OUT ohm	GAS unit	DCS	NORM	PF ppg	ECD ppg	FRAC ppg	FEET	TIME DHr	COST $
D 2:45	6384.0	6382.0	6332.0	74.3	16.2	83	2000	1655	559	378	9.3	9.5	74.9	91.0	.70	.69	7	.93	1.35	9.7	9.3	15.4	103.0	3.26	411
D 2:45	6384.2	6382.0	6332.0	74.3	18.0	83	2000	1660	556	378	9.2	9.5	74.8	91.1	.70	.69	7	.93	1.35	9.7	9.3	15.4	103.0	3.27	411
D 2:47	6385.1	6383.1	6334.0	39.4	22.9	101	1800	1660	565	380	9.2	9.5	74.8	90.9	.70	.69	7	1.09	1.35	10.6	9.3	15.6	104.1	3.29	408
D 2:55	6386.0	6383.1	6342.0	39.4	29.9	92	1000	1660	570	378	9.2	9.5	75.1	91.1	.70	.70	7	1.09	1.35	10.6	9.3	15.6	104.1	3.42	408
D 2:59	6387.0	6385.0	6342.0	13.2	36.0	89	1700	1660	580	384	9.2	9.5	75.1	91.5	.70	.69	7	1.54	1.35	9.7	9.3	15.4	106.0	3.50	407
D 3:2	6388.3	6386.3	6344.0	34.1	25.9	78	2200	1651	565	384	9.3	9.5	75.2	91.4	.70	.70	7	1.29	1.35	9.7	9.3	15.4	107.3	3.54	404
D 3:2	6389.1	6386.3	6344.0	34.1	25.9	80	2100	1655	565	386	9.3	9.5	75.2	91.4	.70	.70	7	1.29	1.35	9.7	9.3	15.4	107.3	3.55	404
D 3:3	6390.0	6387.8	6344.0	114.8	23.7	78	1800	1655	570	386	9.3	9.5	75.2	91.3	.70	.70	7	1.05	1.35	9.7	9.3	15.4	109.0	3.55	398
D 3:6	6391.3	6389.3	6347.0	26.7	22.6	93	2900	1664	570	388	9.3	9.5	75.4	91.0	.70	.70	7	1.10	1.35	10.6	9.3	15.6	110.3	3.60	395
D 3:8	6392.2	6390.1	6349.0	33.6	14.5	87	2300	1660	575	384	9.3	9.5	75.4	91.9	.70	.69	7	.98	1.35	9.7	9.3	15.4	111.1	3.63	393
D 3:14	6393.0	6390.1	6353.0	33.6	10.7	81	2700	1655	565	384	9.3	9.5	75.6	92.2	.70	.69	7	.98	1.35	9.7	9.3	15.4	111.1	3.70	393
D 3:29	6395.1	6393.1	6369.0	18.0	-2.7	78	1100	1628	565	400	9.3	9.4	76.1	93.4	.70	.69	7	1.26	1.35	9.7	9.3	15.4	114.1	3.82	389
D 3:30	6400.5	6397.5	6369.0	1186.	-2.1	79	1100	1628	561	402	9.3	9.5	76.0	93.6	.71	.70	7	-.00	1.35	9.7	9.3	15.4	118.5	3.82	374
D 3:30	6402.3	6400.3	6369.0	330.7	5.4	76	1400	1637	565	400	9.3	9.5	76.1	93.7	.70	.69	7	.39	1.35	9.7	9.3	15.4	121.3	3.83	366
D 3:45	6403.4	6400.3	6379.0	330.7	19.6	76	2200	1642	567	406	9.3	9.5	76.4	92.6	.70	.70	7	.39	1.35	9.7	9.3	15.4	121.3	4.07	366
D 3:49	6404.8	6402.8	6383.0	21.5	25.2	80	1500	1642	565	408	9.2	9.5	76.8	92.2	.71	.70	7	1.29	1.35	9.7	9.3	15.4	123.0	4.14	368
D 3:54	6405.4	6403.4	6385.0	7.1	26.5	73	2200	1642	561	406	9.3	9.4	76.8	92.3	.71	.69	7	1.62	1.35	9.7	9.3	15.4	124.4	4.22	368
D 3:54	6406.1	6404.1	6385.0	134.3	22.5	79	1700	1655	561	406	9.3	9.5	76.8	92.8	.70	.70	7	.82	1.35	9.7	9.3	15.4	124.4	4.22	366
D 3:58	6407.2	6405.2	6385.0	17.0	16.1	80	1900	1660	570	406	9.2	9.4	76.9	92.6	.71	.70	7		1.35	9.6	9.3	15.4	126.2	4.28	365
D 4:3	6408.1	6406.1	6386.0	10.2	14.1	75	2100	1651	570	406	9.3	9.4	77.0	92.6	.70	.69	7	1.29	1.35	9.7	9.3	15.4	127.1	4.37	365
D 4:25	6409.4	6407.4	6393.0	6.3	20.4	82	2100	1709	569	424	9.3	9.4	77.2	92.6	.71	.69	7	1.42	1.35	9.7	9.3	15.4	128.4	4.59	367
D 4:26	6410.1	6407.4	6393.0	6.3	16.9	82	2000	1700	575	424	9.2	9.4	77.2	92.8	.71	.69	7	1.42	1.35	9.7	9.3	15.4	128.4	4.61	367
D 4:27	6411.3	6408.1	6393.0	27.1	21.0	79	2200	1696	579	420	9.3	9.4	77.1	93.0	.71	.69	7	1.18	1.35	10.0	9.3	15.5	129.1	4.64	366
D 4:30	6412.3	6409.3	6393.0	52.2	18.6	82	2300	1705	570	426	9.3	9.3	77.2	92.7	.71	.69	7	1.04	1.35	9.7	9.3	15.4	130.3	4.67	363
D 4:31	6413.1	6411.1	6393.0	28.4	17.7	79	1600	1696	574	426	9.2	9.3	77.2	93.2	.71	.69	7	1.11	1.35	10.5	9.3	15.6	132.1	4.70	360
D 4:33	6414.3	6411.1	6393.0	28.4	16.1	77	2700	1687	574	428	9.3	9.4	77.2	93.3	.71	.69	7	1.11	1.35	10.5	9.3	15.6	132.1	4.73	360
D 4:35	6415.4	6413.4	6393.0	27.0	15.1	86	1800	1705	575	430	9.2	9.3	77.4	93.1	.71	.70	7	1.12	1.35	10.5	9.3	15.6	134.4	4.77	356
D 4:36	6416.2	6413.4	6393.0	27.0	16.0	80	2600	1691	575	432	9.3	9.3	77.3	93.0	.70	.69	7	1.12	1.35	10.5	9.3	15.6	134.4	4.79	356
D 4:38	6417.2	6414.2	6399.0	46.7	16.5	83	2400	1691	574	432	9.3	9.4	77.4	92.6	.71	.70	7	1.02	1.35	9.7	9.3	15.4	135.2	4.81	354
D 4:39	6418.1	6415.2	6399.0	52.1	15.1	88	2000	1709	570	430	9.3	9.3	77.4	92.4	.71	.70	7	.98	1.35	9.7	9.3	15.4	136.2	4.83	352
D 4:41	6419.3	6416.1	6402.0	30.9	13.3	94	1700	1754	579	432	9.2	9.4	77.4	92.3	.71	.69	7	1.10	1.35	10.6	9.3	15.6	137.1	4.87	351
D 4:42	6420.1	6417.3	6402.0	35.7	15.5	86	2000	1687	587	436	9.3	9.4	77.4	92.5	.71	.70	7	1.06	1.35	10.9	9.3	15.7	138.3	4.88	348
D 4:44	6421.4	6418.1	6402.0	52.4	14.8	84	2700	1660	570	440	9.3	9.4	77.5	92.6	.71	.69	7	1.04	1.35	9.7	9.3	15.4	139.3	4.91	347
D 4:45	6422.1	6419.4	6402.0	48.2	15.1	91	2100	1669	570	442	9.3	9.4	77.4	92.7	.71	.70	7	1.03	1.35	9.7	9.3	15.4	140.4	4.93	344
D 4:46	6423.1	6421.1	6402.0	43.5	19.6	93	2200	1673	570	440	9.3	9.4	77.4	92.7	.71	.70	7	1.03	1.35	9.7	9.3	15.4	140.4	4.93	344
D 4:48	6424.2	6421.1	6402.0	43.5	14.3	93	2000	1669	566	452	9.3	9.4	77.5	92.8	.71	.69	7	1.03	1.35	9.7	9.3	15.4	142.1	4.95	341
D 4:50	6425.1	6423.1	6402.0	28.2	14.6	93	2300	1673	575	456	9.3	9.3	77.2	92.7	.71	.70	7	1.11	1.35	10.5	9.3	15.6	144.1	5.01	338
D 4:51	6426.1	6423.1	6402.0	28.2	10.9	92	1800	1669	570	454	9.3	9.3	77.5	92.2	.71	.70	7	1.11	1.35	10.5	9.3	15.6	144.1	5.03	338
D 4:52	6427.2	6424.1	6402.0	61.6	20.7	89	2400	1673	570	454	9.3	9.3	77.5	92.4	.71	.70	7	.91	1.35	9.7	9.4	15.4	145.1	5.05	336
D 4:53	6428.1	6426.1	6402.0	75.8	16.4	89	2700	1669	570	454	9.3	9.3	77.6	92.5	.71	.70	7	.94	1.35	9.7	9.4	15.4	147.1	5.07	332
D 4:56	6429.0	6427.0	6403.0	23.8	18.6	100	2200	1678	575	454	9.3	9.3	77.7	92.6	.71	.70	7	1.20	1.35	9.8	9.3	15.4	148.0	5.11	331
D 4:56	6430.0	6427.0	6404.0	23.8	12.1	95	1800	1678	575	456	9.3	9.3	77.6	92.9	.71	.70	7	1.20	1.35	9.8	9.3	15.4	148.0	5.12	331
D 5:0	6431.3	6429.3	6404.0	21.8	18.6	95	1700	1673	570	456	9.3	9.4	77.6	92.6	.71	.70	7	1.21	1.35	9.7	9.3	15.4	150.3	5.18	328
D 5:1	6432.5	6430.5	6405.0	78.9	19.2	96	2000	1678	565	458	9.3	9.4	77.7	92.3	.71	.70	7	.95	1.35	9.7	9.3	15.4	151.5	5.19	326
D 5:2	6433.1	6431.1	6405.0	37.1	19.3	91	3500	1655	575	456	9.2	9.4	77.7	92.3	.71	.70	7	1.10	1.35	10.6	9.3	15.7	152.1	5.21	325
D 5:3	6434.0	6431.1	6406.0	37.1	15.4	91	2100	1669	570	456	9.3	9.4	77.8	92.3	.71	.70	7	1.10	1.35	10.6	9.3	15.7	152.1	5.24	325
D 5:4	6435.1	6433.1	6406.0	97.9	18.6	91	1800	1664	570	458	9.3	9.4	77.7	92.3	.71	.70	7	.86	1.35	9.7	9.3	15.4	154.1	5.25	322
D 5:6	6436.1	6433.1	6407.0	97.9	12.6	93	1700	1678	575	458	9.3	9.4	77.7	92.3	.71	.70	7	.86	1.35	9.7	9.3	15.4	154.1	5.28	322
D 5:10	6437.2	6435.2	6407.0	18.2	15.1	100	1600	1646	574	460	9.3	9.4	77.8	92.7	.71	.70	7	1.22	1.35	9.6	9.3	15.4	156.2	5.35	320