

## Line Log

Line Name: Off-Line

Start Of Line: 20/11/2004 23:06:09

Shotpoint	Log Time	Message
1018	20/11/2004 23:06:10	LINE START - Off-Line shot 1018 time 11-20-2004 23:6:9.285000
1019	20/11/2004 23:06:18	SOL String pressures 1:2126.3 PSI 2:2084.3 PSI 3:2081.8 PSI
	20/11/2004 23:06:18	Volume source 1 100 cu in (ideal volume 3040) 3.3%
1202	20/11/2004 23:31:40	Operator command, GUN String_2 Cluster_6 Gun_8 Enable
	20/11/2004 23:31:41	Operator command, GUN String_3 Cluster_3 Gun_5 Disable
1203	20/11/2004 23:31:45	Volume source 1 changed from 100 to 70 cu in (ideal volume 3040) 2.3%
1439	21/11/2004 00:04:23	Operator Command Soft Start initialised
	21/11/2004 00:04:27	Operator command, All GUNs Enable
1440	21/11/2004 00:04:32	Volume source 1 changed from 70 to 40 cu in (ideal volume 3040) 1.3%
1452	21/11/2004 00:06:12	Volume source 1 changed from 40 to 80 cu in (ideal volume 3040) 2.6%
1464	21/11/2004 00:07:51	Volume source 1 changed from 80 to 150 cu in (ideal volume 3040) 4.9%
1476	21/11/2004 00:09:31	Volume source 1 changed from 150 to 220 cu in (ideal volume 3040) 7.2%
1488	21/11/2004 00:11:11	Volume source 1 changed from 220 to 290 cu in (ideal volume 3040) 9.5%
1500	21/11/2004 00:12:50	Volume source 1 changed from 290 to 390 cu in (ideal volume 3040) 12.8%
1512	21/11/2004 00:14:30	Volume source 1 changed from 390 to 490 cu in (ideal volume 3040) 16.1%
1524	21/11/2004 00:16:09	Volume source 1 changed from 490 to 640 cu in (ideal volume 3040) 21.1%
1536	21/11/2004 00:17:49	Volume source 1 changed from 640 to 790 cu in (ideal volume 3040) 26.0%
1548	21/11/2004 00:19:28	Volume source 1 changed from 790 to 940 cu in (ideal volume 3040) 30.9%
1560	21/11/2004 00:21:08	Spread error 4.6mS (limit 2.0mS) earliest String_3 Cluster_6 Gun_9 (error -0.1mS) latest String_1 Cluster_3 Gun_6 (error 4.5mS)
	21/11/2004 00:21:08	String_1 Cluster_3 Gun_6 (100 cu in) fired 4.5 mS late.
	21/11/2004 00:21:08	Volume source 1 changed from 940 to 1140 cu in (ideal volume 3040) 37.5%
1561	21/11/2004 00:21:16	Spread error 4.6mS (limit 2.0mS) earliest String_1 Cluster_3 Gun_6 (error -4.5mS) latest String_1 Cluster_6 Gun_9 (error 0.1mS)
	21/11/2004 00:21:16	String_1 Cluster_3 Gun_6 (100 cu in) fired 4.5 mS early.
1572	21/11/2004 00:22:48	Spread error 3.7mS (limit 2.0mS) earliest String_3 Cluster_6 Gun_9 (error -0.1mS) latest String_3 Cluster_3 Gun_6 (error 3.6mS)
	21/11/2004 00:22:48	String_3 Cluster_3 Gun_6 (100 cu in) fired 3.6 mS late.
	21/11/2004 00:22:48	Volume source 1 changed from 1140 to 1340 cu in (ideal volume 3040) 44.1%
1573	21/11/2004 00:22:56	Spread error 4.1mS (limit 2.0mS) earliest String_3 Cluster_3 Gun_6 (error -3.5mS) latest String_3 Cluster_3 Gun_5 (error 0.6mS)
	21/11/2004 00:22:56	String_3 Cluster_3 Gun_6 (100 cu in) fired 3.5 mS early.
1584	21/11/2004 00:24:27	Volume source 1 changed from 1340 to 1640 cu in (ideal volume 3040) 53.9%
1596	21/11/2004 00:26:07	Spread error 2.9mS (limit 2.0mS) earliest String_3 Cluster_3 Gun_5 (error -0.1mS) latest String_3 Cluster_2 Gun_4 (error 2.8mS)
	21/11/2004 00:26:07	String_3 Cluster_2 Gun_4 (150 cu in) fired 2.8 mS late.
	21/11/2004 00:26:07	Volume source 1 changed from 1640 to 1940 cu in (ideal volume 3040) 63.8%
1597	21/11/2004 00:26:15	Spread error 2.9mS (limit 2.0mS) earliest String_3 Cluster_2 Gun_4 (error -2.9mS) latest String_3 Cluster_6 Gun_9 (error 0.0mS)
	21/11/2004 00:26:15	String_3 Cluster_2 Gun_4 (150 cu in) fired 2.9 mS early.
1608	21/11/2004 00:27:46	Spread error 7.0mS (limit 2.0mS) earliest String_3 Cluster_3 Gun_5 (error -0.1mS) latest String_1 Cluster_1 Gun_1 (error 6.9mS)

## Line Log: Off-Line (continued)

Shotpoint	Log Time	Message
	21/11/2004 00:27:46	String_1 Cluster_1 Gun_2 (250 cu in) fired 5.0 mS late.
	21/11/2004 00:27:46	String_1 Cluster_1 Gun_1 (250 cu in) fired 6.9 mS late.
	21/11/2004 00:27:47	Volume source 1 changed from 1940 to 2440 cu in (ideal volume 3040) 80.3%
1609	21/11/2004 00:27:55	Spread error 5.9mS (limit 2.0mS) earliest String_1 Cluster_1 Gun_1 (error -5.8mS) latest String_3 Cluster_2 Gun_4 (error 0.1mS)
	21/11/2004 00:27:55	String_1 Cluster_1 Gun_2 (250 cu in) fired 5.0 mS early.
	21/11/2004 00:27:55	String_1 Cluster_1 Gun_1 (250 cu in) fired 5.8 mS early.
1620	21/11/2004 00:29:26	Spread error 5.1mS (limit 2.0mS) earliest String_3 Cluster_6 Gun_9 (error -0.1mS) latest String_3 Cluster_1 Gun_2 (error 5.0mS)
	21/11/2004 00:29:26	String_3 Cluster_1 Gun_2 (250 cu in) fired 5.0 mS late.
	21/11/2004 00:29:26	String_3 Cluster_1 Gun_1 (250 cu in) fired 4.8 mS late.
	21/11/2004 00:29:26	Volume source 1 changed from 2440 to 2940 cu in (ideal volume 3040) 96.7%
1621	21/11/2004 00:29:34	Spread error 5.1mS (limit 2.0mS) earliest String_3 Cluster_1 Gun_2 (error -5.0mS) latest String_1 Cluster_3 Gun_5 (error 0.1mS)
	21/11/2004 00:29:34	String_3 Cluster_1 Gun_2 (250 cu in) fired 5.0 mS early.
	21/11/2004 00:29:34	String_3 Cluster_1 Gun_1 (250 cu in) fired 3.9 mS early.
1632	21/11/2004 00:31:06	Spread error 4.5mS (limit 2.0mS) earliest String_3 Cluster_1 Gun_1 (error -0.2mS) latest String_2 Cluster_1 Gun_2 (error 4.3mS)
	21/11/2004 00:31:06	String_2 Cluster_1 Gun_2 (300 cu in) fired 4.3 mS late.
	21/11/2004 00:31:06	String_2 Cluster_1 Gun_1 (300 cu in) fired 3.8 mS late.
	21/11/2004 00:31:06	Volume source 1 changed from 2940 to 3540 cu in (ideal volume 3040) 116.4%
1633	21/11/2004 00:31:14	Spread error 4.3mS (limit 2.0mS) earliest String_2 Cluster_1 Gun_2 (error -4.2mS) latest String_3 Cluster_3 Gun_6 (error 0.1mS)
	21/11/2004 00:31:14	String_2 Cluster_1 Gun_2 (300 cu in) fired 4.2 mS early.
	21/11/2004 00:31:14	String_2 Cluster_1 Gun_1 (300 cu in) fired 3.4 mS early.
1640	21/11/2004 00:32:12	Operator command, GUN String_1 Cluster_1 Gun_2 Disable
	21/11/2004 00:32:13	Operator command, GUN String_1 Cluster_3 Gun_6 Disable
	21/11/2004 00:32:14	Operator command, GUN String_2 Cluster_1 Gun_1 Disable
	21/11/2004 00:32:15	Operator command, GUN String_2 Cluster_1 Gun_2 Disable
	21/11/2004 00:32:16	Operator command, GUN String_3 Cluster_2 Gun_4 Disable
1641	21/11/2004 00:32:20	Volume source 1 changed from 3540 to 2440 cu in (ideal volume 3040) 80.3%
1644	21/11/2004 00:32:45	Spread error 4.7mS (limit 2.0mS) earliest String_1 Cluster_1 Gun_1 (error -0.5mS) latest String_2 Cluster_2 Gun_3 (error 4.2mS)
	21/11/2004 00:32:45	String_2 Cluster_2 Gun_4 (300 cu in) fired 2.1 mS late.
	21/11/2004 00:32:45	String_2 Cluster_2 Gun_3 (300 cu in) fired 4.2 mS late.
	21/11/2004 00:32:46	Volume source 1 changed from 2440 to 3040 cu in (ideal volume 3040)
1645	21/11/2004 00:32:53	Spread error 4.3mS (limit 2.0mS) earliest String_2 Cluster_2 Gun_3 (error -4.2mS) latest String_3 Cluster_4 Gun_7 (error 0.1mS)
	21/11/2004 00:32:53	String_2 Cluster_2 Gun_4 (300 cu in) fired 2.1 mS early.
	21/11/2004 00:32:53	String_2 Cluster_2 Gun_3 (300 cu in) fired 4.2 mS early.
1651	21/11/2004 00:33:44	Operator Command SHOT DISABLE
	21/11/2004 00:34:08	Operator Command INTNL SINGLE ARRAY
1658	21/11/2004 00:35:05	tcucom - process_tcu_message: Common clock was 1010 milli seconds fast
1697	21/11/2004 00:40:30	Operator Command SHOT DISABLE
	21/11/2004 00:42:43	Operator Command INTNL SINGLE ARRAY

## Line Log: Off-Line (continued)

Shotpoint	Log Time	Message
1705	21/11/2004 00:43:47	Operator Command EXTERNAL fire
	21/11/2004 00:43:52	Timeout on message read from Navigation system
	21/11/2004 00:44:17	Timeout on message read from Navigation system
	21/11/2004 00:44:42	Timeout on message read from Navigation system
	21/11/2004 00:45:07	Timeout on message read from Navigation system
	21/11/2004 00:45:32	Timeout on message read from Navigation system
	21/11/2004 00:45:57	Timeout on message read from Navigation system
	21/11/2004 00:46:23	Timeout on message read from Navigation system
	21/11/2004 00:46:48	Timeout on message read from Navigation system
981	21/11/2004 00:46:55	Missed Shot(s). Last S.P. 1705 this shot 981 (expected increment/decrement 1)
1001	21/11/2004 00:50:31	Start of line OEP04-29-01-023 shot 1001
		Totalshots on line = 708 Shots with one or more errors 21 (3.0%)
		Shots with bad timing 21 (3.0%)