



Velocity Data Pty Ltd

WELL VELOCITY SURVEY

CLIENT : GAS & FUEL EXPLORATION
WELL IDENTIFICATION : PINE LODGE #1
SURVEY DATE : 29-AUG-90
SURVEY TIME : 03:17:20
SURVEY UNITS : METRES
AUTHORITY TO PROSPECT : PEP 105

WELL LATITUDE : 037 58 25.44
WELL LONGITUDE : 141 21 41.60

KELLY ELEVATION : 57.3
GROUND ELEVATION : 51.6

WEATHER : FINE

ENERGY SOURCE : AN60

CLIENT REP : MR A. TABASSI
OBSERVER : N DELFOS
SHOOTER : J BROWN

RIG IDENTIFICATION : A.T.CO
CASING DEPTH : 305.7
LOGGING UNIT : HALIBURTON DDL07

RECORDING INSTRUMENTS : VDLS11/10
SYSTEM DELAY TIME 4 MSEC.

TRACE DISPLAY.

SHOT 2 Time 04:05:18 Level : 51.7 Shot location : A
Shot depth : 0.6 Charge size : DET
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 92mV



AUX. CHANNEL 2 Max. 63mV



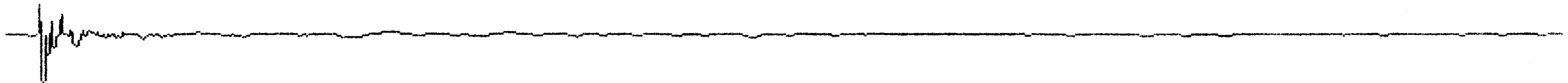
AUX. CHANNEL 3 Max. 34mV



AUX. CHANNEL 4 Max. 3921mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 146.472

FIRST ARRIVAL PLOT - Shot 2 Level 51.7

Sample time	Value uV	Well phone data
14.0	-2249.	*
15.0	-1866.	*
16.0	-1466.	*
17.0	-875.	*
18.0	-425.	*
19.0	230.	*
20.0	663.	*
21.0	1531.	.*
22.0	2134.	.*
23.0	2611.	.*
24.0	3059.	.*
25.0	3419.	.*
26.0	3744.	.*
27.0	3172.	.*
28.0	3137.	.*
29.0	3597.	.*
30.0	2289.	.*
31.0	-5253.	*.
32.0	-44782.	*.
33.0	-94686.	*.
34.0	-119498.	*.
35.0	-40260.	*.
36.0	95647.	*.
37.0	146472.	*.
38.0	77718.	*.
39.0	7244.	*.
40.0	10185.	*.
41.0	64111.	*.
42.0	57548.	*.
43.0	-5443.	*.
44.0	-53546.	*.
45.0	-41700.	*.
46.0	7499.	*.
47.0	41340.	*.
48.0	32416.	*.
49.0	12706.	*.
50.0	4292.	*.
51.0	5203.	*.
52.0	-5423.	*.
53.0	-48144.	*.
54.0	-69314.	*.
55.0	-61550.	*.
56.0	-34217.	*.
57.0	1741.	*.
58.0	6043.	*.
59.0	-5012.	*.
60.0	-3892.	*.
61.0	7684.	*.
62.0	6163.	*.
63.0	-12986.	*.
64.0	-29494.	*.

TRACE DISPLAY.

SHOT 3 Time 04:07:12 Level : 51.7 Shot location : B
Shot depth : 0.6 Charge size : G,DET
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 58mV



AUX. CHANNEL 2 Max. 48mV



AUX. CHANNEL 3 Max. 34mV



AUX. CHANNEL 4 Max. 4052mV

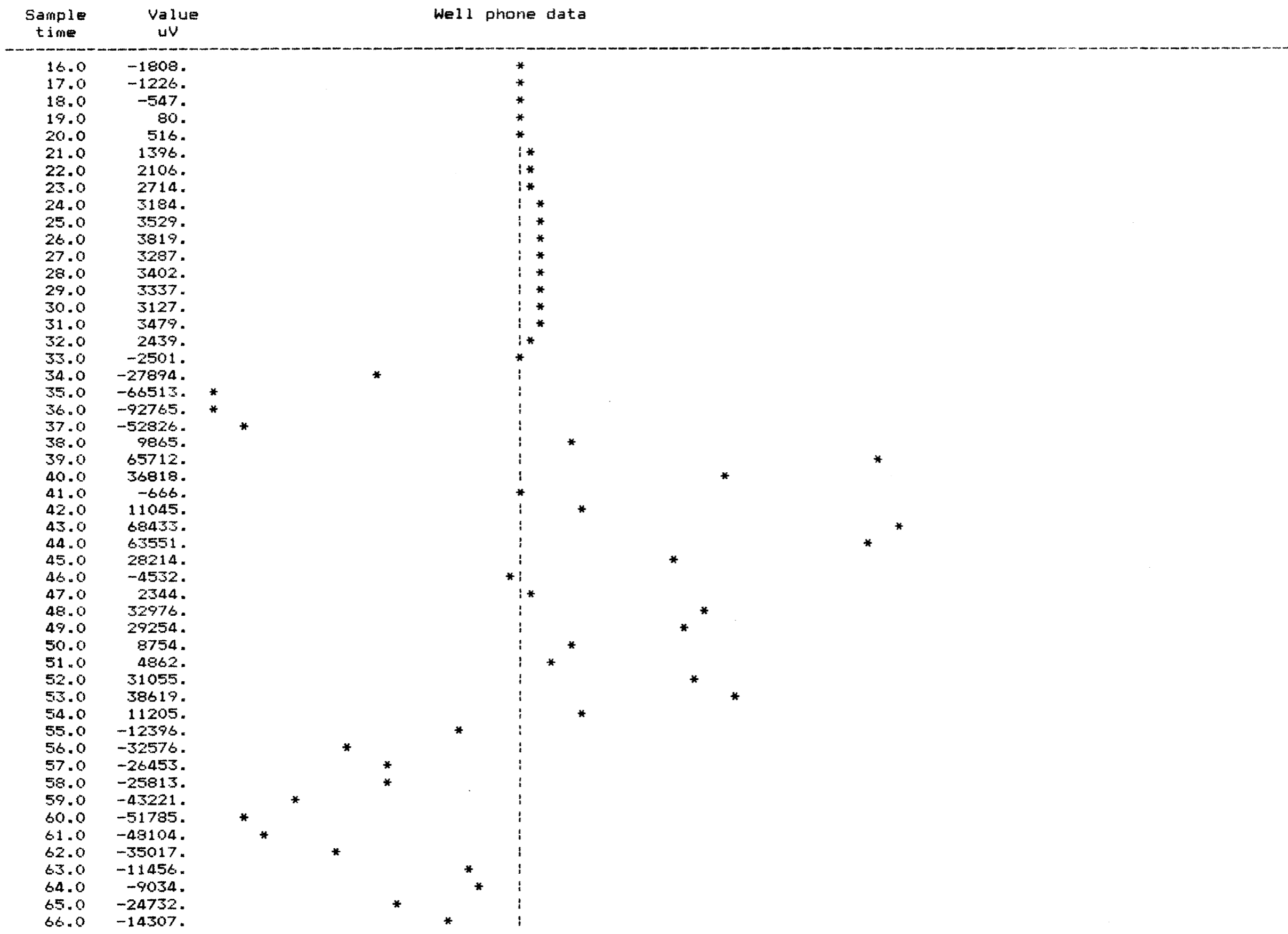


WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 68.433

FIRST ARRIVAL PLOT - Shot 3 Level 51.7



TRACE DISPLAY.

SHOT 5 Time 04:10:46 Level : 51.7 Shot location : C
Shot depth : 0.6 Charge size : G,DET
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 53mV



AUX. CHANNEL 2 Max. 48mV



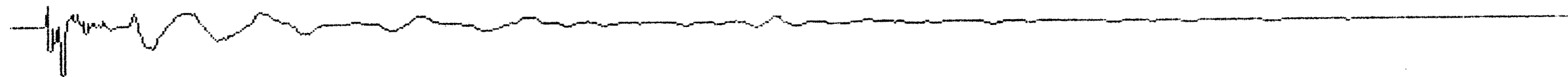
AUX. CHANNEL 3 Max. 39mV



AUX. CHANNEL 4 Max. 5200mV

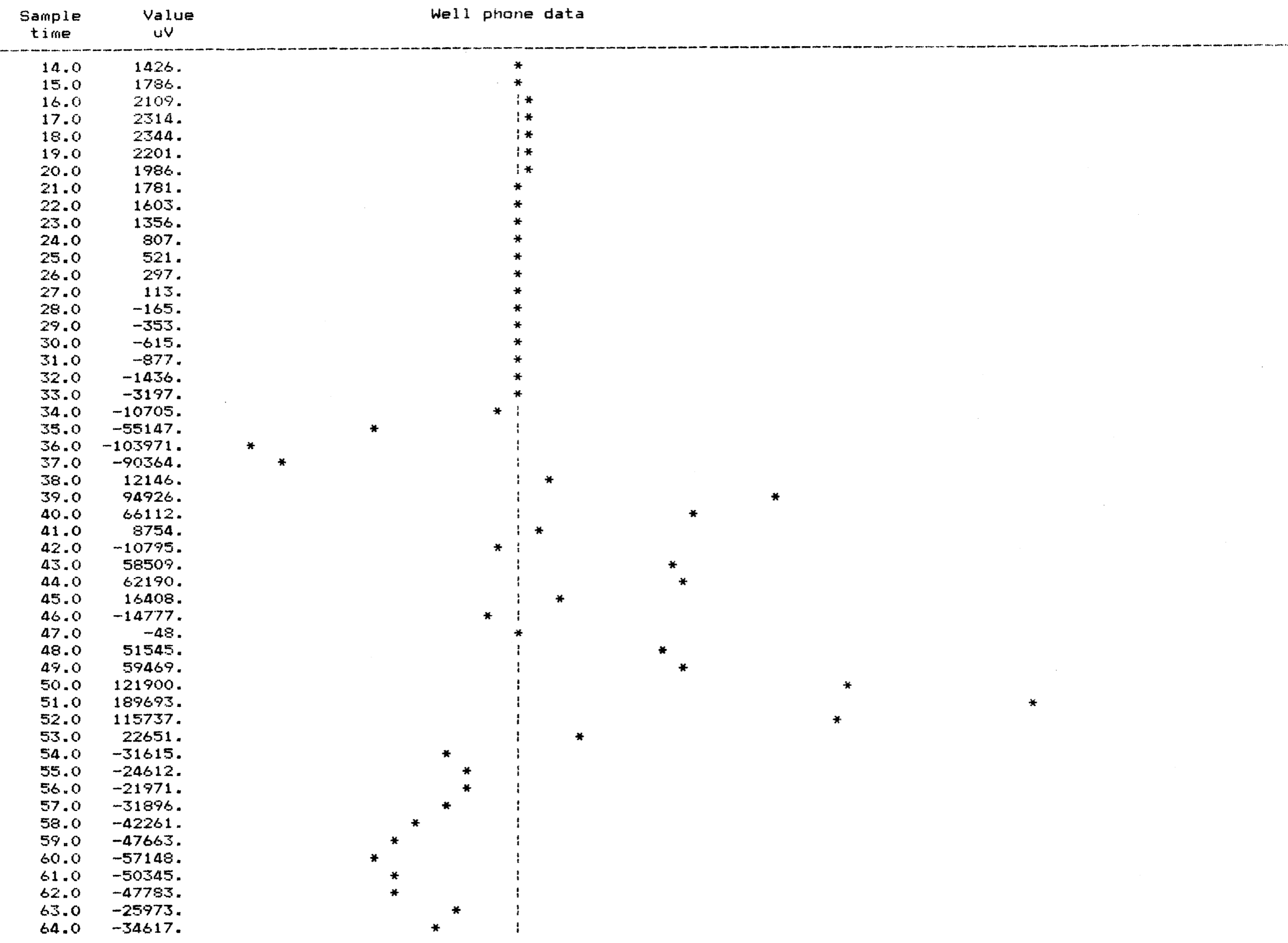


WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 189.693

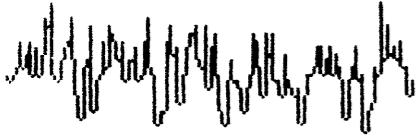
FIRST ARRIVAL PLOT - Shot 5 Level 51.7



TRACE DISPLAY.

SHOT 6 Time 04:15:47 Level : 51.7 Shot location : D
Shot depth : 2.0 Charge size : G,DET
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 48mV



AUX. CHANNEL 2 Max. 78mV



AUX. CHANNEL 3 Max. 776mV



AUX. CHANNEL 4 Max. 3647mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 327.840

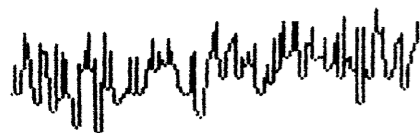
FIRST ARRIVAL PLOT - Shot 6 Level 51.7

Sample time	Value uV	Well phone data	
14.0	-899.		*
15.0	-1673.		*
16.0	-2174.		*
17.0	-2604.		*
18.0	-2991.		*
19.0	-3334.		*
20.0	-3564.		*
21.0	-3614.		*
22.0	-3474.		*
23.0	-3139.		*
24.0	-2684.		*
25.0	-2186.		*
26.0	-1681.		*
27.0	-1141.		*
28.0	-536.		*
29.0	-109.		*
30.0	-3344.		*
31.0	-54347.		*
32.0	-205380.	*	
33.0	-327840.	*	
34.0	-327840.	*	
35.0	-141509.		*
36.0	-68514.		*
37.0	-184890.	*	
38.0	-141349.		*
39.0	-960.		*
40.0	327680.		*
41.0	300627.		*
42.0	103170.		*
43.0	116777.		*
44.0	292783.		*
45.0	319356.		*
46.0	189533.		*
47.0	126142.		*
48.0	213384.		*
49.0	327680.		*
50.0	327680.		*
51.0	296305.		*
52.0	230833.		*
53.0	228272.		*
54.0	282378.		*
55.0	270692.		*
56.0	163440.		*
57.0	95327.		*
58.0	127582.		*
59.0	160558.		*
60.0	86442.		*
61.0	346.		*
62.0	-115977.	*	
63.0	-106052.	*	
64.0	-101890.	*	

TRACE DISPLAY.

SHOT 7 Time 04:37:09 Level : 1244.0 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 259 400 749
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 63mV



AUX. CHANNEL 2 Max. 244mV



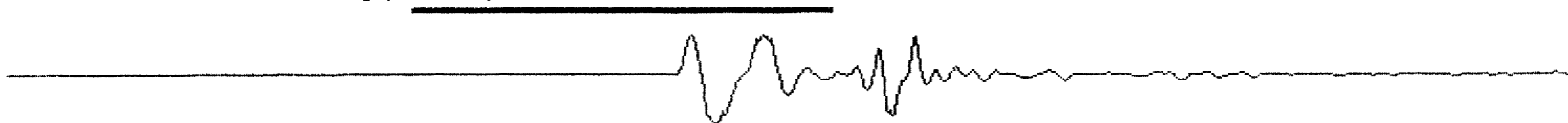
AUX. CHANNEL 3 Max. 3071mV



AUX. CHANNEL 4 Max. 5644mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 73.076

FIRST ARRIVAL PLOT - Shot 7 Level 1244.0

Sample time	Value uV	Well phone data
494.0	230.	*
494.5	227.	*
495.0	222.	*
495.5	215.	*
496.0	206.	*
496.5	194.	*
497.0	178.	*
497.5	159.	*
498.0	135.	*
498.5	104.	*
499.0	52.	*
499.5	23.	*
500.0	-11.	*
500.5	-31.	*
501.0	-52.	*
501.5	-85.	*
502.0	-103.	*
502.5	-116.	*
503.0	-127.	*
503.5	-134.	*
504.0	-144.	*
504.5	-153.	*
505.0	-165.	*
505.5	-174.	*
506.0	-178.	*
506.5	-181.	*
507.0	-180.	*
507.5	-176.	*
508.0	-164.	*
508.5	-148.	*
509.0	-133.	*
509.5	-133.	*
510.0	-166.	*
510.5	-225.	*
511.0	-311.	*
511.5	-553.	*
512.0	-1438.	*
512.5	-2381.	*
513.0	-3777.	*
513.5	-4402.	*
514.0	-6463.	*
514.5	-9194.	*
515.0	-12536.	*
515.5	-22771.	*
516.0	-28414.	*
516.5	-34257.	*
517.0	-40060.	*
517.5	-45822.	*
518.0	-50705.	*
518.5	-54867.	*
519.0	-57908.	*

TRACE DISPLAY.

SHOT 9 Time 04:52:16 Level : 1753.0 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 402 400 606
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9995mV



AUX. CHANNEL 2 Max. 888mV



AUX. CHANNEL 3 Max. 3266mV



AUX. CHANNEL 4 Max. 5493mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 39.619

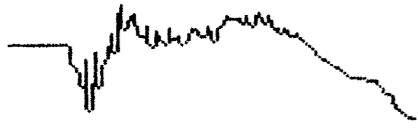
FIRST ARRIVAL PLOT - Shot 9 Level 1753.0

Sample time	Value uV	Well phone data
644.0	3.	*
644.5	12.	*
645.0	21.	*
645.5	42.	*
646.0	91.	*
646.5	139.	*
647.0	197.	*
647.5	209.	*
648.0	246.	*
648.5	257.	*
649.0	252.	*
649.5	230.	*
650.0	100.	*
650.5	-35.	*
651.0	-245.	*
651.5	-333.	*
652.0	-471.	*
652.5	-569.	*
653.0	-628.	*
653.5	-642.	*
654.0	-614.	*
654.5	-547.	*
655.0	-451.	*
655.5	-331.	*
656.0	-196.	*
656.5	-30.	*
657.0	165.	*
657.5	290.	*
658.0	370.	*
658.5	488.	*
659.0	582.	*
659.5	640.	*
660.0	644.	*
660.5	577.	*
661.0	411.	*
661.5	-46.	*
662.0	-363.	*
662.5	-1588.	*
663.0	-2814.	*
663.5	-3697.	*
664.0	-4932.	*
664.5	-6623.	*
665.0	-8654.	*
665.5	-10895.	*
666.0	-13256.	*
666.5	-21090.	*
667.0	-24092.	*
667.5	-26693.	*
668.0	-29014.	*
668.5	-30775.	*
669.0	-31896.	*

TRACE DISPLAY.

SHOT 10 Time 05:08:54 Level : 2142.6 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 514 400 494
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9995mV



AUX. CHANNEL 2 Max. 341mV



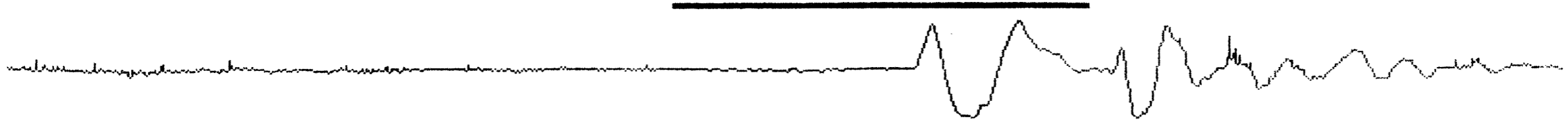
AUX. CHANNEL 3 Max. 3134mV



AUX. CHANNEL 4 Max. 4936mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 8.414

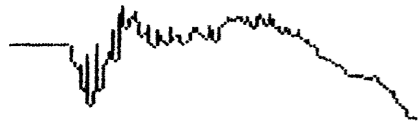
FIRST ARRIVAL PLOT - Shot 10 Level 2142.6

Sample time	Value uV	Well phone data
742.0	-16.	*
742.5	-18.	*
743.0	-4.	*
743.5	21.	*
744.0	57.	*
744.5	136.	*
745.0	160.	*
745.5	160.	*
746.0	142.	*
746.5	125.	*
747.0	120.	*
747.5	127.	*
748.0	136.	*
748.5	129.	*
749.0	92.	*
749.5	23.	*
750.0	-35.	*
750.5	-104.	*
751.0	-125.	*
751.5	-112.	*
752.0	-79.	*
752.5	-45.	*
753.0	-32.	*
753.5	-46.	*
754.0	-126.	*
754.5	-218.	*
755.0	-250.	*
755.5	-271.	*
756.0	-273.	*
756.5	-211.	*
757.0	-204.	*
757.5	-166.	*
758.0	-204.	*
758.5	-292.	*
759.0	-400.	*
759.5	-640.	*
760.0	-934.	*
760.5	-1658.	*
761.0	-2196.	*
761.5	-2814.	*
762.0	-3512.	*
762.5	-3457.	*
763.0	-3902.	*
763.5	-4432.	*
764.0	-4992.	*
764.5	-5533.	*
765.0	-6083.	*
765.5	-6583.	*
766.0	-7023.	*
766.5	-7384.	*
767.0	-7634.	*

TRACE DISPLAY.

SHOT 11 Time 05:12:34 Level : 2106.0 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 503 400 505
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9995mV



AUX. CHANNEL 2 Max. 332mV



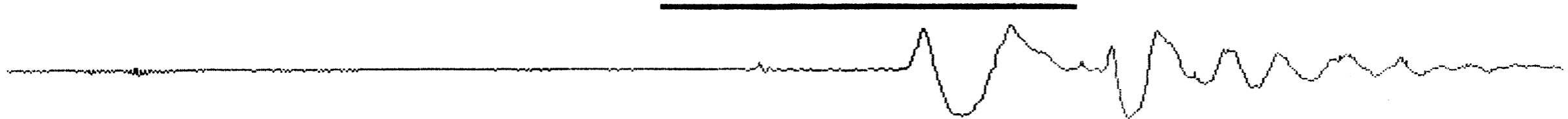
AUX. CHANNEL 3 Max. 3061mV



AUX. CHANNEL 4 Max. 5512mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 8.984

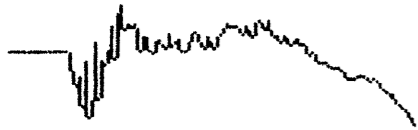
FIRST ARRIVAL PLOT - Shot 11 Level 2106.0

Sample time	Value uV	Well phone data
732.0	-146.	*
732.5	-172.	*
733.0	-84.	*
733.5	40.	*
734.0	221.	*
734.5	268.	*
735.0	262.	*
735.5	139.	*
736.0	-40.	*
736.5	-210.	*
737.0	-228.	*
737.5	-189.	*
738.0	-23.	*
738.5	221.	*
739.0	273.	*
739.5	318.	*
740.0	259.	*
740.5	146.	*
741.0	-20.	*
741.5	-78.	*
742.0	-64.	*
742.5	25.	*
743.0	160.	*
743.5	237.	*
744.0	273.	*
744.5	277.	*
745.0	179.	*
745.5	99.	*
746.0	-23.	*
746.5	-144.	*
747.0	-186.	*
747.5	-182.	*
748.0	-171.	*
748.5	-200.	*
749.0	-271.	*
749.5	-375.	*
750.0	-613.	*
750.5	-922.	*
751.0	-1703.	*
751.5	-2144.	*
752.0	-2596.	*
752.5	-3112.	*
753.0	-3729.	*
753.5	-3667.	*
754.0	-4172.	*
754.5	-4902.	*
755.0	-5633.	*
755.5	-6333.	*
756.0	-6913.	*
756.5	-7334.	*
757.0	-7584.	*

TRACE DISPLAY.

SHOT 12 Time 05:18:19 Level : 2047.0 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 486 400 522
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9936mV



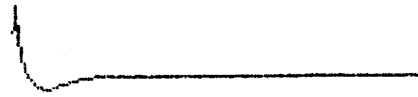
AUX. CHANNEL 2 Max. 1030mV



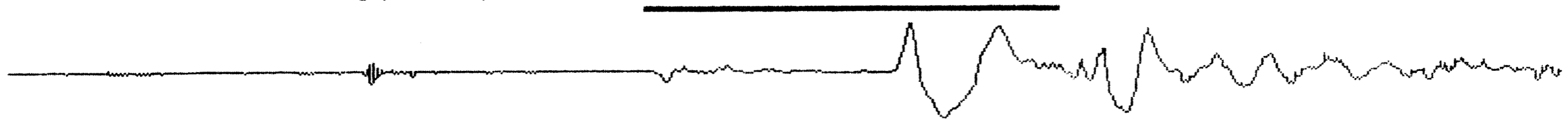
AUX. CHANNEL 3 Max. 3403mV



AUX. CHANNEL 4 Max. 4248mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 9.825

FIRST ARRIVAL PLOT - Shot 12 Level 2047.0

Sample time	Value uV	Well phone data
716.0	329.	*
716.5	258.	*
717.0	229.	*
717.5	188.	*
718.0	180.	*
718.5	190.	*
719.0	188.	*
719.5	162.	*
720.0	121.	*
720.5	95.	*
721.0	104.	*
721.5	147.	*
722.0	205.	*
722.5	201.	*
723.0	211.	*
723.5	205.	*
724.0	201.	*
724.5	211.	*
725.0	233.	*
725.5	251.	*
726.0	276.	*
726.5	293.	*
727.0	300.	*
727.5	298.	*
728.0	288.	*
728.5	281.	*
729.0	284.	*
729.5	303.	*
730.0	335.	*
730.5	379.	*
731.0	426.	*
731.5	458.	*
732.0	464.	*
732.5	436.	*
733.0	380.	*
733.5	293.	*
734.0	179.	*
734.5	22.	*
735.0	-253.	*
735.5	-399.	*
736.0	-715.	*
736.5	-1483.	*
737.0	-2111.	*
737.5	-2849.	*
738.0	-3684.	*
738.5	-3782.	*
739.0	-4372.	*
739.5	-5203.	*
740.0	-6103.	*
740.5	-7023.	*
741.0	-7924.	*

TRACE DISPLAY.

SHOT 14 Time 05:29:42 Level : 1989.0 Shot location : D
Shot depth : 2.0 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 469 400 539
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9995mV



AUX. CHANNEL 2 Max. 654mV



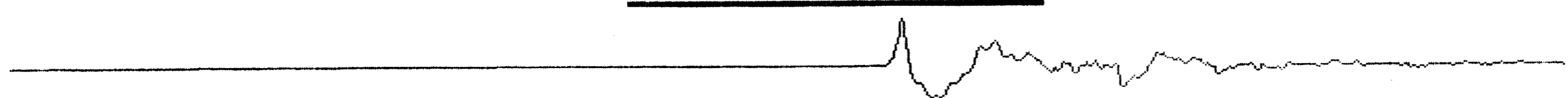
AUX. CHANNEL 3 Max. 4633mV



AUX. CHANNEL 4 Max. 6714mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 23.171

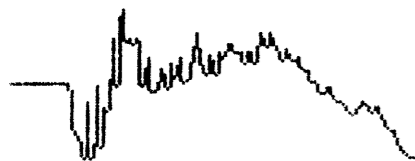
FIRST ARRIVAL PLOT - Shot 14 Level 1989.0

Sample time	Value uV	Well phone data
702.0	-117.	*
702.5	-181.	*
703.0	-224.	*
703.5	-239.	*
704.0	-215.	*
704.5	-152.	*
705.0	-58.	*
705.5	23.	*
706.0	141.	*
706.5	197.	*
707.0	189.	*
707.5	127.	*
708.0	37.	*
708.5	-38.	*
709.0	-126.	*
709.5	-153.	*
710.0	-142.	*
710.5	-101.	*
711.0	-35.	*
711.5	29.	*
712.0	118.	*
712.5	167.	*
713.0	186.	*
713.5	176.	*
714.0	145.	*
714.5	87.	*
715.0	7.	*
715.5	-92.	*
716.0	-163.	*
716.5	-190.	*
717.0	-168.	*
717.5	-113.	*
718.0	-49.	*
718.5	-10.	*
719.0	-7.	*
719.5	-36.	*
720.0	-193.	*
720.5	-274.	*
721.0	-501.	*
721.5	-814.	*
722.0	-1651.	*
722.5	-2334.	*
723.0	-3212.	*
723.5	-3582.	*
724.0	-4362.	*
724.5	-5603.	*
725.0	-7053.	*
725.5	-8614.	*
726.0	-10275.	*
726.5	-11956.	*
727.0	-13617.	*

TRACE DISPLAY.

SHOT 15 Time 05:35:09 Level : 1932.0 Shot location : D
Shot depth : 2.0 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 452 400 556
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 10000mV



AUX. CHANNEL 2 Max. 625mV



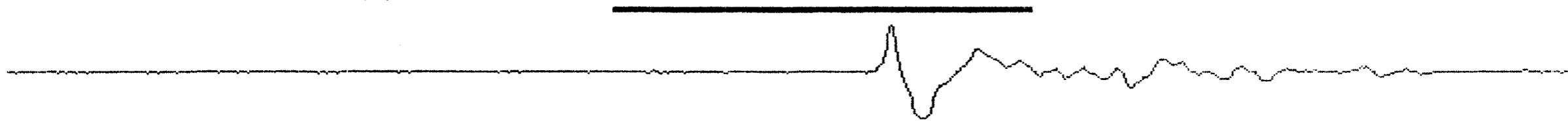
AUX. CHANNEL 3 Max. 5591mV



AUX. CHANNEL 4 Max. 5620mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 26.293

FIRST ARRIVAL PLOT - Shot 15 Level 1932.0

Sample time	Value uV	Well phone data
686.0	-268.	*
686.5	-327.	*
687.0	-390.	*
687.5	-386.	*
688.0	-312.	*
688.5	-172.	*
689.0	58.	*
689.5	198.	*
690.0	266.	*
690.5	301.	*
691.0	329.	*
691.5	332.	*
692.0	323.	*
692.5	300.	*
693.0	259.	*
693.5	206.	*
694.0	69.	*
694.5	-48.	*
695.0	-239.	*
695.5	-256.	*
696.0	-308.	*
696.5	-318.	*
697.0	-300.	*
697.5	-268.	*
698.0	-218.	*
698.5	-214.	*
699.0	-108.	*
699.5	20.	*
700.0	216.	*
700.5	308.	*
701.0	425.	*
701.5	474.	*
702.0	446.	*
702.5	355.	*
703.0	236.	*
703.5	60.	*
704.0	-186.	*
704.5	-295.	*
705.0	-532.	*
705.5	-825.	*
706.0	-1743.	*
706.5	-2341.	*
707.0	-3056.	*
707.5	-3267.	*
708.0	-3932.	*
708.5	-5012.	*
709.0	-6353.	*
709.5	-7924.	*
710.0	-9735.	*
710.5	-11726.	*
711.0	-13787.	*

TRACE DISPLAY.

SHOT 16 Time 05:41:25 Level : 1865.0 Shot location : D
Shot depth : 2.0 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 432 400 576
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9995mV



AUX. CHANNEL 2 Max. 615mV



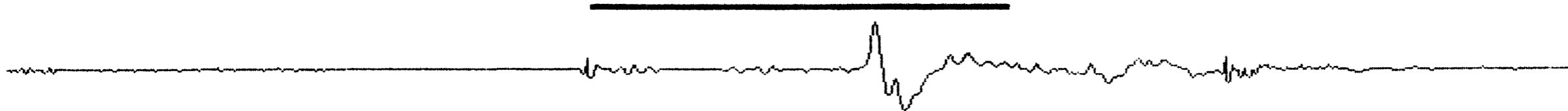
AUX. CHANNEL 3 Max. 5342mV



AUX. CHANNEL 4 Max. 5874mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 37.458

FIRST ARRIVAL PLOT - Shot 16 Level 1865.0

Sample time	Value uV	Well phone data
670.0	401.	*
670.5	241.	*
671.0	-43.	*
671.5	-283.	*
672.0	-471.	*
672.5	-515.	*
673.0	-405.	*
673.5	-106.	*
674.0	271.	*
674.5	460.	*
675.0	701.	*
675.5	808.	*
676.0	747.	*
676.5	521.	*
677.0	-57.	*
677.5	-326.	*
678.0	-825.	*
678.5	-1646.	*
679.0	-1991.	*
679.5	-2084.	*
680.0	-1873.	*
680.5	-1353.	*
681.0	-695.	*
681.5	80.	*
682.0	713.	*
682.5	1688.	* *
683.0	2031.	* *
683.5	2038.	* *
684.0	1771.	* *
684.5	1306.	* *
685.0	708.	* *
685.5	140.	*
686.0	-384.	*
686.5	-613.	*
687.0	-949.	*
687.5	-1546.	*
688.0	-1776.	*
688.5	-1911.	*
689.0	-1976.	*
689.5	-2079.	*
690.0	-2351.	*
690.5	-2914.	*
691.0	-3272.	*
691.5	-4162.	*
692.0	-5733.	*
692.5	-7724.	*
693.0	-10245.	*
693.5	-13126.	*
694.0	-22451.	*
694.5	-26653.	*
695.0	-30855.	*

TRACE DISPLAY.

SHOT 17 Time 05:48:42 Level : 1753.0 Shot location : D
Shot depth : 2.0 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 402 400 606
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9995mV



AUX. CHANNEL 2 Max. 649mV



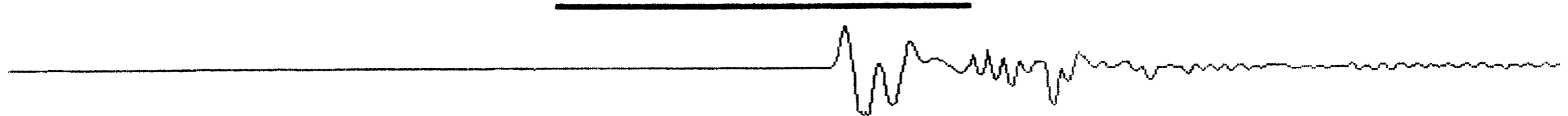
AUX. CHANNEL 3 Max. 4487mV



AUX. CHANNEL 4 Max. 4834mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 55.387

FIRST ARRIVAL PLOT - Shot 17 Level 1753.0

Sample time	Value uV	Well phone data
642.0	83.	*
642.5	53.	*
643.0	33.	*
643.5	20.	*
644.0	12.	*
644.5	-4.	*
645.0	-15.	*
645.5	-37.	*
646.0	-98.	*
646.5	-139.	*
647.0	-177.	*
647.5	-213.	*
648.0	-197.	*
648.5	-213.	*
649.0	-219.	*
649.5	-213.	*
650.0	-192.	*
650.5	-204.	*
651.0	-148.	*
651.5	-81.	*
652.0	17.	*
652.5	49.	*
653.0	126.	*
653.5	180.	*
654.0	221.	*
654.5	203.	*
655.0	218.	*
655.5	233.	*
656.0	244.	*
656.5	260.	*
657.0	276.	*
657.5	286.	*
658.0	283.	*
658.5	264.	*
659.0	201.	*
659.5	165.	*
660.0	40.	*
660.5	-215.	*
661.0	-361.	*
661.5	-695.	*
662.0	-1628.	*
662.5	-2491.	*
663.0	-3694.	*
663.5	-4052.	*
664.0	-5573.	*
664.5	-7594.	*
665.0	-9995.	*
665.5	-12806.	*
666.0	-21931.	*
666.5	-26293.	*
667.0	-30815.	*

TRACE DISPLAY.

SHOT 18 Time 06:19:38 Level : 1657.0 Shot location : D
Shot depth : 2.0 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 376 400 632
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 10000mV



AUX. CHANNEL 2 Max. 781mV



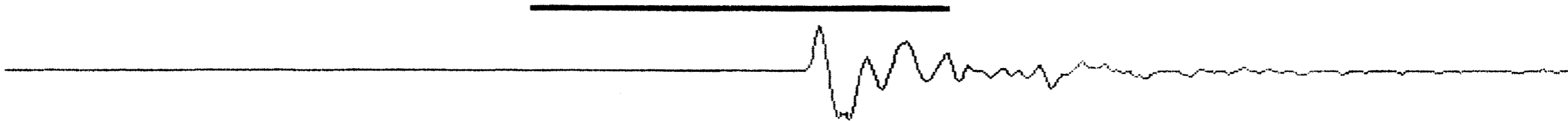
AUX. CHANNEL 3 Max. 6264mV



AUX. CHANNEL 4 Max. 4941mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 59.989

FIRST ARRIVAL PLOT - Shot 18 Level 1657.0

Sample time	Value uV	Well phone data
616.0	-47.	*
616.5	-56.	*
617.0	-95.	*
617.5	-116.	*
618.0	-133.	*
618.5	-143.	*
619.0	-145.	*
619.5	-145.	*
620.0	-150.	*
620.5	-157.	*
621.0	-165.	*
621.5	-165.	*
622.0	-151.	*
622.5	-123.	*
623.0	-84.	*
623.5	-35.	*
624.0	5.	*
624.5	19.	*
625.0	42.	*
625.5	87.	*
626.0	123.	*
626.5	163.	*
627.0	205.	*
627.5	198.	*
628.0	220.	*
628.5	232.	*
629.0	231.	*
629.5	215.	*
630.0	240.	*
630.5	194.	*
631.0	139.	*
631.5	81.	*
632.0	24.	*
632.5	-32.	*
633.0	-145.	*
633.5	-228.	*
634.0	-312.	*
634.5	-518.	*
635.0	-869.	*
635.5	-2026.	*
636.0	-3192.	*
636.5	-4182.	*
637.0	-5523.	*
637.5	-7904.	*
638.0	-10845.	*
638.5	-14397.	*
639.0	-25412.	*
639.5	-31015.	*
640.0	-36698.	*
640.5	-42061.	*
641.0	-47103.	*

TRACE DISPLAY.

SHOT 19 Time 06:50:33 Level : 1557.1 Shot location : D
Shot depth : 2.0 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 350 400 658
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 10000mV



AUX. CHANNEL 2 Max. 1088mV



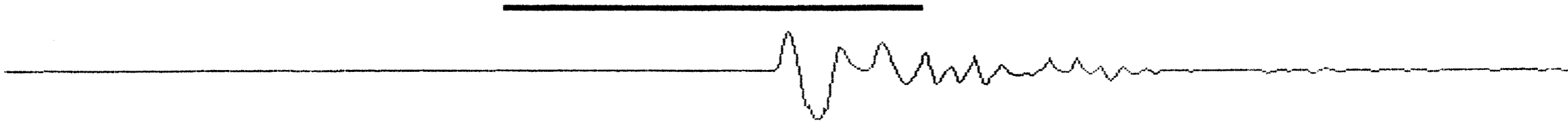
AUX. CHANNEL 3 Max. 5732mV



AUX. CHANNEL 4 Max. 5444mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 73.076

FIRST ARRIVAL PLOT - Shot 19 Level 1557.1

Sample time	Value uV	Well phone data
588.0	170.	*
588.5	159.	*
589.0	141.	*
589.5	117.	*
590.0	88.	*
590.5	56.	*
591.0	37.	*
591.5	26.	*
592.0	20.	*
592.5	17.	*
593.0	13.	*
593.5	10.	*
594.0	-4.	*
594.5	-18.	*
595.0	-41.	*
595.5	-98.	*
596.0	-136.	*
596.5	-173.	*
597.0	-198.	*
597.5	-212.	*
598.0	-214.	*
598.5	-206.	*
599.0	-190.	*
599.5	-164.	*
600.0	-129.	*
600.5	-86.	*
601.0	-34.	*
601.5	11.	*
602.0	42.	*
602.5	105.	*
603.0	148.	*
603.5	180.	*
604.0	192.	*
604.5	177.	*
605.0	126.	*
605.5	31.	*
606.0	-197.	*
606.5	-360.	*
607.0	-820.	*
607.5	-2261.	*
608.0	-3317.	*
608.5	-4622.	*
609.0	-7023.	*
609.5	-10105.	*
610.0	-13867.	*
610.5	-25292.	*
611.0	-31335.	*
611.5	-37498.	*
612.0	-43421.	*
612.5	-48784.	*
613.0	-53026.	*

TRACE DISPLAY.

SHOT 21 Time 07:02:00 Level : 1481.9 Shot location : D
Shot depth : 2.0 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 10000mV



AUX. CHANNEL 2 Max. 1186mV



AUX. CHANNEL 3 Max. 5298mV



AUX. CHANNEL 4 Max. 5561mV

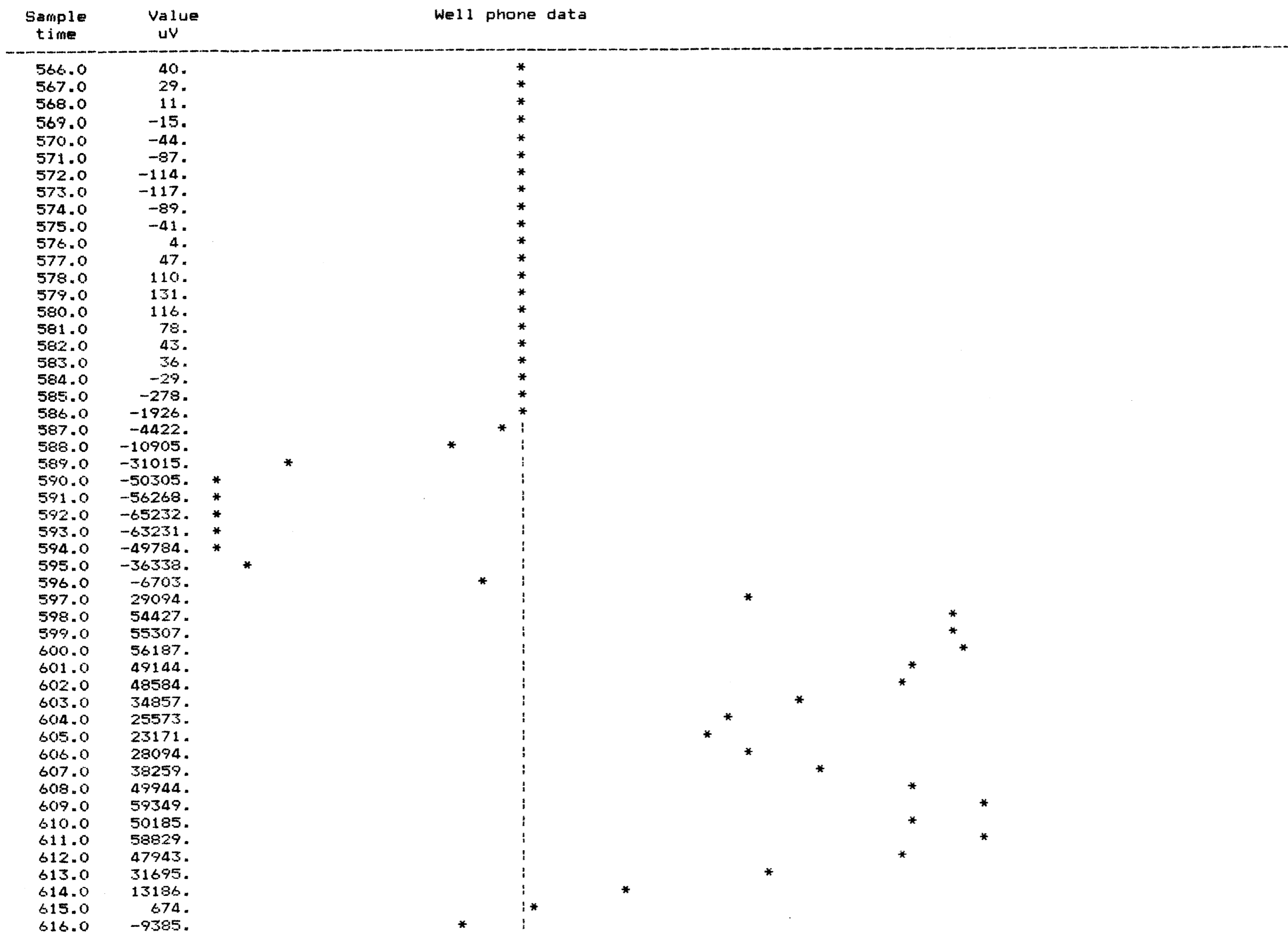


WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 63.231

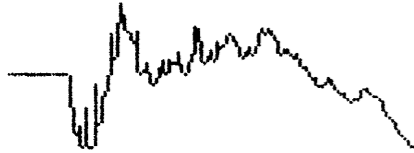
FIRST ARRIVAL PLOT - Shot 21 Level 1481.9



TRACE DISPLAY.

SHOT 22 Time 07:13:20 Level : 1369.5 Shot location : D
Shot depth : 2.0 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 296 400 712
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 10000mV



AUX. CHANNEL 2 Max. 737mV



AUX. CHANNEL 3 Max. 5752mV



AUX. CHANNEL 4 Max. 6030mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 89.724

FIRST ARRIVAL PLOT - Shot 22 Level 1369.5

Sample time	Value uV	Well phone data
534.0	-165.	*
534.5	-232.	*
535.0	-275.	*
535.5	-322.	*
536.0	-333.	*
536.5	-308.	*
537.0	-249.	*
537.5	-181.	*
538.0	-58.	*
538.5	40.	*
539.0	181.	*
539.5	230.	*
540.0	265.	*
540.5	300.	*
541.0	305.	*
541.5	280.	*
542.0	198.	*
542.5	154.	*
543.0	41.	*
543.5	-57.	*
544.0	-208.	*
544.5	-239.	*
545.0	-263.	*
545.5	-275.	*
546.0	-254.	*
546.5	-231.	*
547.0	-136.	*
547.5	-29.	*
548.0	89.	*
548.5	198.	*
549.0	234.	*
549.5	260.	*
550.0	268.	*
550.5	235.	*
551.0	52.	*
551.5	-376.	*
552.0	-675.	*
552.5	-1968.	*
553.0	-3567.	*
553.5	-4462.	*
554.0	-7053.	*
554.5	-10555.	*
555.0	-15097.	*
555.5	-29454.	*
556.0	-38019.	*
556.5	-47703.	*
557.0	-57508.	*
557.5	-54827.	*
558.0	-62190.	*
558.5	-68273.	*
559.0	-72756.	*

TRACE DISPLAY.

SHOT 23 Time 07:21:01 Level : 1244.0 Shot location : D
Shot depth : 2.0 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 259 400 749
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 10000mV



AUX. CHANNEL 2 Max. 761mV



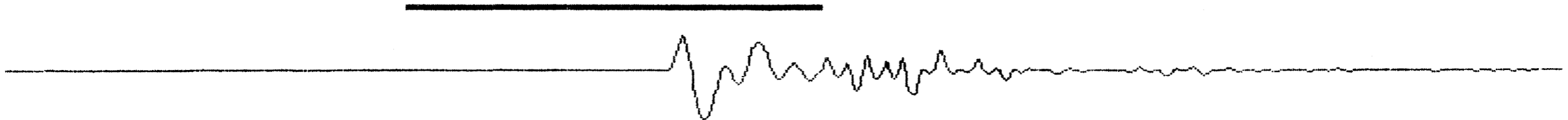
AUX. CHANNEL 3 Max. 5512mV



AUX. CHANNEL 4 Max. 5920mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 125.341

FIRST ARRIVAL PLOT - Shot 23 Level 1244.0

Sample time	Value uV	Well phone data
494.0	325.	*
494.5	275.	*
495.0	209.	*
495.5	209.	*
496.0	151.	*
496.5	88.	*
497.0	27.	*
497.5	-27.	*
498.0	-123.	*
498.5	-200.	*
499.0	-234.	*
499.5	-272.	*
500.0	-333.	*
500.5	-396.	*
501.0	-451.	*
501.5	-496.	*
502.0	-531.	*
502.5	-553.	*
503.0	-563.	*
503.5	-558.	*
504.0	-534.	*
504.5	-488.	*
505.0	-415.	*
505.5	-319.	*
506.0	-218.	*
506.5	-63.	*
507.0	54.	*
507.5	226.	*
508.0	251.	*
508.5	328.	*
509.0	376.	*
509.5	394.	*
510.0	377.	*
510.5	312.	*
511.0	158.	*
511.5	-253.	*
512.0	-529.	*
512.5	-1881.	*
513.0	-3547.	*
513.5	-4552.	*
514.0	-7334.	*
514.5	-11135.	*
515.0	-23371.	*
515.5	-31655.	*
516.0	-41740.	*
516.5	-52506.	*
517.0	-52746.	*
517.5	-62190.	*
518.0	-71315.	*
518.5	-79319.	*
519.0	-85322.	*

TRACE DISPLAY.

SHOT 24 Time 07:27:02 Level : 1158.8 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 232 400 776
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9995mV



AUX. CHANNEL 2 Max. 444mV



AUX. CHANNEL 3 Max. 3125mV



AUX. CHANNEL 4 Max. 3354mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 88.523

FIRST ARRIVAL PLOT - Shot 24 Level 1158.8

Sample time	Value uV	Well phone data
464.0	-208.	*
464.5	-209.	*
465.0	-201.	*
465.5	-195.	*
466.0	-240.	*
466.5	-237.	*
467.0	-195.	*
467.5	-207.	*
468.0	-224.	*
468.5	-243.	*
469.0	-254.	*
469.5	-271.	*
470.0	-275.	*
470.5	-263.	*
471.0	-211.	*
471.5	-194.	*
472.0	-106.	*
472.5	20.	*
473.0	58.	*
473.5	147.	*
474.0	197.	*
474.5	231.	*
475.0	206.	*
475.5	219.	*
476.0	228.	*
476.5	229.	*
477.0	220.	*
477.5	200.	*
478.0	225.	*
478.5	192.	*
479.0	161.	*
479.5	134.	*
480.0	116.	*
480.5	105.	*
481.0	98.	*
481.5	93.	*
482.0	85.	*
482.5	68.	*
483.0	37.	*
483.5	-29.	*
484.0	-165.	*
484.5	-258.	*
485.0	-547.	*
485.5	-1493.	*
486.0	-2556.	*
486.5	-3592.	*
487.0	-4912.	*
487.5	-7364.	*
488.0	-10585.	*
488.5	-14887.	*
489.0	-27413.	*

TRACE DISPLAY.

SHOT 26 Time 07:39:11 Level : 1079.9 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 206 400 802
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9209mV



AUX. CHANNEL 2 Max. 375mV



AUX. CHANNEL 3 Max. 3300mV



AUX. CHANNEL 4 Max. 5014mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 84.041

FIRST ARRIVAL PLOT - Shot 26 Level 1079.9

Sample time	Value uV	Well phone data
440.0	-30.	*
440.5	-24.	*
441.0	-20.	*
441.5	-15.	*
442.0	-12.	*
442.5	-12.	*
443.0	-15.	*
443.5	-19.	*
444.0	-25.	*
444.5	-31.	*
445.0	-36.	*
445.5	-44.	*
446.0	-56.	*
446.5	-99.	*
447.0	-119.	*
447.5	-130.	*
448.0	-125.	*
448.5	-106.	*
449.0	-76.	*
449.5	-37.	*
450.0	-17.	*
450.5	-4.	*
451.0	-5.	*
451.5	-16.	*
452.0	-24.	*
452.5	-37.	*
453.0	-42.	*
453.5	-43.	*
454.0	-41.	*
454.5	-34.	*
455.0	-30.	*
455.5	-23.	*
456.0	-12.	*
456.5	-10.	*
457.0	-15.	*
457.5	-33.	*
458.0	-137.	*
458.5	-287.	*
459.0	-448.	*
459.5	-937.	*
460.0	-2711.	*
460.5	-4307.	*
461.0	-6083.	*
461.5	-9815.	*
462.0	-14697.	*
462.5	-30015.	*
463.0	-40420.	*
463.5	-52025.	*
464.0	-52666.	*
464.5	-62270.	*
465.0	-71155.	*

TRACE DISPLAY.

SHOT 27 Time 07:46:36 Level : 1029.0 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 189 400 819
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 8823mV



AUX. CHANNEL 2 Max. 400mV



AUX. CHANNEL 3 Max. 3369mV



AUX. CHANNEL 4 Max. 7427mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 80.840

FIRST ARRIVAL PLOT - Shot 27 Level 1029.0

Sample time	Value uV	Well phone data
426.0	-296.	*
426.5	-280.	*
427.0	-258.	*
427.5	-51.	*
428.0	-51.	*
428.5	-51.	*
429.0	-51.	*
429.5	-51.	*
430.0	-51.	*
430.5	-51.	*
431.0	-51.	*
431.5	-51.	*
432.0	-51.	*
432.5	-51.	*
433.0	-51.	*
433.5	-42.	*
434.0	-28.	*
434.5	-7.	*
435.0	14.	*
435.5	23.	*
436.0	27.	*
436.5	19.	*
437.0	-7.	*
437.5	-24.	*
438.0	-49.	*
438.5	-51.	*
439.0	-51.	*
439.5	-51.	*
440.0	-51.	*
440.5	-51.	*
441.0	-51.	*
441.5	-51.	*
442.0	-51.	*
442.5	-51.	*
443.0	-286.	*
443.5	-538.	*
444.0	-1029.	*
444.5	-2311.	*
445.0	-4052.	*
445.5	-6293.	*
446.0	-10535.	*
446.5	-24452.	*
447.0	-34377.	*
447.5	-46143.	*
448.0	-59229.	*
448.5	-59309.	*
449.0	-68674.	*
449.5	-76277.	*
450.0	-80840.	*
450.5	-81720.	*
451.0	-78518.	*

TRACE DISPLAY.

SHOT 28 Time 07:59:43 Level : 845.1 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 125 400 883
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9194mV



AUX. CHANNEL 2 Max. 434mV



AUX. CHANNEL 3 Max. 3408mV



AUX. CHANNEL 4 Max. 5678mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 123.740

FIRST ARRIVAL PLOT - Shot 28 Level 845.1

Sample time	Value uV	Well phone data
358.0	15.	*
358.5	22.	*
359.0	27.	*
359.5	24.	*
360.0	11.	*
360.5	-9.	*
361.0	-32.	*
361.5	-115.	*
362.0	-169.	*
362.5	-220.	*
363.0	-215.	*
363.5	-241.	*
364.0	-254.	*
364.5	-280.	*
365.0	-309.	*
365.5	-344.	*
366.0	-378.	*
366.5	-404.	*
367.0	-421.	*
367.5	-426.	*
368.0	-425.	*
368.5	-416.	*
369.0	-401.	*
369.5	-378.	*
370.0	-346.	*
370.5	-306.	*
371.0	-261.	*
371.5	-195.	*
372.0	-195.	*
372.5	-139.	*
373.0	-53.	*
373.5	5.	*
374.0	51.	*
374.5	120.	*
375.0	162.	*
375.5	139.	*
376.0	-80.	*
376.5	-380.	*
377.0	-1008.	*
377.5	-3747.	*
378.0	-6933.	*
378.5	-13116.	*
379.0	-32376.	*
379.5	-45782.	*
380.0	-59869.	*
380.5	-60750.	*
381.0	-71155.	*
381.5	-80519.	*
382.0	-86842.	*
382.5	-91485.	*
383.0	-94046.	*

TRACE DISPLAY.

SHOT 29 Time 08:13:27 Level : 645.0 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 50 400 958
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 9634mV



AUX. CHANNEL 2 Max. 297mV



AUX. CHANNEL 3 Max. 3447mV



AUX. CHANNEL 4 Max. 6811mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 282.378

FIRST ARRIVAL PLOT - Shot 29 Level 645.0

Sample time	Value uV	Well phone data
280.0	207.	*
280.5	256.	*
281.0	277.	*
281.5	304.	*
282.0	324.	*
282.5	343.	*
283.0	357.	*
283.5	359.	*
284.0	340.	*
284.5	294.	*
285.0	234.	*
285.5	70.	*
286.0	-141.	*
286.5	-249.	*
287.0	-455.	*
287.5	-651.	*
288.0	-835.	*
288.5	-1228.	*
289.0	-1343.	*
289.5	-1411.	*
290.0	-1423.	*
290.5	-1396.	*
291.0	-1336.	*
291.5	-1251.	*
292.0	-1131.	*
292.5	-849.	*
293.0	-712.	*
293.5	-548.	*
294.0	-364.	*
294.5	-152.	*
295.0	51.	*
295.5	301.	*
296.0	417.	*
296.5	577.	*
297.0	655.	*
297.5	487.	*
298.0	-286.	*
298.5	-3759.	*
299.0	-6663.	*
299.5	-13026.	*
300.0	-32136.	*
300.5	-45982.	*
301.0	-61310.	*
301.5	-64672.	*
302.0	-79079.	*
302.5	-94766.	*
303.0	-111174.	*
303.5	-129183.	*
304.0	-144231.	*
304.5	-156717.	*
305.0	-165681.	*

TRACE DISPLAY.

SHOT 31 Time 08:23:55 Level : 510.1 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 8838mV



AUX. CHANNEL 2 Max. 380mV



AUX. CHANNEL 3 Max. 3422mV



AUX. CHANNEL 4 Max. 2739mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 327.680

FIRST ARRIVAL PLOT - Shot 31 Level 510.1

Sample time	Value uV	Well phone data
224.0	-373.	*
224.5	-348.	*
225.0	-325.	*
225.5	-300.	*
226.0	-270.	*
226.5	-218.	*
227.0	-226.	*
227.5	-166.	*
228.0	-104.	*
228.5	-33.	*
229.0	20.	*
229.5	46.	*
230.0	96.	*
230.5	129.	*
231.0	159.	*
231.5	181.	*
232.0	196.	*
232.5	200.	*
233.0	194.	*
233.5	172.	*
234.0	140.	*
234.5	91.	*
235.0	36.	*
235.5	-18.	*
236.0	-113.	*
236.5	-181.	*
237.0	-203.	*
237.5	-247.	*
238.0	-270.	*
238.5	-300.	*
239.0	-318.	*
239.5	-327.	*
240.0	-330.	*
240.5	-330.	*
241.0	-342.	*
241.5	-401.	*
242.0	-603.	*
242.5	-1723.	*
243.0	-3642.	*
243.5	-6453.	*
244.0	-13126.	*
244.5	-36378.	*
245.0	-56948.	*
245.5	-68834.	*
246.0	-90684.	*
246.5	-115016.	*
247.0	-143910.	*
247.5	-170804.	*
248.0	-197377.	*
248.5	-223789.	*
249.0	-244119.	*

TRACE DISPLAY.

SHOT 32 Time 08:34:51 Level : 330.0 Shot location : D
Shot depth : 2.0 Charge size : 0.5
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 8735mV



AUX. CHANNEL 2 Max. 488mV



AUX. CHANNEL 3 Max. 3545mV



AUX. CHANNEL 4 Max. 5903mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 327.840

FIRST ARRIVAL PLOT - Shot 32 Level 330.0

Sample time	Value uV	Well phone data
148.0	2366.	*
148.5	2256.	*
149.0	1876.	*
149.5	1271.	*
150.0	562.	*
150.5	-234.	*
151.0	-538.	*
151.5	-804.	*
152.0	-767.	*
152.5	-472.	*
153.0	80.	*
153.5	504.	*
154.0	1466.	*
154.5	2071.	*
155.0	2576.	!*
155.5	2861.	!*
156.0	2829.	!*
156.5	2474.	*
157.0	1821.	*
157.5	940.	*
158.0	-280.	*
158.5	-597.	*
159.0	-1693.	*
159.5	-2319.	*
160.0	-2741.	*
160.5	-2934.	*
161.0	-2906.	*
161.5	-2696.	*
162.0	-2394.	*
162.5	-2056.	*
163.0	-1801.	*
163.5	-1861.	*
164.0	-2731.	*
164.5	-4062.	*
165.0	-9305.	*
165.5	-32816.	*
166.0	-54186.	*
166.5	-87483.	*
167.0	-131584.	*
167.5	-168082.	*
168.0	-198657.	*
168.5	-219787.	*
169.0	-231313.	*
169.5	-233234.	*
170.0	-228112.	*
170.5	-222029.	*
171.0	-219147.	*
171.5	-221548.	*
172.0	-228432.	*
172.5	-239637.	*
173.0	-253884.	*