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**Date:** 5/1/2006 11:12:56 PM
**Subject:** Grassy Trail update 4/28/06

seismic and inclinometer update

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Grassy Trail Dam, Seismic Summary for April 28, 2006

For the one-week period between April 21 and, April 28, 2006 the number of MIS (Mining Induced Seismicity) micro earthquakes recorded near the site by the UUSS increased significantly from 15 to **24**. These MIS earthquakes ranged in magnitude from 1.2 to a high of 1.9. The increase in events is likely due the increasing overburden as mining advances to the north.

The number of events recorded on the Hillside seismic unit increased during the past week from 45 to **67** seismic events with no PGA values of 0.1g or greater. MIS events on the Dam unit increased from 48 to **66** events with only one PGA value greater than 0.1g (0.118g). It should be noted that 4 events recorded on the dam were generated by people or other movement directly on the dam.

During the week Peak Ground Acceleration (PGA) values decreased slightly on the Hillside from last weeks high of 0.0945g to **0.0878g**. PGA values on the Dam decreased from 0.121g to **0.118g**. Both of these PGA values occurred during a magnitude 1.9 MIS earthquake on April 24.

Inclinometers 2, and 4 continue to show movement. As shown on the Time Displacement Curves the rate of movement for the A-axis on inclinometers I-2 has been about the same since the March 17 readings. I-2 shows some backward movement along the B-axis. I-4 also shows some backward movement above about 45 feet. These movements are within the accuracy of the instrument and may move back on the next reading.

During the past week additional surficial mud flows have come down from the hillside just above inclinometer I-4.

No cracks or signs of movement were noted on the dam or abutments above the dam.

Michael Hansen
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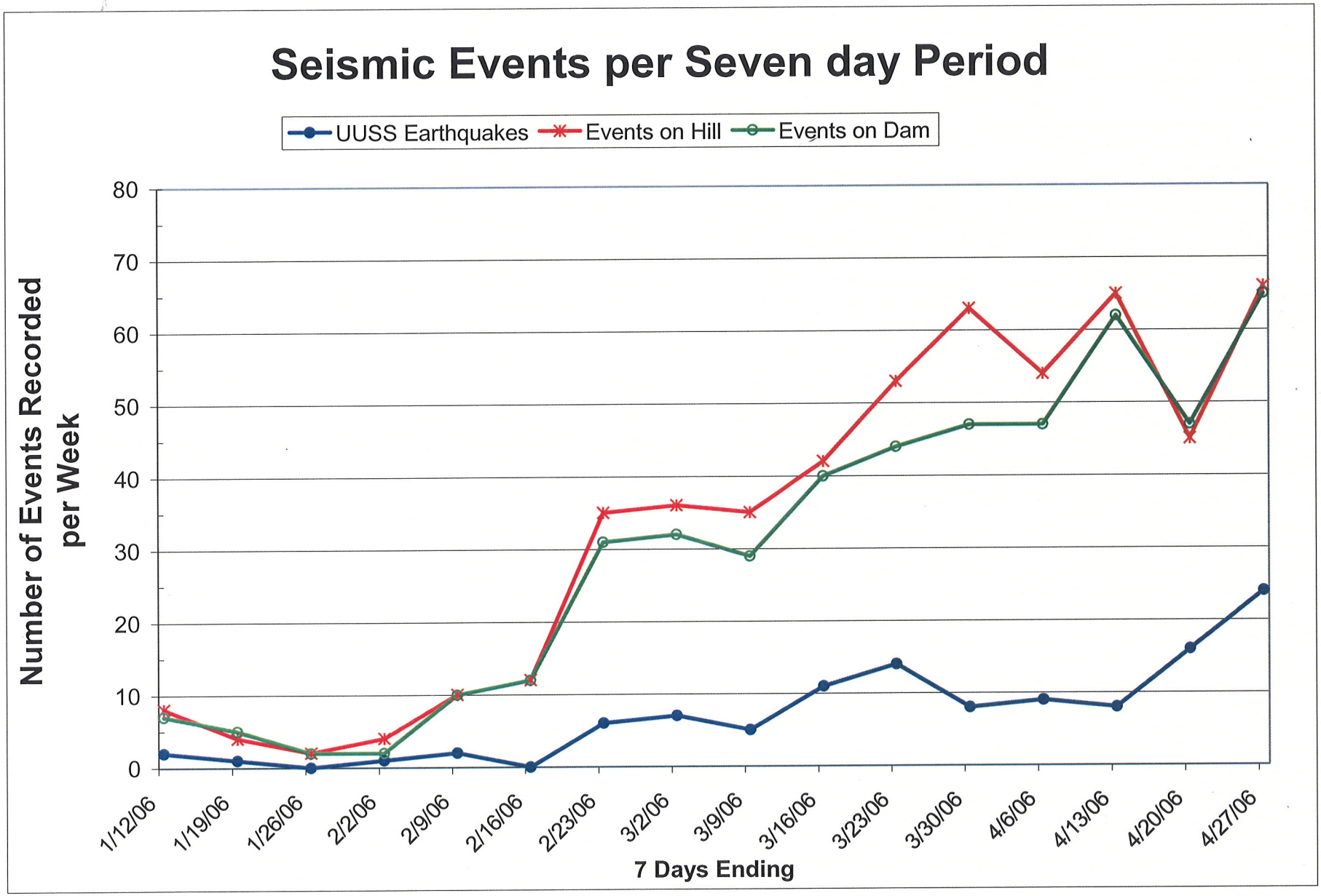
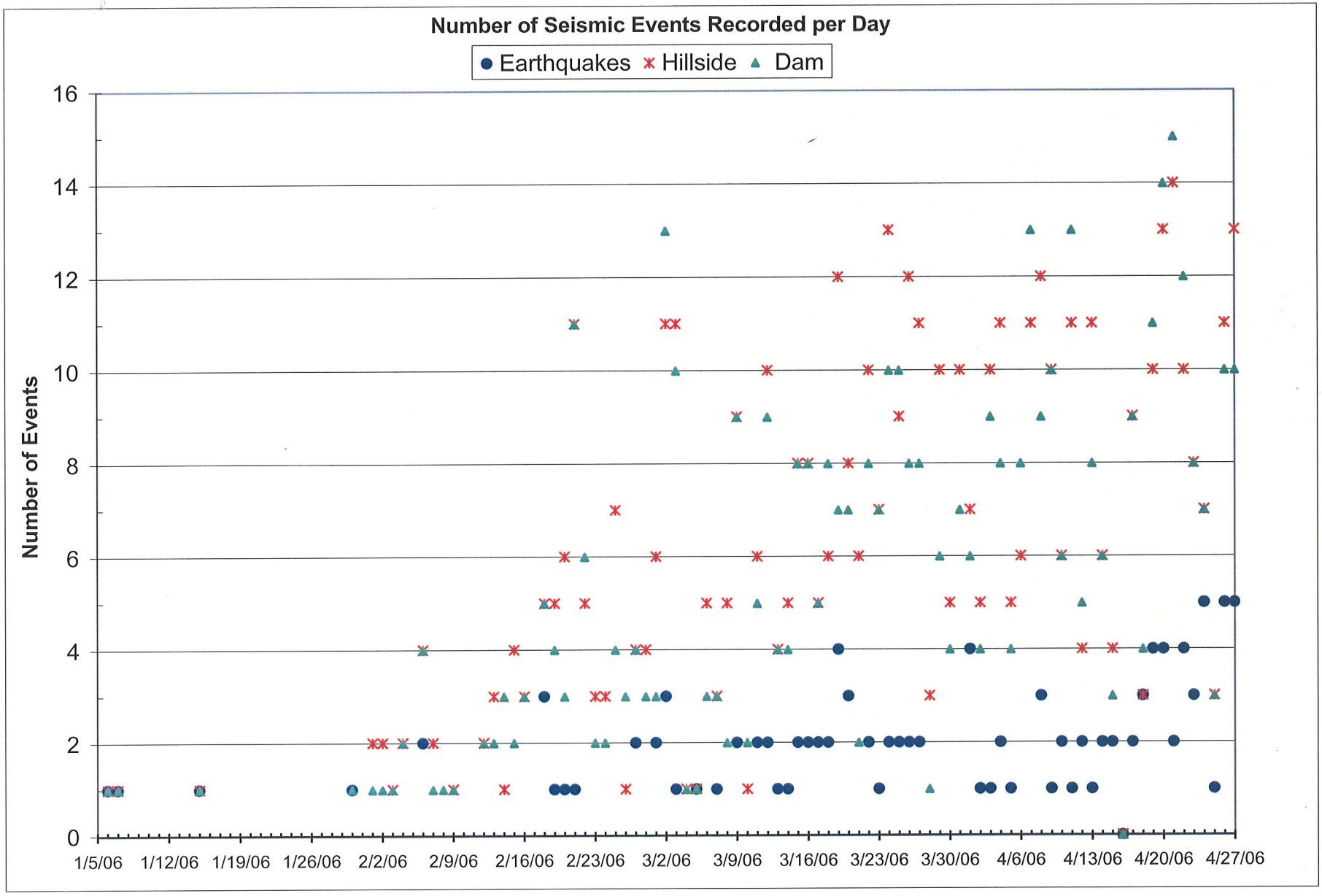
Grassy Trail Dam, Carbon County, Utah
2006, Hillside unit #9690 Dam #9689
Event Report

| Type | Serial No. | Date | Time | Tran Peak (mm/s) | Vert Peak (mm/s) | Long Peak (mm/s) | PVS1 (mm/s) | Trigger | Tran Accel (g) | Vert Accel (g) | Long Accel (g) | Description | Post Event Note first line |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOG | BE9689 | 4/21/06 | 10:11:43 | *** | *** | *** | *** | *** | *** | *** | *** | Start Monitoring | Start Monitoring |
| LOG | BE9690 | 4/21/06 | 10:42:28 | *** | *** | *** | *** | *** | *** | *** | *** | Start Monitoring | Start Monitoring |
| W | BE9689 | 4/21/06 | 13:21:43 | 0.635 | 0.317 | 0.444 | 0.641 | Tran | 0.00829 | 0.00829 | 0.01660 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 13:21:44 | 0.587 | 0.222 | 0.651 | 0.703 | Long | 0.00663 | 0.00663 | 0.00829 | Hillside | |
| W | BE9689 | 4/21/06 | 15:44:18 | 0.571 | 0.429 | 0.746 | 0.934 | Long | 0.00994 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 15:44:18 | 0.508 | 0.365 | 0.683 | 0.760 | Long | 0.00663 | 0.00663 | 0.00829 | Hillside | |
| W | BE9689 | 4/21/06 | 16:52:58 | 0.508 | 0.365 | 0.619 | 0.715 | Long | 0.00663 | 0.00663 | 0.01820 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 16:52:58 | 0.444 | 0.27 | 0.683 | 0.739 | Long | 0.00663 | 0.00497 | 0.00829 | Hillside | |
| W | BE9689 | 4/21/06 | 18:04:00 | 0.73 | 0.333 | 0.429 | 0.847 | Tran | 0.00829 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9689 | 4/21/06 | 18:25:22 | 1.98 | 1 | 1.21 | 2.190 | Vert | 0.01330 | 0.00829 | 0.01490 | Grassy Tr. Dam | Earthquake Magnitude 1.7 |
| W | BE9690 | 4/21/06 | 18:25:22 | 2.81 | 1.16 | 1.87 | 2.890 | Vert | 0.02650 | 0.01160 | 0.01820 | Hillside | Earthquake Magnitude 1.7 |
| W | BE9689 | 4/21/06 | 18:25:30 | 6.97 | 3.03 | 2.11 | 6.990 | Vert | 0.05470 | 0.01820 | 0.02320 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 18:25:31 | 4.38 | 2.02 | 3.24 | 5.640 | Vert | 0.03150 | 0.02320 | 0.03310 | Hillside | |
| W | BE9689 | 4/21/06 | 19:26:09 | 0.778 | 0.651 | 0.873 | 1.110 | Vert | 0.00829 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 19:26:10 | 0.762 | 0.492 | 0.81 | 0.948 | Tran | 0.00829 | 0.00663 | 0.00829 | Hillside | |
| W | BE9689 | 4/21/06 | 20:15:56 | 0.825 | 0.698 | 1.08 | 1.330 | Vert | 0.01160 | 0.00829 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 20:15:57 | 0.762 | 0.476 | 1.03 | 1.170 | Long | 0.00829 | 0.00829 | 0.00994 | Hillside | |
| W | BE9689 | 4/21/06 | 21:51:57 | 1.41 | 0.603 | 0.746 | 1.500 | Tran | 0.01330 | 0.00829 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 21:51:58 | 1.13 | 0.365 | 1 | 1.390 | Tran | 0.00994 | 0.00663 | 0.00829 | Hillside | |
| W | BE9689 | 4/21/06 | 22:22:11 | 0.556 | 0.413 | 0.683 | 0.866 | Long | 0.00829 | 0.00663 | 0.01660 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 22:22:12 | 0.46 | 0.381 | 0.603 | 0.693 | Long | 0.00663 | 0.00663 | 0.00829 | Hillside | |
| W | BE9689 | 4/21/06 | 22:40:48 | 1.02 | 0.81 | 1.32 | 1.580 | Vert | 0.00994 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 22:40:49 | 0.952 | 0.571 | 1.35 | 1.490 | Long | 0.00829 | 0.00829 | 0.01160 | Hillside | |
| W | BE9689 | 4/21/06 | 23:03:30 | 0.825 | 0.651 | 1 | 1.130 | Vert | 0.00994 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 23:03:31 | 0.905 | 0.603 | 0.857 | 0.995 | Vert | 0.00829 | 0.00829 | 0.00829 | Hillside | |
| W | BE9689 | 4/21/06 | 23:18:03 | 0.54 | 0.492 | 0.619 | 0.712 | Long | 0.00829 | 0.00663 | 0.01660 | Grassy Tr. Dam | |
| W | BE9690 | 4/21/06 | 23:18:03 | 0.667 | 0.349 | 0.714 | 0.814 | Tran | 0.00829 | 0.00663 | 0.00663 | Hillside | |
| W | BE9689 | 4/22/06 | 7:28:32 | 0.746 | 0.302 | 0.365 | 0.772 | Tran | 0.00829 | 0.00663 | 0.01160 | Grassy Tr. Dam | |
| W | BE9689 | 4/22/06 | 8:19:42 | 0.698 | 0.492 | 0.841 | 1.100 | Long | 0.00829 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/22/06 | 8:19:43 | 0.683 | 0.381 | 0.619 | 0.788 | Long | 0.00663 | 0.00663 | 0.00663 | Hillside | |
| W | BE9689 | 4/22/06 | 9:15:08 | 1.56 | 1.06 | 1.59 | 2.060 | Vert | 0.01660 | 0.00829 | 0.01490 | Grassy Tr. Dam | Eq Mag 1.4 |
| W | BE9690 | 4/22/06 | 9:15:09 | 1.37 | 0.667 | 1.65 | 1.720 | Tran | 0.00994 | 0.00829 | 0.01160 | Hillside | Eq Mag 1.4 |
| W | BE9689 | 4/22/06 | 9:20:16 | 1.13 | 0.984 | 1.41 | 1.710 | Vert | 0.01160 | 0.00829 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/22/06 | 9:20:16 | 1.06 | 0.667 | 1.19 | 1.550 | Vert | 0.01160 | 0.00829 | 0.00994 | Hillside | |
| W | BE9689 | 4/22/06 | 10:39:23 | 0.857 | 0.635 | 0.841 | 1.150 | Vert | 0.00994 | 0.00663 | 0.01660 | Grassy Tr. Dam | |
| W | BE9690 | 4/22/06 | 10:39:24 | 0.873 | 0.524 | 0.778 | 0.968 | Tran | 0.00994 | 0.00663 | 0.00829 | Hillside | |
| W | BE9689 | 4/22/06 | 11:49:17 | 1.3 | 1.14 | 1.51 | 1.760 | Vert | 0.00994 | 0.00994 | 0.01820 | Grassy Tr. Dam | Eq Mag 1.4 |
| W | BE9690 | 4/22/06 | 11:49:17 | 1.54 | 0.825 | 1.67 | 1.950 | Vert | 0.01160 | 0.01160 | 0.01160 | Hillside | Eq Mag 1.4 |
| W | BE9689 | 4/22/06 | 13:43:11 | 0.286 | 0.222 | 0.635 | 0.675 | Long | 0.00663 | 0.00663 | 0.01330 | Grassy Tr. Dam | |
| W | BE9689 | 4/22/06 | 16:11:00 | 0.873 | 0.365 | 0.476 | 0.946 | Tran | 0.00994 | 0.00829 | 0.01660 | Grassy Tr. Dam | |
| W | BE9690 | 4/22/06 | 16:11:01 | 0.508 | 0.27 | 0.603 | 0.668 | Long | 0.00663 | 0.00663 | 0.00663 | Hillside | |
| W | BE9689 | 4/22/06 | 20:01:17 | 0.603 | 0.349 | 0.619 | 0.854 | Long | 0.00663 | 0.00663 | 0.01660 | Grassy Tr. Dam | |
| W | BE9690 | 4/22/06 | 20:01:18 | 0.524 | 0.302 | 0.651 | 0.672 | Long | 0.00663 | 0.00663 | 0.00663 | Hillside | |
| W | BE9689 | 4/22/06 | 21:24:33 | 1.1 | 0.937 | 1.17 | 1.330 | Vert | 0.00829 | 0.00663 | 0.01820 | Grassy Tr. Dam | Eq Mag 1.5 |
| W | BE9690 | 4/22/06 | 21:24:34 | 1.38 | 0.778 | 1.43 | 1.750 | Vert | 0.01160 | 0.00994 | 0.00994 | Hillside | Eq Mag 1.5 |
| W | BE9689 | 4/22/06 | 21:41:37 | 0.762 | 0.603 | 0.952 | 1.210 | Vert | 0.01160 | 0.00663 | 0.01660 | Grassy Tr. Dam | |
| W | BE9690 | 4/22/06 | 21:41:37 | 0.889 | 0.492 | 0.81 | 1.050 | Tran | 0.00994 | 0.00829 | 0.00829 | Hillside | |
| W | BE9689 | 4/22/06 | 22:52:14 | 0.508 | 0.492 | 0.873 | 0.888 | Long | 0.00663 | 0.00663 | 0.01490 | Grassy Tr. Dam | Eq Mag 1.5 |
| W | BE9690 | 4/22/06 | 22:52:15 | 0.683 | 0.397 | 0.778 | 0.858 | Tran | 0.00663 | 0.00829 | 0.00663 | Hillside | Eq Mag 1.5 |
| W | BE9689 | 4/23/06 | 2:23:51 | 0.365 | 0.286 | 0.778 | 0.785 | Long | 0.00663 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/23/06 | 2:23:51 | 0.825 | 0.413 | 0.508 | 0.957 | Tran | 0.00994 | 0.00663 | 0.00829 | Hillside | |
| W | BE9690 | 4/23/06 | 3:51:08 | 0.397 | 0.365 | 0.762 | 0.772 | Long | 0.00663 | 0.00497 | 0.00829 | Hillside | |
| W | BE9689 | 4/23/06 | 8:13:09 | 1.35 | 1.22 | 1.64 | 1.920 | Vert | 0.00994 | 0.00994 | 0.01330 | Grassy Tr. Dam | Eq Mag 1.6 |
| W | BE9690 | 4/23/06 | 8:13:10 | 1.33 | 0.619 | 1.41 | 1.900 | Vert | 0.01160 | 0.00829 | 0.00994 | Hillside | Eq Mag 1.6 |
| W | BE9689 | 4/23/06 | 8:41:32 | 0.683 | 0.508 | 0.603 | 0.844 | Long | 0.00663 | 0.00663 | 0.00663 | Grassy Tr. Dam | |
| W | BE9690 | 4/23/06 | 8:41:32 | 0.651 | 0.381 | 0.698 | 0.765 | Tran | 0.00829 | 0.00663 | 0.00829 | Hillside | |
| W | BE9689 | 4/23/06 | 9:55:44 | 1.29 | 1.22 | 1.57 | 1.750 | Vert | 0.01330 | 0.00829 | 0.01330 | Grassy Tr. Dam | Eq Mag 1.6 |
| W | BE9690 | 4/23/06 | 9:55:44 | 1.27 | 0.698 | 1.54 | 1.730 | Vert | 0.00994 | 0.00663 | 0.01160 | Hillside | Eq Mag 1.6 |
| W | BE9689 | 4/23/06 | 14:31:52 | 0.222 | 0.19 | 0.635 | 0.662 | Long | 0.01330 | 0.01160 | 0.02490 | Grassy Tr. Dam | man made |
| W | BE9689 | 4/23/06 | 19:27:29 | 0.746 | 0.492 | 0.73 | 0.937 | Long | 0.00829 | 0.00829 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/23/06 | 19:27:29 | 0.714 | 0.333 | 0.794 | 0.811 | Long | 0.00663 | 0.00663 | 0.00663 | Hillside | |
| W | BE9689 | 4/23/06 | 19:31:46 | 0.619 | 0.429 | 0.683 | 0.901 | Long | 0.00663 | 0.00663 | 0.01490 | Grassy Tr. Dam | Eq Mag 1.5, on dam only |
| W | BE9689 | 4/23/06 | 21:13:33 | 0.651 | 0.508 | 0.746 | 0.983 | Long | 0.00829 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/23/06 | 21:13:34 | 0.635 | 0.238 | 0.556 | 0.705 | Tran | 0.00994 | 0.00497 | 0.00829 | Hillside | |
| W | BE9689 | 4/23/06 | 21:19:40 | 0.651 | 0.54 | 0.714 | 0.781 | Long | 0.00829 | 0.00663 | 0.00663 | Grassy Tr. Dam | |
| W | BE9690 | 4/23/06 | 21:19:40 | 0.825 | 0.46 | 0.921 | 1.000 | Tran | 0.00663 | 0.00829 | 0.00829 | Hillside | |
| W | BE9689 | 4/24/06 | 1:39:24 | 0.603 | 0.413 | 0.587 | 0.797 | Tran | 0.00829 | 0.00663 | 0.01820 | Grassy Tr. Dam | |
| W | BE9690 | 4/24/06 | 1:39:24 | 0.635 | 0.365 | 0.683 | 0.793 | Tran | 0.00663 | 0.00663 | 0.00829 | Hillside | |
| W | BE9689 | 4/24/06 | 9:30:17 | 1.1 | 0.952 | 1.24 | 1.610 | Vert | 0.00994 | 0.00829 | 0.01330 | Grassy Tr. Dam | Eq Mag 1.7 |
| W | BE9690 | 4/24/06 | 9:30:17 | 1.16 | 0.683 | 1.03 | 1.490 | Vert | 0.00994 | 0.00829 | 0.00829 | Hillside | Eq Mag 1.7 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W | BE9689 | 4/24/06 | 10:45:01 | 0.825 | 0.603 | 0.746 | 0.931 | Vert | 0.00663 | 0.00829 | 0.00994 | Grassy Tr. Dam | Eq Mag 1.6 |
| W | BE9690 | 4/24/06 | 10:45:01 | 0.587 | 1.06 | 1.79 | 1.910 | Vert | 0.00829 | 0.01160 | 0.01490 | Hillside | Eq Mag 1.6 |
| W | BE9689 | 4/24/06 | 12:03:08 | 2.21 | 1.84 | 2.43 | 2.670 | Long | 0.01490 | 0.00994 | 0.01490 | Grassy Tr. Dam | Eq Mag 1.7 |
| W | BE9690 | 4/24/06 | 12:03:08 | 2.25 | 1.17 | 2.67 | 2.840 | Vert | 0.01490 | 0.00994 | 0.01490 | Hillside | Eq Mag 1.7 |
| W | BE9689 | 4/24/06 | 21:34:32 | 0.778 | 0.683 | 1.17 | 1.410 | Vert | 0.00994 | 0.00829 | 0.01330 | Grassy Tr. Dam | Eq Mag 1.7 |
| W | BE9690 | 4/24/06 | 21:34:32 | 0.825 | 0.571 | 0.778 | 0.981 | Long | 0.00994 | 0.00663 | 0.00663 | Hillside | Eq Mag 1.7 |
| W | BE9689 | 4/24/06 | 22:14:43 | 0.54 | 0.333 | 0.714 | 0.764 | Long | 0.00663 | 0.00663 | 0.01820 | Grassy Tr. Dam | |
| W | BE9690 | 4/24/06 | 22:14:43 | 0.714 | 0.397 | 0.873 | 0.914 | Long | 0.00663 | 0.00663 | 0.00663 | Hillside | |
| W | BE9689 | 4/24/06 | 22:20:11 | 14.2 | 5.79 | 5.41 | 14.200 | Vert | 0.11800 | 0.03650 | 0.03310 | Grassy Tr. Dam | Eq Mag 1.9, PGA 0.118 |
| W | BE9690 | 4/24/06 | 22:20:11 | 12.3 | 4.48 | 8.67 | 15.100 | Vert | 0.08780 | 0.03650 | 0.06130 | Hillside | Eq Mag 1.9, PGA 0.0878 |
| W | BE9689 | 4/25/06 | 9:59:14 | 0.571 | 0.444 | 0.619 | 0.832 | Long | 0.00829 | 0.00663 | 0.01160 | Grassy Tr. Dam | |
| W | BE9690 | 4/25/06 | 21:40:42 | 0.619 | 0.492 | 0.651 | 0.733 | Tran | 0.00829 | 0.00663 | 0.00663 | Hillside | Eq Mag 1.6 |
| W | BE9689 | 4/25/06 | 21:40:43 | 0.587 | 0.508 | 0.635 | 0.856 | Long | 0.00663 | 0.00829 | 0.01330 | Grassy Tr. Dam | Eq Mag 1.6 |
| W | BE9690 | 4/25/06 | 21:44:33 | 1.44 | 0.683 | 1.64 | 1.910 | Vert | 0.00994 | 0.00663 | 0.01160 | Hillside | |
| W | BE9689 | 4/25/06 | 21:44:34 | 1.16 | 0.841 | 1.56 | 1.660 | Vert | 0.00829 | 0.00663 | 0.01660 | Grassy Tr. Dam | |
| W | BE9690 | 4/25/06 | 23:17:31 | 0.571 | 0.27 | 0.651 | 0.767 | Long | 0.00829 | 0.00497 | 0.00663 | Hillside | |
| W | BE9690 | 4/26/06 | 5:12:33 | 1.38 | 0.698 | 1.4 | 1.700 | Vert | 0.01160 | 0.00829 | 0.01160 | Hillside | Eq Mag 1.6 |
| W | BE9689 | 4/26/06 | 5:12:34 | 1.33 | 1.11 | 1.32 | 1.540 | Vert | 0.01160 | 0.00829 | 0.01820 | Grassy Tr. Dam | Eq Mag 1.6 |
| W | BE9689 | 4/26/06 | 11:44:23 | 1.62 | 1.21 | 1.76 | 2.020 | Vert | 0.01490 | 0.00829 | 0.01160 | Grassy Tr. Dam | Eq Mag 1.5 |
| W | BE9690 | 4/26/06 | 11:44:23 | 1.86 | 0.825 | 2.02 | 2.320 | Vert | 0.01330 | 0.00829 | 0.01490 | Hillside | Eq Mag 1.5 |
| W | BE9690 | 4/26/06 | 14:29:10 | 0.698 | 0.476 | 0.54 | 0.784 | Tran | 0.00829 | 0.00663 | 0.00663 | Hillside | |
| W | BE9689 | 4/26/06 | 14:29:11 | 0.683 | 0.476 | 0.698 | 0.956 | Long | 0.00994 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/26/06 | 15:36:30 | 0.429 | 0.46 | 1.3 | 1.360 | Long | 0.00829 | 0.00994 | 0.01490 | Hillside | |
| W | BE9690 | 4/26/06 | 15:55:36 | 1.54 | 0.857 | 1.79 | 1.880 | Vert | 0.01820 | 0.01160 | 0.00994 | Hillside | Eq Mag 1.7 |
| W | BE9689 | 4/26/06 | 15:55:37 | 1.49 | 0.968 | 1.33 | 1.920 | Vert | 0.01660 | 0.00829 | 0.01490 | Grassy Tr. Dam | Eq Mag 1.7 |
| W | BE9690 | 4/26/06 | 16:40:53 | 1.25 | 0.698 | 1.38 | 1.490 | Vert | 0.00994 | 0.00829 | 0.00994 | Hillside | Eq Mag 1.4 |
| W | BE9689 | 4/26/06 | 16:40:54 | 1.3 | 1.03 | 1.38 | 1.900 | Vert | 0.01160 | 0.00829 | 0.01820 | Grassy Tr. Dam | Eq Mag 1.4 |
| W | BE9690 | 4/26/06 | 16:43:42 | 4.1 | 1.94 | 4.19 | 6.100 | Vert | 0.04310 | 0.02490 | 0.04310 | Hillside | |
| W | BE9689 | 4/26/06 | 16:43:43 | 6.05 | 2.95 | 2 | 6.060 | Vert | 0.05630 | 0.01820 | 0.01990 | Grassy Tr. Dam | |
| W | BE9690 | 4/26/06 | 16:44:06 | 2.11 | 0.841 | 2.46 | 2.940 | Vert | 0.01330 | 0.01160 | 0.01820 | Hillside | |
| W | BE9689 | 4/26/06 | 16:44:07 | 2.21 | 1.22 | 1.89 | 2.750 | Vert | 0.01490 | 0.01160 | 0.01660 | Grassy Tr. Dam | |
| W | BE9689 | 4/26/06 | 16:44:39 | 4.59 | 1 | 1.67 | 4.600 | Tran | 0.01660 | 0.00994 | 0.01490 | Grassy Tr. Dam | Eq Mag 1.6 |
| W | BE9690 | 4/26/06 | 16:44:39 | 1.71 | 0.603 | 1.98 | 2.390 | Tran | 0.00994 | 0.00829 | 0.01160 | Hillside | Eq Mag 1.6 |
| W | BE9690 | 4/26/06 | 21:04:16 | 1.4 | 0.762 | 1.33 | 1.670 | Vert | 0.00994 | 0.00994 | 0.01160 | Hillside | |
| W | BE9689 | 4/26/06 | 21:04:17 | 1.19 | 1.03 | 1.3 | 1.760 | Vert | 0.01160 | 0.00829 | 0.01660 | Grassy Tr. Dam | |
| W | BE9690 | 4/26/06 | 21:32:29 | 1.02 | 0.429 | 0.952 | 1.190 | Tran | 0.01160 | 0.00663 | 0.01160 | Hillside | |
| W | BE9689 | 4/26/06 | 21:32:30 | 0.524 | 0.635 | 0.873 | 1.020 | Vert | 0.00663 | 0.00829 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/27/06 | 6:58:15 | 0.667 | 0.381 | 0.603 | 0.779 | Long | 0.00663 | 0.00663 | 0.00829 | Hillside | |
| W | BE9689 | 4/27/06 | 6:58:16 | 0.841 | 0.556 | 0.825 | 1.180 | Long | 0.00994 | 0.00663 | 0.01820 | Grassy Tr. Dam | |
| W | BE9690 | 4/27/06 | 7:54:59 | 1.16 | 0.746 | 1.22 | 1.370 | Vert | 0.00994 | 0.00994 | 0.00829 | Hillside | Eq Mag 1.2 |
| W | BE9689 | 4/27/06 | 7:55:00 | 1.06 | 0.857 | 0.968 | 1.200 | Vert | 0.00829 | 0.00829 | 0.01490 | Grassy Tr. Dam | Eq Mag 1.2 |
| W | BE9690 | 4/27/06 | 10:16:05 | 0.794 | 0.619 | 0.714 | 1.010 | Vert | 0.00994 | 0.00663 | 0.00663 | Hillside | |
| W | BE9689 | 4/27/06 | 10:16:06 | 1.11 | 0.698 | 0.984 | 1.480 | Vert | 0.00994 | 0.00829 | 0.01660 | Grassy Tr. Dam | |
| W | BE9690 | 4/27/06 | 12:17:38 | 1.59 | 0.667 | 1.81 | 1.950 | Vert | 0.01160 | 0.00829 | 0.01160 | Hillside | Eq Mag 1.6 |
| W | BE9689 | 4/27/06 | 12:17:39 | 1.6 | 1.05 | 1.76 | 2.010 | Vert | 0.00994 | 0.00829 | 0.01330 | Grassy Tr. Dam | Eq Mag 1.6 |
| W | BE9690 | 4/27/06 | 14:51:28 | 1.87 | 0.54 | 2.05 | 2.580 | Tran | 0.01330 | 0.00829 | 0.01330 | Hillside | |
| W | BE9689 | 4/27/06 | 14:51:29 | 2.05 | 1.14 | 1.41 | 2.360 | Long | 0.01330 | 0.00994 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/27/06 | 14:56:59 | 0.952 | 0.619 | 1.19 | 1.230 | Vert | 0.00829 | 0.00829 | 0.00829 | Hillside | |
| W | BE9689 | 4/27/06 | 14:57:00 | 0.698 | 0.603 | 0.825 | 0.952 | Vert | 0.00829 | 0.00663 | 0.01330 | Grassy Tr. Dam | |
| W | BE9690 | 4/27/06 | 14:58:53 | 0.952 | 0.444 | 0.698 | 1.080 | Tran | 0.00829 | 0.00663 | 0.00663 | Hillside | |
| W | BE9689 | 4/27/06 | 14:58:54 | 0.889 | 0.619 | 0.794 | 1.100 | Vert | 0.00829 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/27/06 | 15:30:35 | 0.683 | 0.302 | 0.619 | 0.785 | Tran | 0.00994 | 0.00663 | 0.00829 | Hillside | |
| W | BE9690 | 4/27/06 | 15:52:58 | 0.619 | 0.46 | 0.571 | 0.639 | Tran | 0.01160 | 0.00829 | 0.00829 | Hillside | |
| W | BE9690 | 4/27/06 | 17:53:48 | 10.8 | 3.51 | 6.49 | 12.900 | Vert | 0.08120 | 0.03810 | 0.05470 | Hillside | Eq Mag 1.9 |
| W | BE9689 | 4/27/06 | 17:53:50 | 11.5 | 5.27 | 3.51 | 11.500 | Vert | 0.08950 | 0.02980 | 0.02820 | Grassy Tr. Dam | Eq Mag 1.9 PGA 0.895 |
| W | BE9690 | 4/27/06 | 18:20:59 | 0.524 | 0.429 | 0.762 | 0.796 | Long | 0.00829 | 0.00829 | 0.00994 | Hillside | |
| W | BE9690 | 4/27/06 | 21:52:17 | 0.952 | 0.492 | 1 | 1.190 | Tran | 0.00829 | 0.00663 | 0.00829 | Hillside | Eq Mag 1.6 |
| W | BE9689 | 4/27/06 | 21:52:18 | 0.952 | 0.619 | 1.03 | 1.340 | Vert | 0.01160 | 0.00829 | 0.01490 | Grassy Tr. Dam | Eq Mag 1.6 |
| W | BE9690 | 4/27/06 | 22:08:48 | 0.984 | 0.683 | 0.841 | 1.140 | Vert | 0.00994 | 0.00829 | 0.00829 | Hillside | Eq Mag 1.4 |
| W | BE9689 | 4/27/06 | 22:08:49 | 1.03 | 0.73 | 1.11 | 1.480 | Vert | 0.00994 | 0.00829 | 0.01490 | Grassy Tr. Dam | Eq Mag 1.4 |
| W | BE9689 | 4/28/06 | 9:32:06 | 0.841 | 0.619 | 0.317 | 1.000 | Tran | 0.03310 | 0.03650 | 0.01490 | Grassy Tr. Dam | man made |
| W | BE9689 | 4/28/06 | 10:56:33 | 0.19 | 0.635 | 0.508 | 0.665 | Vert | 0.00829 | 0.02320 | 0.01490 | Grassy Tr. Dam | man made |
| W | BE9690 | 4/28/06 | 11:36:46 | 0.667 | 0.46 | 0.714 | 0.826 | Tran | 0.00829 | 0.00663 | 0.00994 | Hillside | |
| W | BE9689 | 4/28/06 | 11:36:48 | 0.556 | 0.365 | 0.667 | 0.680 | Long | 0.00829 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| W | BE9689 | 4/28/06 | 11:43:04 | 0.206 | 0.73 | 0.476 | 0.773 | Vert | 0.00829 | 0.02490 | 0.01990 | Grassy Tr. Dam | man made |
| W | BE9690 | 4/28/06 | 13:43:44 | 0.921 | 0.667 | 1.05 | 1.190 | Vert | 0.00994 | 0.00994 | 0.00994 | Hillside | |
| W | BE9689 | 4/28/06 | 13:43:45 | 1.48 | 0.857 | 1.25 | 1.690 | Vert | 0.01160 | 0.00829 | 0.01490 | Grassy Tr. Dam | |
| W | BE9690 | 4/28/06 | 13:45:49 | 1.02 | 0.683 | 1.24 | 1.260 | Vert | 0.00829 | 0.00829 | 0.00994 | Hillside | |
| W | BE9689 | 4/28/06 | 13:45:51 | 0.889 | 0.651 | 0.905 | 0.963 | Vert | 0.00829 | 0.00663 | 0.01490 | Grassy Tr. Dam | |
| LOG | BE9689 | 4/28/06 | 14:00:29 | *** | *** | *** | *** | *** | *** | *** | *** | Keyboard Stop | |
| LOG | BE9690 | 4/28/06 | 14:54:48 | *** | *** | *** | *** | *** | *** | *** | *** | Keyboard Stop | |


Seismic Events per Seven day Period
UUSS Earthquakes
Events on Hill
Events on Dam
Number of Events Recorded per Week
80
70
60
50
40
30
20
10
0
1/12/06
1/19/06
1/26/06
2/2/06
2/9/06
2/16/06
2/23/06
3/2/06
3/9/06
3/16/06
3/23/06
3/30/06
4/6/06
4/13/06
4/20/06
4/27/06
7 Days Ending


Number of Seismic Events Recorded per Day
Earthquakes
Hillside
Dam
Number of Events
0
2
4
6
8
10
12
14
16
1/5/06
1/12/06
1/19/06
1/26/06
2/2/06
2/9/06
2/16/06
2/23/06
3/2/06
3/9/06
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3/23/06
3/30/06
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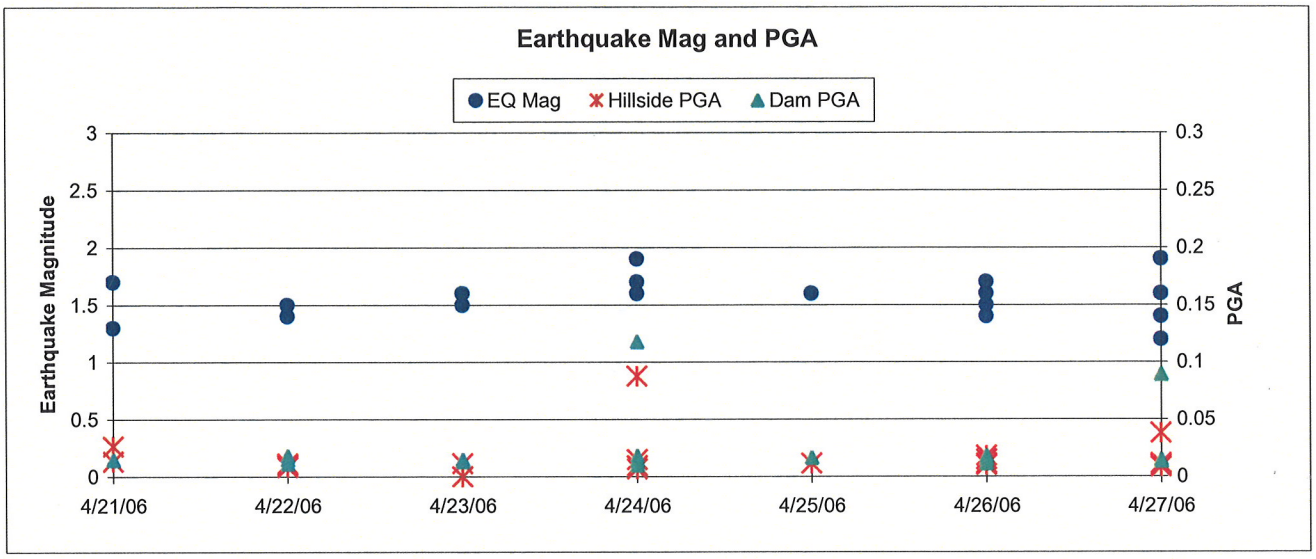
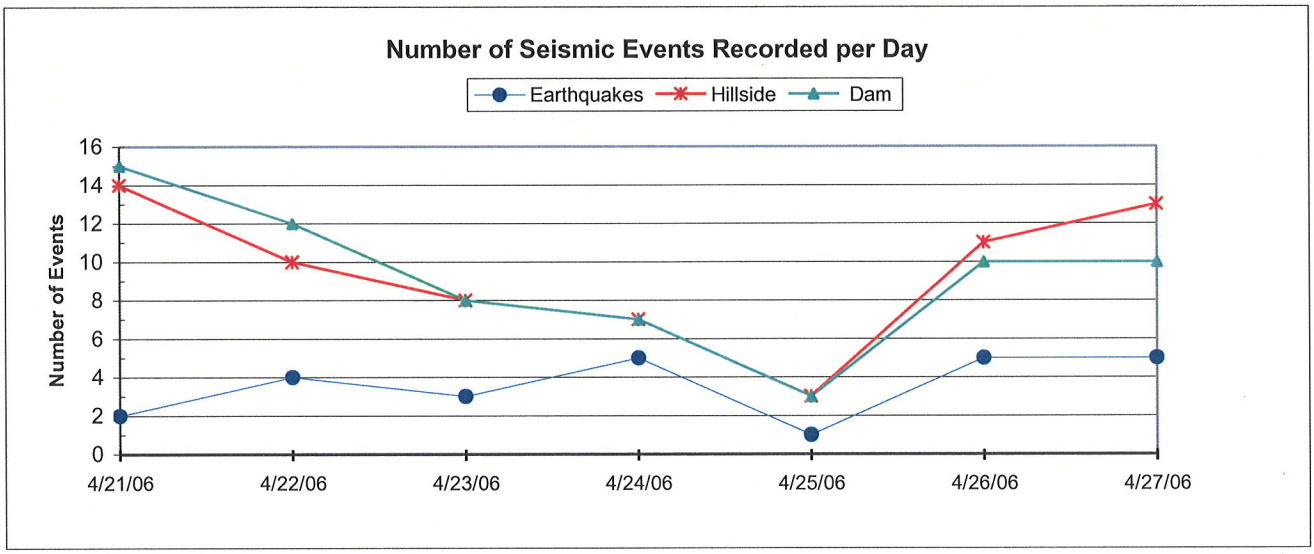
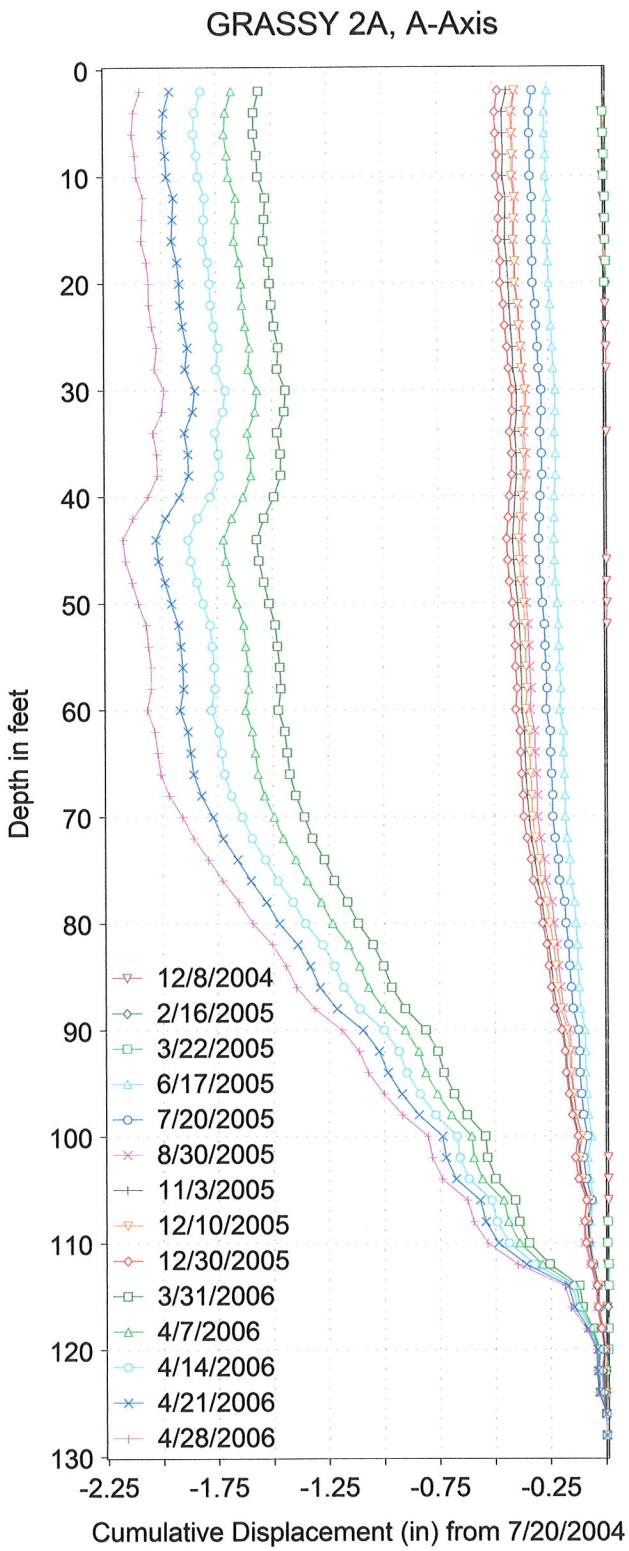
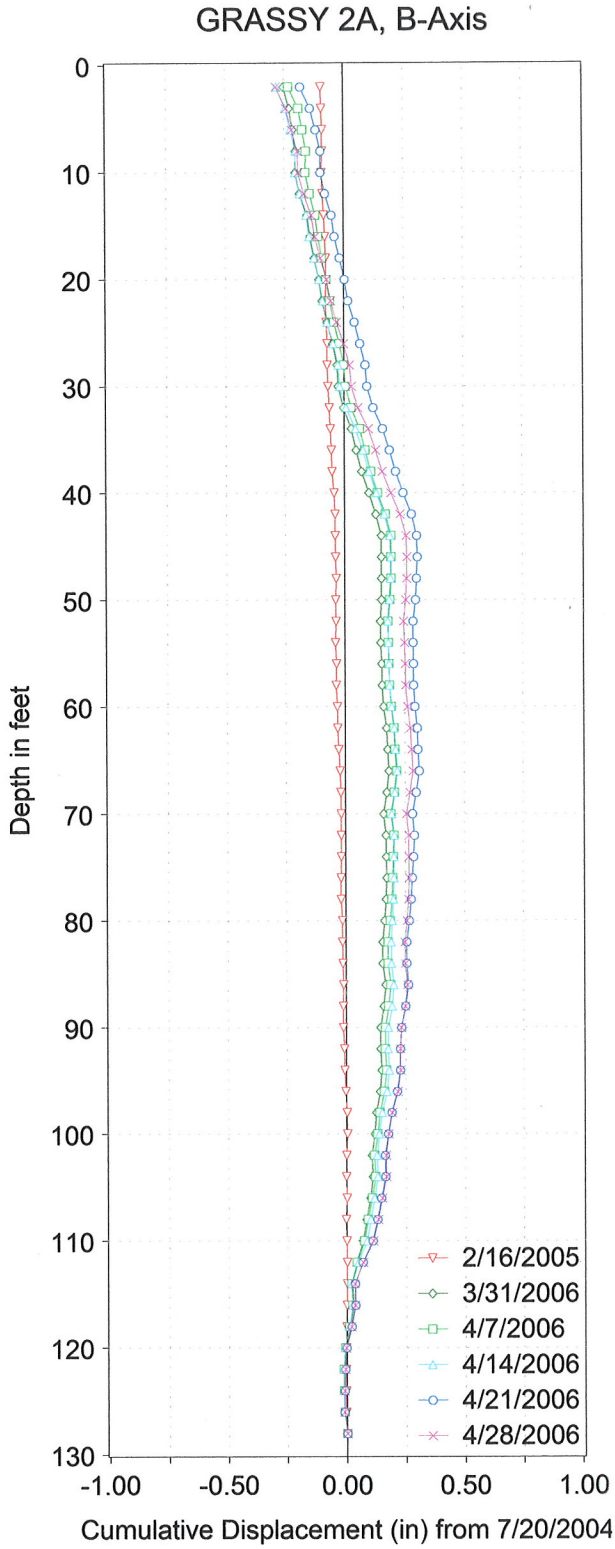
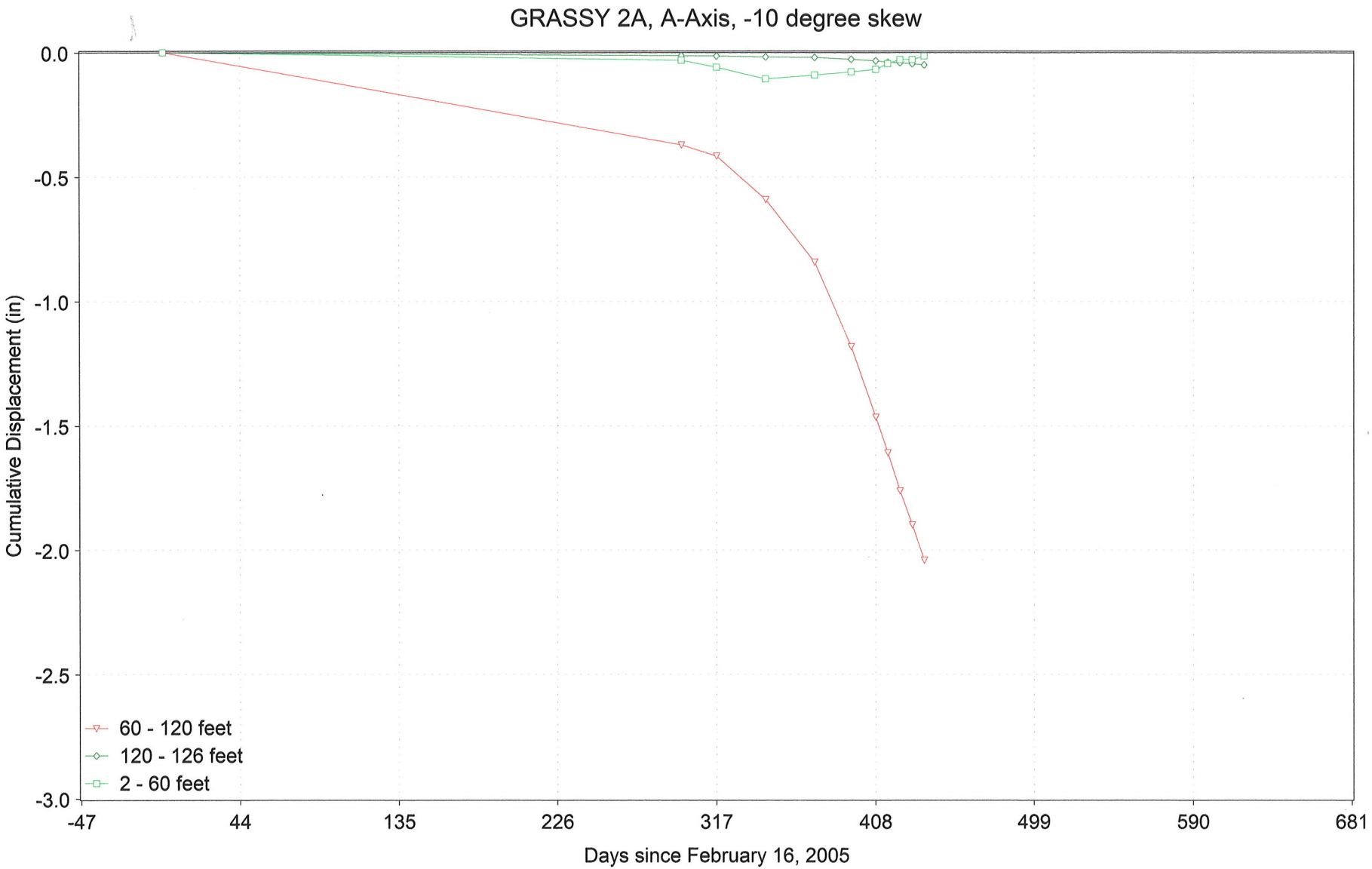
4/13/06
4/20/06
4/27/06

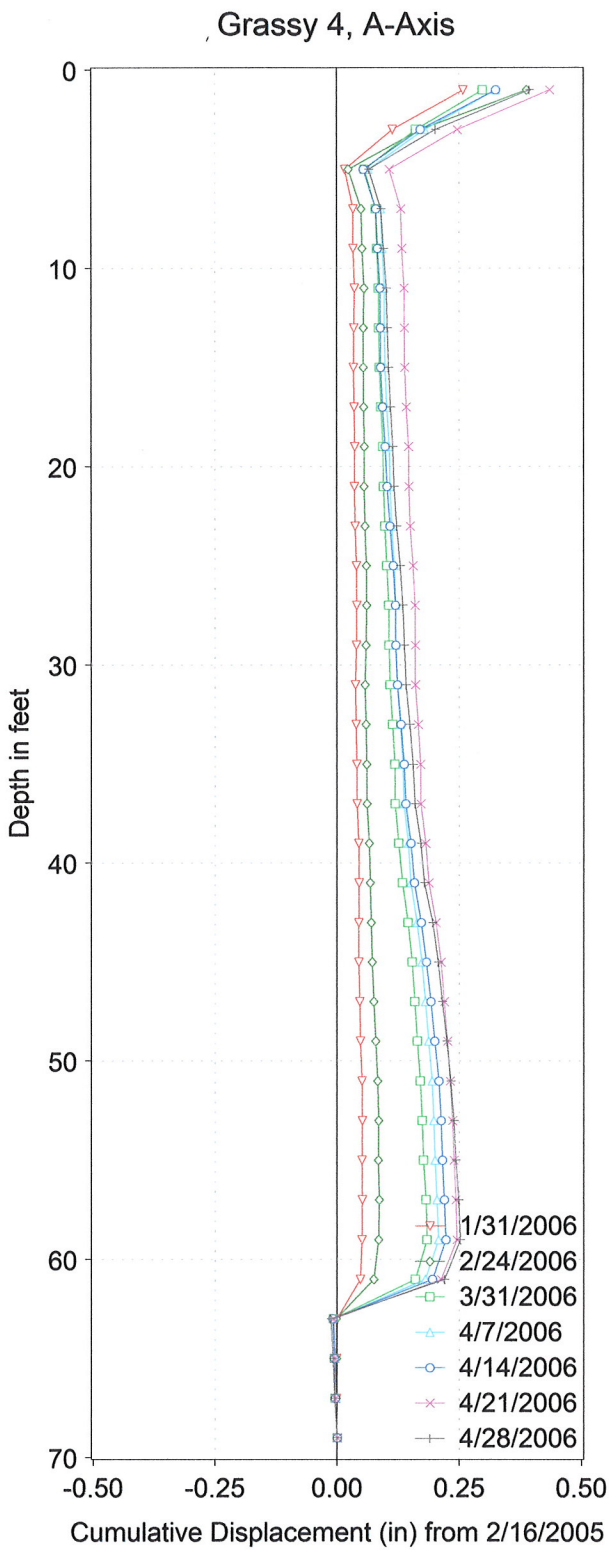

Earthquake Mag and PGA
EQ Mag
Hillside PGA
Dam PGA
Earthquake Magnitude
PGA
3
2.5
2
1.5
1
0.5
0
0.3
0.25
0.2
0.15
0.1
0.05
0
4/21/06
4/22/06
4/23/06
4/24/06
4/25/06
4/26/06
4/27/06

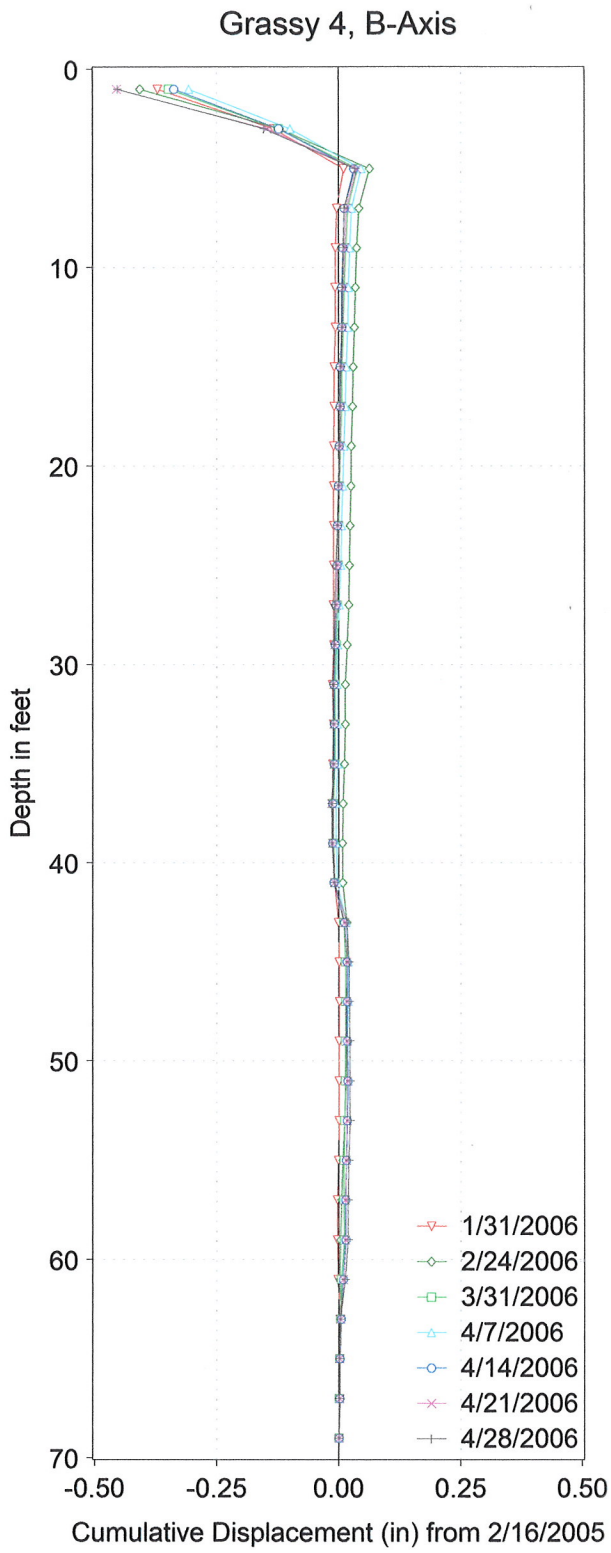

Number of Seismic Events Recorded per Day
Earthquakes
Hillside
Dam
Number of Events
16
14
12
10
8
6
4
2
0
4/21/06
4/22/06
4/23/06
4/24/06
4/25/06
4/26/06
4/27/06

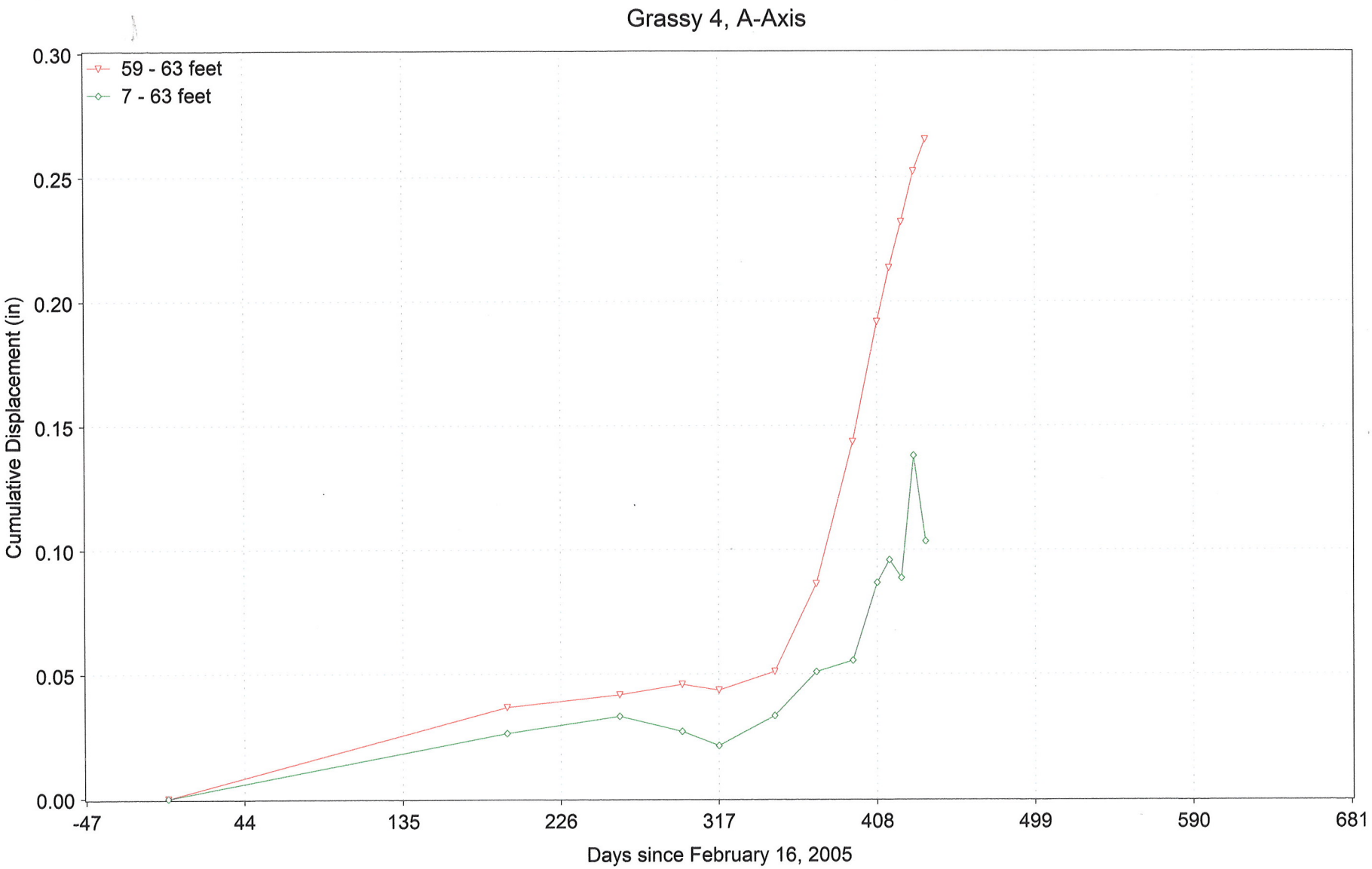

GRASSY 2A, A-Axis
Depth in feet
Cumulative Displacement (in) from 7/20/2004
0
10
20
30
40
50
60
70
80
90
100
110
120
130
-2.25
-1.75
-1.25
-0.75
-0.25
12/8/2004
2/16/2005
3/22/2005
6/17/2005
7/20/2005
8/30/2005
11/3/2005
12/10/2005
12/30/2005
3/31/2006
4/7/2006
4/14/2006
4/21/2006
4/28/2006


GRASSY 2A, B-Axis
Depth in feet
Cumulative Displacement (in) from 7/20/2004
0
10
20
30
40
50
60
70
80
90
100
110
120
130
-1.00
-0.50
0.00
0.50
1.00
2/16/2005
3/31/2006
4/7/2006
4/14/2006
4/21/2006
4/28/2006


GRASSY 2A, A-Axis, -10 degree skew
Cumulative Displacement (in)
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
-47
44
135
226
317
408
499
590
681
Days since February 16, 2005
60 - 120 feet
120 - 126 feet
2 - 60 feet


Grassy 4, A-Axis
Depth in feet
0
10
20
30
40
50
60
70
-0.50
-0.25
0.00
0.25
0.50
Cumulative Displacement (in) from 2/16/2005
1/31/2006
2/24/2006
3/31/2006
4/7/2006
4/14/2006
4/21/2006
4/28/2006


Grassy 4, B-Axis
Depth in feet
0
10
20
30
40
50
60
70
-0.50
-0.25
0.00
0.25
0.50
Cumulative Displacement (in) from 2/16/2005
1/31/2006
2/24/2006
3/31/2006
4/7/2006
4/14/2006
4/21/2006
4/28/2006


Grassy 4, A-Axis
59 - 63 feet
7 - 63 feet
Cumulative Displacement (in)
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-47
44
135
226
317
408
499
590
681
Days since February 16, 2005