

Kirkkonummen kunta
Kirkkonummen seurakuntayhtymä

RAIDELIIKENTEEN TÄRINÄSELVITYS

**Kirkkonummen keskusta, Kirkkolaakson asemakaava-alue
sekä Heikkilän ja Tolsan alue**



2.2.2007



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ALAOTSIKKO 1

1. JOHDANTO

Sito-yhtiöt Oy on tehnyt Kirkkonummen seurakuntayhtymän ja Kirkkonummen kaupungin toimeksiannosta Kirkkonummen keskustassa radan varren alueella, rautatieaseman ja Kirkkolaakson asemakaava-alueella sekä Heikkilän ja Tolsan alueilla tärinäselvityksen. Tutkittavat alueet sijaitsevat Helsinki-Turku radan varrella. Työn tavoitteena oli selvittää rautatieliiken-netärinän vaikutukset ja arvioida tärinäriskialueet maankäytön suunnittelua varten.

Suurimman tärinän ratojen ympäristössä aiheuttavat yleensä raskaat ja pitkät tavarajunat. Tutkittavalla rataosuudella ei VR:ltä (suullinen tiedonanto Aarne Kähkönen) saatujen tietojen mukaan ole tavarajunaliikennettä. Radalla liikennöivät pääasiassa Pendolino,- Intercity2,- pika- ja paikallisjunat. Kaikki junat lukuun ottamatta Pendolinoja (yksi poikkeus) pysähtyvät Kirkkonummella. Junien painot ovat radalla suhteellinen alhaisia, enimmillään 500, tonnia ja junien suurin sallittu nopeus on 120 km/h. Liitessä 2 on yhteenvetona laskettu raiteella liikkuva junaliikenne.

Radan läheisyydessä suurin tärinä on yleensä hienorakeisilla maapojilla, kuten lieju-, turve-, savi- ja silttikerrostumissa. Kovissa kivennäismaalaajeissa tärinäalue on pienempi. Pienin liikennetärinän vaikutusalue on kovissa karkearakenteissä kivennäismaalaajeissa (sora, hiekka) ja moreenimaalaajeissa (silttimoreeni, hiekkamoreeni, soramoreeni) sekä kalliossa. Käytettävissä olevien pohjatutkimusten ja muiden tietojen mukaan radan lähialueet tutkittavalla alueella ovat pehmeitä hienorakeisia maa-alueita.

Ihmisen kokeman väärähtelyn merkittävin taajuusalue on yleensä pehmeillä savimailla 5-15 Hz ja kovilla soramailla 10-25 Hz. Kirjallisuudesta ja aiemista Suomessa tehdystä mittauksista voidaan päätellä, että merkittävimmät väärähtely paksuilla savimailla esiintyvät yleensä 4-10 Hz:n taajuusalueella.

Aiemmat tärinätutkimukset osoittavat, että maaperän vaakasuuntaiset väärähtelyt ovat useissa tapauksissa suuremmat kuin pystysuuntaiset väärähtelyt. Maaperän vaakasuuntaisten väärähtelyjen vaikutuksista rakennusten väärähtelyihin ei kuitenkaan vielä ole tehty riittävästi selvityksiä. Tästä syystä tämä selvitys keskittyy mittauksien avulla määritetyyn maaperän pystyvä-rähtelyn tutkimiseen. Pystyväärähtelyn tunnusluku määritetään eri etäisyyskäytävillä radasta VTT:n Tiedotteen 2278 (Asko Talja, Suositus liikennetärinän mittaanmisesta ja luokituksesta, 2004) esitetyn suosituksen mukaisesti.

2. OHJEARVOT

Liikennetärinän väärähtelyluokituksen suosituksena käytetään VTT:n Tiedotteen 2278 (Asko Talja, Suositus liikennetärinän mittaanmisesta ja luokituksesta, 2004) mukaista luokitusta. Väärähtelyluokituksessa käytettävä tunnusluku vastaa asuintiloissa esiintyvän väärähtelyn tilastollista maksimiarvoa viikon pituisella tarkastelujaksolla. Suositus koskee sekä yö- että päivääikää.

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Taulukko 1. Suositus rakennusten väärähtelyluokituksesta (NS 8176, 1999)

| Väärähtely- luokka | Kuvaus väärähtelyolosuhteista | $V_{W,95}$ (mm/s) |
|-----------------------|---|----------------------|
| A | Hyvät asuinolosuhteet. <i>Ihmiset eivät yleensä havaitse väärähtelyitä.</i> | $\leq 0,10$ |
| B | Suhteellisen hyvät asuinolosuhteet. <i>Ihmiset voivat havaita väärähtelyt, mutta ne eivät ole häiritseviä.</i> | $\leq 0,15$ |
| C | Suositus uusien rakennusten ja väylien suunnitelussa. <i>Keskimäärin 15 % asukkaista pitää väärähtelyitä häiritsevinä ja voi valittaa häiriöstä.</i> | $\leq 0,30$ |
| D | Olosuhteet, joihin pyritään vanhoilla asuinalueilla. <i>Keskimäärin 25 % asukkaista pitää väärähtelyitä häiritsevinä ja voi valittaa häiriöstä.</i> | $\leq 0,60$ |

Yllä olevaa taulukkoa ei sovelleta rakennuksille, joissa ihmiset ovat pääasiassa liikkeessä tai muut kuin liikenteestä aiheutuvat häiriöt voivat olla merkittävämpiä (esim. toimistot, kaupat, kahvilat, ostokeskuksit, tavaratalot, liikuntatilat).

3. TÄRINÄMITTAUKSET

Rautatietärinäselvitys sisältää junaliikenteen tärinämittaauksia viideltä mittalinjalta. Mittaukset on suoritettu 29.12.2006 välisenä 16.1.2007 aikana. Mittaukset suoritti Siton alikonsulttina Kalliotekniikka Consulting Engineers Oy. Sitolta tärinäselvityksen vastuuhenkilönä toimi insinööri Anne Määttä.

Tärinästä mitattiin heilahdusnopeudet (mm/s) ja taajuudet (Hz) Instatelin MiniMate Plus mittarilla kolmessa toisiaan kohtisuorassa suunnassa jokaiselle komponentille, pysty- (vert), pitkittäis- (long) ja poikittaissuunnassa (trans). Pitkittäissuunta (long) on radan suuntainen ja poikittaissuunta (tran) kohtisuoraan rataa vasten. Mittausanturit sijoitettiin viiteen mittalinjaan. Liitteessä 1 on esitetty mittalinjojen sekä -pisteiden sijainti. Kullekin mittauslinjalle sijoitettiin 3-5 anturia, joiden etäisyyydet raitesta olivat 10-80 metriä. Anturit kiinnitettiin maapiikkien avulla pintamaahan ja päälle asetettiin hiekkasäkki. Muutamassa mittauspisteessä anturi kiinnitettiin talon tai alikulkutunnelin sokkelii.

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Kuva 1 Kuvassa maahan maapiikillä sijoitettu mittausanturi



Linjamittauksilla selvitettiin tärinän leviämistä ja vaimenemista etäisyyden mukana. Mittaukset oli suunniteltu käynnistyviksi tärinän ylitettyä kynnysarvon 0,15 tai 0,2 mm/s linjasta riippuen.

3.1 Pohjaolosuhteet

Kirkkonummen rautatieaseman ja Kirkkolaakson asemakaava-alueella on tehty kairauksia. Kairaustietojen perusteella voidaan sanoa että kyseisillä alueilla savikerroksen paksuus on vähintään 10 metriä. Hienorakeisen savikerroksen ohentuessa alkaa hiekkakerros.

Heikkilän tai Tolsan alueelta ei ole kairaustietoja saatavilla. Käytettävissä olevien pohjatietojen sekä Geologian tutkimuskeskuksen maaperäkartan mukaan alueiden on päätelty olevan pääosin savikkoa.

3.2 Mittauspisteet

Linja 1

Mittaus suoritettiin 4.1.2007 - 10.1.2007. 3 kpl mittareita junaa-aseman ali-kulkutunnelin länsiseinällä, joista ensimmäinen MP5 oli sijoitettu 10 m radasta, toinen MP6 20 m radasta ja kolmas MP7 40 m radasta. Neljäs mittauspiste sijaitsi Lidl -ruokakaupan väestönsuojan seinässä.

Linja 2

Mittaus suoritettiin 29.12.2006 – 4.1.2007. 4 kpl mittareita kynnetyllä pelloilla, joista ensimmäinen MP5 oli sijoitettu 10 m radasta, toinen MP6 20 m radasta, kolmas MP7 30 m radasta ja neljäs MP8 50 m radasta. Mittauslinja on otettu kohtisuoraan radan sähkötolpasta, jonka tolppaluku on 37-4.

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Linja 3

Mittaus suoritettiin 29.12.2006 – 4.1.2007. 4kpl mittareita, joista ensimmäinen MP1 oli sijoitettu kovalle maalle (pintakerros sepeliä) 10 m radasta, toinen MP2 jätevesipumppaanon sokkelissa 21 m radasta, kolmas MP3 jätevesipumppaanon kaivorakenteissa 30 m radasta ja neljäs MP4 pehmeäsä maassa 40m radasta. Mittauslinja on otettu jätevesipumppaanon länsiseinästä.

Linja 4

Mittaus suoritettiin 10.1.2007 – 16.1.2007. 4 kpl mittareita oli sijoitettu riisukkoon, noin 10 m radan alapuolelle. Ensimmäinen MP1 oli 10 m, toinen MP2 20 m, kolmas MP3 30 m ja neljäs MP4 40 m etäisyydellä radasta.

Linja 5

Mittaus suoritettiin 5.1.2007 – 10.1.2007. 5 kpl mittareita sijoitettiin kesänolla olevalla pellolle. Ensimmäinen MP1 10 m, toinen 20 m, kolmas 30 m ja neljäs 40 m etäisyydellä radasta. MP5 sijaitsi talon sokkelissa 80 m radasta. Mittauslinja oli otettu ratatolpastaa 35-29.

3.3 Mittaustulokset

Värähtelyn tunnusluku $v_{w,95}$ määritettiin mittaustuloksista seuraavasti:

- mitatuista värähtelysignaalista valitaan 15 merkittävintä mittausarvoa (pystyvärähtelyä)
- kustakin signaalista määritetään suurin painotettu tehollisarvo $v_{w,j}$
- painotetuista tehollisarvoista lasketaan keskiarvo ja keskihajonta, jonka jälkeen lasketaan värähtelyn tunnusluku $v_{w,95}$.

Värähtelyn tunnusluvun laskenta perustuu Asko Taljan kirjoittamaan VTT:n tiedotteeseen 2278 "Suositus liikennetarinän mittamisesta ja luokituksesta" Espoo 2004.

Mittaustulokset ja niiden käsitteily on esitetty alla olevissa kuvissa.

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3.3.1 Mittauslinja 1

Liikennetarinämittaus, 4-10.1.2007 Mittalinja 1, MP5, 10 m radasta

| PVM | AIKA | SUUNTA | f painot. | RMS | freg |
|------|-------|--------|-----------|-----|------|
| 4jan | 15:30 | vert | 0,32 | 32 | |
| 4jan | 17:30 | vert | 0,32 | 37 | |
| 5jan | 9:30 | vert | 0,33 | 37 | |
| 5jan | 10:30 | vert | 0,33 | 39 | |
| 5jan | 15:30 | vert | 0,30 | 47 | |
| 5jan | 17:30 | vert | 0,31 | 37 | |
| 5jan | 18:30 | vert | 0,34 | 39 | |
| 5jan | 20:30 | vert | 0,32 | 43 | |
| 7jan | 12:30 | vert | 0,32 | 43 | |
| 7jan | 16:30 | vert | 0,30 | 32 | |
| 8jan | 15:30 | vert | 0,29 | 34 | |
| 8jan | 22:30 | vert | 0,32 | 39 | |
| 9jan | 7:51 | vert | 0,30 | 39 | |
| 9jan | 8:10 | vert | 0,32 | 43 | |
| 9jan | 9:30 | vert | 0,32 | 47 | |

taajuuspainotettu (5,6Hz)

| | |
|------------------------|-------------|
| Keskiarvo | 0,32 |
| Keskihajonta | 0,014 |
| Väärähtelyn tunnusluku | 0,34 |
| Väärähtelyluokka | D |

Liikennetarinämittaus, 4-10.1.2007 Mittalinja 1, MP6, 20 m radasta

| PVM | AIKA | SUUNTA | f painot. | RMS | freg |
|------|-------|--------|-----------|-----|------|
| 4jan | 12:30 | vert | 0,13 | 30 | |
| 4jan | 15:30 | vert | 0,17 | 37 | |
| 4jan | 16:59 | vert | 0,16 | 37 | |
| 4jan | 17:30 | vert | 0,17 | 37 | |
| 5jan | 8:10 | vert | 0,14 | 27 | |
| 5jan | 18:30 | vert | 0,16 | 34 | |
| 5jan | 19:30 | vert | 0,16 | 32 | |
| 5jan | 20:30 | vert | 0,14 | 34 | |
| 7jan | 12:30 | vert | 0,14 | 37 | |
| 7jan | 16:30 | vert | 0,14 | 34 | |
| 8jan | 9:30 | vert | 0,14 | 34 | |
| 8jan | 22:30 | vert | 0,15 | 34 | |
| 9jan | 8:10 | vert | 0,15 | 32 | |
| 9jan | 9:30 | vert | 0,15 | 34 | |
| 9jan | 13:30 | vert | 0,15 | 32 | |

taajuuspainotettu (5,6Hz)

| | |
|------------------------|-------------|
| Keskiarvo | 0,15 |
| Keskihajonta | 0,012 |
| Väärähtelyn tunnusluku | 0,17 |
| Väärähtelyluokka | C |

MP7 alikulkutunnelin länsiseinällä 40 metriä radasta olleeseen mittauspisteeseen ei tallentanut liikennetarinästä johtuvia signaaleja. Mittari oli sijoitettu alikulkutunnelin suulle ja mittari lienee saaneen ohikulkijoilta ylimääräistä huomiota. Lisäksi mittausjakson aikana tunnelin itäseinää kaivettiin kaivinkoneella auki.

MP8, Lidl kaupan väestösuojan seinässä olleeseen mittauspisteeseen, ei tullut varsinaisia liikennetarinätuloksia. Mittarissa oli satunnaisia signaaleja, jotka johtuivat todennäköisesti ihmisten liikkeistä.

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3.3.2 Mittauslinja 2

Liikennetarinämittaus, 29.12.2006-4.1.2007
Mittalinja 2, MP5, 10 m radasta

| PVM | AIKA | SUUNTA | f painot. | RMS | freq |
|-------|-------|--------|-----------|-----|------|
| 30dec | 14:33 | vert | 0,21 | | 37 |
| 31dec | 20:45 | vert | 0,23 | | 8,7 |
| 31dec | 22:45 | vert | 0,23 | | 15 |
| 1jan | 2:32 | vert | 0,23 | | 14 |
| 1jan | 4:57 | vert | 0,21 | | 12 |
| 1jan | 14:34 | vert | 0,28 | | 7,4 |
| 1jan | 17:38 | vert | 0,22 | | 34 |
| 1jan | 21:20 | vert | 0,28 | | 37 |
| 1jan | 22:46 | vert | 0,23 | | 32 |
| 2jan | 6:44 | vert | 0,22 | | 8,7 |
| 2jan | 14:34 | vert | 0,27 | | 32 |
| 3jan | 14:34 | vert | 0,23 | | 30 |
| 3jan | 16:10 | vert | 0,22 | | 16 |
| 3jan | 20:44 | vert | 0,21 | | 13 |
| 4jan | 1:31 | vert | 0,21 | | 13 |

taajuuspainotettu (5,6Hz)

| | |
|------------------------|-------------|
| Keskiarvo | 0,23 |
| Keskihajonta | 0,025 |
| Väärähtelyn tunnusluku | 0,28 |
| Väärähtelyluokka | C |

Liikennetarinämittaus, 29.12.2006-4.1.2007
Mittalinja 2, MP6, 20 m radasta

| PVM | AIKA | SUUNTA | f painot. | RMS | freq |
|-------|-------|--------|-----------|-----|------|
| 29dec | 14:18 | vert | 0,21 | | 32 |
| 29dec | 17:55 | vert | 0,20 | | 9 |
| 29ja | 22:45 | vert | 0,20 | | 7 |
| 30dec | 3:57 | vert | 0,21 | | 6,4 |
| 31dec | 20:45 | vert | 0,23 | | 5,4 |
| 31dec | 22:45 | vert | 0,20 | | 7 |
| 1jan | 1:33 | vert | 0,23 | | 7,3 |
| 1jan | 2:32 | vert | 0,21 | | 7,6 |
| 1jan | 3:58 | vert | 0,20 | | 9,1 |
| 1jan | 4:57 | vert | 0,20 | | 9,5 |
| 1jan | 14:45 | vert | 0,20 | | 6,3 |
| 2jan | 6:44 | vert | 0,25 | | 9,3 |
| 2jan | 9:46 | vert | 0,20 | | 7,5 |
| 3jan | 8:33 | vert | 0,20 | | 6 |
| 4jan | 2:31 | vert | 0,21 | | 6,4 |

taajuuspainotettu (5,6Hz)

| | |
|------------------------|-------------|
| Keskiarvo | 0,21 |
| Keskihajonta | 0,015 |
| Väärähtelyn tunnusluku | 0,24 |
| Väärähtelyluokka | C |

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Liikennetarinämittaus, 29.12.2006-4.1.2007

Mittalinja 2, MP7, 30 m radasta

| PVM | AIKA | SUUNTA | f | painot. | RMS | freq |
|-------|-------|--------|------|---------|-----|------|
| 29dec | 17:55 | vert | 0,15 | | 7,2 | |
| 31dec | 3:56 | vert | 0,12 | | 6,2 | |
| 31dec | 8:56 | vert | 0,12 | | 14 | |
| 31dec | 14:45 | vert | 0,12 | | 7 | |
| 31dec | 20:45 | vert | 0,15 | | 6,9 | |
| 31dec | 22:45 | vert | 0,14 | | 7 | |
| 1jan | 1:33 | vert | 0,14 | | 6,7 | |
| 1jan | 2:32 | vert | 0,14 | | 9,3 | |
| 1jan | 4:57 | vert | 0,14 | | 6,6 | |
| 1jan | 14:45 | vert | 0,14 | | 6,6 | |
| 1jan | 22:46 | vert | 0,11 | | 8 | |
| 2jan | 9:46 | vert | 0,13 | | 6,8 | |
| 2jan | 15:50 | vert | 0,15 | | 5,9 | |
| 3jan | 8:33 | vert | 0,13 | | 6,1 | |
| 3jan | 16:01 | vert | 0,11 | | 6,7 | |

taajuuspainotettu (5,6Hz)

| | |
|-----------------------|-------------|
| Keskiarvo | 0,13 |
| Keskihajonta | 0,014 |
| Värähtelyn tunnusluku | 0,16 |
| Värähtelyluokka | C |

Liikennetarinämittaus, 29.12.2006-4.1.2007

Mittalinja 2, MP8, 50 m radasta

| PVM | AIKA | SUUNTA | f | painot. | RMS | freq |
|-------|-------|--------|------|---------|-----|------|
| 29dec | 17:03 | vert | 0,07 | | 7,8 | |
| 29dec | 17:55 | vert | 0,07 | | 5,7 | |
| 31dec | 20:45 | vert | 0,07 | | 5,1 | |
| 31dec | 22:45 | vert | 0,07 | | 5,2 | |
| 1jan | 2:32 | vert | 0,07 | | 7,8 | |
| 1jan | 14:34 | vert | 0,07 | | 5,3 | |
| 1jan | 14:45 | vert | 0,07 | | 7 | |
| 2jan | 5:56 | vert | 0,08 | | 6,8 | |
| 2jan | 6:44 | vert | 0,10 | | 7,5 | |
| 2jan | 15:50 | vert | 0,08 | | 7 | |
| 3jan | 7:13 | vert | 0,07 | | 7,3 | |
| 3jan | 8:33 | vert | 0,08 | | 7,1 | |
| 3jan | 14:34 | vert | 0,06 | | 6,6 | |
| 3jan | 18:46 | vert | 0,07 | | 6,6 | |
| 4jan | 5:46 | vert | 0,06 | | 7,1 | |

taajuuspainotettu (5,6Hz)

| | |
|-----------------------|-------------|
| Keskiarvo | 0,07 |
| Keskihajonta | 0,010 |
| Värähtelyn tunnusluku | 0,09 |
| Värähtelyluokka | A |

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3.3.3 Mittauslinja 3

Liikennetarinämittaus, 29.12.2006-4.1.2007 Mittalinja 3, MP1, 10 m radasta

| PVM | AIKA | SUUNTA | f | painot. | RMS | freg |
|-------|-------|--------|---|---------|-----|------|
| 31dec | 20:44 | vert | | 0,33 | | 11 |
| 31dec | 22:45 | vert | | 0,34 | | 11 |
| 1jan | 2:32 | vert | | 0,38 | | 10 |
| 1jan | 4:57 | vert | | 0,38 | | 10 |
| 1jan | 14:34 | vert | | 0,39 | | 9 |
| 2jan | 6:44 | vert | | 0,33 | | 10 |
| 2jan | 9:40 | vert | | 0,34 | | 9 |
| 2jan | 10:49 | vert | | 0,35 | | 8,8 |
| 2jan | 11:44 | vert | | 0,35 | | 9,8 |
| 2jan | 14:34 | vert | | 0,33 | | 7,6 |
| 2jan | 18:45 | vert | | 0,32 | | 9,1 |
| 2jan | 21:49 | vert | | 0,35 | | 11 |
| 2jan | 23:50 | vert | | 0,35 | | 11 |
| 3jan | 7:19 | vert | | 0,32 | | 7,1 |
| 3jan | 8:32 | vert | | 0,32 | | 8,8 |

| | |
|------------------------|---------------------------|
| | taajuuspainotettu (5,6Hz) |
| Keskiarvo | 0,35 |
| Keskihajonta | 0,023 |
| Väärähtelyn tunnusluku | 0,39 |
| Väärähtelyluokka | D |

MP2, 21 m radasta, jätevesipumppaanon sokkeliin kiinnitetty mittauspiste ei tallentanut junaliikenteestä johtuvaa tärinää. Asennuspaikasta johtuen tämä mittari ei toiminut kunnolla. Syynä tähän olivat sähköiset häiriöt sekä itse pumppaanolta tulleet mekaaniset häiriöt.

Liikennetarinämittaus, 29.12.2006-4.1.2007 Mittalinja 3, MP3, 30 m radasta

| PVM | AIKA | SUUNTA | f | painot. | RMS | freg |
|-------|-------|--------|---|---------|-----|------|
| 31dec | 11:32 | vert | | 0,02 | | 13 |
| 1jan | 4:57 | vert | | 0,02 | | 11 |
| 1jan | 14:34 | vert | | 0,03 | | 9,8 |
| 1jan | 16:36 | vert | | 0,02 | | 12 |
| 1jan | 20:18 | vert | | 0,02 | | 20 |
| 1jan | 23:35 | vert | | 0,02 | | 10 |
| 1jan | 7:15 | vert | | 0,02 | | 24 |
| 2jan | 8:35 | vert | | 0,02 | | 16 |
| 2jan | 11:32 | vert | | 0,02 | | 12 |
| 2jan | 12:32 | vert | | 0,02 | | 17 |
| 2jan | 15:50 | vert | | 0,02 | | 14 |
| 2jan | 22:33 | vert | | 0,02 | | 11 |
| 3jan | 6:45 | vert | | 0,02 | | 13 |
| 3jan | 7:13 | vert | | 0,02 | | 12 |
| 3jan | 9:33 | vert | | 0,02 | | 12 |

| | |
|------------------------|---------------------------|
| | taajuuspainotettu (5,6Hz) |
| Keskiarvo | 0,02 |
| Keskihajonta | 0,003 |
| Väärähtelyn tunnusluku | 0,03 |
| Väärähtelyluokka | A |

MP4 pehmeässä maassa, 40 m etäisyydellä radasta sijainneen mittauspisteen suurin painotettu tehollisarvo $v_{w,j}$ oli noin 0,01 mm/s. Tämä tarkoittaa myös väärähtelyn tunnuslukuna 0,01 mm/s.

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3.3.4 Mittauslinja 4

Mittauslinjalle 4 ei yhteenkään mittariin tullut varsinaisia liikennetärinätuloksia. Mittauskynnys koko linjalla oli 0,15 mm/s mikä on alin mahdollinen mittausraja käytössä olleelle mittarille. Ainoat signaalit, jotka näkyvät, ovat johtuneet mittareiden asennuksen yhteydessä ja mittareiden hakemisen yhteydessä aiheutuneesta liikkeestä.

3.3.5 Mittauslinja 5

Liikennetärinämittaus, 5-10.1.2007

Mittalinja 5, MP1, 10 m radasta

| PVM | AIKA | SUUNTA | f painot. | RMS | freq |
|-------|-------|--------|-----------|-----|------|
| 6jan | 12:32 | vert | 0,21 | | 24 |
| 6jan | 18:34 | vert | 0,32 | | 28 |
| 6jan | 22:29 | vert | 0,22 | | 30 |
| 6jan | 23:31 | vert | 0,18 | | 32 |
| 7jan | 9:32 | vert | 0,16 | | 27 |
| 7jan | 11:31 | vert | 0,17 | | 37 |
| 7jan | 14:33 | vert | 0,17 | | 32 |
| 7jan | 17:42 | vert | 0,27 | | 20 |
| 8jan | 8:24 | vert | 0,19 | | 17 |
| 8jan | 15:31 | vert | 0,17 | | 27 |
| 8jan | 17:52 | vert | 0,28 | | 34 |
| 9jan | 18:01 | vert | 0,30 | | 16 |
| 9jan | 21:49 | vert | 0,21 | | 17 |
| 10jan | 6:14 | vert | 0,30 | | 22 |
| 10jan | 10:28 | vert | 0,19 | | 28 |

taajuuspainotettu (5,6Hz)

| | |
|------------------------|-------------|
| Keskiarvo | 0,22 |
| Keskihajonta | 0,056 |
| Väärähtelyn tunnusluku | 0,32 |
| Väärähtelyluokka | D |

Liikennetärinämittaus, 5-10.1.2007

Mittalinja 5, MP2, 20 m radasta

| PVM | AIKA | SUUNTA | f painot. | RMS | freq |
|-------|-------|--------|-----------|-----|------|
| 5jan | 14:33 | vert | 0,10 | | 28 |
| 5jan | 18:29 | vert | 0,09 | | 20 |
| 5jan | 20:34 | vert | 0,10 | | 30 |
| 6jan | 6:15 | vert | 0,08 | | 30 |
| 6jan | 9:02 | vert | 0,06 | | 30 |
| 6jan | 9:31 | vert | 0,08 | | 30 |
| 6jan | 10:35 | vert | 0,08 | | 14 |
| 6jan | 12:30 | vert | 0,08 | | 30 |
| 6jan | 18:33 | vert | 0,11 | | 28 |
| 7jan | 17:42 | vert | 0,12 | | 21 |
| 7jan | 21:28 | vert | 0,10 | | 19 |
| 8jan | 17:52 | vert | 0,10 | | 21 |
| 9jan | 14:33 | vert | 0,10 | | 18 |
| 10jan | 5:39 | vert | 0,08 | | 17 |
| 10jan | 6:14 | vert | 0,10 | | 24 |

taajuuspainotettu (5,6Hz)

| | |
|------------------------|-------------|
| Keskiarvo | 0,09 |
| Keskihajonta | 0,015 |
| Väärähtelyn tunnusluku | 0,12 |
| Väärähtelyluokka | B |

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Liikennetarinämittaus, 5-10.1.2007

Mittalinja 5, MP3, 30 m radasta

| PVM | AIKA | SUUNTA | f | painot. | RMS | freq |
|-------|-------|--------|---|---------|-----|------|
| 5jan | 14:34 | vert | | 0,05 | | 22 |
| 5jan | 18:30 | vert | | 0,06 | | 21 |
| 5jan | 20:34 | vert | | 0,05 | | 28 |
| 5jan | 22:39 | vert | | 0,06 | | 19 |
| 9jan | 17:00 | vert | | 0,05 | | 18 |
| 9jan | 18:01 | vert | | 0,06 | | 14 |
| 9jan | 18:17 | vert | | 0,05 | | 17 |
| 9jan | 18:28 | vert | | 0,05 | | 19 |
| 9jan | 18:45 | vert | | 0,05 | | 20 |
| 9jan | 20:31 | vert | | 0,04 | | 39 |
| 9jan | 5:39 | vert | | 0,05 | | 17 |
| 10jan | 6:44 | vert | | 0,04 | | 17 |
| 10jan | 7:12 | vert | | 0,05 | | 17 |
| 10jan | 8:22 | vert | | 0,05 | | 18 |
| 10jan | 10:28 | vert | | 0,04 | | 26 |

taajuuspainotettu (5,6Hz)

| | |
|-----------------------|-------------|
| Keskiarvo | 0,05 |
| Keskihajonta | 0,007 |
| Väärähelyn tunnusluku | 0,06 |
| Väärähelyluokka | A |

Liikennetarinämittaus, 5-10.1.2007

Mittalinja 5, MP4, 40 m radasta

| PVM | AIKA | SUUNTA | f | painot. | RMS | freq |
|-------|-------|--------|---|---------|-----|------|
| 5jan | 16:33 | vert | | 0,04 | | 21 |
| 5jan | 18:29 | vert | | 0,07 | | 28 |
| 5jan | 20:34 | vert | | 0,05 | | 28 |
| 5jan | 23:31 | vert | | 0,03 | | 23 |
| 6jan | 0:32 | vert | | 0,05 | | 18 |
| 6jan | 10:35 | vert | | 0,03 | | 26 |
| 6jan | 11:31 | vert | | 0,04 | | 27 |
| 6jan | 12:16 | vert | | 0,05 | | 18 |
| 6jan | 12:30 | vert | | 0,05 | | 30 |
| 6jan | 18:34 | vert | | 0,06 | | 22 |
| 6jan | 22:49 | vert | | 0,06 | | 27 |
| 7jan | 17:42 | vert | | 0,06 | | 26 |
| 8jan | 17:52 | vert | | 0,05 | | 26 |
| 8jan | 21:27 | vert | | 0,05 | | 23 |
| 10jan | 10:28 | vert | | 0,07 | | 27 |

taajuuspainotettu (5,6Hz)

| | |
|-----------------------|-------------|
| Keskiarvo | 0,05 |
| Keskihajonta | 0,012 |
| Väärähelyn tunnusluku | 0,07 |
| Väärähelyluokka | A |

MP5 oli kiinnitetty talon sokkeliihin. Mittariin tulleet signaalit eivät olleet liikennetarinästä aiheutuneita. Mittarin lukemat satunnaiset signaalit johtuvat todennäköisesti talon asukkaiden liikkeistä.

4. TULOSTEN TARKASTELUA

Kaikista viikon aikana mitatuista värähtelyistä määritettiin värähtelyn tunnusluku VTT:n suosituksen mukaan. Kun arvioidaan suunnitteilla olevien asuntojen värähtelyä, lähtökohtana on yleensä maaperän pystysuuntainen värähtely.

VTT:n Tiedotteen mukaan uusille alueille suositellaan värähtelyluokkaa C, jolloin asunnossa värähtelyn tunnusluvun tulee olla alle 0,3 mm/s.

Tässä raportissa esitettyt mittaustulokset on mitattu maaperästä, ei rakennuksista. Jos tutkittavalle alueelle aiotaan rakentaa asuinrakennuksia, tulee maaperästä rakennukseen siirtyvästä tärinää arvioida tarkemmin.

Maaperän pysty- ja vaakavärähtelyjen siirtymisen rakennukseen riippuu rakennuksen dynaamisten ominaisuuksien lisäksi maaperän värähtelyn taajuusjakautumasta, pinta-aallon pituudesta sekä perustusten ja maaperän vuorovaikutuksesta. Rakennuksen värähtelyistä merkittävimmät ovat rungon vaakasuuntaiset värähtelyt ja lattian pystysuuntaiset värähtelyt. Eri tyisen merkittäviä ovat ne maaperän värähtelykomponentit, jotka ovat lähellä rungon tai lattian ominaistaajuksia, sillä resonanssi-ilmiö voi kasvataa ominaistaajuutta lähellä olevien värähtelykomponenttien suuruuden merkittävästi.

Kirjallisuudesta löytyneiden tulosten perusteella voidaan suunnittelun perustee rakennuksiin siirtyvästä tärinästä suuntaa-antavasti arvioida seuraavaa:

- yksikerroksisilla rakennuksilla vaakavärähtelyä ei tarvitse huomioida
- kaksikerroksisten rakennusten vaakavärähtelyssä on suositeltu varautumista kaksinkertaiseen värähtelyn tunnuslukuun
- ala- ja välipohjien pystysuuntaisessa värähtelyssä suositellaan varautumista kaksinkertaiseen värähtelyn tunnuslukuun

Poikkeuksena edellä mainitusta ovat paaluille perustettujen 1-2-kerroksisten talojen ala- ja välipohjet sekä maanvaraiset lattiat, joilla riittää varautuminen maaperän värähtelyn suuriseen tunnuslukuun.

Matalien kerrostalojen lattian sekä rungon käyttäytymisestä ei ole riittävästi aiempia tutkimustuloksia. Vaikka kirjallisuudessa esittävien arvioiden muukaan kerrostalojen vaakavärähtelylle riittää varautuminen maaperän pysty-värähtelyiden suuriseen värähtelyyn, tulee tärinähaitan pienentämiseksi mahdollisesti ilmenevä vaakavärähtely ottaa huomioon.

Mikäli Kirkkonummen alueella Helsinki-Turku radalla liikkennöivien junien painot kasvavat, esimerkiksi tavaraliikenteen myötä, on mahdollista että liikenteestä aiheutuva tärinä tulee lisääntymään ja täällöin tutkittavienalueiden tärinäluokat saattavat muuttua (esimerkiksi C:stä D luokaksi).

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4.1 Mittauslinja 1, Kirkkonummen rautatieaseman alikulutunneli

Mittauslinjalta 1 mitatut ja värähtelyn tunnusluvuksi muutetut tulokset on koottu alla olevaan taulukoon 2.

Taulukko 2 Mittauslinjan 1 tulokset

| Mittauspiste /etäisyys radasta | Värähtelyn tunnusluku $v_{w,95}$ (mm/s) | Taajuusalueella (Hz) | Värähtelyluokka |
|--------------------------------|---|----------------------|-----------------|
| MP5/ 10m | 0,34 | 32-47 | D |
| MP6/ 20m | 0,17 | 27-37 | C |
| MP7* | - | - | - |
| MP8* | - | - | - |

* Mittauspisteistä 7 ja 8 (MP7, MP8) ei mittaussignaalien puuttumisen johdosta voida suorittaa tulosten tarkastelua.

Mittaustuloksiin perusteella voidaan sanoa, että rautatieasemaa vastapäästä sijaitsevalla selvitysalueelle suositusten mukainen värinäluokka C ylittyy noin 15 metrin etäisyydelle radasta.

Mikäli kyseiselle alueelle aiotaan rakentaa esimerkiksi kaksikerroksisia rakennuksia, on varauduttava kaksinkertaiseen värähtelyn tunnuslukuun. Tällöin olisi suositeltavaa rakentaa vähintään noin 25 metrin etäisyydelle radasta. Tärinähaitan pienentämiseksi voidaan tätä suositusta käyttää selvitysalueella kaikille suunniteltaville rakennuksille.

4.2 Mittauslinja 2, Kirkkolaakson asemakaava-alue

Mittauslinjalta 2 mitatut ja värähtelyn tunnusluvuksi muutetut tulokset on koottu alla olevaan taulukoon 3.

Taulukko 3 Mittauslinjan 2 tulokset

| Mittauspiste /etäisyys radasta | Värähtelyn tunnusluku $v_{w,95}$ (mm/s) | Taajuusalueella (Hz) | Värähtelyluokka |
|--------------------------------|---|----------------------|-----------------|
| MP5/ 10m | 0,28 | 9-34 | C |
| MP6/ 20m | 0,24 | 5-10 | C |
| MP7/30m | 0,16 | 6-14 | C |
| MP8/50m | 0,09 | 5-8 | A |

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Mittaustuloksiin perustellaan voidaan sanoa että Kirkkolaakson asemakaava-alueella suositusten mukainen värinäluokka C ei ylity mitatuissa pisteissä.

Tuloksia tulkittaessa tulee kuitenkin huomioida että pystyvärvähely mittauspisteissä etäisyydellä 10 m ja 20 m radasta ei puolitut etäisyyden kaksinkertaistuessa. Mittauspisteen 5 (10 m radasta) tuloksiin vaikuttaa todennäköisesti kovempi, radan läheisyydessä vallitseva maaperä. Tulosten analyointiin voidaan luotettavammin käyttää tuloksia pisteistä MP6, MP7 ja MP8.

Alueelle on suunniteltu liikerakennus (automarket) sekä asuintaloja (pienkerrostaloja). Liikerakennus rakennetaan noin 30 metrin ja asuinrakennukset noin 80 metrin etäisyydelle radasta.

Liikehuoneistolle ei sovelleta värvähelylle annettuja ohjeearvoja, joten rakentaminen 30 metrin etäisyydelle radasta on hyväksyttyväää.

Alueelle suunnitellut rakennukset ovat 6-kerroksisia asuintaloja. Kuten jo aiemmin mainittu ei kerrostalojen rungon ja lattian käyttäytymisestä ole riittävästi aiempia tutkimustuloksia. Mahdollisen tärinähaitan estämiseksi voidaan värvähelyn siirtymistä rakennukseen selvittää rakennuksen ja herätteen (juna) ominaistaajuuskien suhteella. Selvityskohteessa maaperän värvähelyn taajuudet eivät satu lähelle rakenteen ominaistaajuutta, joten todennäköisesti ei synny resonanssia.

Selvitysalueelle rakennettavilla rakennuksille suositellaan vähintään 30 m etäisyyttä radasta (kaksinkertainen värvähelyn tunnusluku).

Suunnitteilla olevilla pienkerrostaloilla, jotka rakennetaan 80 metrin päähän radasta, ei ole tärinästä johtuvaa vaurioitumisriskiä.

4.3 Mittauslinja 3

Mittauslinjalta 3 mitatut ja värvähelyn tunnusluvuksi muutetut tulokset on koottu alla olevaan taulukoon 4.

Taulukko 4 Mittauslinjan 3 tulokset

| Mittauspiste /etäisyys radasta | Värvähelyn tunnusluku $v_{w,95}$ (mm/s) | Taajuusalueella (Hz) | Värvähelyluokka |
|--------------------------------|---|----------------------|-----------------|
| MP1/ 10m | 0,39 | 7-11 | D |
| MP2* | - | - | - |
| MP3/ 30m | 0,03 | 10-24 | A |
| MP4* | - | - | - |

* Mittauspisteistä 2 ja 3 (MP2, MP3) ei mittaussignaalien puuttumisen johdosta voida suorittaa tulostentarkastelua.

Mittaustuloksista ei voida suoraan lukea millä etäisyydellä värinäluokkaan C tai sitä pienempiin arvoihin päästään. Voidaan kuitenkin arvioida että pystyvärvähely puolittuu etäisyyden kaksinkertaistuessa. Näin ollen suosi-

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tusten mukaiseen luokkaan C päästään todennäköisesti jo etäisyydellä 15 metriä radasta.

Mikäli alueelle aiotaan rakentaa, on rakenteisiin siirtyvää värähtelyä arviontava tarkemmin.

Etäisyys, jonka pähän radasta voidaan turvallisesti rakentaa, on siis riippuvainen alueelle suunniteltujen rakennusten koosta ja perustamistavasta. Selvitysalueelle rakennettavilla rakennuksille suositellaan vähintään 30 m etäisyyttä radasta (kaksinkertainen värähtelyn tunnusluku).

4.4 Mittauslinja 4

Mittauslinjalle 4 ei tallentunut raideliikenteestä aiheutunutta tärinää. Tämä mittauslinja oli sijoitettu radan kaarten sisäpuolelle ja hiukan radan yläpuolella. Radan ulkokaarre viistää arviolta noin 10 m alas päin, joka todennäköisesti purkaa tärinän radan ulkokaarteeseen ja johtaa näin olleen sisäkaarteessa olemattomiin värähtelyihin.

4.5 Mittauslinja 5

Mittauslinjalta 5 mitatut ja värähtelyn tunnusluvuksi muutetut tulokset on koottu alla olevaan taulukoon 5.

Taulukko 5 Mittauslinjan 5 tulokset

| Mittauspiste /etäisyys radasta | Värähtelyn tunnusluku $v_{w,95}$ (mm/s) | Taajuusalueella (Hz) | Värähtelyluokka |
|--------------------------------|---|----------------------|-----------------|
| MP1/ 10m | 0,32 | 16-34 | D |
| MP2/ 20m | 0,12 | 14-30 | B |
| MP3/30m | 0,06 | 14-28 | A |
| MP8/40m | 0,07 | 18-28 | A |

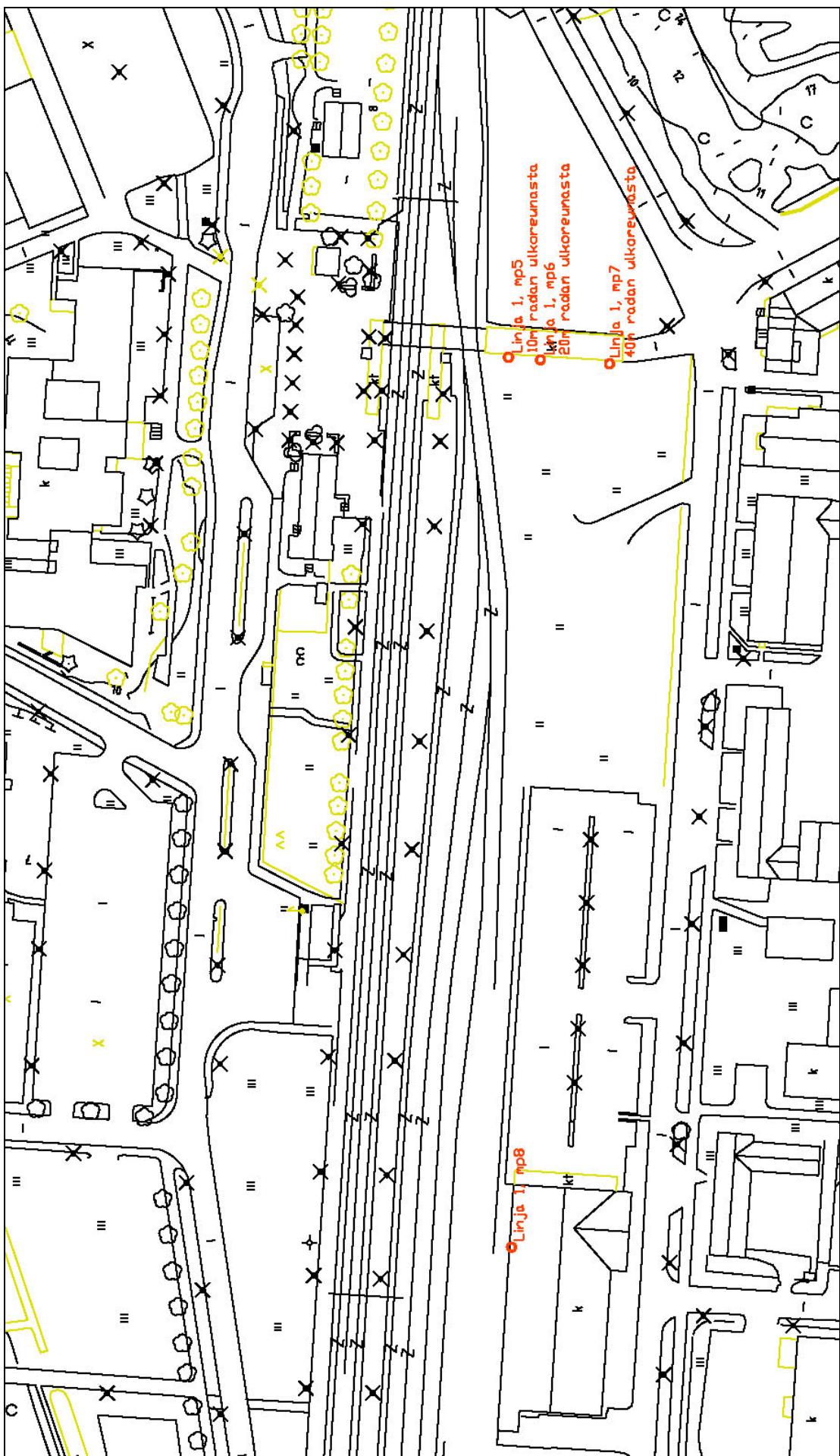
Mittaustuloksiin perustella suositusten mukainen värinäluokka C ylittyy noin 10 metrin etäisyydellä radasta. Tuloksista ei voida suoraan lukea millä etäisyydellä luokkaan C päästään. Voidaan kuitenkin olettaa että pystyvärähtely puolittuu etäisyyden kaksinkertaistuessa, joten 0,30 mm/s (luokka C) alempiin pystyvärähtelyihin päästään jo noin 12 metrin etäisyydellä radasta.

Mikäli alueelle aiotaan rakentaa, on rakenteisiin siirtyvää värähtelyä arviontava tarkemmin. Vaikka etäisyys, jonka pähän radasta voidaan turvallisesti rakentaa, on riippuvainen alueelle suunniteltujen rakennusten koosta ja perustamistavasta, suositellaan rakentamisen vähimmäisetäisydeksi vähintään 25 metriä radasta.

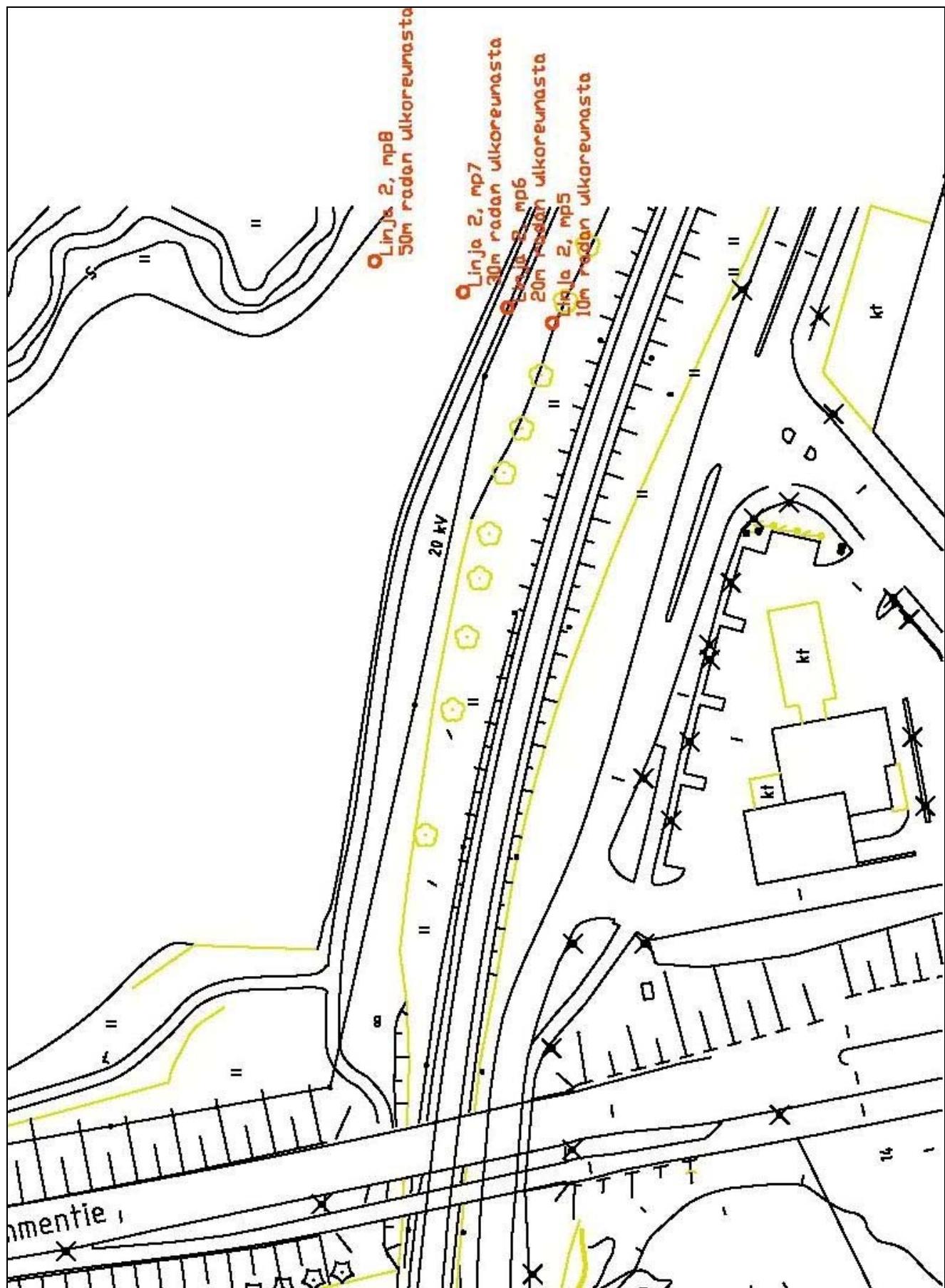
LIITE 1

MITTAUSPISTEET LINJOITTAIN

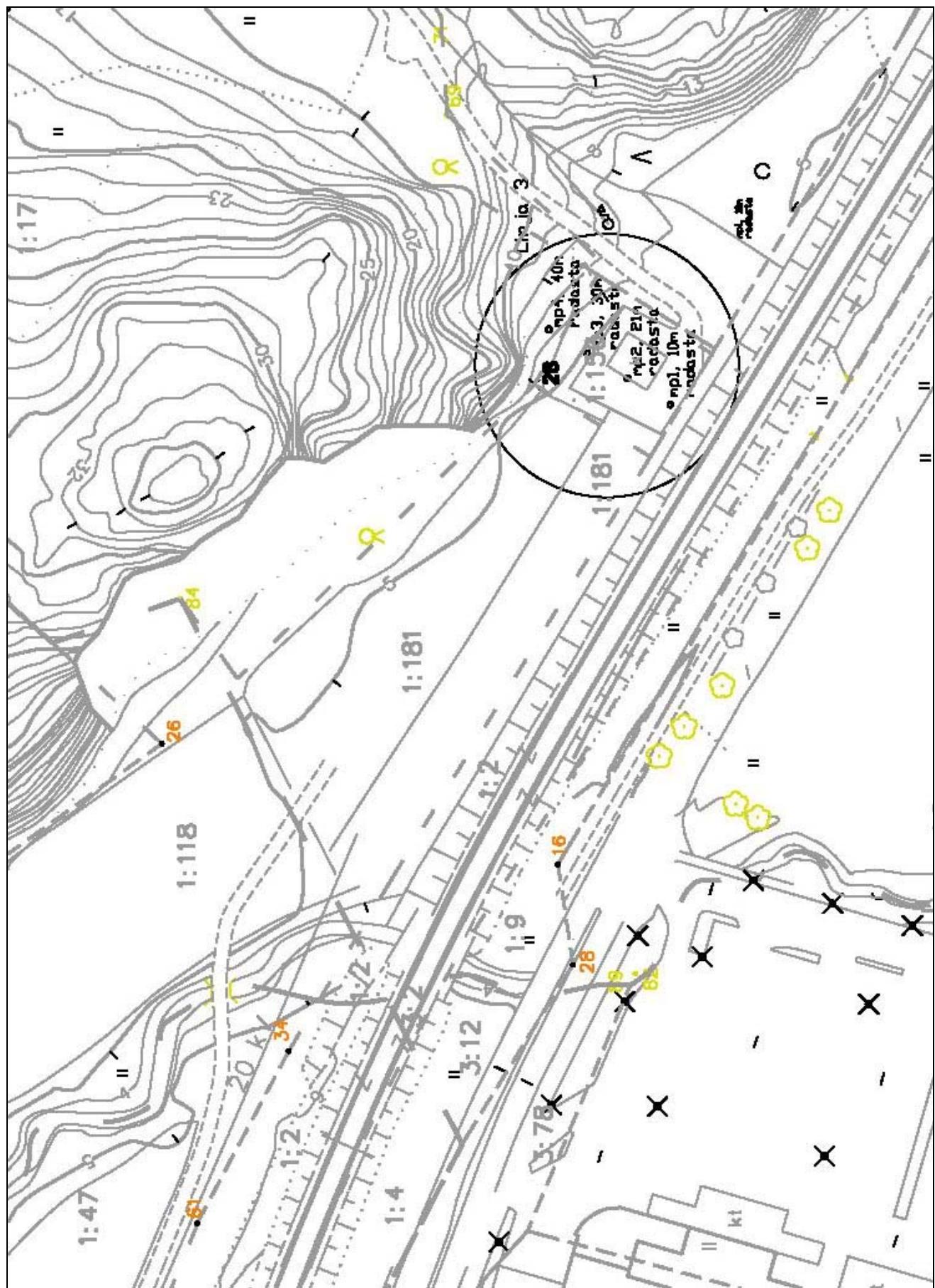
MITTAUSPISTE 1



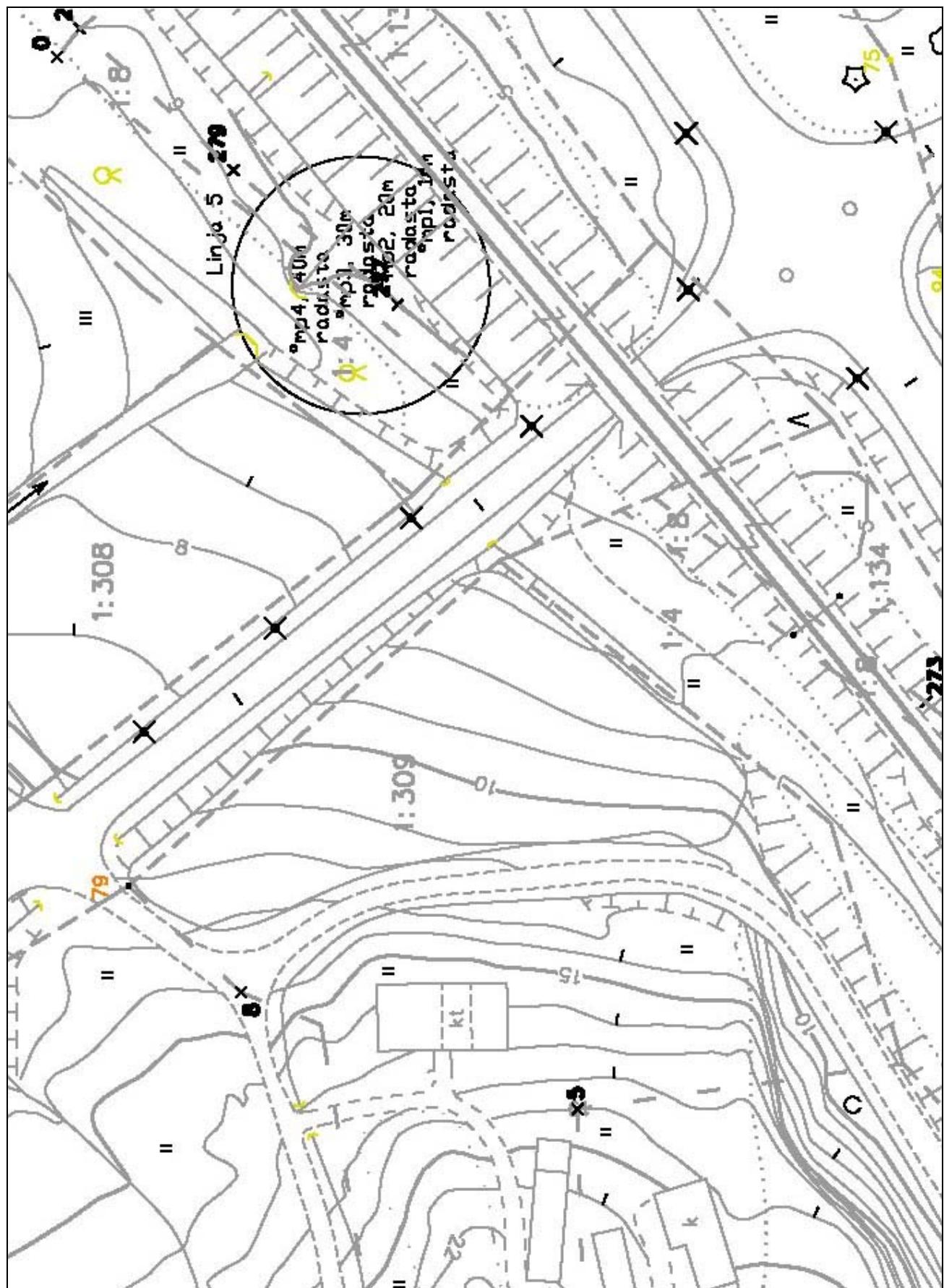
MITTAUSPISTE 2



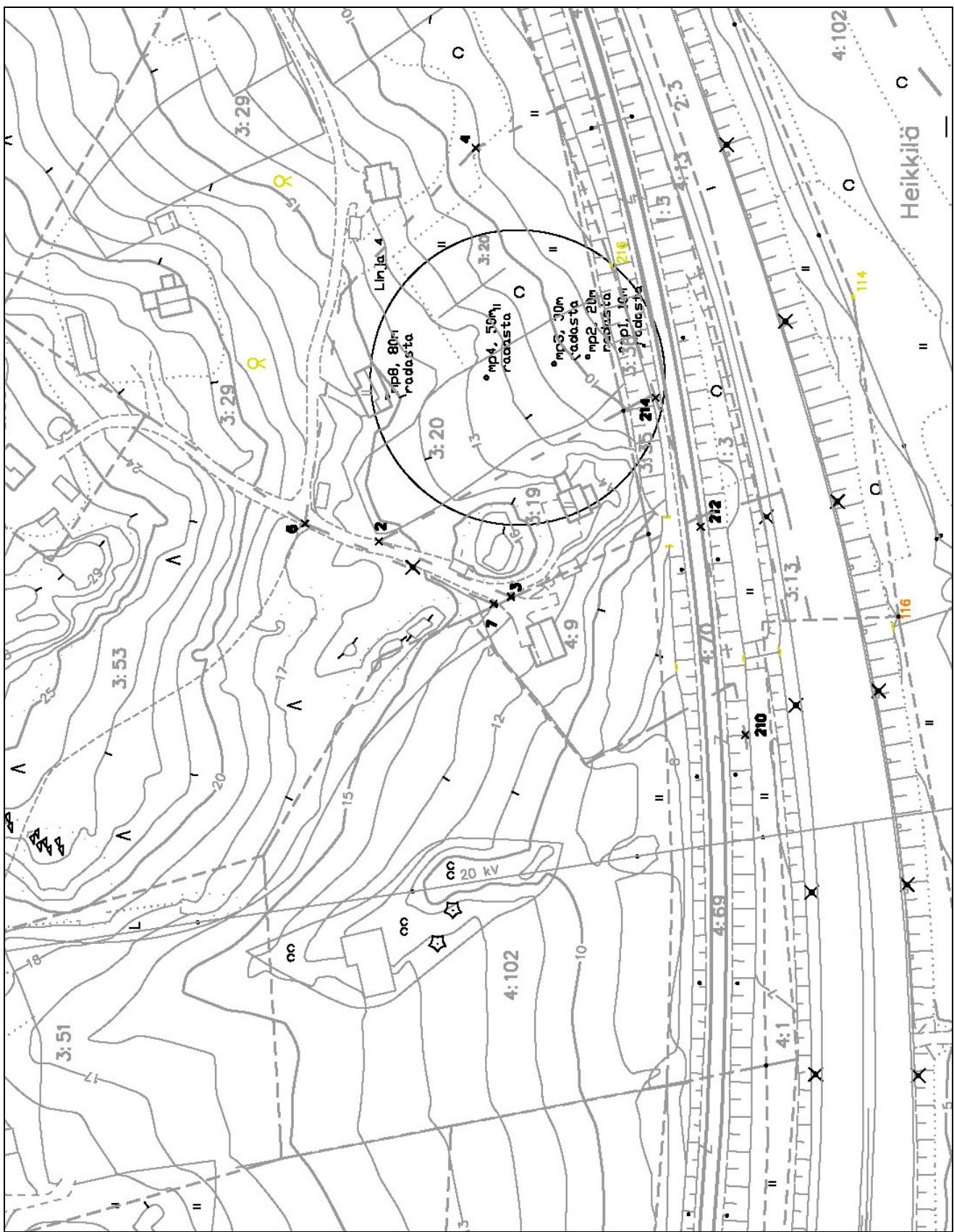
MITTAUSPISTE 3



MITTAUSPISTE 4



MITTAUSPISTE 5



LIITE 2

JUNALIIKENTEEN MÄÄRÄT

JUNALIIKENTEEN MÄÄRÄT

Kirkkonummen tärinäselvitys

Liikennemäärit

Päivä- ja yöajan liikennemäärit

Raideliikenner Helsinki-Turku radalla

| Raideosuuus | Nykytilanne | | | |
|---------------------|----------------------|---------------|-------------------|---------------|
| | Päiväliikenne (7-22) | | Yöliikenne (22-7) | |
| | Junien lukumäärä | Junien pituus | Junien lukumäärä | Junien pituus |
| Lähijunat (Sm1/2) | 64 | 106 | 21 | 106 |
| Lähijunat (Sm4) | 0 | 108 | 0 | 108 |
| Pikajunat (Sr(P)) | 6 | 283 | 2 | 230 |
| IC-junat (Sr(IC)) | 1 | 336 | 1 | 230 |
| IC2-junat (Sr(IC2)) | 15 | 125 | 1 | 125 |
| Pendolinot (Pen) | 11 | 318 | 0 | 318 |

Pendolinot eivät pysähdy Kirkkonummella (yksi poikkeus), kaikki muut junat pysähtyvät (yksi poikkeus).

LIITE 3

MITTAUSTULOKSET



Event Date: January 4, 2007

Event Time: 15:30:21

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHID.QL0

Trigger: Long

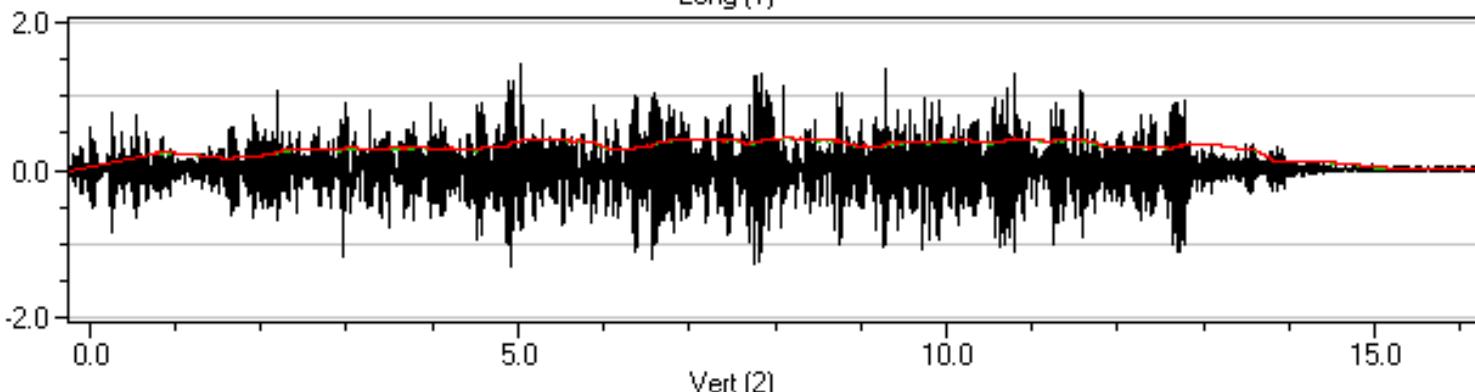
Record Time: 16.25 sec

Sample Rate: 1024 sps

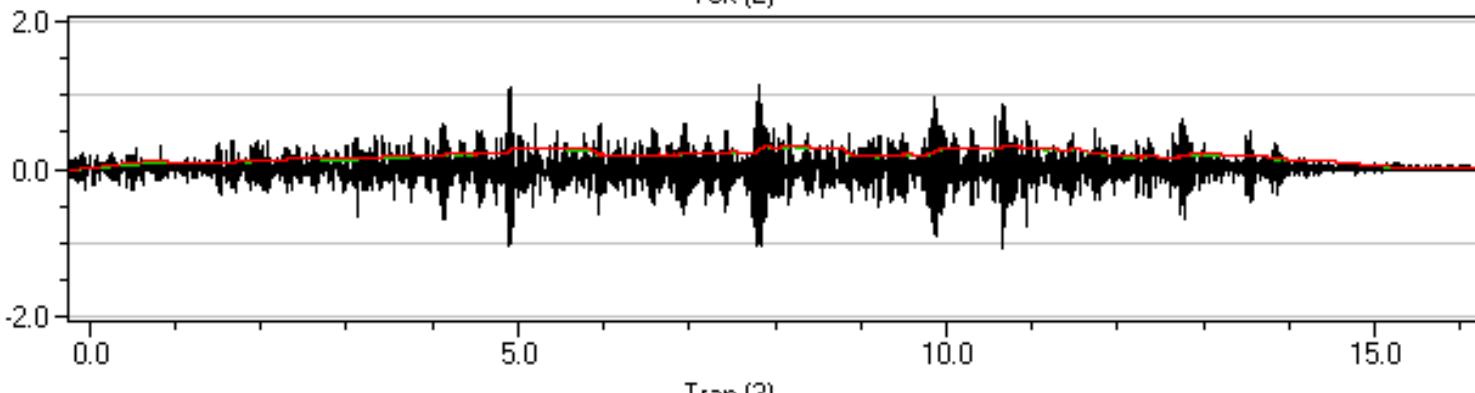
Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 2.05 | 1.13 | 1.43 | mm/s |
| ZC Freq | 37 | 32 | 32 | Hz |
| Time of Peak | 7.779 | 7.813 | 5.031 | Sec |
| Peak Acceleration | 0.0497 | 0.0282 | 0.0348 | g |
| Peak Displacement | 0.00964 | 0.00561 | 0.00692 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.58 | 0.32 | 0.43 | 0.77 |
| RMS (1s) | 0.58 | 0.32 | 0.44 | 0.78 |

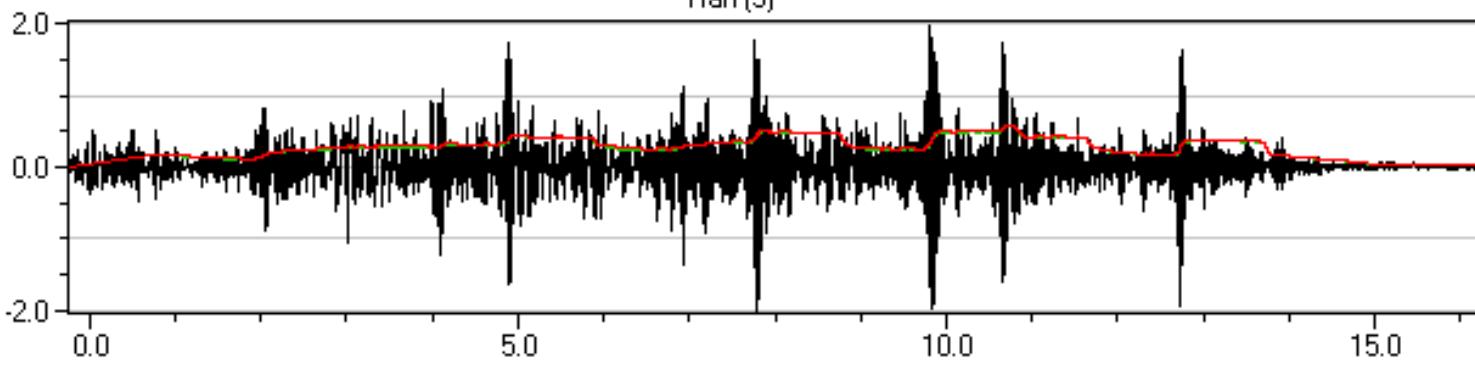
Long (1)



Vert (2)



Tran (3)





Event Date: January 4, 2007

Event Time: 17:30:16

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHIJ.AG0

Trigger: Tran

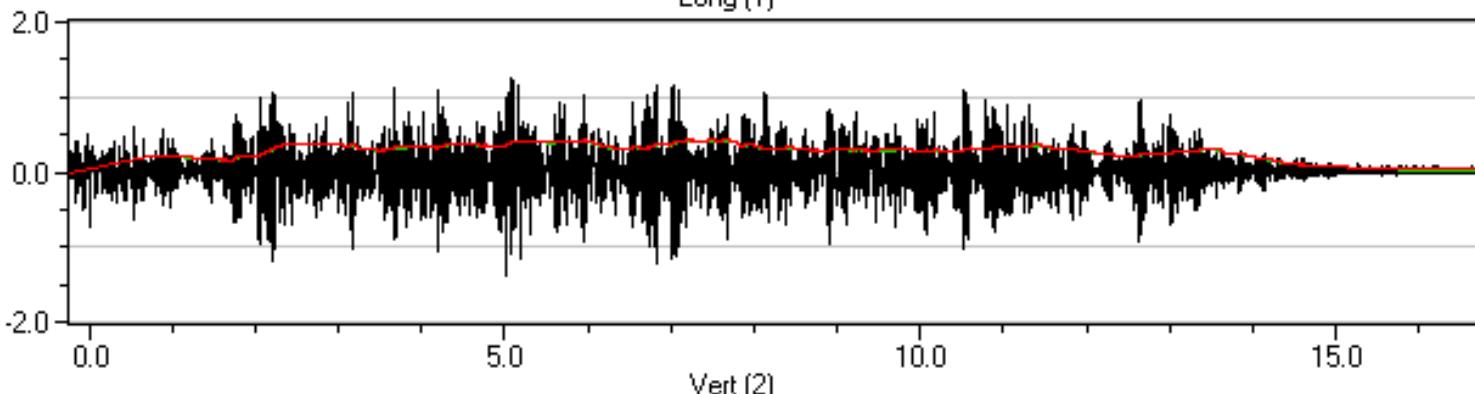
Record Time: 16.75 sec

Sample Rate: 1024 sps

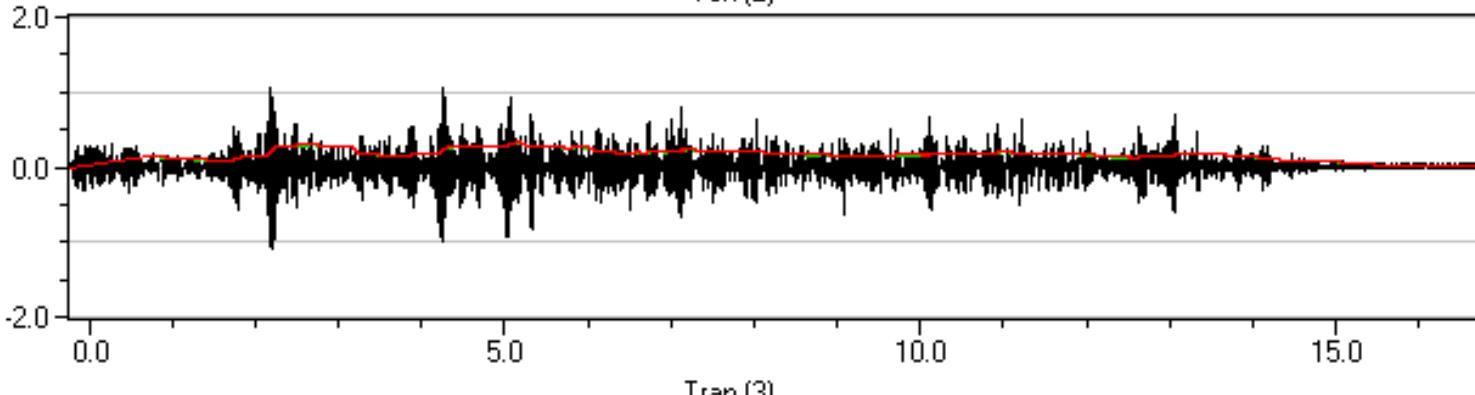
Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 2.02 | 1.08 | 1.37 | mm/s |
| ZC Freq | 34 | 37 | 39 | Hz |
| Time of Peak | 4.245 | 2.196 | 5.021 | Sec |
| Peak Acceleration | 0.0481 | 0.0265 | 0.0398 | g |
| Peak Displacement | 0.00924 | 0.00525 | 0.00574 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.56 | 0.32 | 0.42 | 0.77 |
| RMS (1s) | 0.57 | 0.33 | 0.43 | 0.78 |

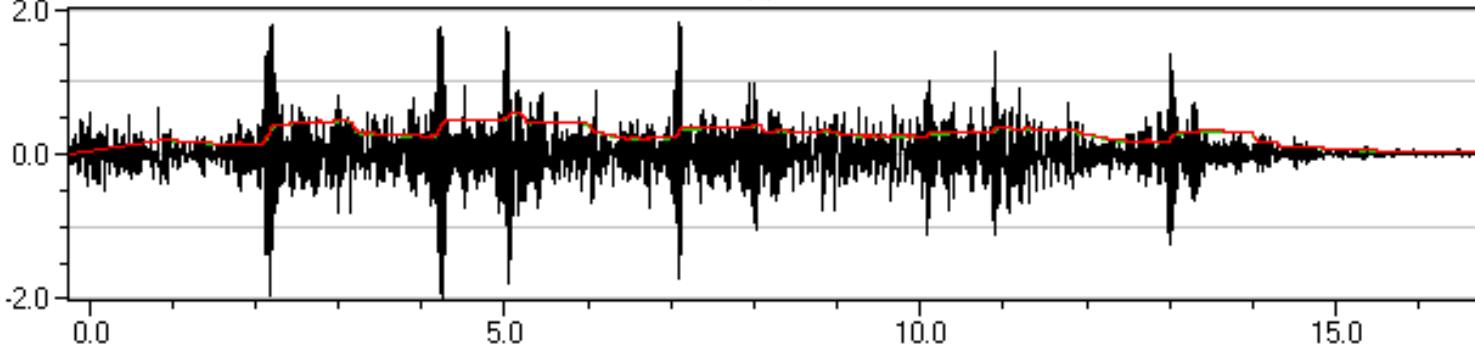
Long (1)



Vert (2)



Tran (3)





Event Date: January 5, 2007

Event Time: 09:30:28

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHJR.QS0

Trigger: Long

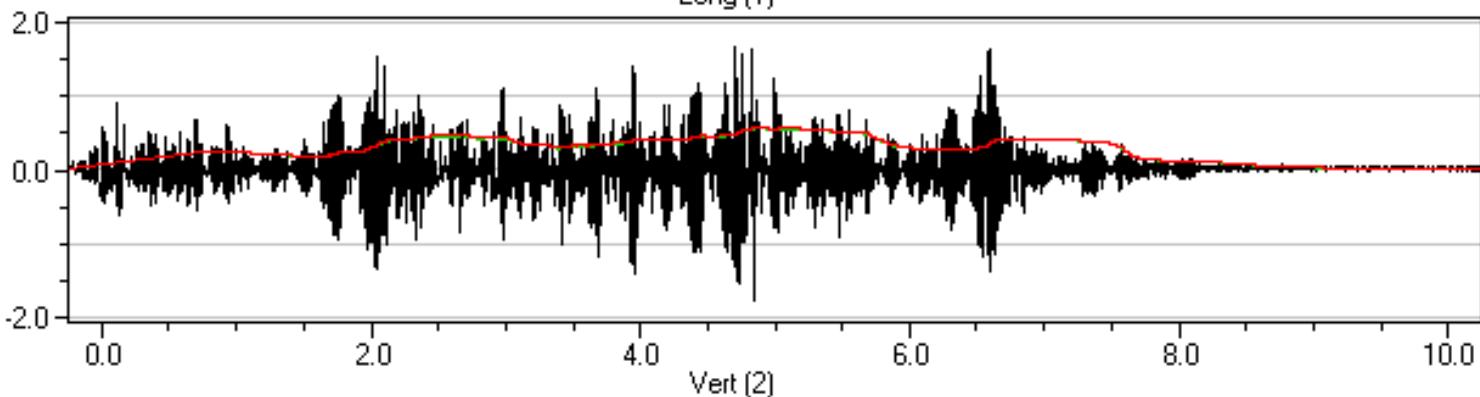
Record Time: 10.25 sec

Sample Rate: 1024 sps

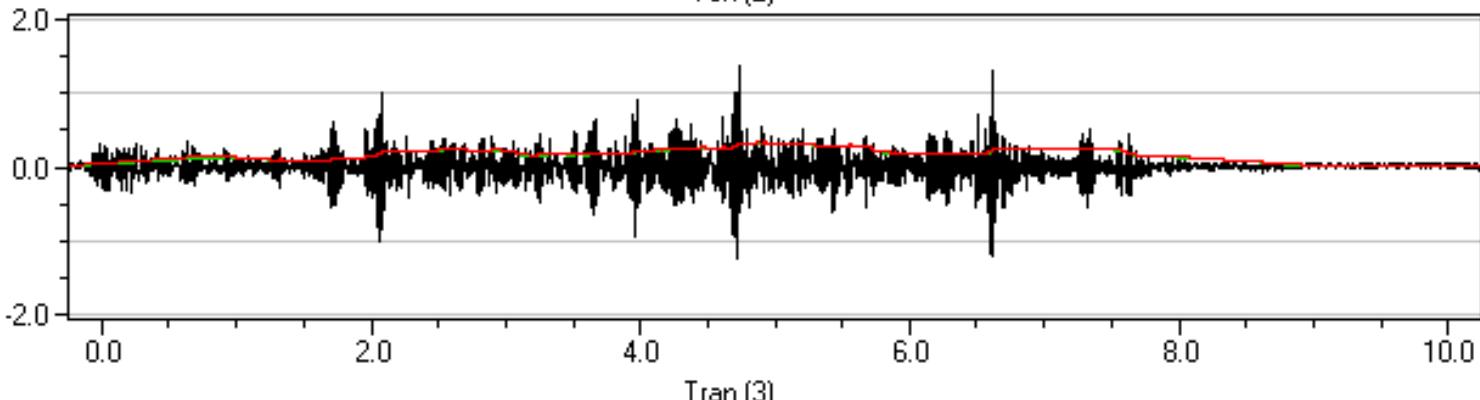
Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 2.08 | 1.38 | 1.78 | mm/s |
| ZC Freq | 39 | 37 | 39 | Hz |
| Time of Peak | 2.053 | 4.730 | 4.845 | Sec |
| Peak Acceleration | 0.0497 | 0.0365 | 0.0464 | g |
| Peak Displacement | 0.00833 | 0.00581 | 0.00747 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,48 | 0,33 | 0,58 | 0,83 |
| RMS (1s) | 0,49 | 0,33 | 0,59 | 0,84 |

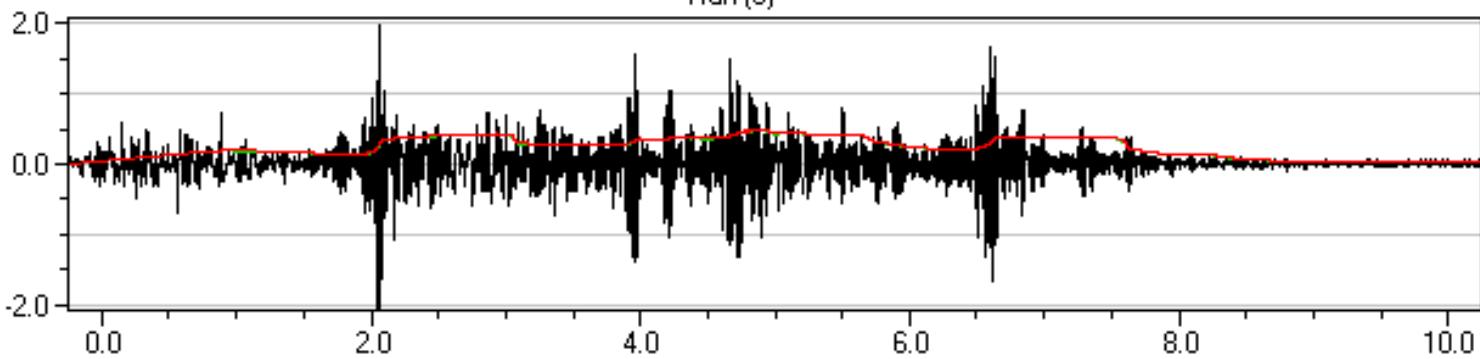
Long (1)



Vert (2)



Tran (3)





Event Date: January 5, 2007

Event Time: 10:30:14

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHJU.IE0

Trigger: Long

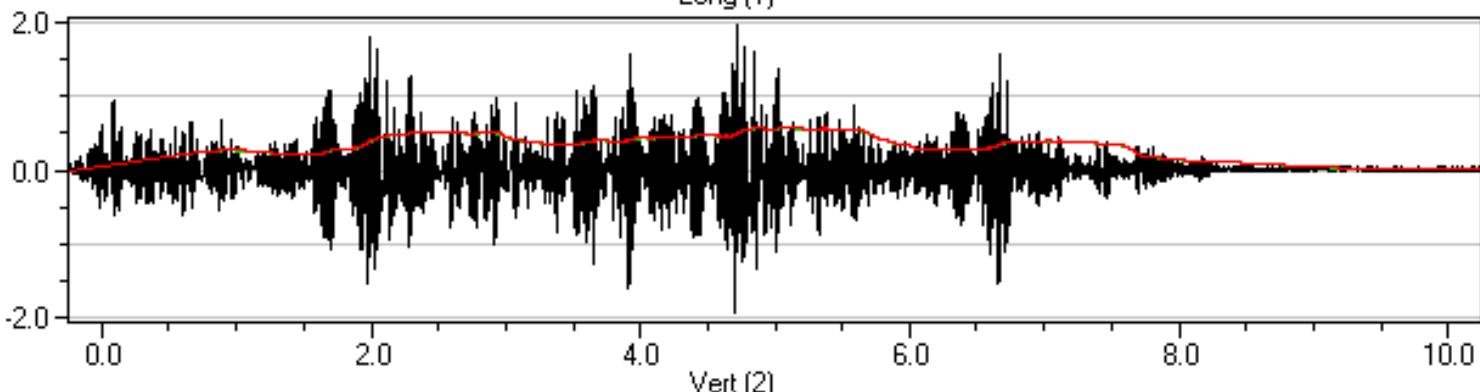
Record Time: 10.25 sec

Sample Rate: 1024 sps

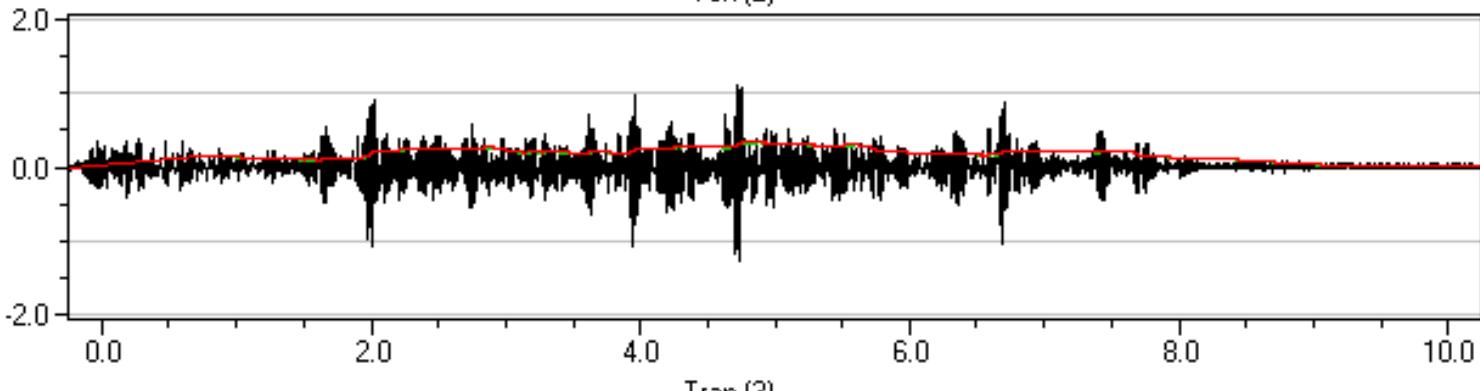
Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 2.05 | 1.27 | 1.94 | mm/s |
| ZC Freq | 39 | 39 | 43 | Hz |
| Time of Peak | 6.690 | 4.733 | 4.713 | Sec |
| Peak Acceleration | 0.0514 | 0.0348 | 0.0547 | g |
| Peak Displacement | 0.00816 | 0.00507 | 0.00736 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,50 | 0,33 | 0,57 | 0,83 |
| RMS (1s) | 0,51 | 0,33 | 0,58 | 0,84 |

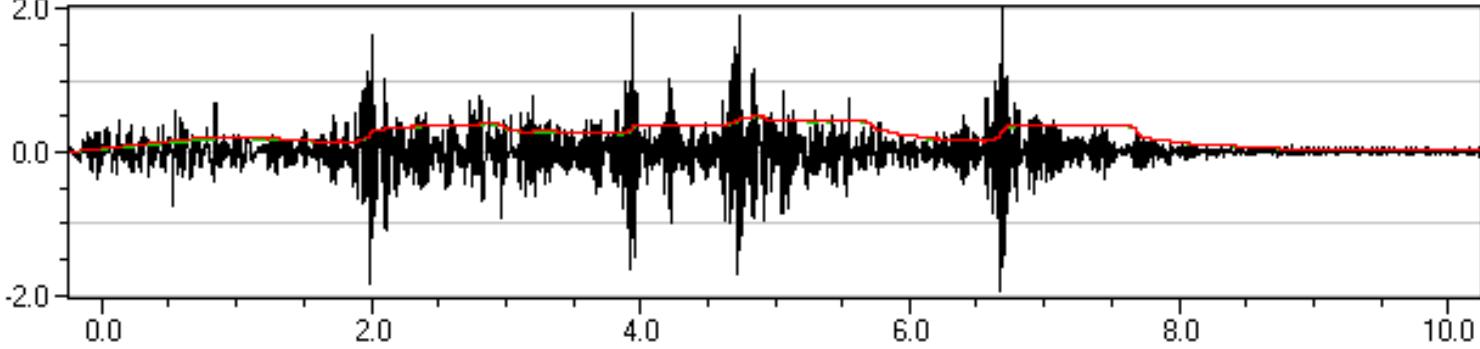
Long (1)



Vert (2)



Tran (3)





Event Date: January 5, 2007

Event Time: 15:30:13

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHK8.ED0

Trigger: Tran

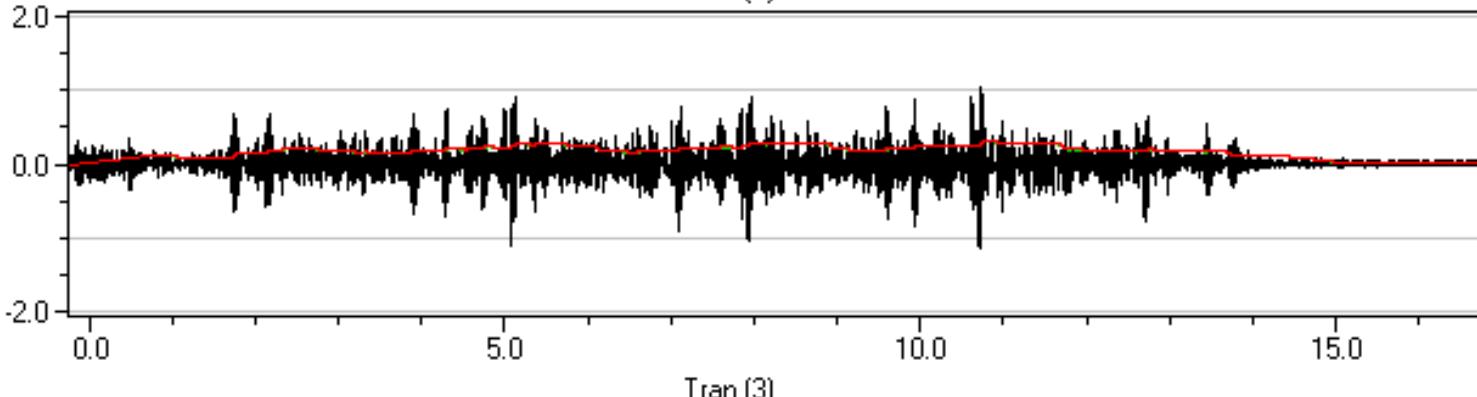
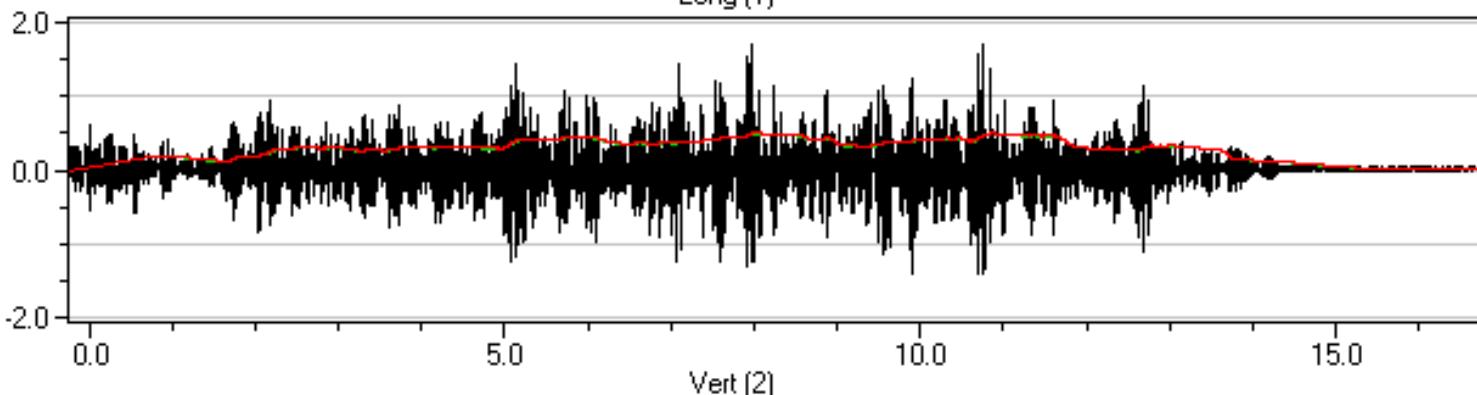
Record Time: 16.75 sec

Sample Rate: 1024 sps

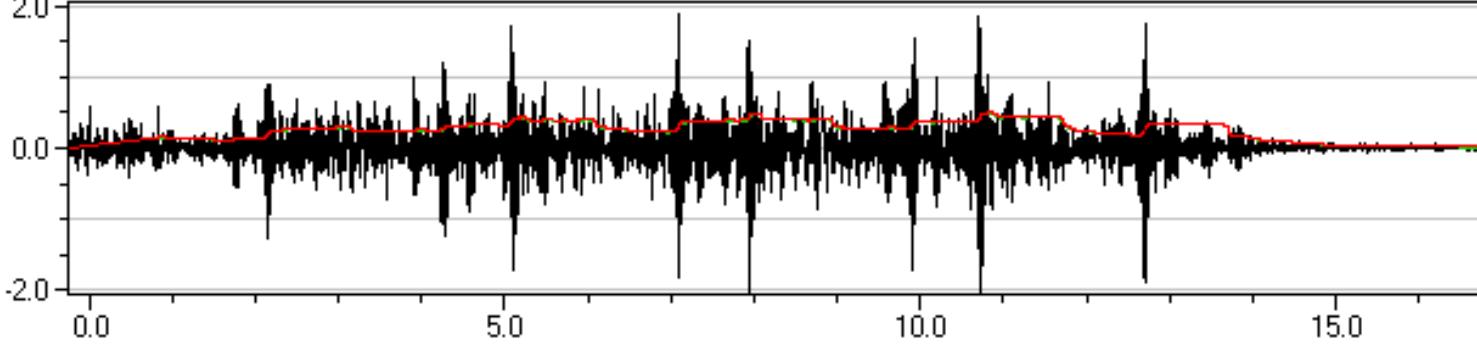
Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 2.06 | 1.14 | 1.71 | mm/s |
| ZC Freq | 39 | 47 | 37 | Hz |
| Time of Peak | 10.710 | 10.726 | 7.981 | Sec |
| Peak Acceleration | 0.0530 | 0.0331 | 0.0447 | g |
| Peak Displacement | 0.00827 | 0.00481 | 0.00743 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,50 | 0,30 | 0,50 | 0,77 |
| RMS (1s) | 0,51 | 0,31 | 0,51 | 0,78 |

Long (1)



Tran (3)





Event Date: January 5, 2007

Event Time: 17:30:11

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHKD.YB0

Trigger: Long

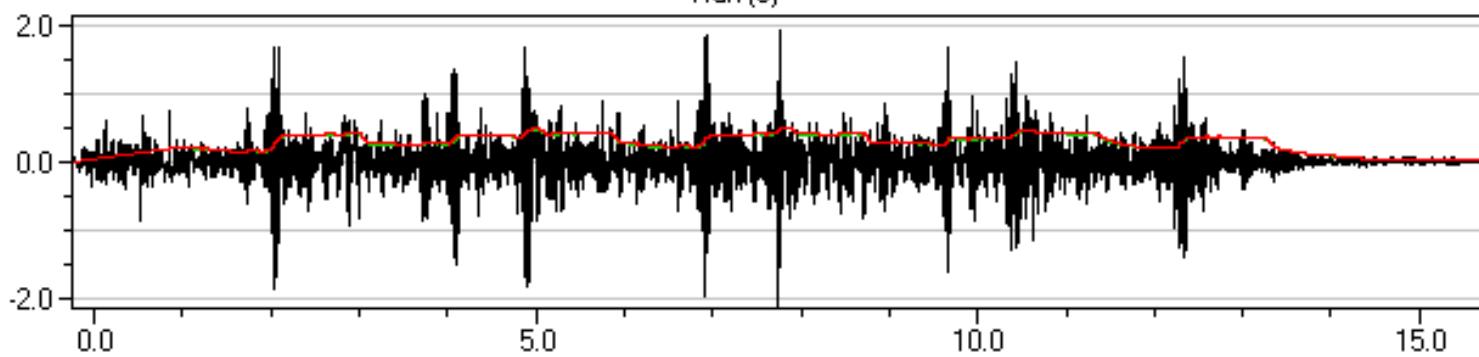
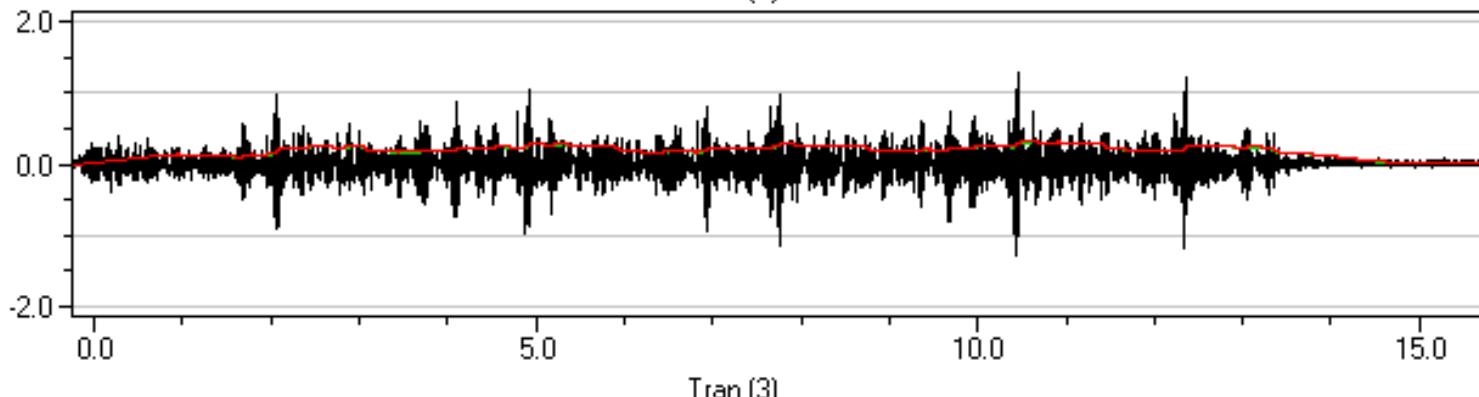
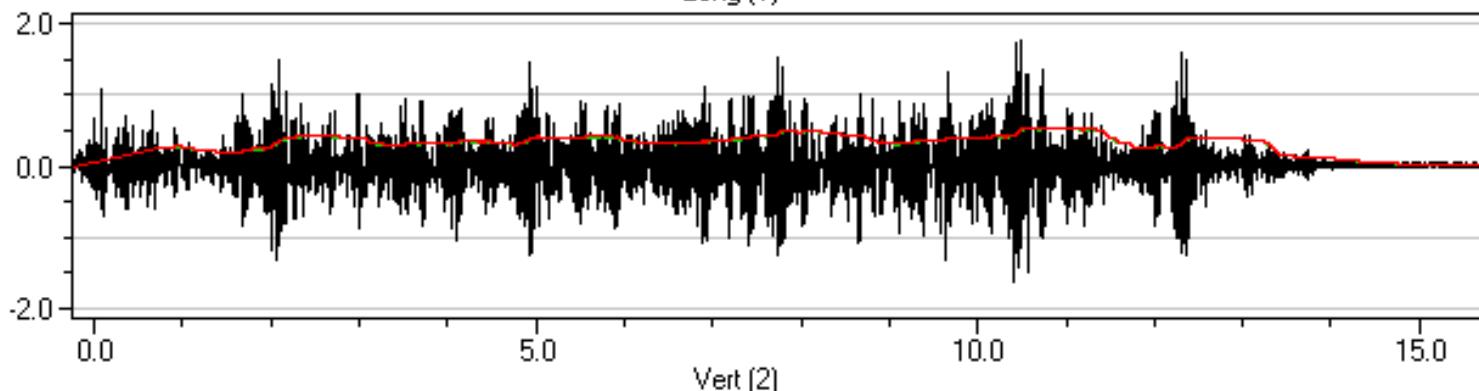
Record Time: 15.75 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 2.14 | 1.29 | 1.75 | mm/s |
| ZC Freq | 39 | 37 | 37 | Hz |
| Time of Peak | 7.743 | 10.458 | 10.479 | Sec |
| Peak Acceleration | 0.0530 | 0.0348 | 0.0514 | g |
| Peak Displacement | 0.00970 | 0.00515 | 0.00770 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.51 | 0.31 | 0.54 | 0.77 |
| RMS (1s) | 0.51 | 0.32 | 0.55 | 0.78 |

Long (1)





Event Date: January 5, 2007

Event Time: 18:30:26

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHKG.QQ0

Trigger: Long

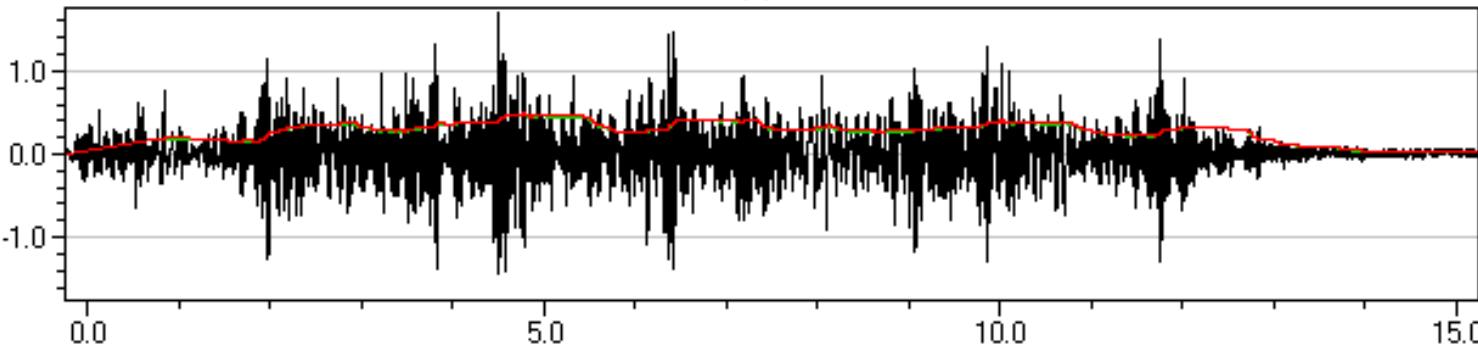
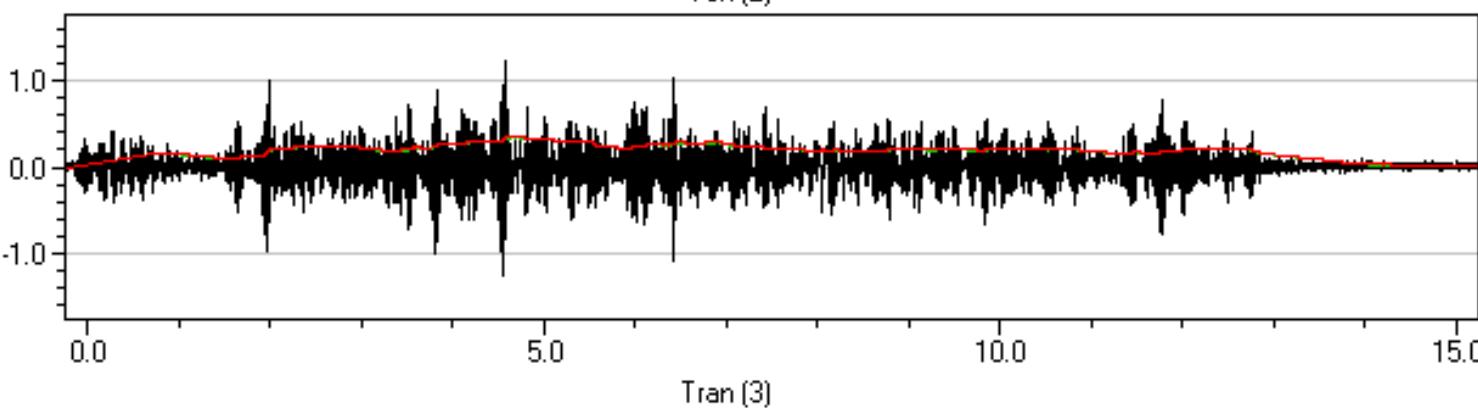
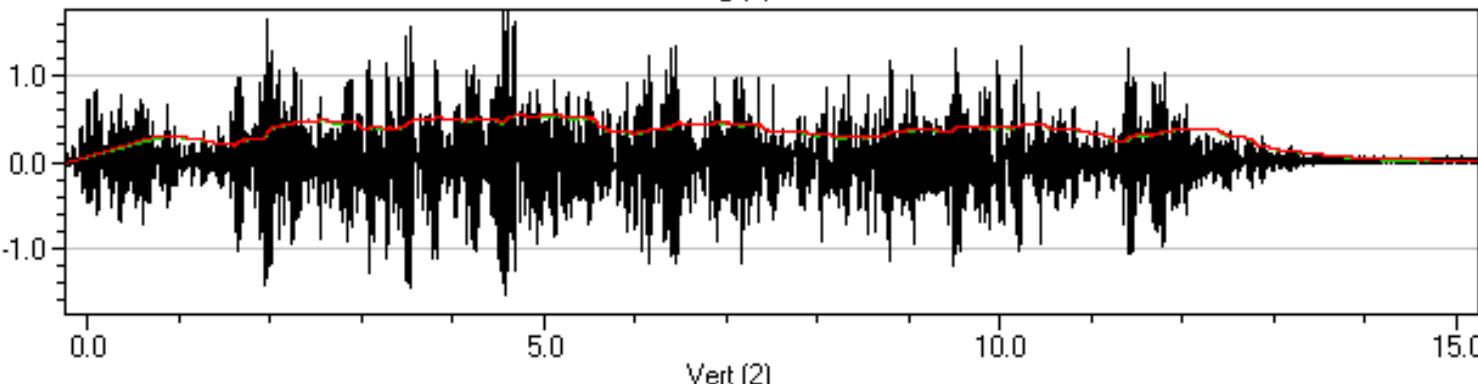
Record Time: 15.25 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.71 | 1.25 | 1.76 | mm/s |
| ZC Freq | 43 | 39 | 34 | Hz |
| Time of Peak | 4.504 | 4.560 | 4.594 | Sec |
| Peak Acceleration | 0.0447 | 0.0348 | 0.0464 | g |
| Peak Displacement | 0.00903 | 0.00537 | 0.00807 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.48 | 0.34 | 0.54 | 0.80 |
| RMS (1s) | 0.49 | 0.34 | 0.55 | 0.81 |

Long (1)





Event Date: January 5, 2007

Event Time: 20:30:22

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHKM.AM0

Trigger: Long

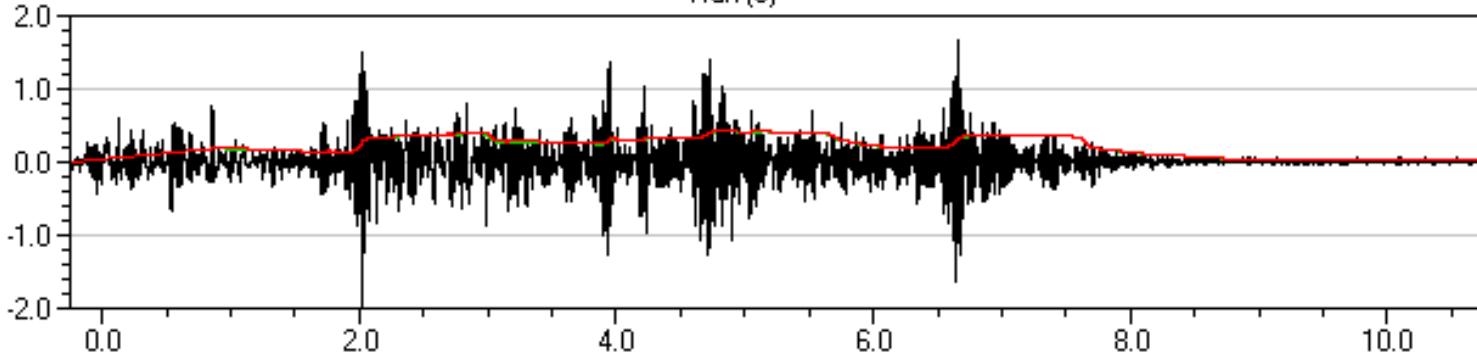
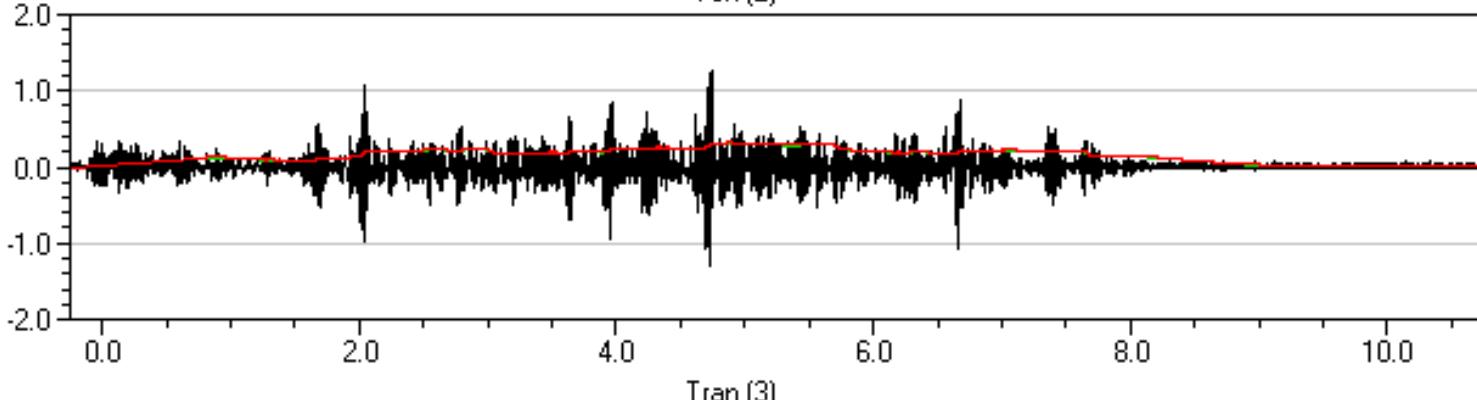
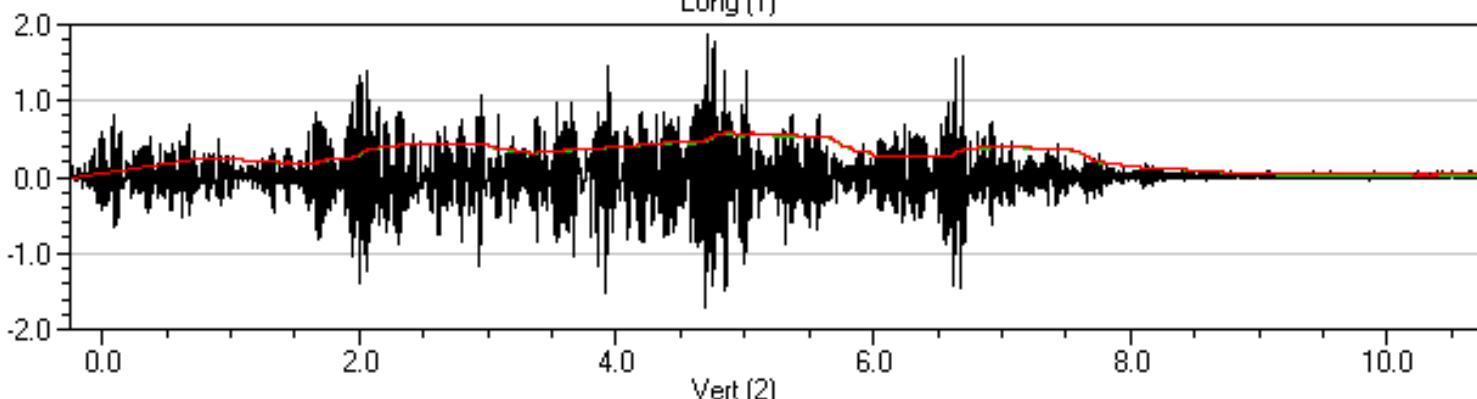
Record Time: 10.75 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 2.00 | 1.29 | 1.87 | mm/s |
| ZC Freq | 39 | 43 | 43 | Hz |
| Time of Peak | 2.016 | 4.725 | 4.704 | Sec |
| Peak Acceleration | 0.0481 | 0.0365 | 0.0563 | g |
| Peak Displacement | 0.00784 | 0.00530 | 0.00803 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.44 | 0.32 | 0.57 | 0.79 |
| RMS (1s) | 0.44 | 0.32 | 0.58 | 0.80 |

Long (1)





Event Date: January 7, 2007

Event Time: 12:30:33

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHPN.EX0

Trigger: Long

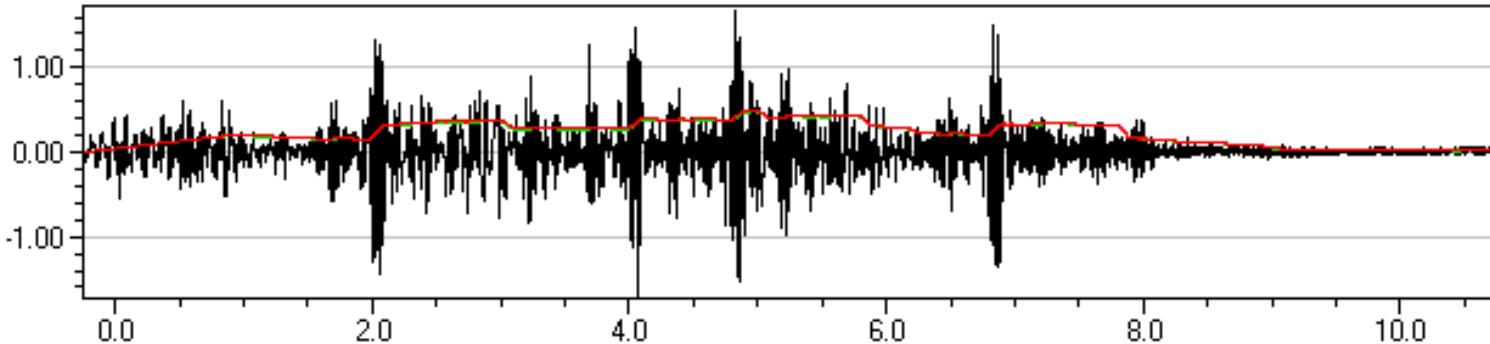
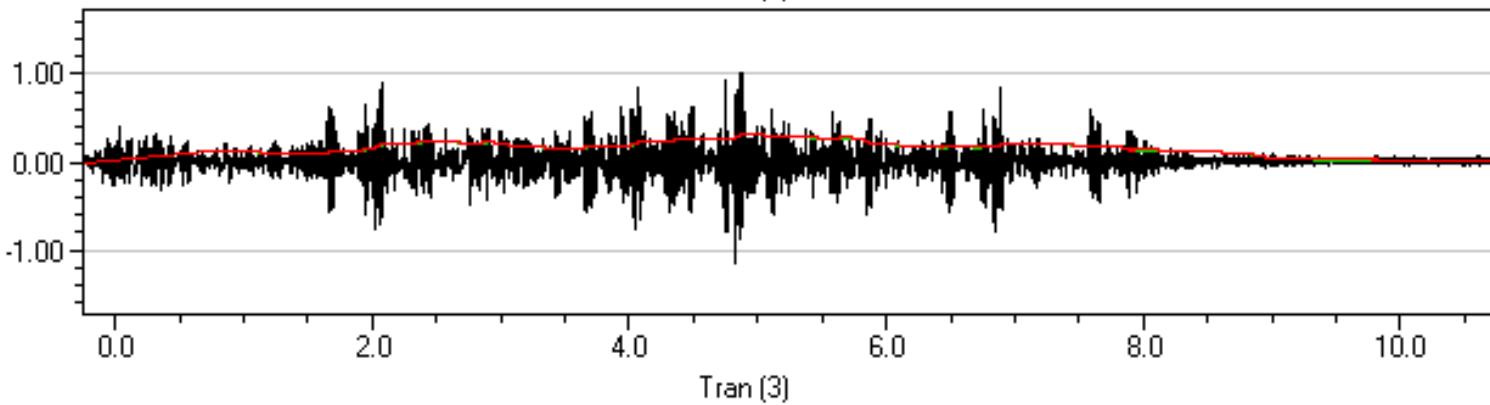
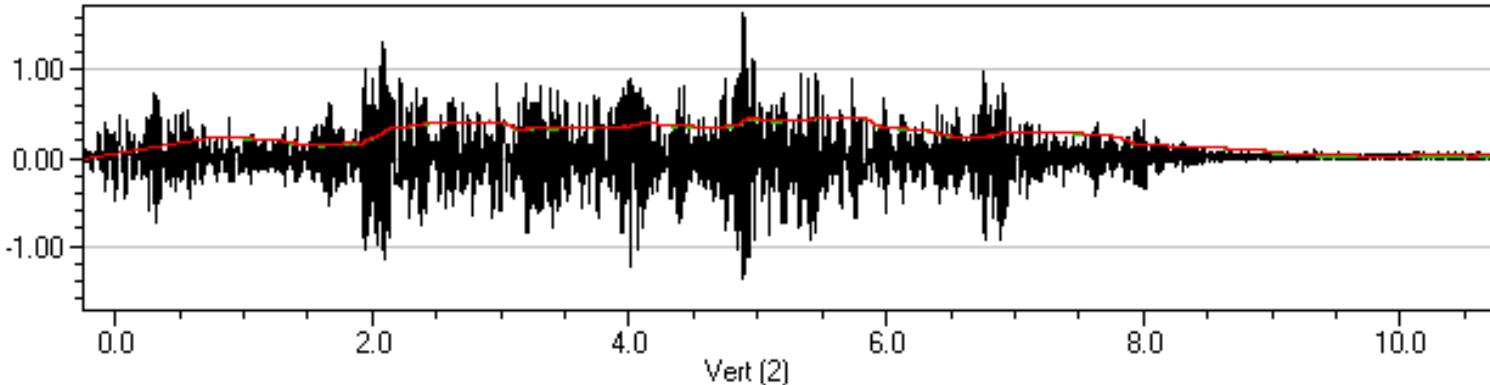
Record Time: 10.75 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.73 | 1.16 | 1.64 | mm/s |
| ZC Freq | 39 | 43 | 37 | Hz |
| Time of Peak | 4.062 | 4.829 | 4.889 | Sec |
| Peak Acceleration | 0.0431 | 0.0298 | 0.0398 | g |
| Peak Displacement | 0.00767 | 0.00455 | 0.00723 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.48 | 0.32 | 0.46 | 0.73 |
| RMS (1s) | 0.49 | 0.32 | 0.46 | 0.74 |

Long (1)





Event Date: January 7, 2007

Event Time: 16:30:29

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHO0.IT0

Trigger: Long

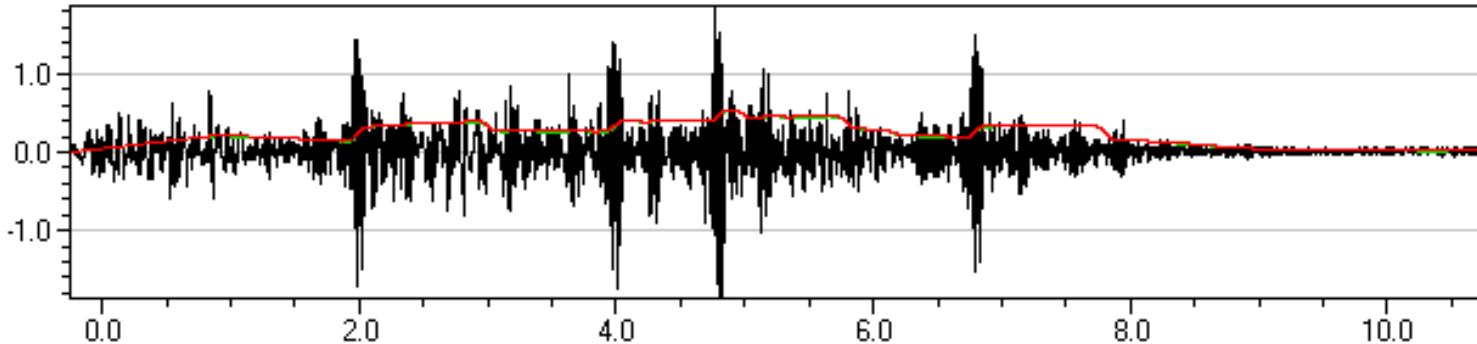
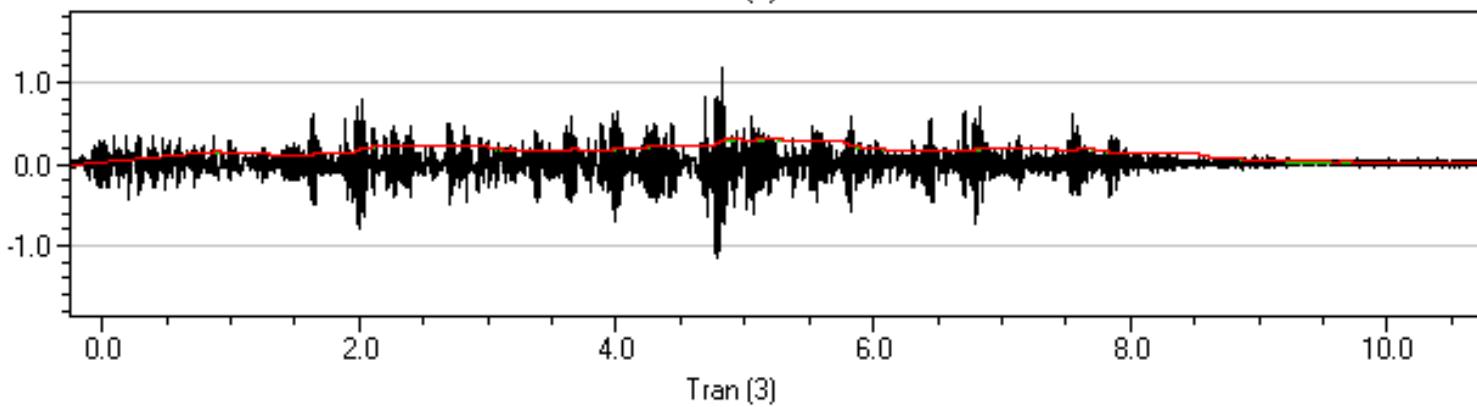
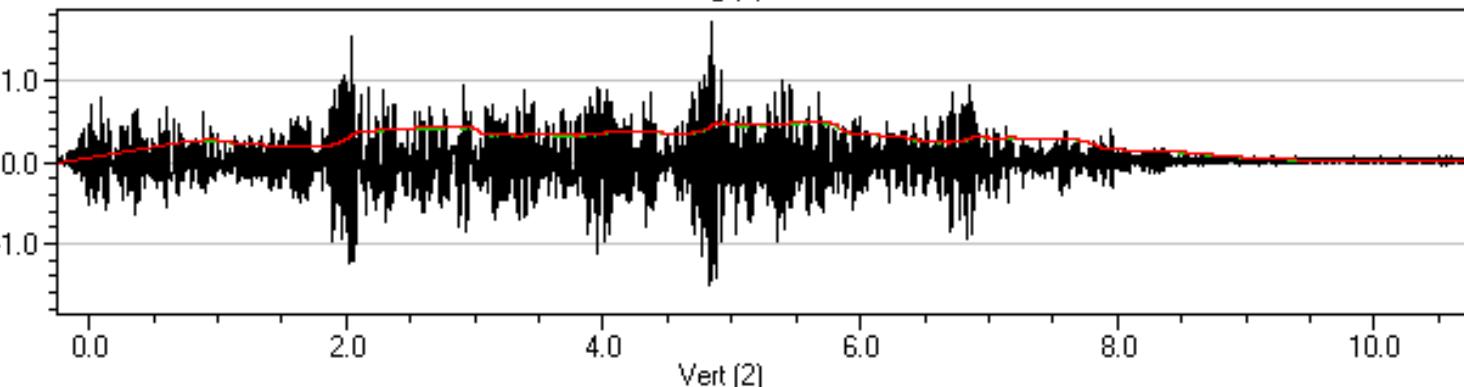
Record Time: 10.75 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.87 | 1.17 | 1.73 | mm/s |
| ZC Freq | 37 | 32 | 34 | Hz |
| Time of Peak | 4.814 | 4.818 | 4.836 | Sec |
| Peak Acceleration | 0.0481 | 0.0298 | 0.0431 | g |
| Peak Displacement | 0.00828 | 0.00531 | 0.00796 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.52 | 0.30 | 0.49 | 0.77 |
| RMS (1s) | 0.53 | 0.31 | 0.49 | 0.78 |

Long (1)





Event Date: January 8, 2007

Event Time: 15:30:17

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHPS.EH0

Trigger: Long

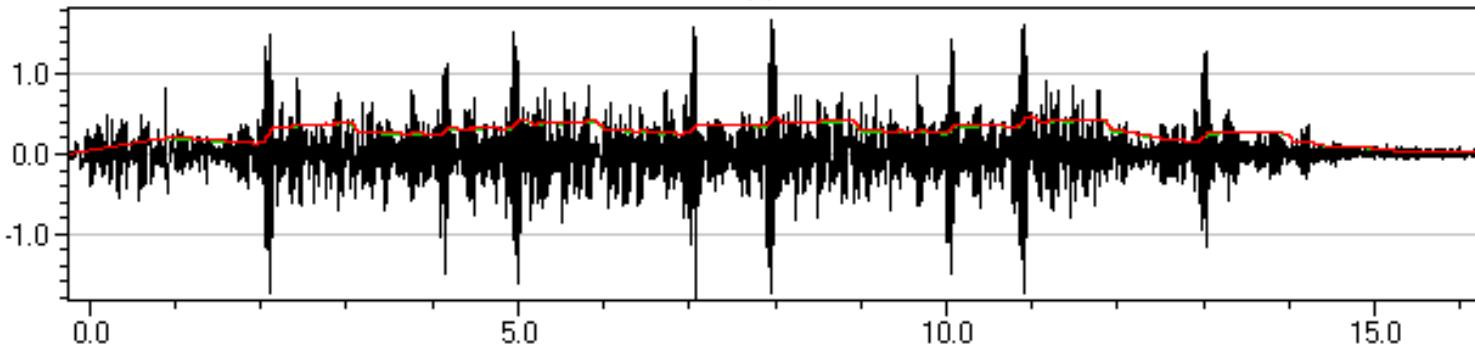
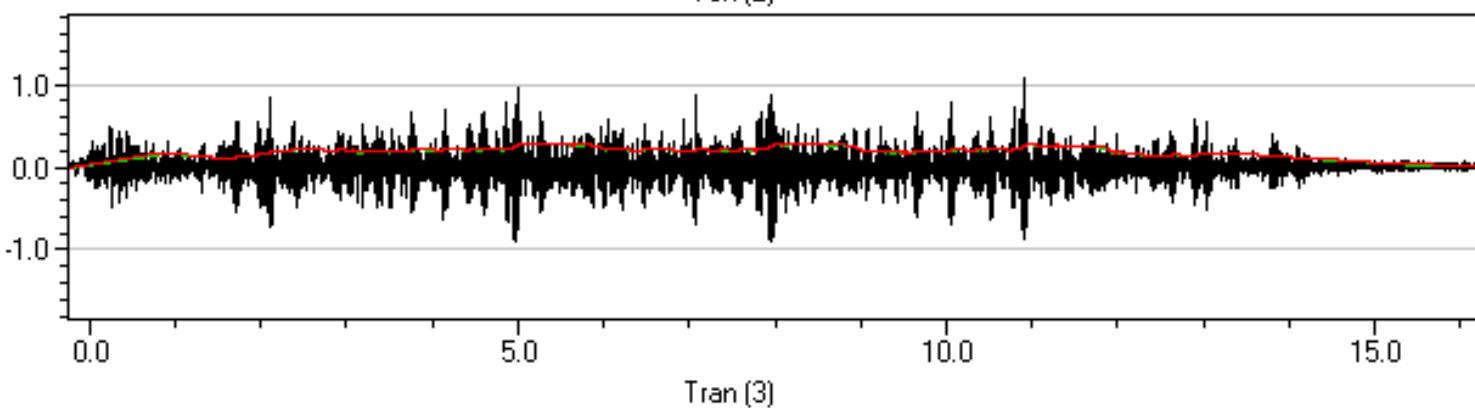
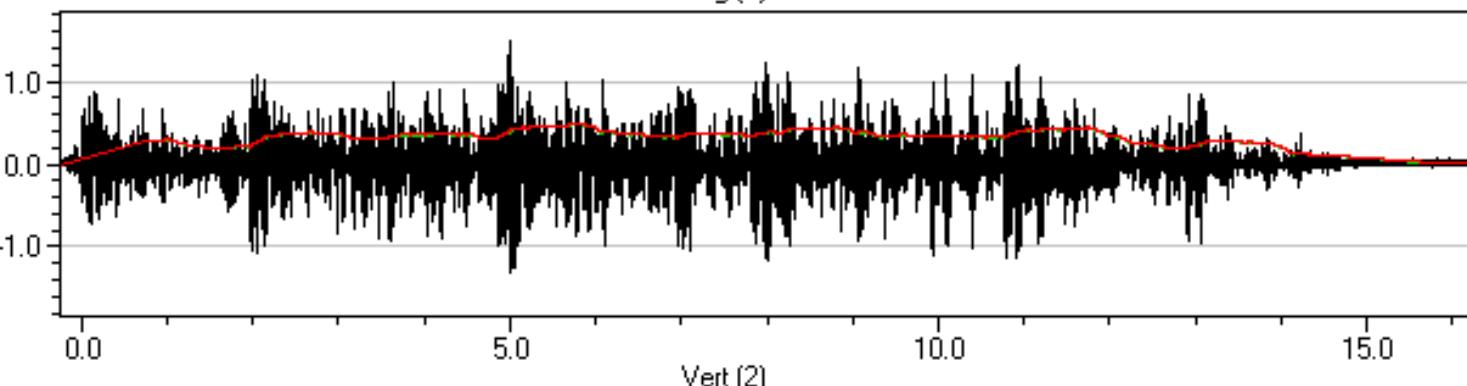
Record Time: 16.25 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.84 | 1.06 | 1.48 | mm/s |
| ZC Freq | 39 | 34 | 34 | Hz |
| Time of Peak | 7.069 | 10.919 | 5.012 | Sec |
| Peak Acceleration | 0.0447 | 0.0249 | 0.0348 | g |
| Peak Displacement | 0.00798 | 0.00493 | 0.00684 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,47 | 0,29 | 0,48 | 0,69 |
| RMS (1s) | 0,48 | 0,29 | 0,49 | 0,70 |

Long (1)





Event Date: January 8, 2007

Event Time: 22:30:34

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHQB.UY0

Trigger: Long

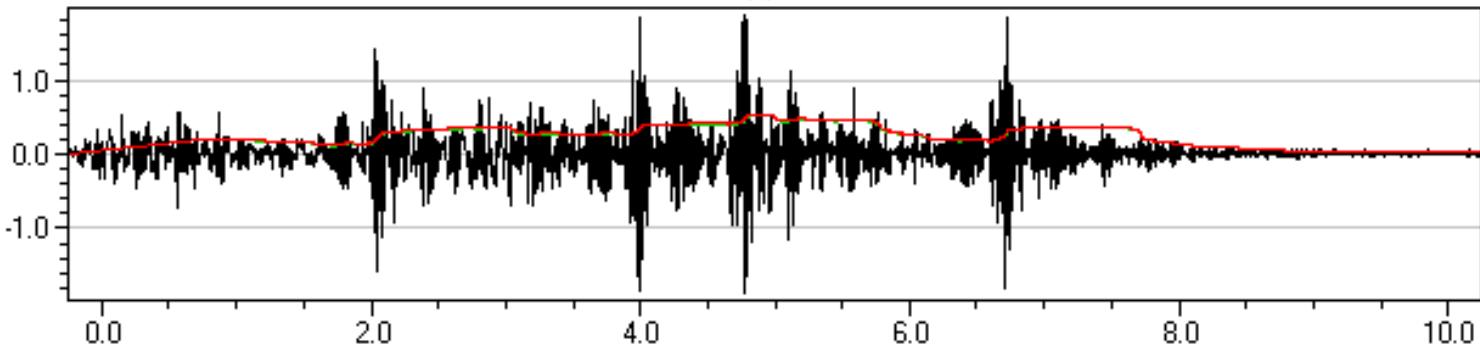
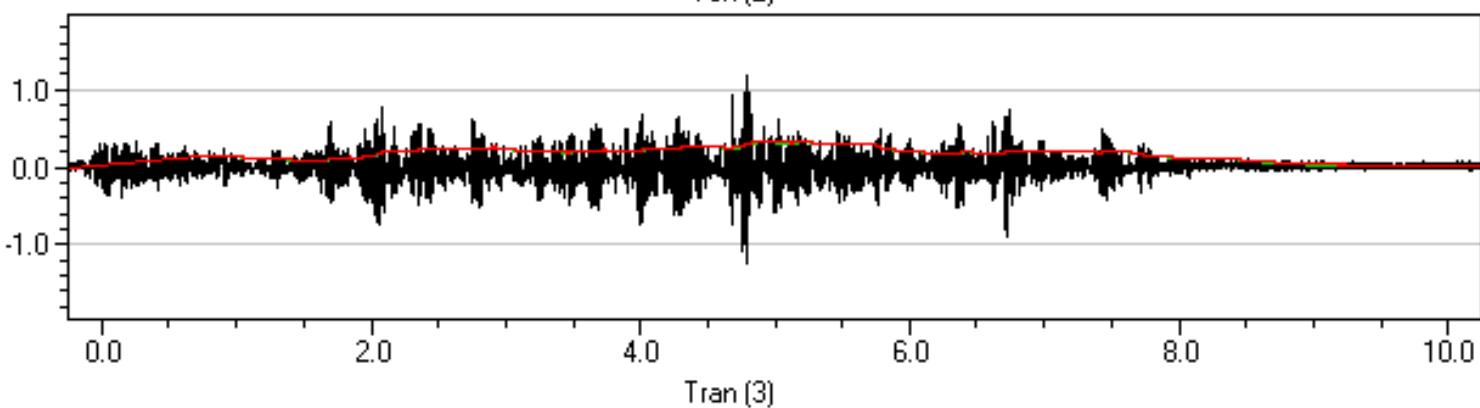
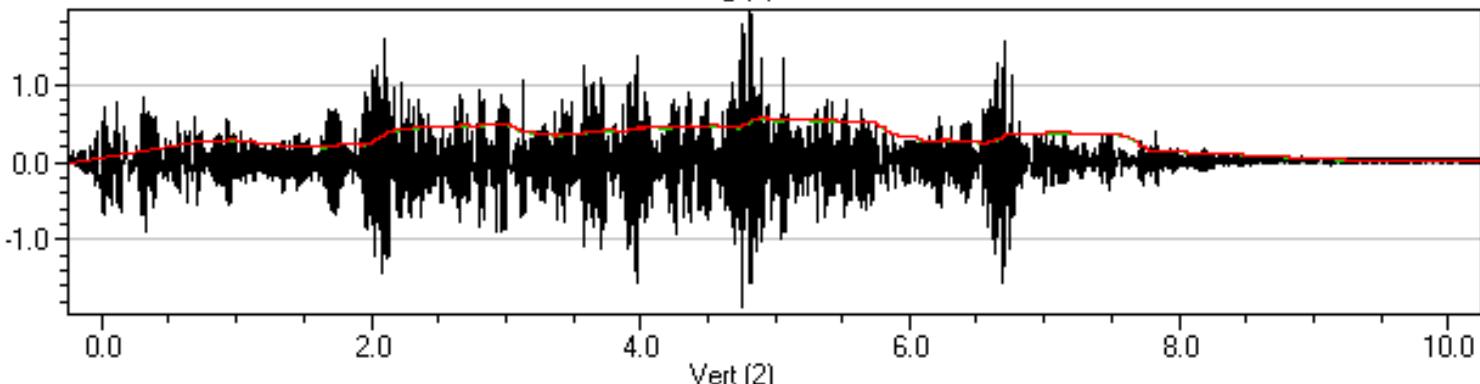
Record Time: 10.25 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.87 | 1.25 | 1.97 | mm/s |
| ZC Freq | 43 | 39 | 37 | Hz |
| Time of Peak | 4.769 | 4.784 | 4.817 | Sec |
| Peak Acceleration | 0.0514 | 0.0315 | 0.0563 | g |
| Peak Displacement | 0.00769 | 0.00536 | 0.00857 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.53 | 0.32 | 0.57 | 0.84 |
| RMS (1s) | 0.54 | 0.32 | 0.58 | 0.85 |

Long (1)





Event Date: January 9, 2007

Event Time: 07:51:12

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHR1.TC0

Trigger: Tran

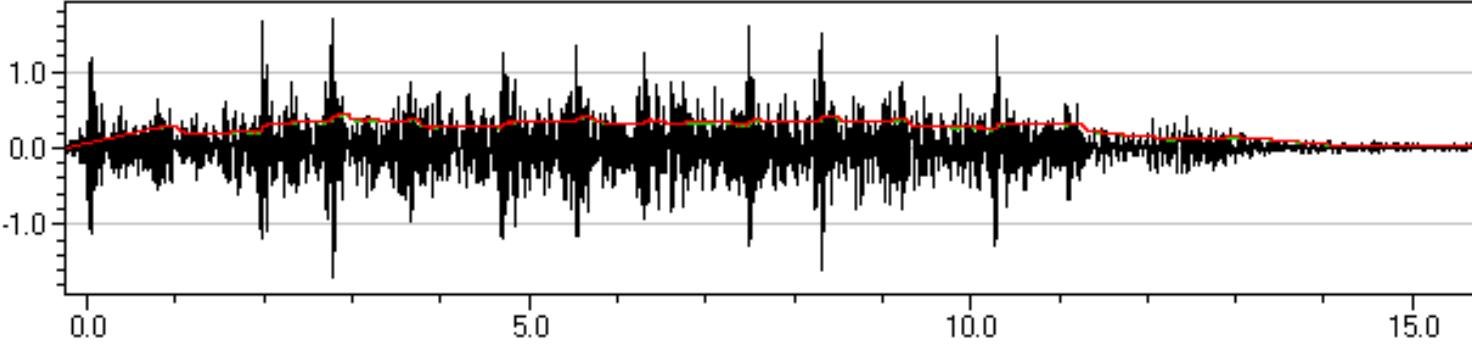
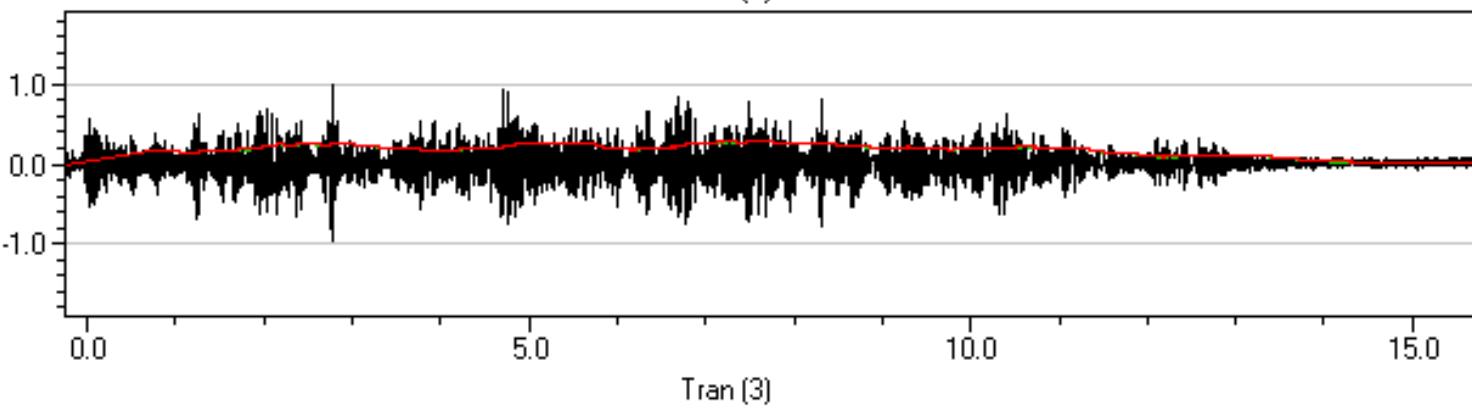
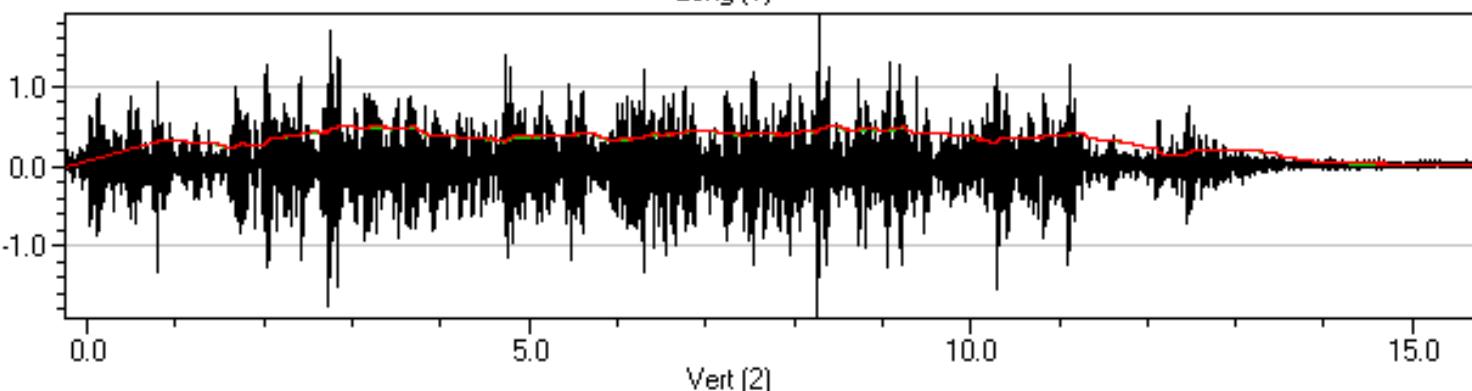
Record Time: 15.75 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.70 | 1.00 | 1.92 | mm/s |
| ZC Freq | 43 | 39 | 47 | Hz |
| Time of Peak | 2.771 | 2.773 | 8.277 | Sec |
| Peak Acceleration | 0.0447 | 0.0331 | 0.0630 | g |
| Peak Displacement | 0.00711 | 0.00388 | 0.00654 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.44 | 0.30 | 0.51 | 0.72 |
| RMS (1s) | 0.44 | 0.30 | 0.52 | 0.73 |

Long (1)





Event Date: January 9, 2007

Event Time: 08:10:14

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHR2.P20

Trigger: Long

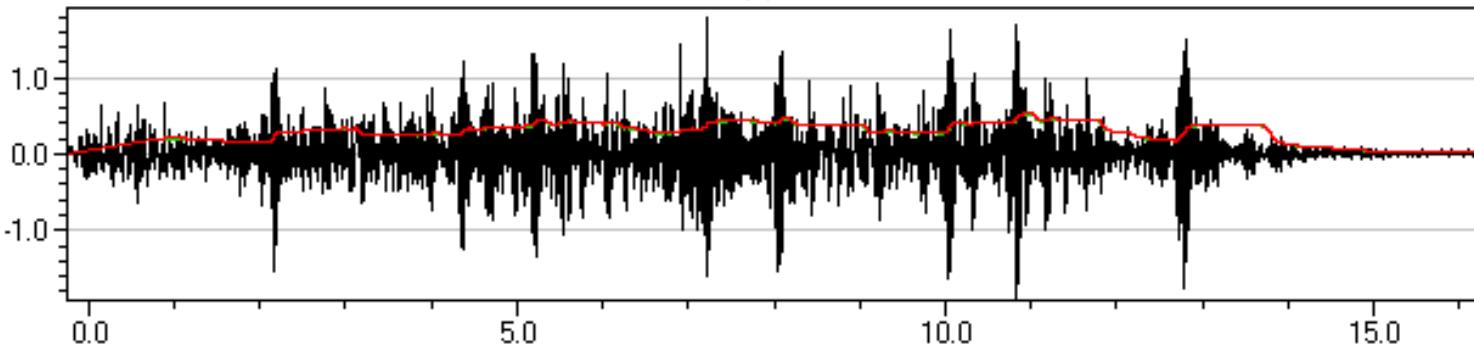
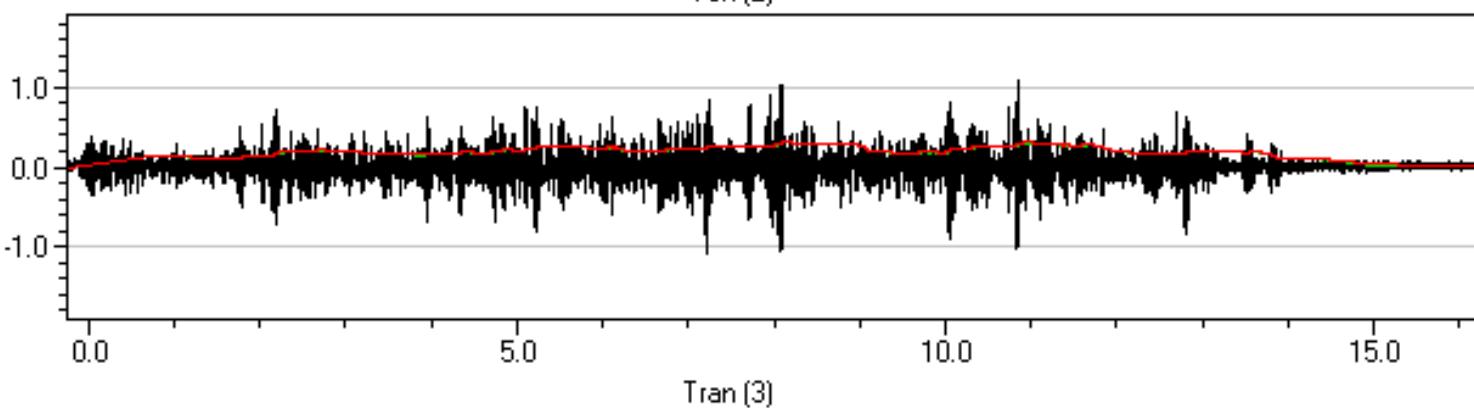
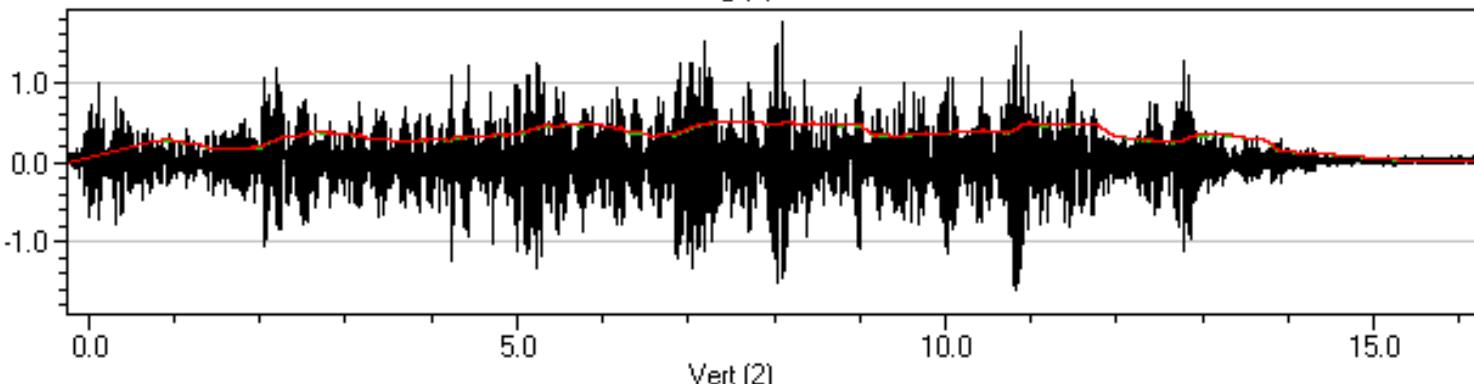
Record Time: 16.25 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.92 | 1.08 | 1.78 | mm/s |
| ZC Freq | 37 | 43 | 37 | Hz |
| Time of Peak | 10.830 | 7.223 | 8.103 | Sec |
| Peak Acceleration | 0.0514 | 0.0315 | 0.0497 | g |
| Peak Displacement | 0.00839 | 0.00513 | 0.00764 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.53 | 0.32 | 0.51 | 0.78 |
| RMS (1s) | 0.54 | 0.32 | 0.51 | 0.79 |

Long (1)





Event Date: January 9, 2007

Event Time: 09:30:39

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHR6.F30

Trigger: Long

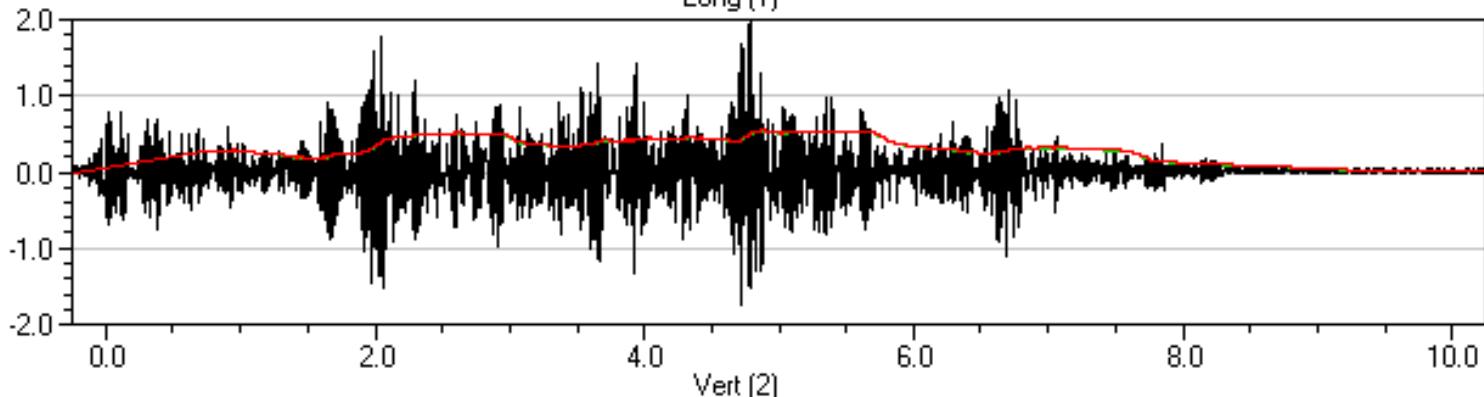
Record Time: 10.25 sec

Sample Rate: 1024 sps

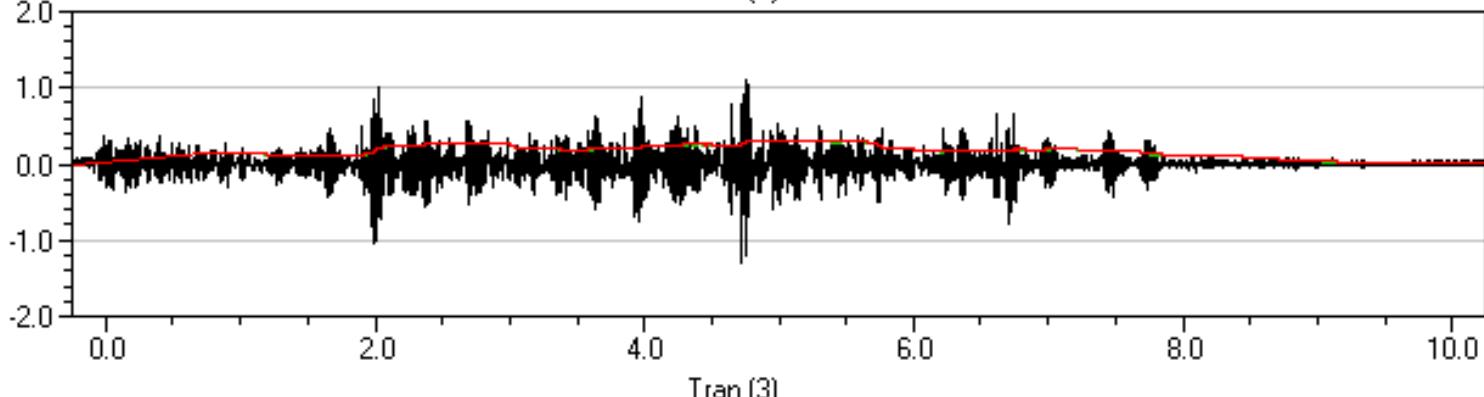
Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.92 | 1.30 | 2.00 | mm/s |
| ZC Freq | 39 | 47 | 37 | Hz |
| Time of Peak | 1.993 | 4.725 | 4.782 | Sec |
| Peak Acceleration | 0.0481 | 0.0348 | 0.0481 | g |
| Peak Displacement | 0.00746 | 0.00529 | 0.00881 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.47 | 0.32 | 0.54 | 0.78 |
| RMS (1s) | 0.48 | 0.32 | 0.55 | 0.79 |

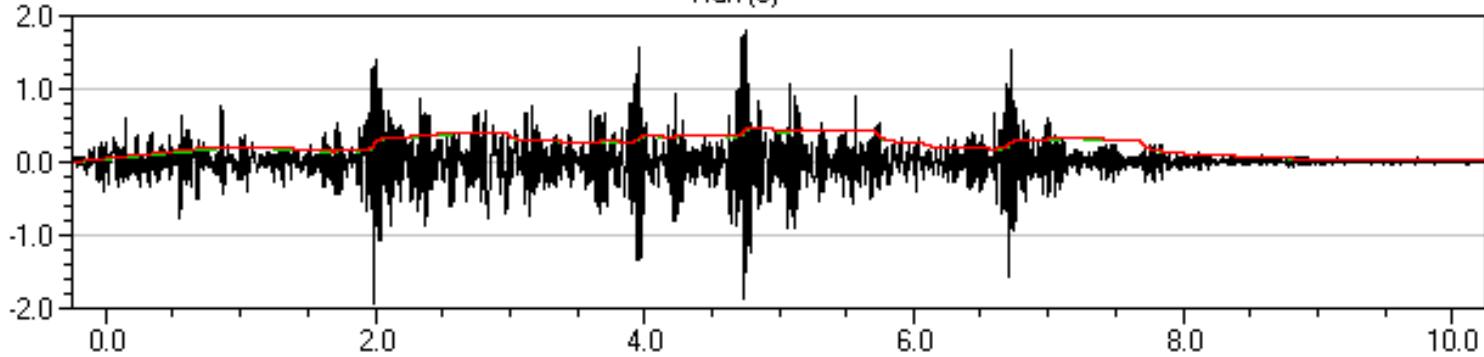
Long (1)



Vert (2)



Tran (3)





Event Date: January 4, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 12:30:24

File Name: M156BHI5.EO0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

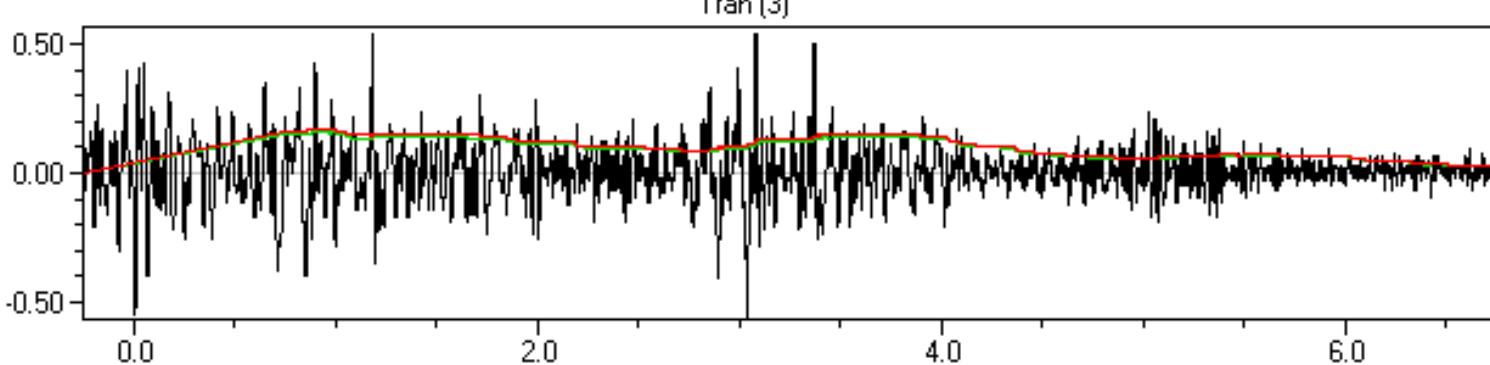
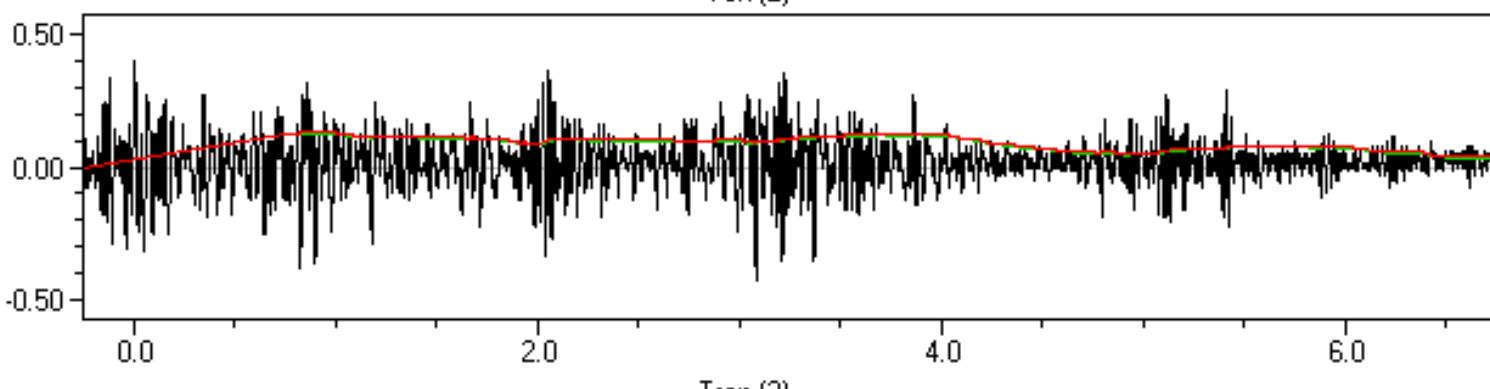
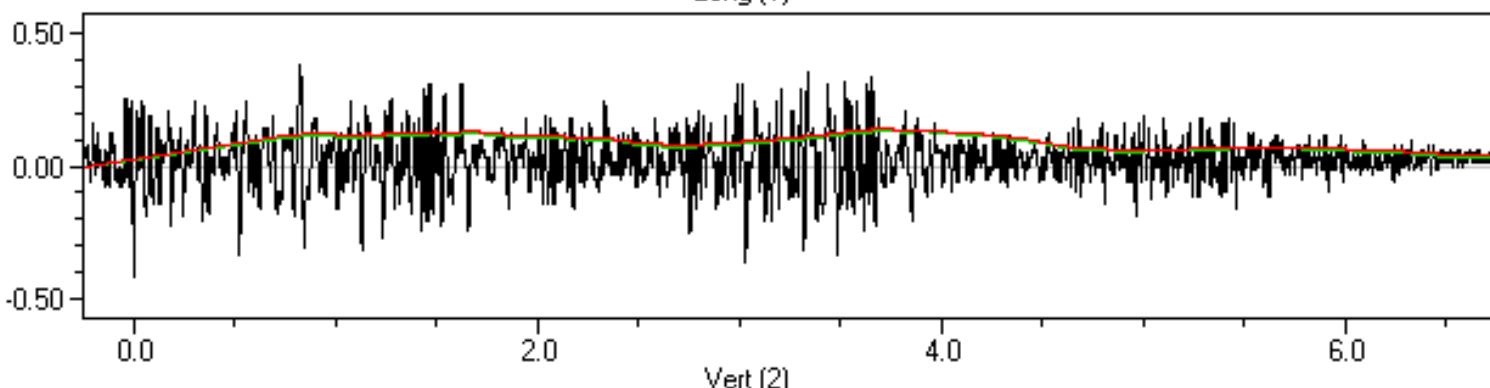
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.571 | 0.429 | 0.413 | mm/s |
| ZC Freq | 15 | 30 | 30 | Hz |
| Time of Peak | 3.038 | 3.084 | 0.001 | Sec |
| Peak Acceleration | 0.0116 | 0.00994 | 0.00829 | g |
| Peak Displacement | 0.00458 | 0.00281 | 0.00372 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,16 | 0,13 | 0,13 | 0,24 |
| RMS (1s) | 0,17 | 0,13 | 0,14 | 0,25 |

Long (1)





Event Date: January 4, 2007

Event Time: 15:30:21

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

File Name: M156BHID.QL0

Trigger: Long

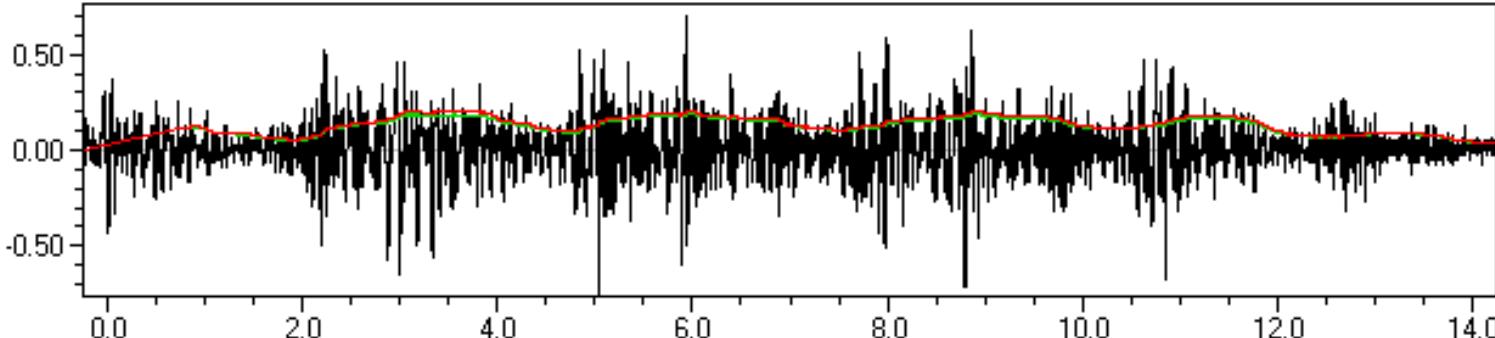
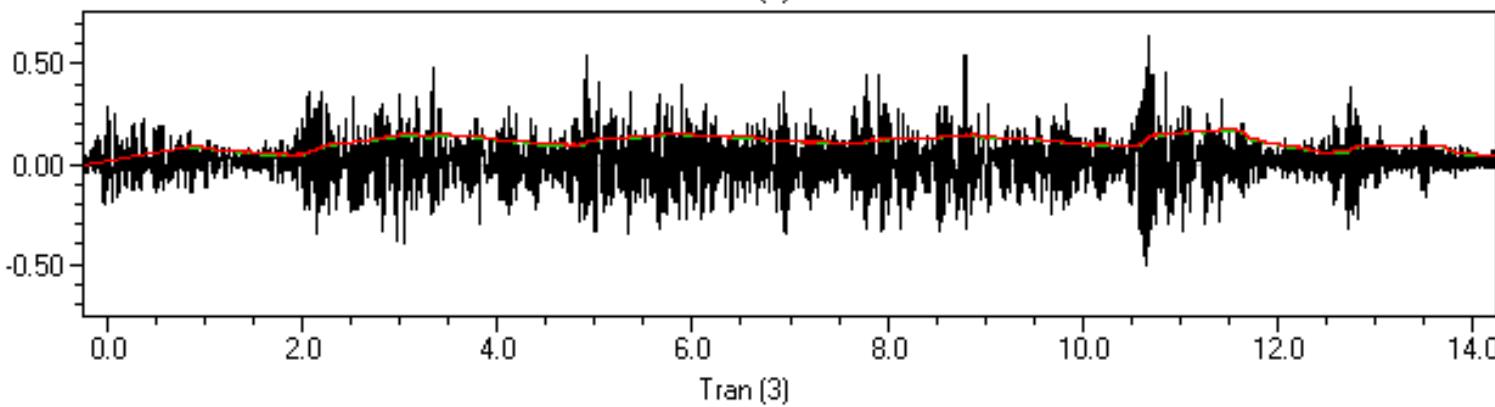
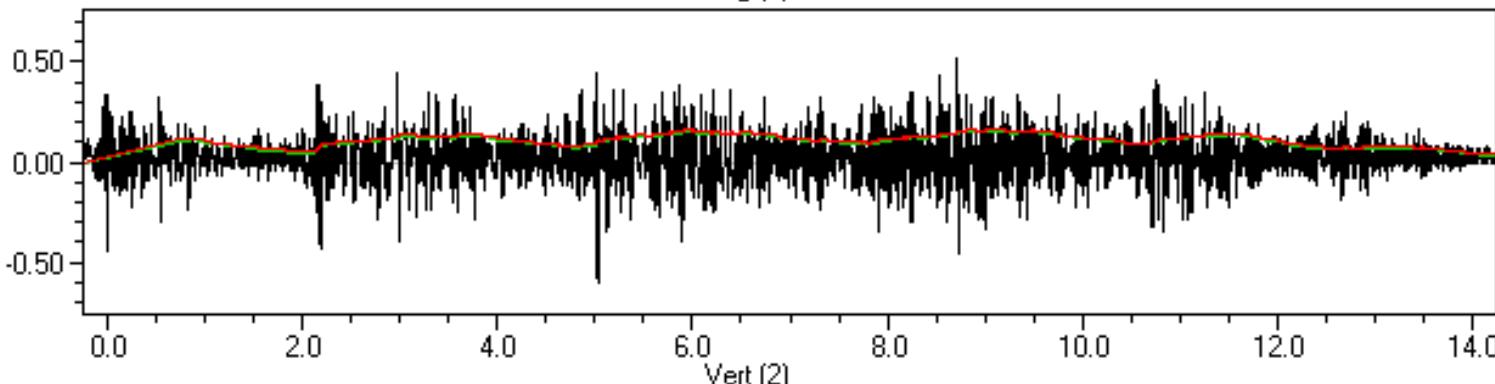
Record Time: 14.25 sec

Sample Rate: 1024 sps

Calibration: April 25, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.762 | 0.635 | 0.603 | mm/s |
| ZC Freq | 26 | 37 | 32 | Hz |
| Time of Peak | 5.037 | 10.671 | 5.028 | Sec |
| Peak Acceleration | 0.0133 | 0.0149 | 0.0133 | g |
| Peak Displacement | 0.00724 | 0.00419 | 0.00322 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,19 | 0,17 | 0,16 | 0,29 |
| RMS (1s) | 0,21 | 0,17 | 0,16 | 0,30 |

Long (1)





Event Date: January 4, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 16:59:43

File Name: M156BHIH.VJ0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 17.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

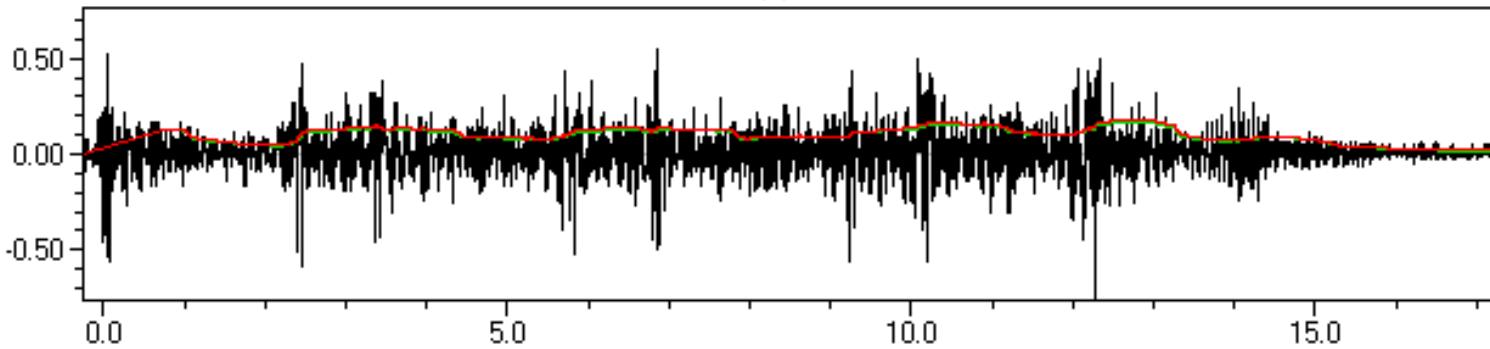
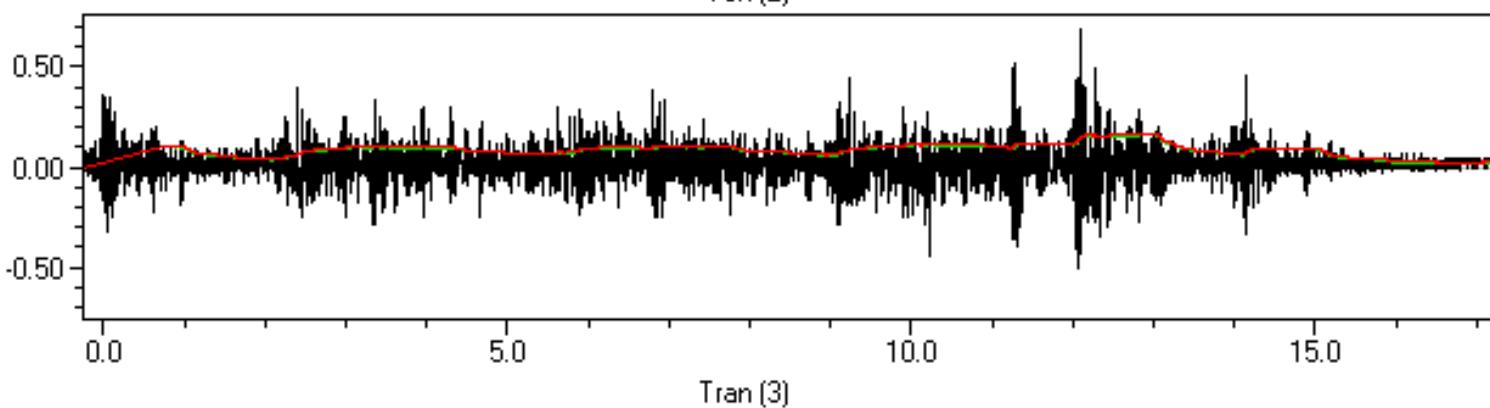
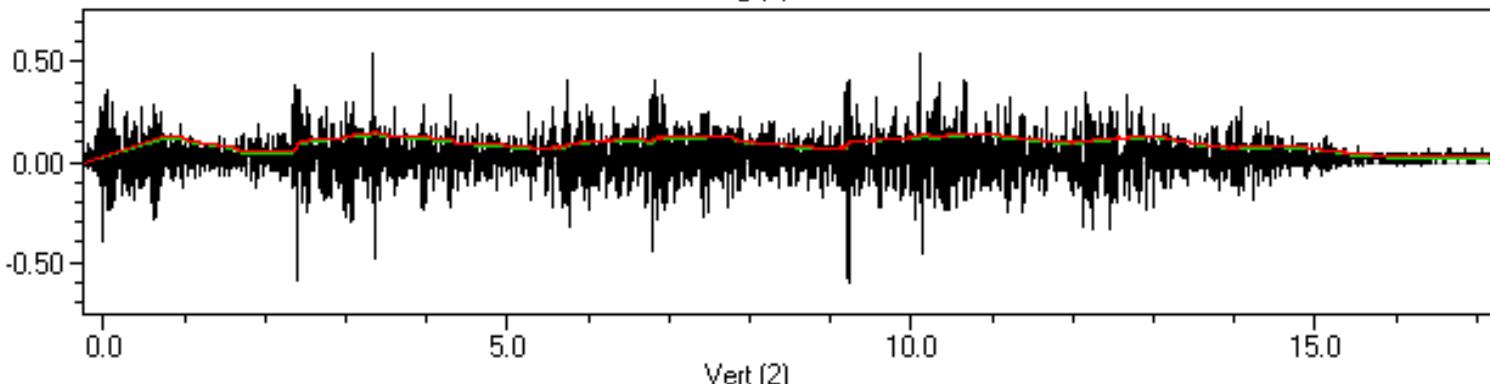
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.762 | 0.683 | 0.603 | mm/s |
| ZC Freq | 20 | 37 | 28 | Hz |
| Time of Peak | 12.274 | 12.095 | 9.223 | Sec |
| Peak Acceleration | 0.0133 | 0.0166 | 0.0116 | g |
| Peak Displacement | 0.00566 | 0.00324 | 0.00355 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,17 | 0,16 | 0,15 | 0,26 |
| RMS (1s) | 0,18 | 0,17 | 0,15 | 0,28 |

Long (1)





Event Date: January 4, 2007

Event Time: 17:30:16

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

File Name: M156BHIJ.AG0

Trigger: Long

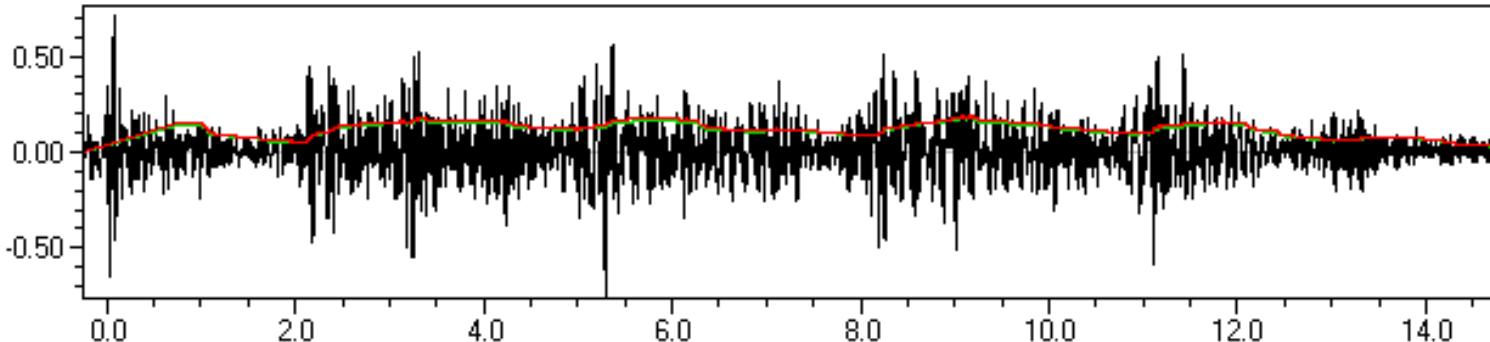
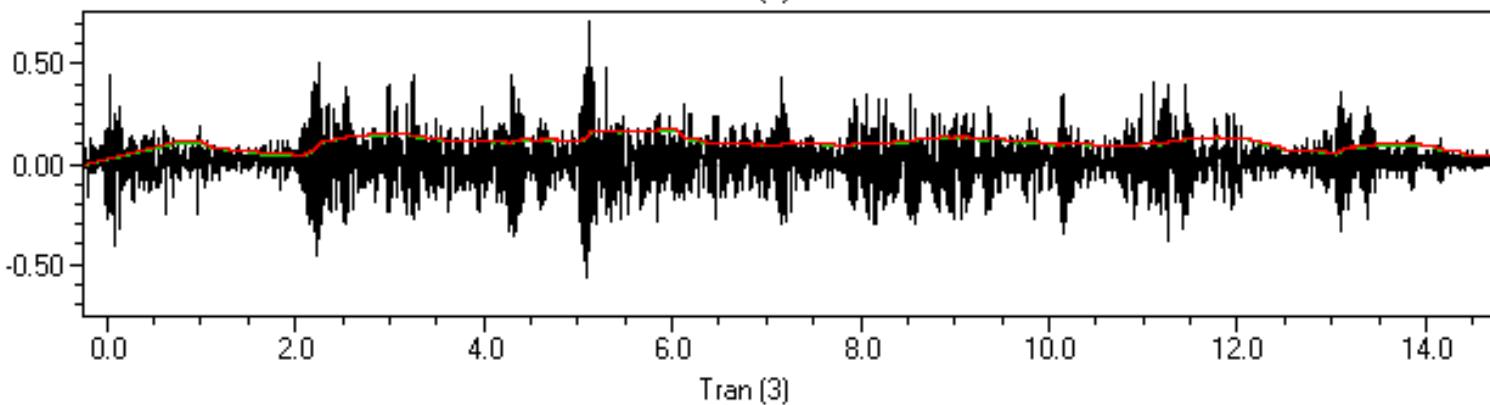
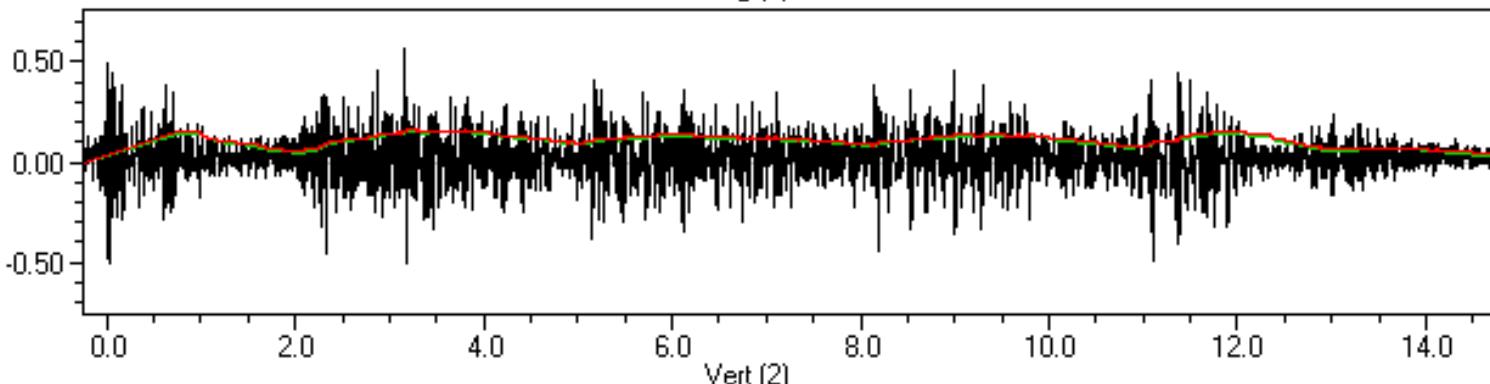
Record Time: 14.75 sec

Sample Rate: 1024 sps

Calibration: April 25, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.762 | 0.714 | 0.571 | mm/s |
| ZC Freq | 22 | 37 | 28 | Hz |
| Time of Peak | 5.290 | 5.112 | 3.164 | Sec |
| Peak Acceleration | 0.0133 | 0.0166 | 0.0133 | g |
| Peak Displacement | 0.00606 | 0.00305 | 0.00320 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,17 | 0,17 | 0,16 | 0,27 |
| RMS (1s) | 0,19 | 0,17 | 0,16 | 0,29 |

Long (1)





Event Date: January 5, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 08:10:18

File Name: M156BHJO.160

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 15.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

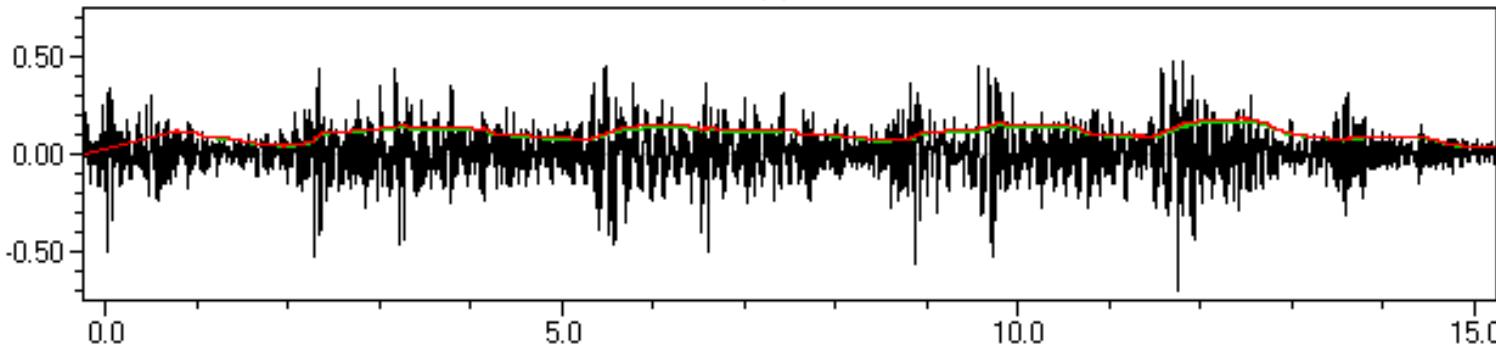
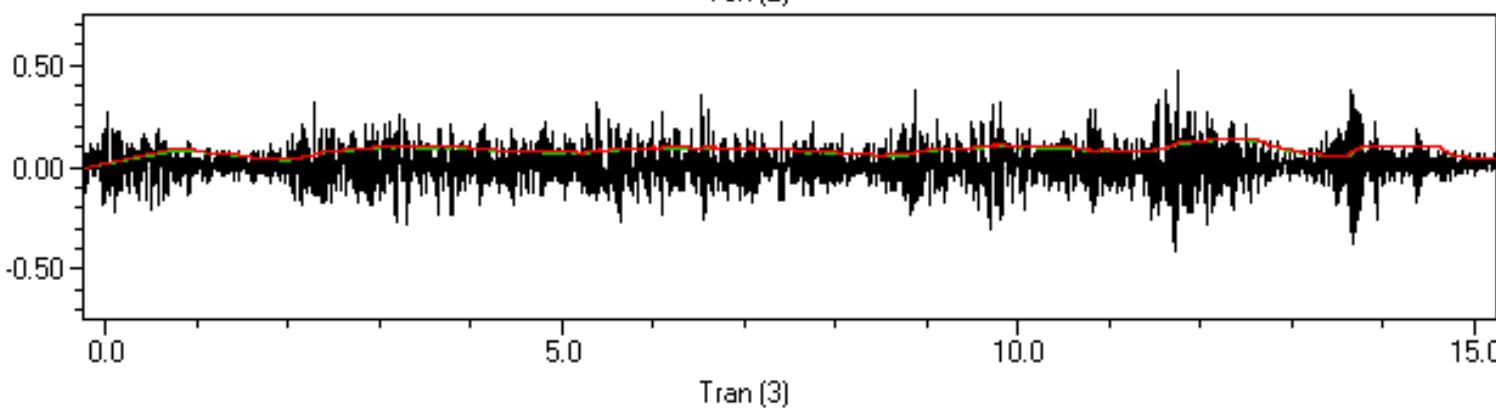
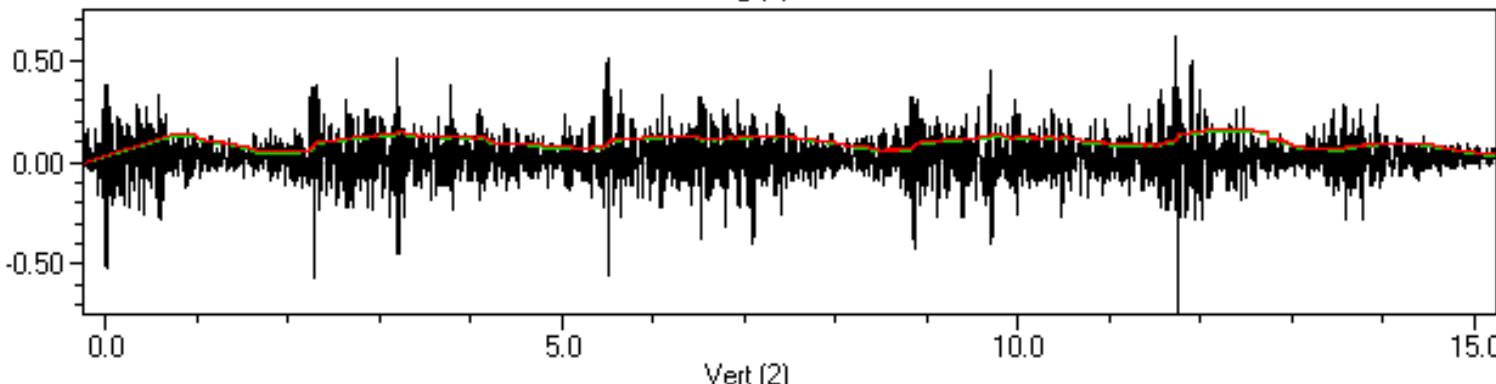
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.698 | 0.476 | 0.746 | mm/s |
| ZC Freq | 23 | 27 | 32 | Hz |
| Time of Peak | 11.755 | 11.751 | 11.748 | Sec |
| Peak Acceleration | 0.0116 | 0.0116 | 0.0166 | g |
| Peak Displacement | 0.00589 | 0.00270 | 0.00453 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,17 | 0,14 | 0,15 | 0,26 |
| RMS (1s) | 0,18 | 0,14 | 0,16 | 0,28 |

Long (1)





Event Date: January 5, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 18:30:27

File Name: M156BHKG.QR0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 13.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

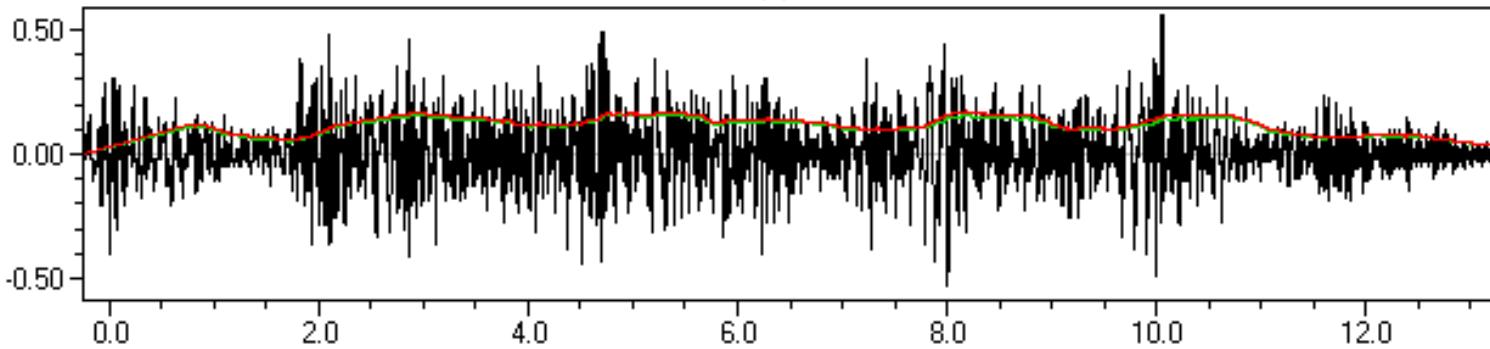
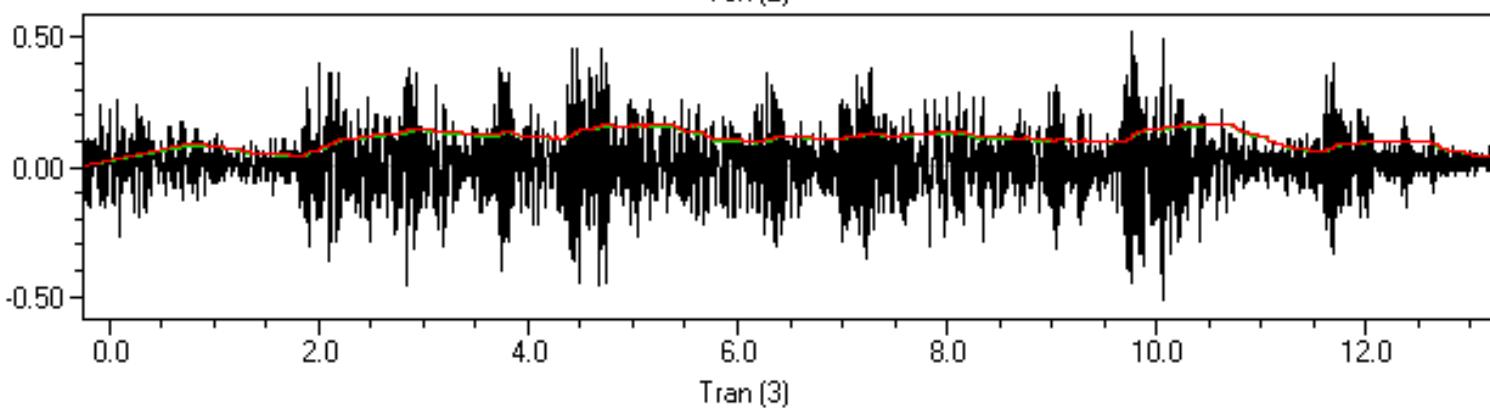
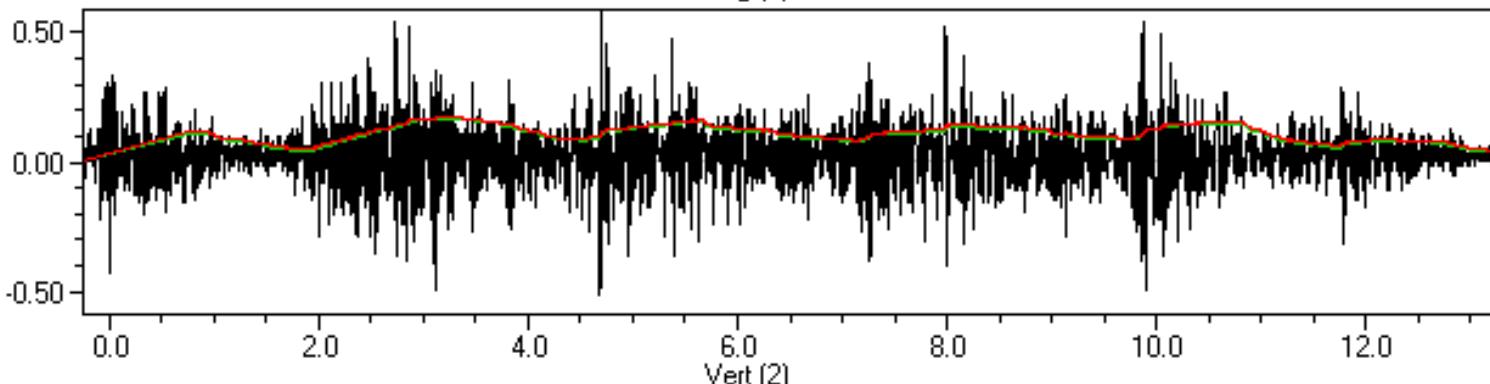
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.556 | 0.524 | 0.587 | mm/s |
| ZC Freq | 30 | 34 | 30 | Hz |
| Time of Peak | 10.054 | 9.771 | 4.701 | Sec |
| Peak Acceleration | 0.0133 | 0.0116 | 0.0133 | g |
| Peak Displacement | 0.00658 | 0.00311 | 0.00415 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,16 | 0,16 | 0,17 | 0,27 |
| RMS (1s) | 0,17 | 0,17 | 0,17 | 0,28 |

Long (1)





Event Date: January 5, 2007

Event Time: 19:30:20

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

File Name: M156BHKJ.IK0

Trigger: Long

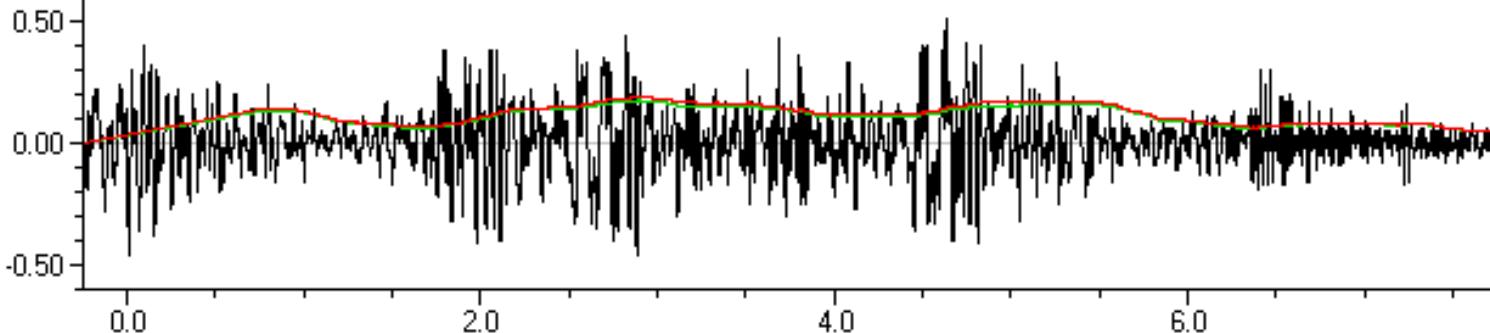
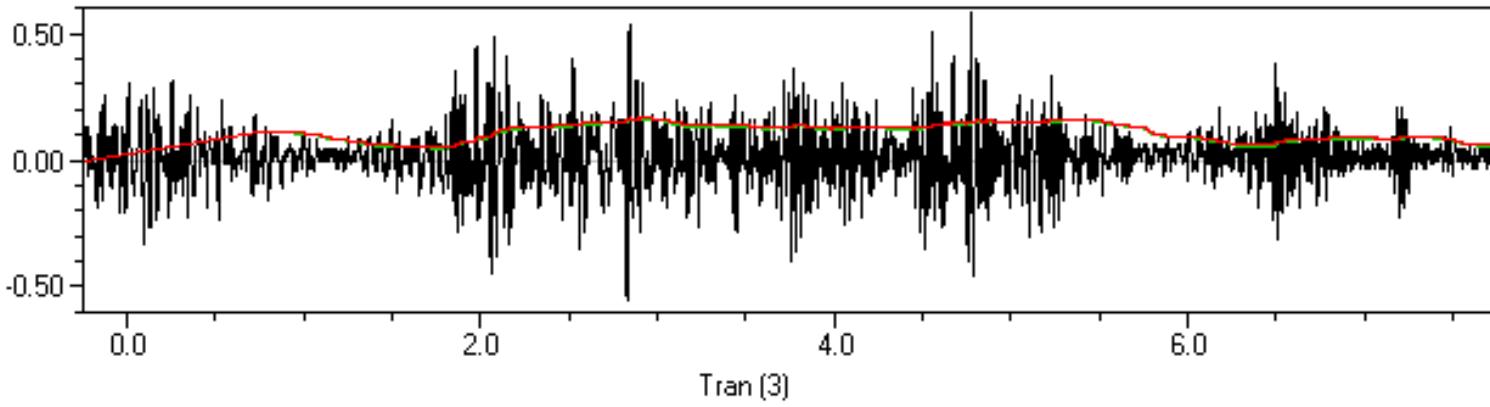
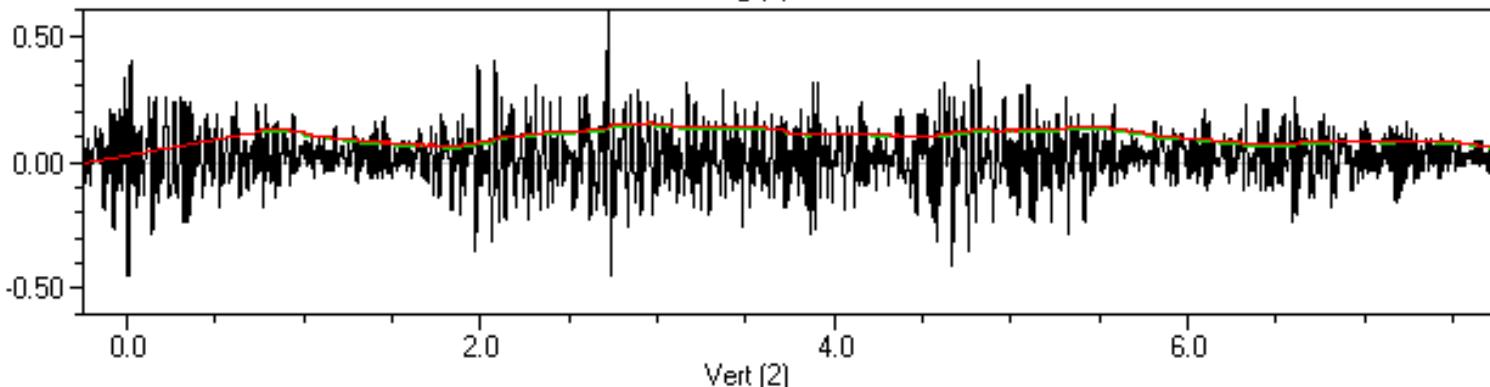
Record Time: 7.75 sec

Sample Rate: 1024 sps

Calibration: April 25, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.508 | 0.587 | 0.603 | mm/s |
| ZC Freq | 8.4 | 32 | 26 | Hz |
| Time of Peak | 4.633 | 4.772 | 2.721 | Sec |
| Peak Acceleration | 0.0116 | 0.0149 | 0.0116 | g |
| Peak Displacement | 0.00712 | 0.00299 | 0.00367 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,18 | 0,16 | 0,15 | 0,28 |
| RMS (1s) | 0,19 | 0,17 | 0,16 | 0,30 |

Long (1)





Event Date: January 5, 2007

Event Time: 20:30:22

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

File Name: M156BHKM.AM0

Trigger: Long

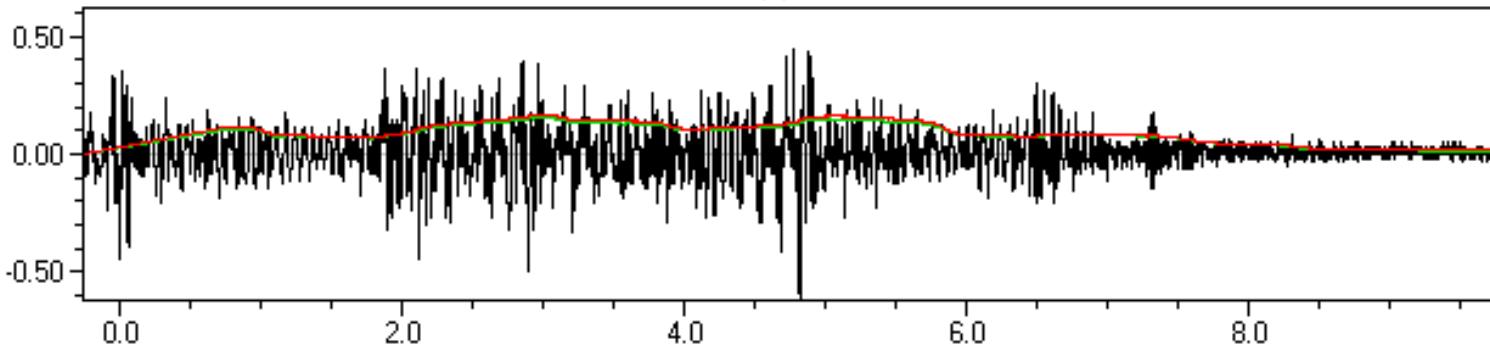
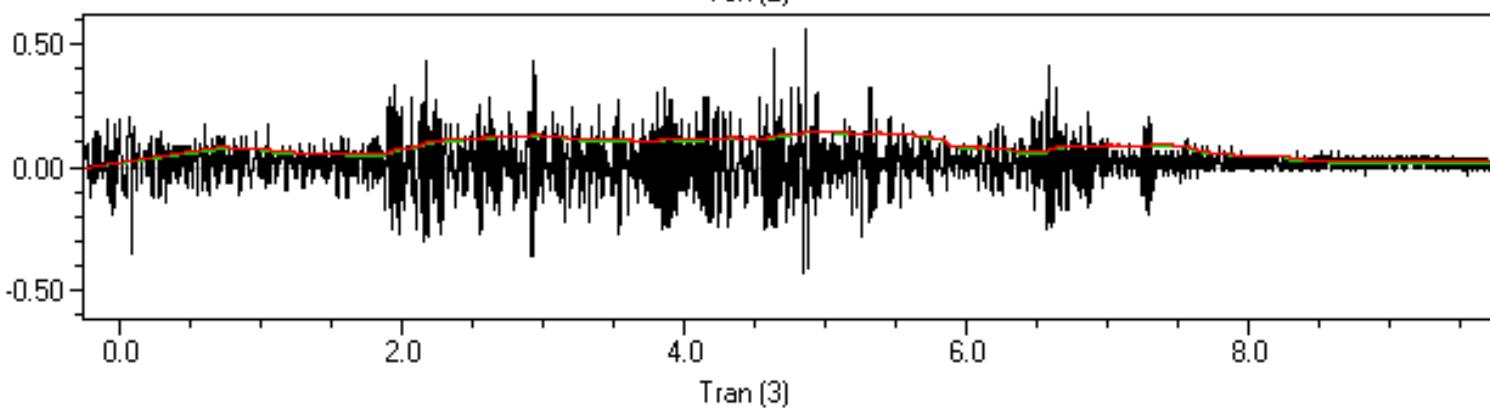
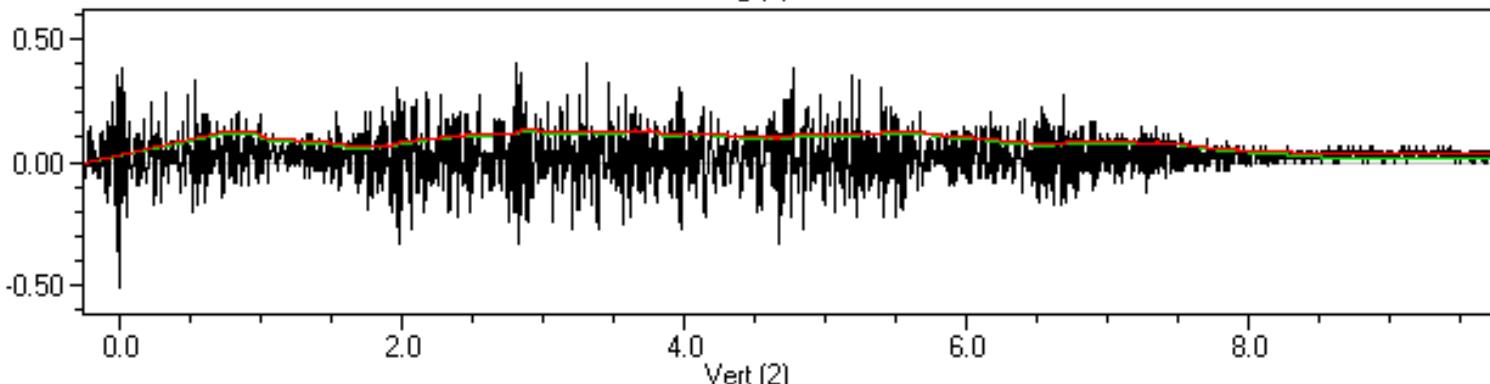
Record Time: 9.75 sec

Sample Rate: 1024 sps

Calibration: April 25, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.619 | 0.556 | 0.508 | mm/s |
| ZC Freq | 21 | 34 | 28 | Hz |
| Time of Peak | 4.819 | 4.863 | 0.002 | Sec |
| Peak Acceleration | 0.00994 | 0.0133 | 0.0116 | g |
| Peak Displacement | 0.00430 | 0.00288 | 0.00290 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,15 | 0,14 | 0,13 | 0,23 |
| RMS (1s) | 0,17 | 0,15 | 0,13 | 0,25 |

Long (1)





Event Date: January 7, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 12:30:25

File Name: M156BHPN.EP0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 9.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

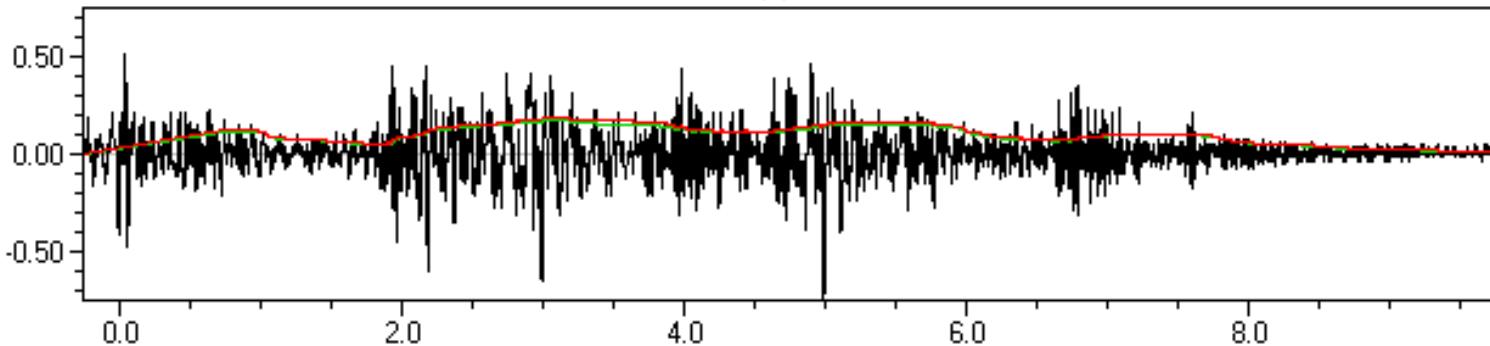
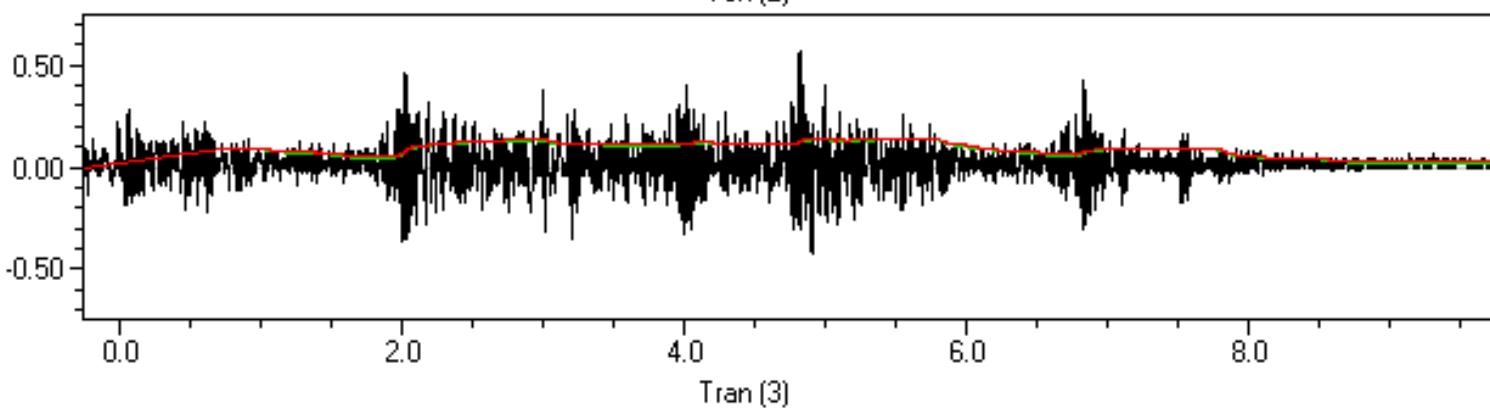
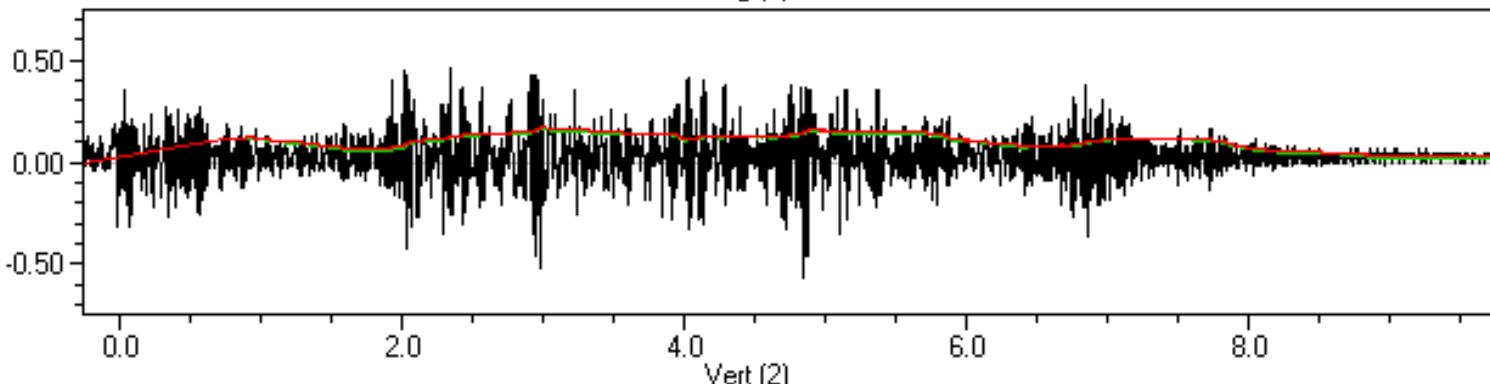
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.746 | 0.571 | 0.571 | mm/s |
| ZC Freq | 17 | 37 | 34 | Hz |
| Time of Peak | 4.988 | 4.818 | 4.845 | Sec |
| Peak Acceleration | 0.0133 | 0.0133 | 0.0133 | g |
| Peak Displacement | 0.00657 | 0.00262 | 0.00360 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,18 | 0,14 | 0,16 | 0,27 |
| RMS (1s) | 0,19 | 0,14 | 0,17 | 0,28 |

Long (1)





Event Date: January 7, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 16:30:22

File Name: M156BHO0.IM0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 8.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

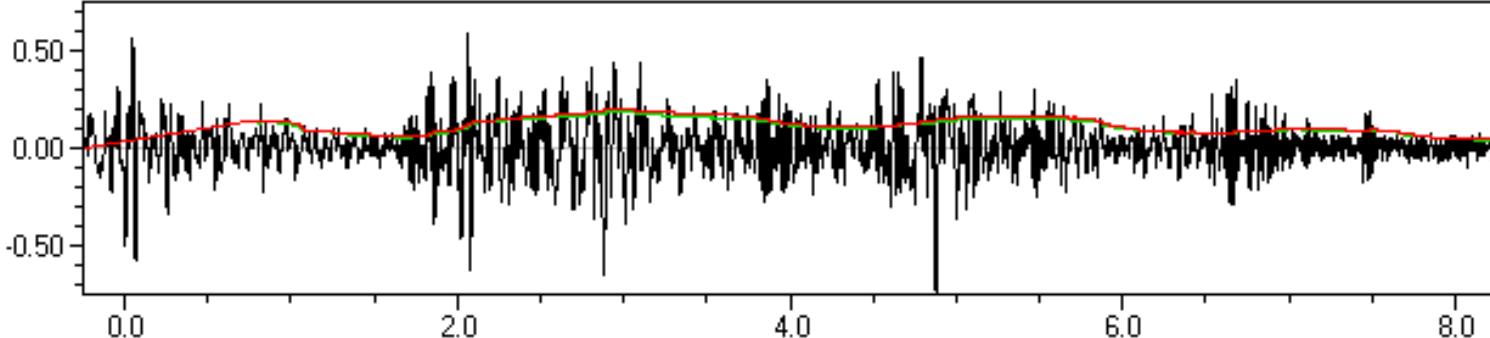
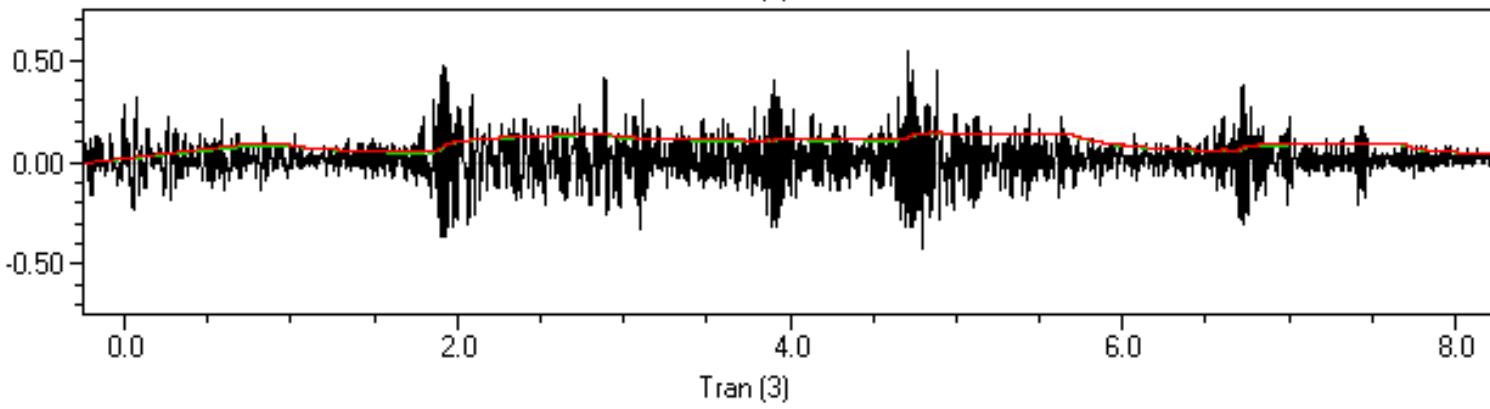
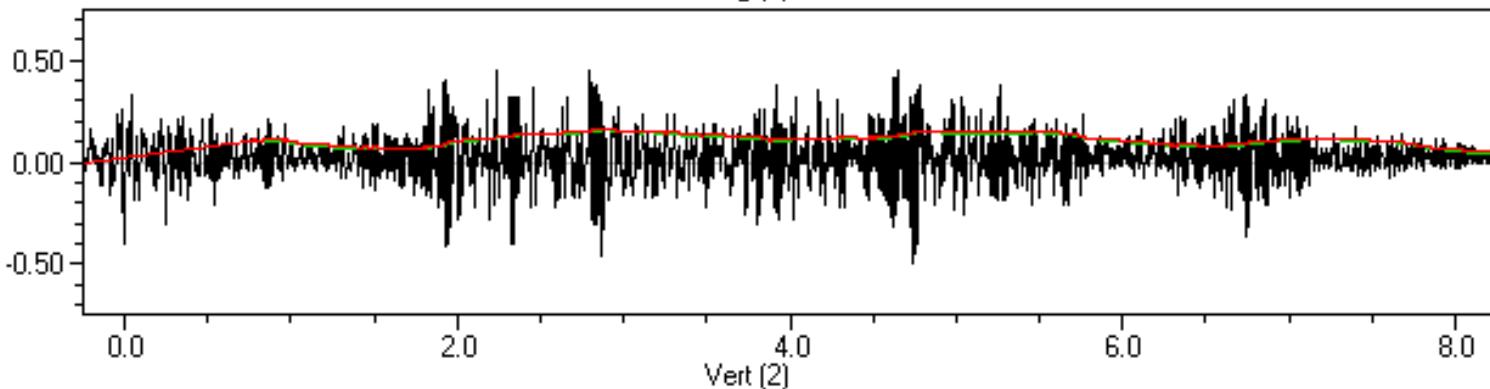
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.746 | 0.540 | 0.492 | mm/s |
| ZC Freq | 18 | 34 | 32 | Hz |
| Time of Peak | 4.877 | 4.707 | 4.734 | Sec |
| Peak Acceleration | 0.0182 | 0.0133 | 0.0133 | g |
| Peak Displacement | 0.00575 | 0.00283 | 0.00373 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,19 | 0,14 | 0,16 | 0,27 |
| RMS (1s) | 0,20 | 0,15 | 0,16 | 0,29 |

Long (1)





Event Date: January 8, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 09:30:40

File Name: M156BHPB.R40

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 8.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

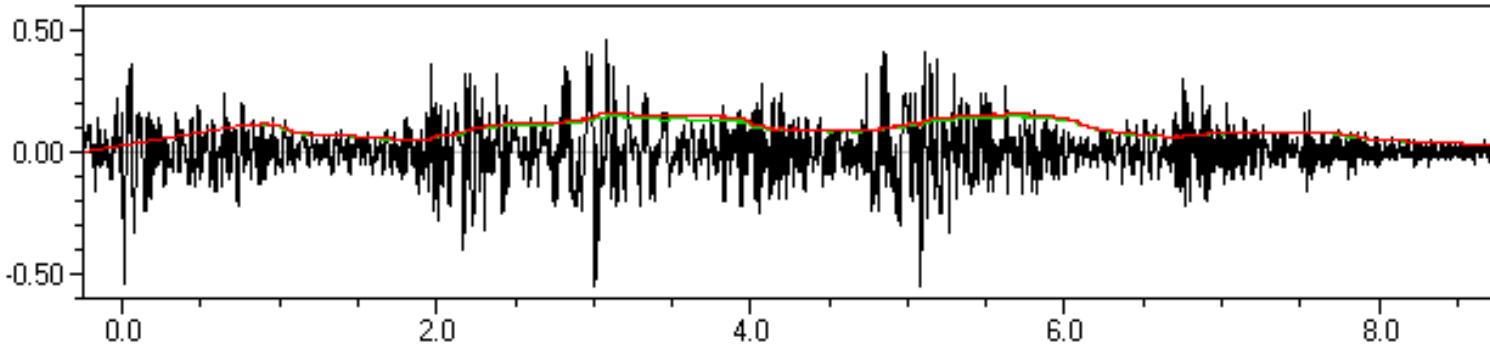
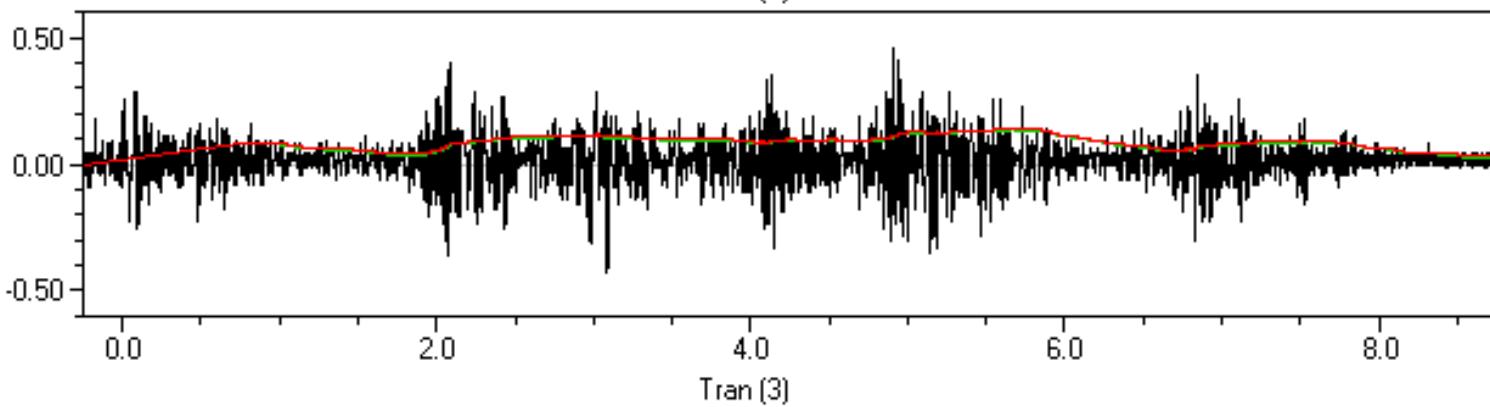
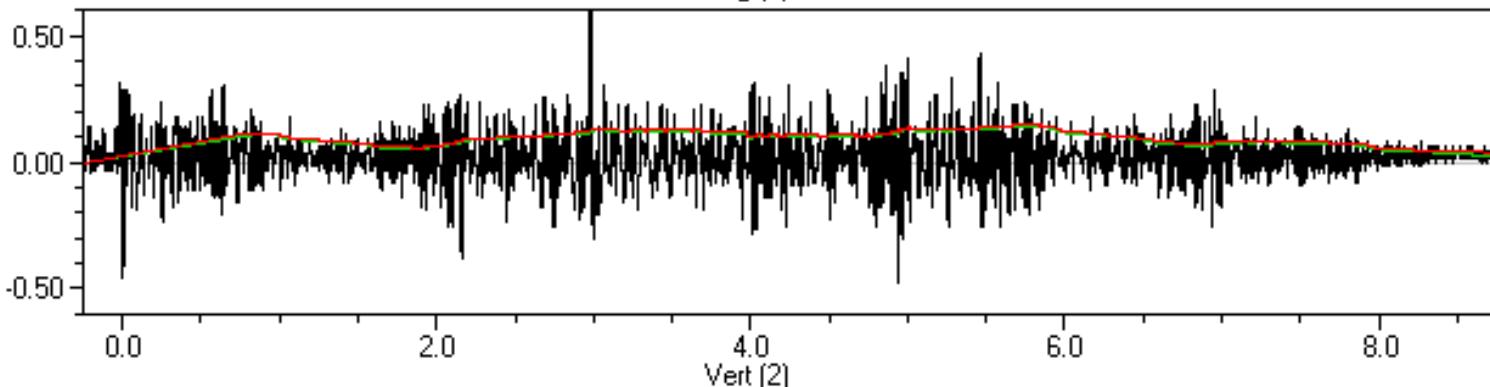
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.556 | 0.460 | 0.603 | mm/s |
| ZC Freq | 21 | 34 | 23 | Hz |
| Time of Peak | 3.007 | 4.909 | 2.978 | Sec |
| Peak Acceleration | 0.0116 | 0.0116 | 0.0116 | g |
| Peak Displacement | 0.00711 | 0.00246 | 0.00374 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,15 | 0,14 | 0,14 | 0,24 |
| RMS (1s) | 0,17 | 0,14 | 0,15 | 0,26 |

Long (1)





Event Date: January 8, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 22:30:38

File Name: M156BHQB.V20

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 8.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

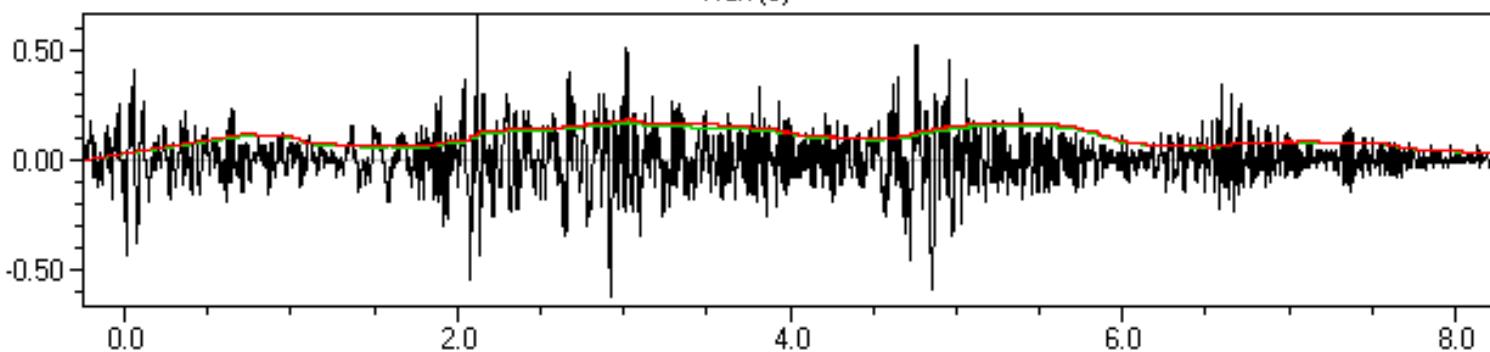
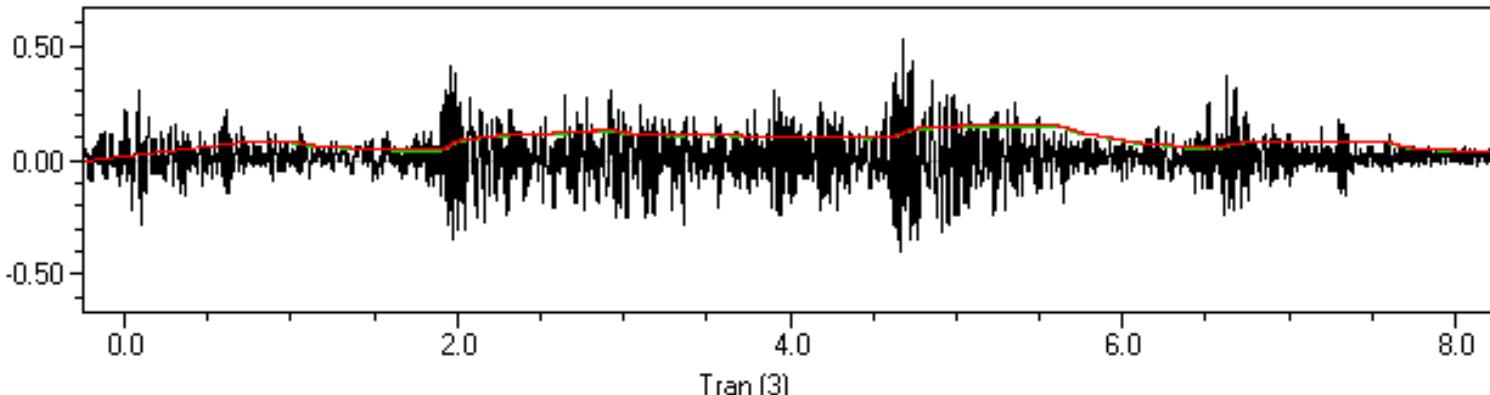
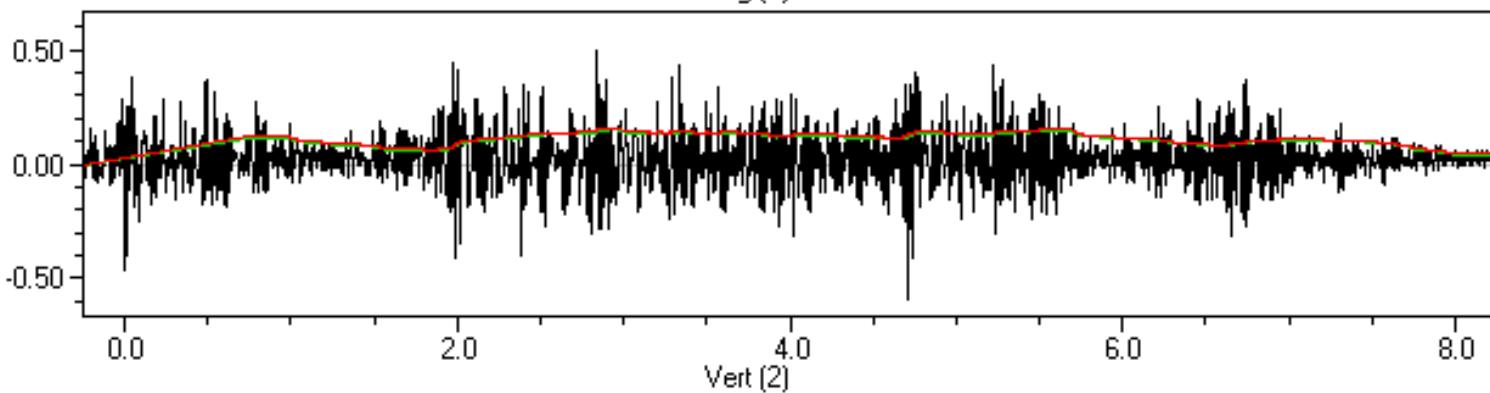
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.667 | 0.524 | 0.587 | mm/s |
| ZC Freq | 27 | 34 | 37 | Hz |
| Time of Peak | 2.118 | 4.682 | 4.712 | Sec |
| Peak Acceleration | 0.0133 | 0.0149 | 0.0133 | g |
| Peak Displacement | 0.00566 | 0.00241 | 0.00293 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,17 | 0,15 | 0,15 | 0,26 |
| RMS (1s) | 0,19 | 0,15 | 0,16 | 0,27 |

Long (1)





Event Date: January 9, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 08:10:18

File Name: M156BHR2.P60

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 14.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

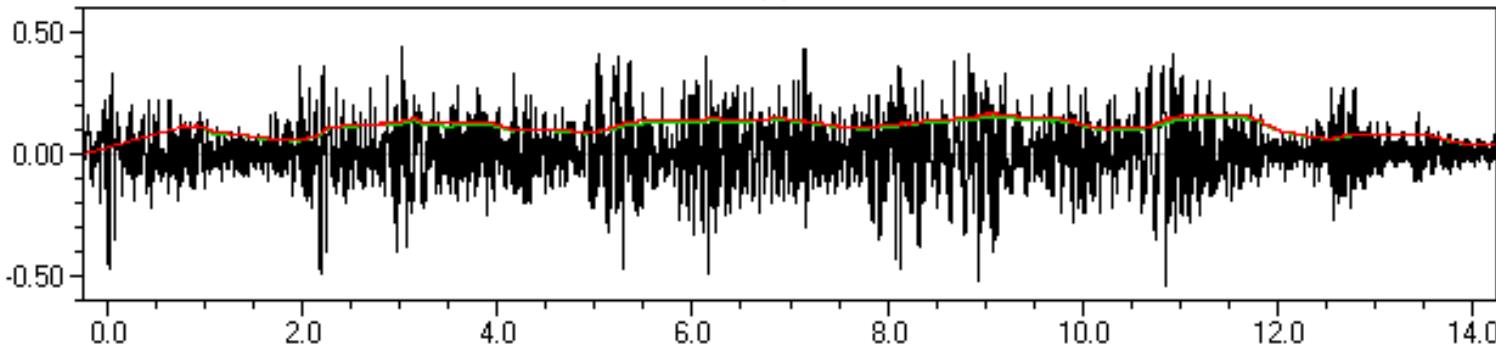
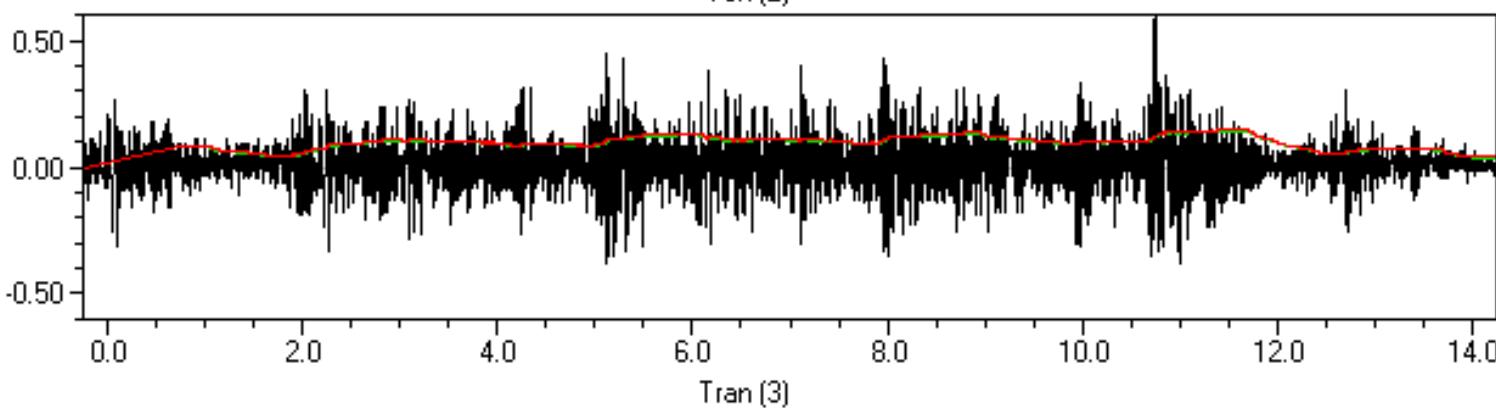
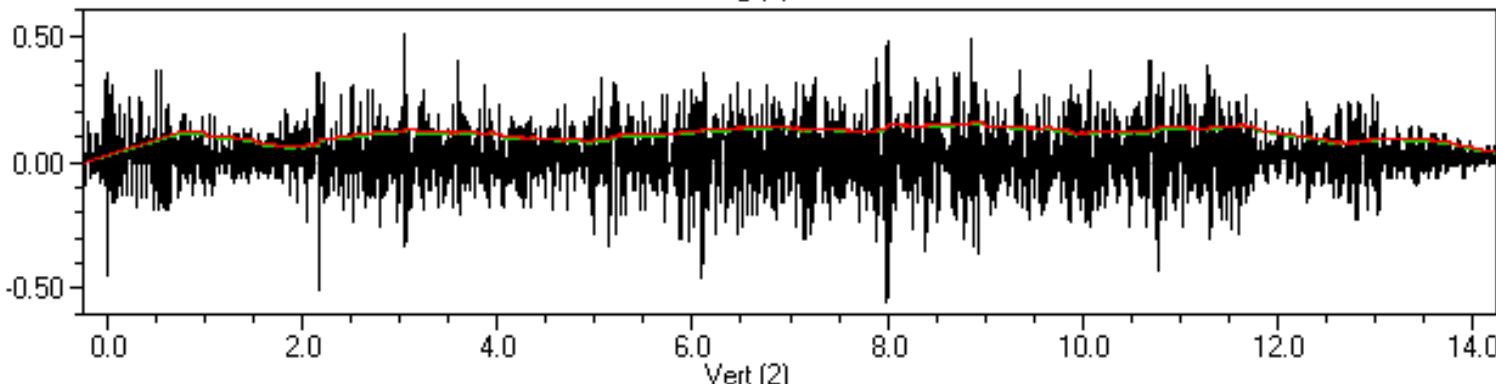
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.540 | 0.603 | 0.556 | mm/s |
| ZC Freq | 18 | 32 | 39 | Hz |
| Time of Peak | 10.857 | 10.743 | 7.996 | Sec |
| Peak Acceleration | 0.0116 | 0.0133 | 0.0149 | g |
| Peak Displacement | 0.00626 | 0.00274 | 0.00353 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,16 | 0,15 | 0,16 | 0,25 |
| RMS (1s) | 0,17 | 0,15 | 0,16 | 0,27 |

Long (1)





Event Date: January 9, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 09:30:43

File Name: M156BHR6.F70

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 7.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

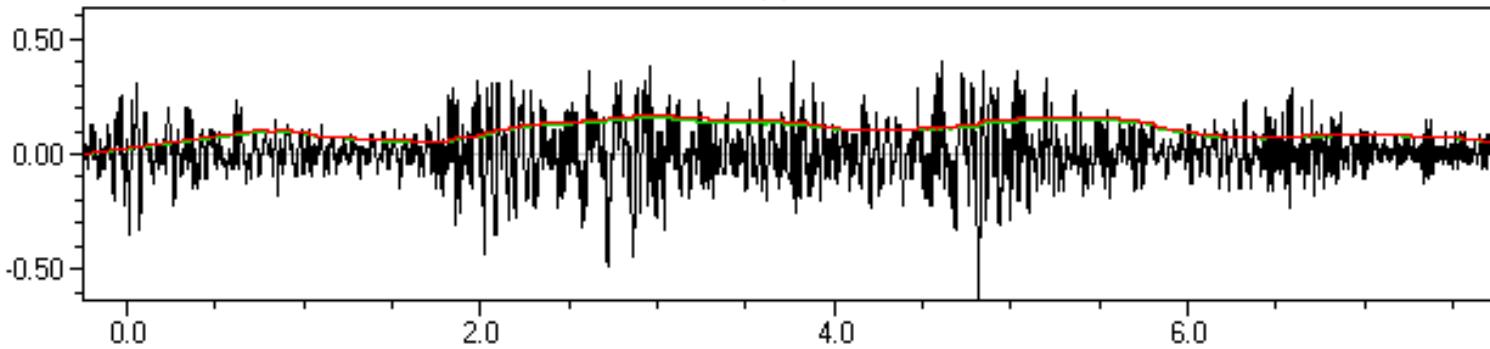
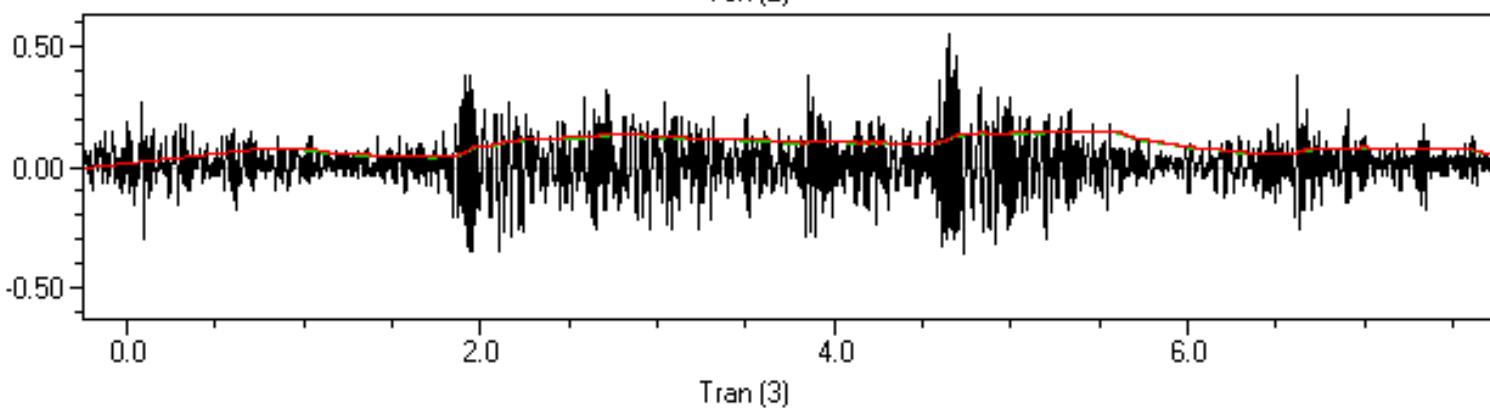
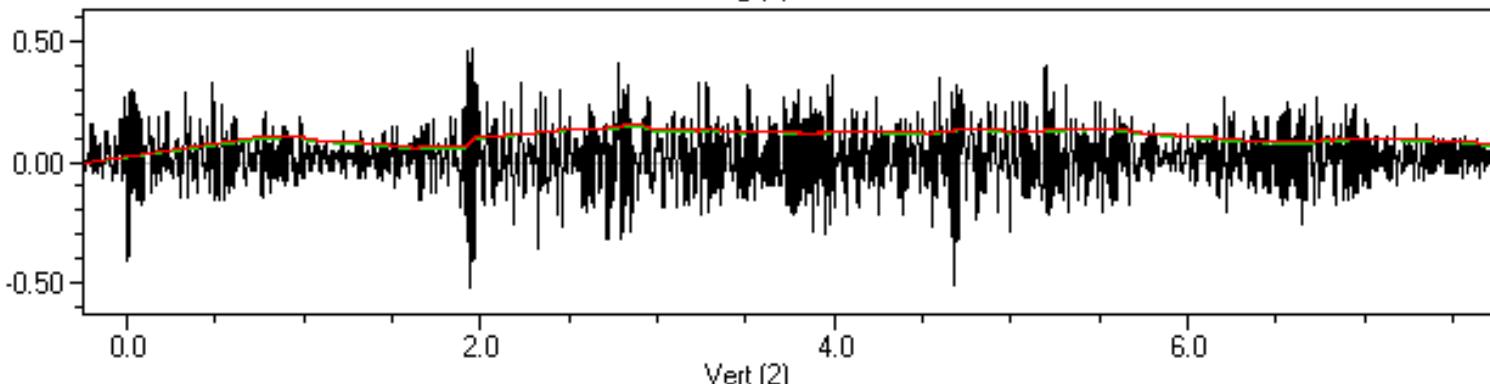
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.635 | 0.556 | 0.524 | mm/s |
| ZC Freq | 19 | 34 | 39 | Hz |
| Time of Peak | 4.814 | 4.646 | 1.935 | Sec |
| Peak Acceleration | 0.0116 | 0.0133 | 0.0149 | g |
| Peak Displacement | 0.00479 | 0.00270 | 0.00299 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,16 | 0,15 | 0,15 | 0,26 |
| RMS (1s) | 0,17 | 0,15 | 0,16 | 0,27 |

Long (1)





Event Date: January 9, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 13:30:10

File Name: M156BHRH.IA0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 7.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

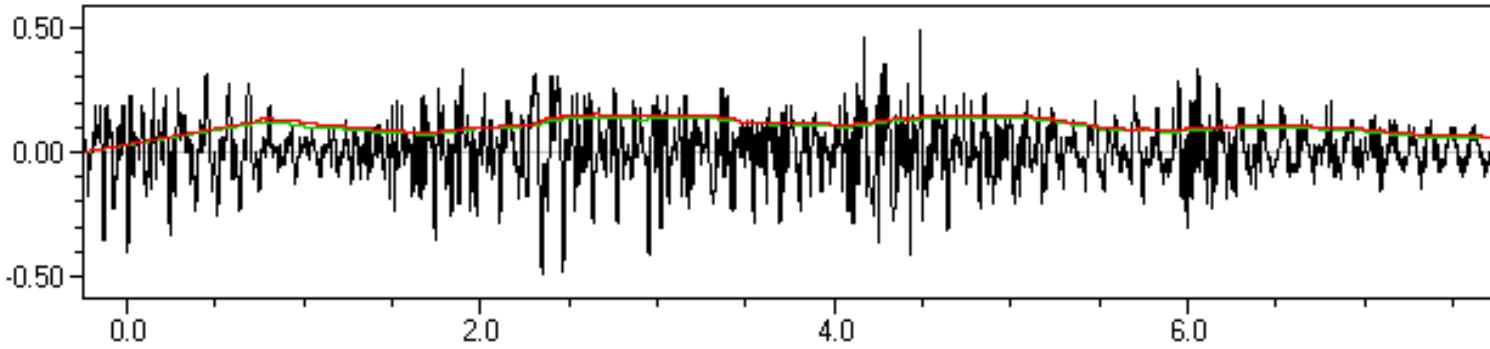
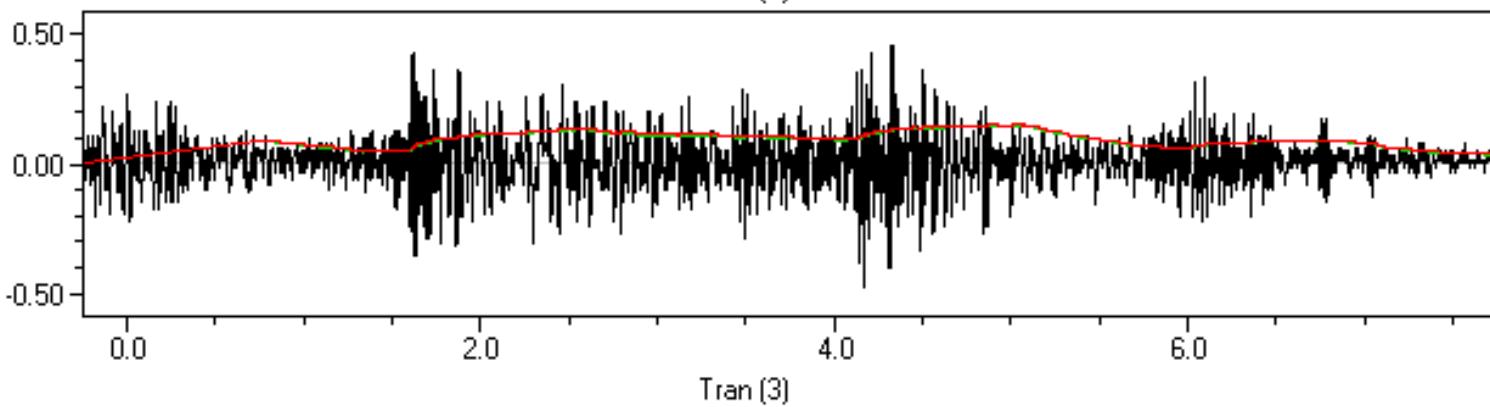
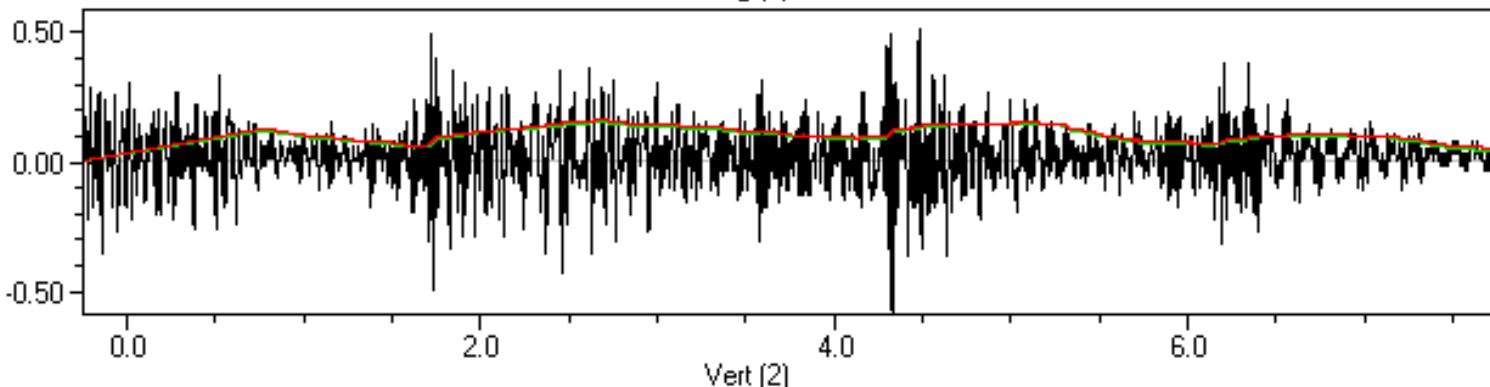
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.492 | 0.476 | 0.587 | mm/s |
| ZC Freq | 8.4 | 32 | 34 | Hz |
| Time of Peak | 2.347 | 4.166 | 4.328 | Sec |
| Peak Acceleration | 0.0116 | 0.0149 | 0.0149 | g |
| Peak Displacement | 0.00612 | 0.00340 | 0.00330 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,14 | 0,15 | 0,15 | 0,25 |
| RMS (1s) | 0,15 | 0,15 | 0,16 | 0,26 |

Long (1)





Event Date: December 30, 2006

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 14:33:28

File Name: M173BH91.RS0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

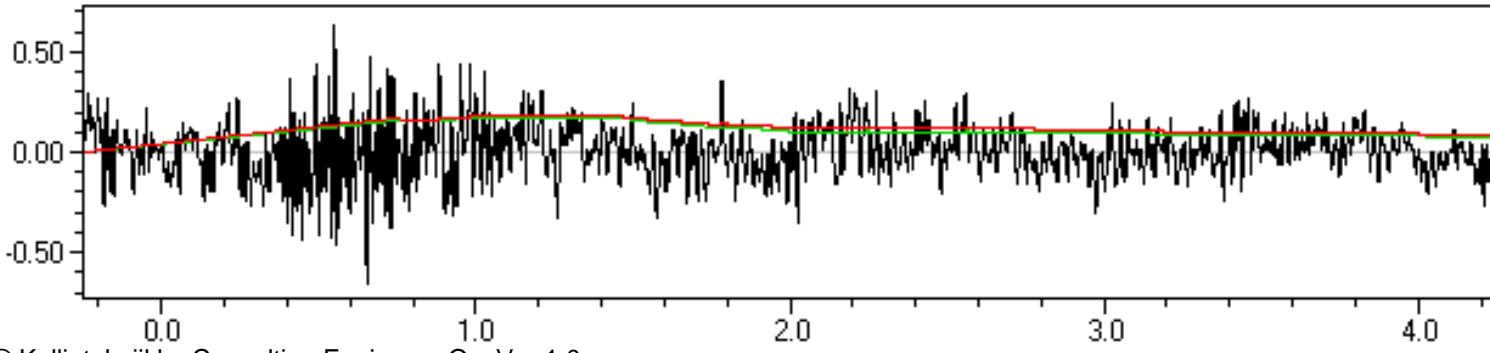
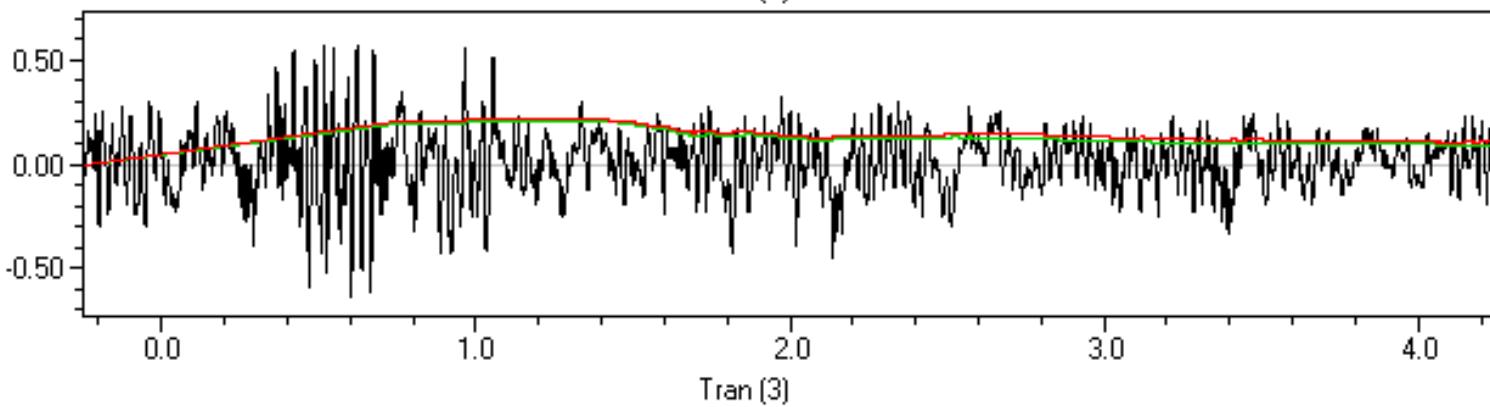
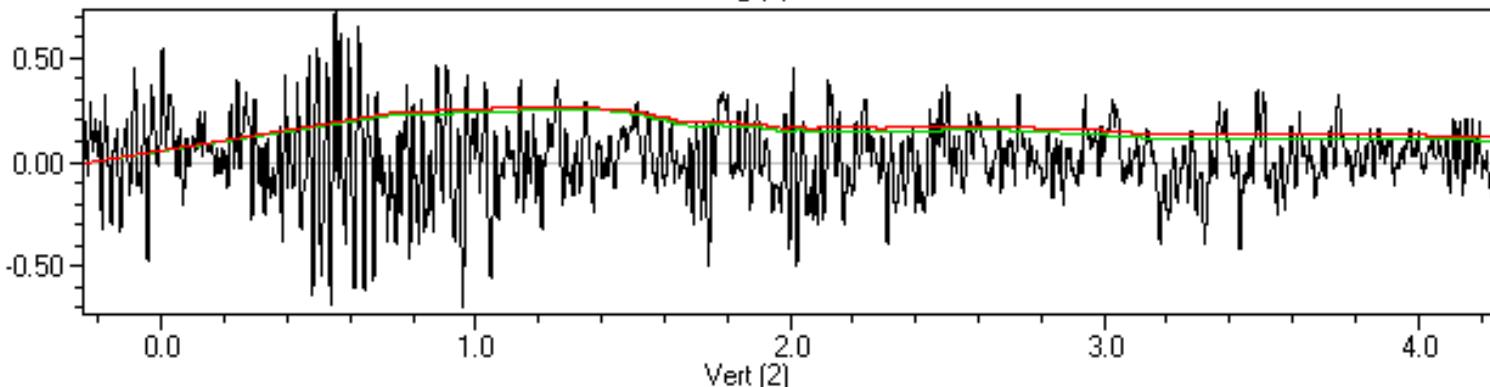
Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.651 | 0.635 | 0.730 | mm/s |
| ZC Freq | 47 | 37 | 37 | Hz |
| Time of Peak | 0.653 | 0.604 | 0.551 | Sec |
| Peak Acceleration | 0.0232 | 0.0232 | 0.0199 | g |
| Peak Displacement | 0.00437 | 0.00537 | 0.00638 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,18 | 0,21 | 0,25 | 0,37 |
| RMS (1s) | 0,19 | 0,22 | 0,26 | 0,39 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 20:45:04

File Name: M173BHBD.N40

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

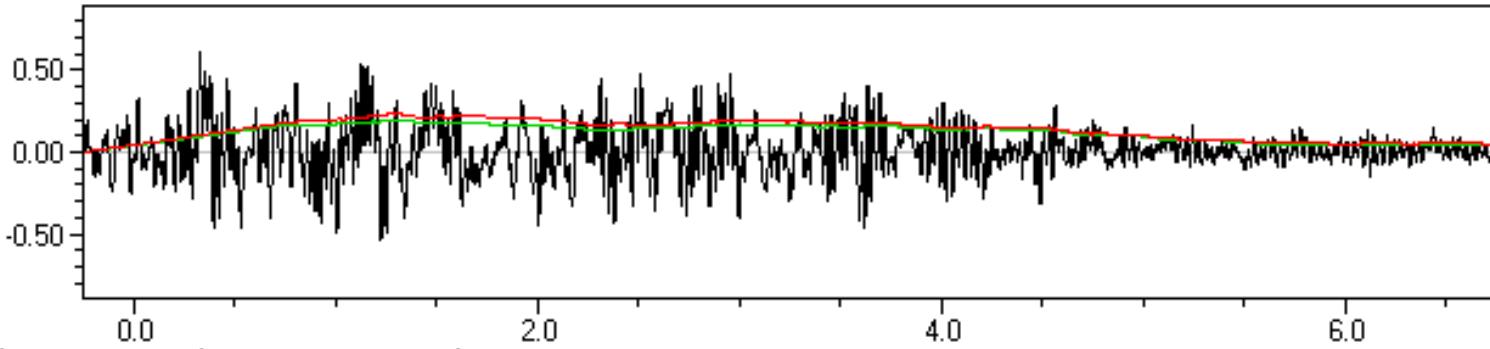
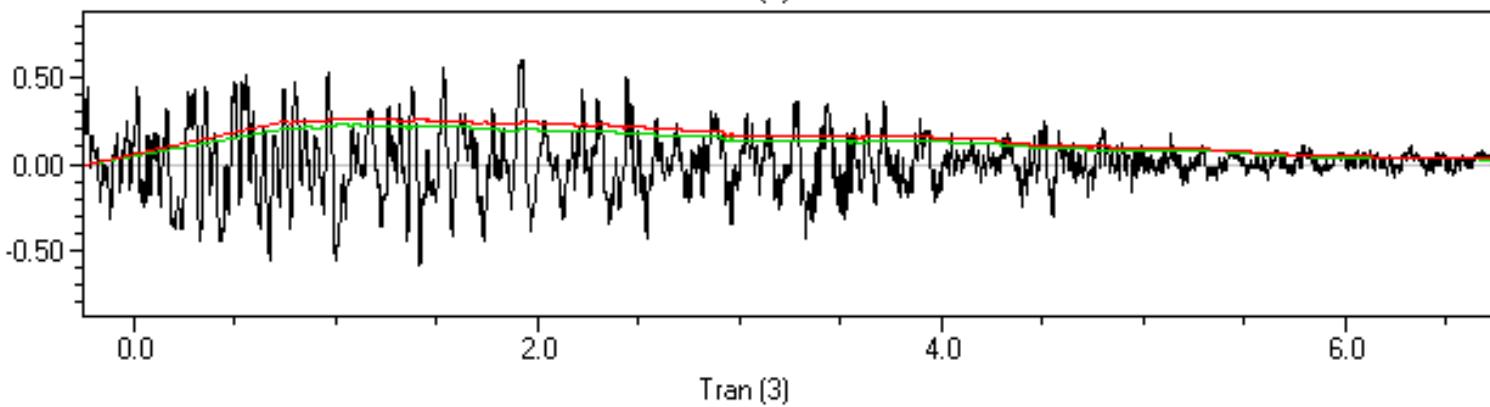
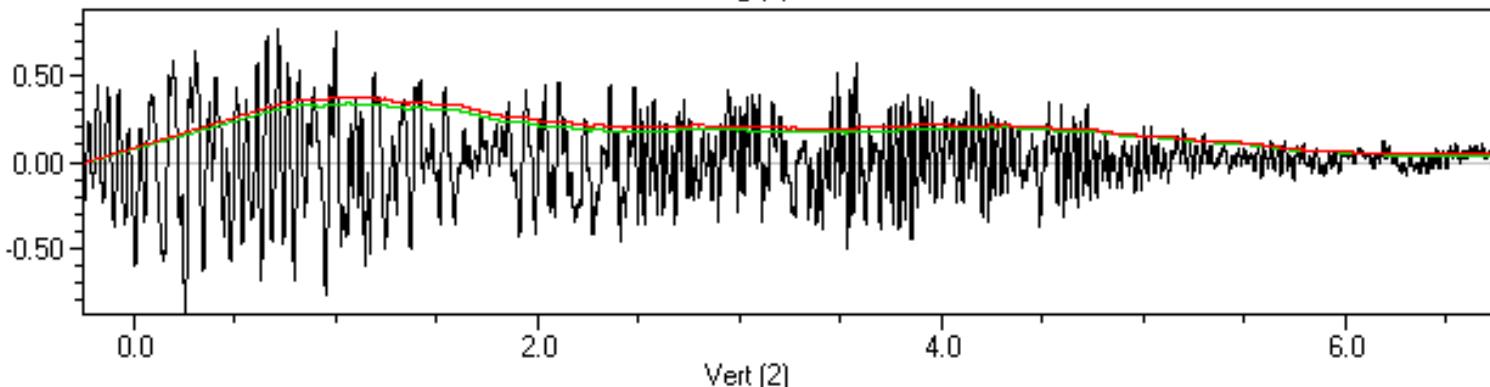
Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.603 | 0.603 | 0.889 | mm/s |
| ZC Freq | 7.0 | 8.7 | 10 | Hz |
| Time of Peak | 0.327 | 1.920 | 0.255 | Sec |
| Peak Acceleration | 0.0116 | 0.00994 | 0.0133 | g |
| Peak Displacement | 0.0115 | 0.0119 | 0.0125 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,19 | 0,23 | 0,34 | 0,45 |
| RMS (1s) | 0,23 | 0,27 | 0,38 | 0,51 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 22:45:23

File Name: M173BHBJ.7N0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 7.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

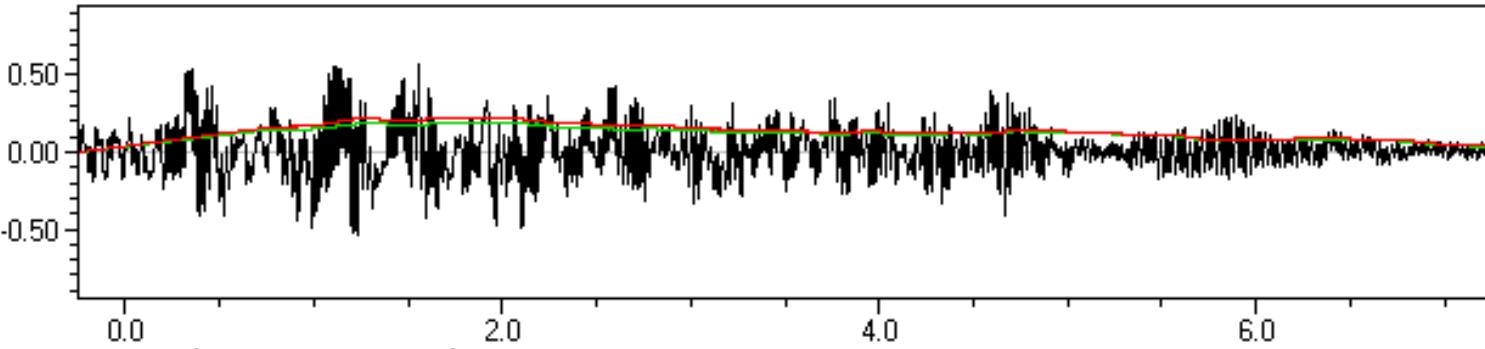
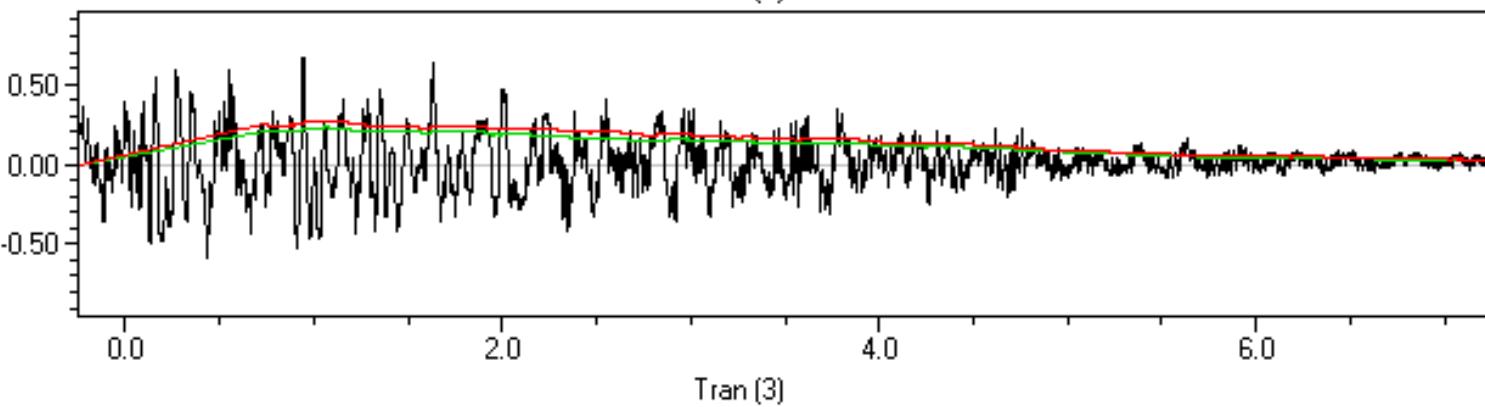
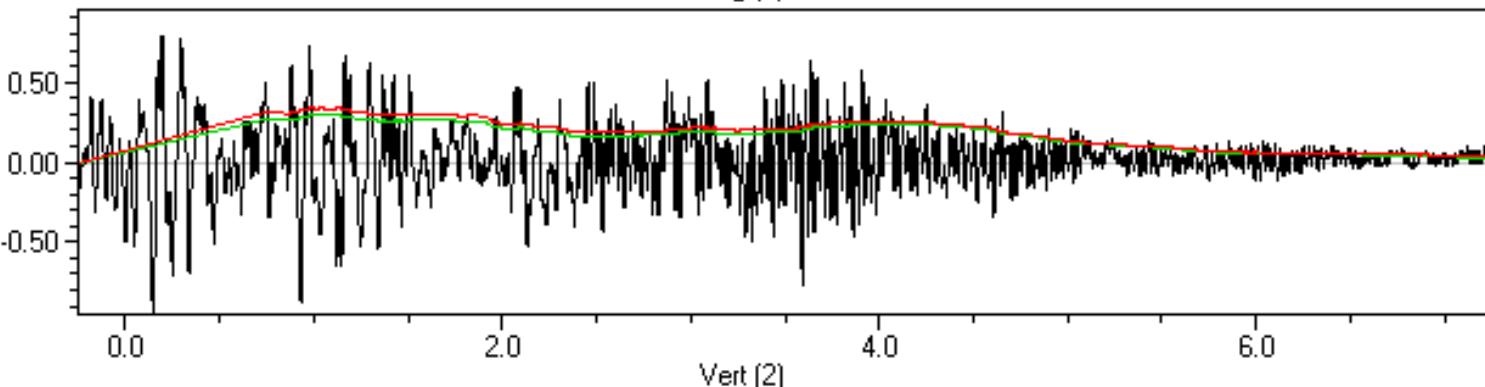
Sample Rate: 1024 sps

Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.571 | 0.667 | 0.952 | mm/s |
| ZC Freq | 23 | 15 | 12 | Hz |
| Time of Peak | 1.556 | 0.942 | 0.146 | Sec |
| Peak Acceleration | 0.0116 | 0.00994 | 0.0149 | g |
| Peak Displacement | 0.00819 | 0.0134 | 0.0115 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,19 | 0,23 | 0,30 | 0,41 |
| RMS (1s) | 0,23 | 0,27 | 0,34 | 0,47 |
| Long (1) | | | | |





Event Date: January 1, 2007

Event Time: 02:32:42

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHBT.QI0

Trigger: Long

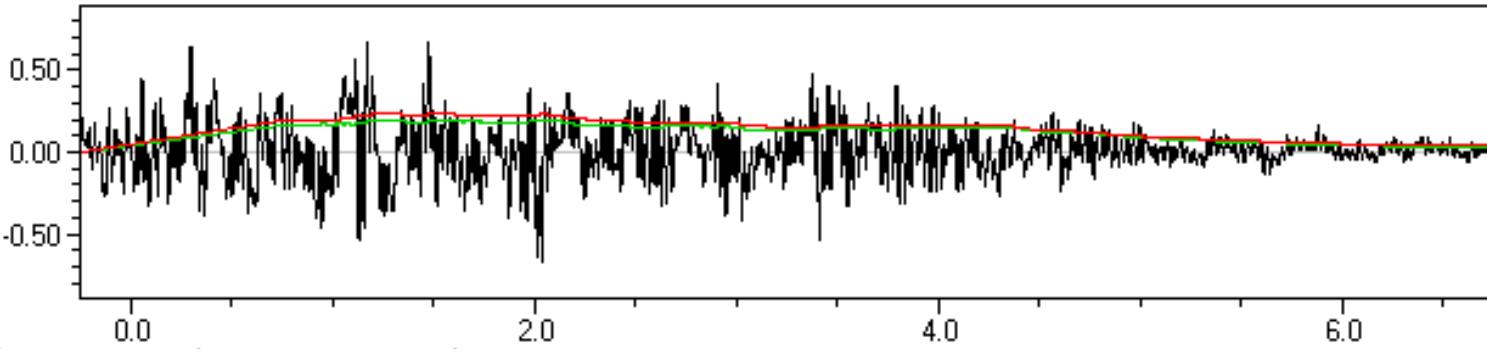
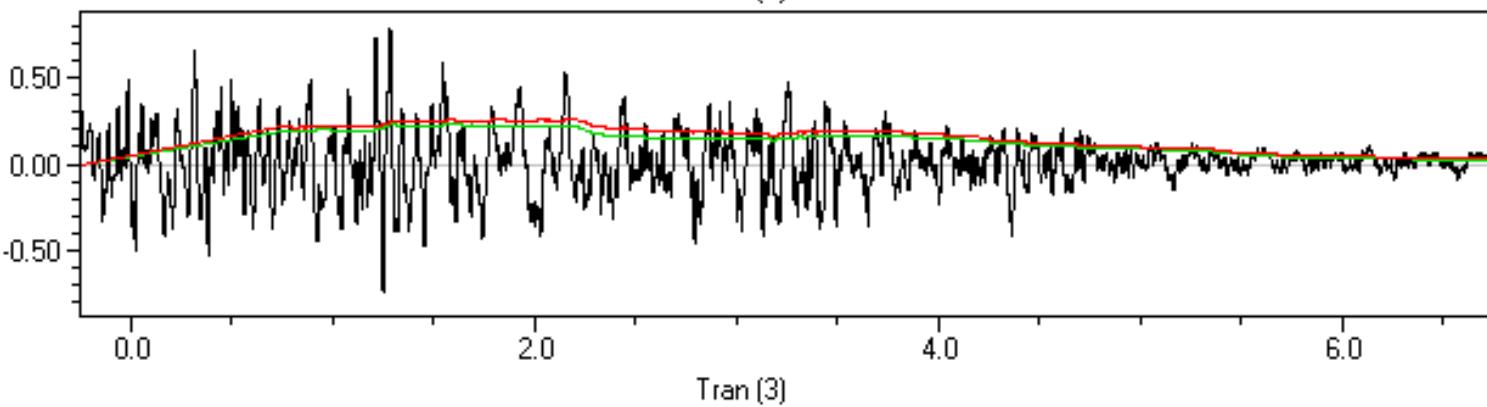
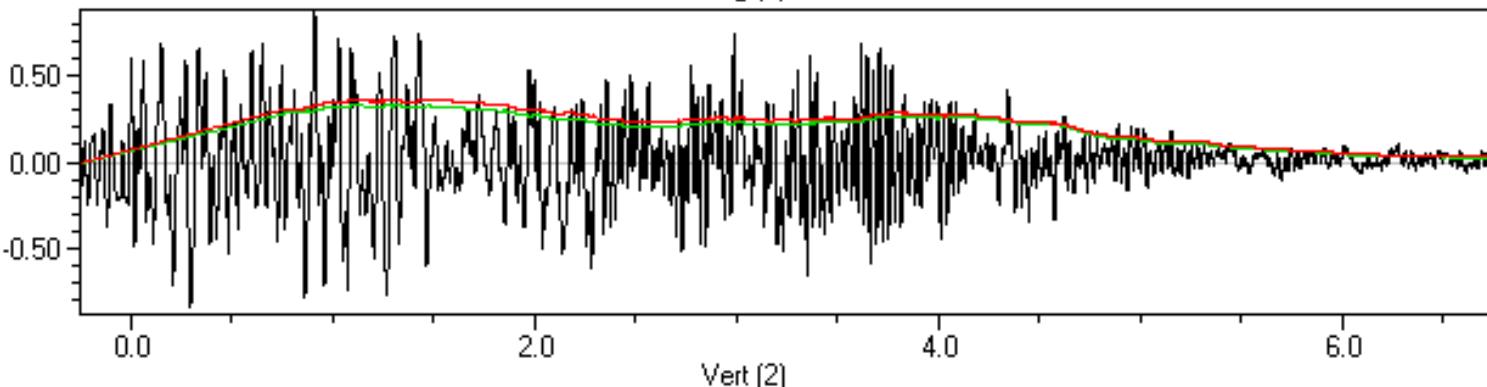
Record Time: 6.75 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.667 | 0.794 | 0.889 | mm/s |
| ZC Freq | 26 | 14 | 11 | Hz |
| Time of Peak | 1.169 | 1.283 | 0.909 | Sec |
| Peak Acceleration | 0.0133 | 0.0116 | 0.0149 | g |
| Peak Displacement | 0.0148 | 0.0105 | 0.00985 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,20 | 0,23 | 0,33 | 0,45 |
| RMS (1s) | 0,24 | 0,26 | 0,36 | 0,50 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 04:57:38

File Name: M173BHC0.G20

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 6.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

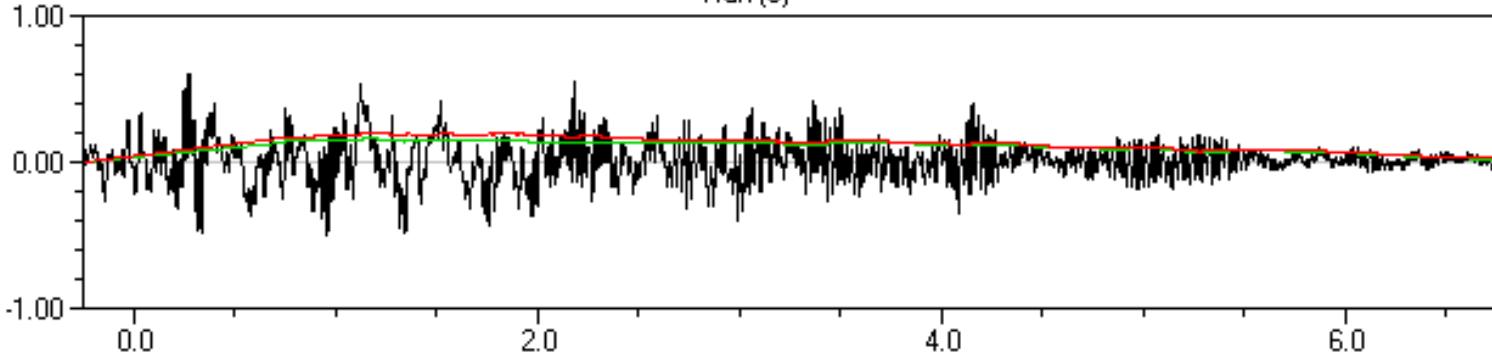
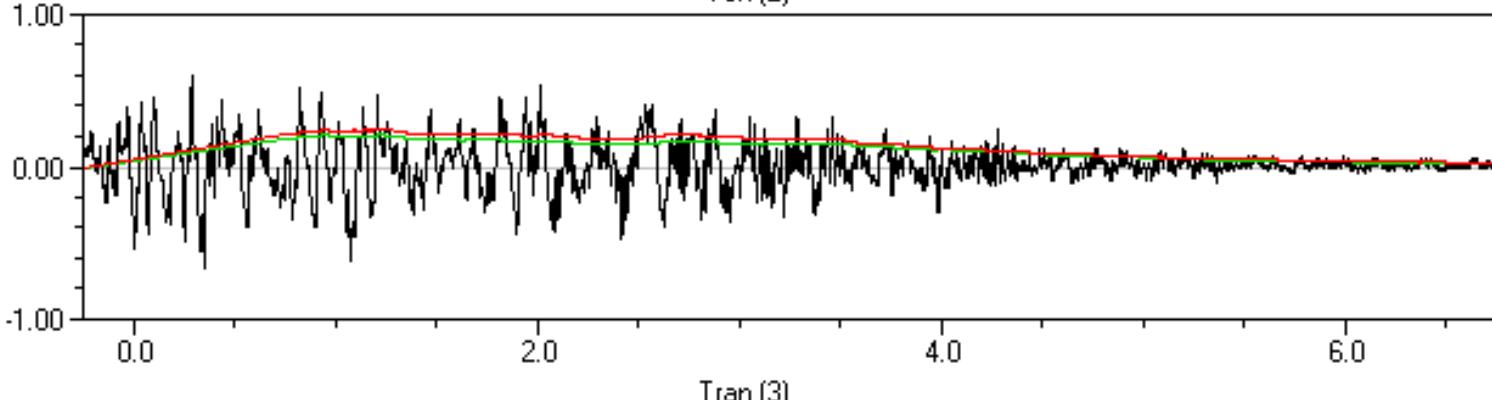
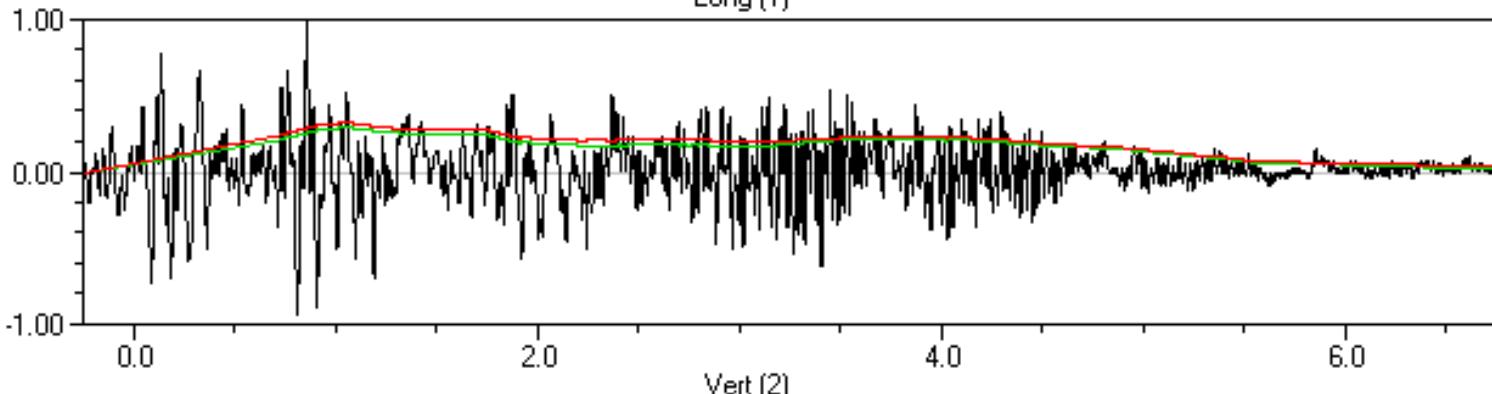
Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.603 | 0.667 | 1.00 | mm/s |
| ZC Freq | 11 | 12 | 19 | Hz |
| Time of Peak | 0.271 | 0.350 | 0.855 | Sec |
| Peak Acceleration | 0.00994 | 0.00994 | 0.0133 | g |
| Peak Displacement | 0.0137 | 0.0132 | 0.00933 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,16 | 0,21 | 0,29 | 0,39 |
| RMS (1s) | 0,20 | 0,24 | 0,32 | 0,44 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 14:34:42

File Name: M173BHCR.5U0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 9.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

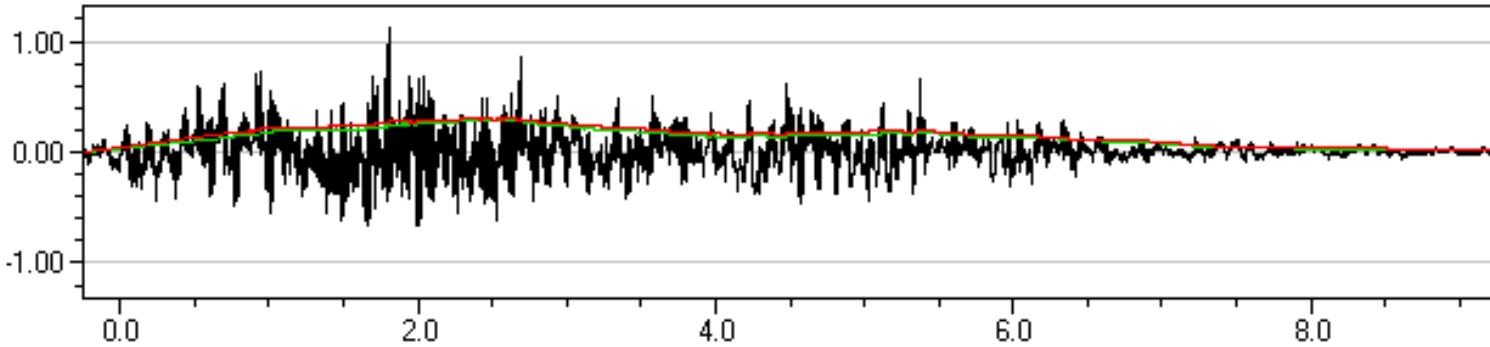
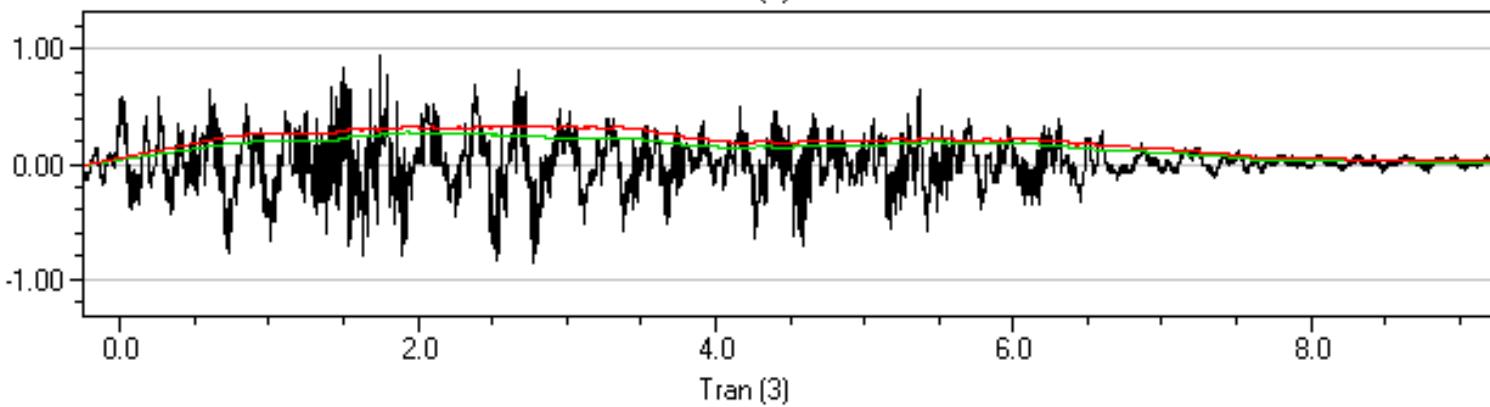
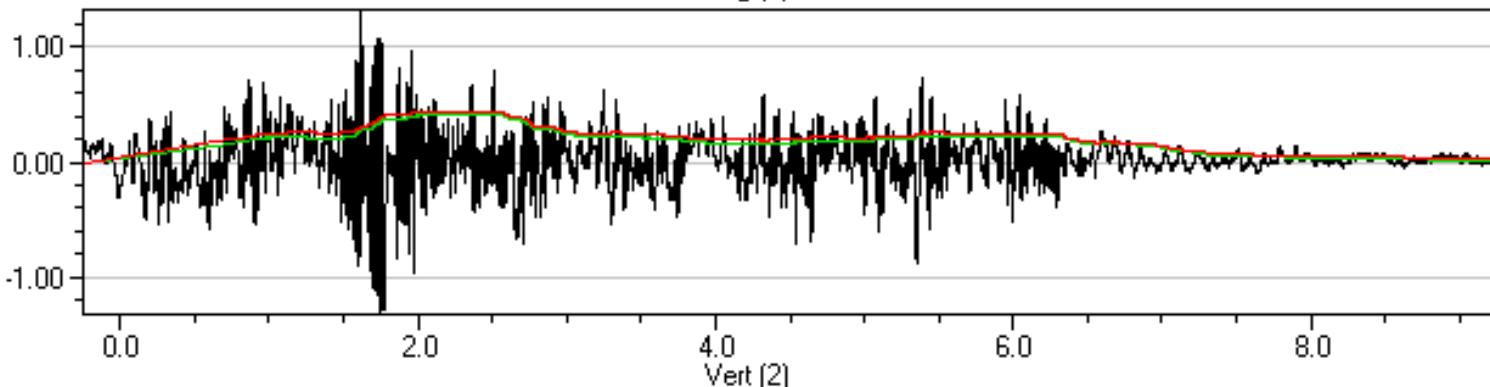
Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.13 | 0.937 | 1.32 | mm/s |
| ZC Freq | 30 | 7.4 | 28 | Hz |
| Time of Peak | 1.804 | 1.742 | 1.618 | Sec |
| Peak Acceleration | 0.0199 | 0.0249 | 0.0315 | g |
| Peak Displacement | 0.0104 | 0.0194 | 0.0185 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,29 | 0,28 | 0,42 | 0,57 |
| RMS (1s) | 0,30 | 0,33 | 0,44 | 0,62 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 17:38:37

File Name: M173BHCZ.OD0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 8.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

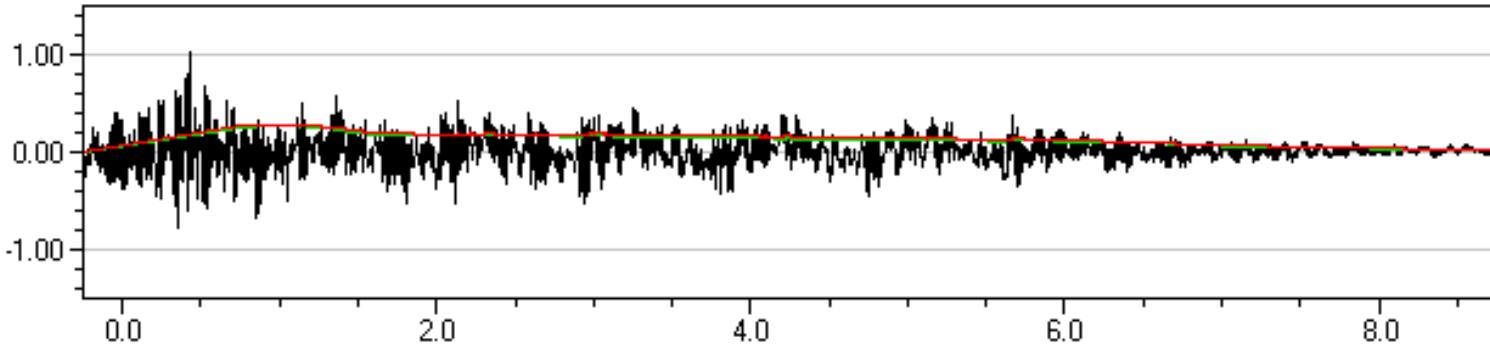
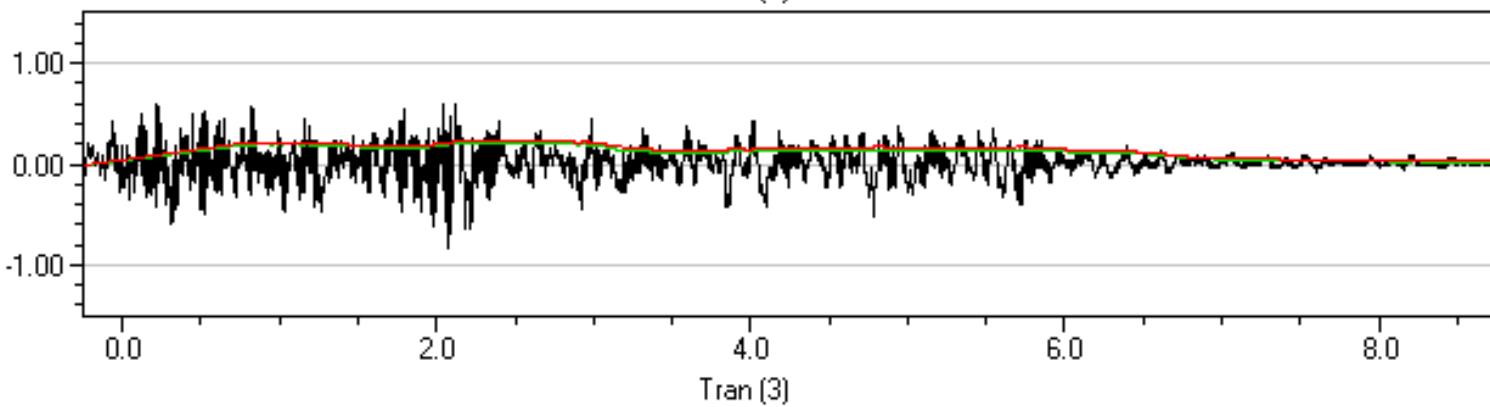
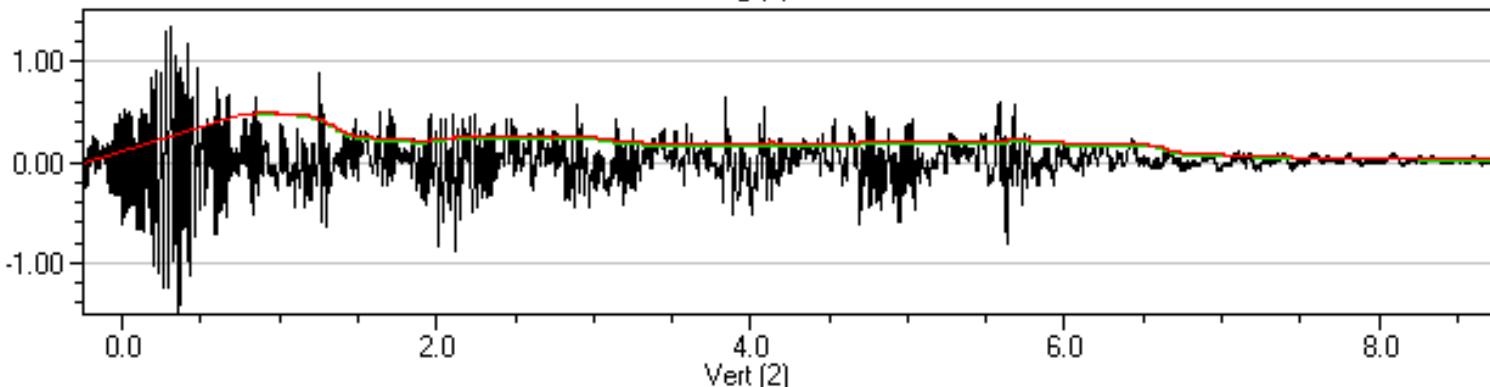
Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.02 | 0.825 | 1.51 | mm/s |
| ZC Freq | 30 | 34 | 32 | Hz |
| Time of Peak | 0.426 | 2.078 | 0.358 | Sec |
| Peak Acceleration | 0.0215 | 0.0215 | 0.0298 | g |
| Peak Displacement | 0.00691 | 0.00969 | 0.00829 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,27 | 0,22 | 0,47 | 0,58 |
| RMS (1s) | 0,28 | 0,24 | 0,49 | 0,60 |

Long (1)





Event Date: January 1, 2007

Event Time: 21:20:36

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHD9.YC0

Trigger: Long

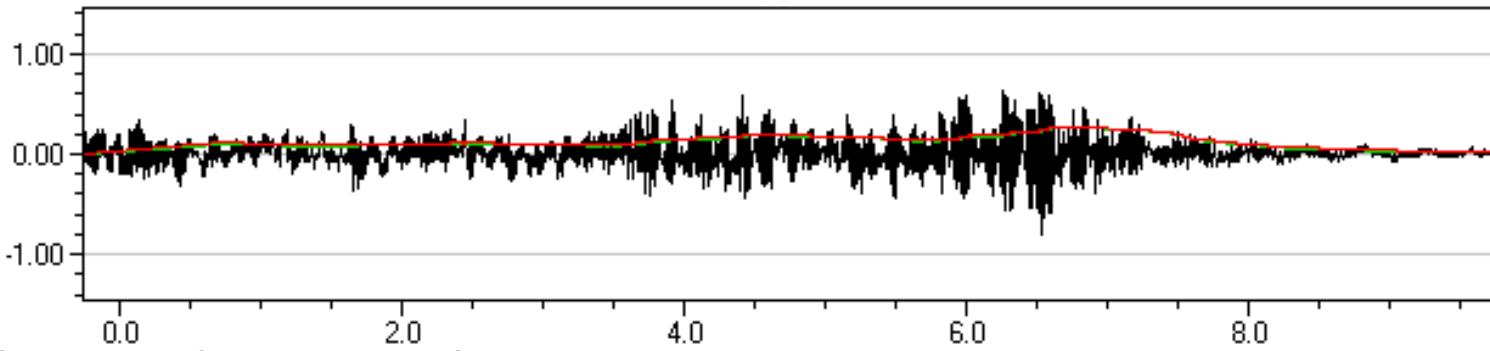
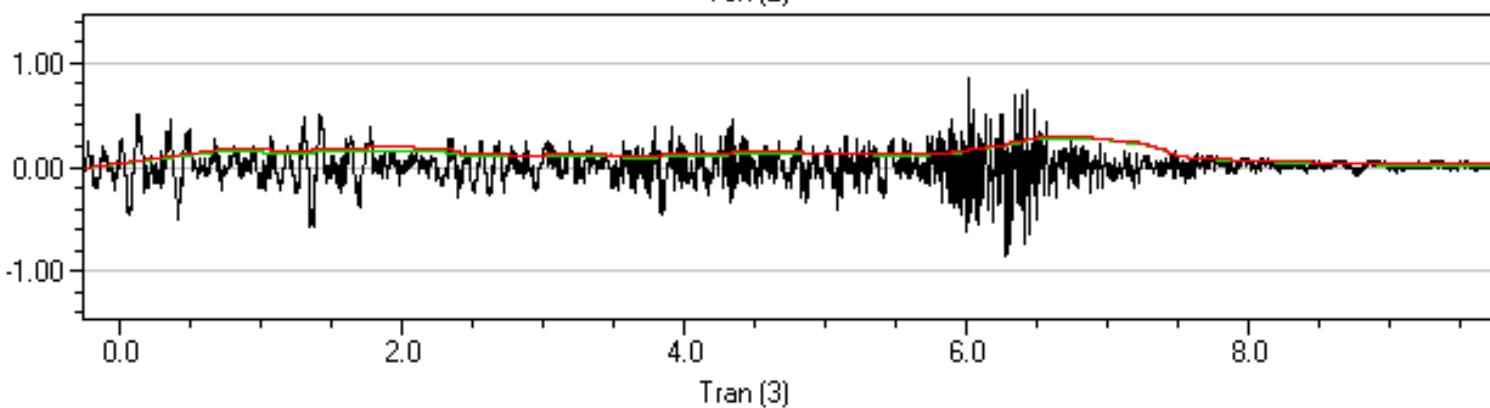
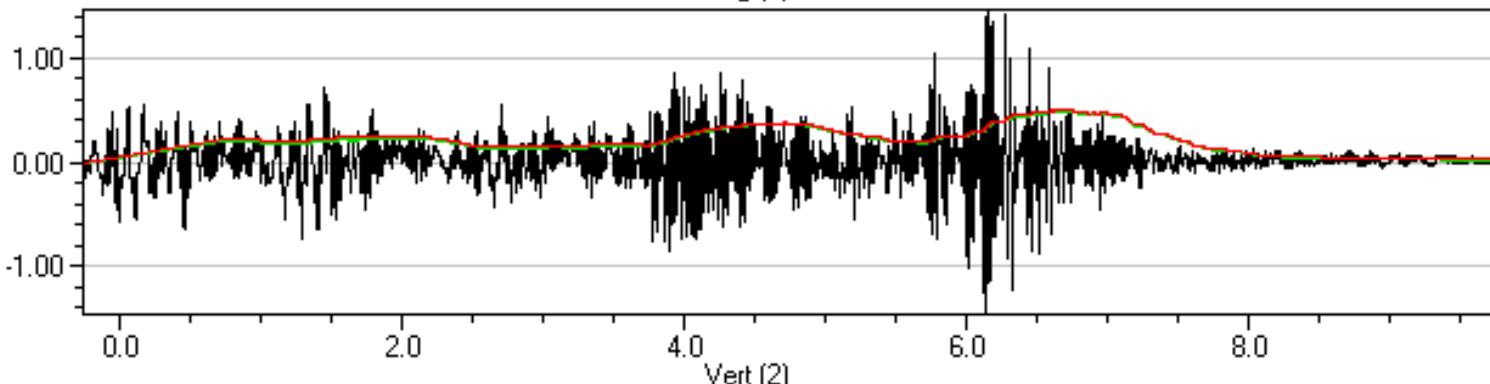
Record Time: 9.75 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.810 | 0.857 | 1.46 | mm/s |
| ZC Freq | 32 | 37 | 30 | Hz |
| Time of Peak | 6.535 | 6.016 | 6.145 | Sec |
| Peak Acceleration | 0.0166 | 0.0215 | 0.0315 | g |
| Peak Displacement | 0.00415 | 0.0105 | 0.00826 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.26 | 0.28 | 0.48 | 0.61 |
| RMS (1s) | 0.27 | 0.29 | 0.50 | 0.63 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 22:46:23

File Name: M173BHDD.XB0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 9.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

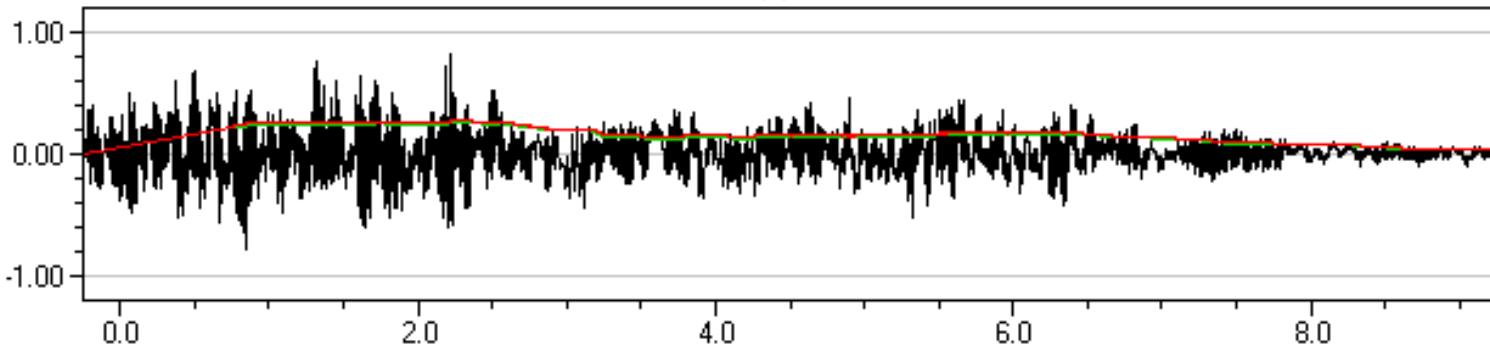
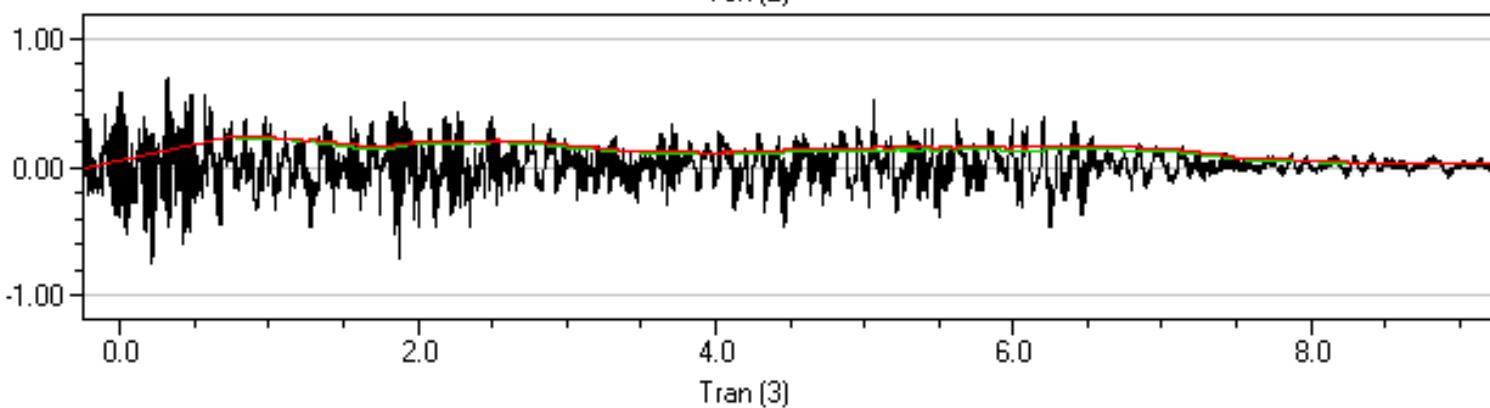
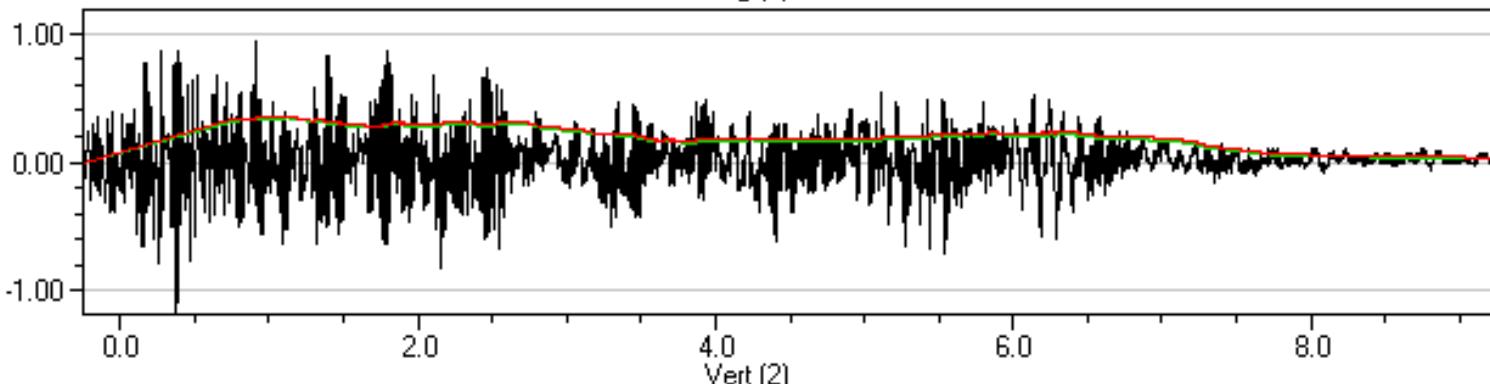
Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.810 | 0.746 | 1.19 | mm/s |
| ZC Freq | 37 | 32 | 30 | Hz |
| Time of Peak | 2.215 | 0.215 | 0.377 | Sec |
| Peak Acceleration | 0.0199 | 0.0182 | 0.0215 | g |
| Peak Displacement | 0.00860 | 0.00745 | 0.00751 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,26 | 0,23 | 0,34 | 0,47 |
| RMS (1s) | 0,28 | 0,24 | 0,36 | 0,50 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 06:44:55

File Name: M173BHE0.2V0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 9.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

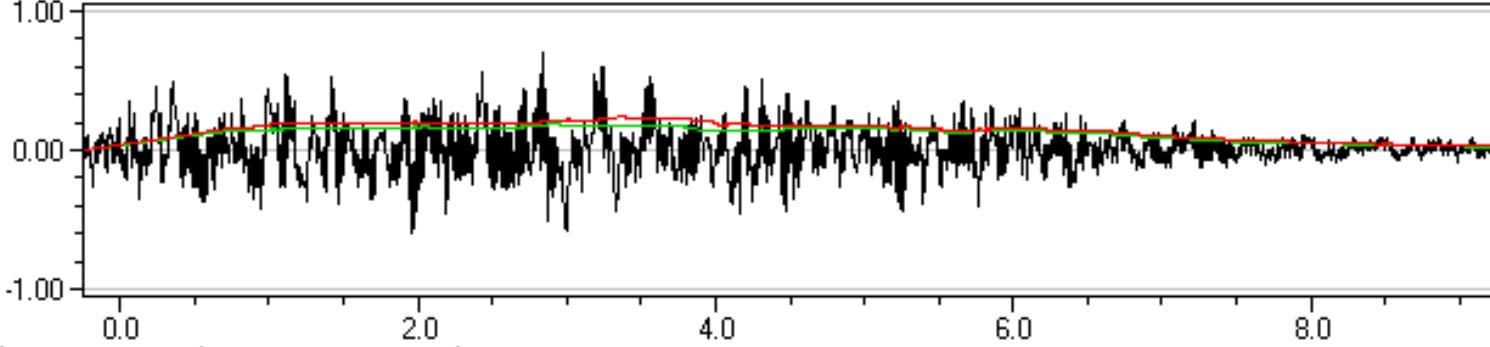
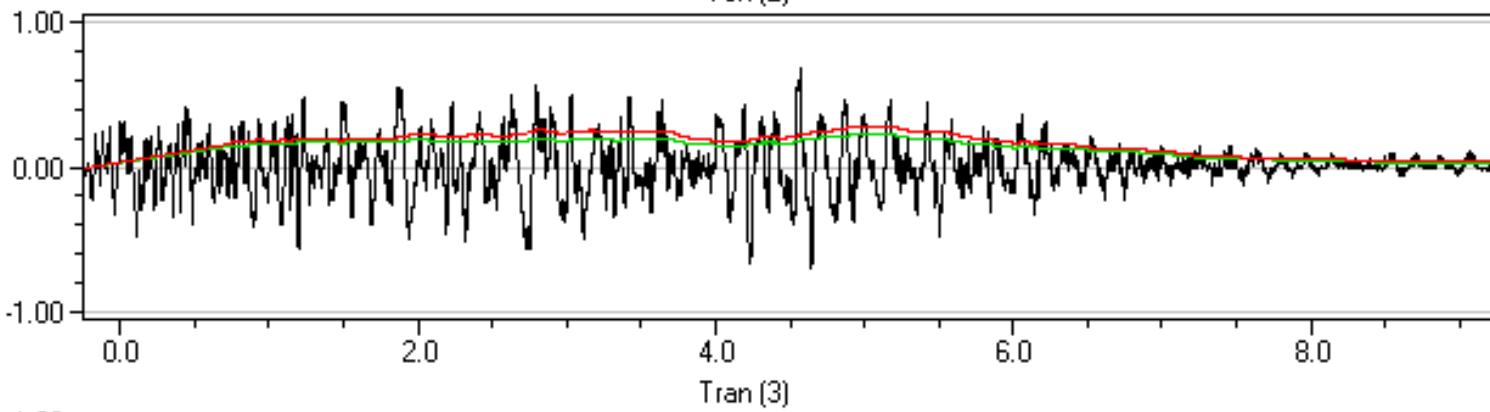
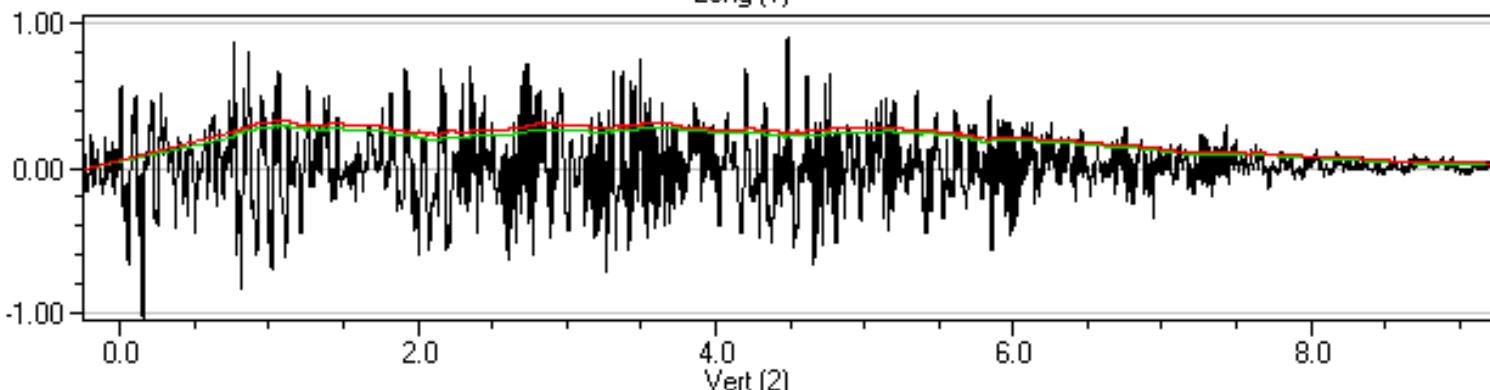
Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.698 | 0.698 | 1.05 | mm/s |
| ZC Freq | 24 | 8.7 | 9.7 | Hz |
| Time of Peak | 2.835 | 4.644 | 0.151 | Sec |
| Peak Acceleration | 0.0116 | 0.0116 | 0.0149 | g |
| Peak Displacement | 0.0139 | 0.0162 | 0.0117 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,19 | 0,22 | 0,29 | 0,38 |
| RMS (1s) | 0,24 | 0,28 | 0,32 | 0,46 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 14:34:44

File Name: M173BHEL.TW0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 9.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

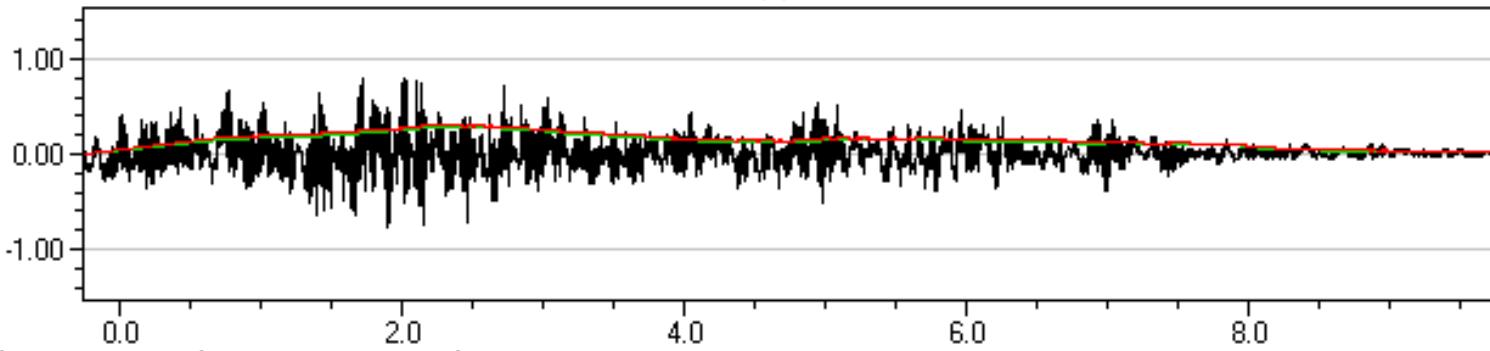
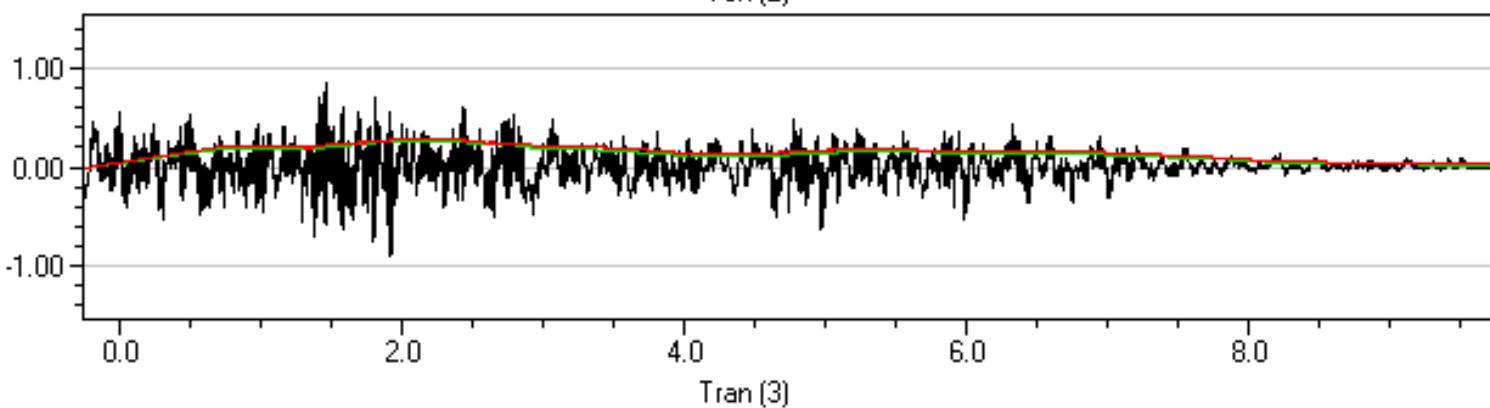
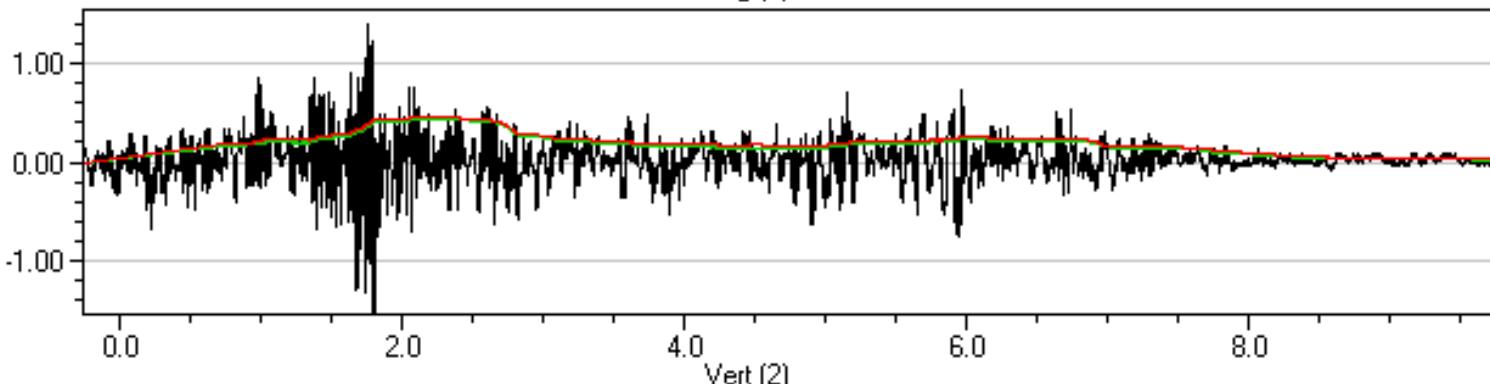
Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.794 | 0.889 | 1.54 | mm/s |
| ZC Freq | 32 | 32 | 26 | Hz |
| Time of Peak | 1.729 | 1.926 | 1.806 | Sec |
| Peak Acceleration | 0.0182 | 0.0215 | 0.0331 | g |
| Peak Displacement | 0.00727 | 0.0121 | 0.0109 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,29 | 0,27 | 0,44 | 0,59 |
| RMS (1s) | 0,31 | 0,28 | 0,46 | 0,62 |

Long (1)





Event Date: January 3, 2007

Event Time: 14:34:47

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHGG.HZ0

Trigger: Tran

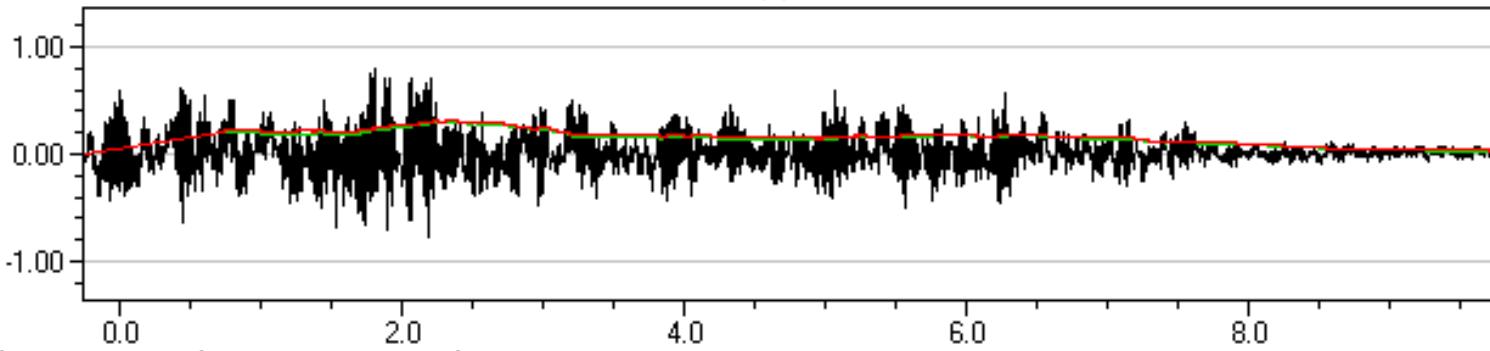
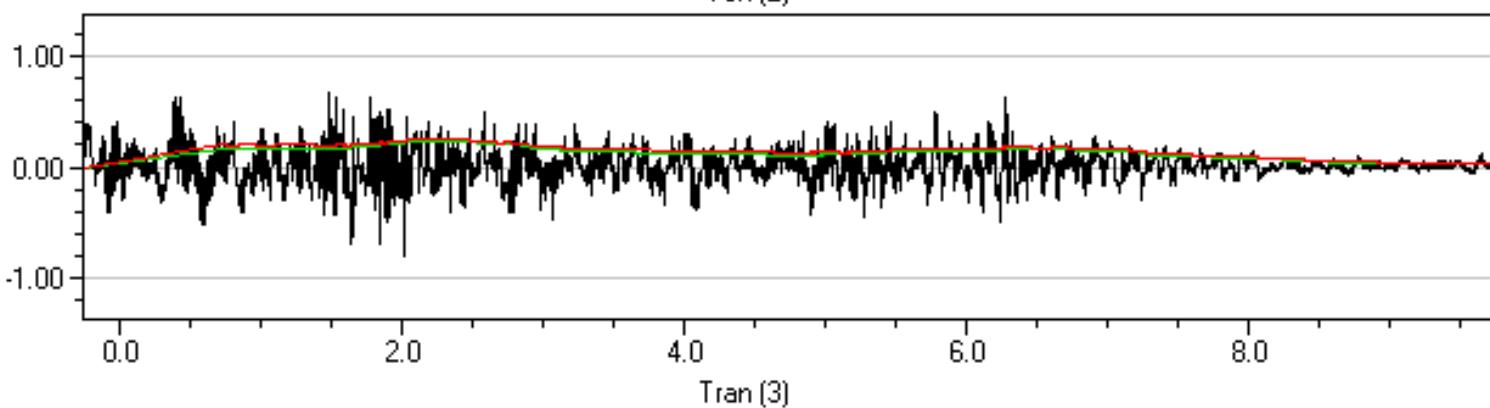
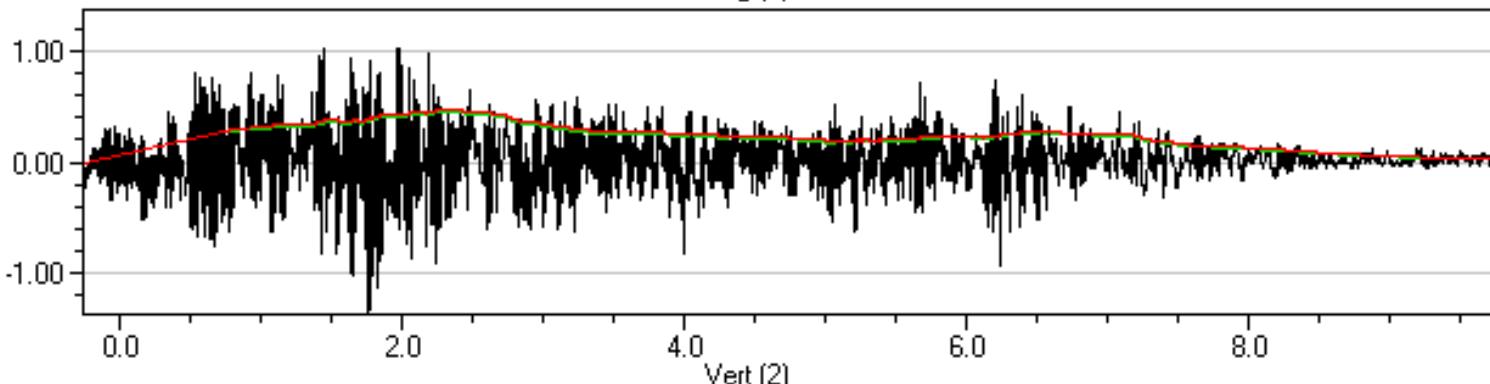
Record Time: 9.75 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.794 | 0.794 | 1.37 | mm/s |
| ZC Freq | 34 | 30 | 32 | Hz |
| Time of Peak | 1.812 | 2.023 | 1.771 | Sec |
| Peak Acceleration | 0.0199 | 0.0182 | 0.0282 | g |
| Peak Displacement | 0.00752 | 0.00778 | 0.00972 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,29 | 0,23 | 0,46 | 0,59 |
| RMS (1s) | 0,31 | 0,25 | 0,47 | 0,62 |

Long (1)





Event Date: January 3, 2007

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 16:01:53

File Name: M173BHGK.J50

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

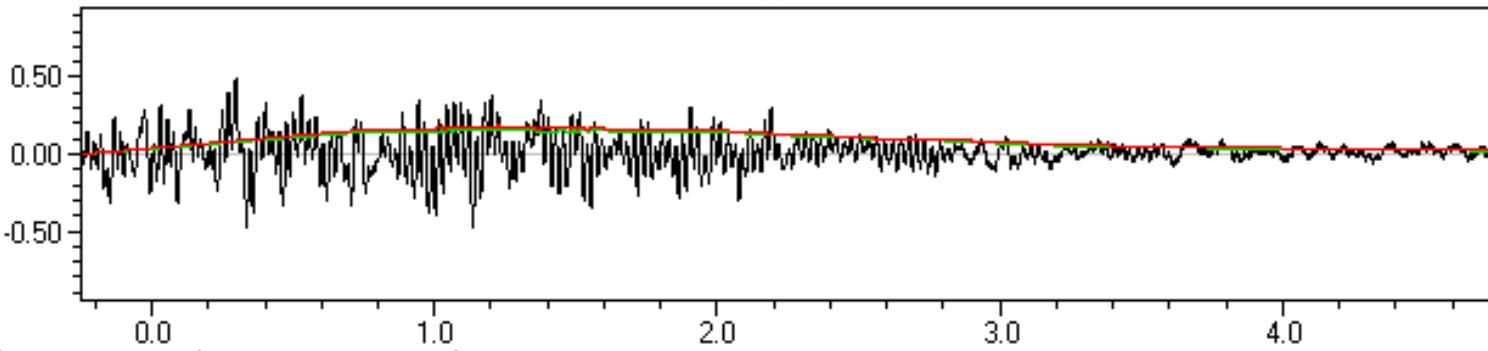
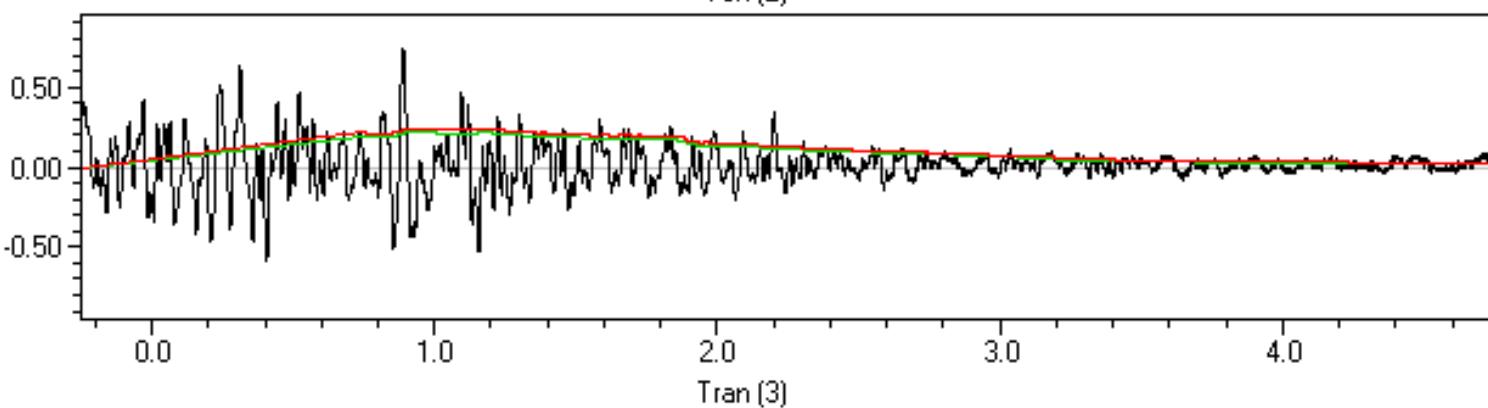
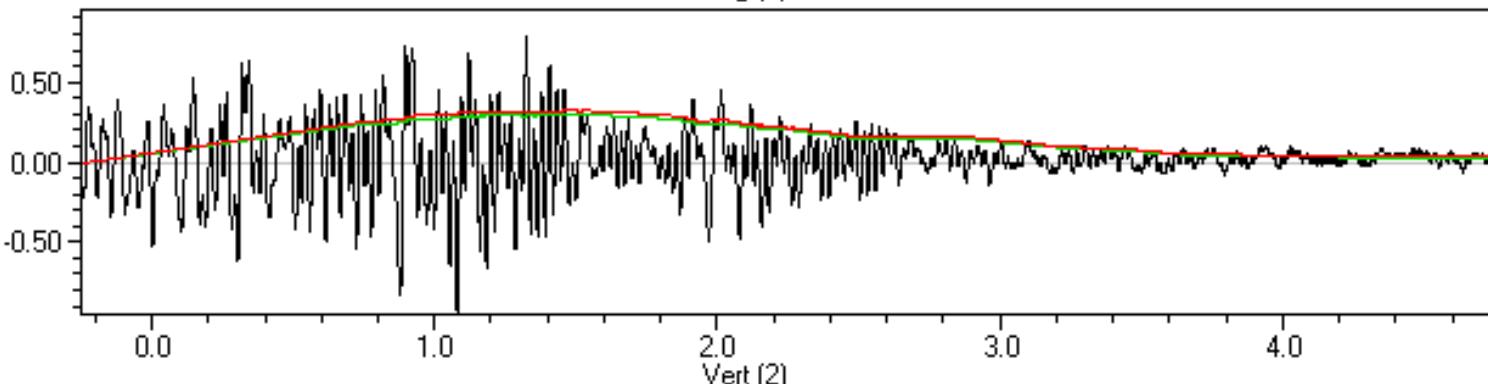
Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.492 | 0.746 | 0.952 | mm/s |
| ZC Freq | 10 | 16 | 24 | Hz |
| Time of Peak | 0.296 | 0.886 | 1.080 | Sec |
| Peak Acceleration | 0.00994 | 0.0116 | 0.0166 | g |
| Peak Displacement | 0.00588 | 0.00708 | 0.0104 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,16 | 0,22 | 0,30 | 0,40 |
| RMS (1s) | 0,19 | 0,24 | 0,32 | 0,44 |

Long (1)





Event Date: January 3, 2007

Event Time: 20:44:40

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

File Name: M173BHGX.MG0

Trigger: Vert

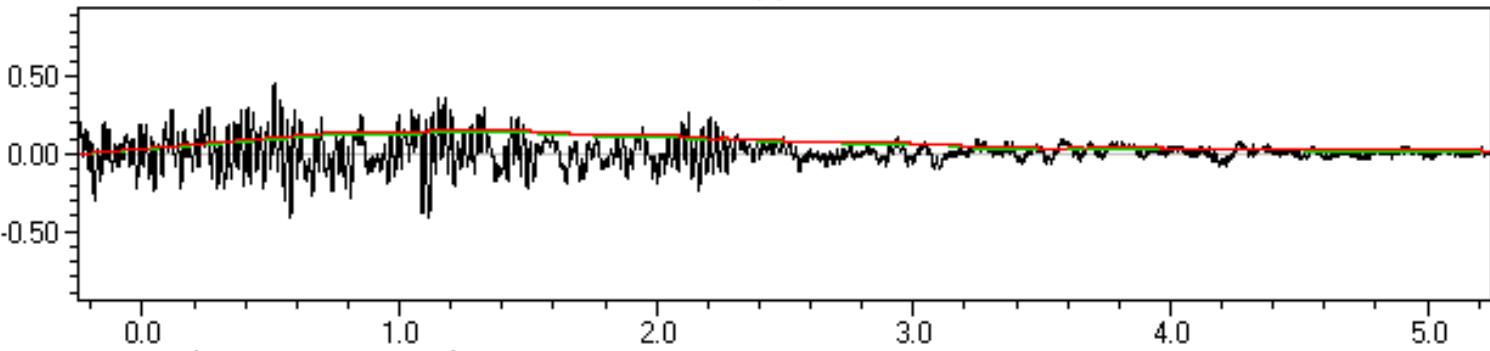
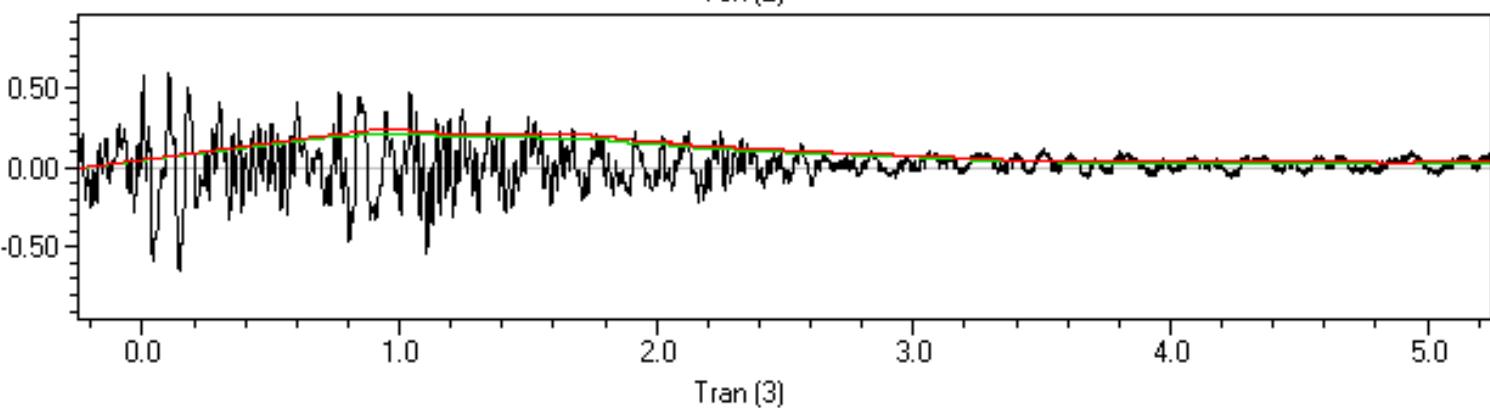
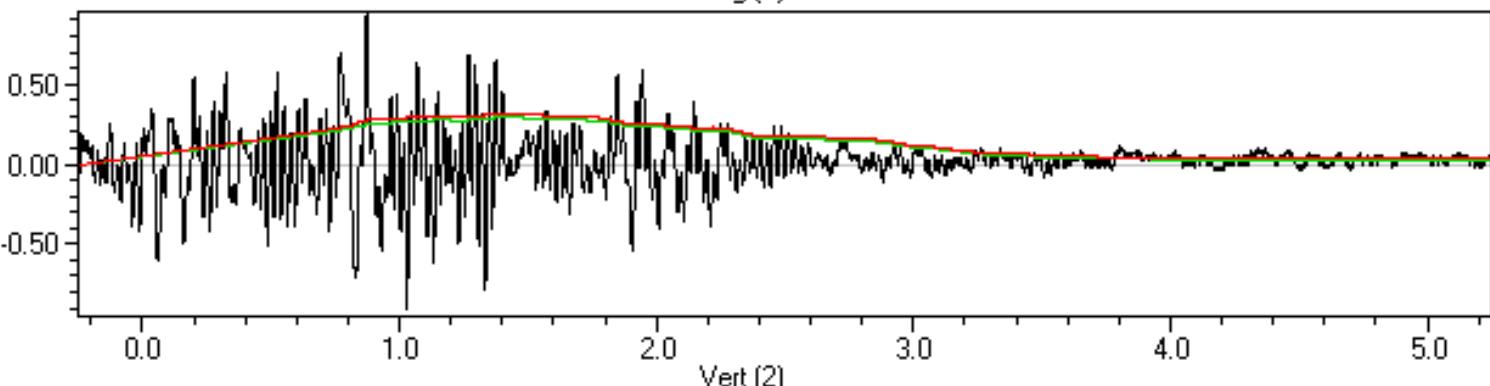
Record Time: 5.25 sec

Sample Rate: 1024 sps

Calibration: April 27, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.460 | 0.651 | 0.952 | mm/s |
| ZC Freq | 26 | 13 | 12 | Hz |
| Time of Peak | 0.512 | 0.144 | 0.873 | Sec |
| Peak Acceleration | 0.00994 | 0.0116 | 0.0166 | g |
| Peak Displacement | 0.00360 | 0.00774 | 0.0105 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,15 | 0,21 | 0,29 | 0,37 |
| RMS (1s) | 0,16 | 0,23 | 0,32 | 0,41 |

Long (1)





Event Date: January 4, 2007

Serial Number: BE11173, V 8.01-8.0 MiniMate Plus

Event Time: 01:31:01

File Name: M173BHHA.VP0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

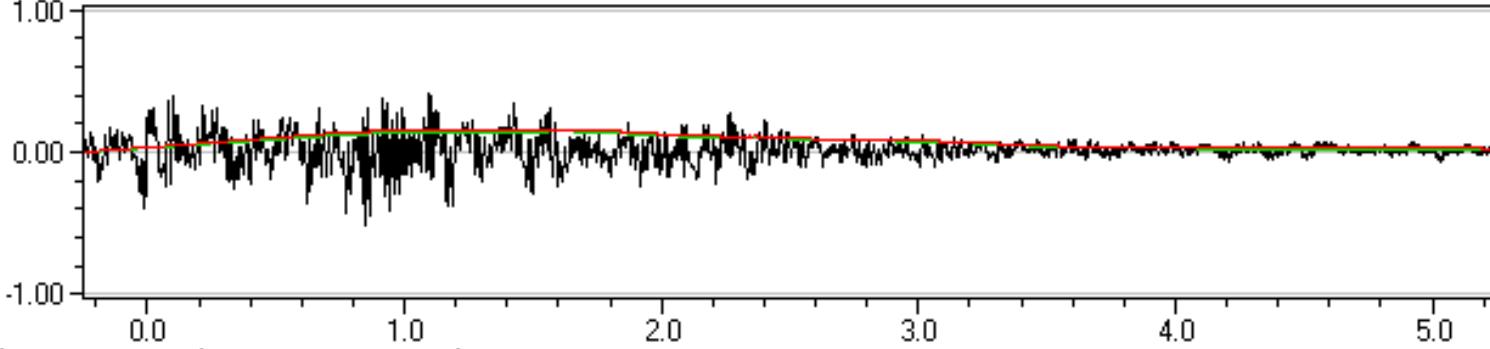
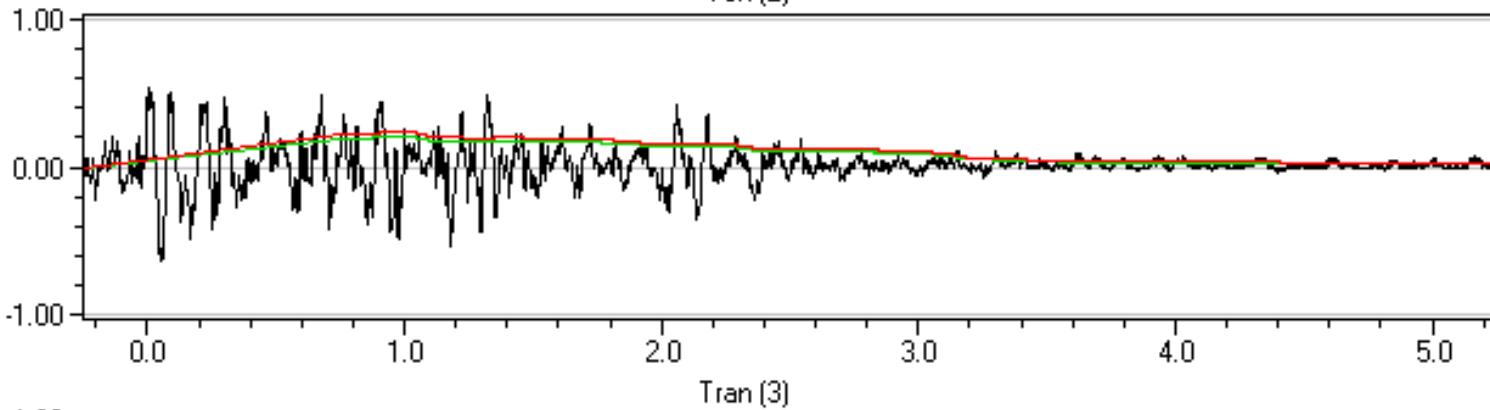
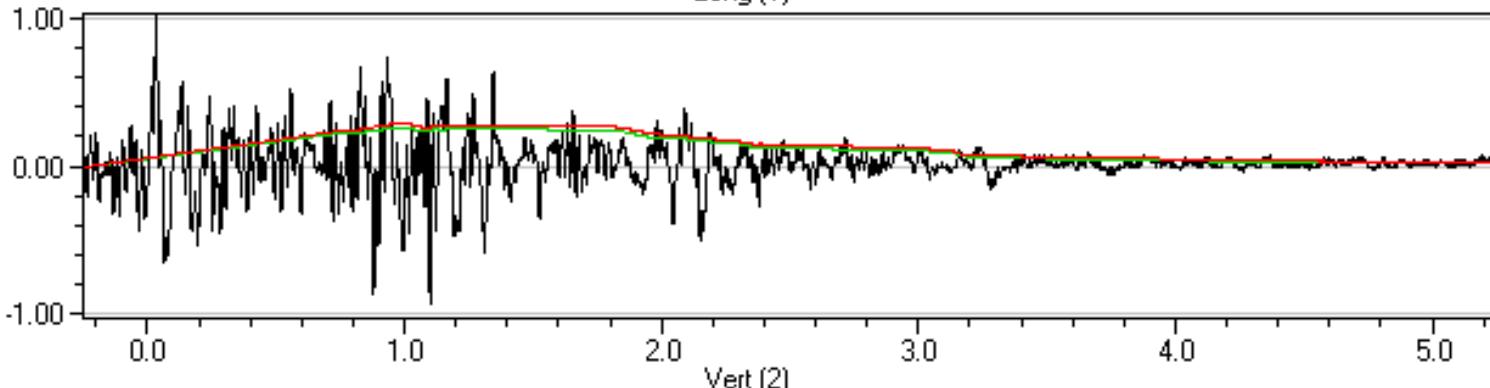
Job Number: 5296

Calibration: April 27, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.508 | 0.635 | 1.03 | mm/s |
| ZC Freq | 47 | 13 | 13 | Hz |
| Time of Peak | 0.845 | 0.054 | 0.032 | Sec |
| Peak Acceleration | 0.0149 | 0.0116 | 0.0199 | g |
| Peak Displacement | 0.00405 | 0.00874 | 0.00891 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,15 | 0,21 | 0,26 | 0,36 |
| RMS (1s) | 0,16 | 0,24 | 0,29 | 0,41 |

Long (1)





Event Date: December 29, 2006

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 14:18:43

File Name: M156BH76.F70

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

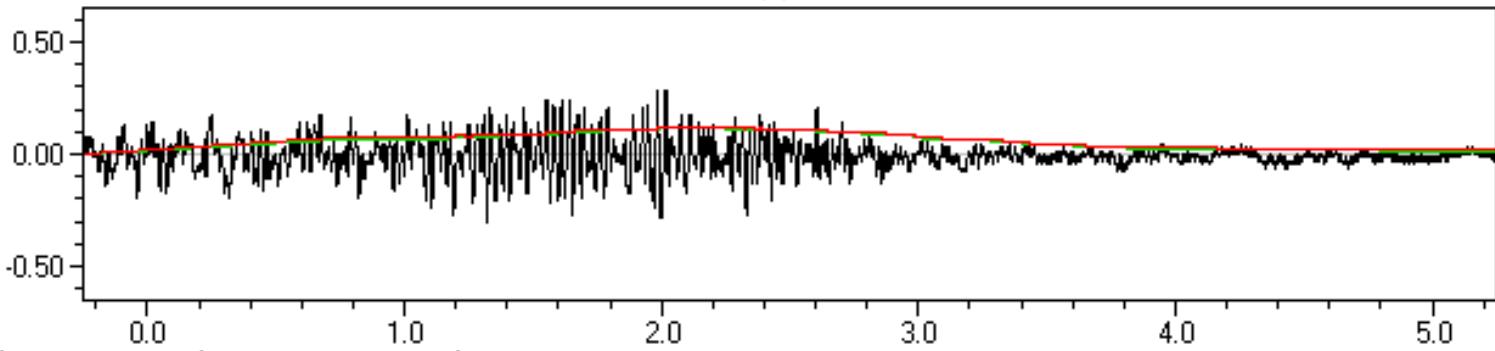
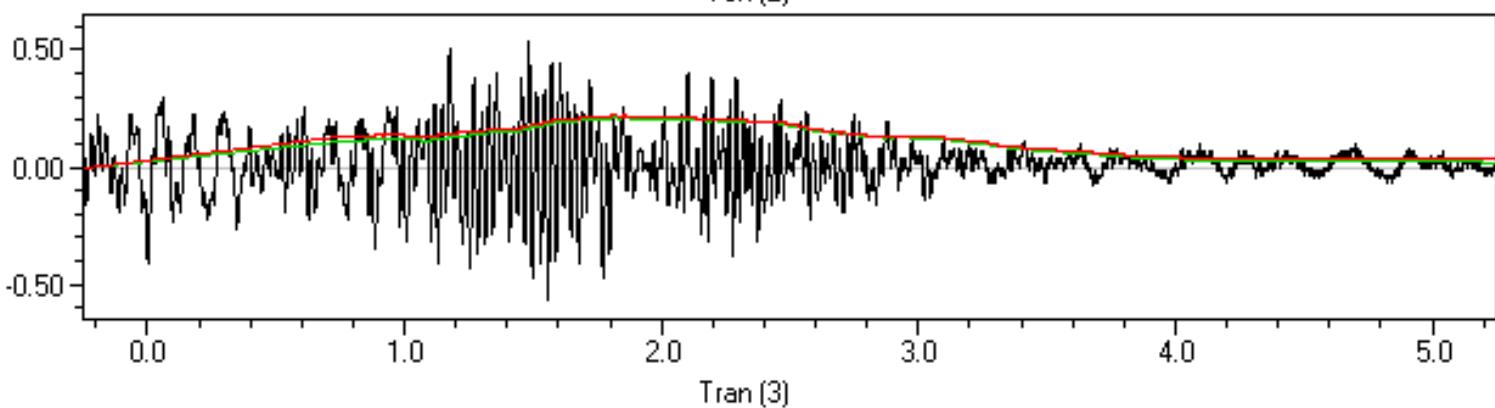
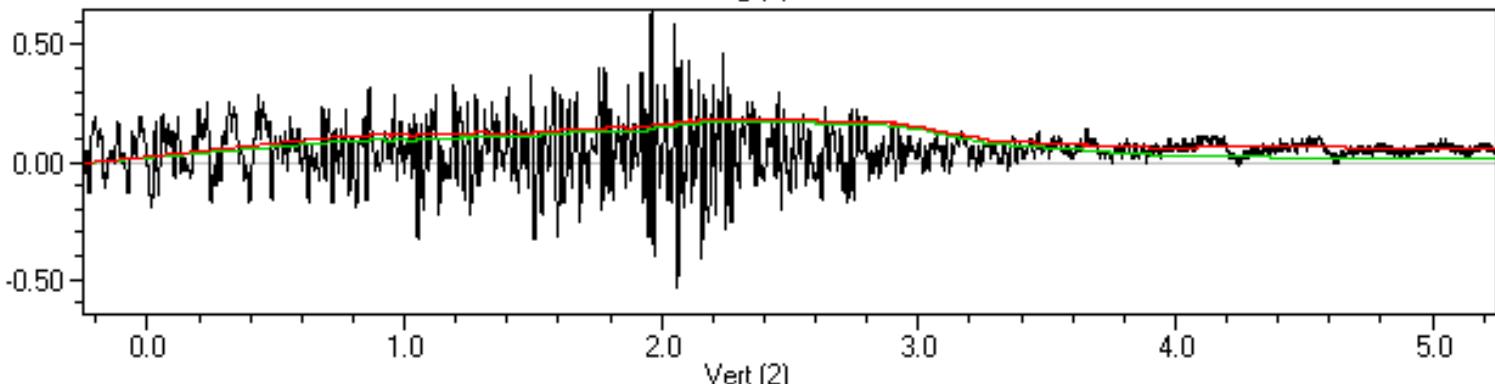
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.302 | 0.571 | 0.651 | mm/s |
| ZC Freq | 39 | 32 | 39 | Hz |
| Time of Peak | 1.320 | 1.559 | 1.960 | Sec |
| Peak Acceleration | 0.00829 | 0.0133 | 0.0166 | g |
| Peak Displacement | 0.00219 | 0.00481 | 0.0102 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,12 | 0,21 | 0,18 | 0,29 |
| RMS (1s) | 0,16 | 0,22 | 0,19 | 0,30 |

Long (1)





Event Date: December 29, 2006

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 17:55:15

File Name: M156BH7G.G30

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 6.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

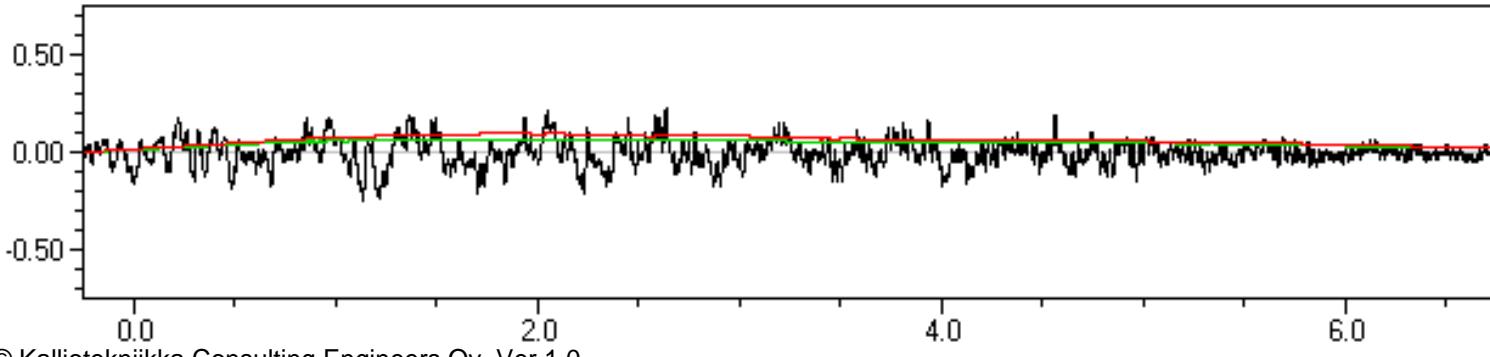
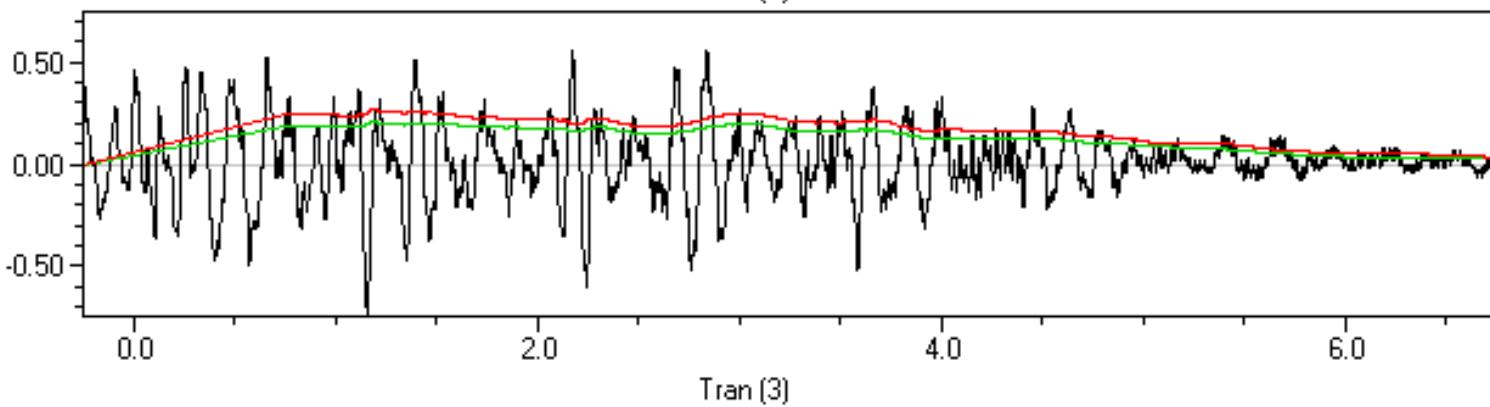
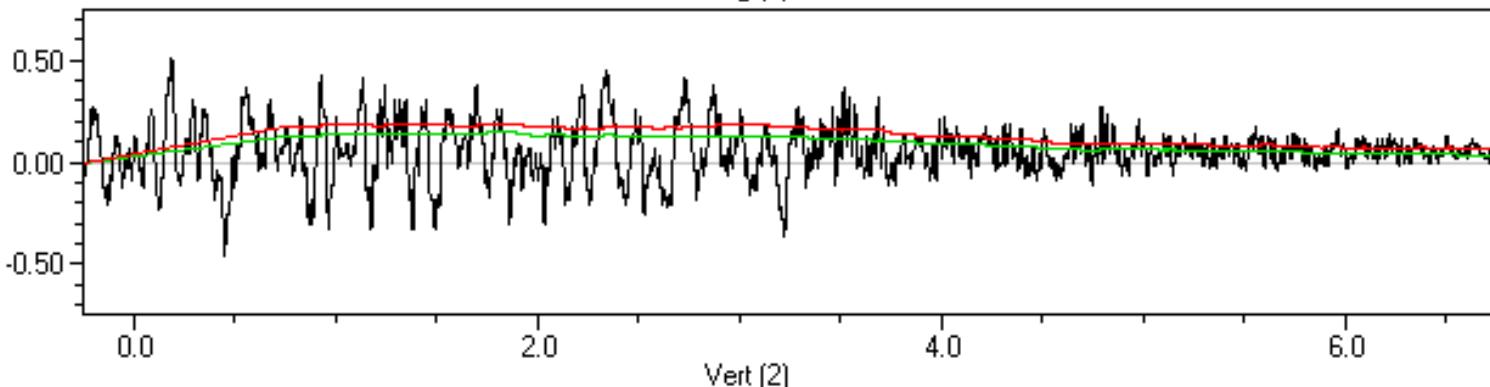
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.254 | 0.746 | 0.508 | mm/s |
| ZC Freq | 9.8 | 9.0 | 8.3 | Hz |
| Time of Peak | 1.135 | 1.157 | 0.186 | Sec |
| Peak Acceleration | 0.00497 | 0.00994 | 0.00663 | g |
| Peak Displacement | 0.00574 | 0.0127 | 0.0132 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,20 | 0,15 | 0,25 |
| RMS (1s) | 0,10 | 0,26 | 0,19 | 0,33 |

Long (1)





Event Date: December 29, 2006

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 22:45:20

File Name: M156BH7T.VK0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 4.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

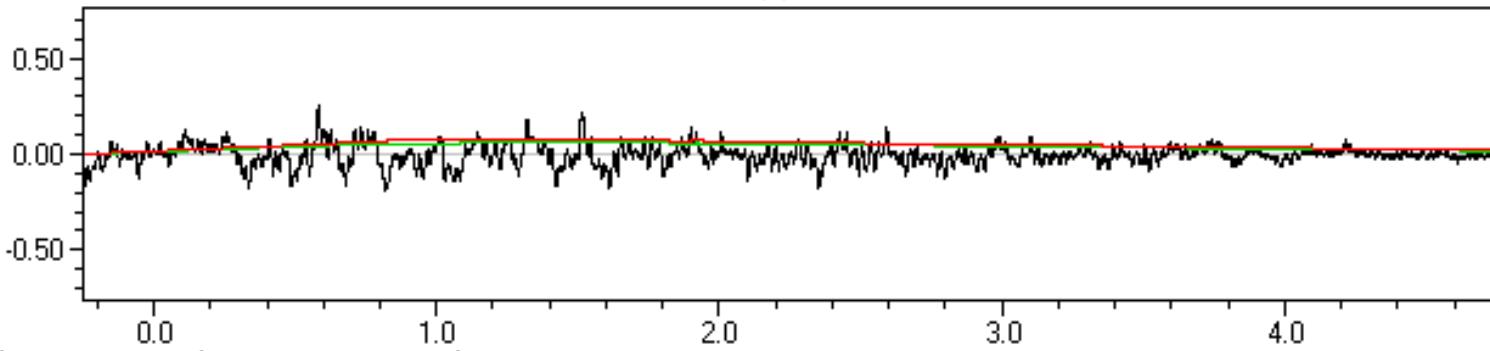
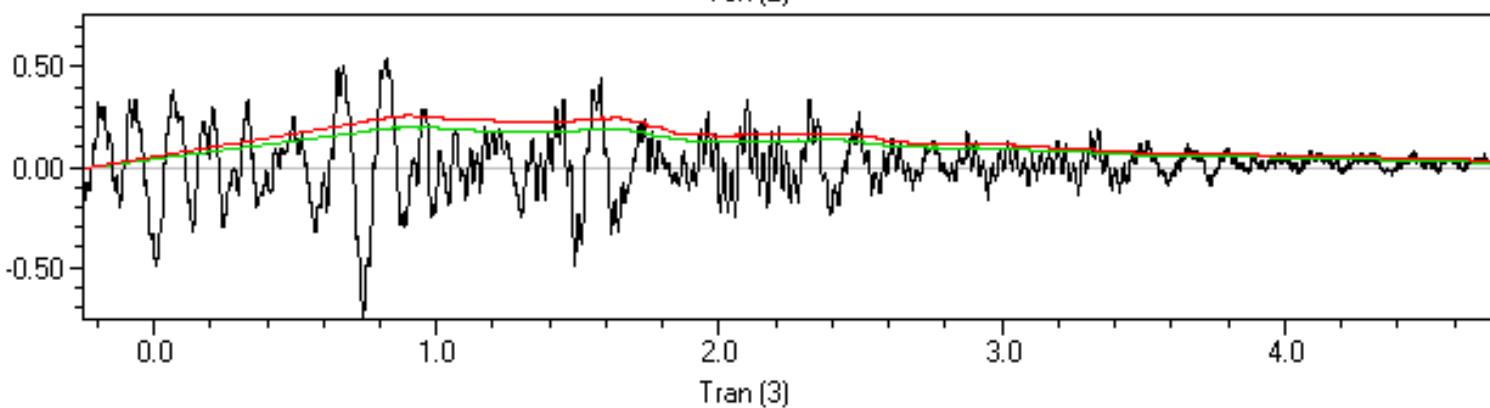
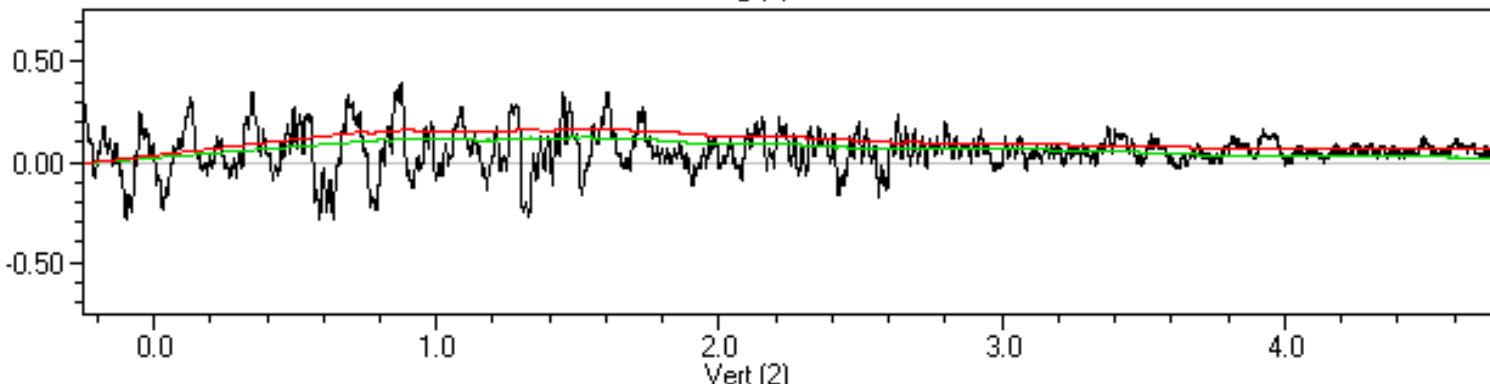
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.254 | 0.762 | 0.397 | mm/s |
| ZC Freq | 10 | 7.0 | 6.7 | Hz |
| Time of Peak | 0.582 | 0.739 | 0.873 | Sec |
| Peak Acceleration | 0.00663 | 0.00829 | 0.00663 | g |
| Peak Displacement | 0.00367 | 0.0152 | 0.00888 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,20 | 0,12 | 0,24 |
| RMS (1s) | 0,08 | 0,26 | 0,17 | 0,31 |

Long (1)





Event Date: December 30, 2006

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 03:57:27

File Name: M156BH88.BR0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

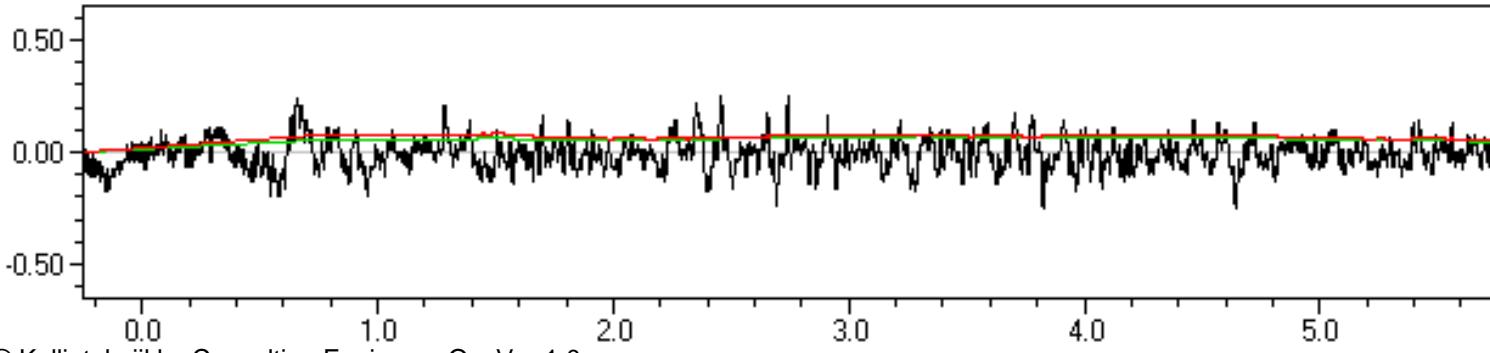
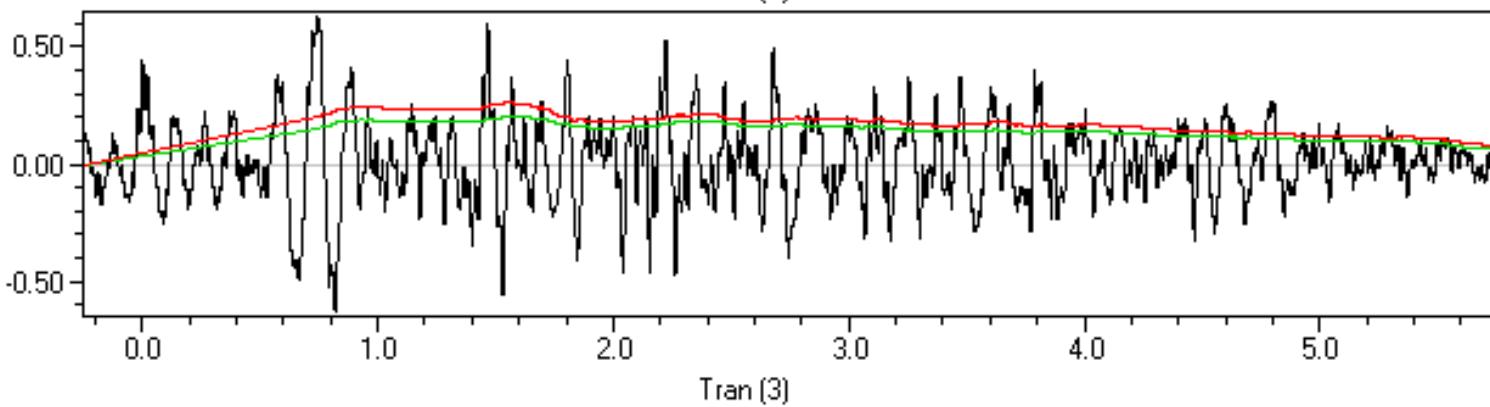
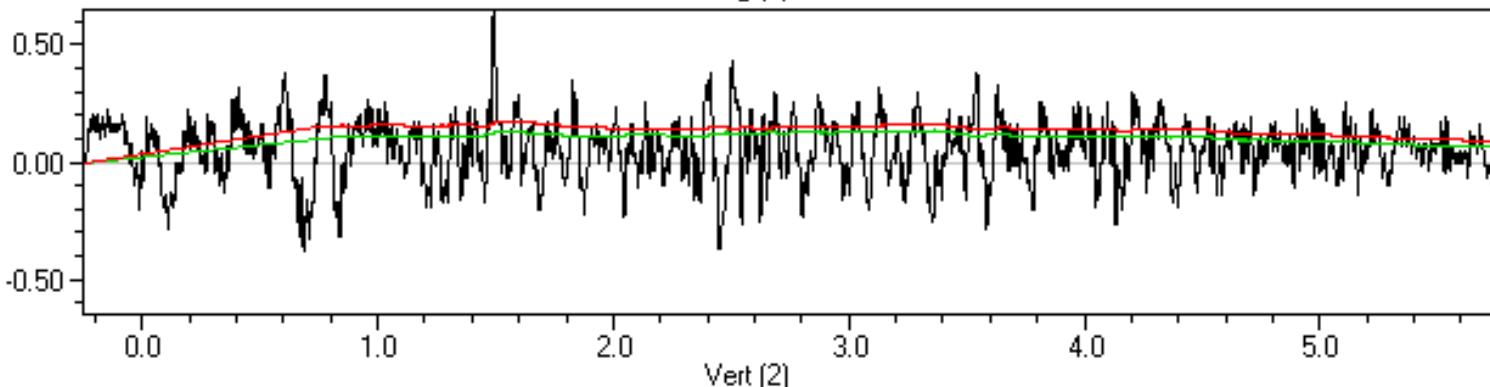
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.254 | 0.635 | 0.651 | mm/s |
| ZC Freq | 20 | 6.4 | 7.9 | Hz |
| Time of Peak | 2.457 | 0.740 | 1.490 | Sec |
| Peak Acceleration | 0.00663 | 0.00994 | 0.00829 | g |
| Peak Displacement | 0.00603 | 0.0166 | 0.0132 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,07 | 0,21 | 0,14 | 0,25 |
| RMS (1s) | 0,08 | 0,26 | 0,18 | 0,32 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 20:45:03

File Name: M156BHBD.N30

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 7.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

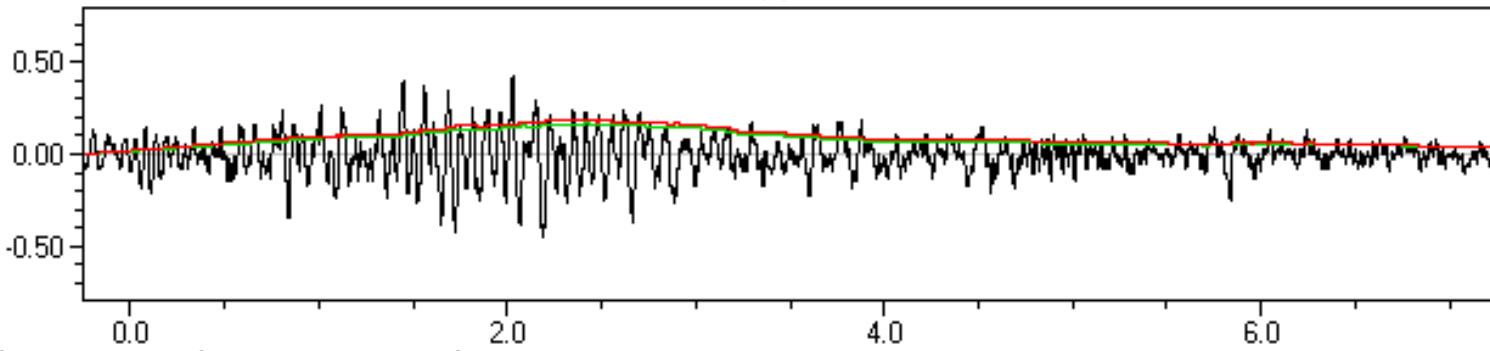
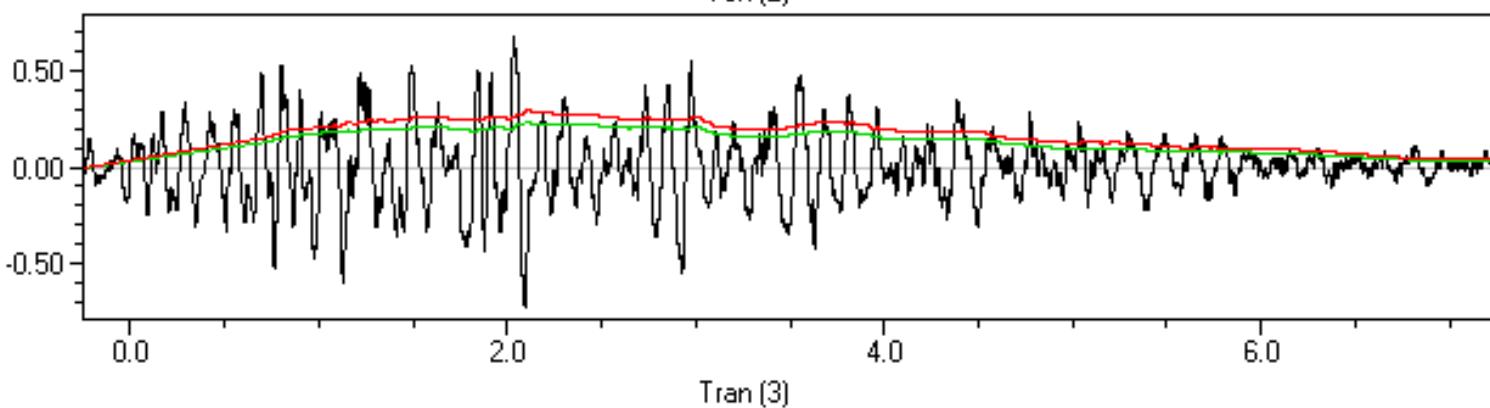
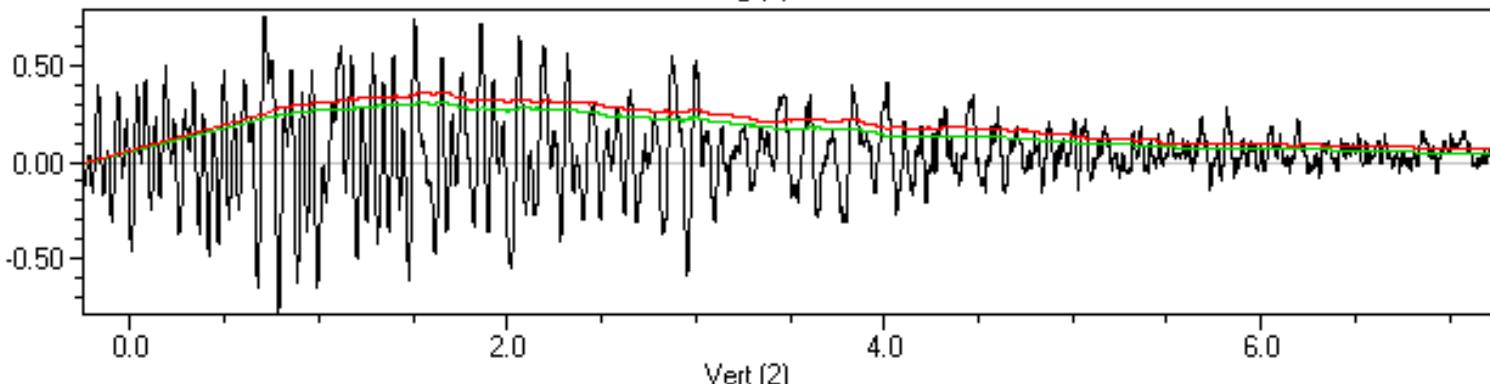
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.444 | 0.730 | 0.794 | mm/s |
| ZC Freq | 11 | 5.4 | 13 | Hz |
| Time of Peak | 2.189 | 2.093 | 0.786 | Sec |
| Peak Acceleration | 0.00663 | 0.00829 | 0.00994 | g |
| Peak Displacement | 0.00626 | 0.0143 | 0.0187 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,17 | 0,23 | 0,31 | 0,40 |
| RMS (1s) | 0,19 | 0,30 | 0,36 | 0,47 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 22:45:22

File Name: M156BHBJ.7M0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 7.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

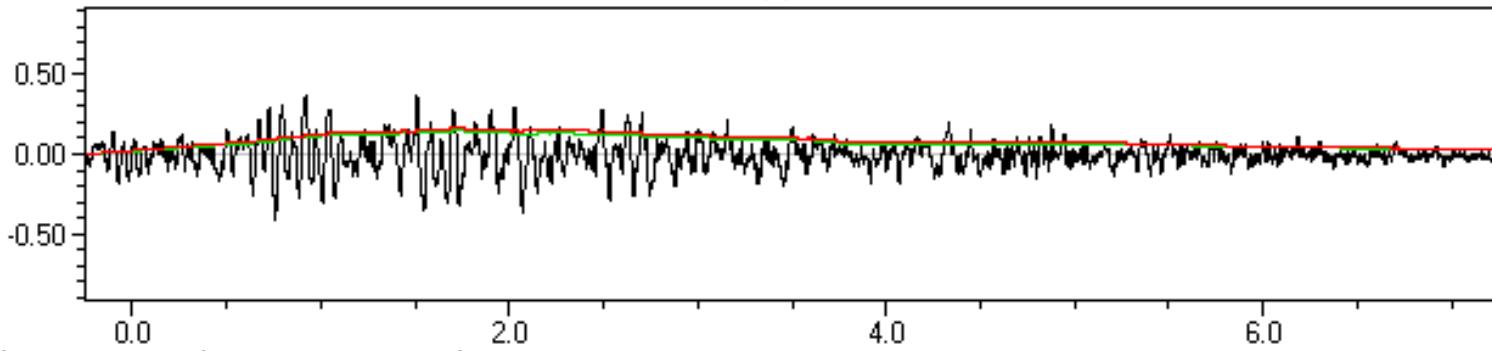
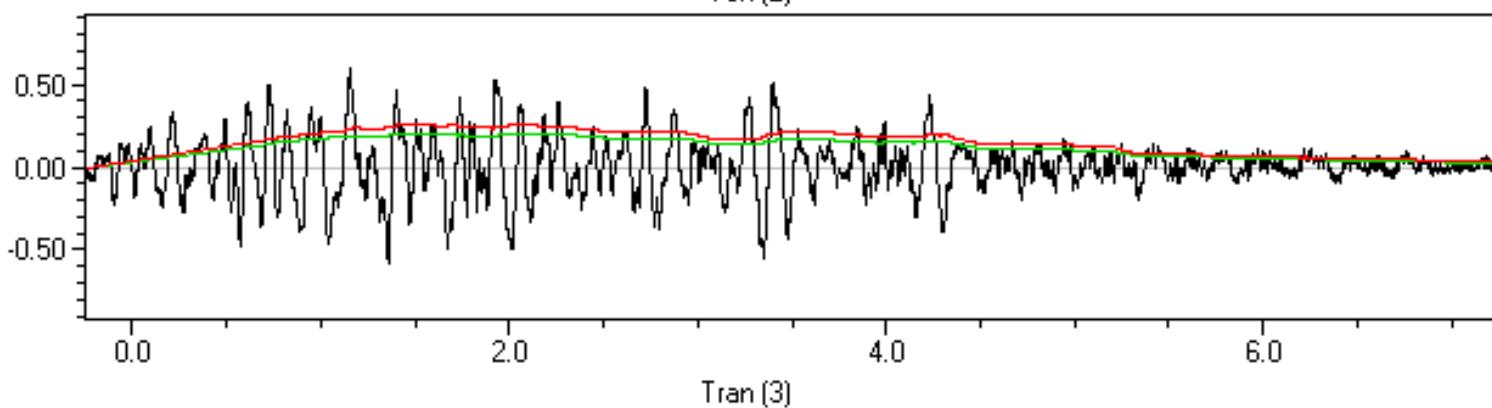
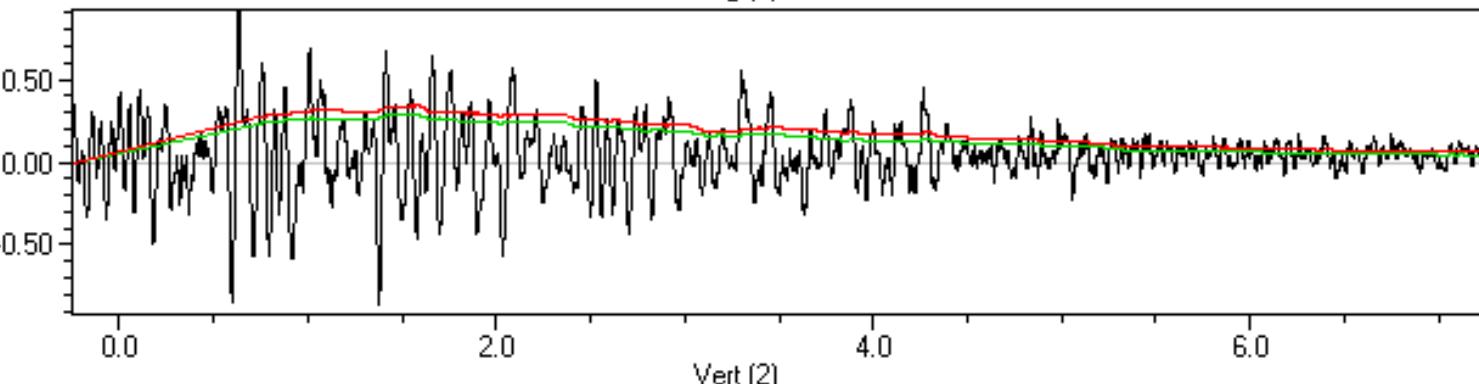
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.413 | 0.603 | 0.921 | mm/s |
| ZC Freq | 15 | 7.0 | 6.4 | Hz |
| Time of Peak | 0.757 | 1.155 | 0.636 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00994 | g |
| Peak Displacement | 0.00456 | 0.0121 | 0.0179 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,15 | 0,20 | 0,29 | 0,38 |
| RMS (1s) | 0,17 | 0,26 | 0,34 | 0,45 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 01:33:47

File Name: M156BHBR.0B0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

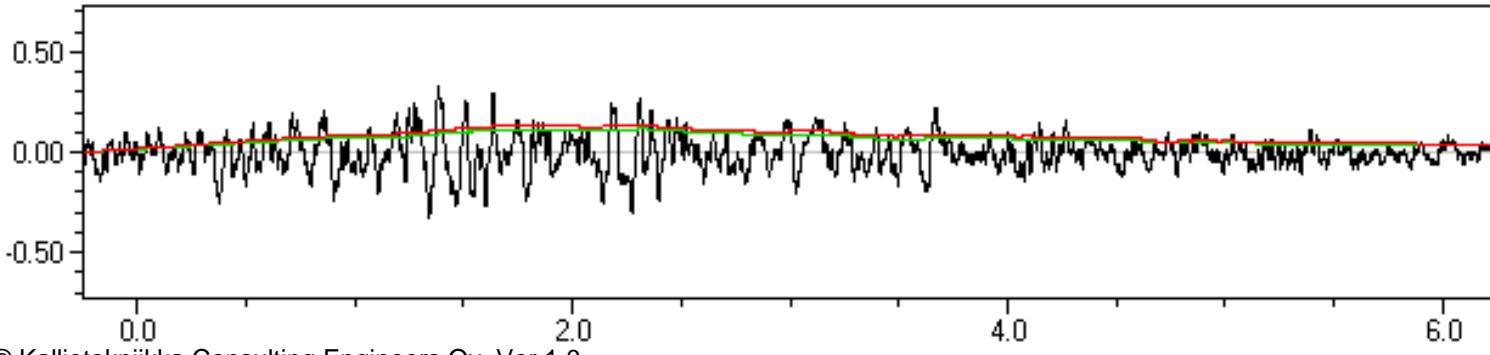
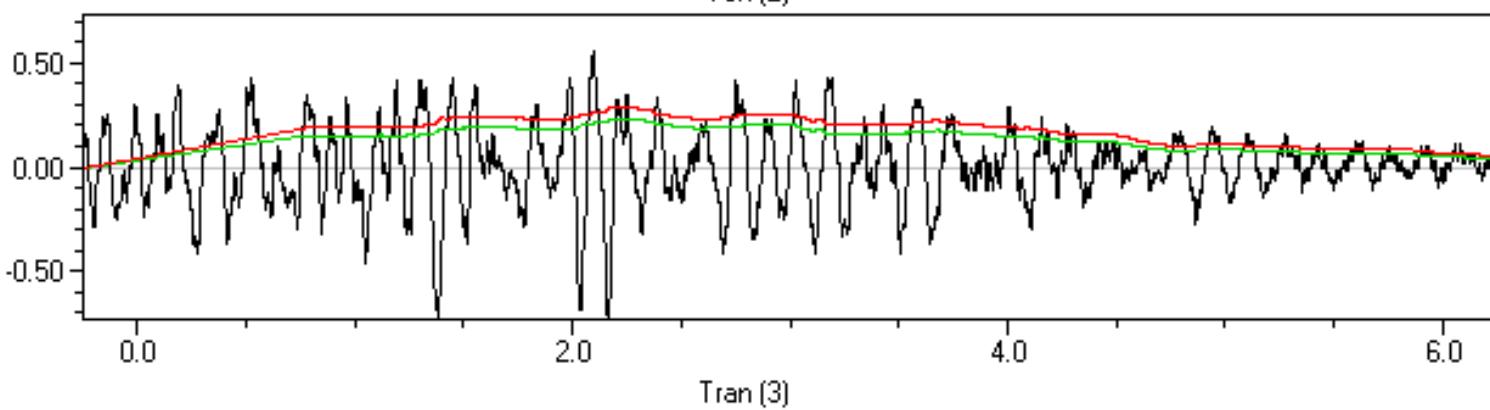
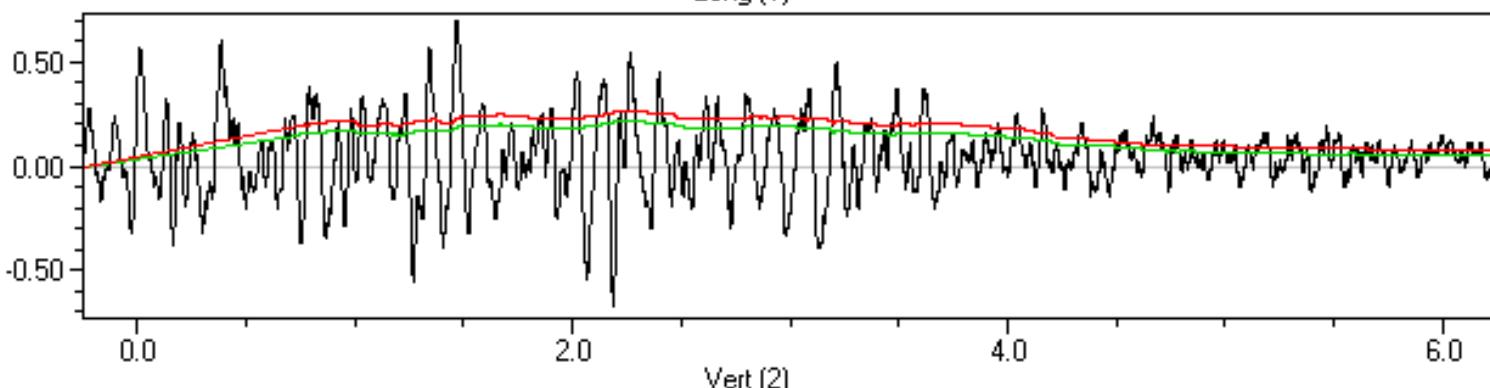
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.333 | 0.730 | 0.698 | mm/s |
| ZC Freq | 9.5 | 7.3 | 8.0 | Hz |
| Time of Peak | 1.342 | 1.379 | 1.466 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00594 | 0.0148 | 0.0162 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,12 | 0,23 | 0,22 | 0,34 |
| RMS (1s) | 0,14 | 0,29 | 0,26 | 0,41 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 02:32:42

File Name: M156BHBT.QI0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

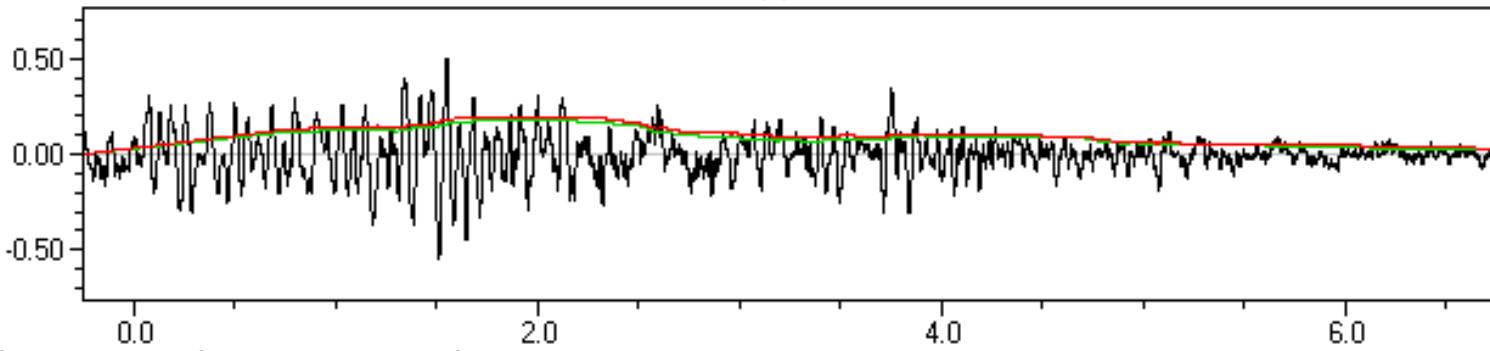
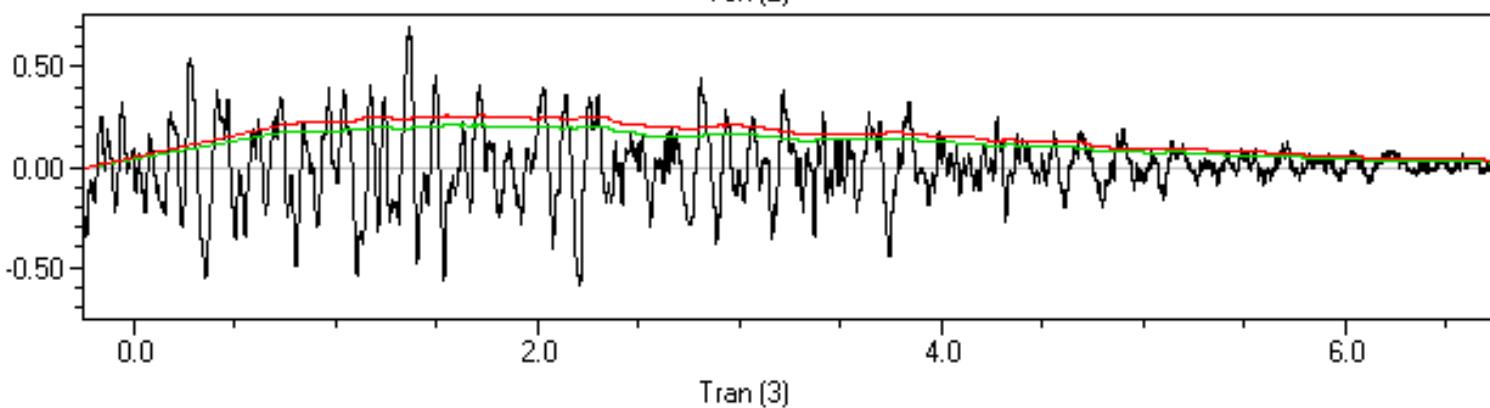
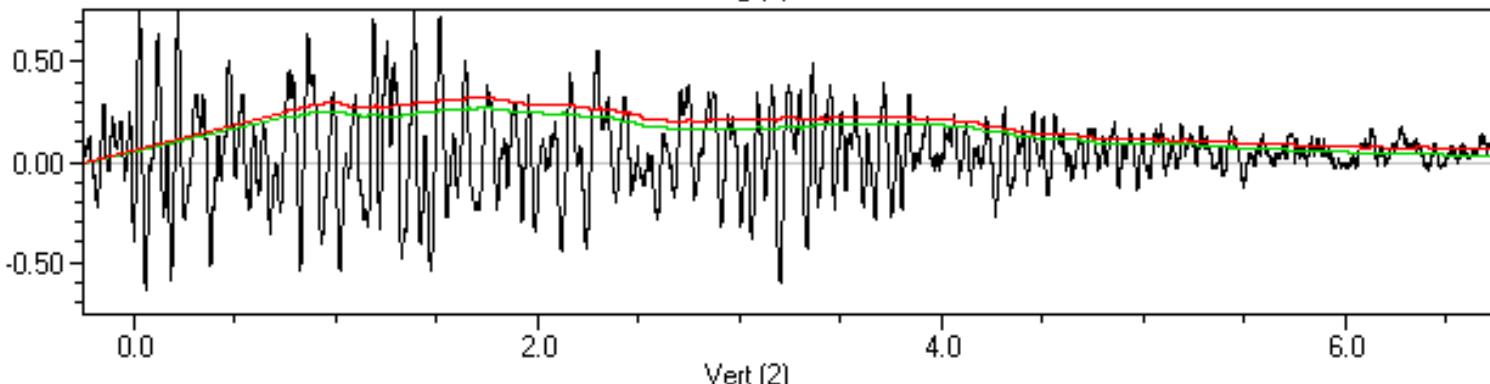
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.540 | 0.698 | 0.762 | mm/s |
| ZC Freq | 13 | 7.6 | 16 | Hz |
| Time of Peak | 1.514 | 1.367 | 0.026 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00829 | g |
| Peak Displacement | 0.00612 | 0.0134 | 0.0148 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,18 | 0,21 | 0,27 | 0,38 |
| RMS (1s) | 0,20 | 0,26 | 0,32 | 0,46 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 03:58:27

File Name: M156BHBX.PF0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

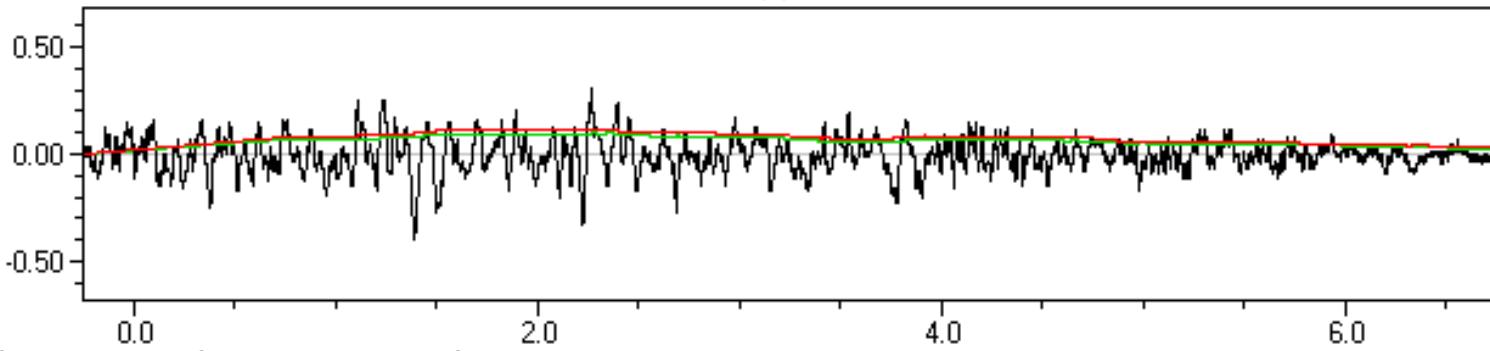
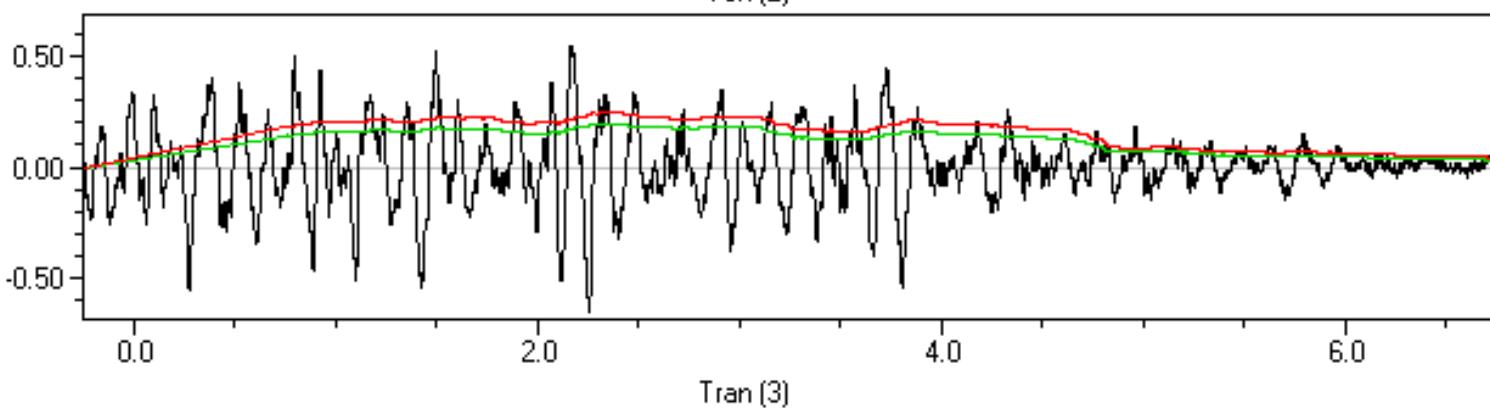
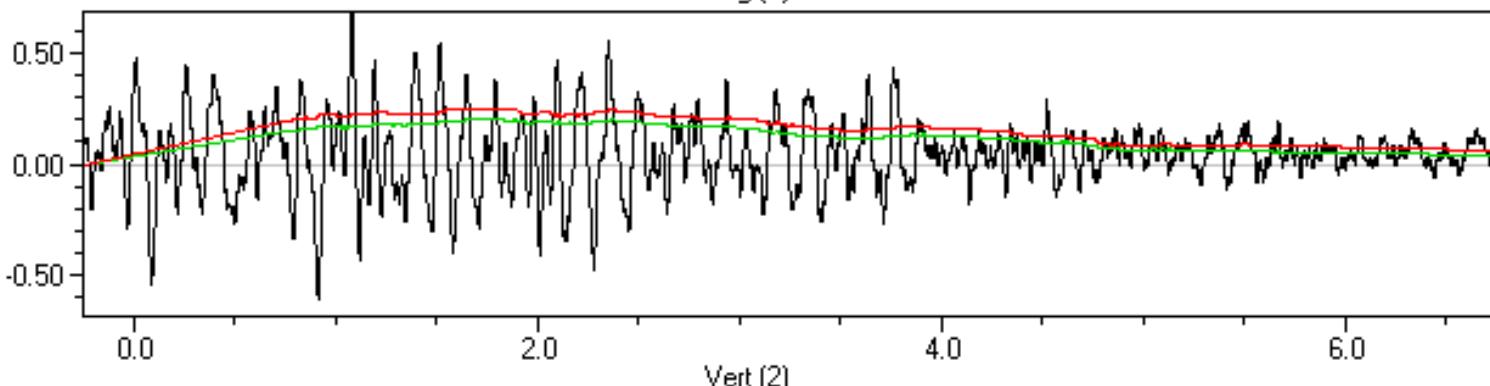
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.397 | 0.651 | 0.683 | mm/s |
| ZC Freq | 9.0 | 9.1 | 9.5 | Hz |
| Time of Peak | 1.389 | 2.256 | 1.078 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00589 | 0.0119 | 0.0111 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,10 | 0,20 | 0,20 | 0,29 |
| RMS (1s) | 0,12 | 0,25 | 0,25 | 0,36 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 04:57:37

File Name: M156BHC0.G10

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

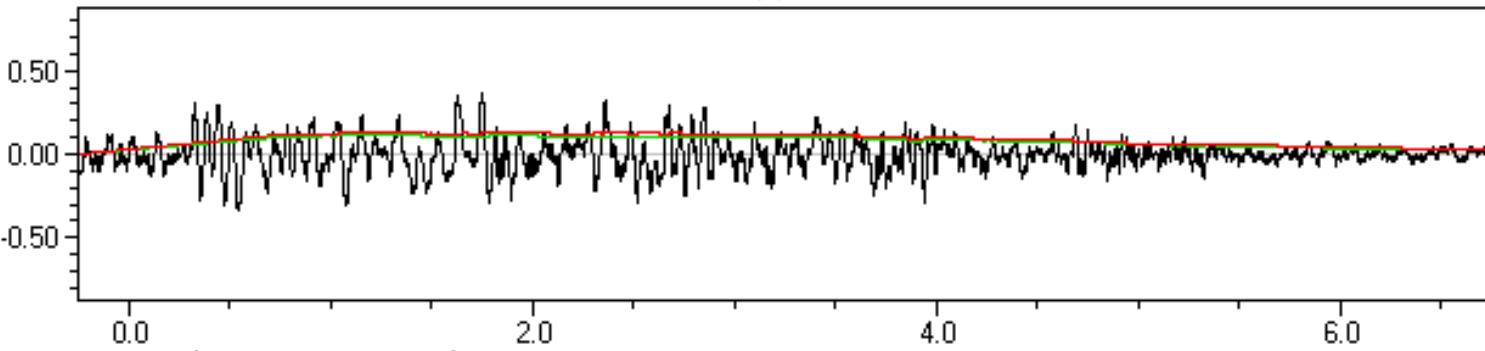
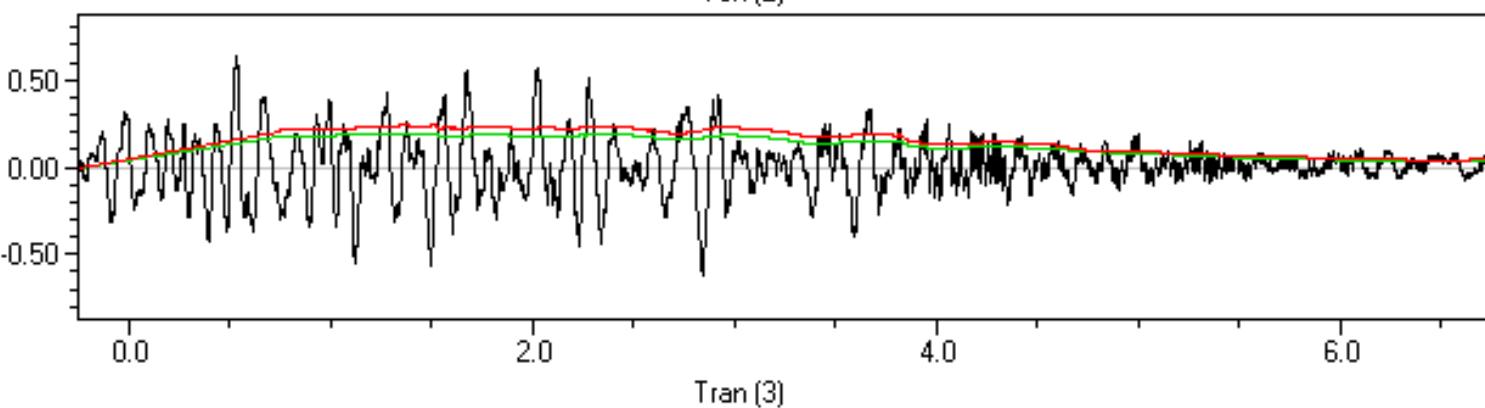
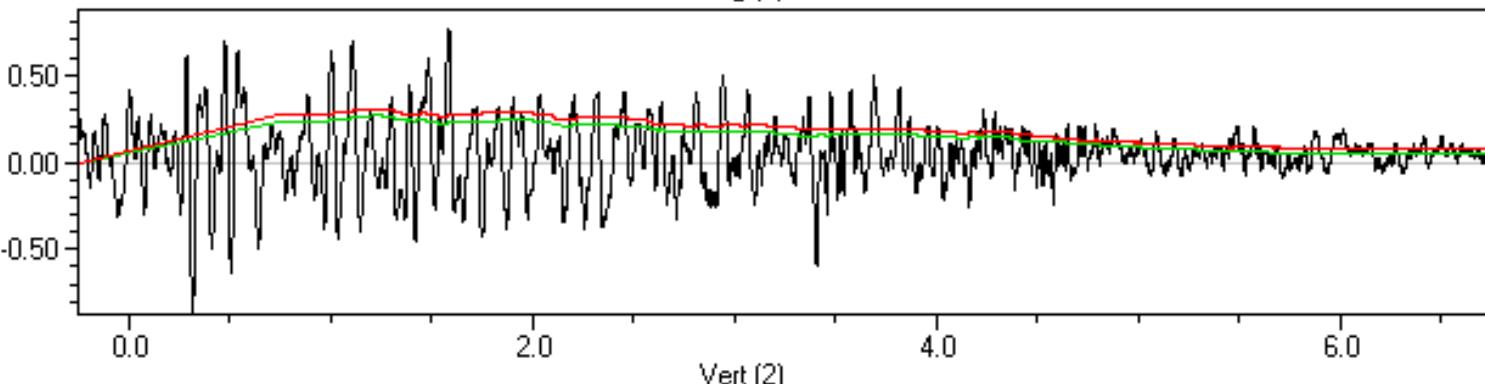
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.365 | 0.635 | 0.873 | mm/s |
| ZC Freq | 11 | 9.5 | 14 | Hz |
| Time of Peak | 1.748 | 0.532 | 0.317 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00829 | g |
| Peak Displacement | 0.00567 | 0.0120 | 0.0132 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,12 | 0,20 | 0,27 | 0,35 |
| RMS (1s) | 0,13 | 0,24 | 0,31 | 0,41 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 14:45:02

File Name: M156BHCR.N20

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

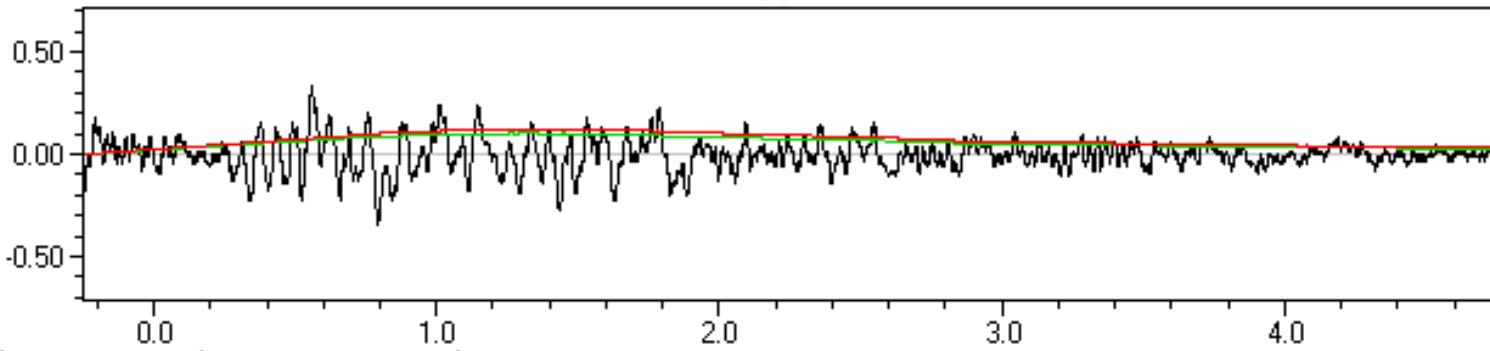
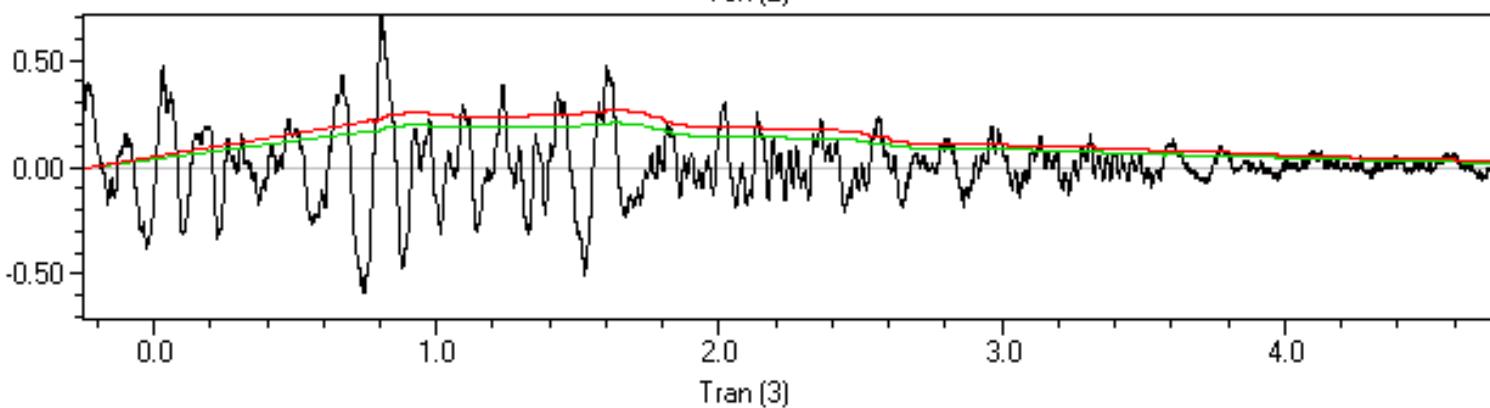
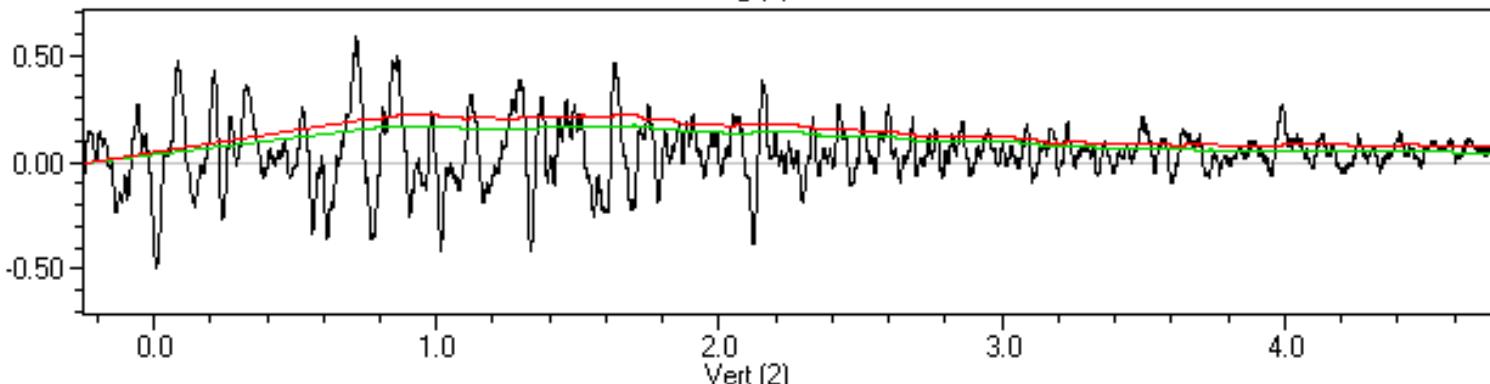
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.349 | 0.714 | 0.587 | mm/s |
| ZC Freq | 5.3 | 6.3 | 5.8 | Hz |
| Time of Peak | 0.790 | 0.805 | 0.717 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00776 | 0.0155 | 0.0131 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,10 | 0,21 | 0,17 | 0,28 |
| RMS (1s) | 0,12 | 0,27 | 0,22 | 0,37 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 06:44:56

File Name: M156BHE0.2W0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 9.75 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

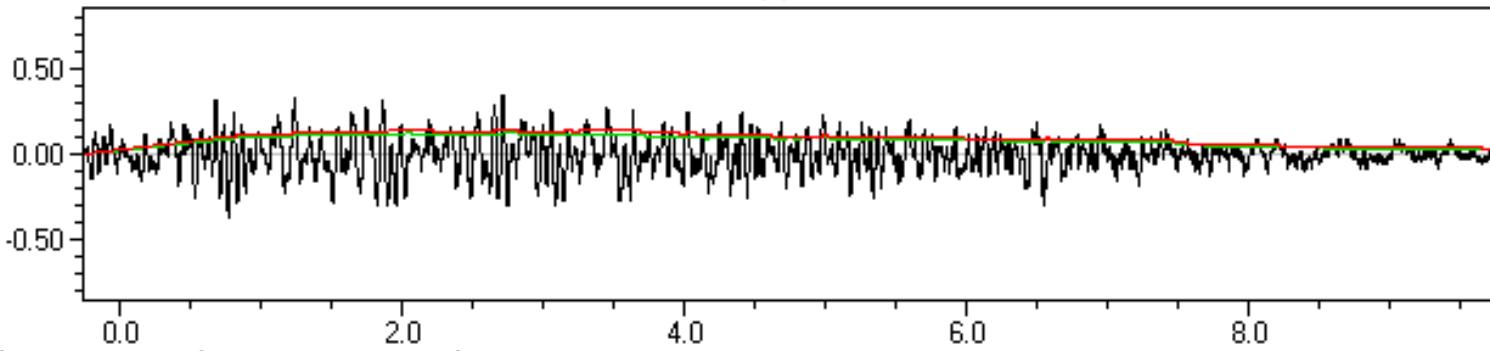
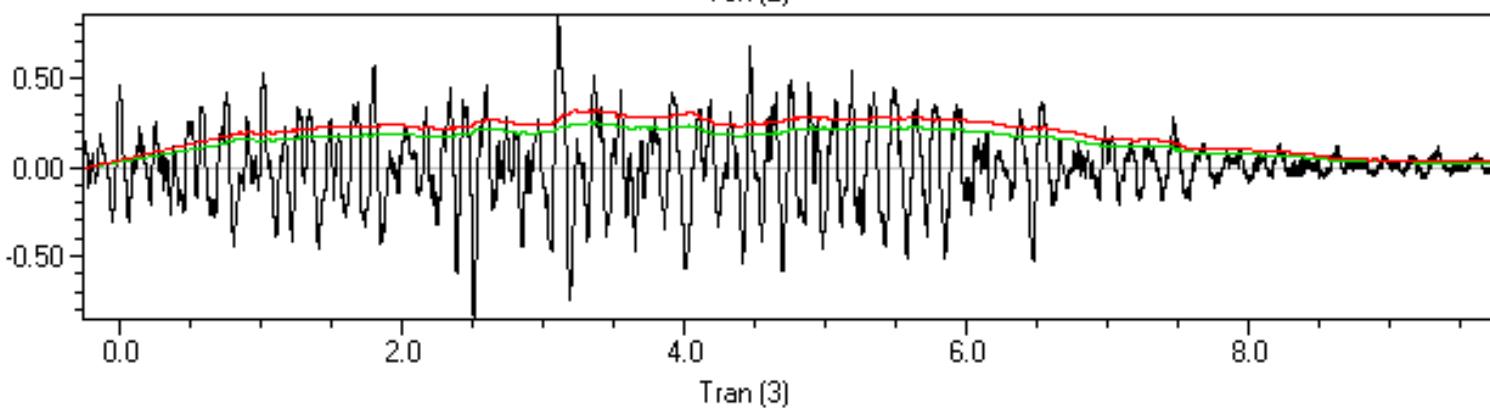
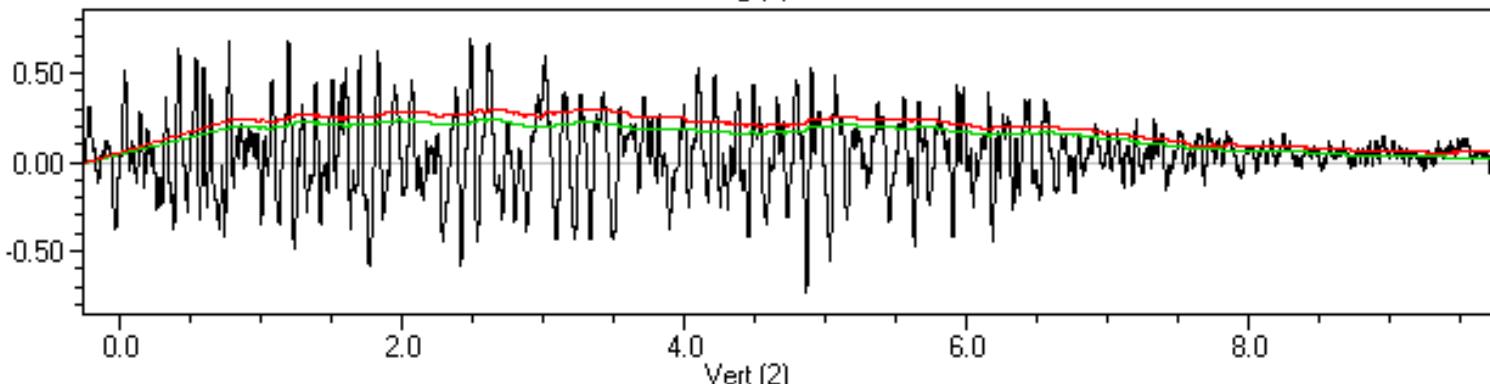
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.365 | 0.857 | 0.730 | mm/s |
| ZC Freq | 12 | 9.3 | 13 | Hz |
| Time of Peak | 0.775 | 2.513 | 4.868 | Sec |
| Peak Acceleration | 0.00663 | 0.00994 | 0.00829 | g |
| Peak Displacement | 0.00542 | 0.0215 | 0.0220 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,12 | 0,25 | 0,24 | 0,36 |
| RMS (1s) | 0,14 | 0,32 | 0,30 | 0,46 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 09:46:34

File Name: M156BHE8.HM0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

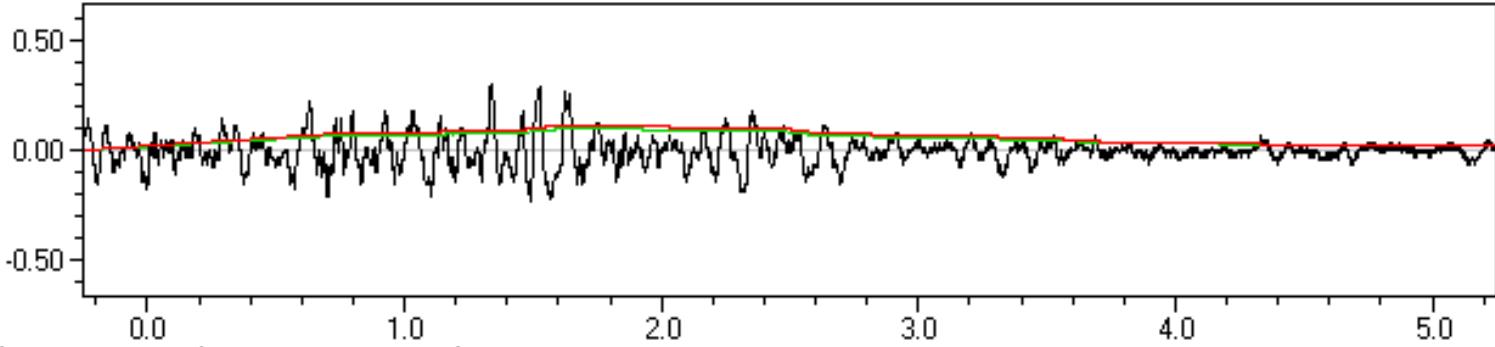
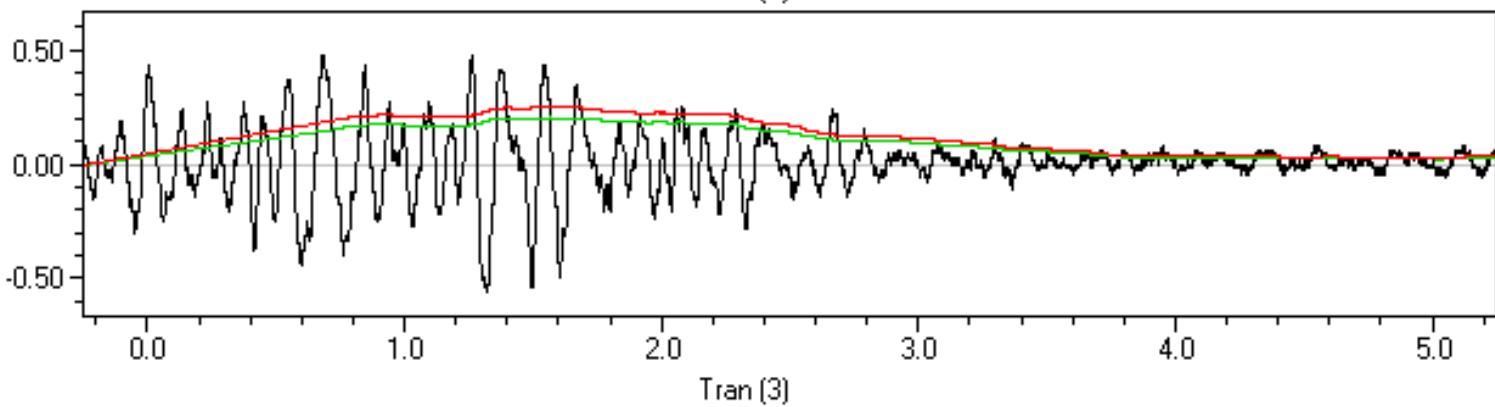
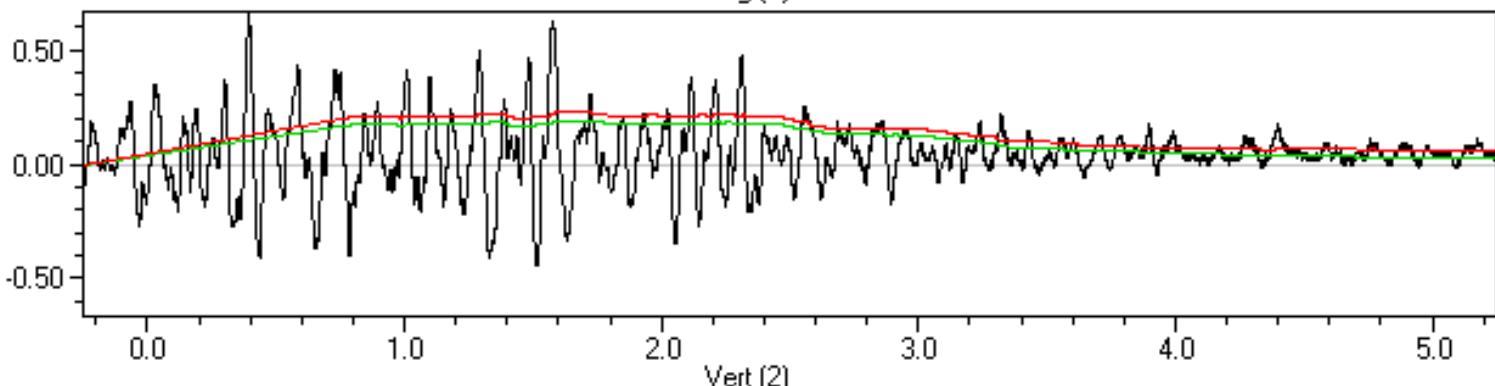
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.302 | 0.556 | 0.667 | mm/s |
| ZC Freq | 11 | 7.5 | 12 | Hz |
| Time of Peak | 1.337 | 1.322 | 0.395 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00829 | g |
| Peak Displacement | 0.00489 | 0.0123 | 0.0109 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,10 | 0,20 | 0,19 | 0,29 |
| RMS (1s) | 0,11 | 0,25 | 0,23 | 0,36 |

Long (1)





Event Date: January 3, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 08:33:07

File Name: M156BHFZ.R70

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 7.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

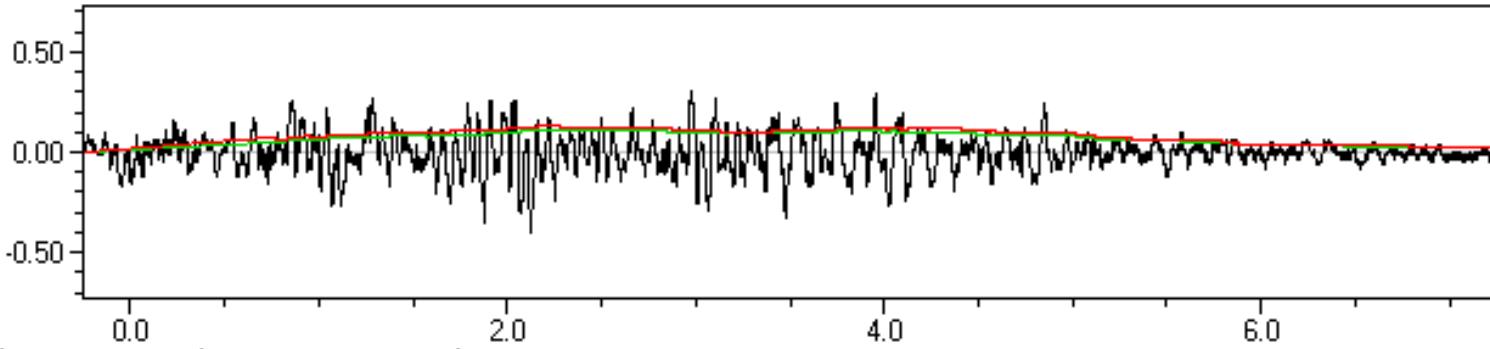
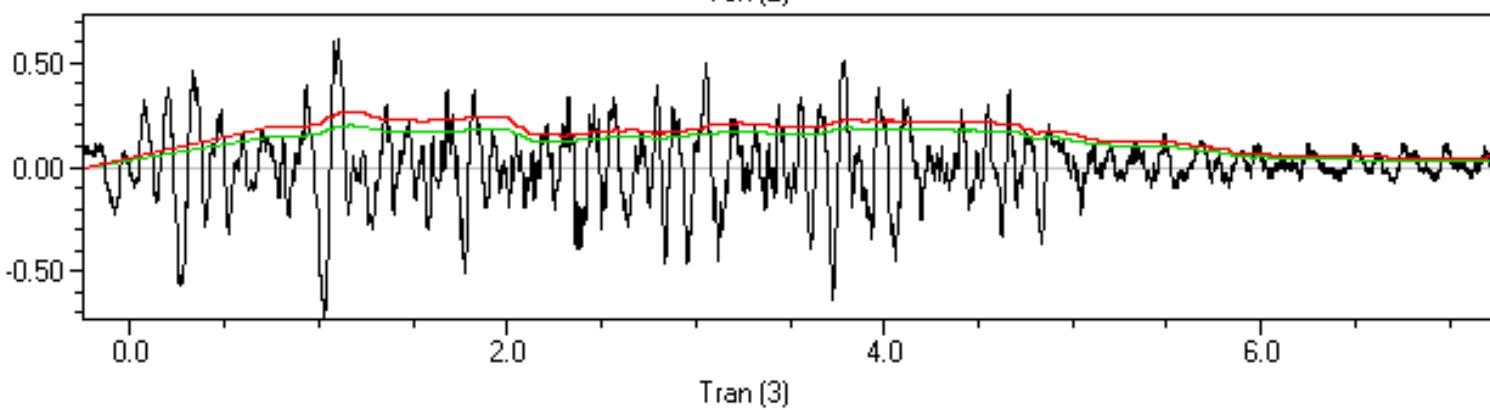
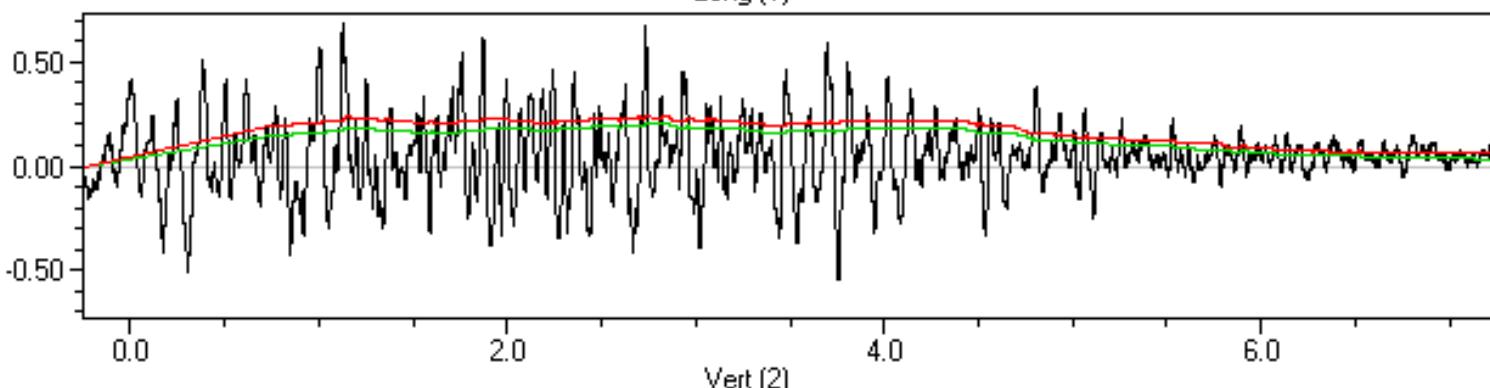
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.397 | 0.730 | 0.683 | mm/s |
| ZC Freq | 13 | 6.0 | 8.0 | Hz |
| Time of Peak | 2.122 | 1.026 | 1.126 | Sec |
| Peak Acceleration | 0.00829 | 0.00829 | 0.00829 | g |
| Peak Displacement | 0.00528 | 0.0170 | 0.0129 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.11 | 0.20 | 0.21 | 0.28 |
| RMS (1s) | 0.13 | 0.26 | 0.24 | 0.37 |

Long (1)





Event Date: January 4, 2007

Serial Number: BE11156, V 8.01-8.0 MiniMate Plus

Event Time: 02:31:39

File Name: M156BHHD.OR0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy p. 0207 437 400

Sample Rate: 1024 sps

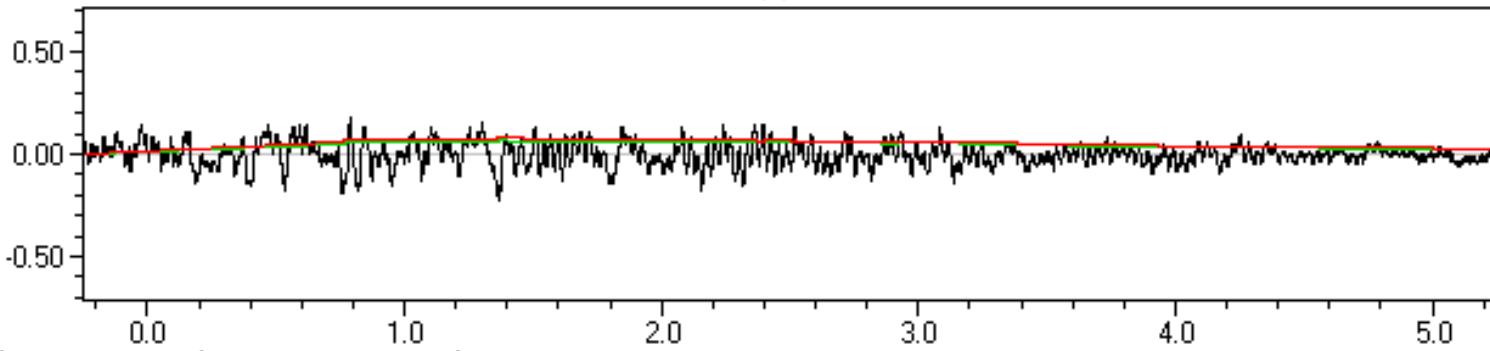
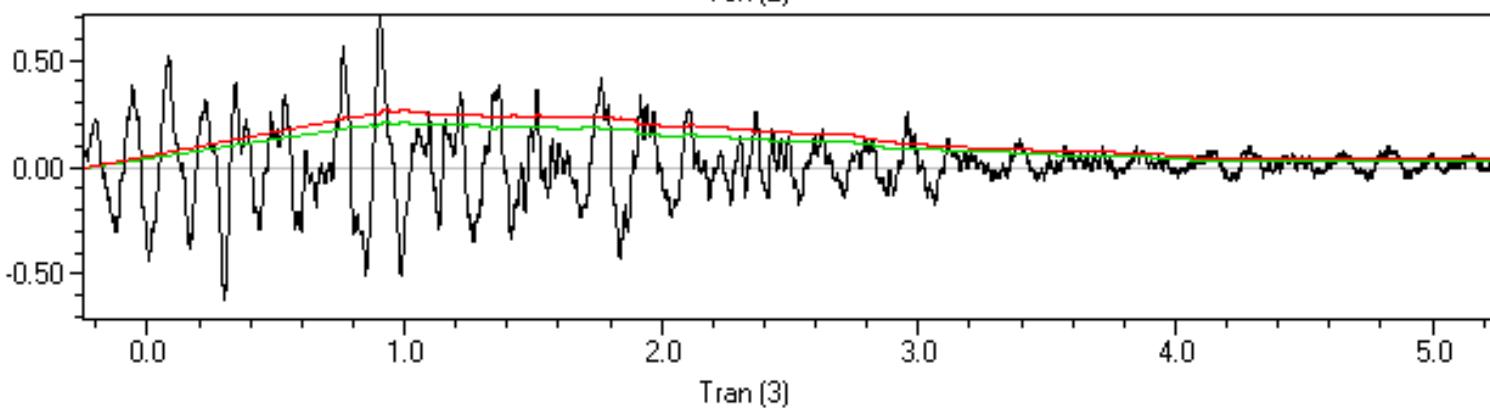
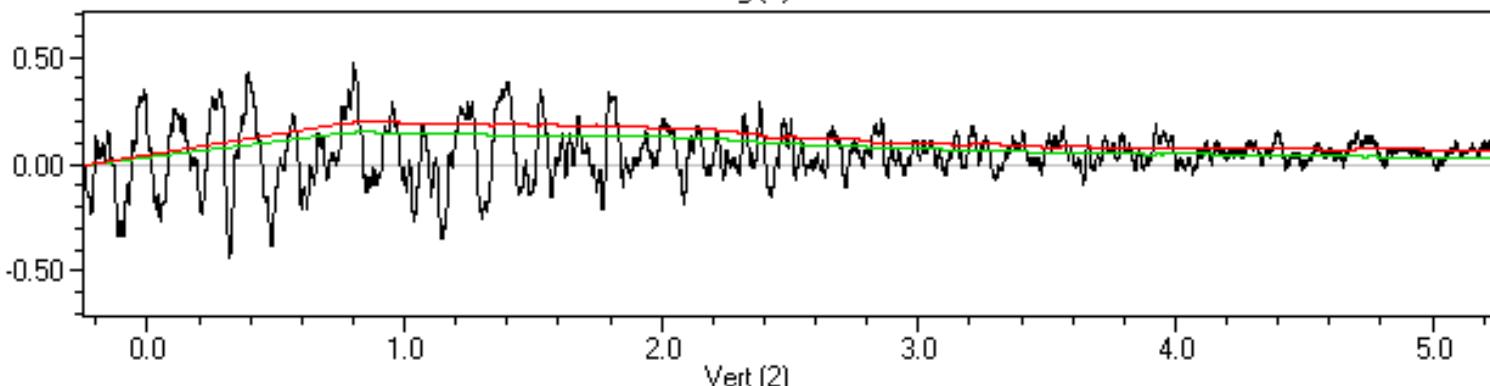
Job Number: 5296

Calibration: April 25, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.222 | 0.714 | 0.476 | mm/s |
| ZC Freq | 10 | 6.4 | 5.1 | Hz |
| Time of Peak | 1.363 | 0.903 | 0.803 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00829 | g |
| Peak Displacement | 0.00355 | 0.0132 | 0.0123 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,07 | 0,21 | 0,15 | 0,26 |
| RMS (1s) | 0,08 | 0,27 | 0,20 | 0,34 |

Long (1)





Event Date: December 29, 2006

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

Event Time: 17:55:14

File Name: M630BH7G.G20

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 7.25 sec

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Sample Rate: 1024 sps

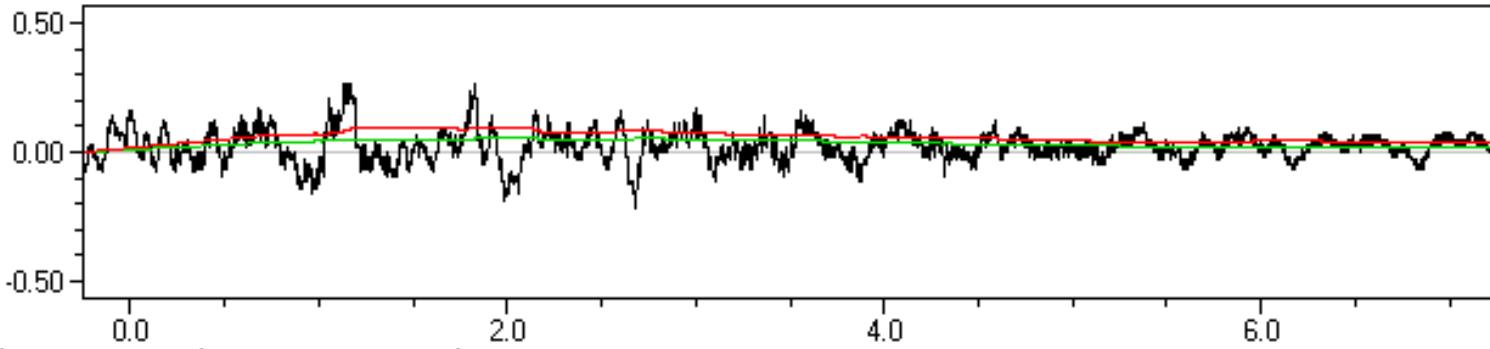
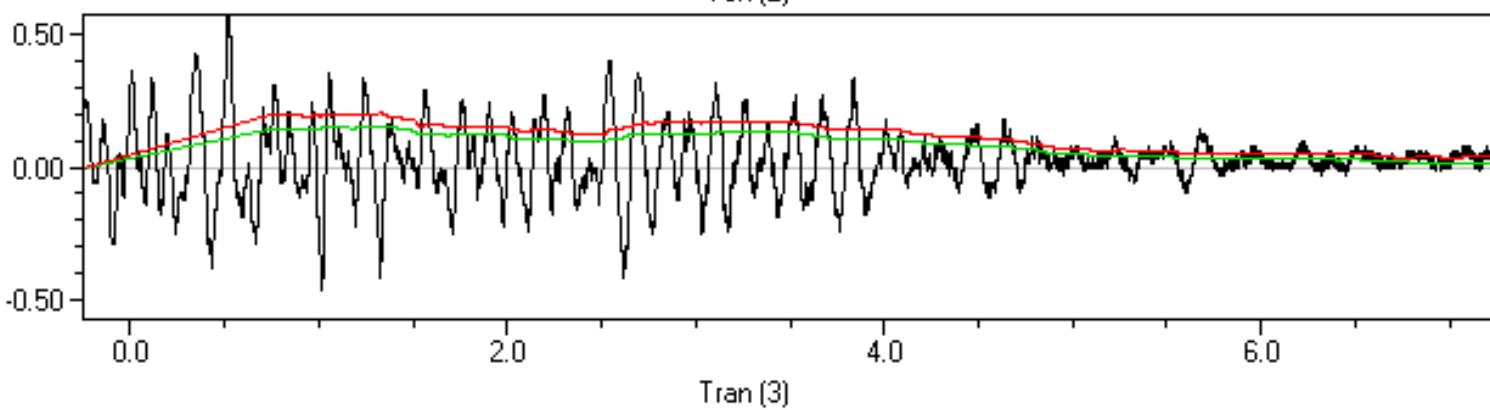
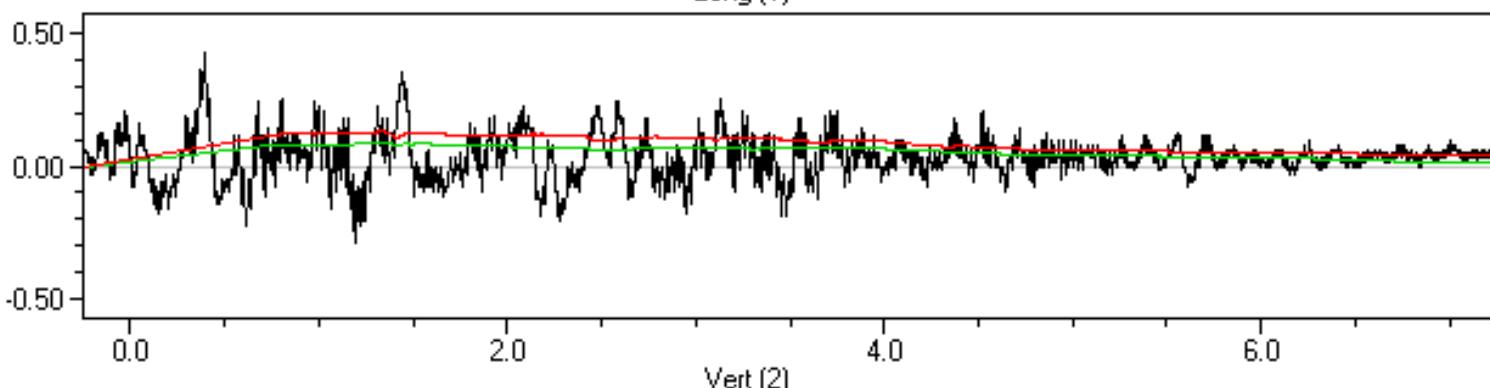
Job Number: 5296

Calibration: September 13, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.270 | 0.571 | 0.429 | mm/s |
| ZC Freq | 2.9 | 7.2 | 5.2 | Hz |
| Time of Peak | 1.133 | 0.517 | 0.395 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00663 | g |
| Peak Displacement | 0.0134 | 0.0113 | 0.0113 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,15 | 0,09 | 0,18 |
| RMS (1s) | 0,10 | 0,20 | 0,13 | 0,26 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

Event Time: 03:56:34

File Name: M630BHA2.YA0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.25 sec

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Sample Rate: 1024 sps

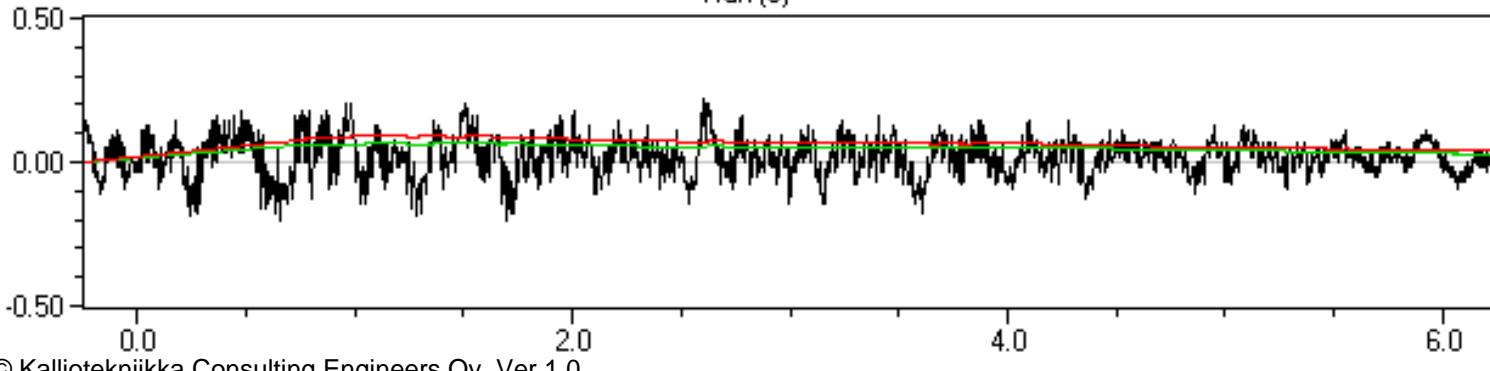
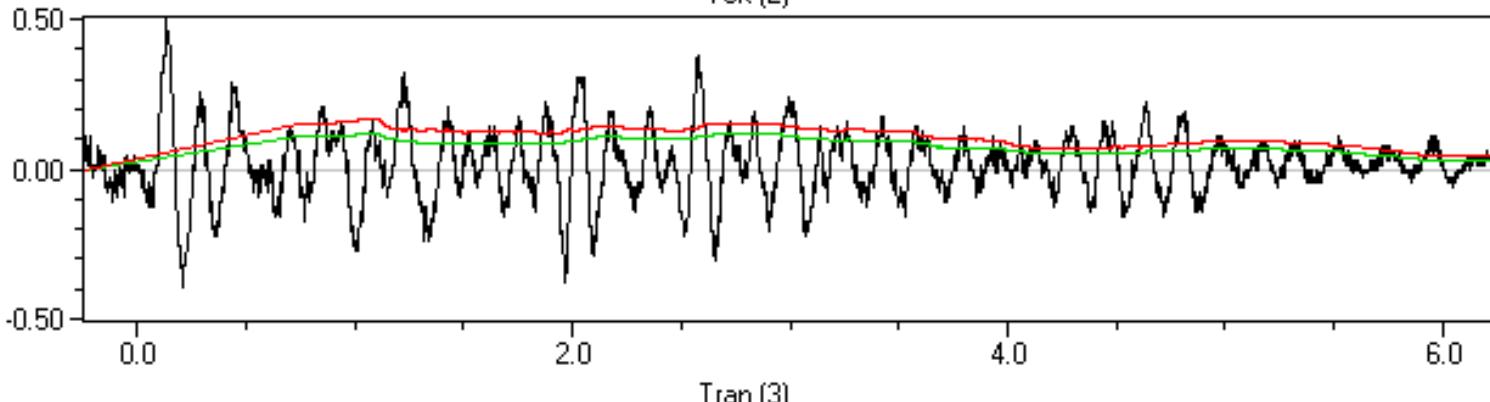
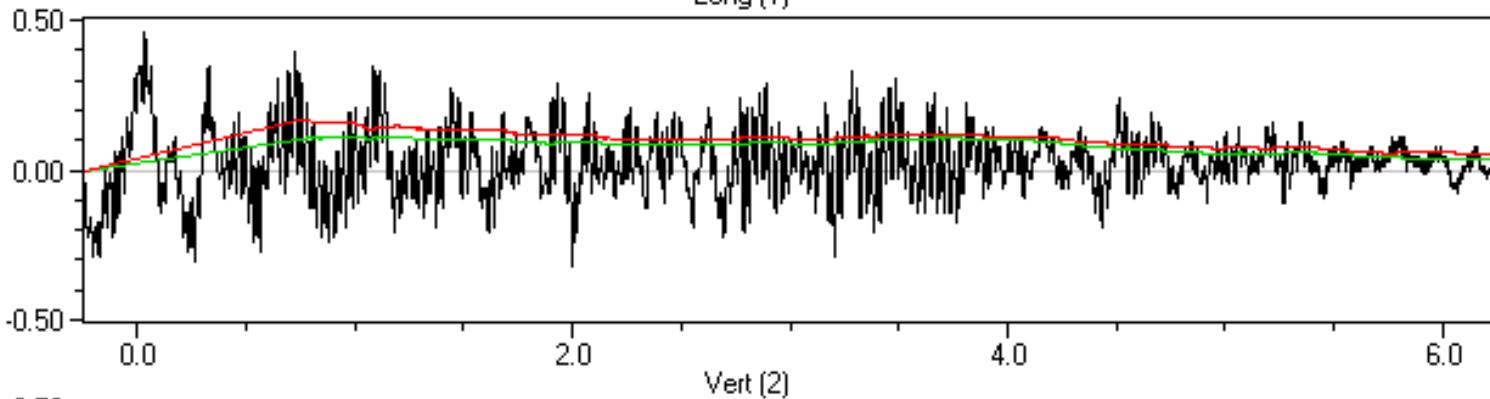
Job Number: 5296

Calibration: September 13, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.222 | 0.508 | 0.460 | mm/s |
| ZC Freq | 5.6 | 6.2 | 3.4 | Hz |
| Time of Peak | 2.602 | 0.134 | 0.034 | Sec |
| Peak Acceleration | 0.00663 | 0.00497 | 0.00829 | g |
| Peak Displacement | 0.00583 | 0.0120 | 0.0167 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.07 | 0.12 | 0.11 | 0.17 |
| RMS (1s) | 0.09 | 0.16 | 0.17 | 0.24 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

Event Time: 08:56:39

File Name: M630BHAG.UF0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Sample Rate: 1024 sps

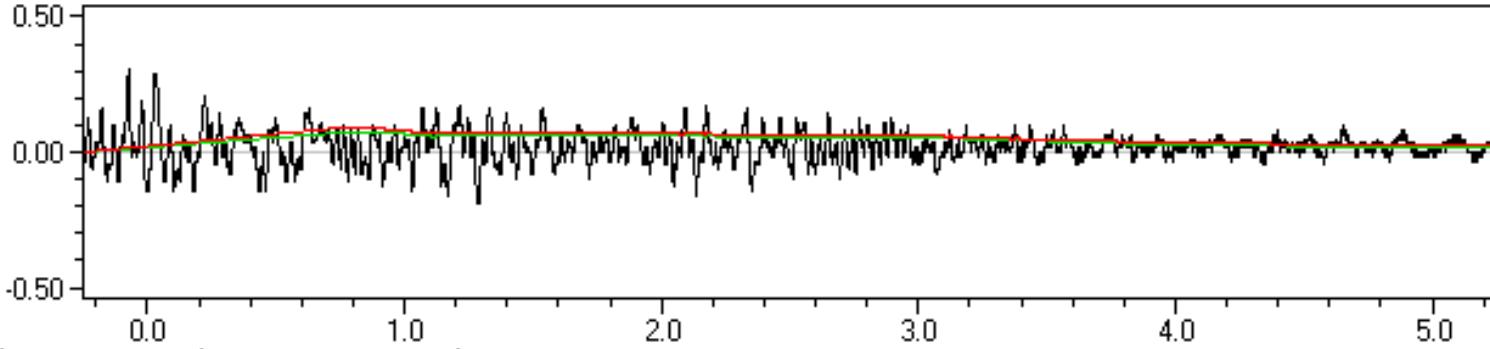
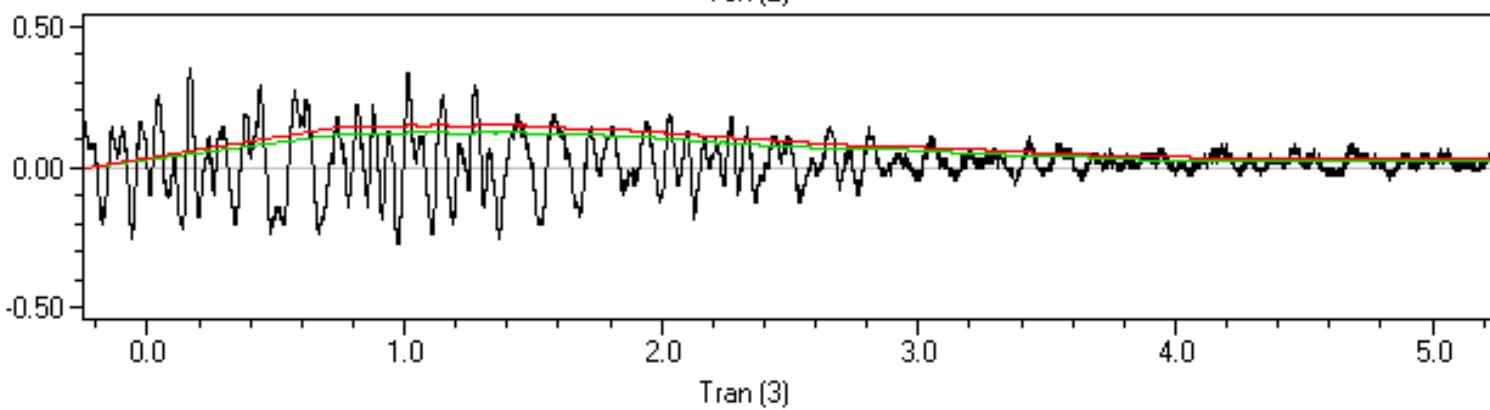
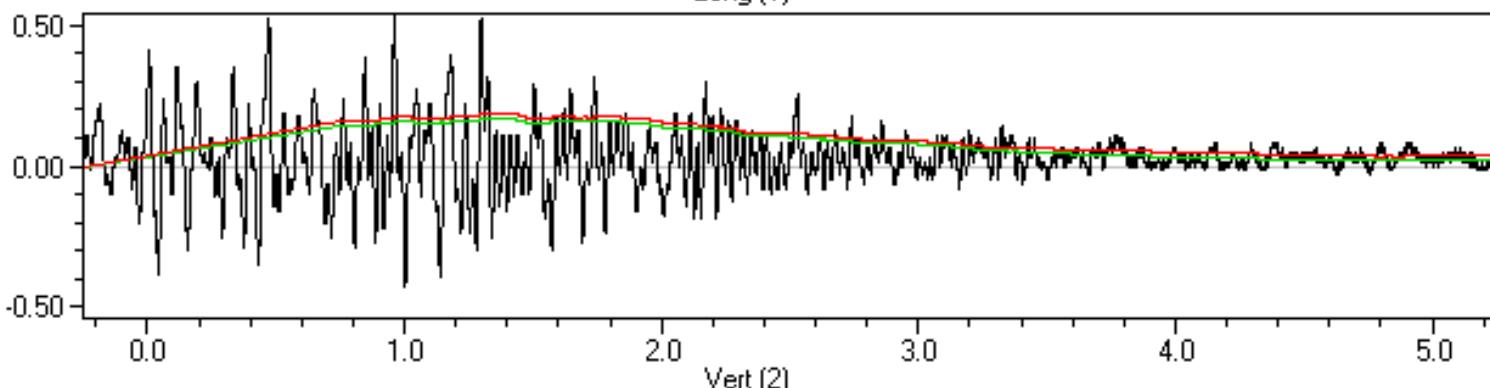
Job Number: 5296

Calibration: September 13, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.302 | 0.349 | 0.540 | mm/s |
| ZC Freq | 13 | 14 | 20 | Hz |
| Time of Peak | -0.074 | 0.165 | 0.960 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00829 | g |
| Peak Displacement | 0.00427 | 0.00822 | 0.00634 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,07 | 0,12 | 0,17 | 0,22 |
| RMS (1s) | 0,09 | 0,15 | 0,19 | 0,25 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

Event Time: 14:45:22

File Name: M630BHAW.ZMO

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Sample Rate: 1024 sps

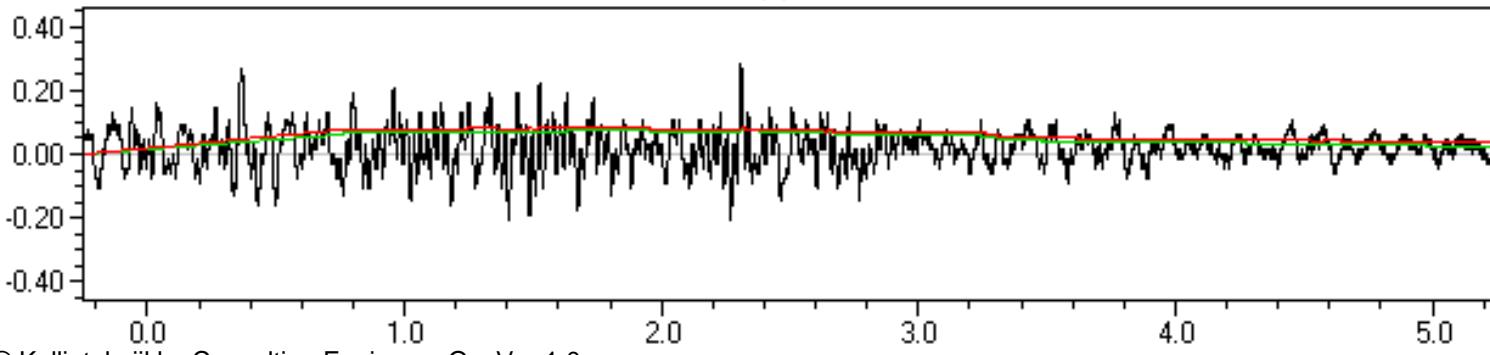
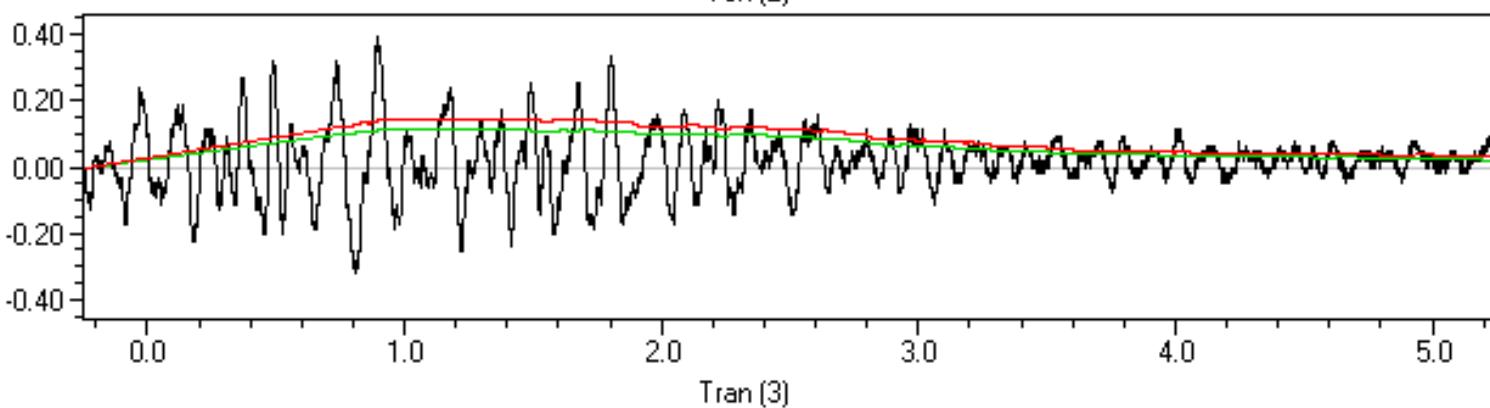
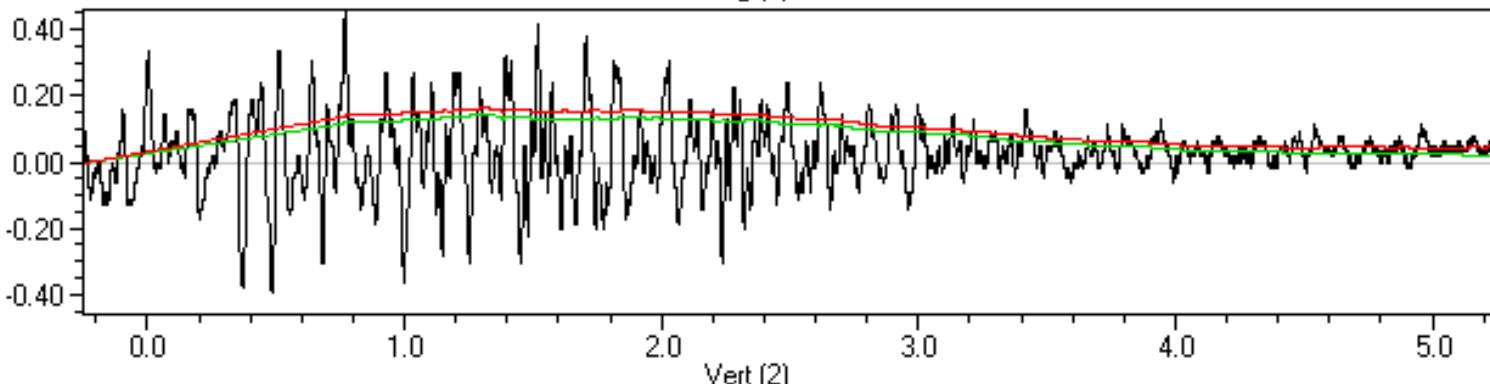
Job Number: 5296

Calibration: September 13, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.286 | 0.397 | 0.460 | mm/s |
| ZC Freq | 20 | 7.0 | 7.4 | Hz |
| Time of Peak | 2.307 | 0.894 | 0.770 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00262 | 0.00791 | 0.00629 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.08 | 0.12 | 0.14 | 0.20 |
| RMS (1s) | 0.08 | 0.15 | 0.16 | 0.23 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

Event Time: 20:45:04

File Name: M630BHBD.N40

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.75 sec

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Sample Rate: 1024 sps

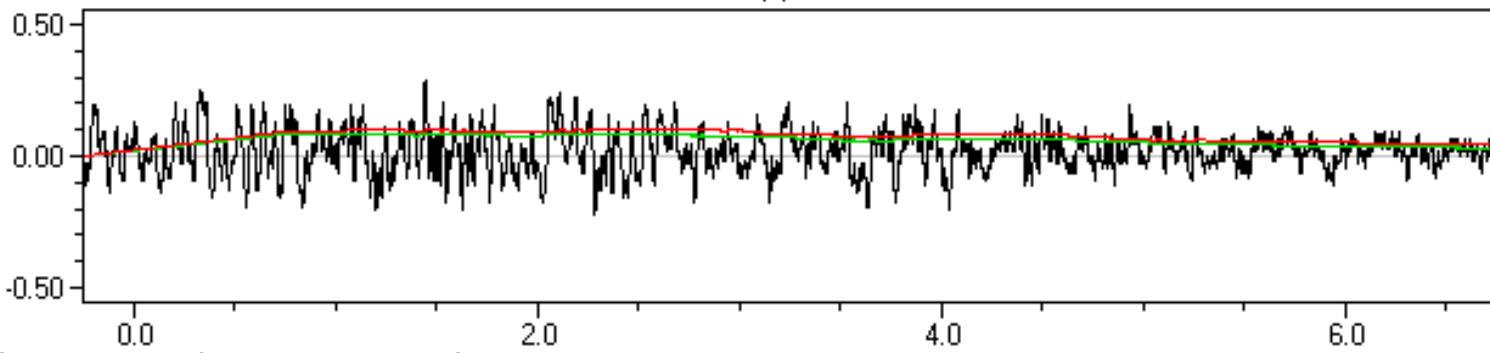
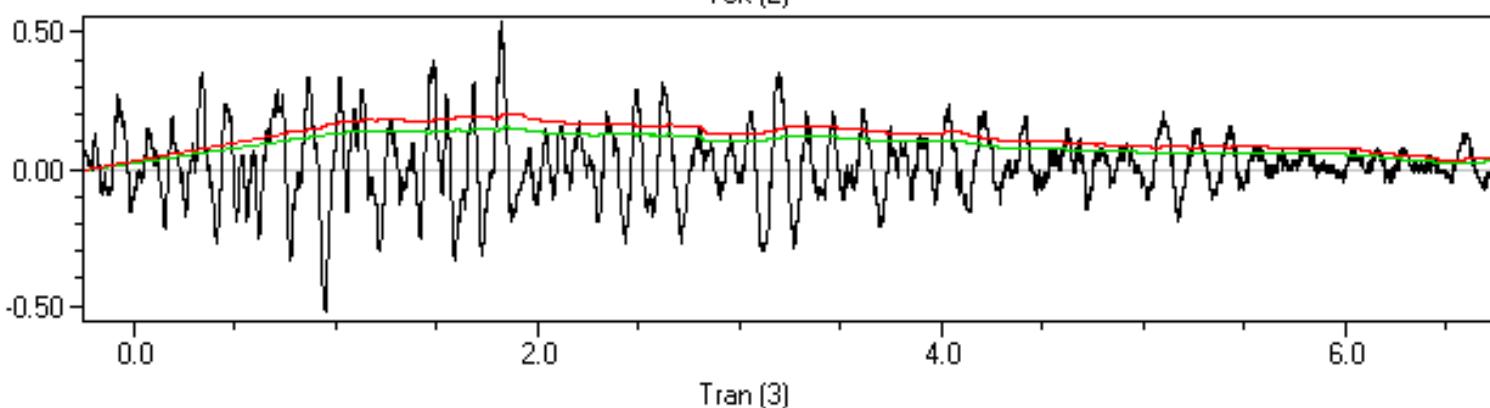
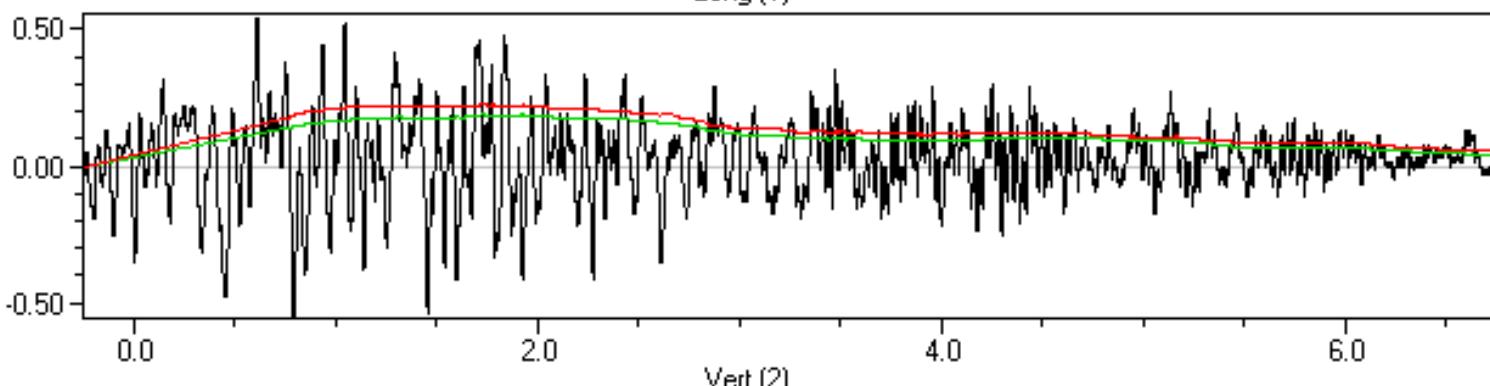
Job Number: 5296

Calibration: September 13, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.286 | 0.540 | 0.556 | mm/s |
| ZC Freq | 13 | 6.9 | 12 | Hz |
| Time of Peak | 1.442 | 1.817 | 0.791 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00829 | g |
| Peak Displacement | 0.00614 | 0.0107 | 0.0119 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,09 | 0,15 | 0,19 | 0,25 |
| RMS (1s) | 0,10 | 0,20 | 0,23 | 0,31 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

Event Time: 22:45:23

File Name: M630BHB7.N0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.25 sec

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Sample Rate: 1024 sps

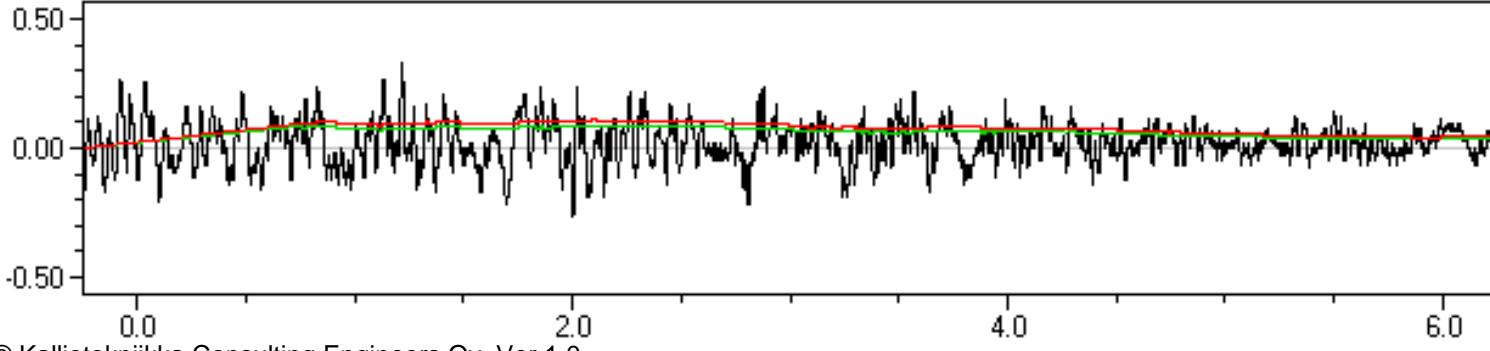
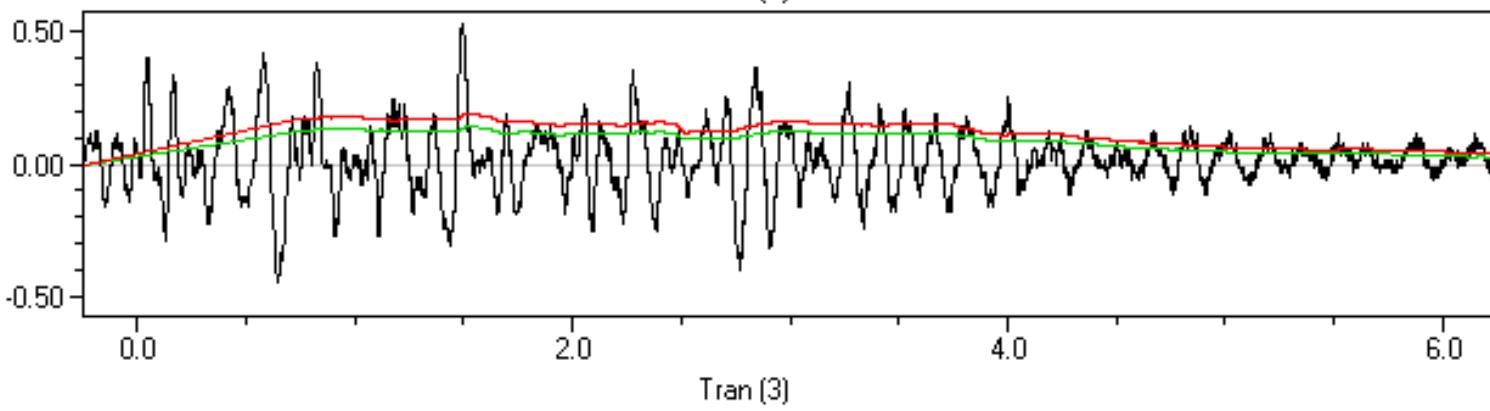
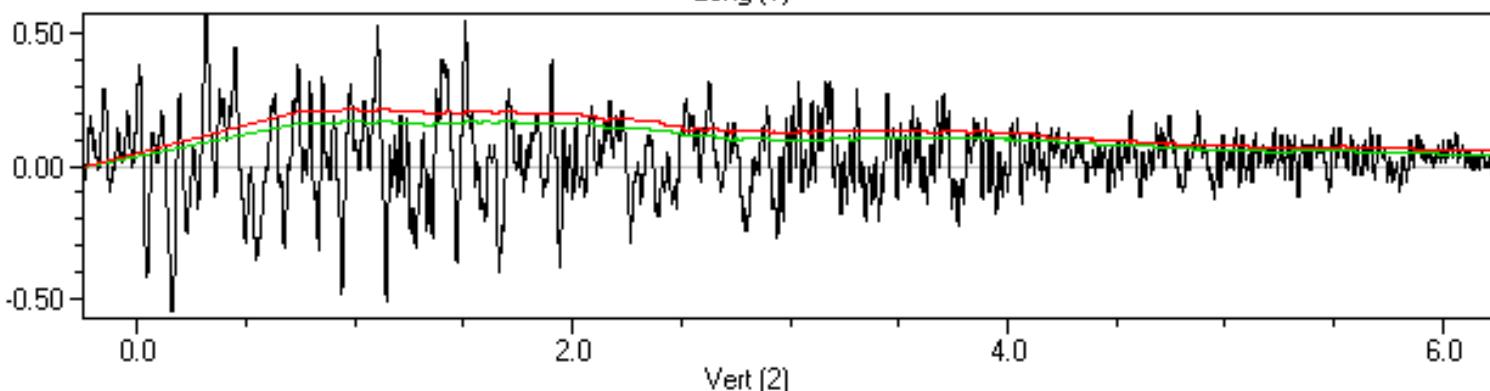
Job Number: 5296

Calibration: September 13, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.333 | 0.524 | 0.571 | mm/s |
| ZC Freq | 20 | 7.0 | 8.8 | Hz |
| Time of Peak | 1.215 | 1.494 | 0.314 | Sec |
| Peak Acceleration | 0.00663 | 0.00497 | 0.00829 | g |
| Peak Displacement | 0.00497 | 0.0109 | 0.0115 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.09 | 0.14 | 0.17 | 0.23 |
| RMS (1s) | 0.11 | 0.19 | 0.22 | 0.30 |

Long (1)





Event Date: January 1, 2007

Event Time: 01:33:47

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

File Name: M630BHBR.0B0

Trigger: Long

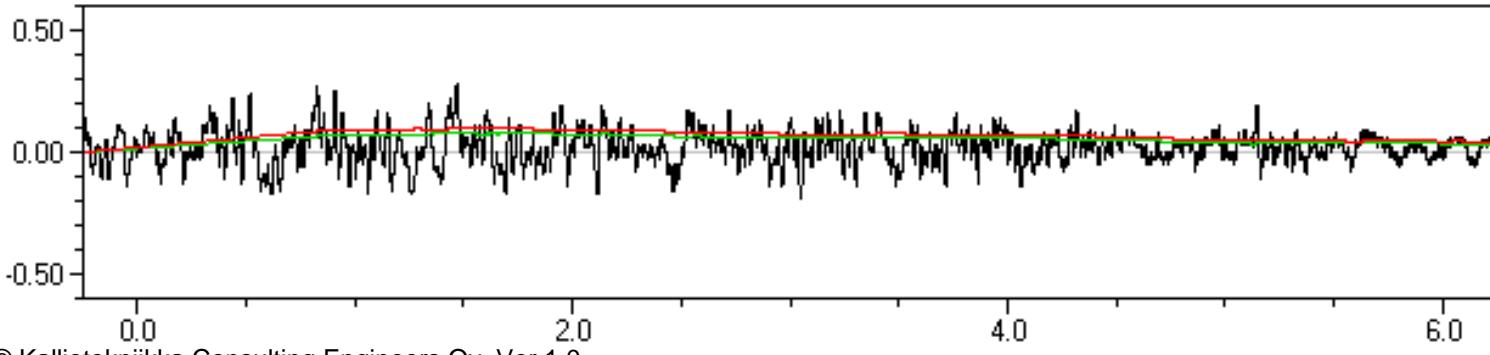
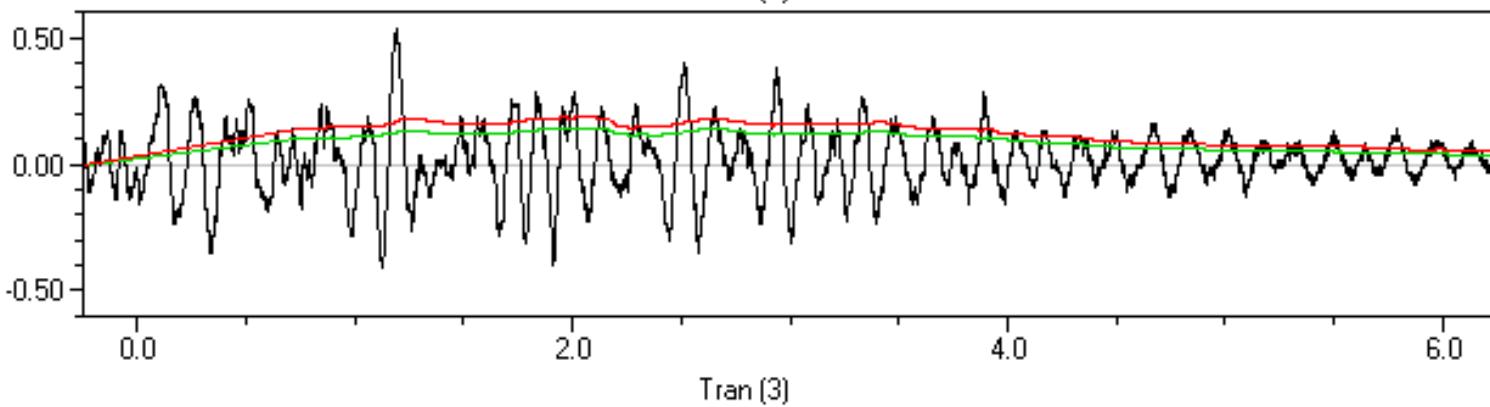
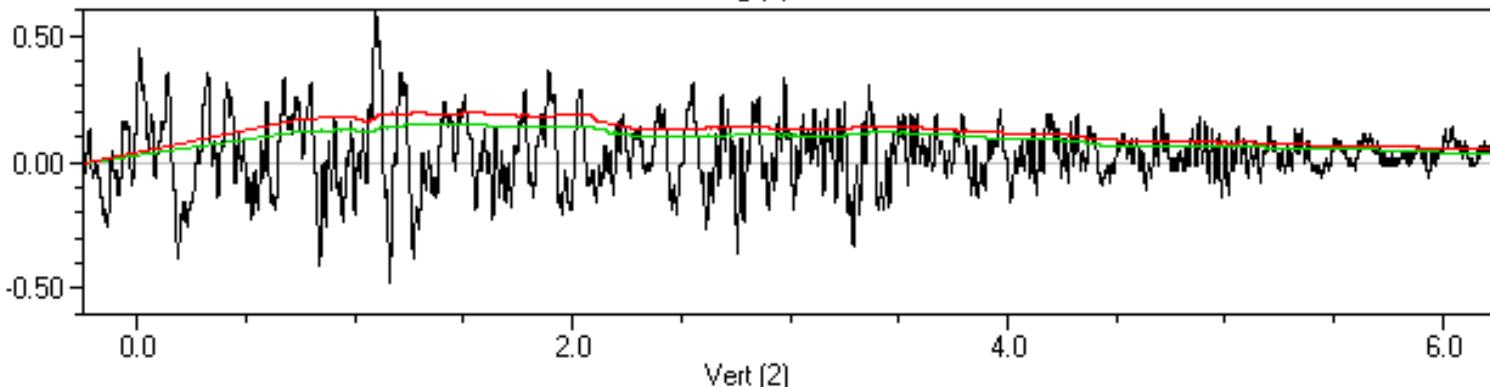
Record Time: 6.25 sec

Sample Rate: 1024 sps

Calibration: September 13, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.286 | 0.540 | 0.603 | mm/s |
| ZC Freq | 6.9 | 6.7 | 6.9 | Hz |
| Time of Peak | 1.467 | 1.190 | 1.092 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00829 | g |
| Peak Displacement | 0.00589 | 0.0126 | 0.0123 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.08 | 0.14 | 0.15 | 0.22 |
| RMS (1s) | 0.10 | 0.19 | 0.20 | 0.28 |

Long (1)





Event Date: January 1, 2007

Event Time: 02:32:42

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

File Name: M630BHBT.QI0

Trigger: Long

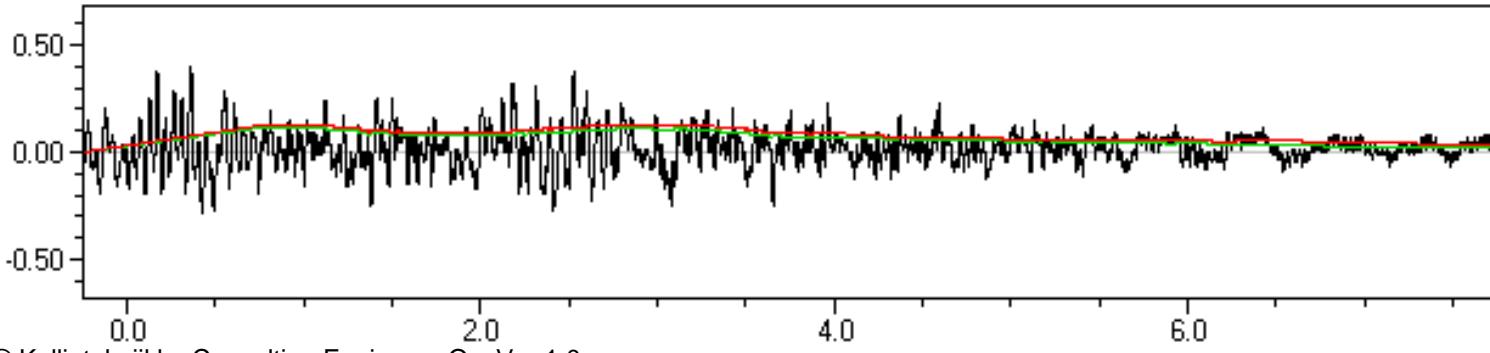
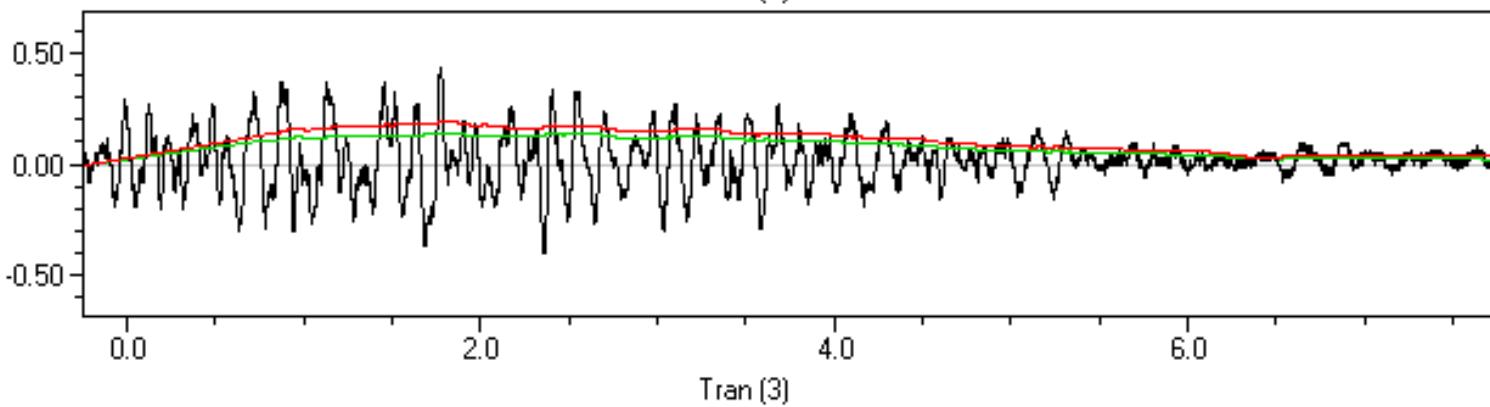
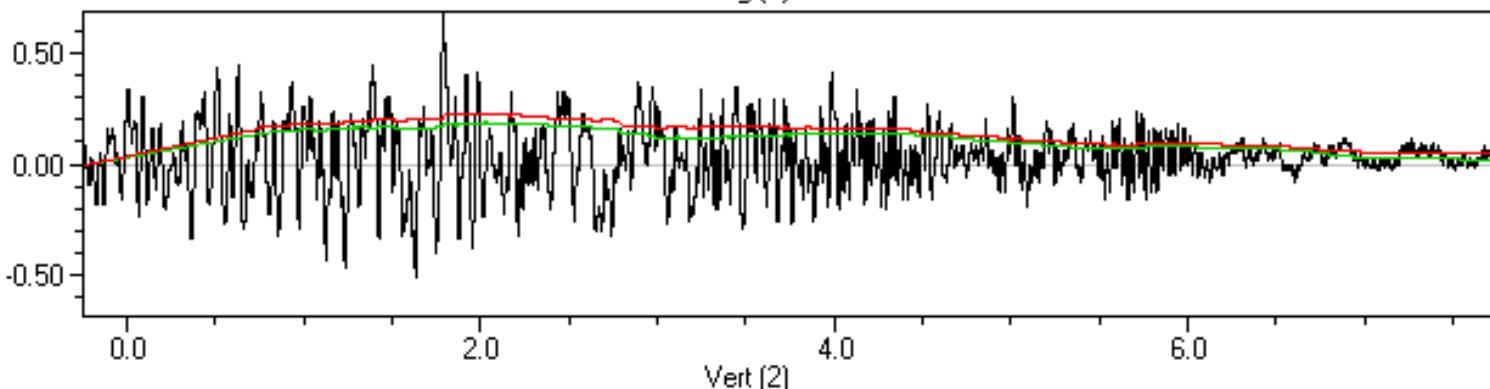
Record Time: 7.75 sec

Sample Rate: 1024 sps

Calibration: September 13, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.397 | 0.429 | 0.683 | mm/s |
| ZC Freq | 17 | 9.3 | 8.5 | Hz |
| Time of Peak | 0.357 | 1.772 | 1.787 | Sec |
| Peak Acceleration | 0.00829 | 0.00497 | 0.00829 | g |
| Peak Displacement | 0.00484 | 0.0115 | 0.0120 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,11 | 0,14 | 0,19 | 0,24 |
| RMS (1s) | 0,13 | 0,19 | 0,23 | 0,31 |

Long (1)





Event Date: January 1, 2007

Event Time: 04:57:38

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

File Name: M630BHC0.G20

Trigger: Long

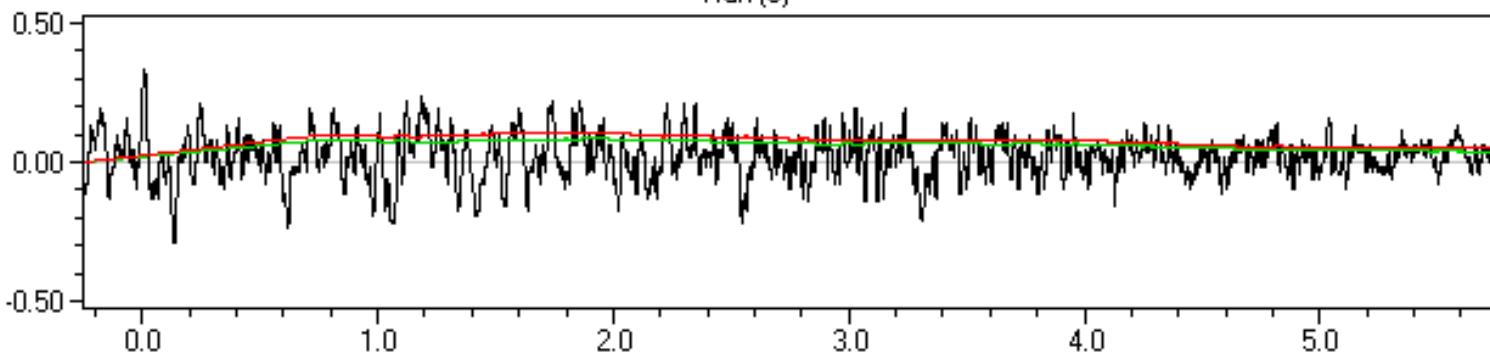
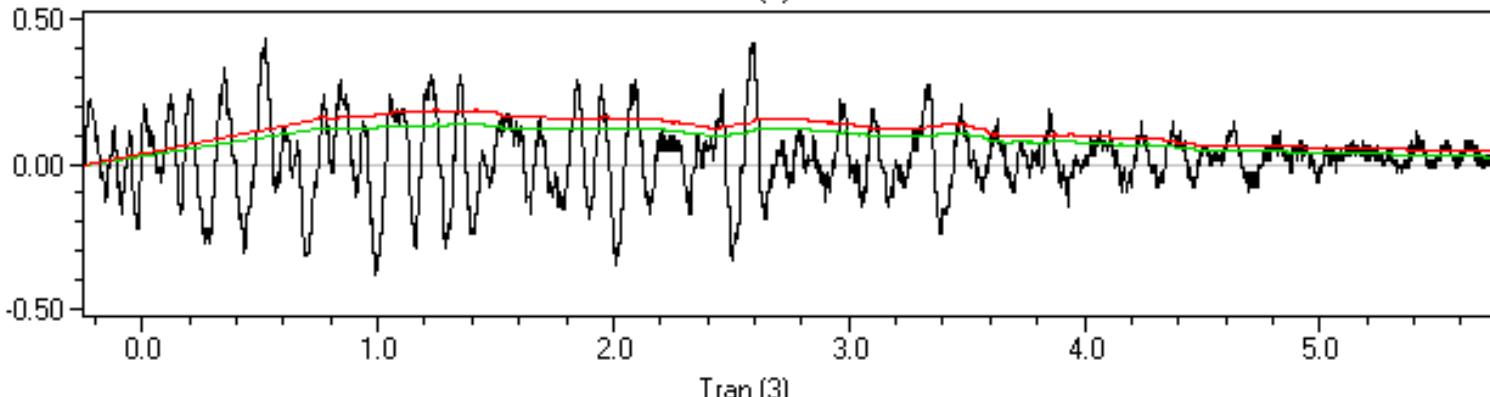
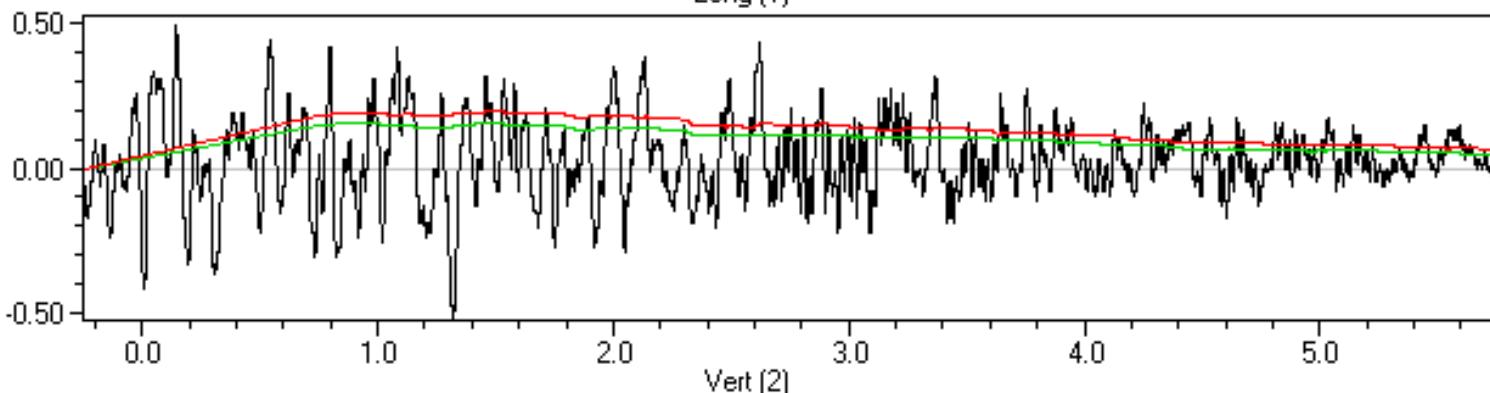
Record Time: 5.75 sec

Sample Rate: 1024 sps

Calibration: September 13, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.333 | 0.429 | 0.524 | mm/s |
| ZC Freq | 12 | 6.6 | 8.3 | Hz |
| Time of Peak | 0.009 | 0.520 | 1.322 | Sec |
| Peak Acceleration | 0.00663 | 0.00497 | 0.00994 | g |
| Peak Displacement | 0.00492 | 0.00943 | 0.0138 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.08 | 0.14 | 0.16 | 0.22 |
| RMS (1s) | 0.11 | 0.19 | 0.20 | 0.28 |

Long (1)





Event Date: January 1, 2007

Event Time: 14:45:03

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

File Name: M630BHCR.N30

Trigger: Vert

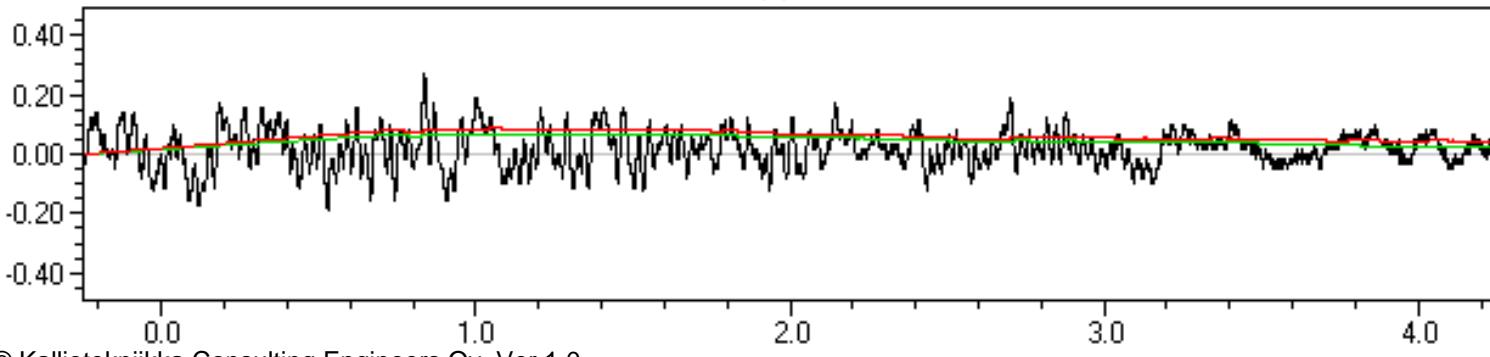
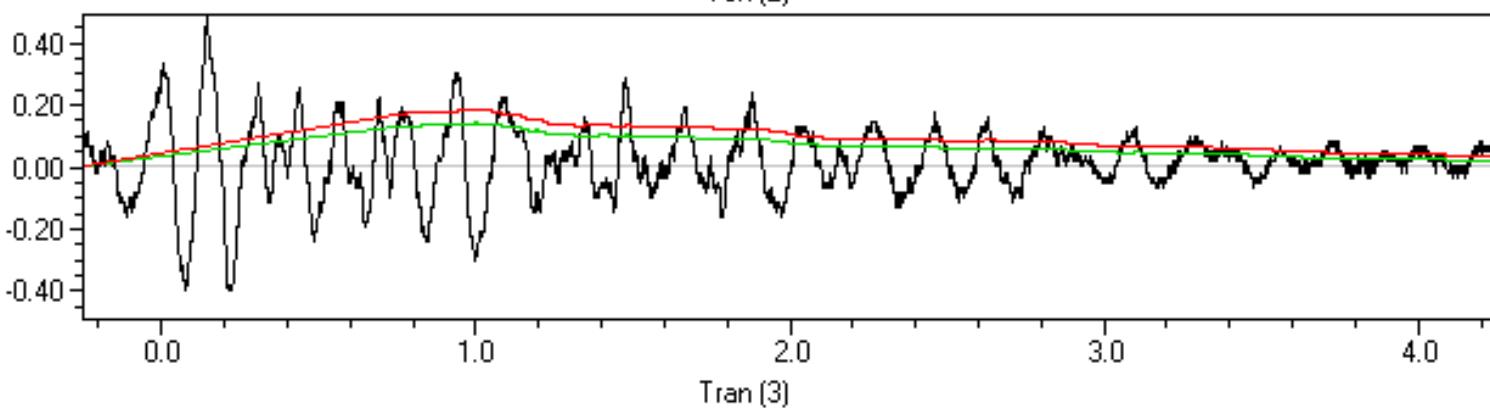
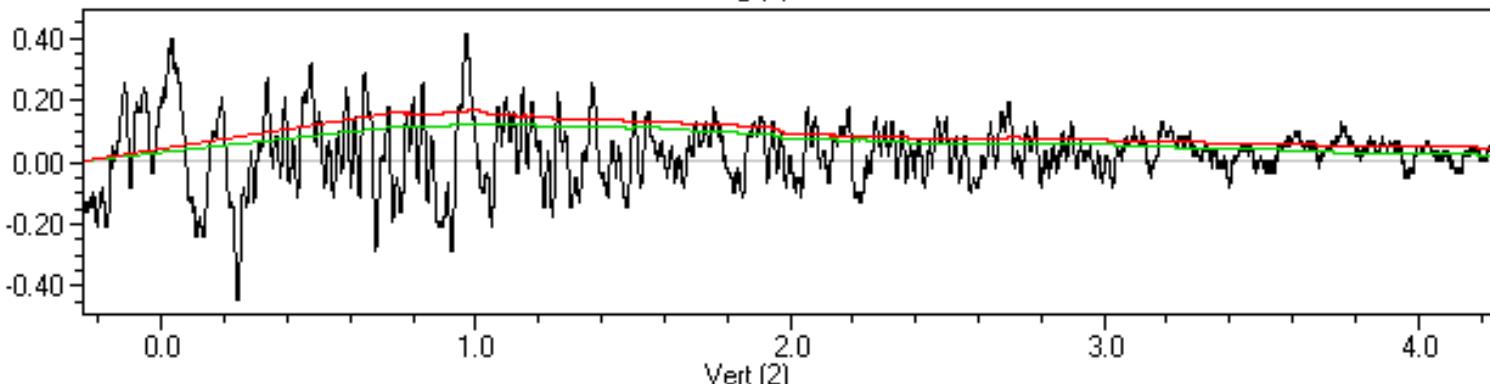
Record Time: 4.25 sec

Sample Rate: 1024 sps

Calibration: September 13, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.270 | 0.492 | 0.444 | mm/s |
| ZC Freq | 17 | 6.6 | 6.8 | Hz |
| Time of Peak | 0.836 | 0.142 | 0.240 | Sec |
| Peak Acceleration | 0.00663 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00448 | 0.0104 | 0.0113 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,07 | 0,14 | 0,13 | 0,20 |
| RMS (1s) | 0,10 | 0,18 | 0,17 | 0,26 |

Long (1)





Event Date: January 1, 2007

Event Time: 22:46:25

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

File Name: M630BHDD.XD0

Trigger: Long

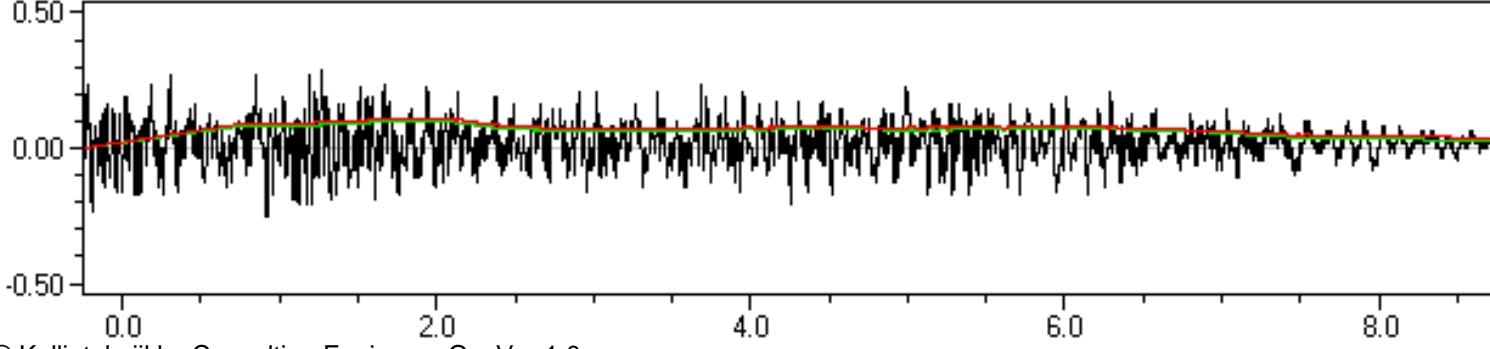
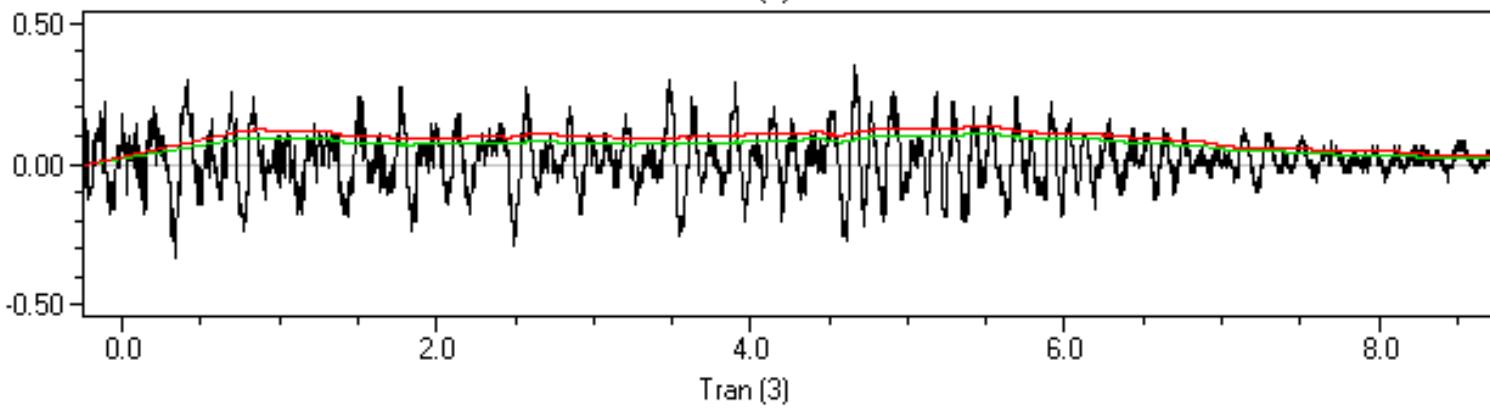
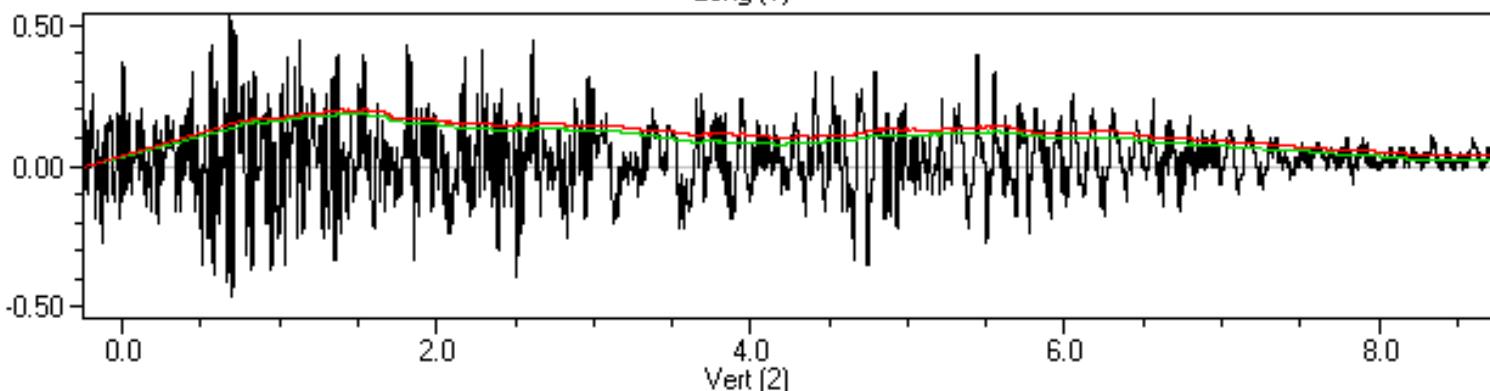
Record Time: 8.75 sec

Sample Rate: 1024 sps

Calibration: September 13, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.286 | 0.349 | 0.540 | mm/s |
| ZC Freq | 18 | 8.0 | 30 | Hz |
| Time of Peak | 1.269 | 4.665 | 0.684 | Sec |
| Peak Acceleration | 0.00829 | 0.00663 | 0.0116 | g |
| Peak Displacement | 0.00403 | 0.00749 | 0.00719 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,10 | 0,11 | 0,19 | 0,22 |
| RMS (1s) | 0,11 | 0,13 | 0,20 | 0,25 |

Long (1)





Event Date: January 2, 2007

Event Time: 09:46:35

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

File Name: M630BHE8.HN0

Trigger: Long

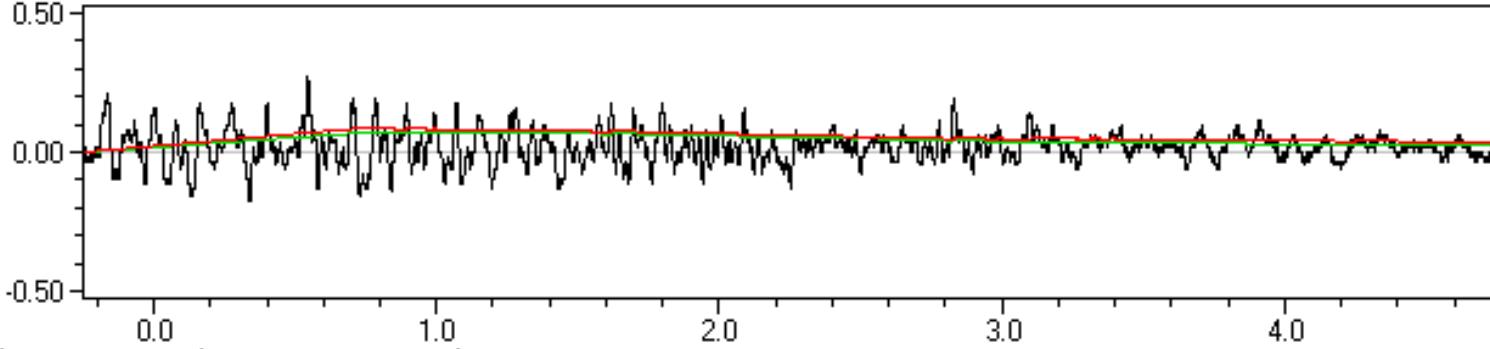
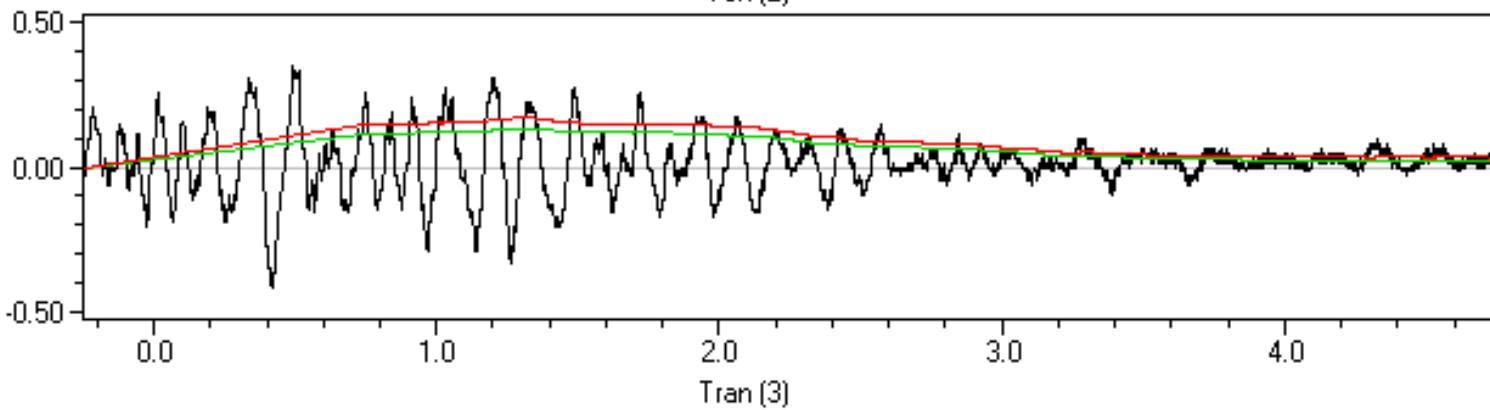
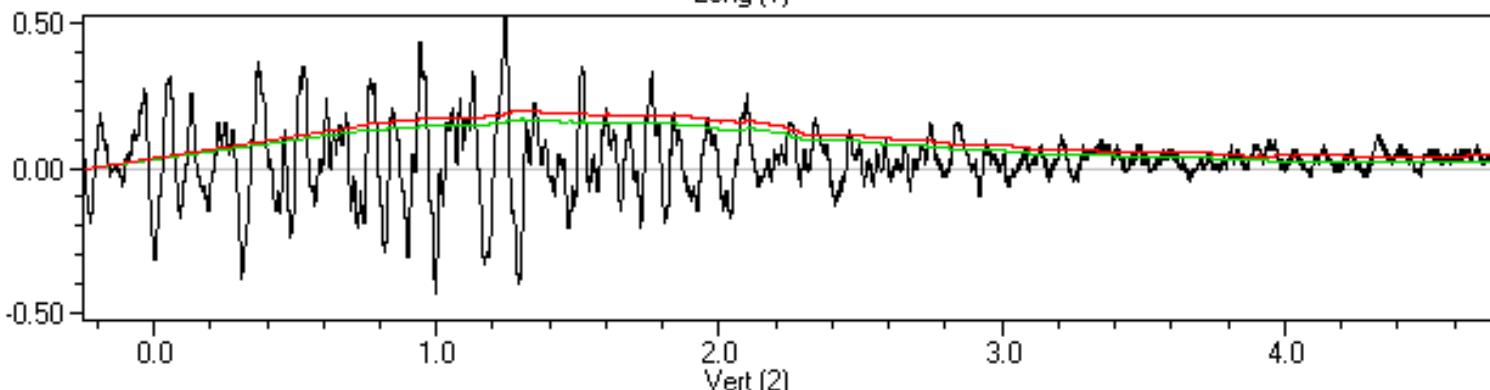
Record Time: 4.75 sec

Sample Rate: 1024 sps

Calibration: September 13, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.270 | 0.413 | 0.524 | mm/s |
| ZC Freq | 8.5 | 6.8 | 8.5 | Hz |
| Time of Peak | 0.545 | 0.416 | 1.242 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00327 | 0.00841 | 0.00760 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.07 | 0.13 | 0.17 | 0.23 |
| RMS (1s) | 0.09 | 0.17 | 0.20 | 0.27 |

Long (1)





Event Date: January 2, 2007

Event Time: 15:50:47

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

File Name: M630BHEP.CN0

Trigger: Long

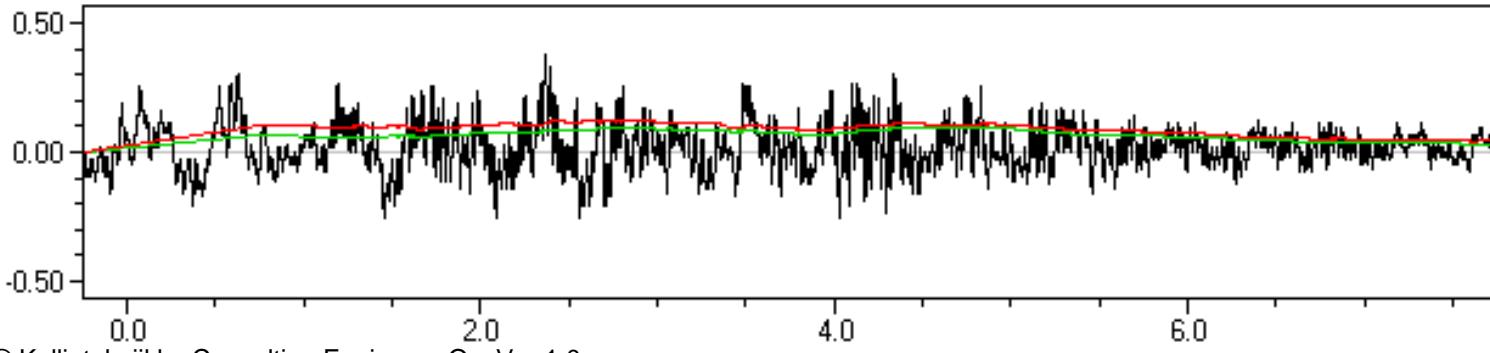
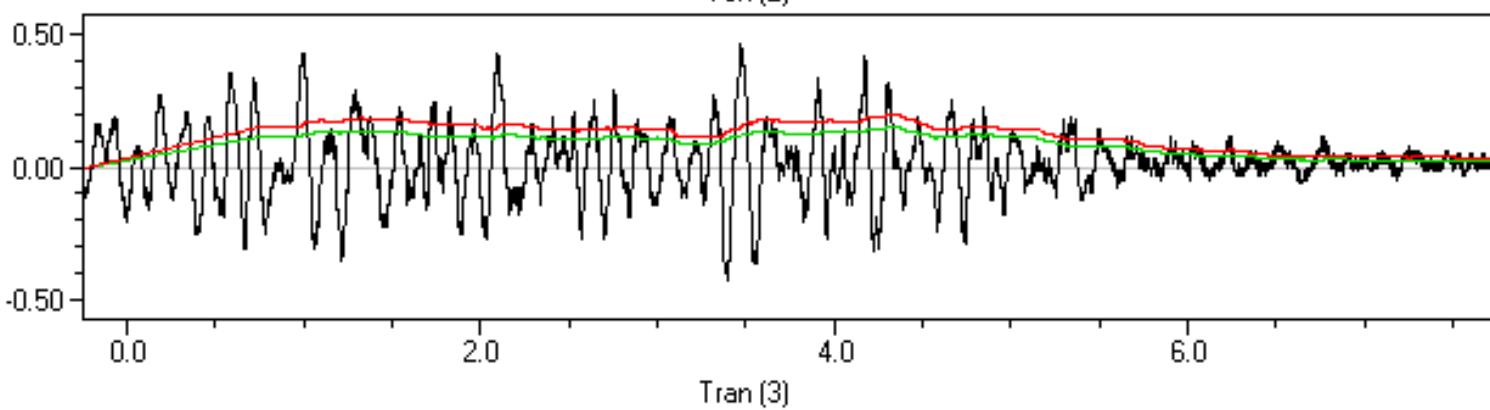
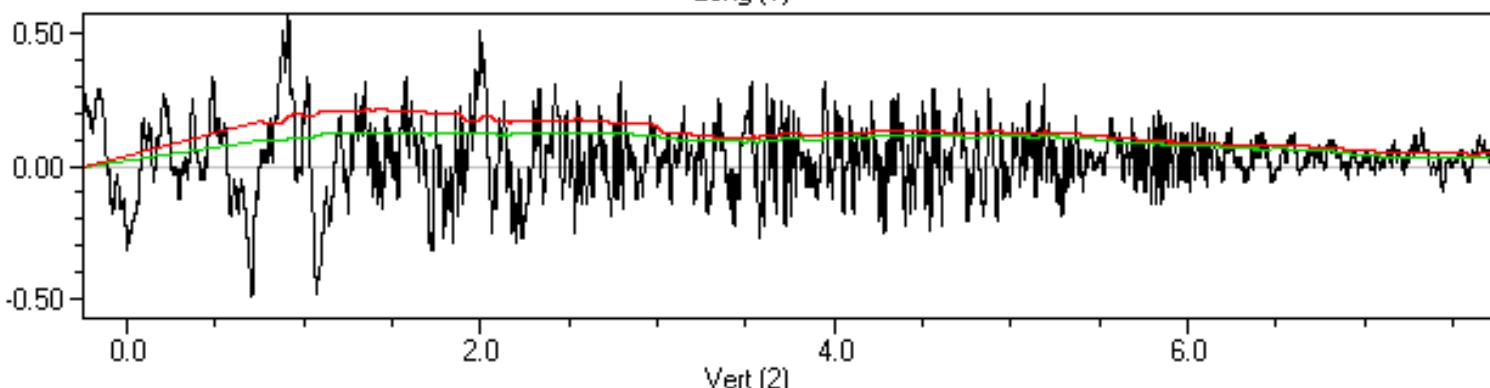
Record Time: 7.75 sec

Sample Rate: 1024 sps

Calibration: September 13, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.381 | 0.460 | 0.571 | mm/s |
| ZC Freq | 4.9 | 5.9 | 3.8 | Hz |
| Time of Peak | 2.363 | 3.472 | 0.910 | Sec |
| Peak Acceleration | 0.00829 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00908 | 0.0120 | 0.0205 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,10 | 0,15 | 0,13 | 0,21 |
| RMS (1s) | 0,12 | 0,20 | 0,21 | 0,30 |

Long (1)





Event Date: January 3, 2007

Event Time: 08:33:08

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

File Name: M630BHFZ.R80

Trigger: Vert

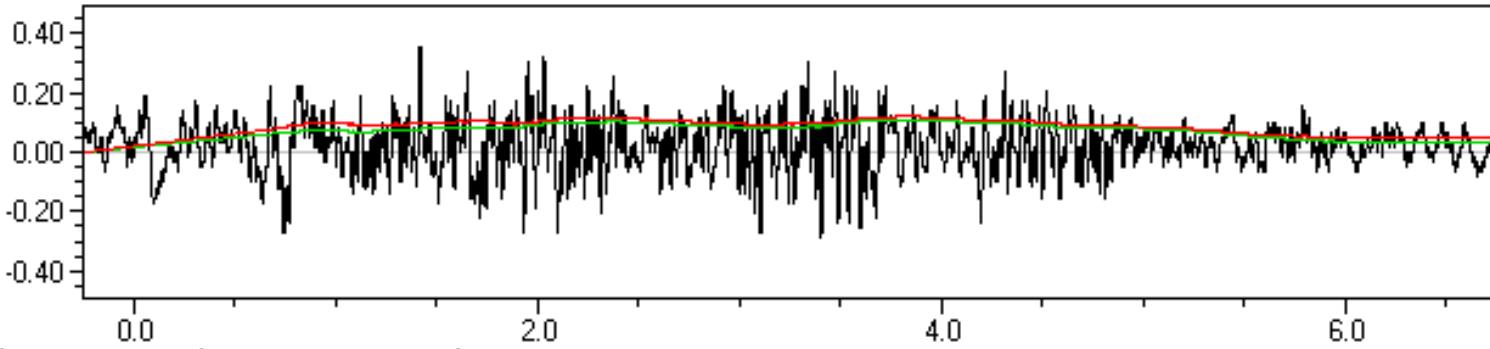
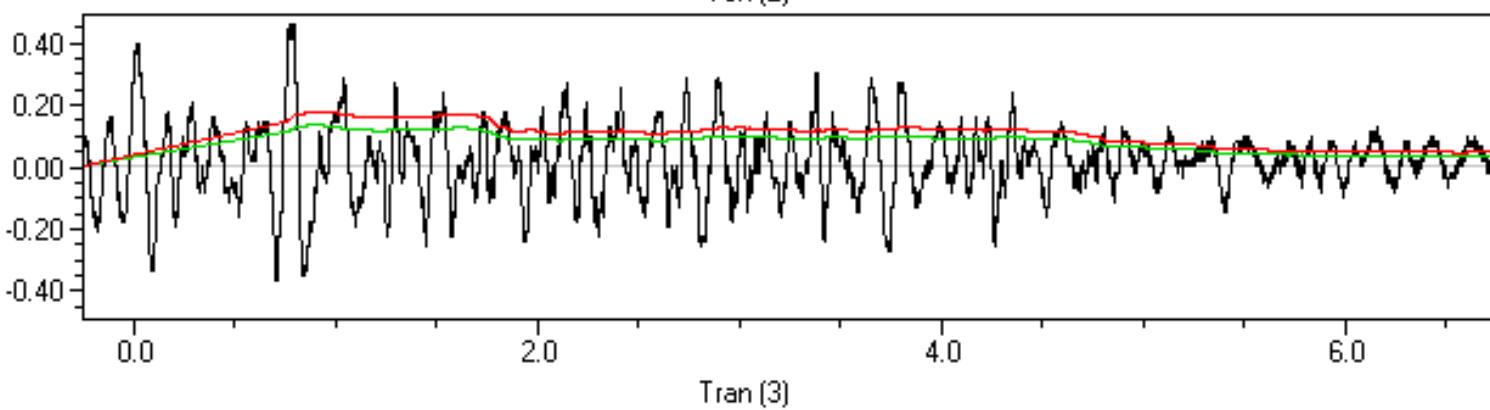
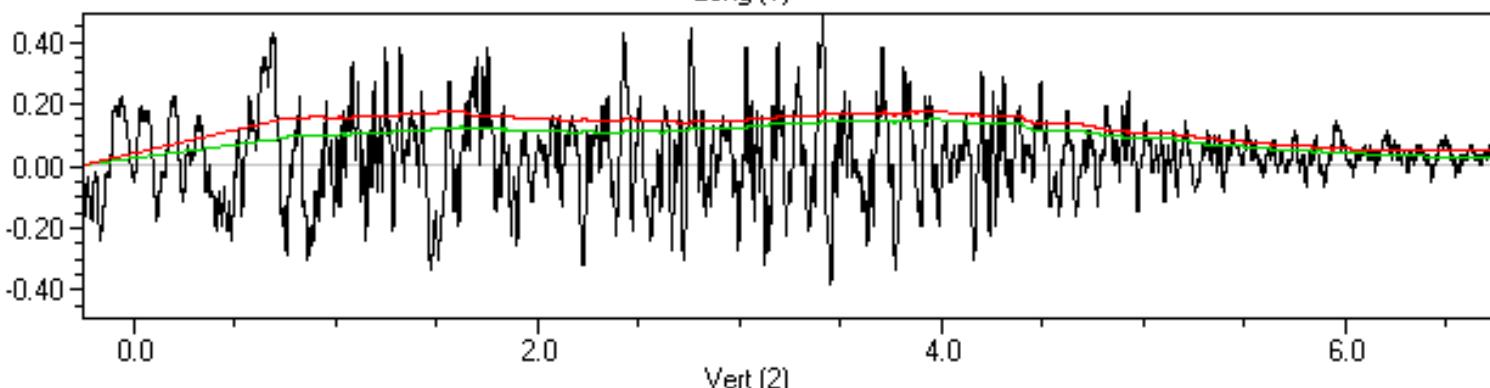
Record Time: 6.75 sec

Sample Rate: 1024 sps

Calibration: September 13, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.349 | 0.460 | 0.492 | mm/s |
| ZC Freq | 20 | 6.1 | 11 | Hz |
| Time of Peak | 1.417 | 0.770 | 3.411 | Sec |
| Peak Acceleration | 0.00829 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00696 | 0.0125 | 0.0191 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,11 | 0,13 | 0,15 | 0,21 |
| RMS (1s) | 0,12 | 0,18 | 0,18 | 0,27 |

Long (1)





Event Date: January 3, 2007

Serial Number: BE11630, V 8.01-8.0 MiniMate Plus

Event Time: 16:01:55

File Name: M630BHGK.J70

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.75 sec

User Name: Kalliotekniikka CE Oy puh 0207 437 400

Sample Rate: 1024 sps

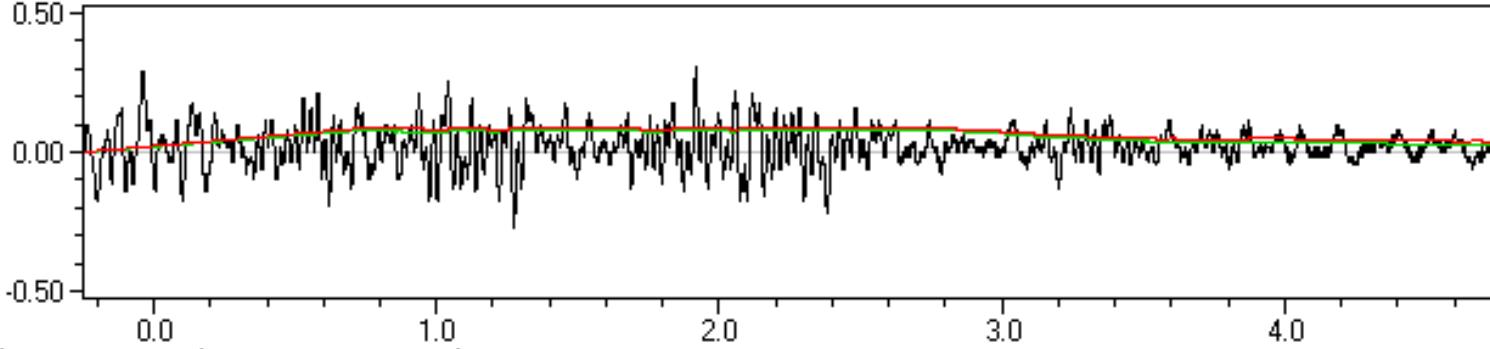
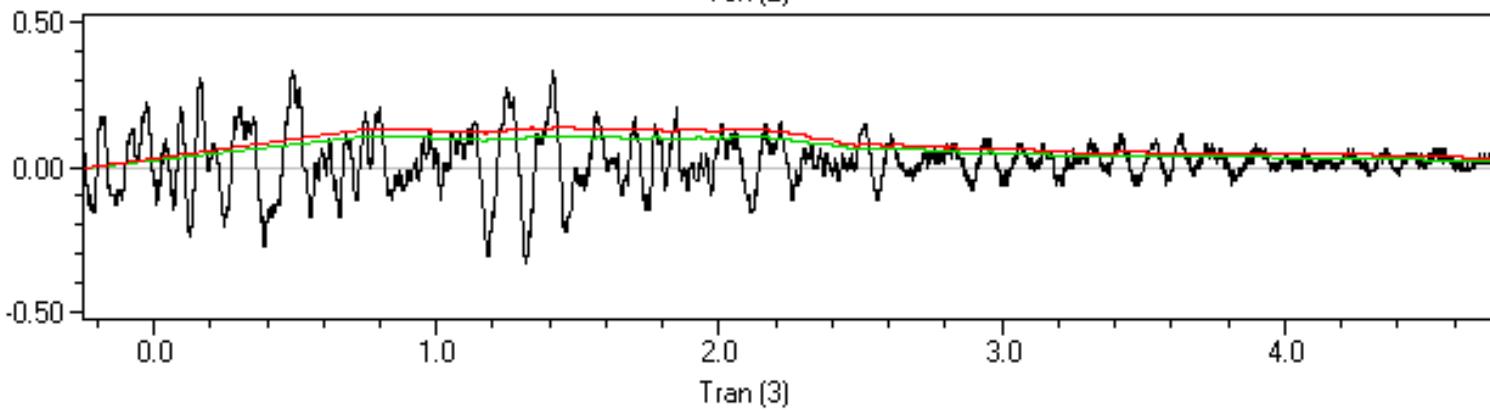
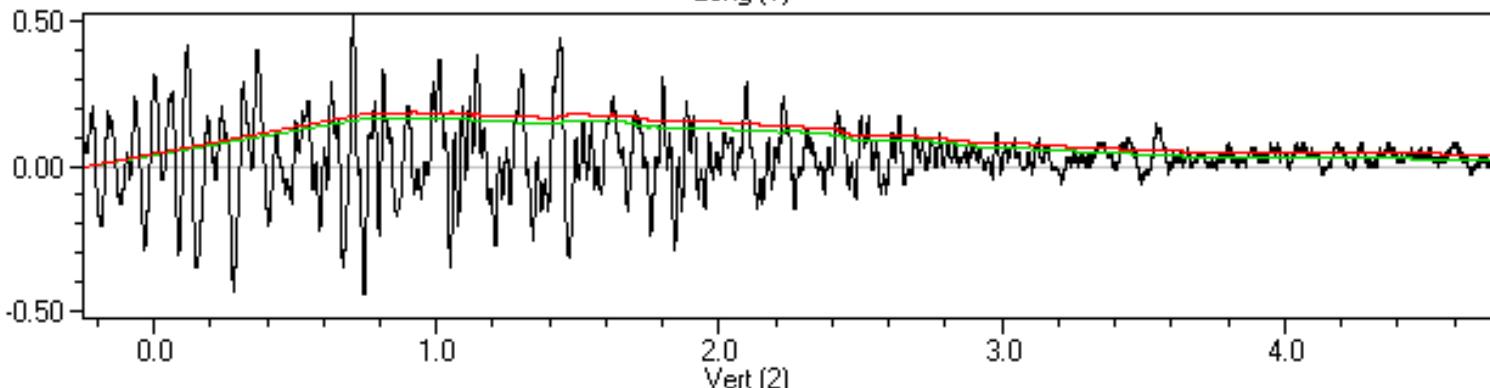
Job Number: 5296

Calibration: September 13, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.302 | 0.333 | 0.524 | mm/s |
| ZC Freq | 21 | 6.7 | 17 | Hz |
| Time of Peak | 1.916 | 0.490 | 0.703 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00369 | 0.00750 | 0.00668 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,08 | 0,11 | 0,17 | 0,21 |
| RMS (1s) | 0,11 | 0,14 | 0,19 | 0,24 |

Long (1)





Event Date: December 29, 2006

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 17:03:00

File Name: L212BH7E.100

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

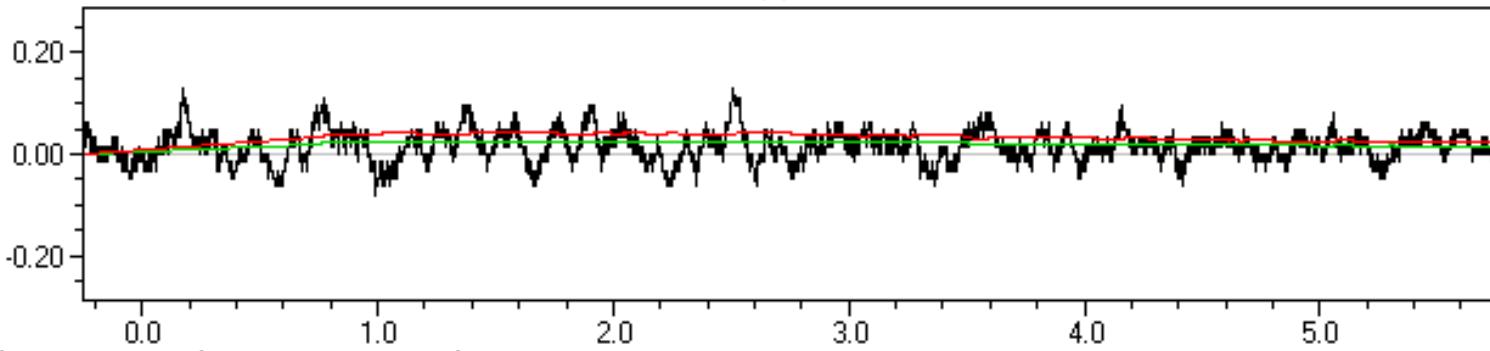
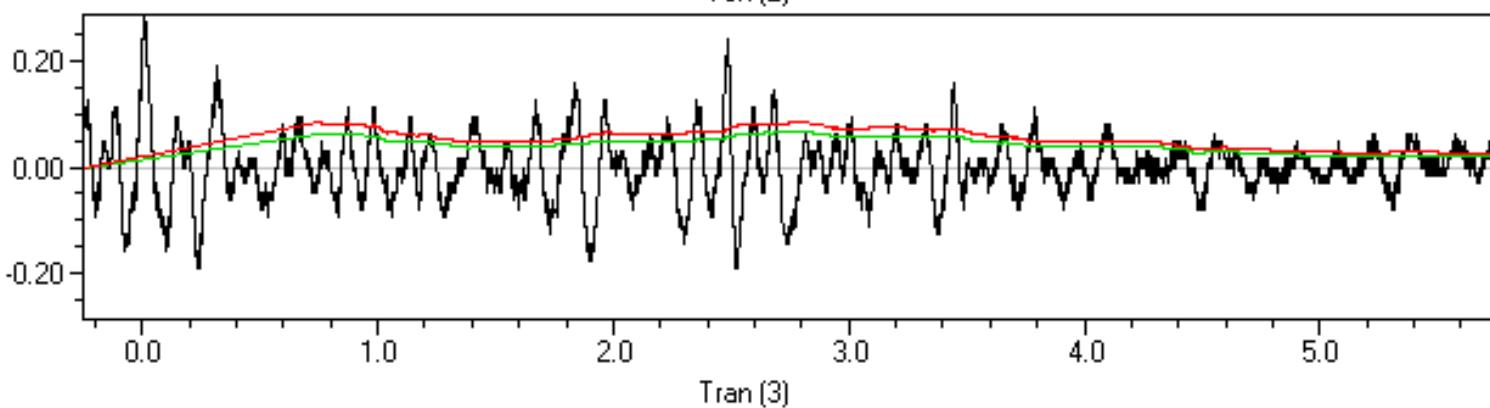
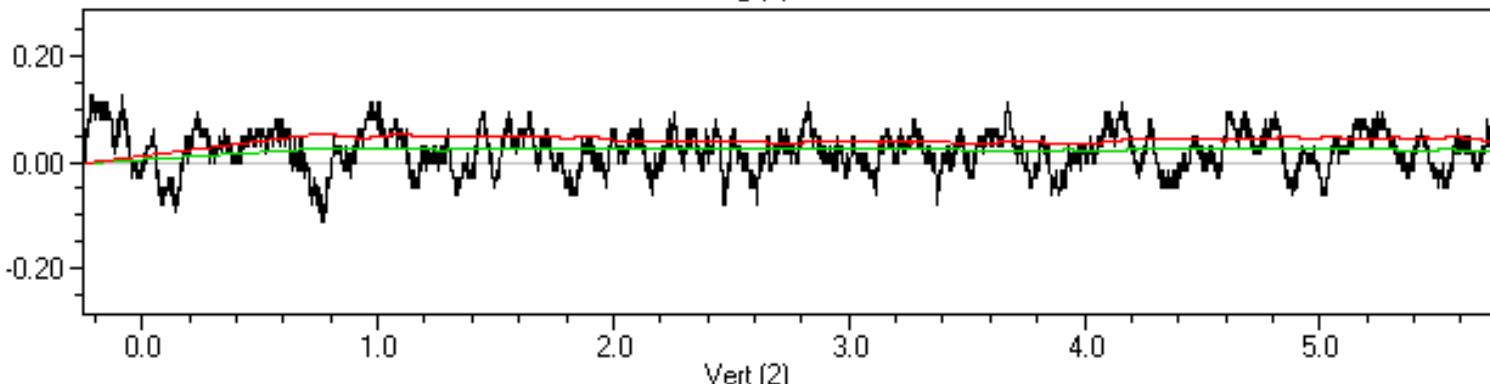
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.127 | 0.286 | 0.127 | mm/s |
| ZC Freq | 6.8 | 7.8 | 3.9 | Hz |
| Time of Peak | 0.173 | 0.008 | -0.218 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00322 | 0.00524 | 0.00696 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.03 | 0.07 | 0.03 | 0.08 |
| RMS (1s) | 0.05 | 0.08 | 0.06 | 0.10 |

Long (1)





Event Date: December 29, 2006

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 17:55:14

File Name: L212BH7G.G20

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 3.25 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

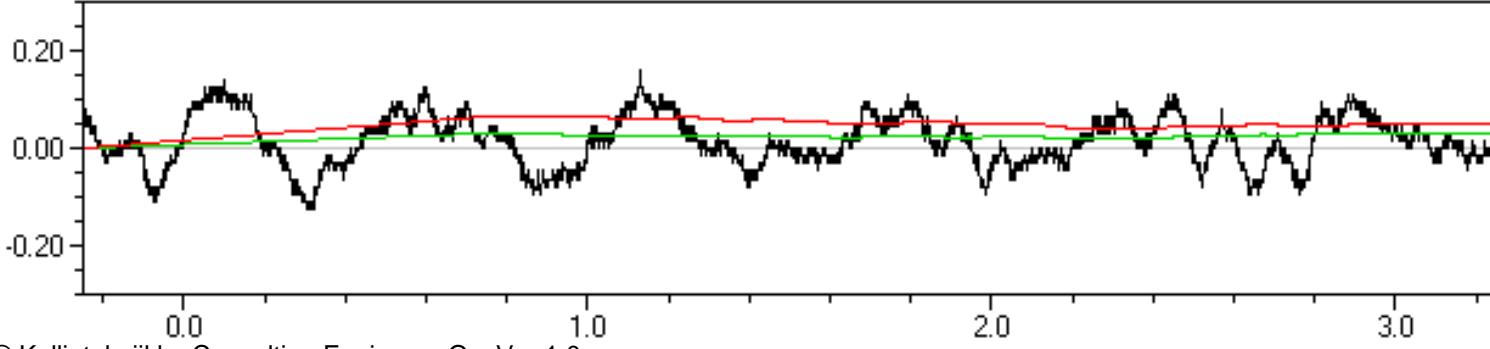
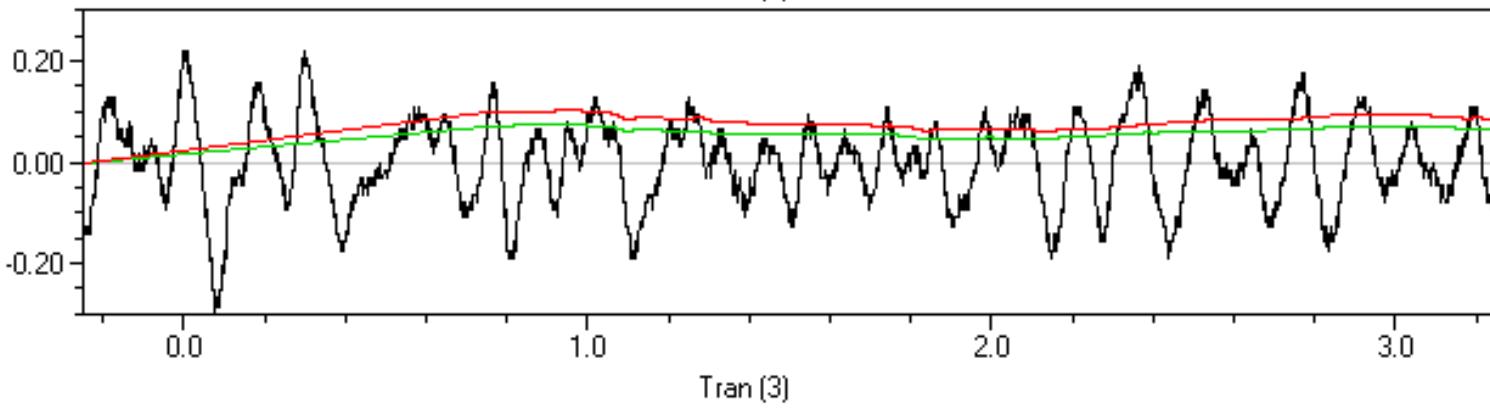
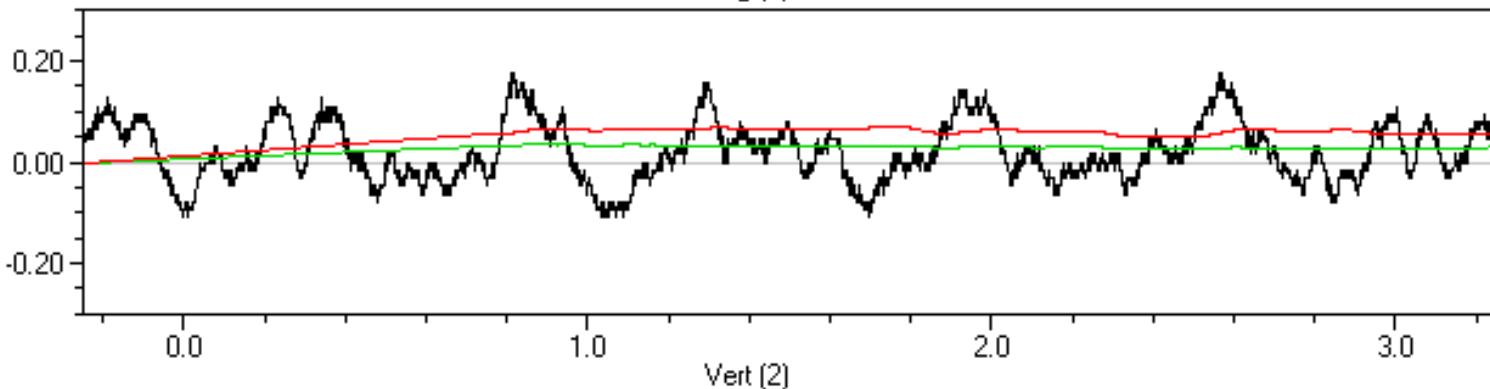
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.159 | 0.302 | 0.175 | mm/s |
| ZC Freq | 2.7 | 5.7 | 2.9 | Hz |
| Time of Peak | 1.129 | 0.076 | 0.811 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00853 | 0.00666 | 0.00845 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,03 | 0,07 | 0,03 | 0,09 |
| RMS (1s) | 0,07 | 0,10 | 0,07 | 0,14 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 20:45:04

File Name: L212BHBD.N40

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.75 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

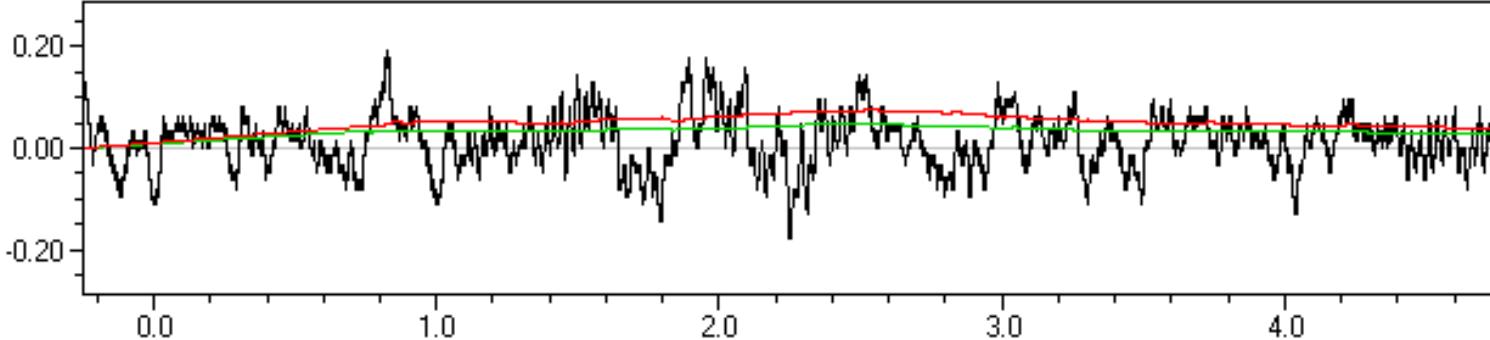
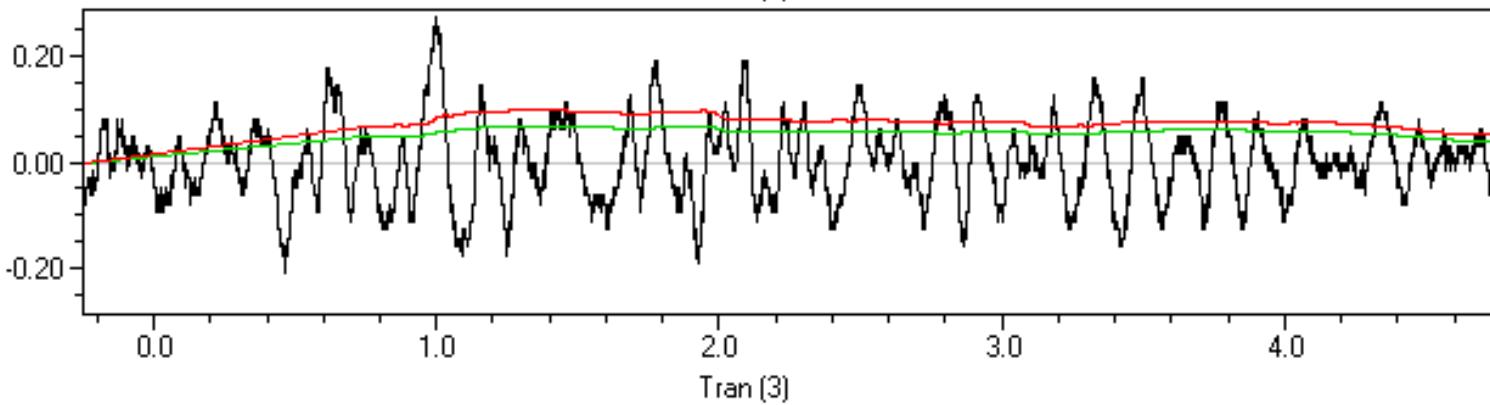
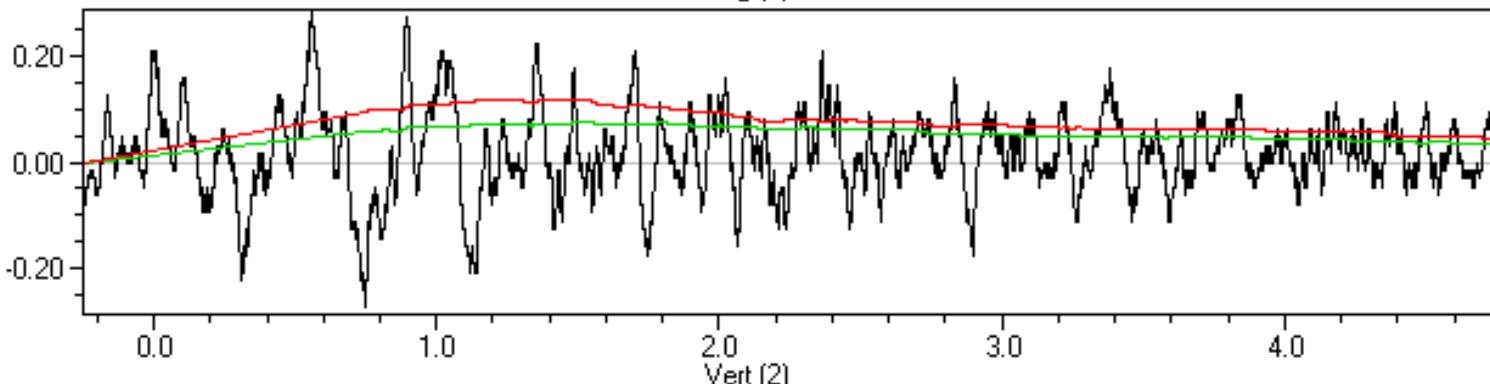
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.190 | 0.270 | 0.286 | mm/s |
| ZC Freq | 4.5 | 5.1 | 3.6 | Hz |
| Time of Peak | 0.822 | 0.995 | 0.555 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00471 | 0.00770 | 0.00898 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,05 | 0,07 | 0,07 | 0,11 |
| RMS (1s) | 0,08 | 0,11 | 0,12 | 0,16 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 22:45:23

File Name: L212BHBJ.7N0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

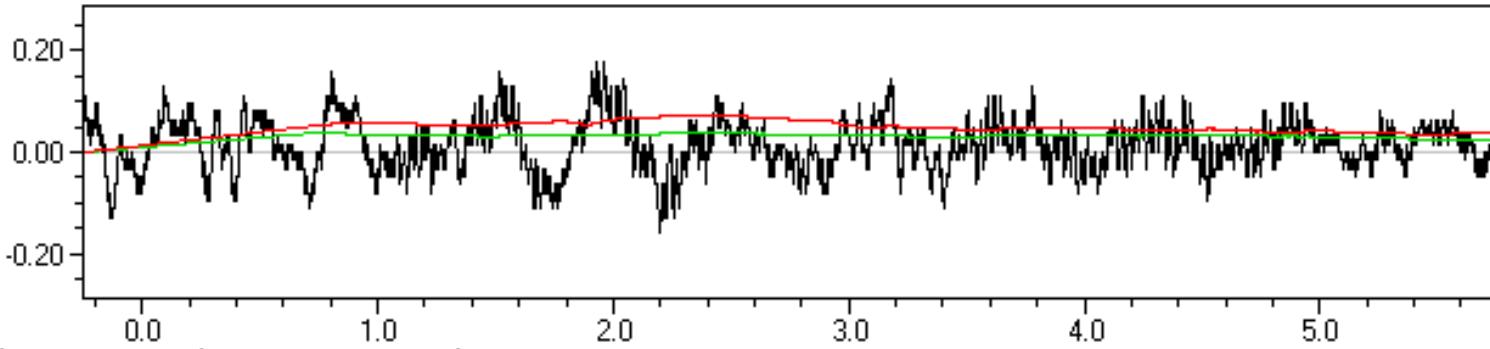
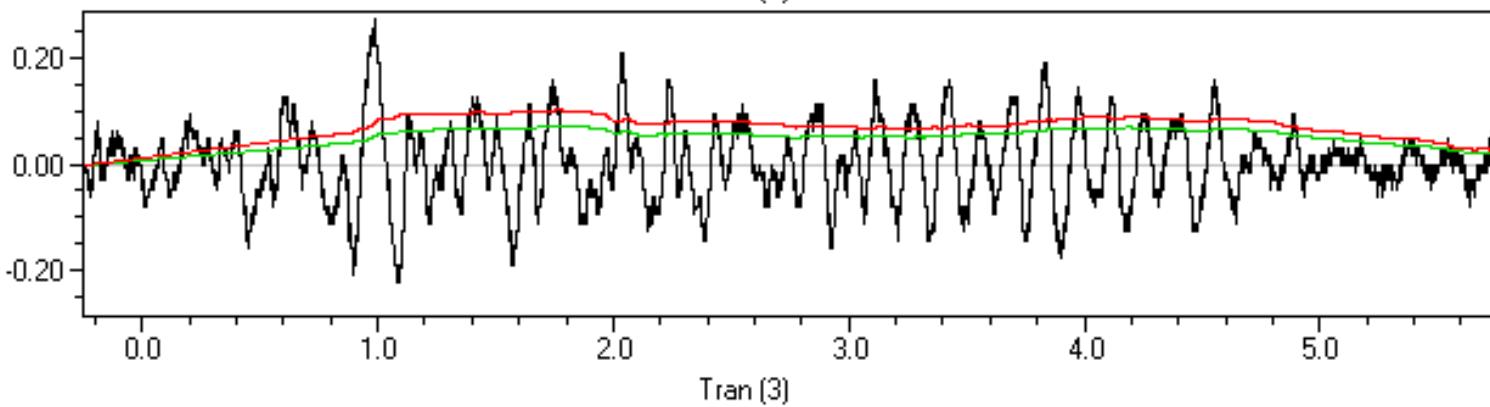
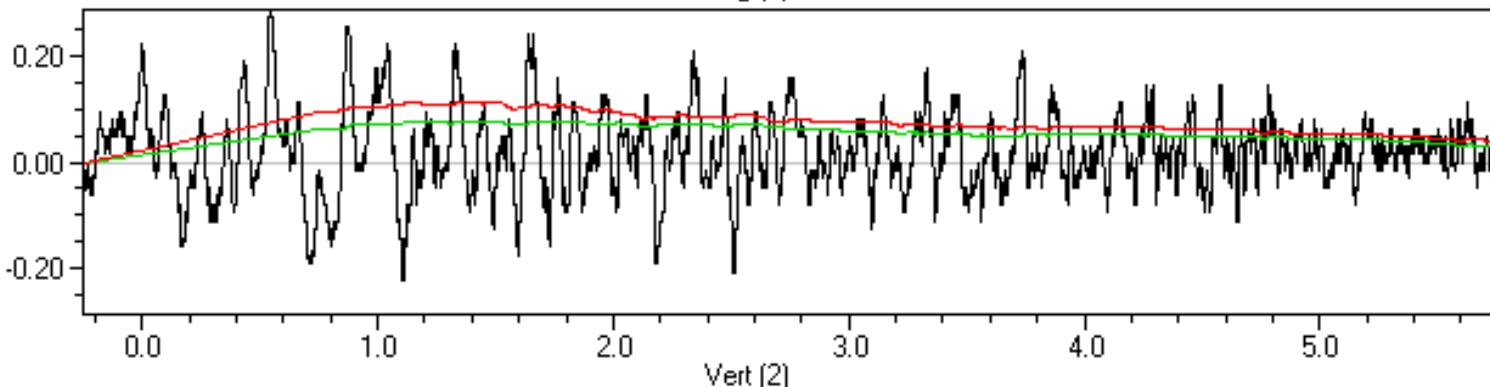
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.175 | 0.270 | 0.286 | mm/s |
| ZC Freq | 2.7 | 5.2 | 4.4 | Hz |
| Time of Peak | 1.933 | 0.984 | 0.542 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00663 | g |
| Peak Displacement | 0.00912 | 0.00803 | 0.00750 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,04 | 0,07 | 0,08 | 0,11 |
| RMS (1s) | 0,07 | 0,10 | 0,11 | 0,16 |

Long (1)





Event Date: January 1, 2007

Event Time: 02:32:42

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Job Number: 5296

Extended Notes:

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

File Name: L212BHBT.QI0

Trigger: Long

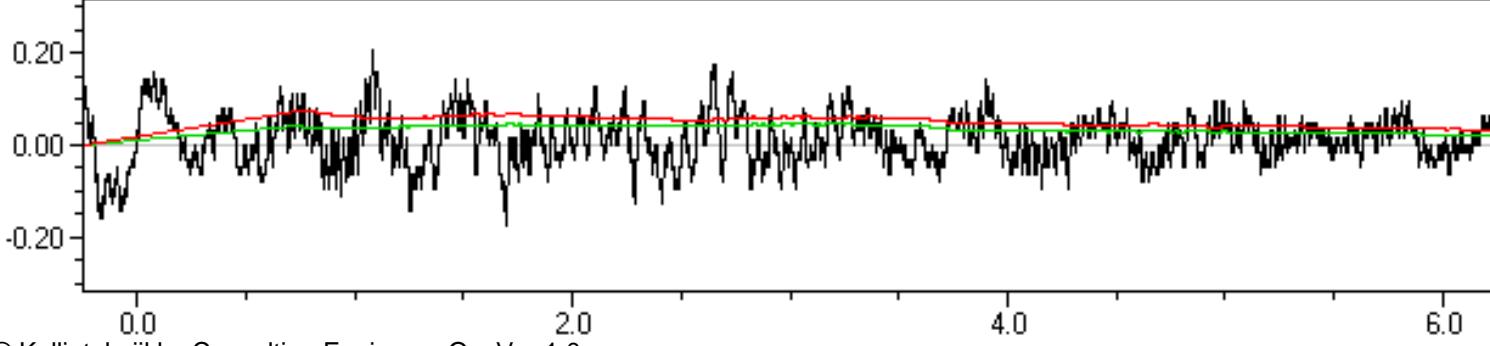
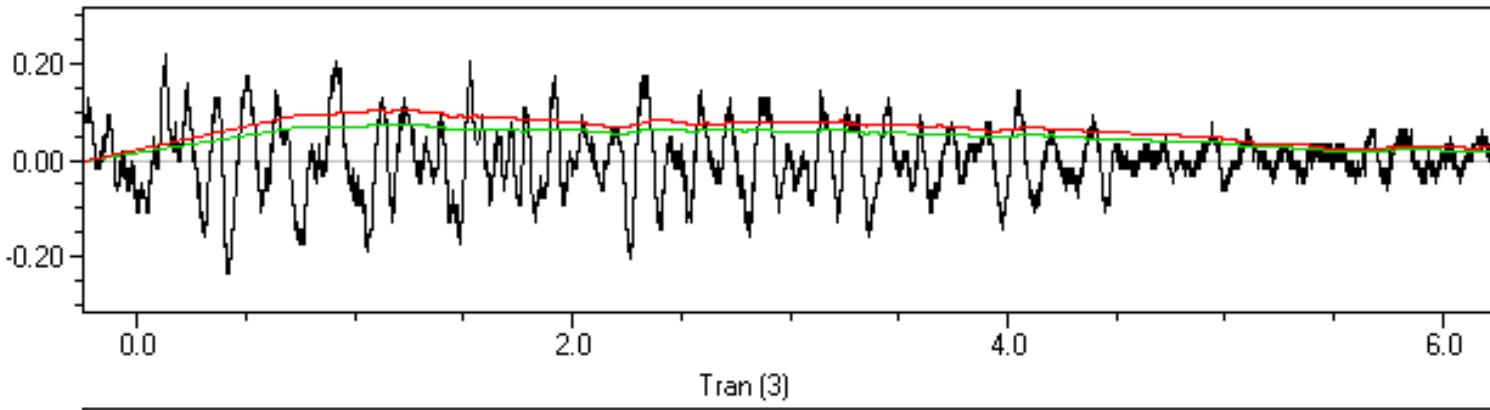
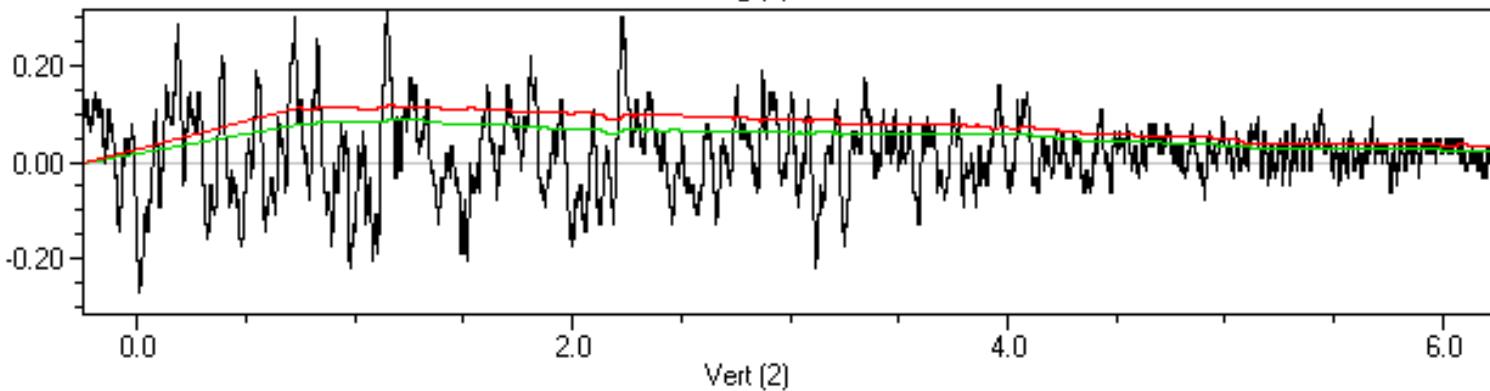
Record Time: 6.25 sec

Sample Rate: 1024 sps

Calibration: May 17, 2005 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.206 | 0.238 | 0.317 | mm/s |
| ZC Freq | 6.7 | 7.8 | 7.8 | Hz |
| Time of Peak | 1.080 | 0.409 | 1.145 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00888 | 0.00567 | 0.00765 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.05 | 0.07 | 0.09 | 0.12 |
| RMS (1s) | 0.07 | 0.10 | 0.12 | 0.17 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 14:34:39

File Name: L212BHCR.5R0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 10.25 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

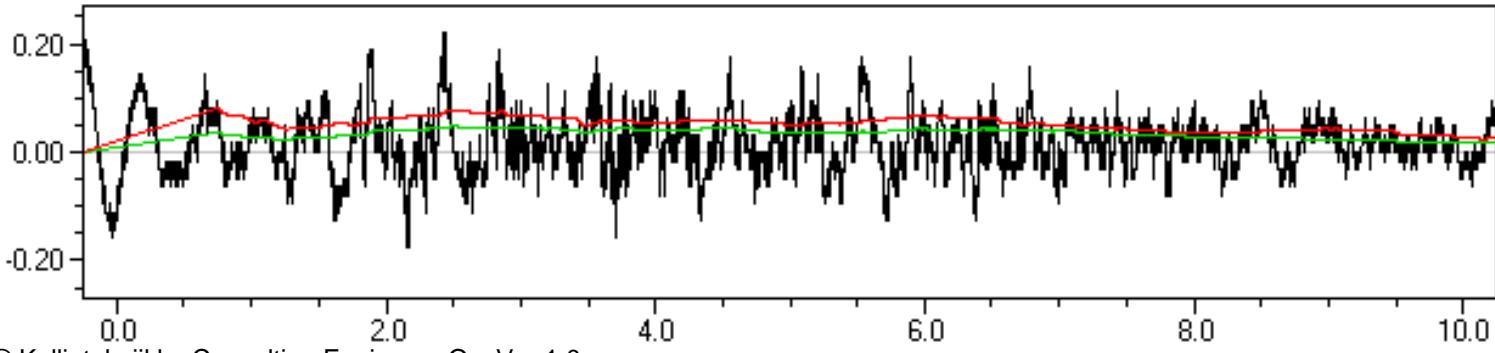
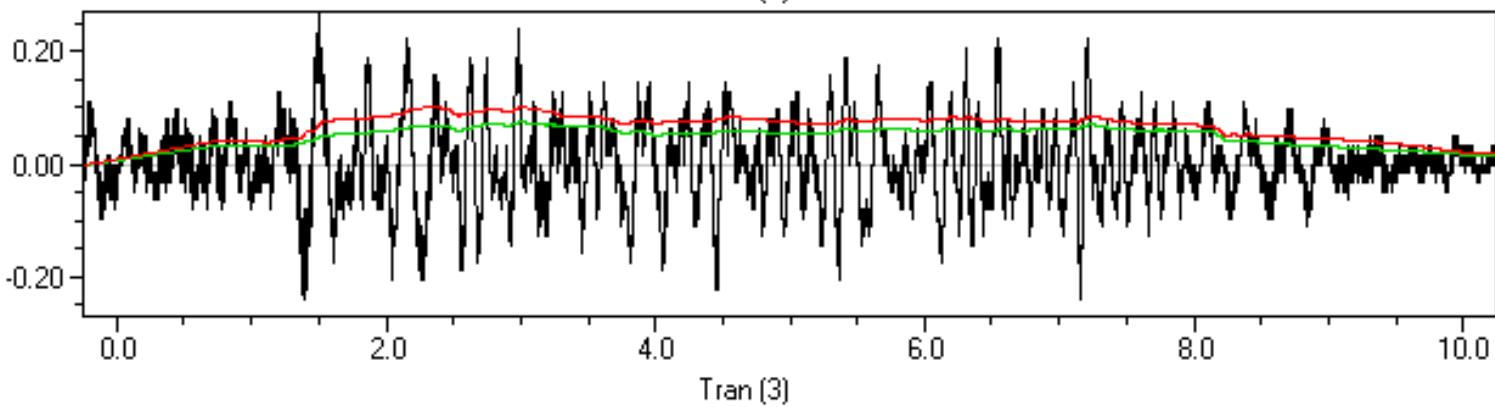
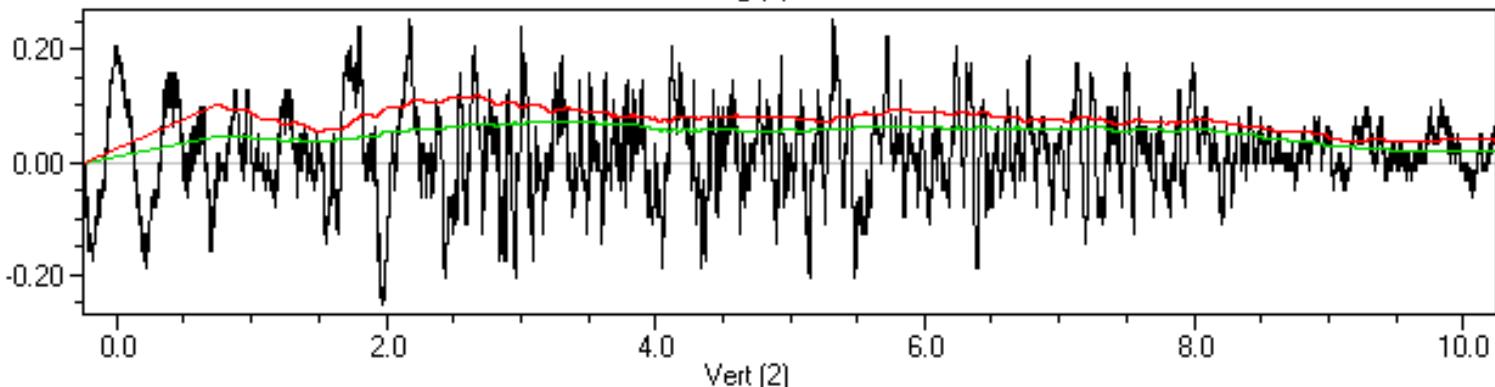
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.222 | 0.270 | 0.254 | mm/s |
| ZC Freq | 4.8 | 5.3 | 4.8 | Hz |
| Time of Peak | 2.433 | 1.495 | 1.965 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00877 | 0.00661 | 0.0128 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,05 | 0,07 | 0,07 | 0,11 |
| RMS (1s) | 0,08 | 0,10 | 0,12 | 0,17 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 14:45:04

File Name: L212BHCR.N40

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 4.25 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

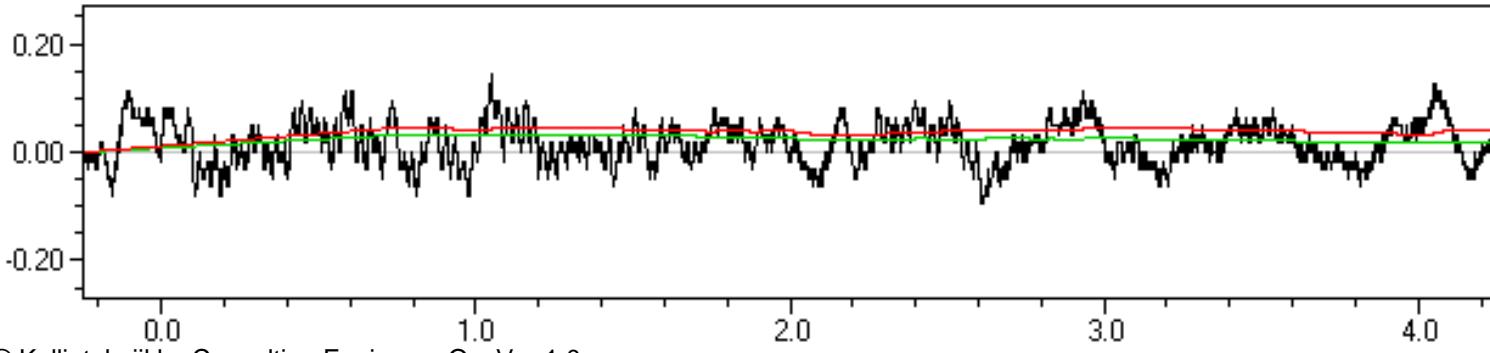
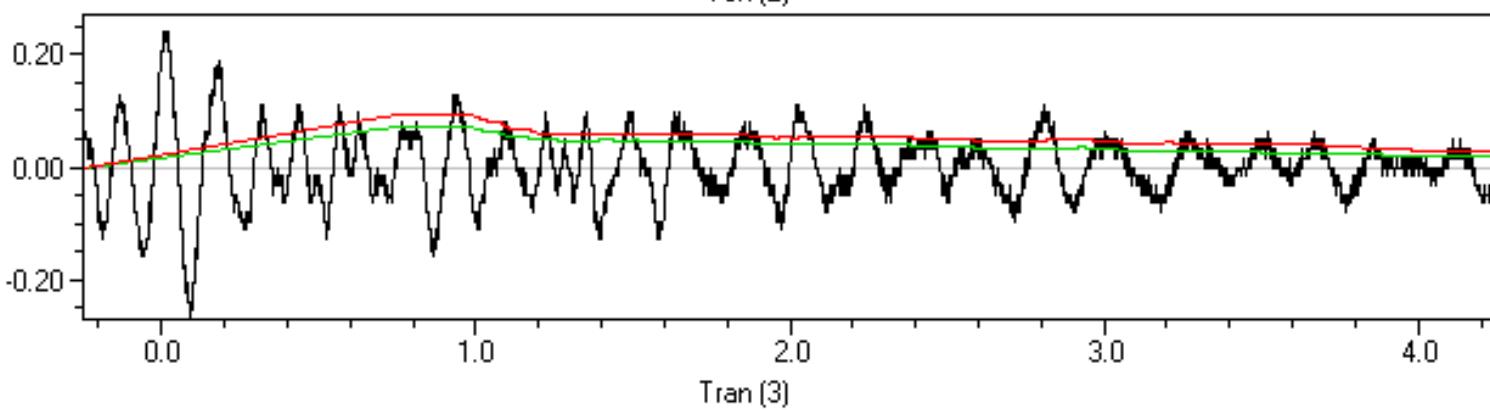
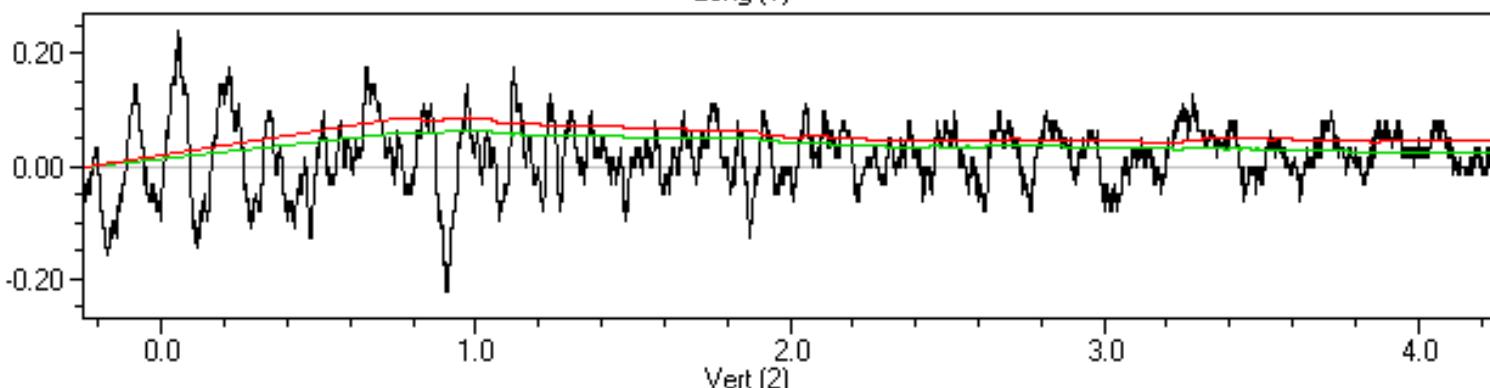
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.143 | 0.270 | 0.238 | mm/s |
| ZC Freq | 6.6 | 7.0 | 6.5 | Hz |
| Time of Peak | 1.049 | 0.091 | 0.055 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00550 | 0.00568 | 0.00524 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,03 | 0,07 | 0,06 | 0,10 |
| RMS (1s) | 0,07 | 0,09 | 0,09 | 0,14 |

Long (1)





Event Date: January 2, 2007

Event Time: 05:56:15

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Job Number: 5296

Extended Notes:

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

File Name: L212BHDX.TR0

Trigger: Vert

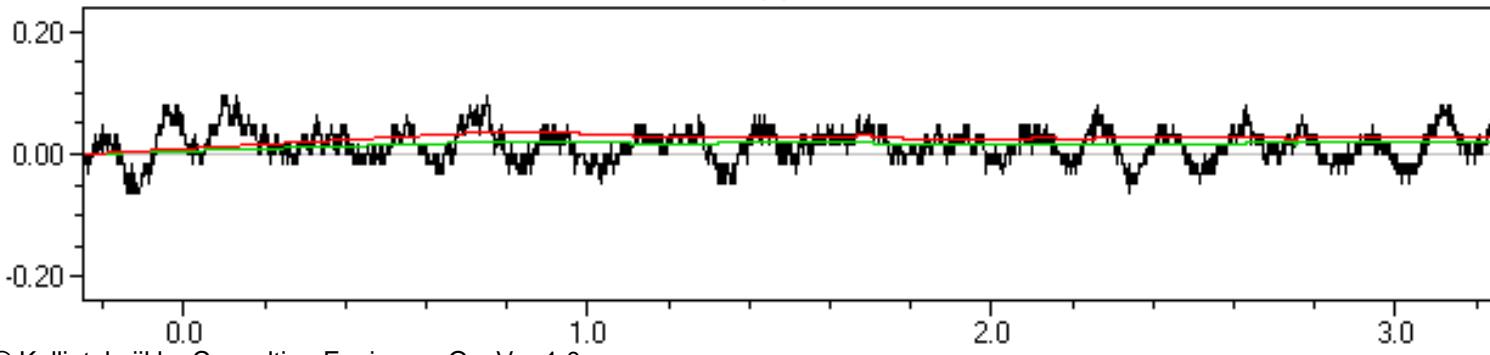
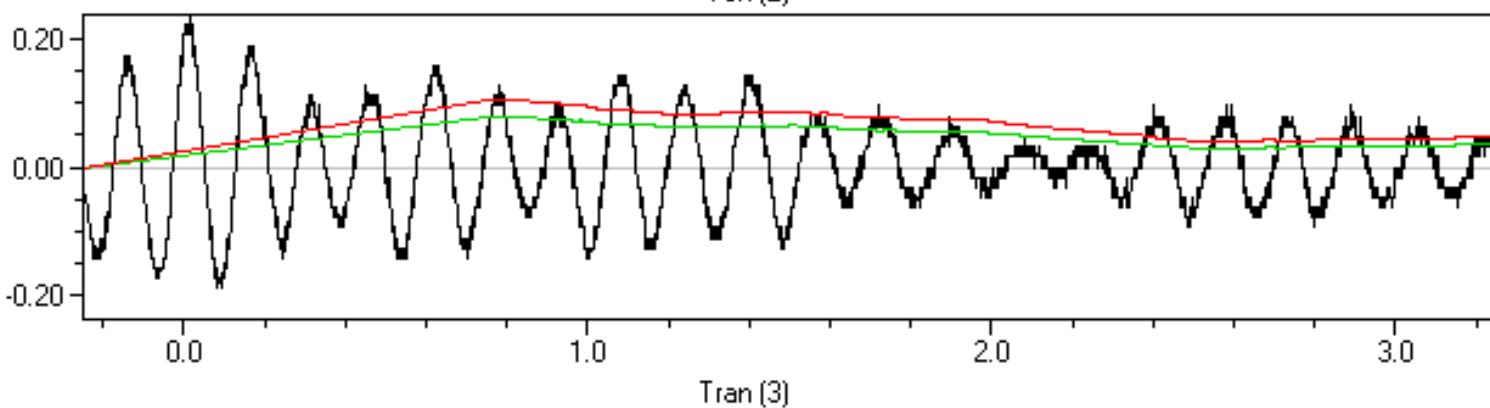
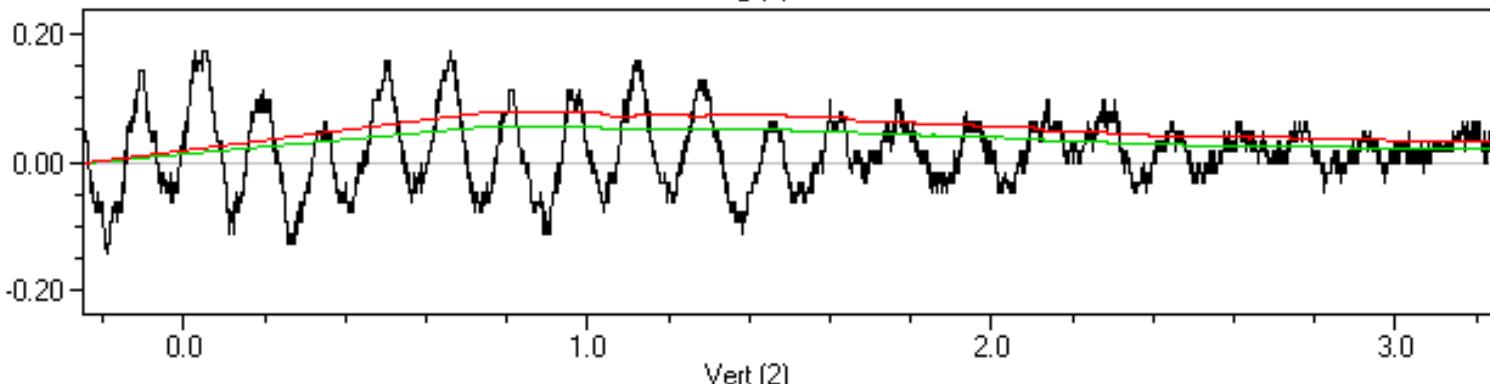
Record Time: 3.25 sec

Sample Rate: 1024 sps

Calibration: May 17, 2005 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.0952 | 0.238 | 0.175 | mm/s |
| ZC Freq | 4.2 | 6.8 | 5.8 | Hz |
| Time of Peak | 0.093 | 0.013 | 0.025 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00326 | 0.00535 | 0.00503 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,02 | 0,08 | 0,05 | 0,10 |
| RMS (1s) | 0,05 | 0,11 | 0,08 | 0,14 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 06:44:56

File Name: L212BHE0.2W0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 9.75 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

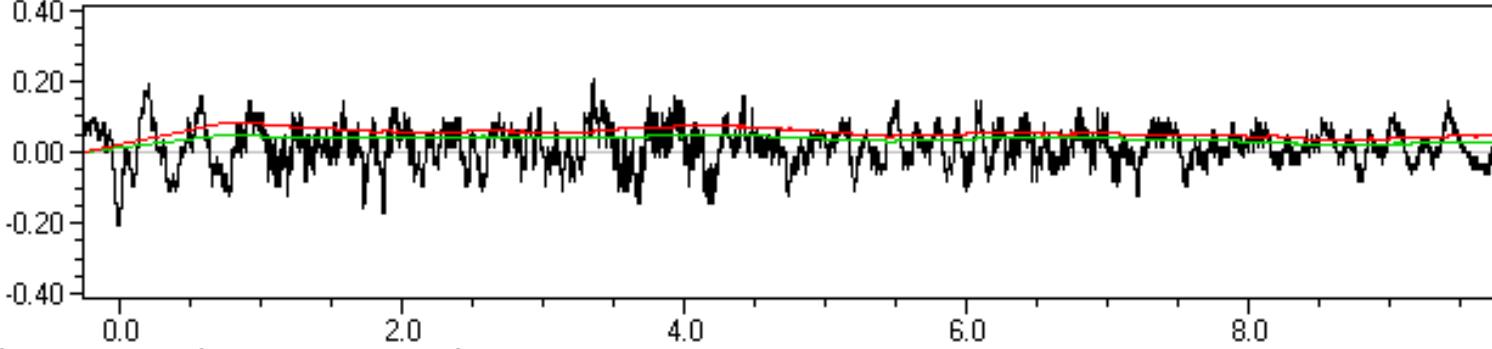
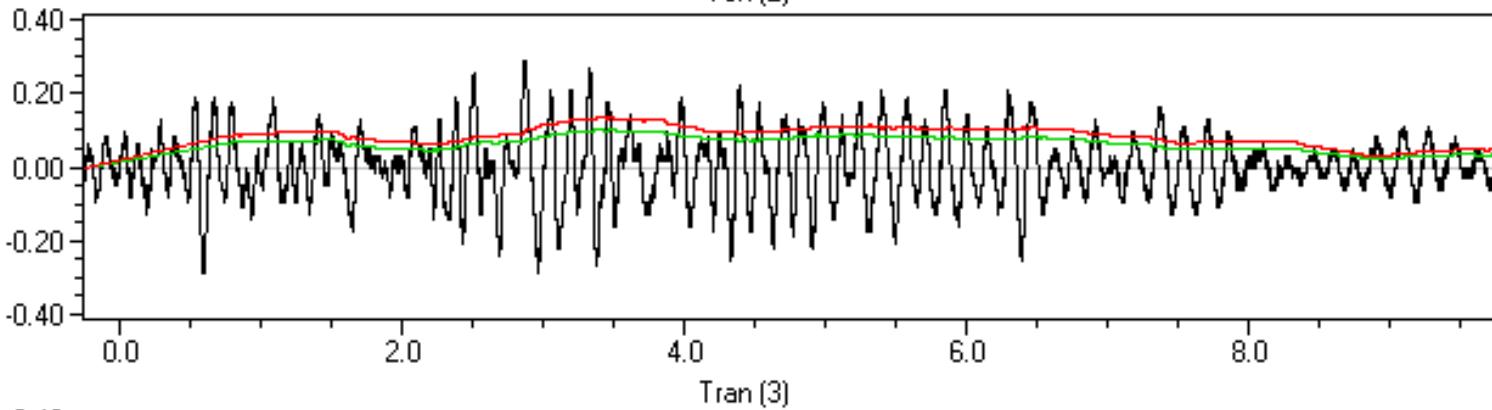
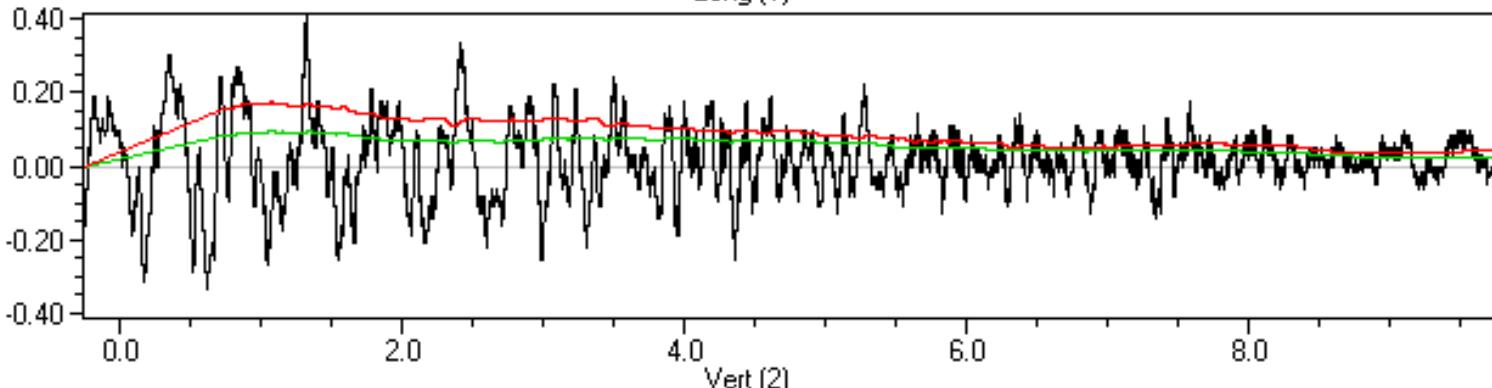
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.206 | 0.286 | 0.413 | mm/s |
| ZC Freq | 6.2 | 7.5 | 2.5 | Hz |
| Time of Peak | -0.005 | 0.598 | 1.330 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00733 | 0.00698 | 0.0178 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,05 | 0,10 | 0,09 | 0,13 |
| RMS (1s) | 0,09 | 0,13 | 0,17 | 0,21 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 15:50:47

File Name: L212BHEP.CN0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 9.25 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

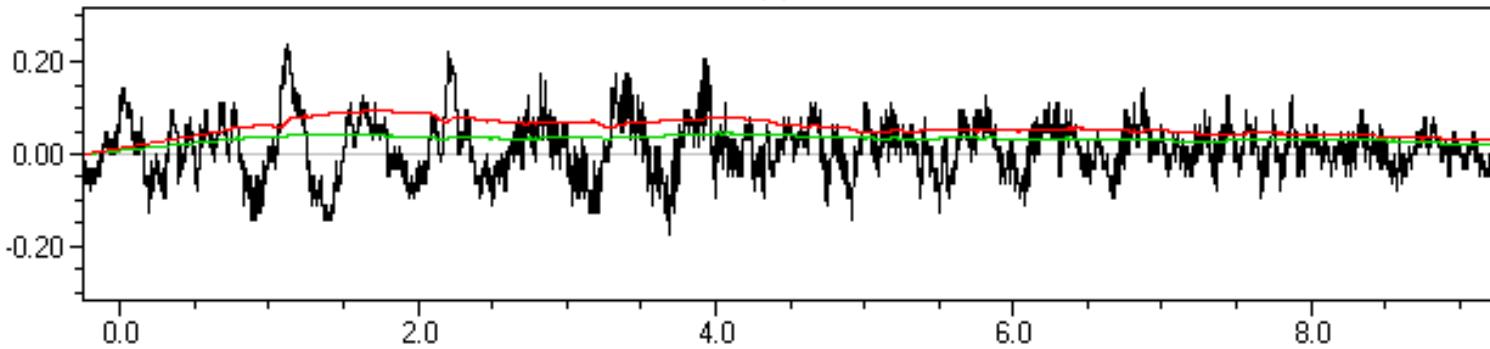
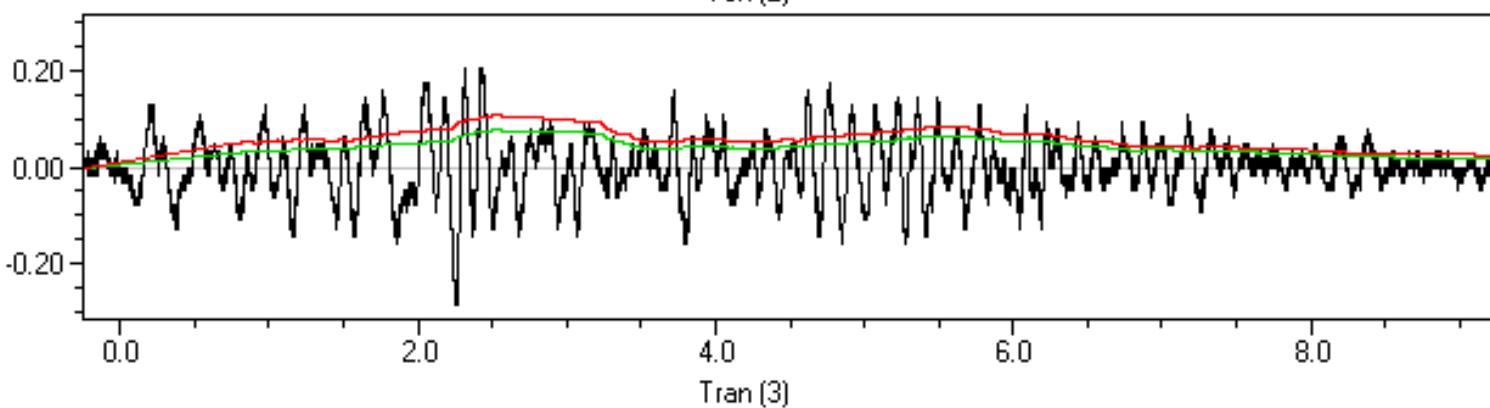
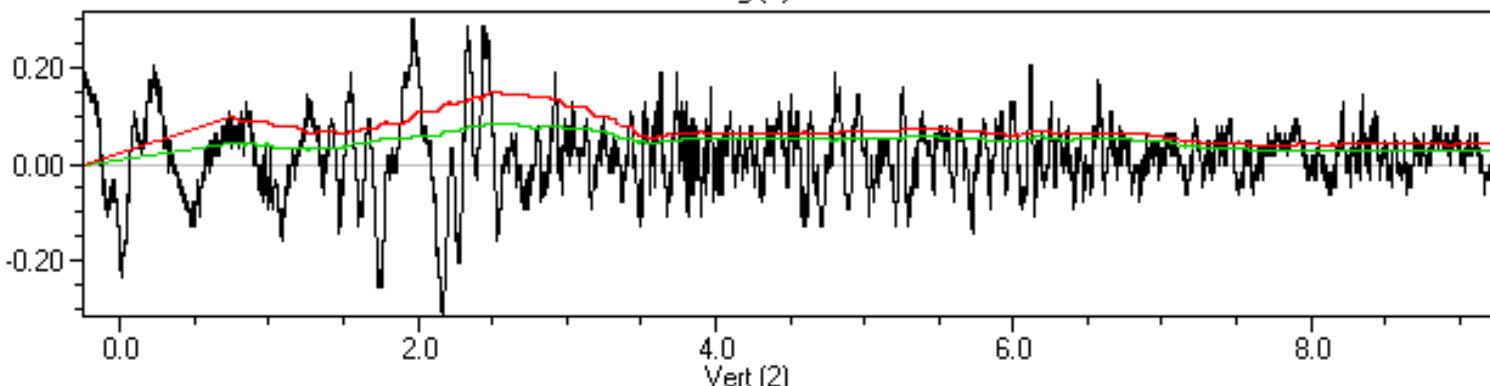
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.238 | 0.286 | 0.317 | mm/s |
| ZC Freq | 2.5 | 7.0 | 4.3 | Hz |
| Time of Peak | 1.115 | 2.255 | 2.161 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.0127 | 0.00691 | 0.0154 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,05 | 0,08 | 0,08 | 0,12 |
| RMS (1s) | 0,09 | 0,11 | 0,15 | 0,20 |

Long (1)





Event Date: January 3, 2007

Event Time: 07:13:42

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Job Number: 5296

Extended Notes:

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

File Name: L212BHFW.2U0

Trigger: Long

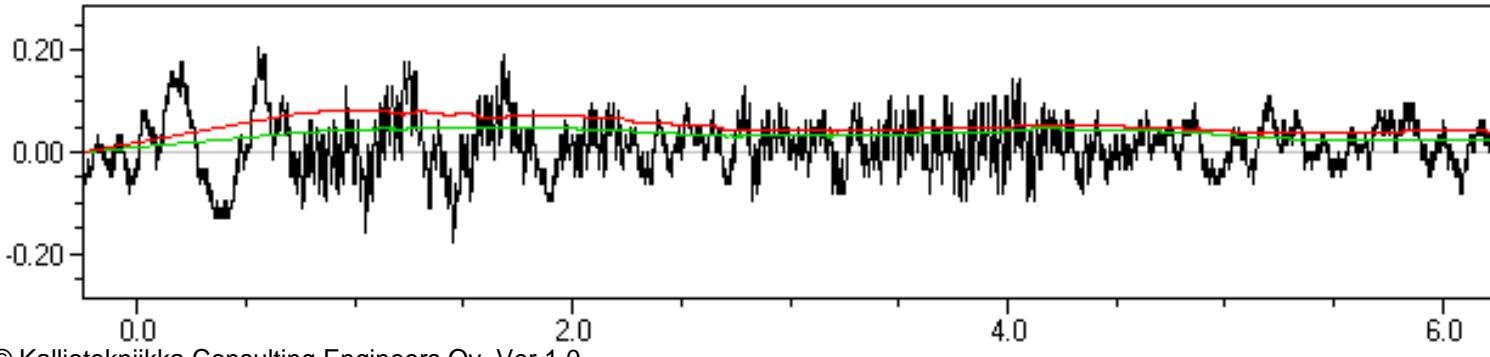
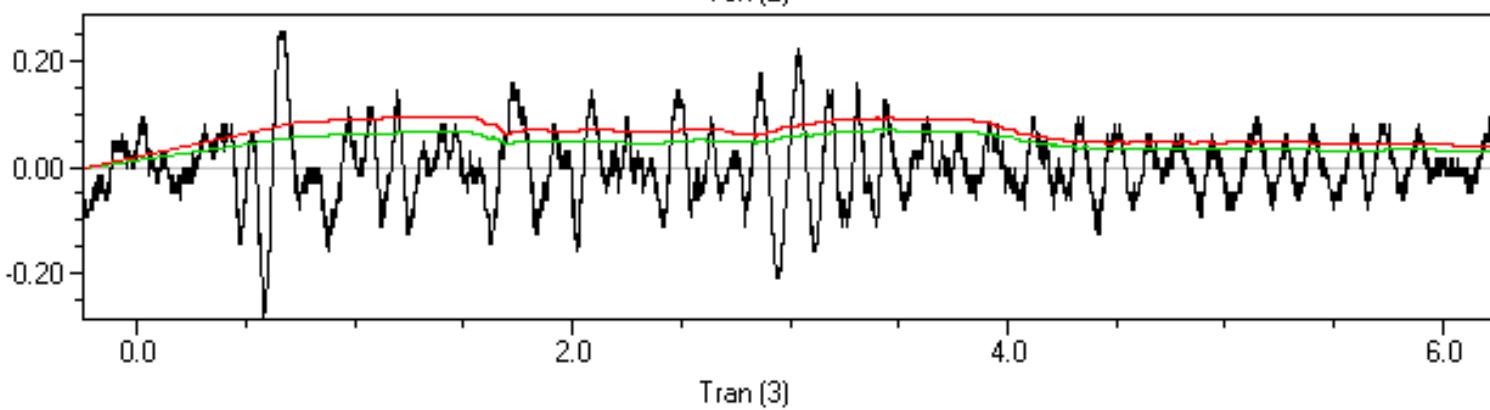
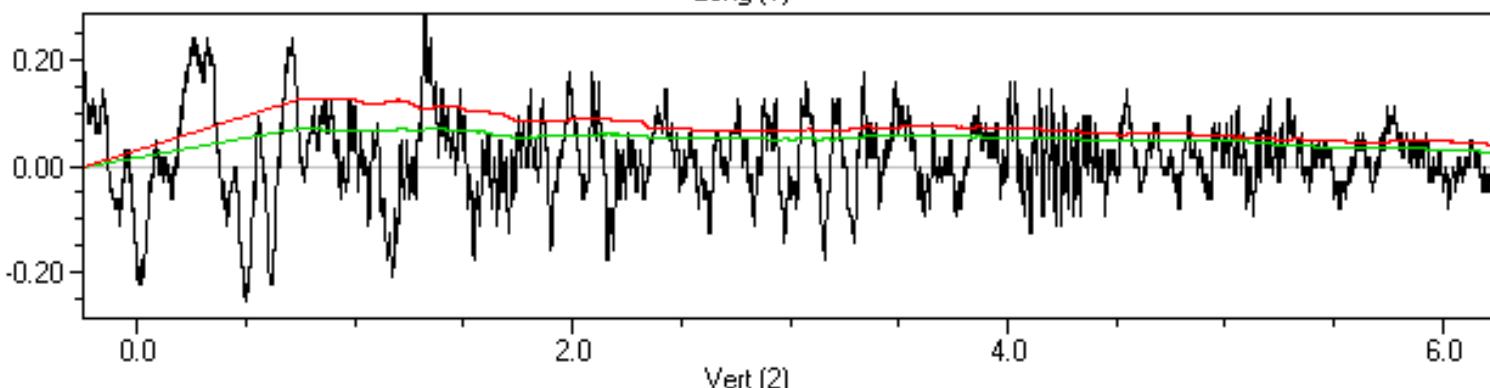
Record Time: 6.25 sec

Sample Rate: 1024 sps

Calibration: May 17, 2005 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.206 | 0.286 | 0.286 | mm/s |
| ZC Freq | 5.0 | 7.3 | 5.1 | Hz |
| Time of Peak | 0.557 | 0.581 | 1.317 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00805 | 0.00785 | 0.0157 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,05 | 0,07 | 0,07 | 0,11 |
| RMS (1s) | 0,08 | 0,10 | 0,13 | 0,17 |

Long (1)





Event Date: January 3, 2007

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 08:33:15

File Name: L212BHFZ.RF0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.75 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

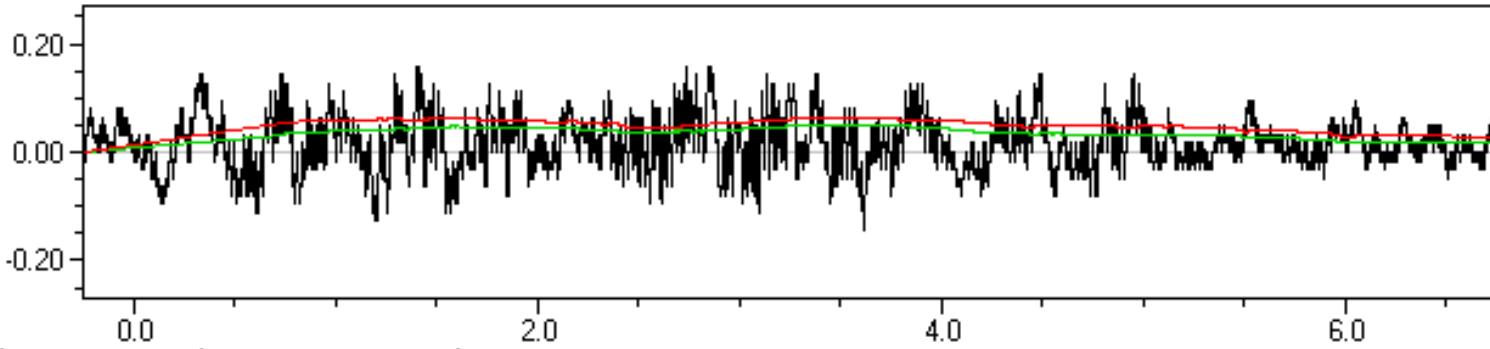
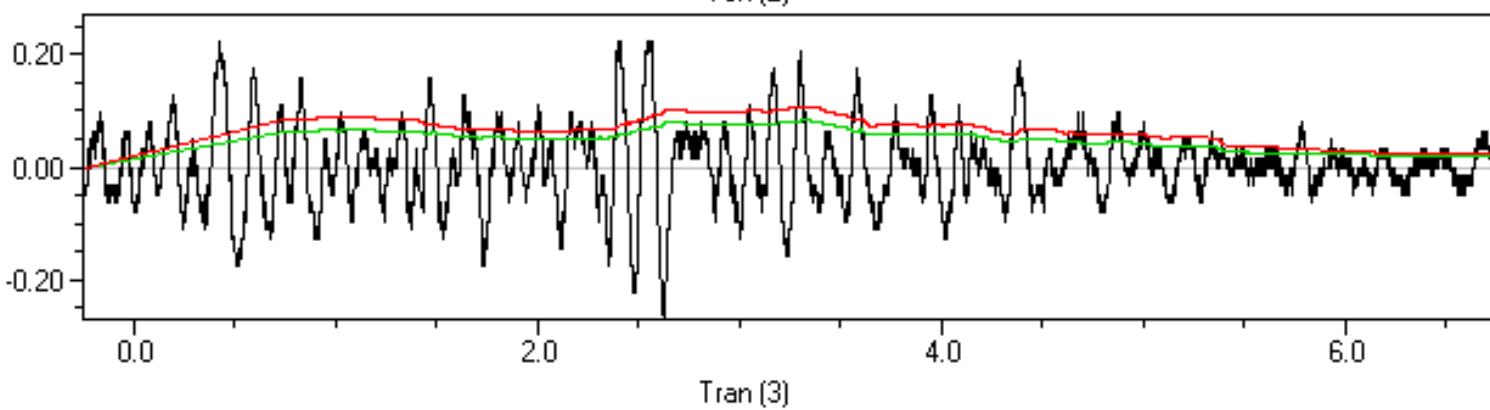
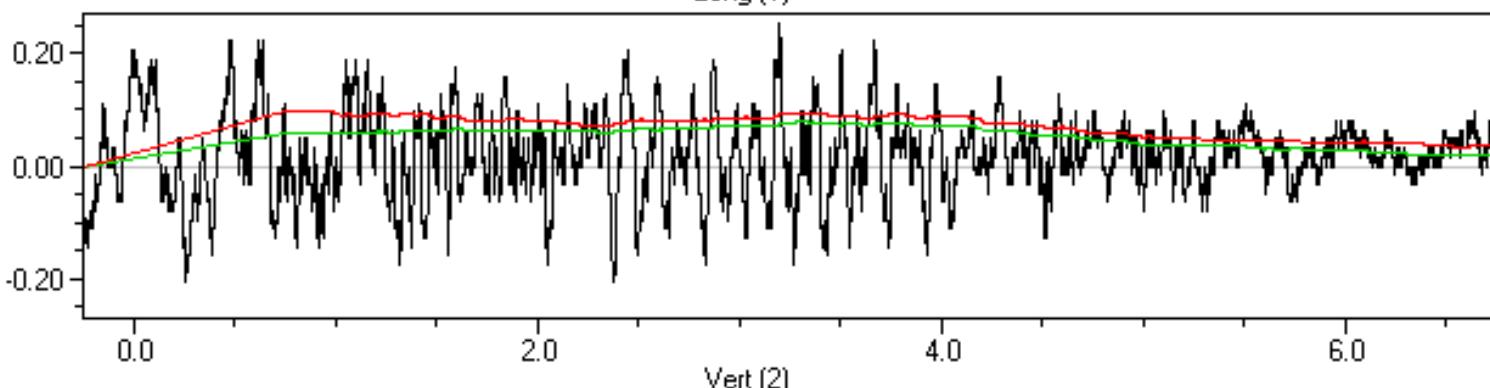
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.159 | 0.270 | 0.254 | mm/s |
| ZC Freq | 11 | 7.1 | 9.8 | Hz |
| Time of Peak | 1.403 | 2.623 | 3.199 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00494 | 0.00633 | 0.0114 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.05 | 0.08 | 0.08 | 0.12 |
| RMS (1s) | 0.07 | 0.11 | 0.10 | 0.16 |

Long (1)





Event Date: January 3, 2007

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 14:34:51

File Name: L212BHGG.I30

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 10.25 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

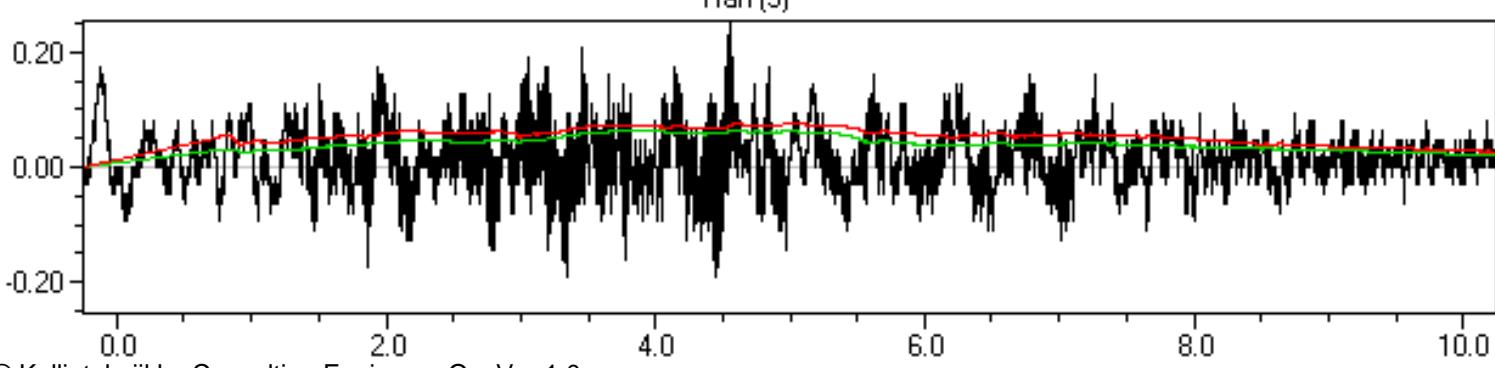
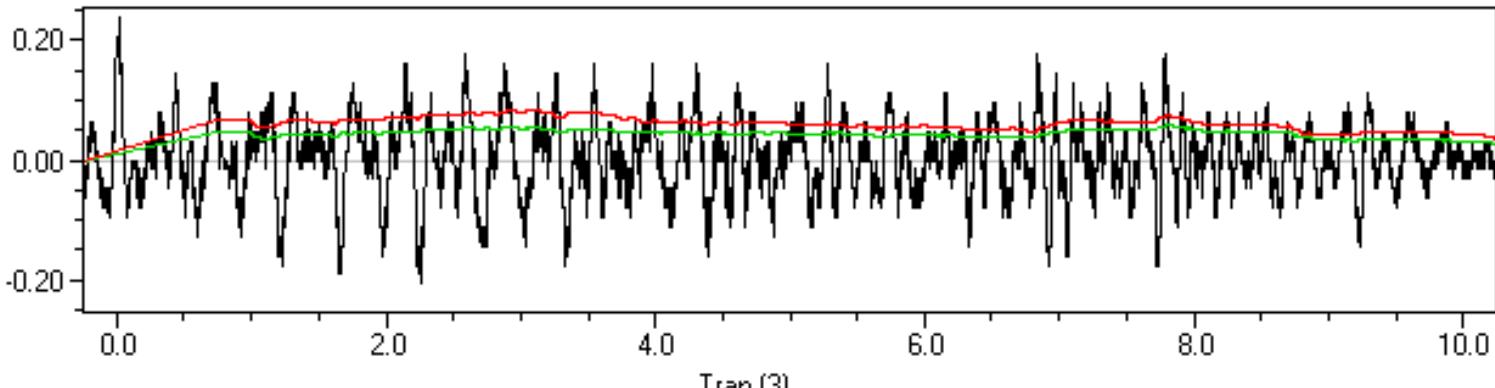
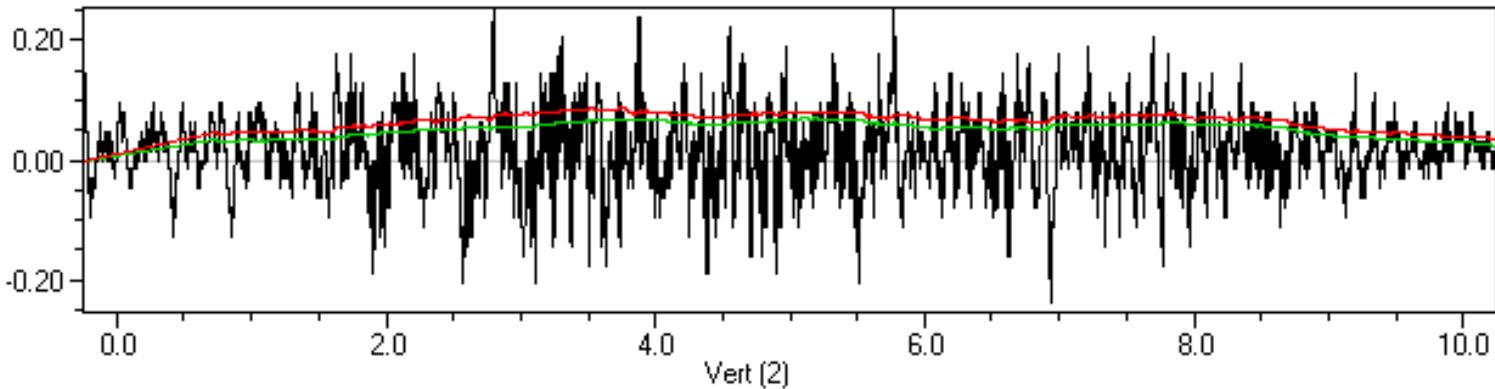
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.254 | 0.238 | 0.254 | mm/s |
| ZC Freq | 26 | 6.6 | 5.0 | Hz |
| Time of Peak | 4.549 | 0.016 | 2.801 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00663 | g |
| Peak Displacement | 0.00689 | 0.00543 | 0.00552 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,06 | 0,07 | 0,10 |
| RMS (1s) | 0,08 | 0,08 | 0,09 | 0,14 |

Long (1)





Event Date: January 3, 2007

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 18:46:14

File Name: L212BHGS.520

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.25 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

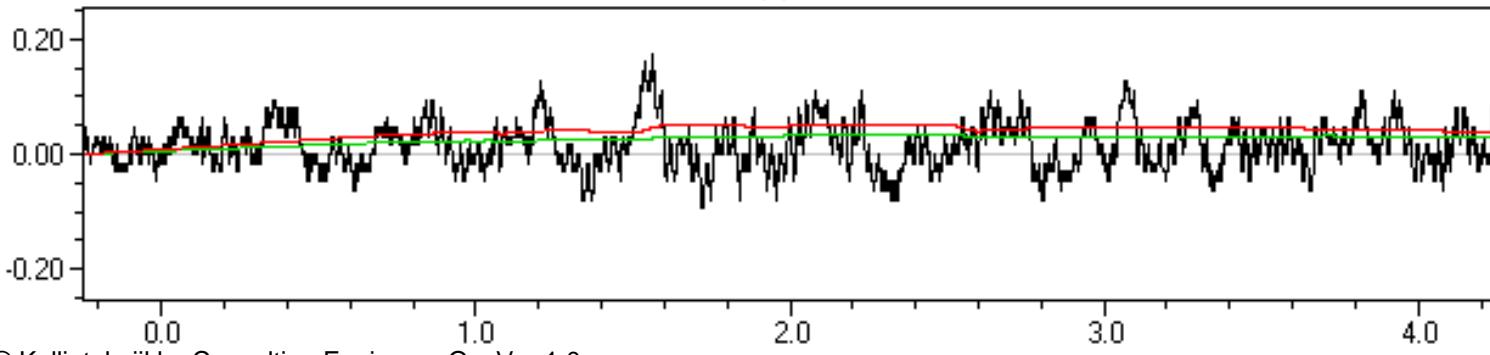
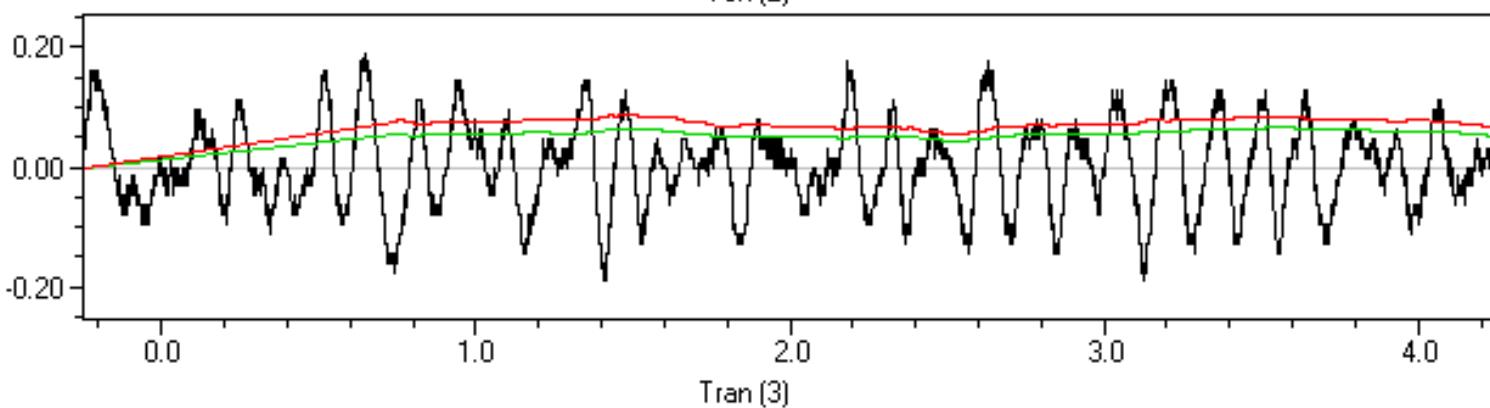
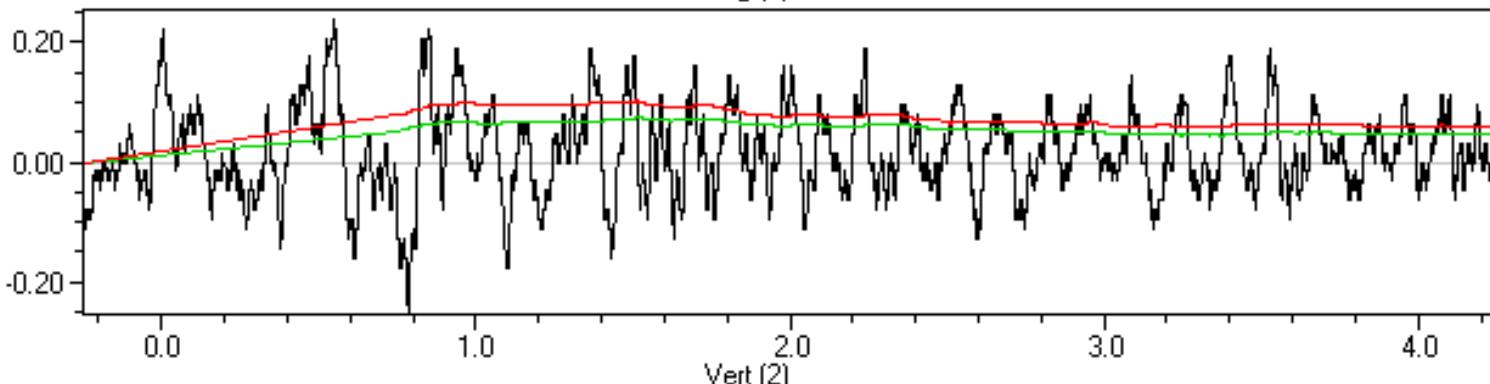
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.175 | 0.190 | 0.254 | mm/s |
| ZC Freq | 4.8 | 6.6 | 7.1 | Hz |
| Time of Peak | 1.562 | 0.645 | 0.785 | Sec |
| Peak Acceleration | 0.00497 | 0.00331 | 0.00497 | g |
| Peak Displacement | 0.00498 | 0.00486 | 0.00529 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,03 | 0,07 | 0,07 | 0,10 |
| RMS (1s) | 0,05 | 0,09 | 0,10 | 0,14 |

Long (1)





Event Date: January 4, 2007

Serial Number: BE10212, V 8.01-8.0 MiniMate Plus

Event Time: 05:46:38

File Name: L212BHJM.PQ0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 9.75 sec

User Name: Kalliotekniikka CE Oy puh. 09-2727890

Sample Rate: 1024 sps

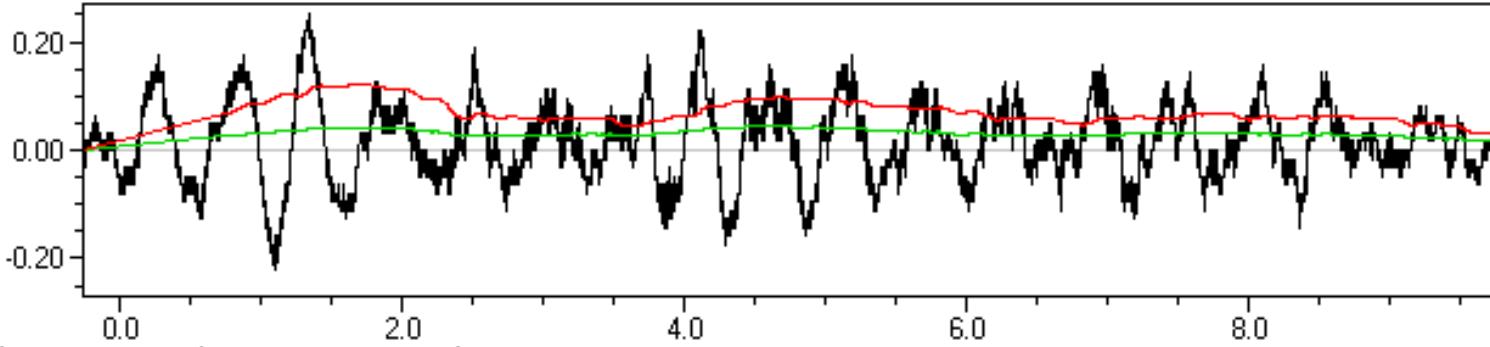
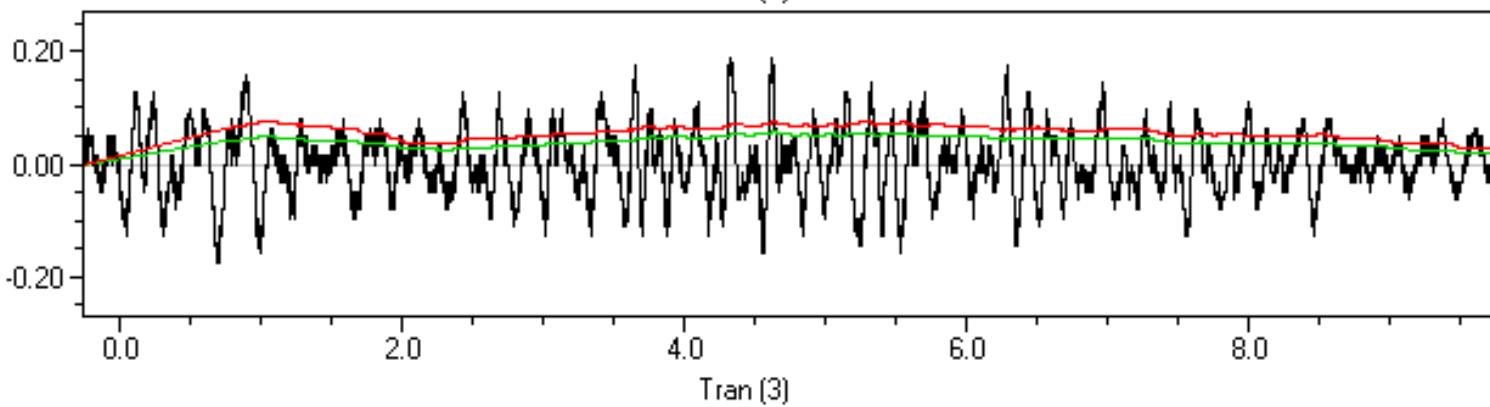
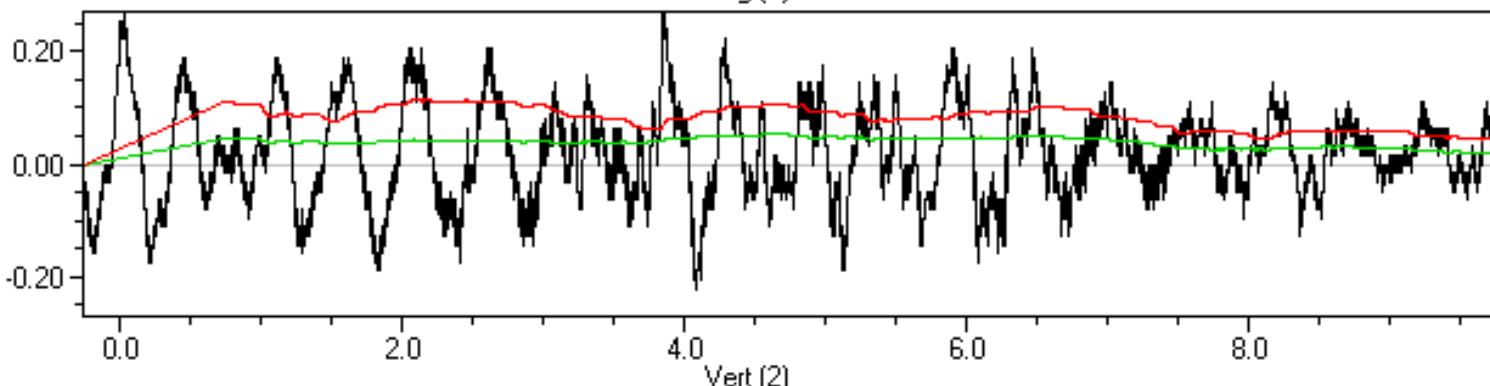
Job Number: 5296

Calibration: May 17, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.254 | 0.190 | 0.270 | mm/s |
| ZC Freq | 2.2 | 7.1 | 2.5 | Hz |
| Time of Peak | 1.350 | 4.332 | 0.041 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.0167 | 0.00491 | 0.0152 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.04 | 0.06 | 0.05 | 0.09 |
| RMS (1s) | 0.12 | 0.08 | 0.11 | 0.16 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 20:44:55

File Name: M049BHBD.MV0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 7.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

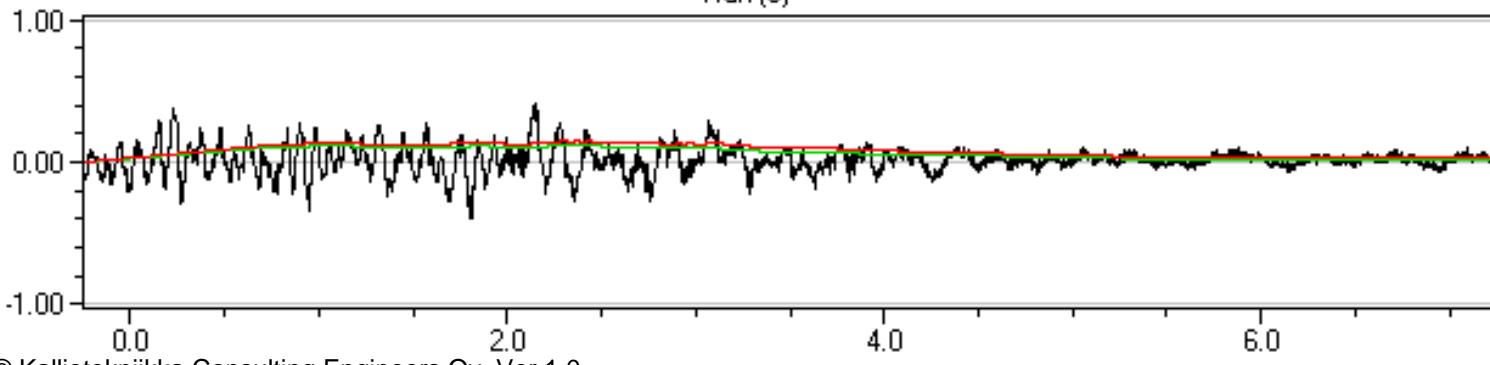
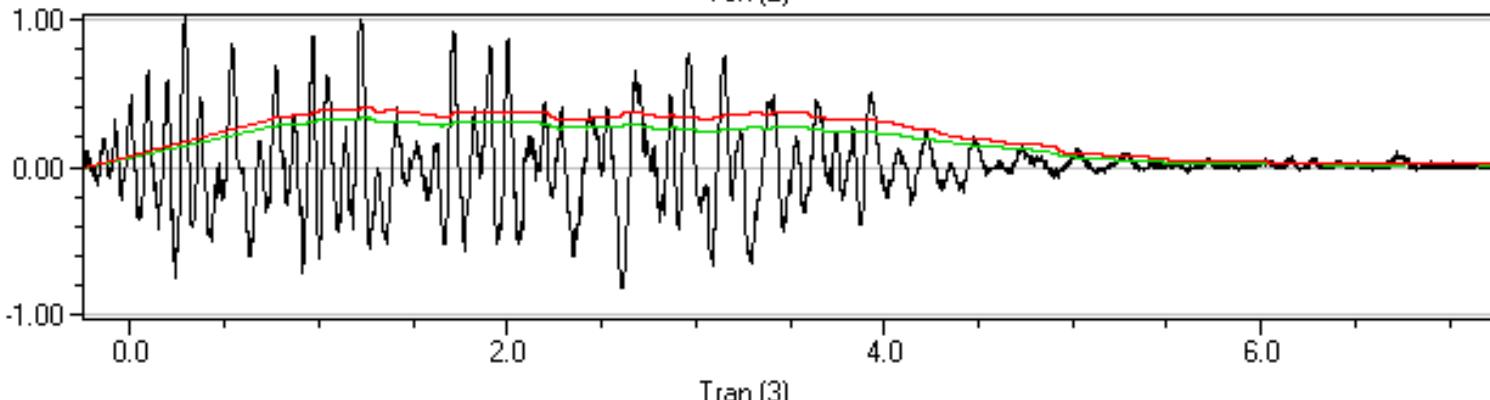
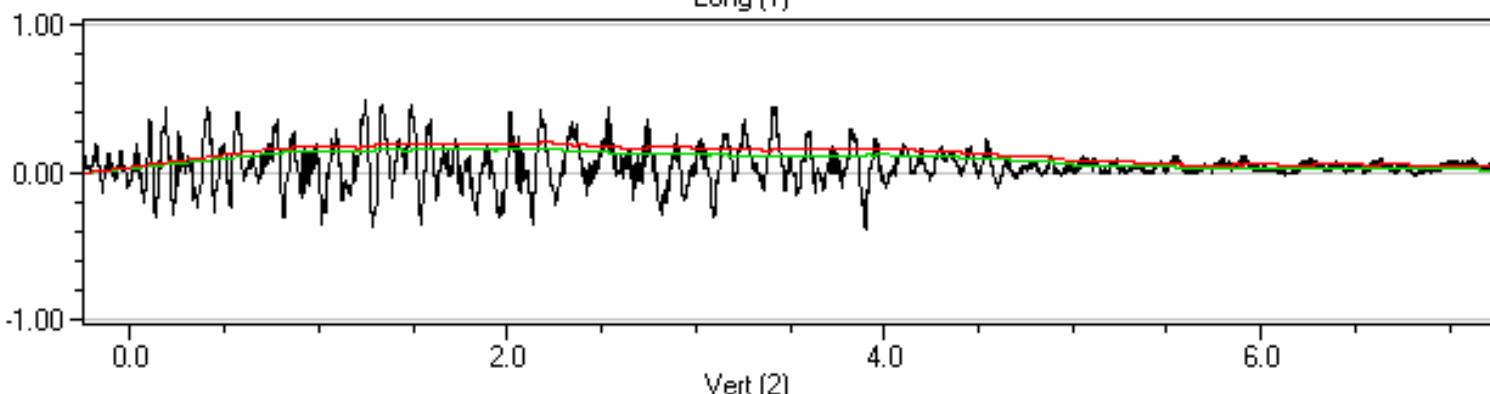
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.413 | 1.03 | 0.492 | mm/s |
| ZC Freq | 6.6 | 11 | 7.0 | Hz |
| Time of Peak | 2.146 | 0.288 | 1.244 | Sec |
| Peak Acceleration | 0.00829 | 0.00994 | 0.00829 | g |
| Peak Displacement | 0.00905 | 0.0196 | 0.0102 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,12 | 0,33 | 0,16 | 0,38 |
| RMS (1s) | 0,15 | 0,40 | 0,20 | 0,46 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 22:45:14

File Name: M049BHBJ.7E0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 7.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

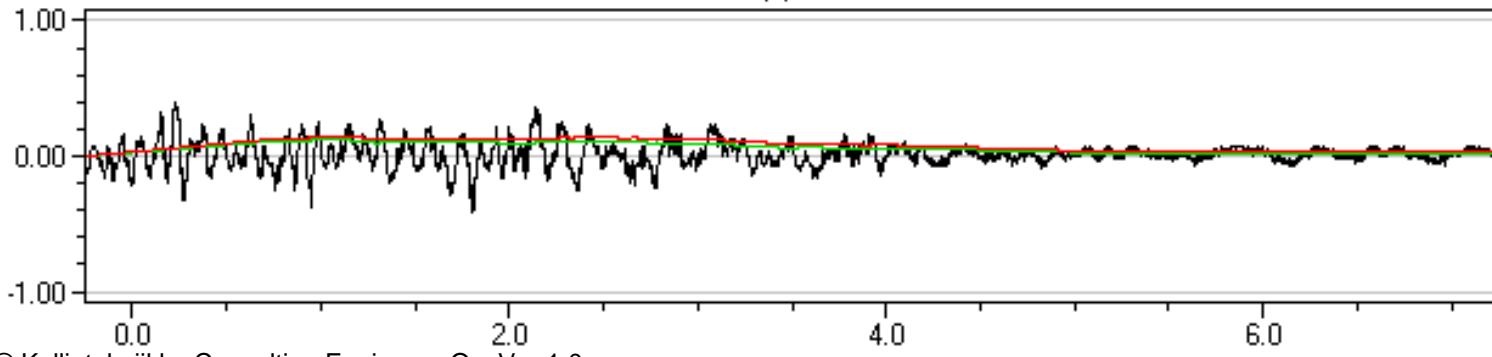
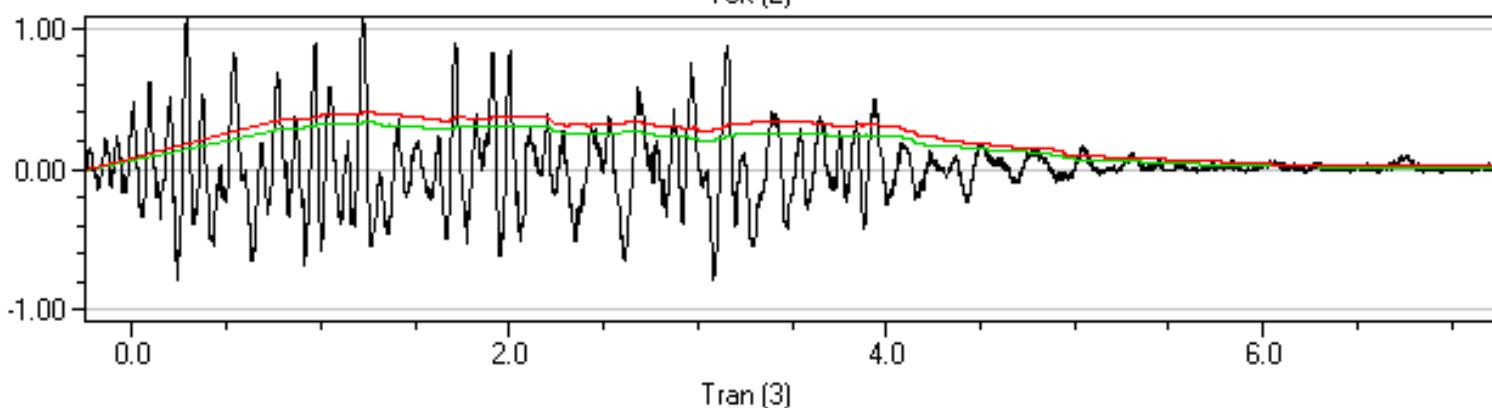
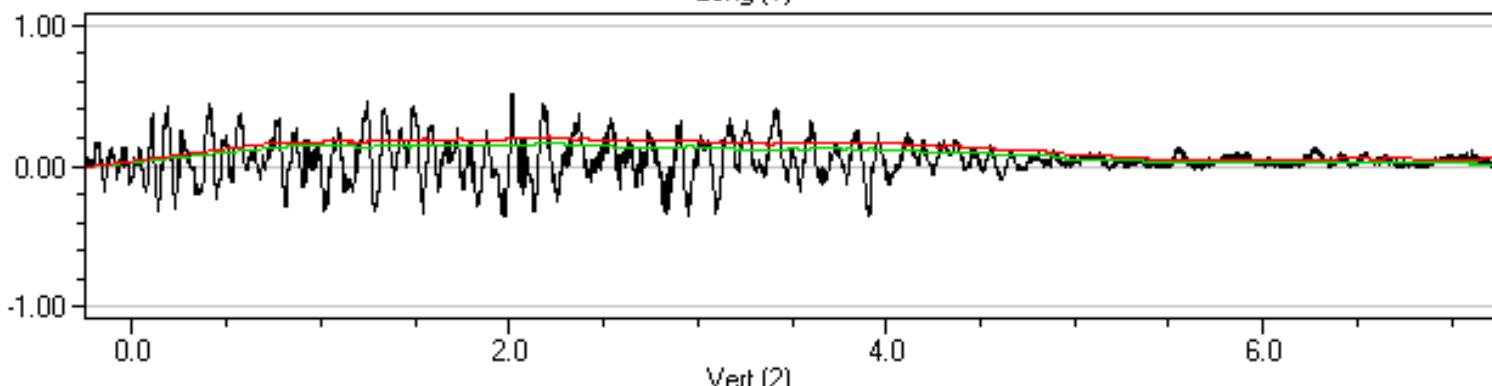
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.413 | 1.08 | 0.508 | mm/s |
| ZC Freq | 9.7 | 11 | 10 | Hz |
| Time of Peak | 1.808 | 0.286 | 2.013 | Sec |
| Peak Acceleration | 0.00663 | 0.0116 | 0.00829 | g |
| Peak Displacement | 0.00859 | 0.0209 | 0.00994 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,12 | 0,34 | 0,16 | 0,38 |
| RMS (1s) | 0,14 | 0,41 | 0,21 | 0,46 |

Long (1)





Event Date: January 1, 2007

Event Time: 02:32:33

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

File Name: M049BHBT.Q90

Trigger: Vert

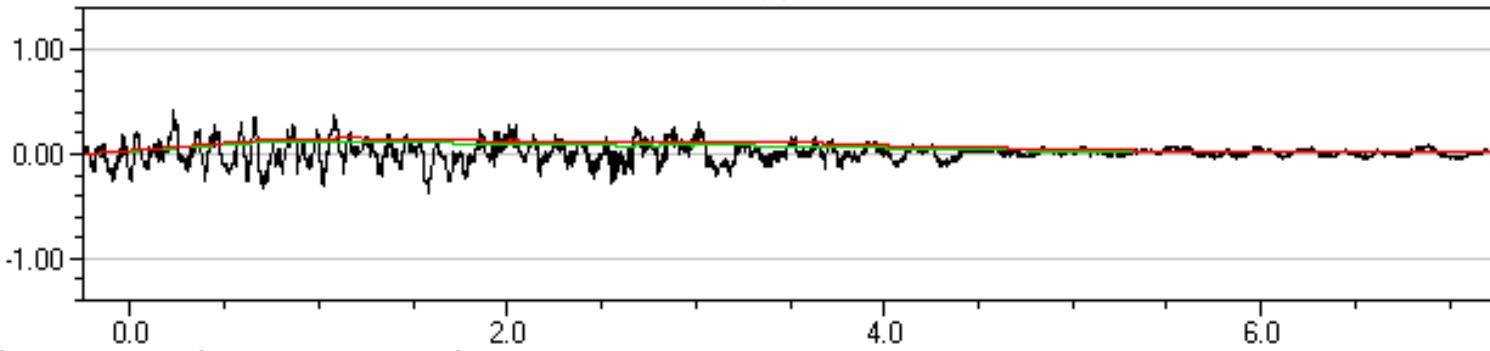
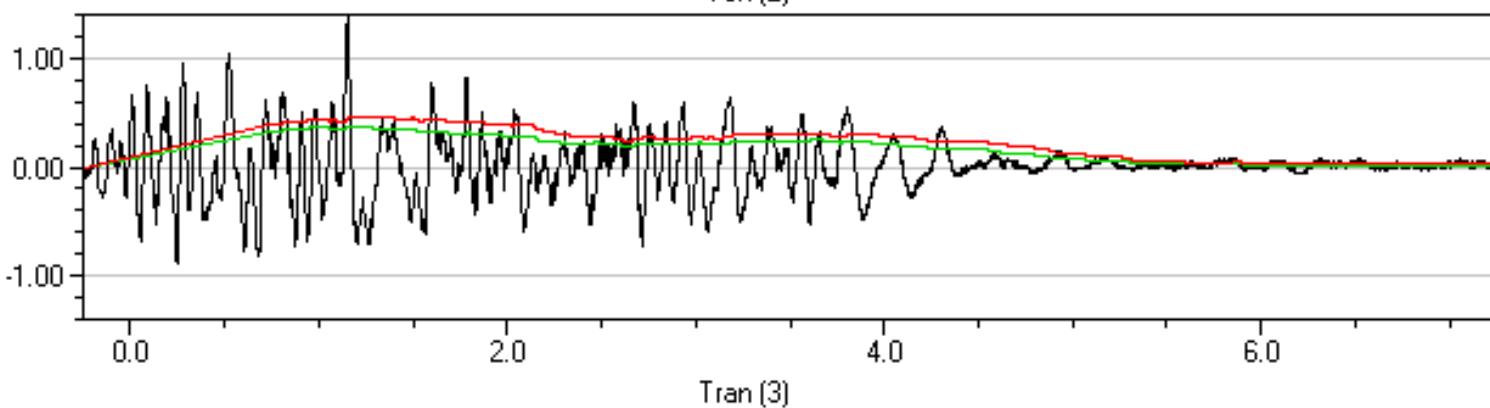
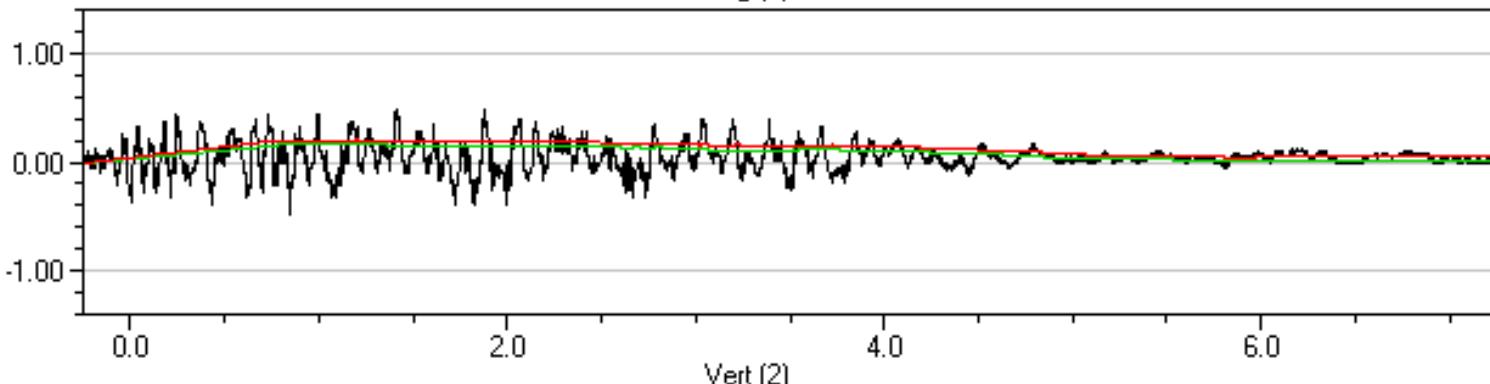
Record Time: 7.25 sec

Sample Rate: 1024 sps

Calibration: March 29, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.413 | 1.40 | 0.492 | mm/s |
| ZC Freq | 8.4 | 10 | 16 | Hz |
| Time of Peak | 0.229 | 1.153 | 0.845 | Sec |
| Peak Acceleration | 0.00663 | 0.0116 | 0.00994 | g |
| Peak Displacement | 0.00739 | 0.0314 | 0.0112 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,13 | 0,38 | 0,17 | 0,43 |
| RMS (1s) | 0,16 | 0,47 | 0,20 | 0,53 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 04:57:29

File Name: M049BHC0.FT0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 7.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

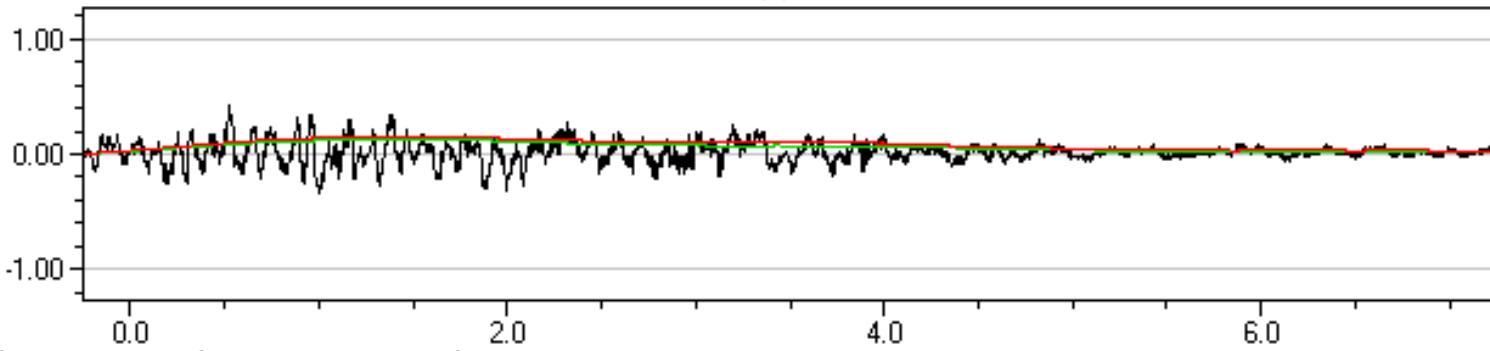
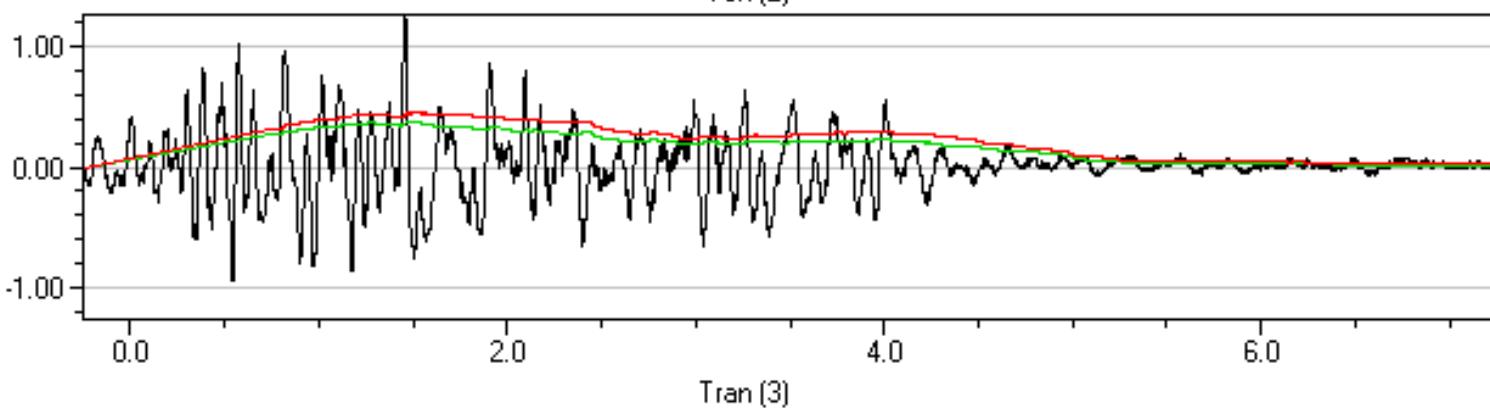
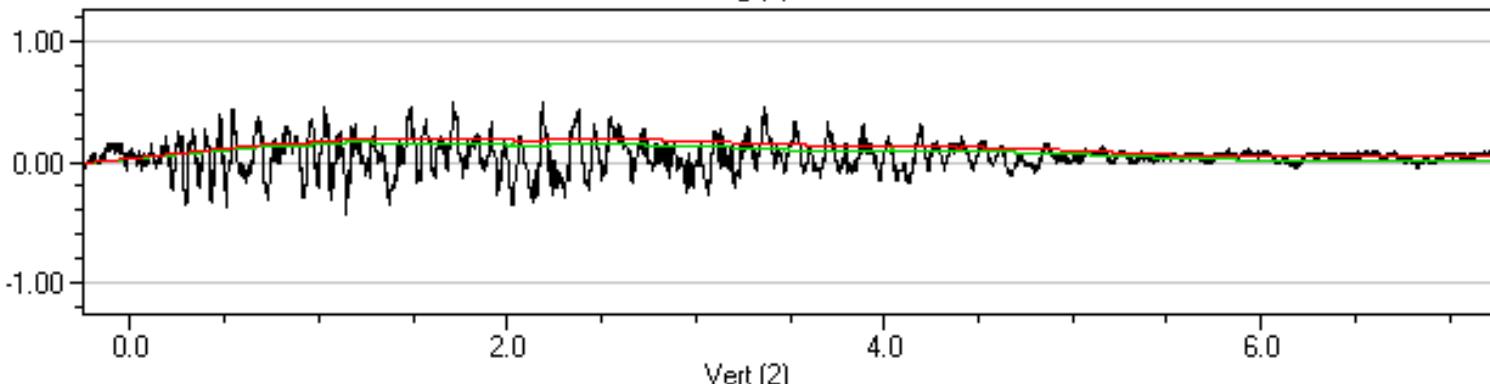
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.429 | 1.27 | 0.508 | mm/s |
| ZC Freq | 9.1 | 10 | 12 | Hz |
| Time of Peak | 0.524 | 1.455 | 2.186 | Sec |
| Peak Acceleration | 0.00829 | 0.0116 | 0.00829 | g |
| Peak Displacement | 0.00739 | 0.0308 | 0.0128 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,13 | 0,38 | 0,17 | 0,43 |
| RMS (1s) | 0,16 | 0,46 | 0,20 | 0,52 |

Long (1)





Event Date: January 1, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 14:34:34

File Name: M049BHCR.5M0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 9.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

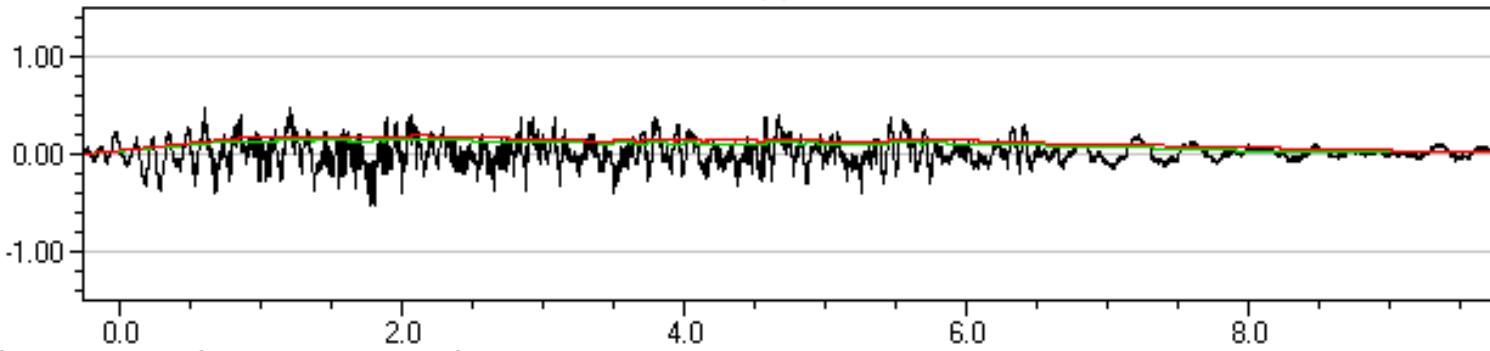
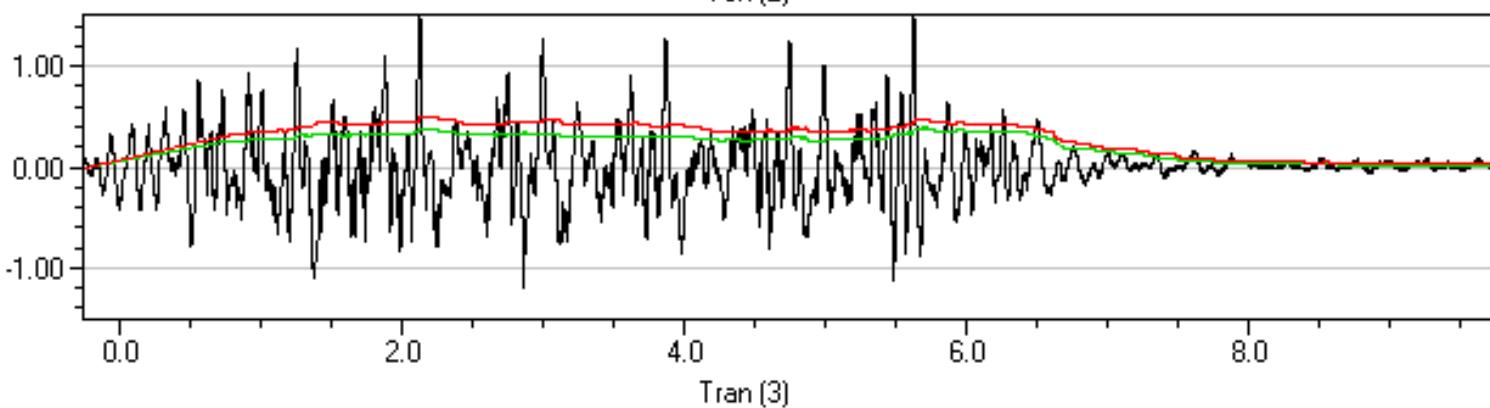
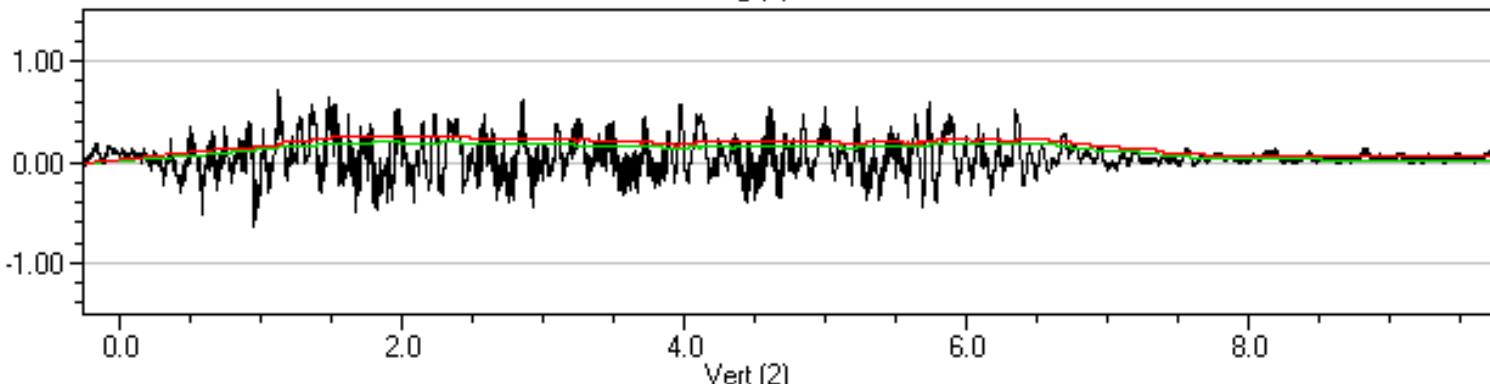
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.524 | 1.51 | 0.714 | mm/s |
| ZC Freq | 5.0 | 9.0 | 6.6 | Hz |
| Time of Peak | 1.781 | 2.129 | 1.125 | Sec |
| Peak Acceleration | 0.0116 | 0.0149 | 0.0116 | g |
| Peak Displacement | 0.0112 | 0.0304 | 0.0168 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,15 | 0,39 | 0,20 | 0,45 |
| RMS (1s) | 0,19 | 0,50 | 0,27 | 0,59 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 06:44:48

File Name: M049BHE0.2O0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 8.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

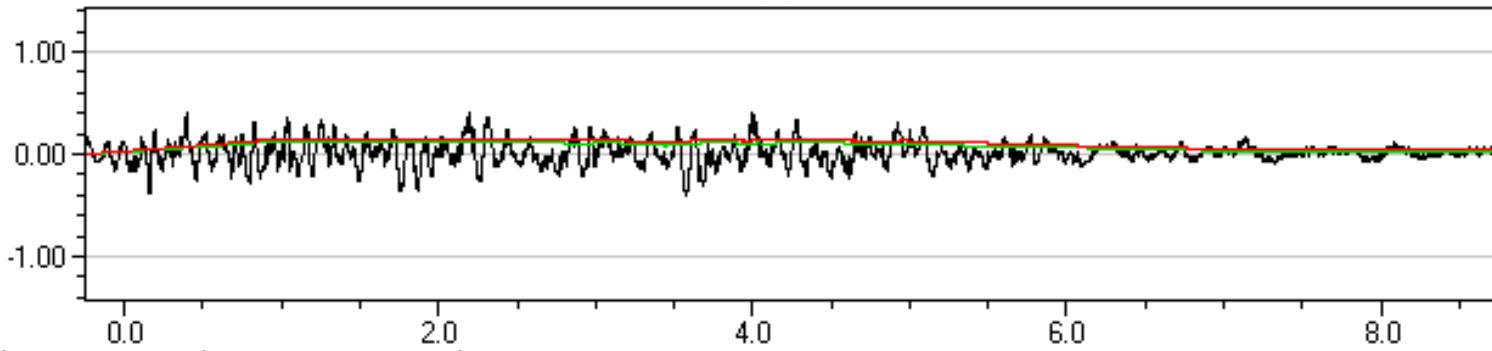
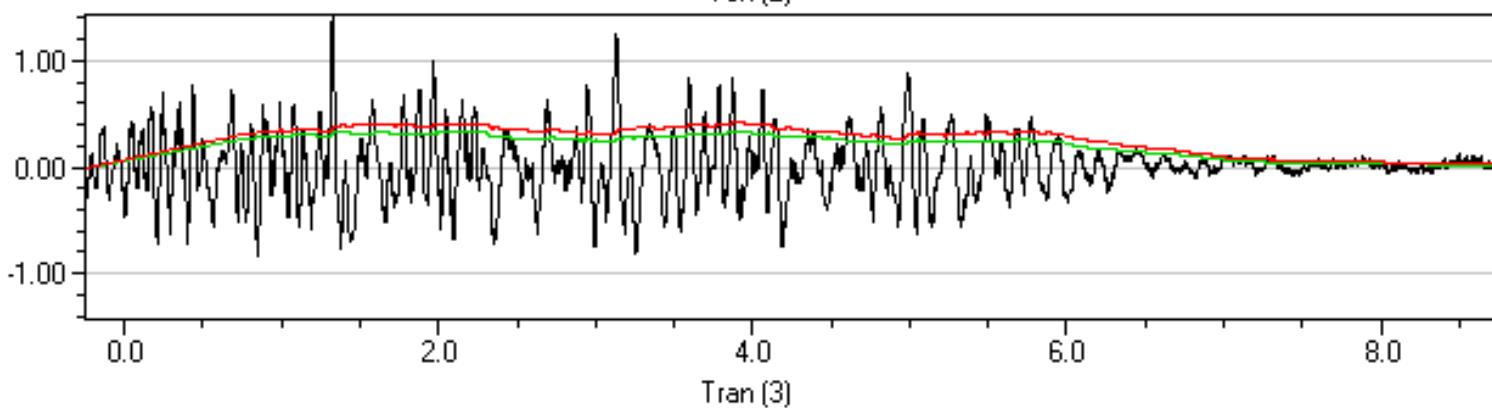
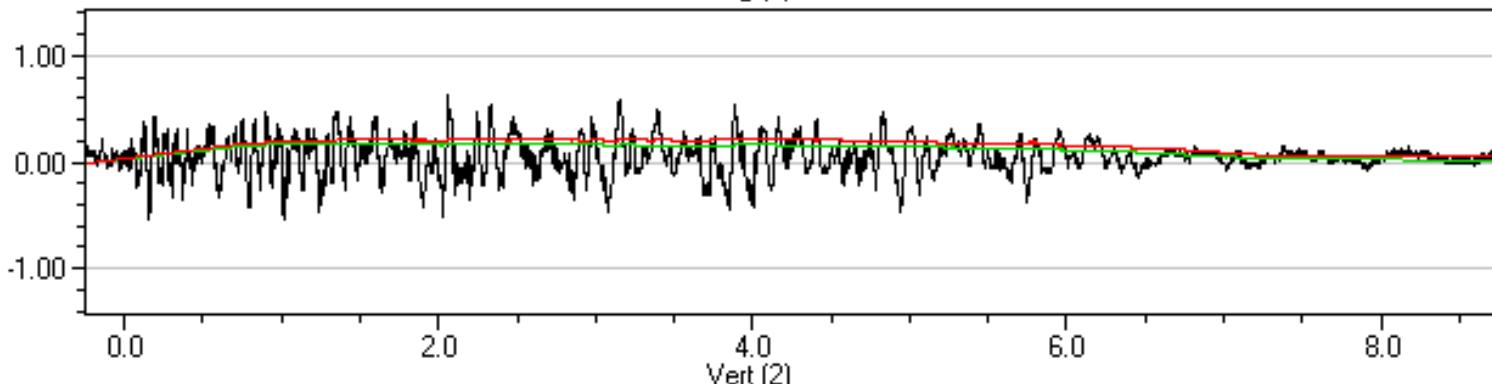
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.413 | 1.43 | 0.635 | mm/s |
| ZC Freq | 6.2 | 10 | 13 | Hz |
| Time of Peak | 3.990 | 1.323 | 2.061 | Sec |
| Peak Acceleration | 0.00829 | 0.0116 | 0.0116 | g |
| Peak Displacement | 0.00957 | 0.0226 | 0.0144 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,13 | 0,33 | 0,18 | 0,40 |
| RMS (1s) | 0,15 | 0,42 | 0,23 | 0,49 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 09:46:27

File Name: M049BHE8.HF0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

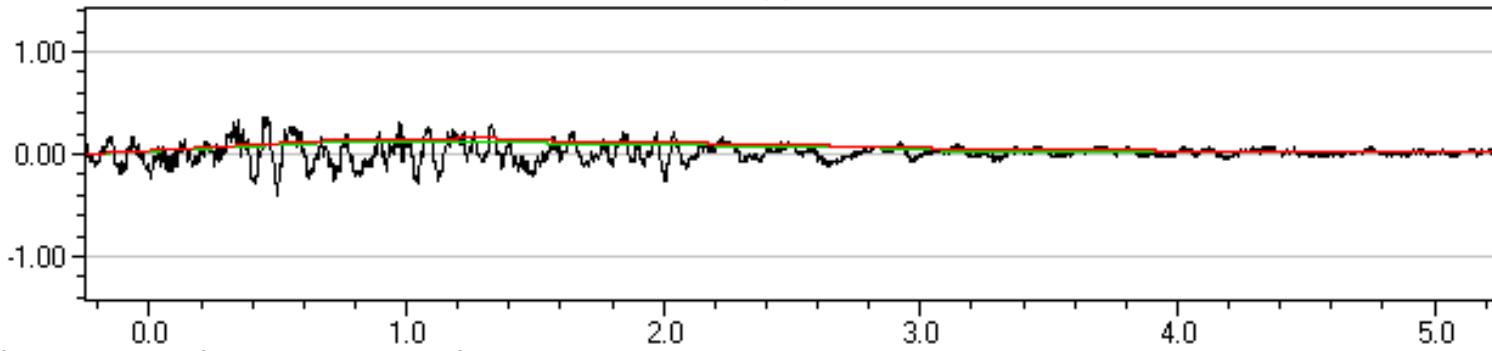
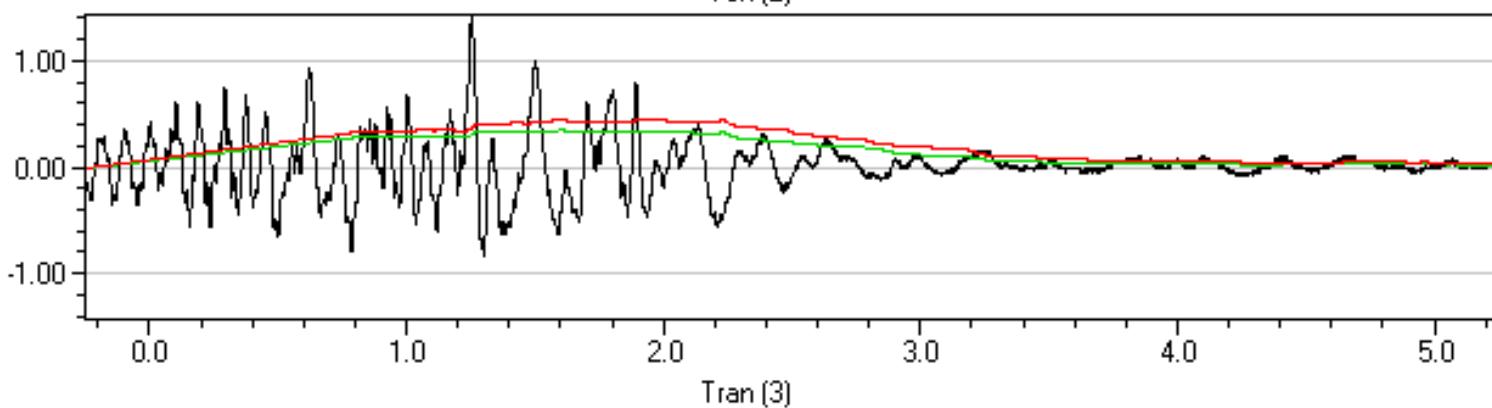
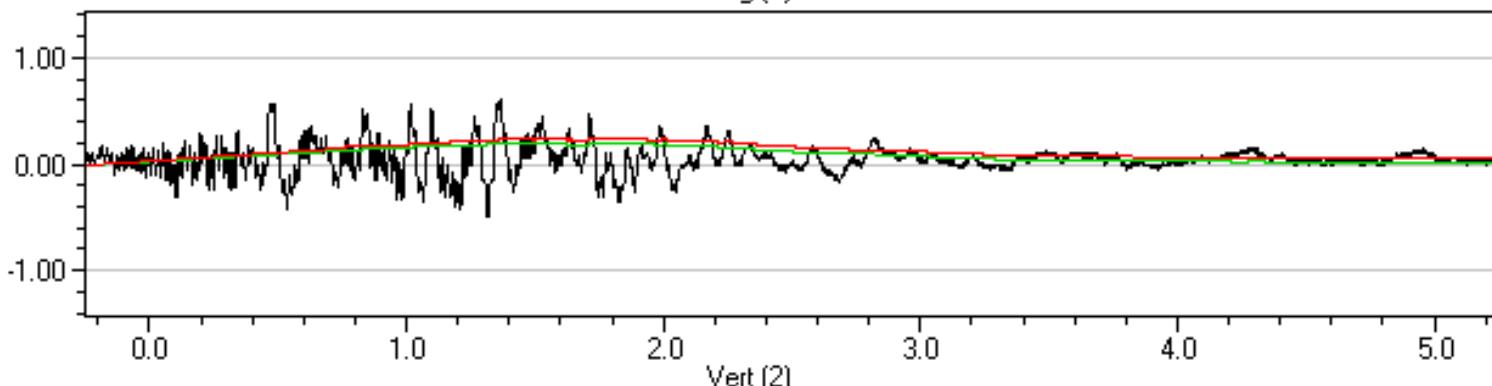
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.397 | 1.43 | 0.603 | mm/s |
| ZC Freq | 13 | 9.0 | 9.3 | Hz |
| Time of Peak | 0.496 | 1.253 | 1.363 | Sec |
| Peak Acceleration | 0.00663 | 0.0116 | 0.00994 | g |
| Peak Displacement | 0.00708 | 0.0256 | 0.0125 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,13 | 0,34 | 0,20 | 0,41 |
| RMS (1s) | 0,16 | 0,44 | 0,24 | 0,52 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 10:49:43

File Name: M049BHEB.EV0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

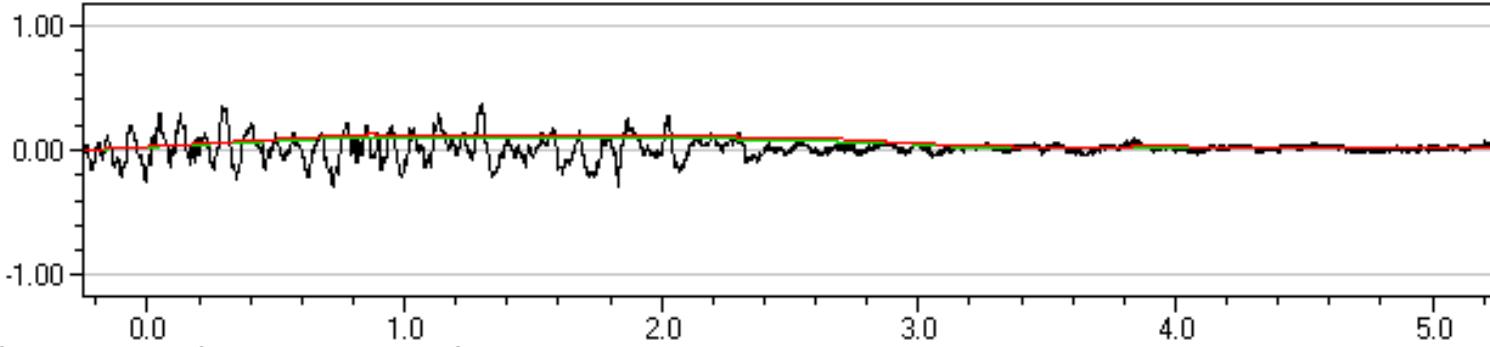
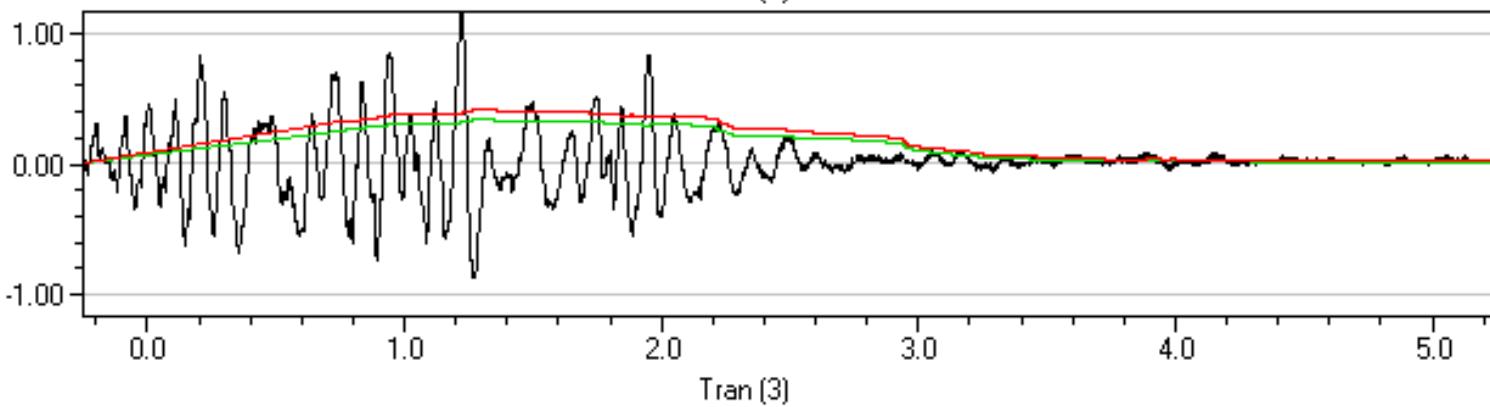
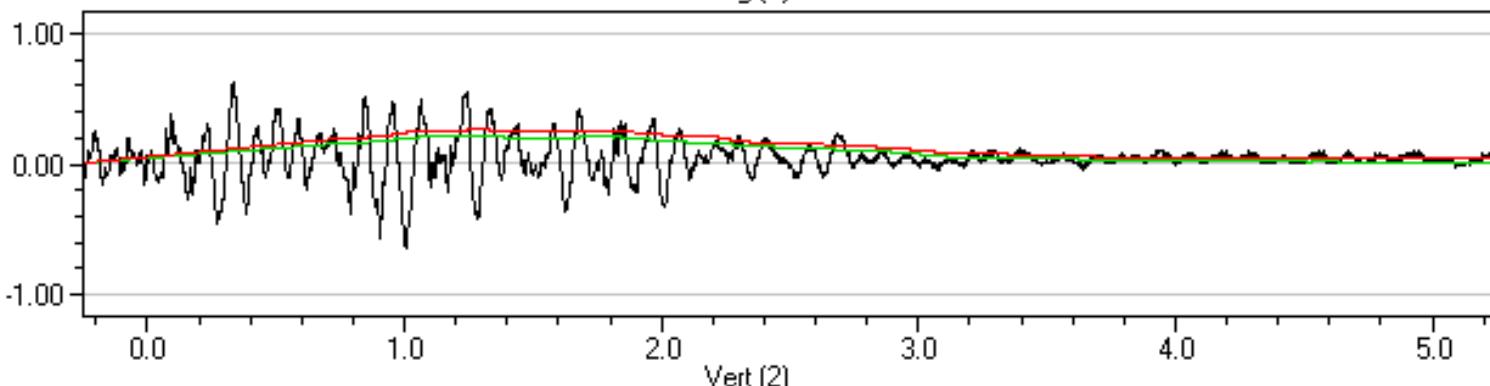
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.365 | 1.17 | 0.651 | mm/s |
| ZC Freq | 10 | 8.8 | 8.7 | Hz |
| Time of Peak | 1.301 | 1.218 | 1.007 | Sec |
| Peak Acceleration | 0.00663 | 0.0116 | 0.00829 | g |
| Peak Displacement | 0.00536 | 0.0200 | 0.0106 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,11 | 0,35 | 0,22 | 0,42 |
| RMS (1s) | 0,13 | 0,43 | 0,27 | 0,52 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 11:44:49

File Name: M049BHED.YP0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

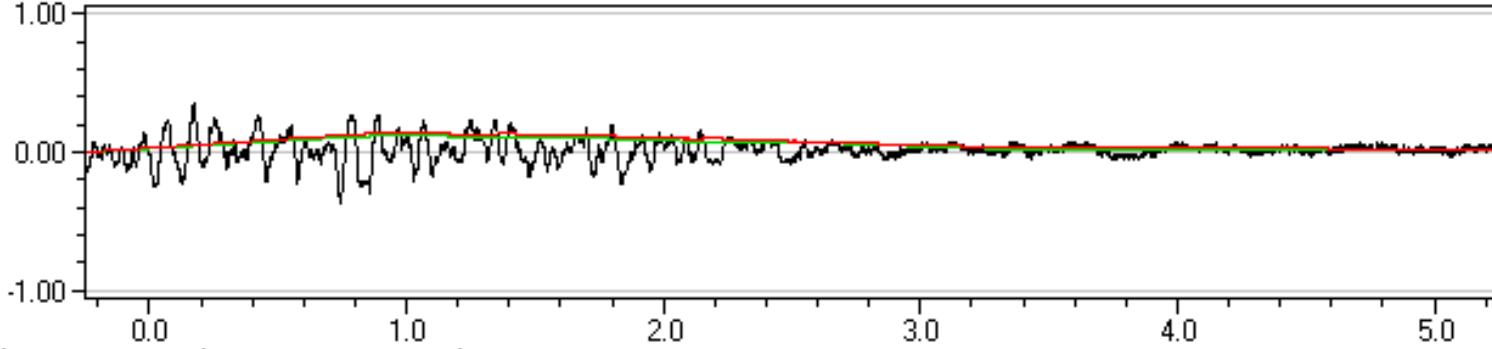
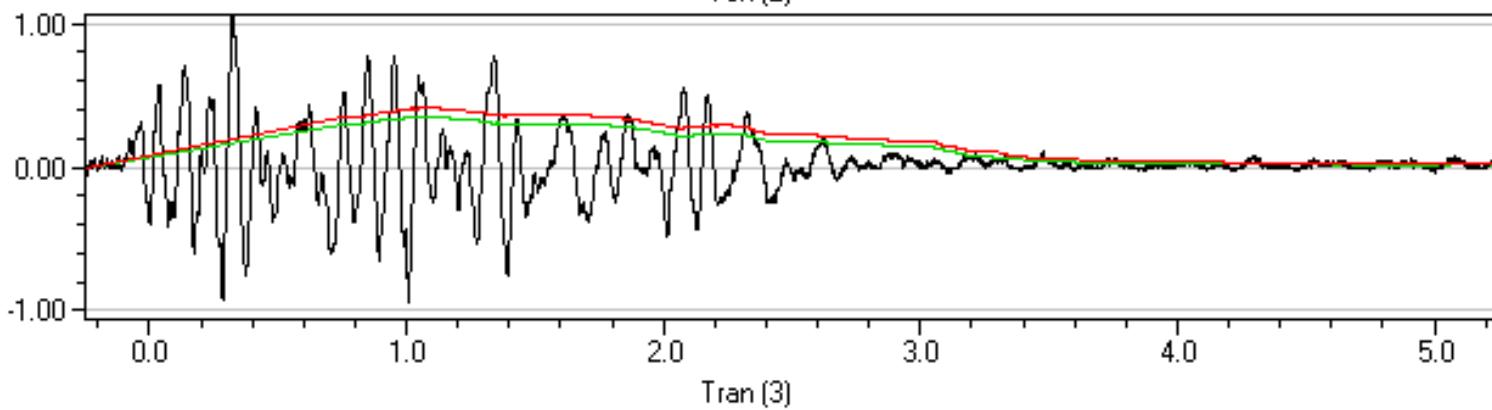
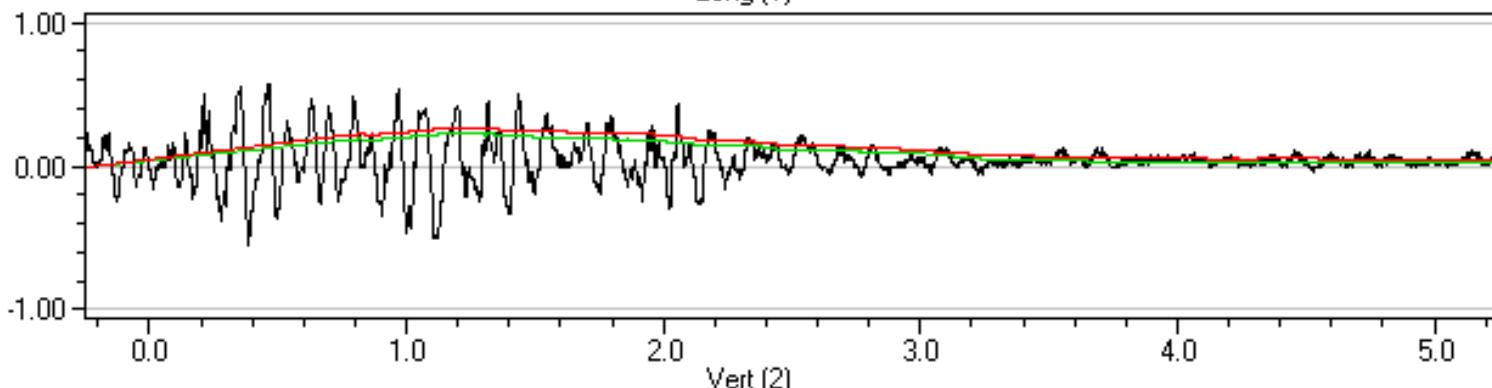
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.365 | 1.06 | 0.571 | mm/s |
| ZC Freq | 13 | 9.8 | 9.0 | Hz |
| Time of Peak | 0.741 | 0.322 | 0.462 | Sec |
| Peak Acceleration | 0.00663 | 0.00994 | 0.00829 | g |
| Peak Displacement | 0.00642 | 0.0171 | 0.00896 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,12 | 0,35 | 0,23 | 0,43 |
| RMS (1s) | 0,14 | 0,41 | 0,27 | 0,51 |

Long (1)





Event Date: January 2, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 14:34:36

File Name: M049BHEL.T00

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 9.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

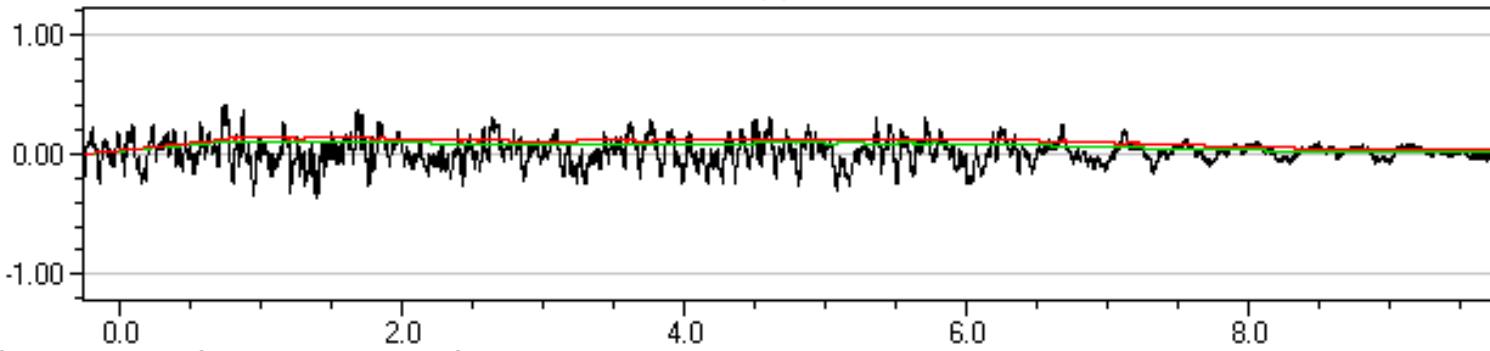
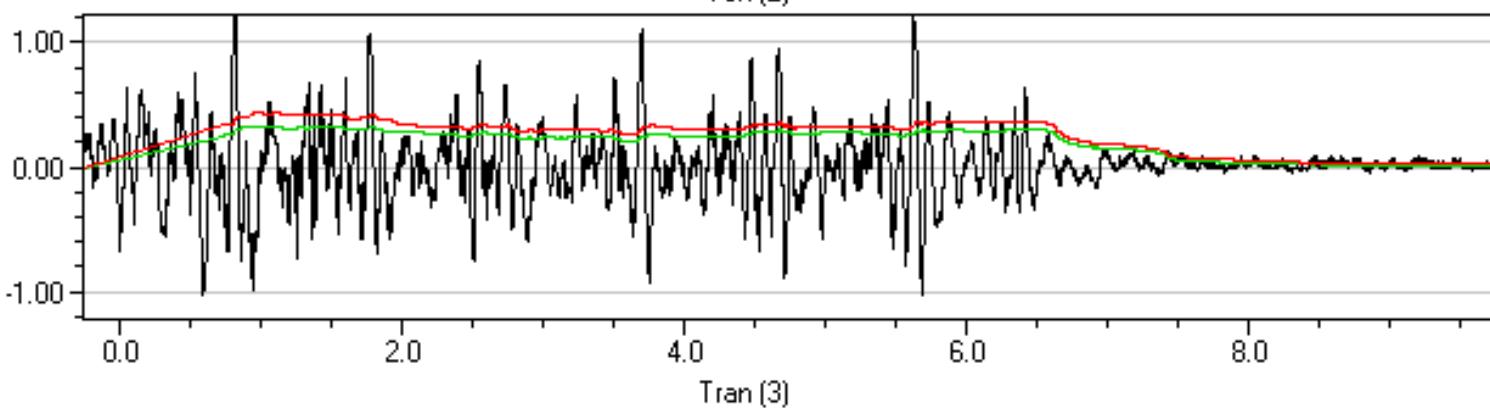
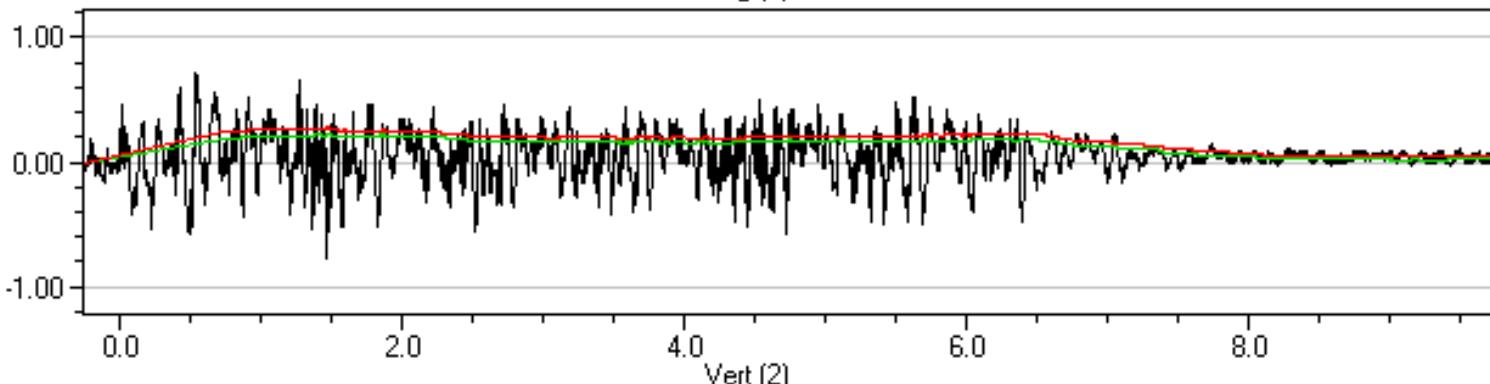
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.413 | 1.22 | 0.762 | mm/s |
| ZC Freq | 7.0 | 7.6 | 16 | Hz |
| Time of Peak | 0.769 | 0.824 | 1.476 | Sec |
| Peak Acceleration | 0.00829 | 0.0149 | 0.0149 | g |
| Peak Displacement | 0.00941 | 0.0231 | 0.0152 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,11 | 0,33 | 0,22 | 0,41 |
| RMS (1s) | 0,14 | 0,44 | 0,27 | 0,53 |

Long (1)





Event Date: January 2, 2007

Event Time: 18:45:37

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

File Name: M049BHEX.G10

Trigger: Vert

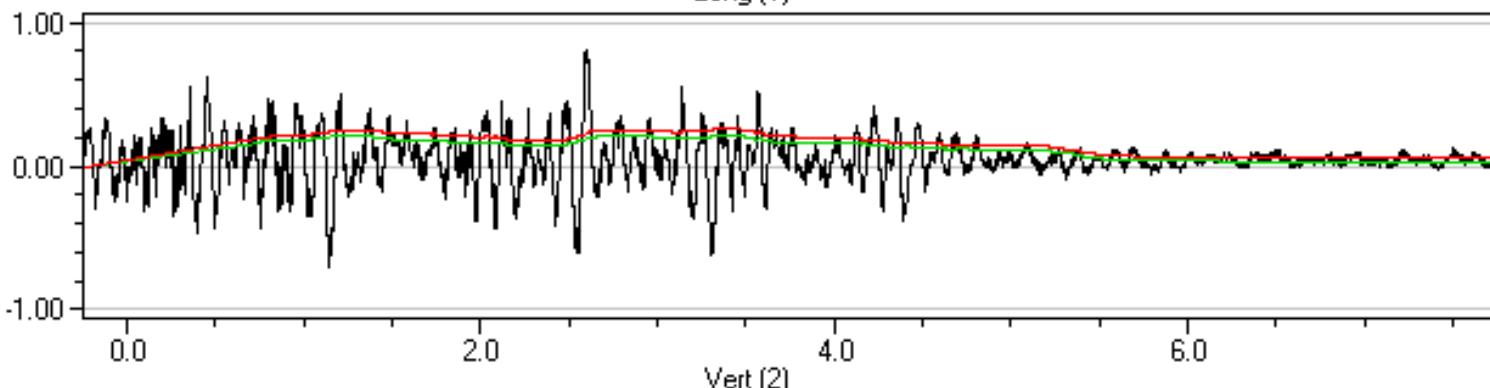
Record Time: 7.75 sec

Sample Rate: 1024 sps

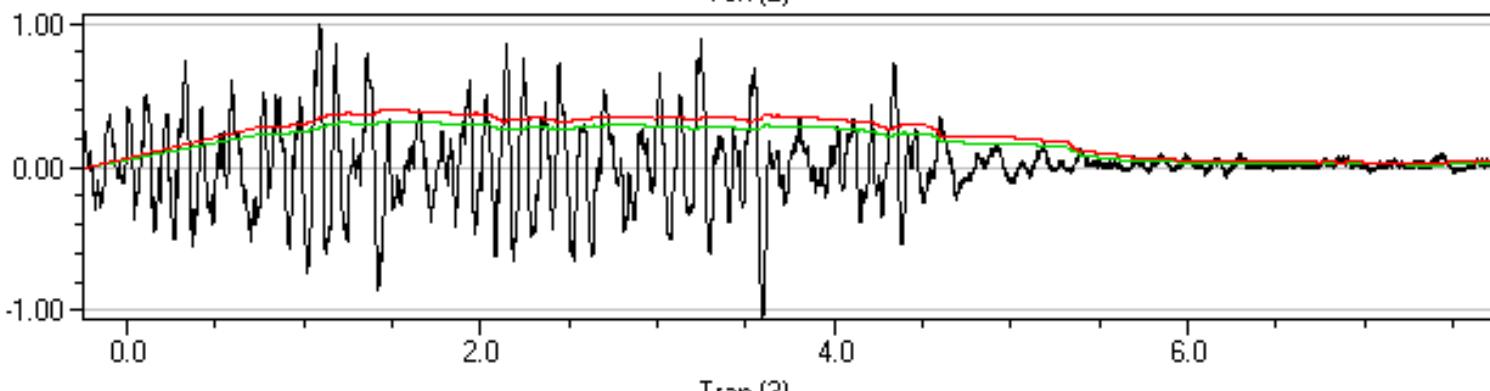
Calibration: March 29, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.333 | 1.06 | 0.810 | mm/s |
| ZC Freq | 18 | 9.1 | 8.4 | Hz |
| Time of Peak | 0.573 | 3.592 | 2.593 | Sec |
| Peak Acceleration | 0.00663 | 0.0116 | 0.0116 | g |
| Peak Displacement | 0.00646 | 0.0202 | 0.0145 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.11 | 0.32 | 0.21 | 0.39 |
| RMS (1s) | 0.13 | 0.39 | 0.26 | 0.48 |

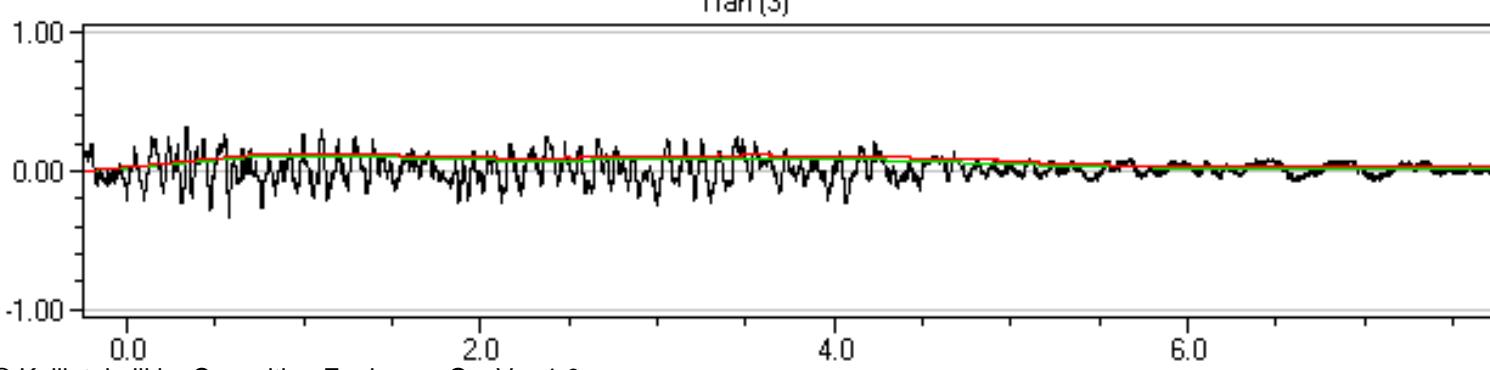
Long (1)



Vert (2)



Tran (3)





Event Date: January 2, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 21:49:34

File Name: M049BHF5.YM0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

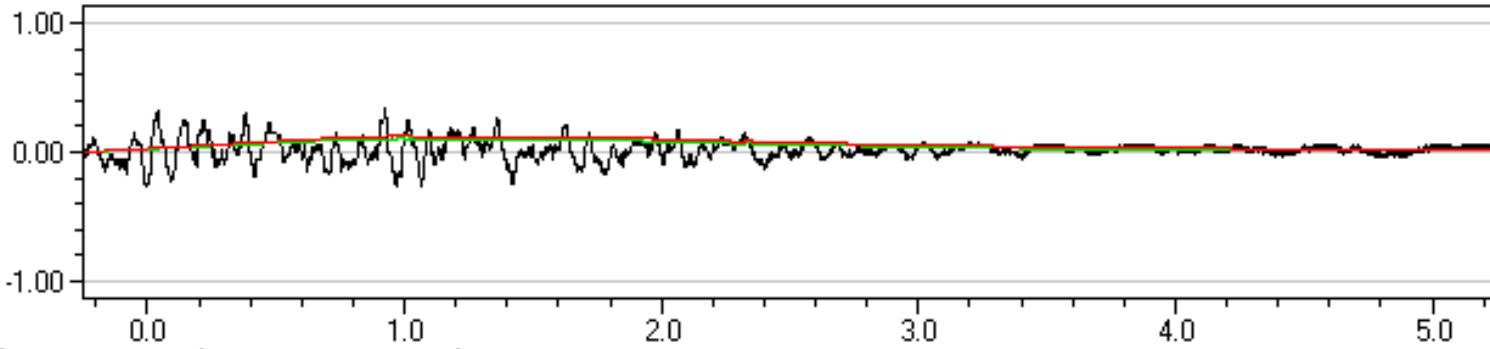
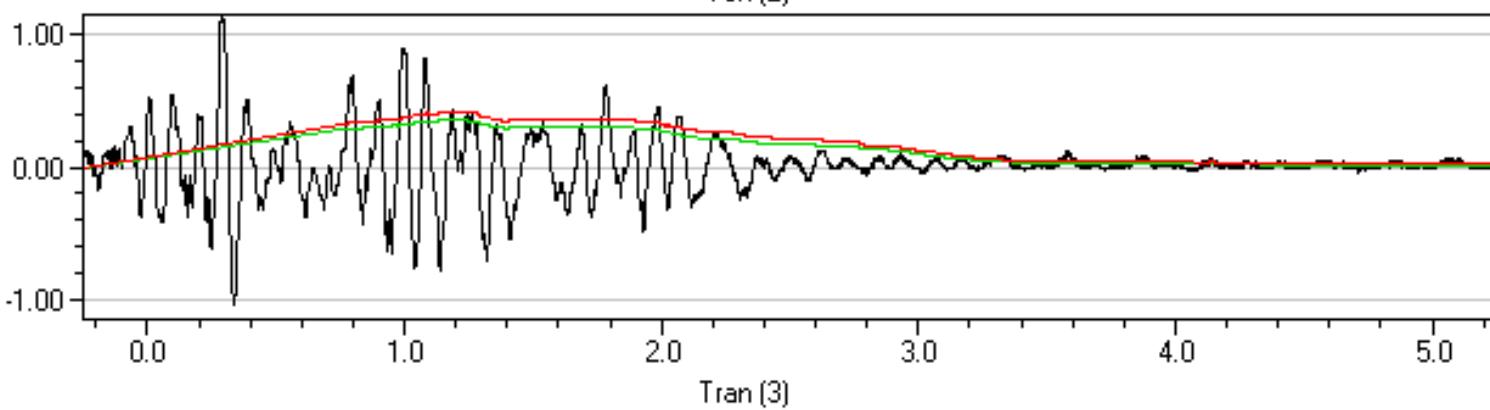
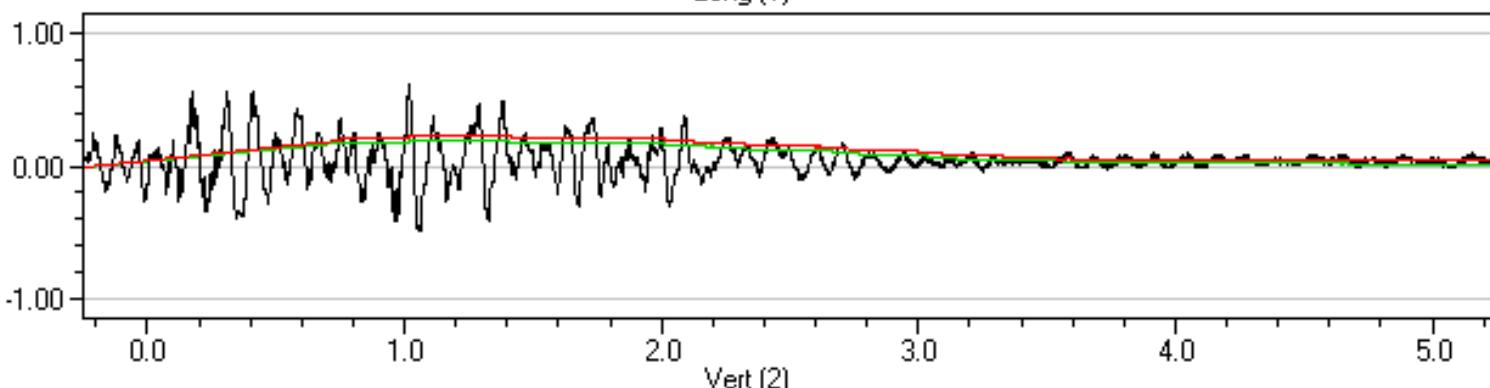
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.333 | 1.14 | 0.603 | mm/s |
| ZC Freq | 12 | 11 | 11 | Hz |
| Time of Peak | 0.923 | 0.288 | 1.017 | Sec |
| Peak Acceleration | 0.00663 | 0.00994 | 0.00829 | g |
| Peak Displacement | 0.00505 | 0.0175 | 0.00984 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,11 | 0,35 | 0,20 | 0,41 |
| RMS (1s) | 0,13 | 0,41 | 0,24 | 0,49 |

Long (1)





Event Date: January 2, 2007

Event Time: 23:56:02

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

File Name: M049BHFB.TE0

Trigger: Vert

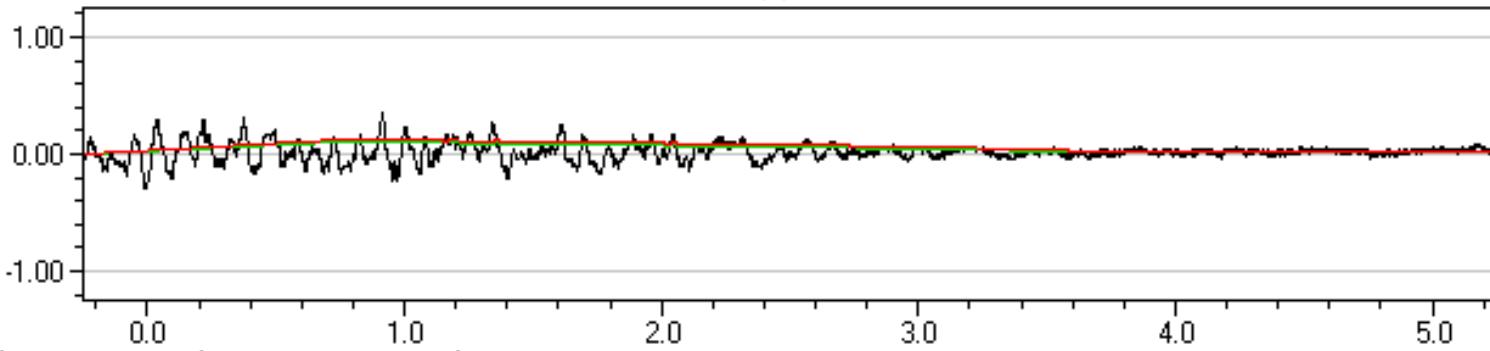
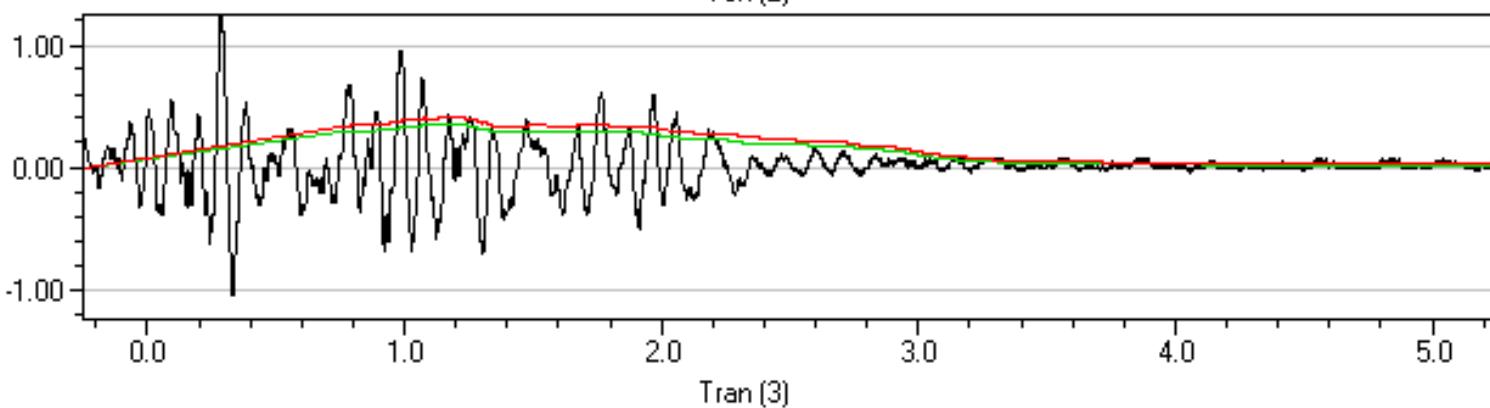
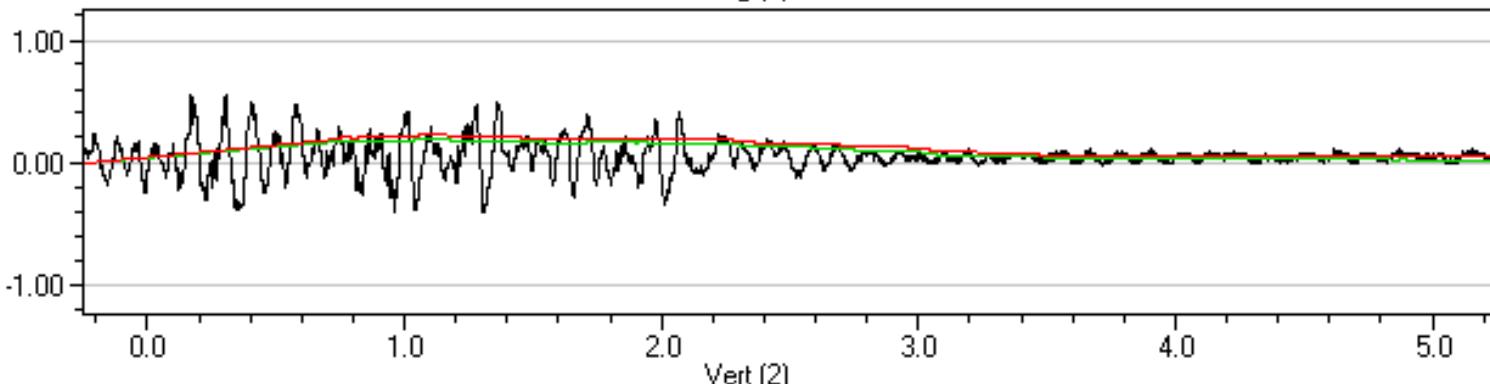
Record Time: 5.25 sec

Sample Rate: 1024 sps

Calibration: March 29, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.349 | 1.25 | 0.556 | mm/s |
| ZC Freq | 12 | 11 | 8.5 | Hz |
| Time of Peak | 0.913 | 0.284 | 0.170 | Sec |
| Peak Acceleration | 0.00663 | 0.0116 | 0.00829 | g |
| Peak Displacement | 0.00630 | 0.0185 | 0.00933 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,11 | 0,35 | 0,19 | 0,41 |
| RMS (1s) | 0,13 | 0,41 | 0,22 | 0,47 |

Long (1)





Event Date: January 3, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 07:13:26

File Name: M049BHFW.2E0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 7.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

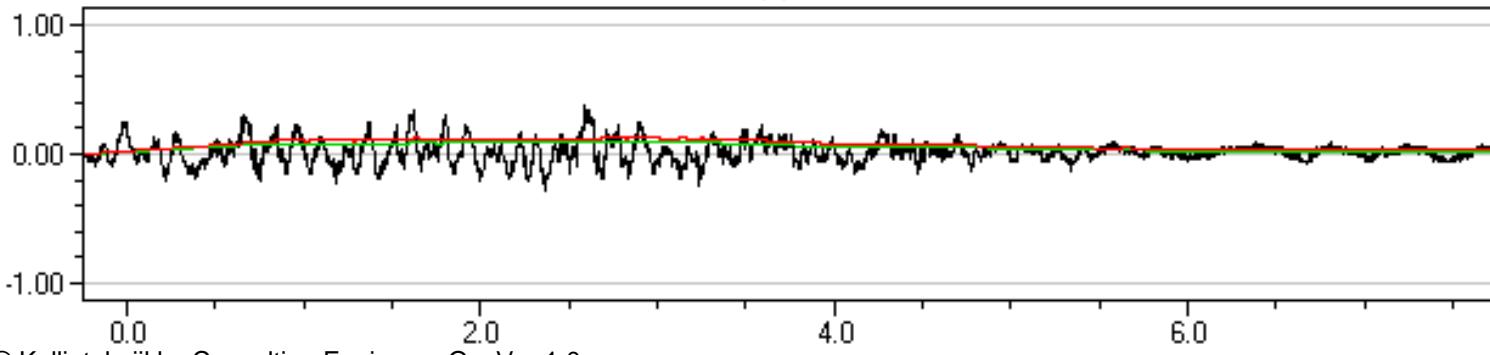
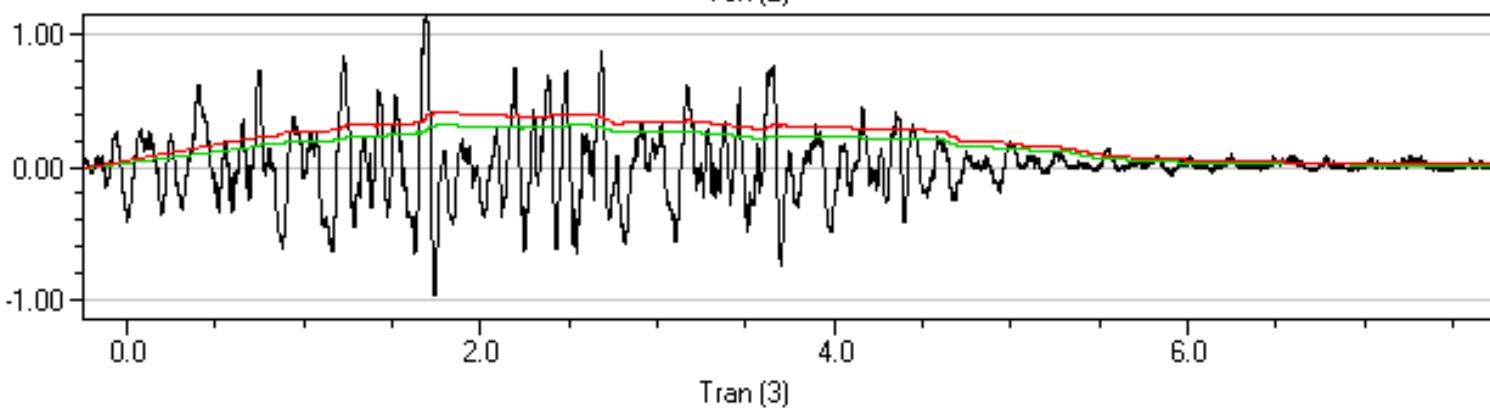
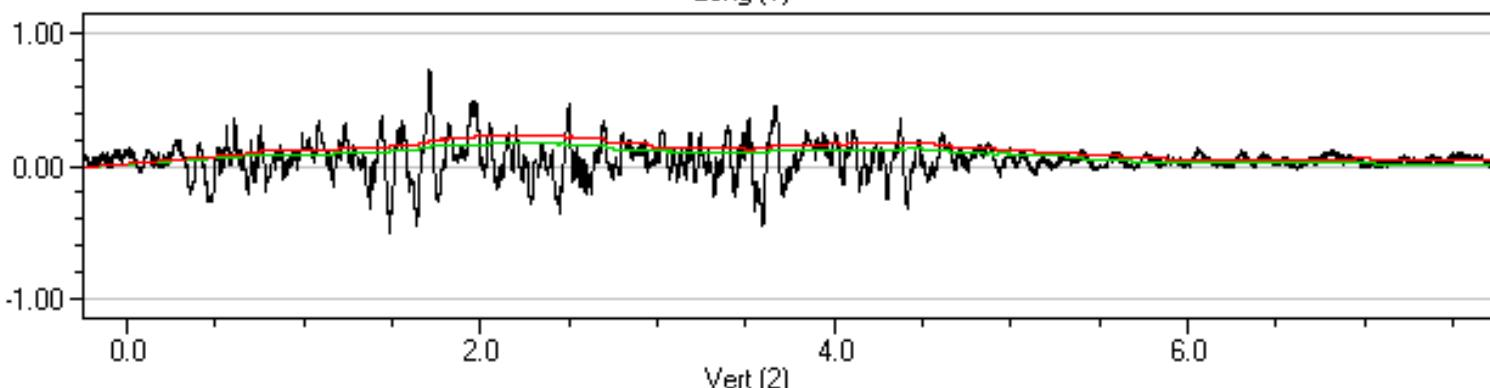
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.381 | 1.14 | 0.714 | mm/s |
| ZC Freq | 5.4 | 7.1 | 6.2 | Hz |
| Time of Peak | 2.583 | 1.692 | 1.706 | Sec |
| Peak Acceleration | 0.00663 | 0.00994 | 0.00829 | g |
| Peak Displacement | 0.0103 | 0.0256 | 0.0206 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.09 | 0.32 | 0.17 | 0.37 |
| RMS (1s) | 0.13 | 0.41 | 0.23 | 0.47 |

Long (1)





Event Date: January 3, 2007

Event Time: 08:32:58

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

File Name: M049BHFZ.QY0

Trigger: Vert

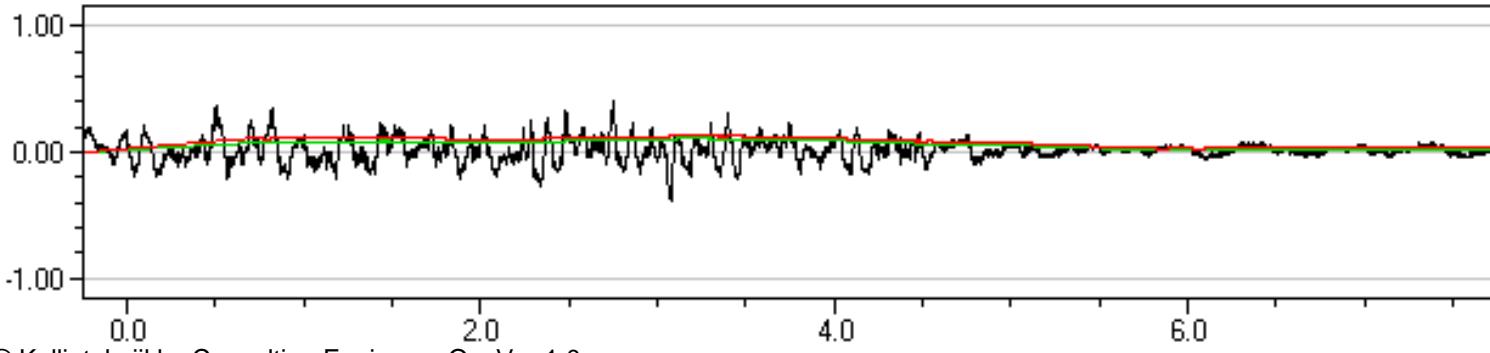
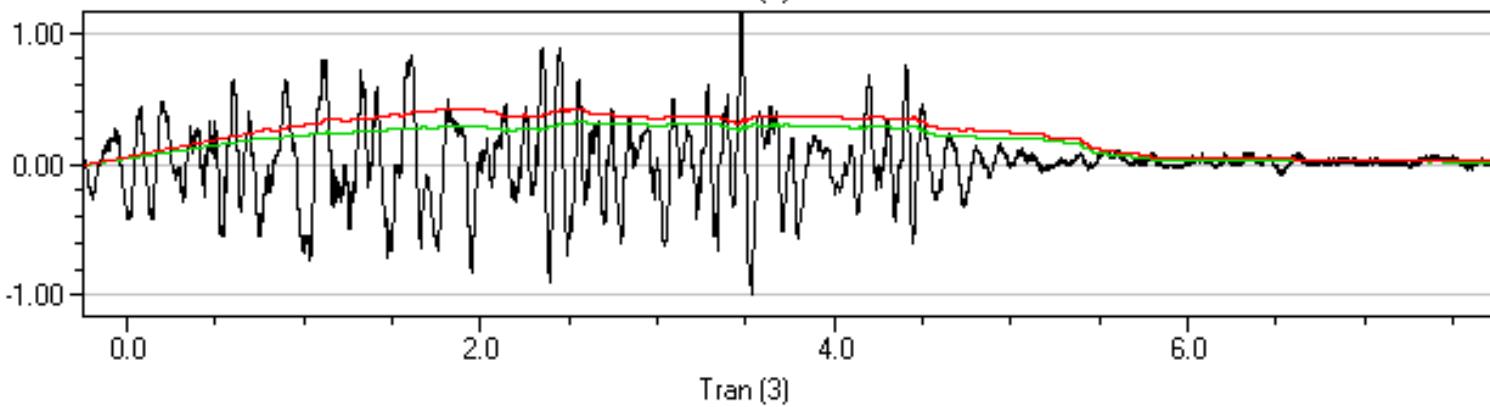
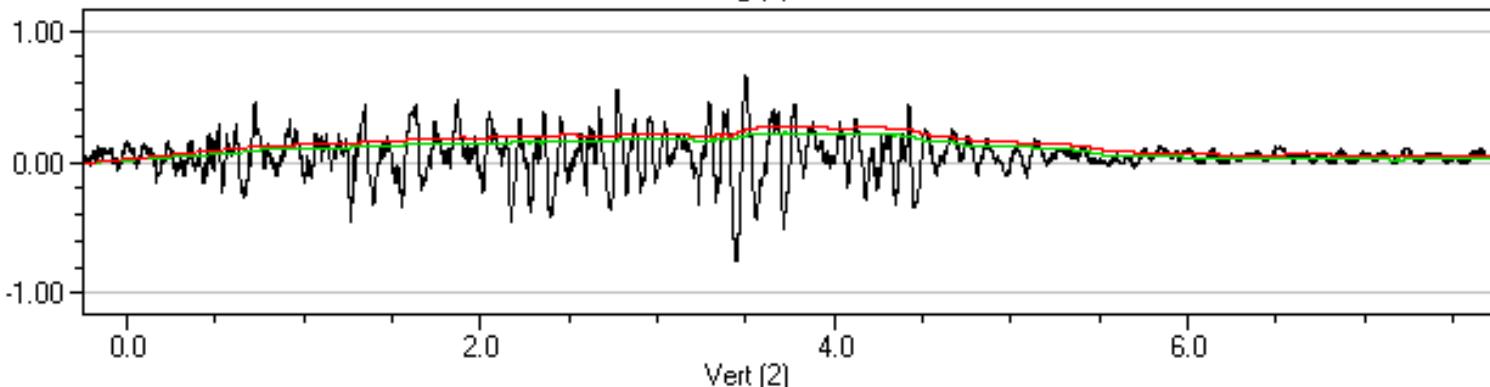
Record Time: 7.75 sec

Sample Rate: 1024 sps

Calibration: March 29, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.413 | 1.16 | 0.746 | mm/s |
| ZC Freq | 11 | 8.8 | 8.3 | Hz |
| Time of Peak | 2.747 | 3.474 | 3.445 | Sec |
| Peak Acceleration | 0.00497 | 0.00994 | 0.00829 | g |
| Peak Displacement | 0.00747 | 0.0272 | 0.0145 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.11 | 0.32 | 0.22 | 0.39 |
| RMS (1s) | 0.13 | 0.43 | 0.27 | 0.48 |

Long (1)





Event Date: December 31, 2006

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

Event Time: 11:32:58

File Name: H081BHAO.2Y0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 8.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

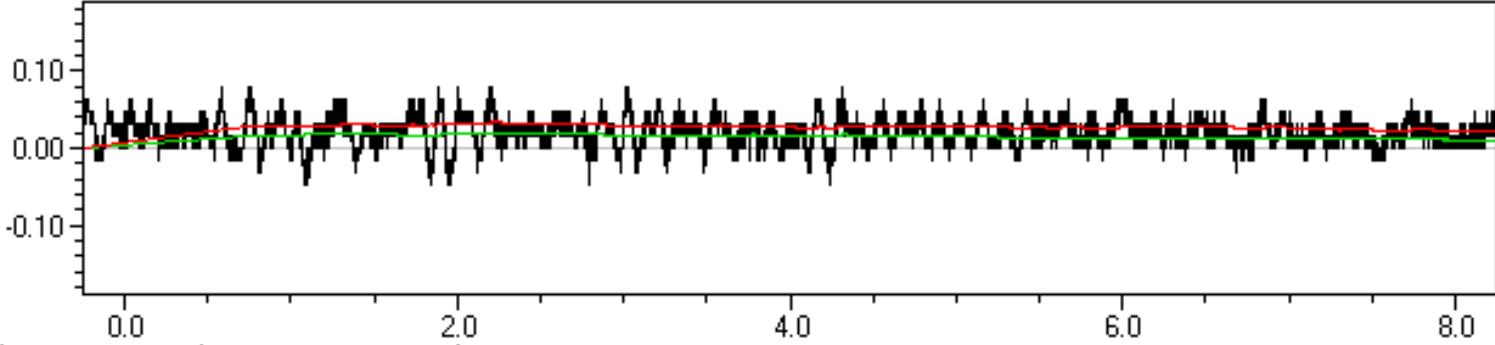
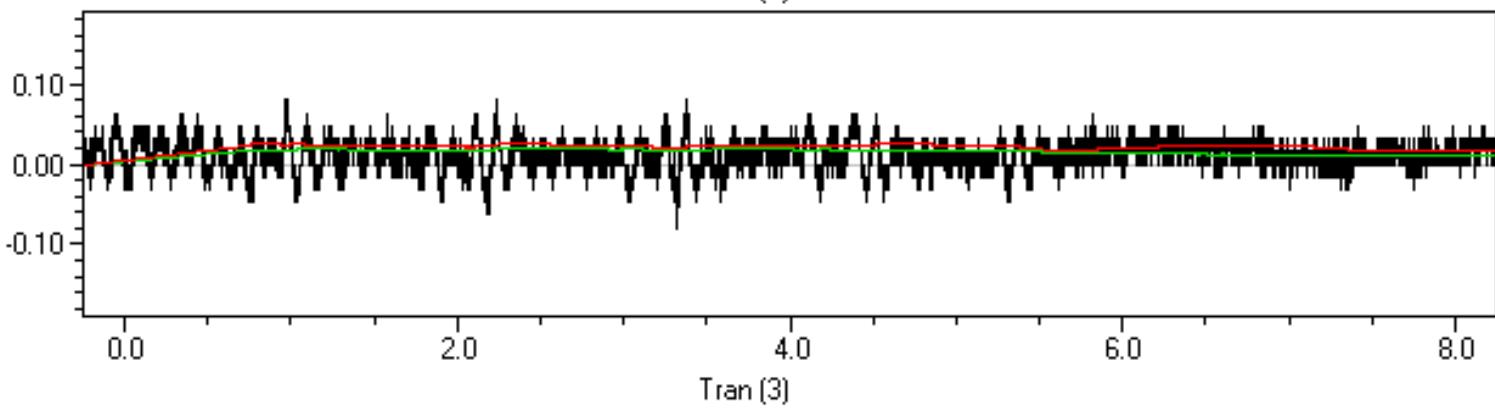
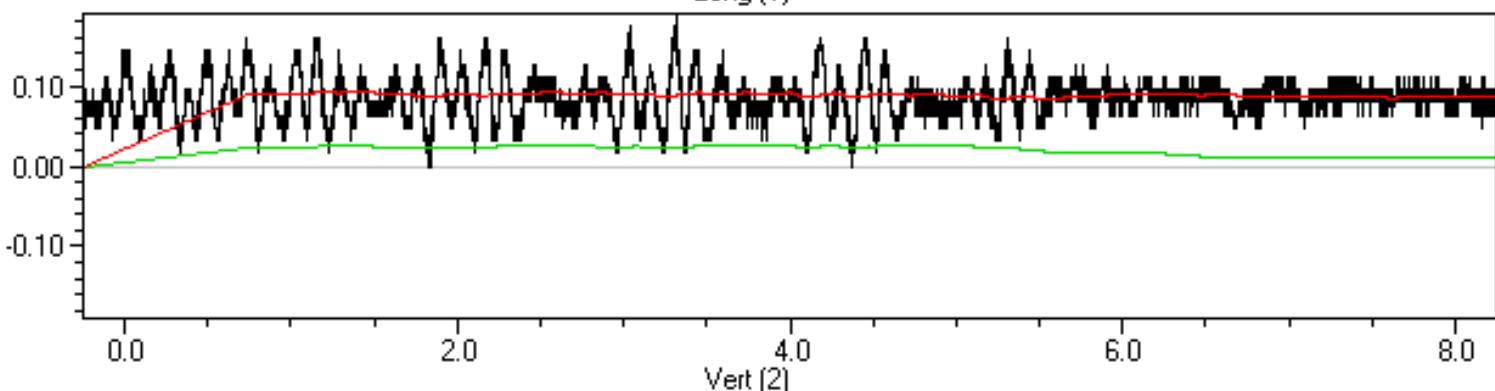
Job Number: 5296

Calibration: March 6, 1998 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.0794 | 0.0794 | 0.190 | mm/s |
| ZC Freq | 12 | 13 | 4.1 | Hz |
| Time of Peak | 0.585 | 0.970 | 3.313 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00247 | 0.00125 | 0.0359 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,02 | 0,02 | 0,03 | 0,04 |
| RMS (1s) | 0,03 | 0,03 | 0,09 | 0,10 |

Long (1)





Event Date: January 1, 2007

Event Time: 04:57:28

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHC0.FS0

Trigger: Long

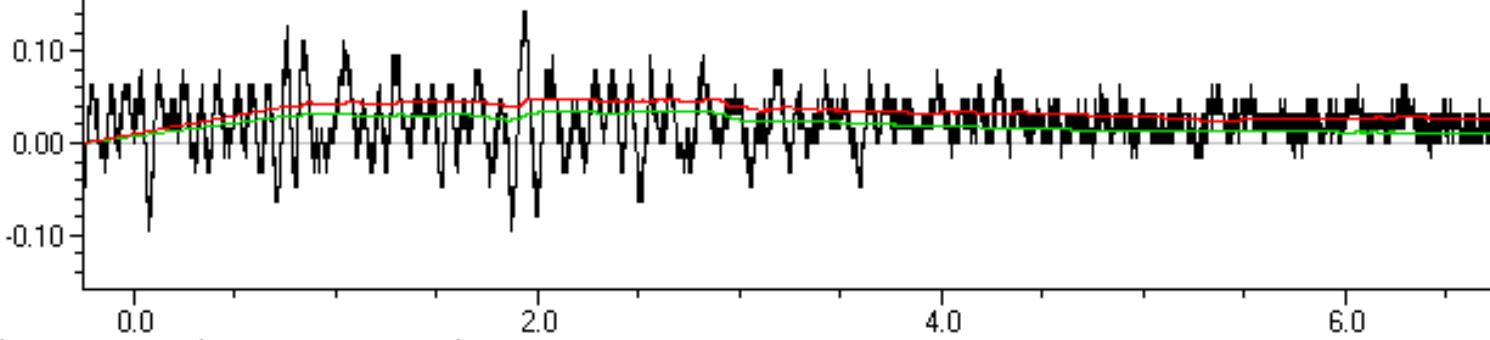
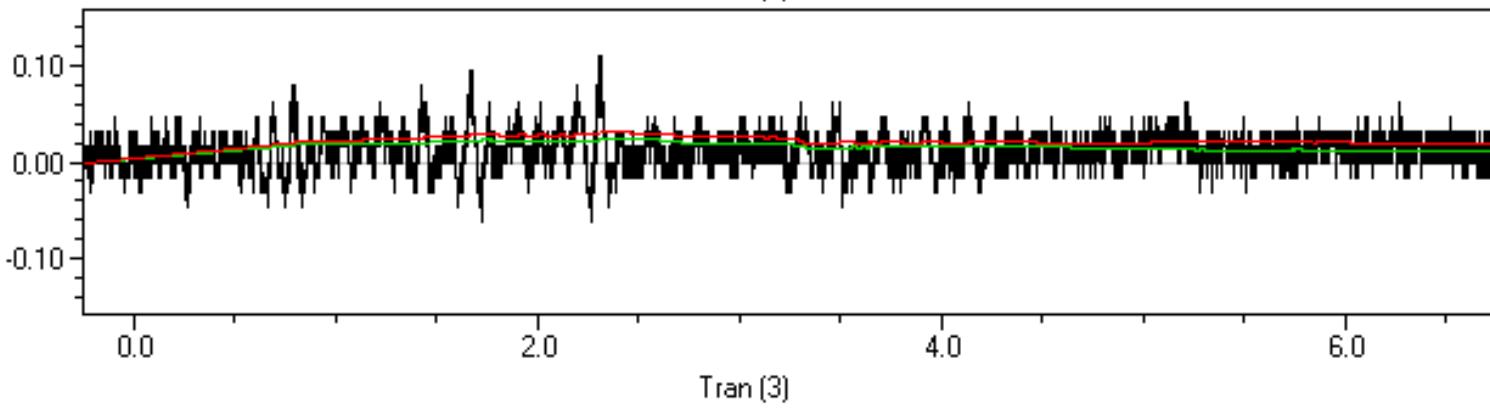
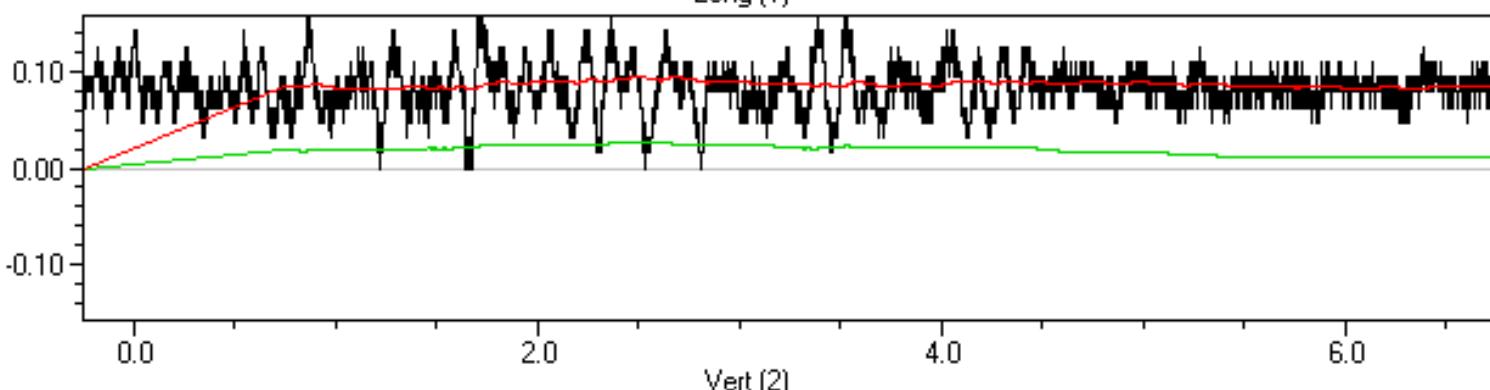
Record Time: 6.75 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.143 | 0.111 | 0.159 | mm/s |
| ZC Freq | 7.6 | 11 | | Hz |
| Time of Peak | 1.929 | 2.306 | 0.860 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00302 | 0.00132 | 0.0605 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,03 | 0,02 | 0,03 | 0,05 |
| RMS (1s) | 0,05 | 0,03 | 0,10 | 0,11 |

Long (1)





Event Date: January 1, 2007

Event Time: 14:34:35

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHCR.5N0

Trigger: Long

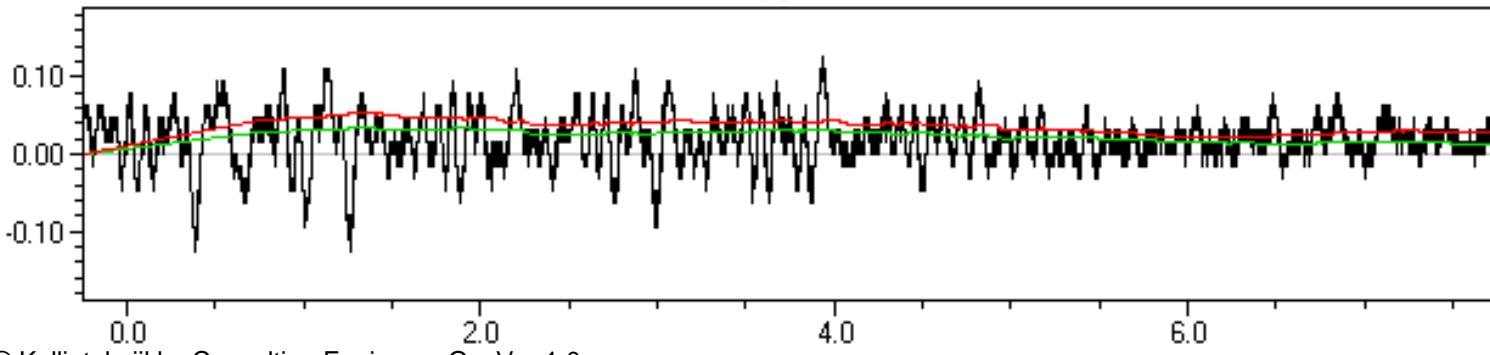
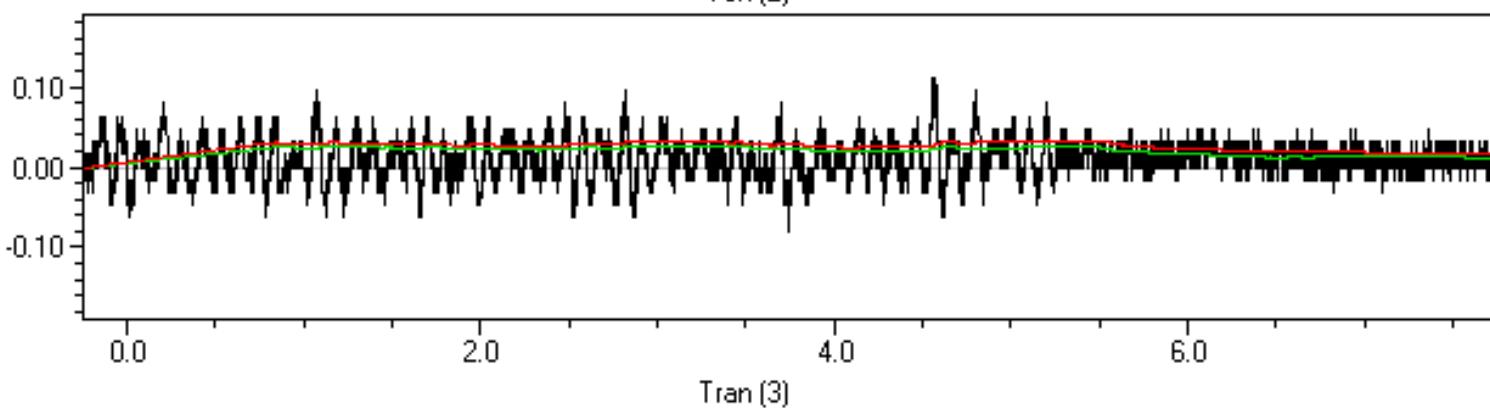
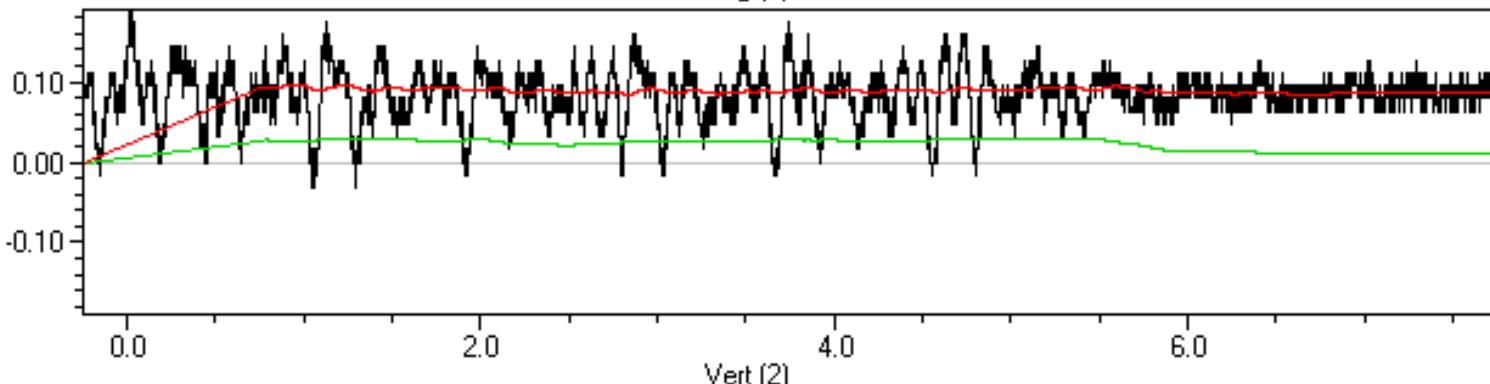
Record Time: 7.75 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.127 | 0.111 | 0.190 | mm/s |
| ZC Freq | 9.5 | 9.8 | 1.6 | Hz |
| Time of Peak | 0.385 | 4.558 | 0.017 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00450 | 0.00181 | 0.0254 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,04 | 0,03 | 0,03 | 0,05 |
| RMS (1s) | 0,06 | 0,03 | 0,10 | 0,11 |

Long (1)





Event Date: January 1, 2007

Event Time: 16:36:30

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHCW.SU0

Trigger: Long

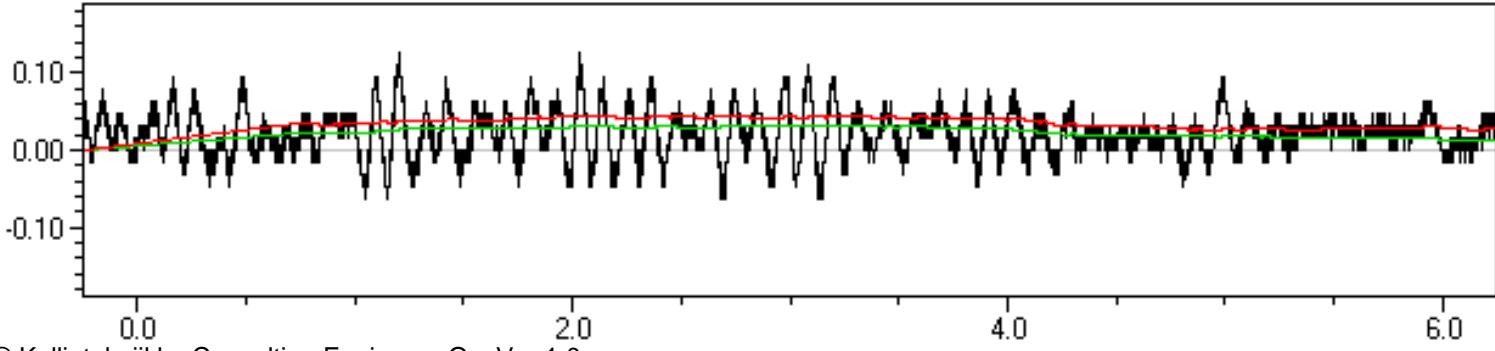
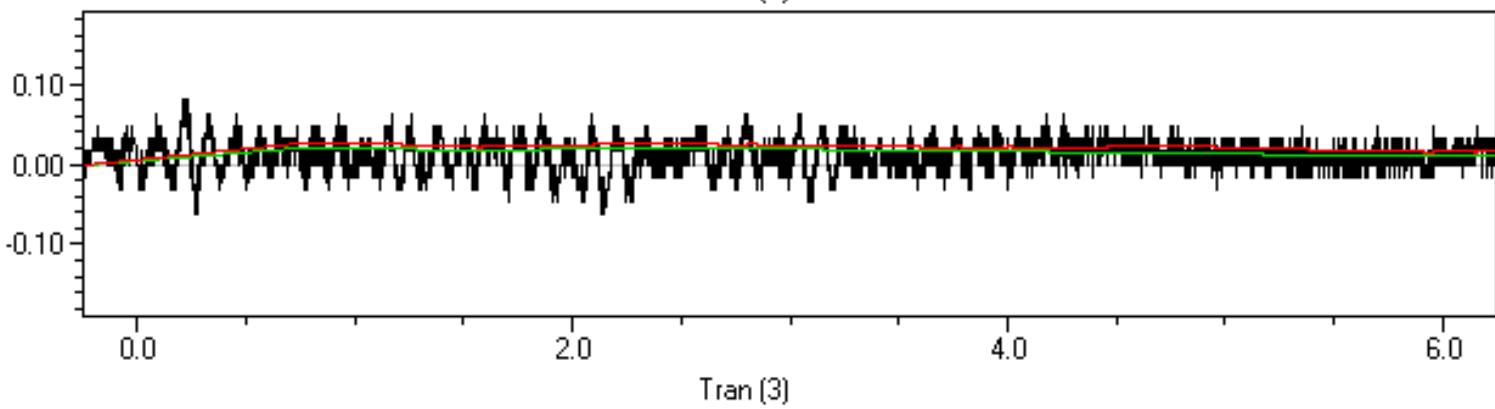
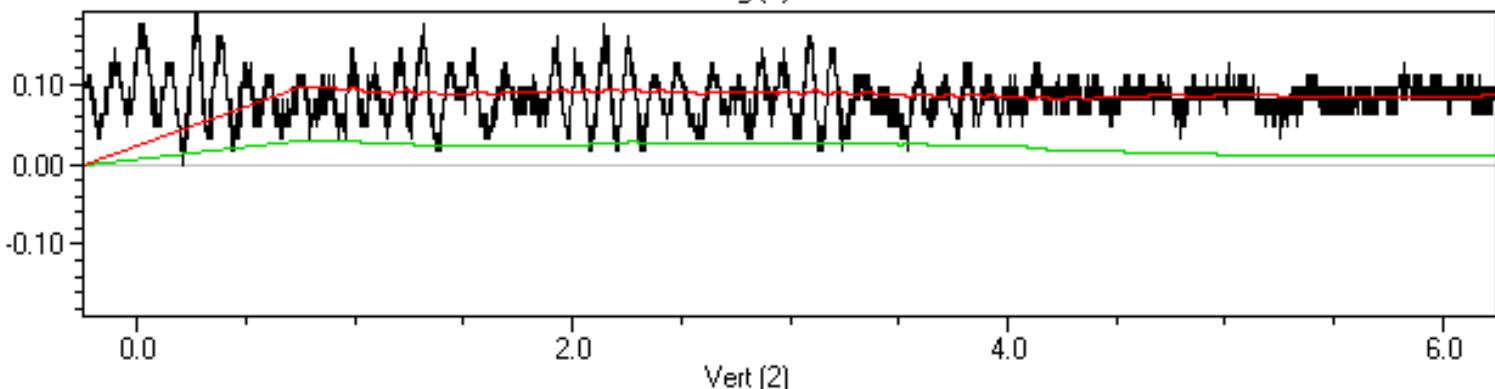
Record Time: 6.25 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.127 | 0.0794 | 0.190 | mm/s |
| ZC Freq | 8.8 | 12 | 2.4 | Hz |
| Time of Peak | 1.203 | 0.211 | 0.265 | Sec |
| Peak Acceleration | 0.00497 | 0.00829 | 0.00497 | g |
| Peak Displacement | 0.00219 | 0.00117 | 0.0385 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,03 | 0,02 | 0,03 | 0,05 |
| RMS (1s) | 0,05 | 0,03 | 0,10 | 0,11 |

Long (1)





Event Date: January 1, 2007

Event Time: 20:18:05

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHD7.250

Trigger: Long

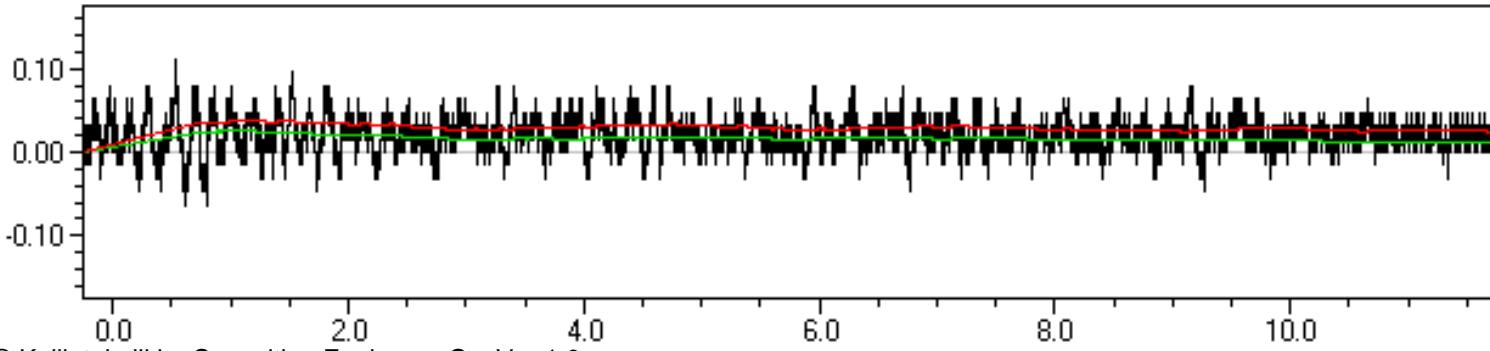
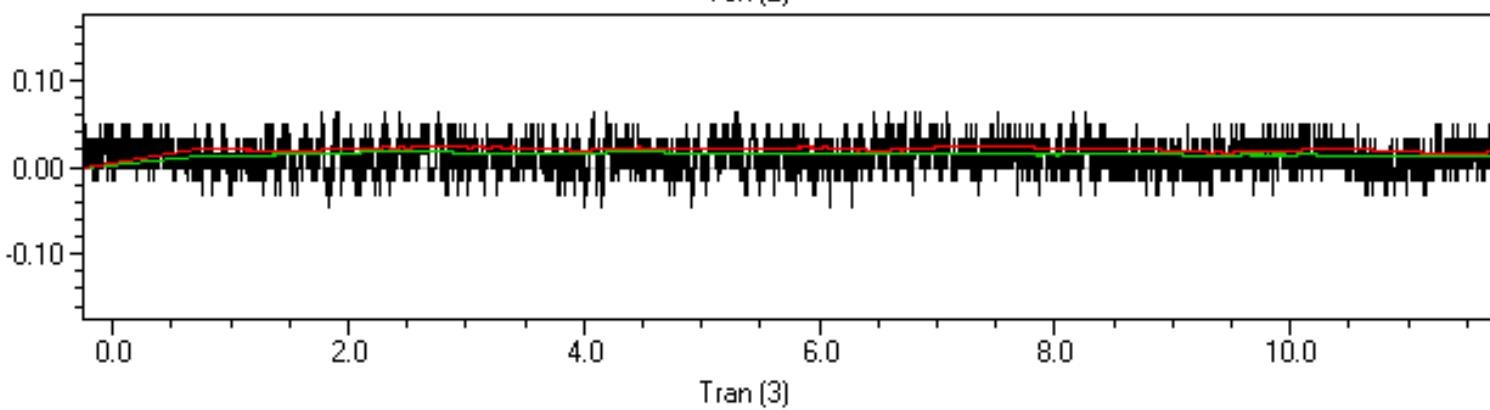
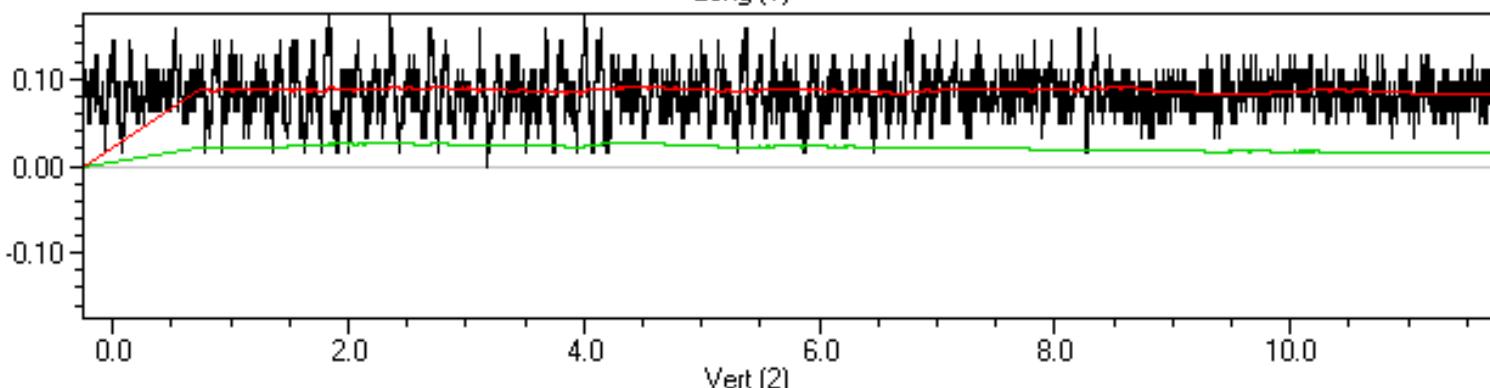
Record Time: 11.75 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.111 | 0.0635 | 0.175 | mm/s |
| ZC Freq | 6.9 | 20 | 3.8 | Hz |
| Time of Peak | 0.541 | 1.769 | 1.842 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00207 | 0.00060 | 0.0773 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,03 | 0,02 | 0,03 | 0,04 |
| RMS (1s) | 0,04 | 0,02 | 0,09 | 0,10 |

Long (1)





Event Date: January 1, 2007

Event Time: 23:35:13

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHDG.6P0

Trigger: Long

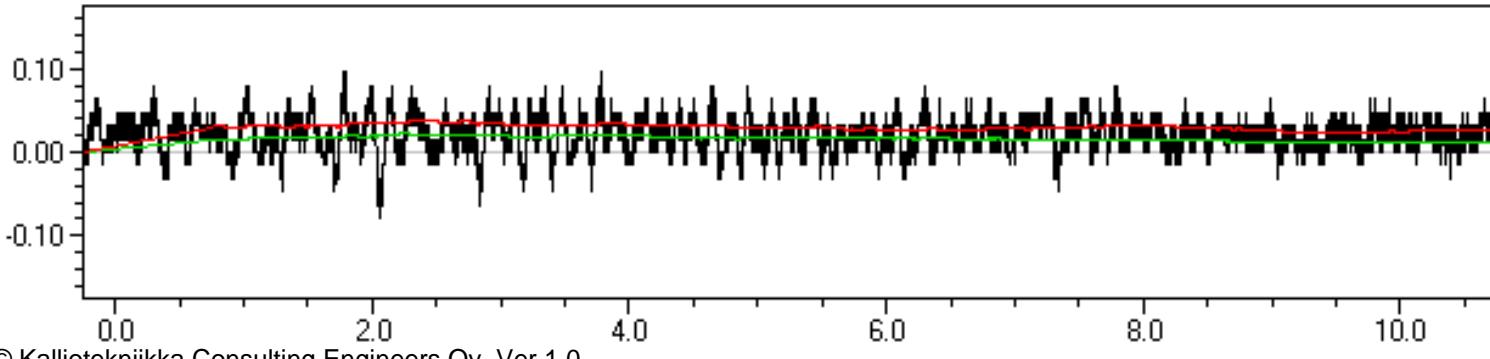
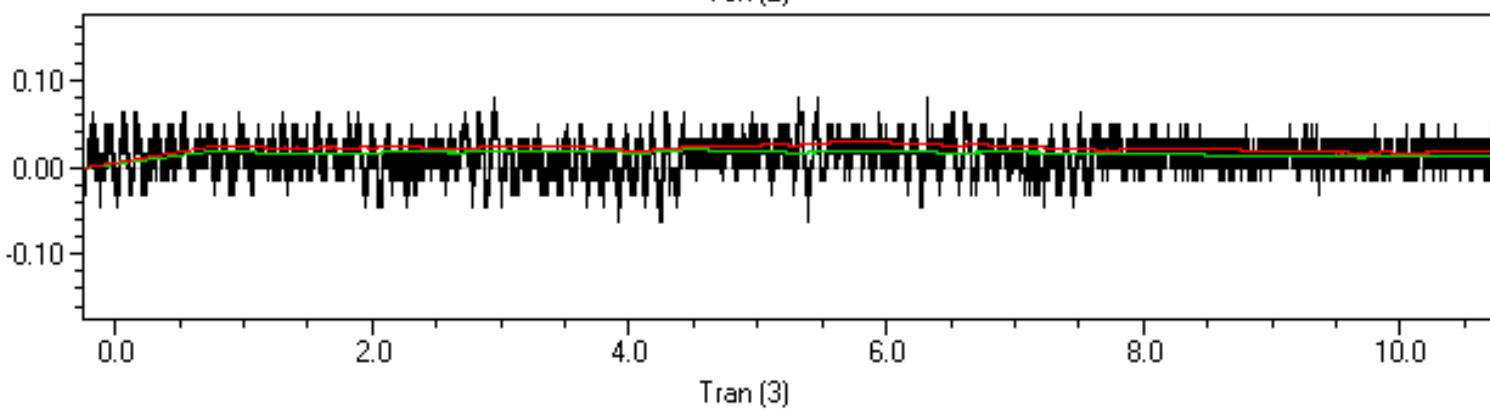
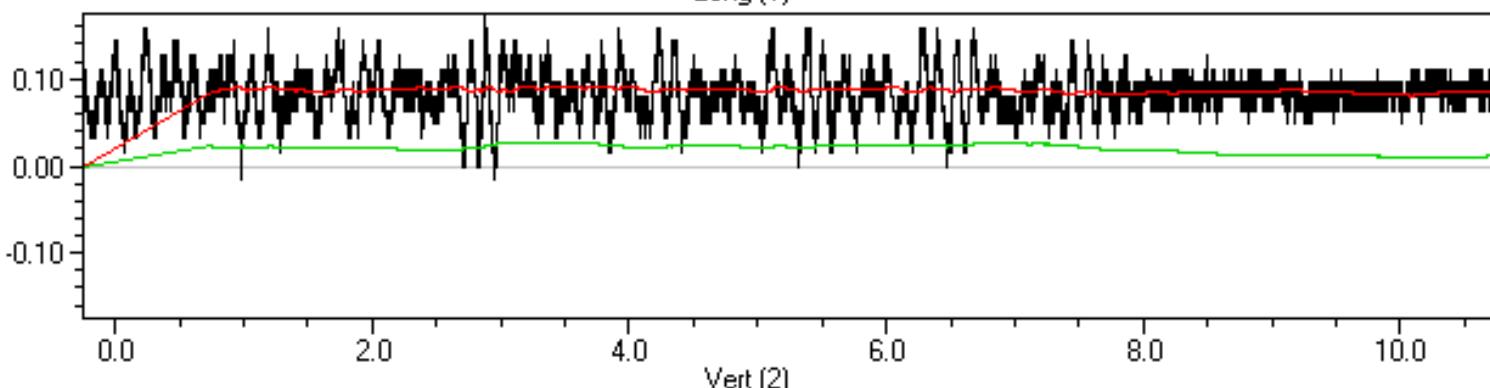
Record Time: 10.75 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.0952 | 0.0794 | 0.175 | mm/s |
| ZC Freq | 7.3 | 10 | 4.7 | Hz |
| Time of Peak | 1.784 | 2.948 | 2.881 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00263 | 0.00114 | 0.0596 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,02 | 0,02 | 0,03 | 0,04 |
| RMS (1s) | 0,04 | 0,03 | 0,09 | 0,10 |

Long (1)





Event Date: January 2, 2007

Event Time: 07:15:56

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHE1.IK0

Trigger: Long

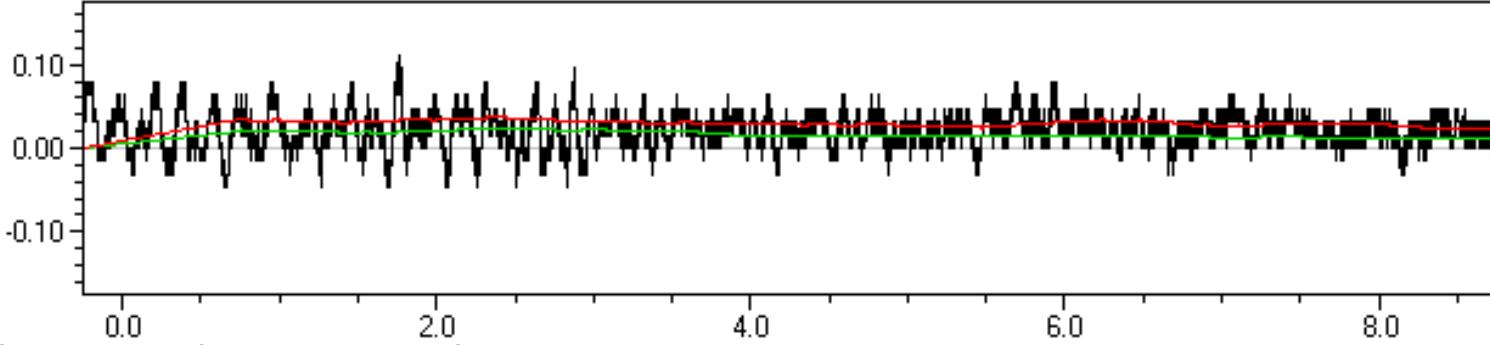
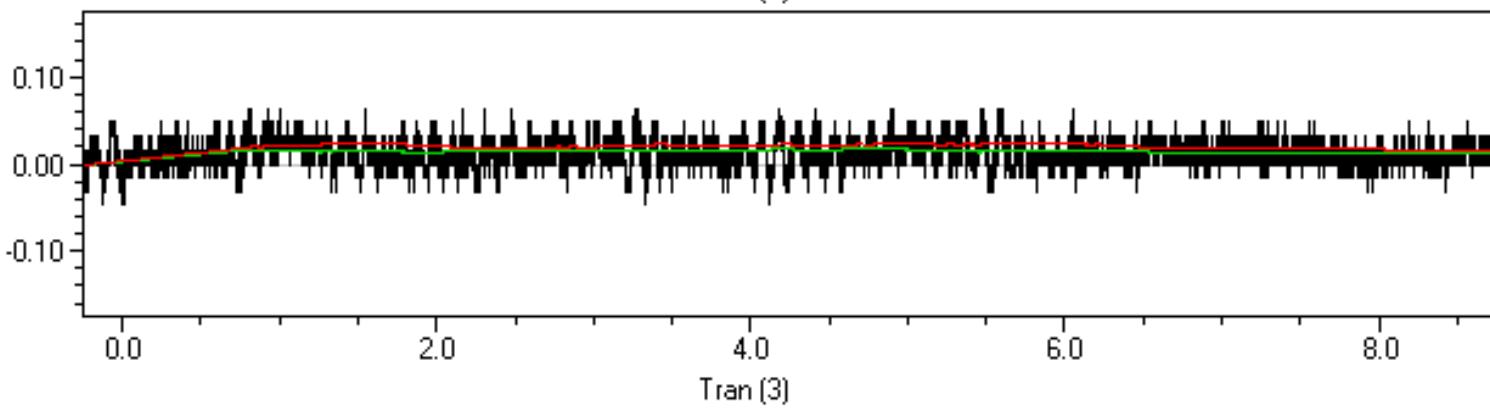
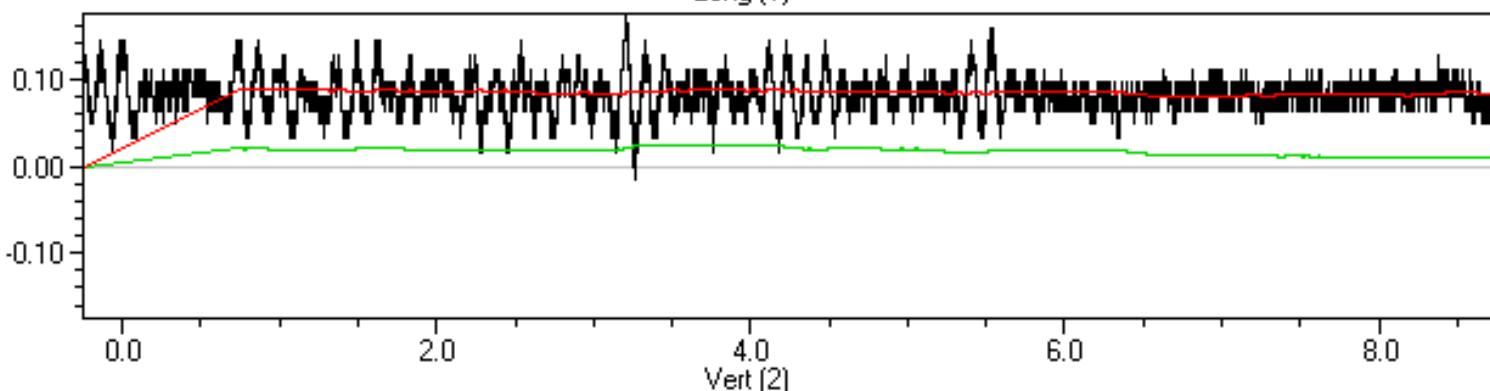
Record Time: 8.75 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.111 | 0.0635 | 0.175 | mm/s |
| ZC Freq | 8.3 | 24 | 4.6 | Hz |
| Time of Peak | 1.756 | 0.797 | 3.199 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00233 | 0.00067 | 0.0983 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,02 | 0,02 | 0,02 | 0,04 |
| RMS (1s) | 0,04 | 0,02 | 0,09 | 0,10 |

Long (1)





Event Date: January 2, 2007

Event Time: 08:23:51

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHE4.NR0

Trigger: Long

Record Time: 7.25 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-----|-------------|-------------|-------------|------|
| PPV | 0.111 | 0.0794 | 0.190 | mm/s |

| | | | | |
|---------|-----|----|-----|----|
| ZC Freq | 8.7 | 16 | 1.8 | Hz |
|---------|-----|----|-----|----|

| | | | | |
|--------------|-------|-------|-------|-----|
| Time of Peak | 0.580 | 1.897 | 3.158 | Sec |
|--------------|-------|-------|-------|-----|

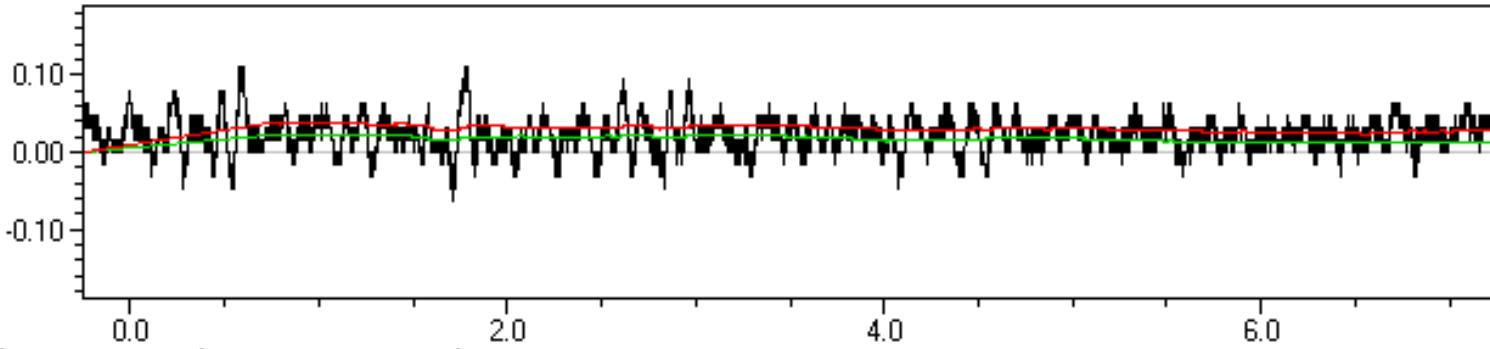
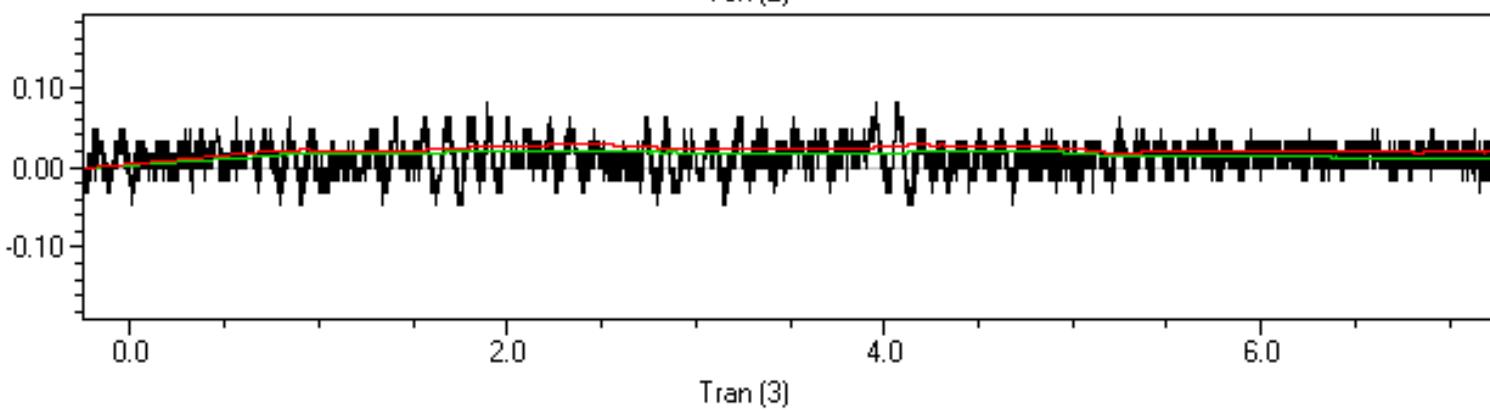
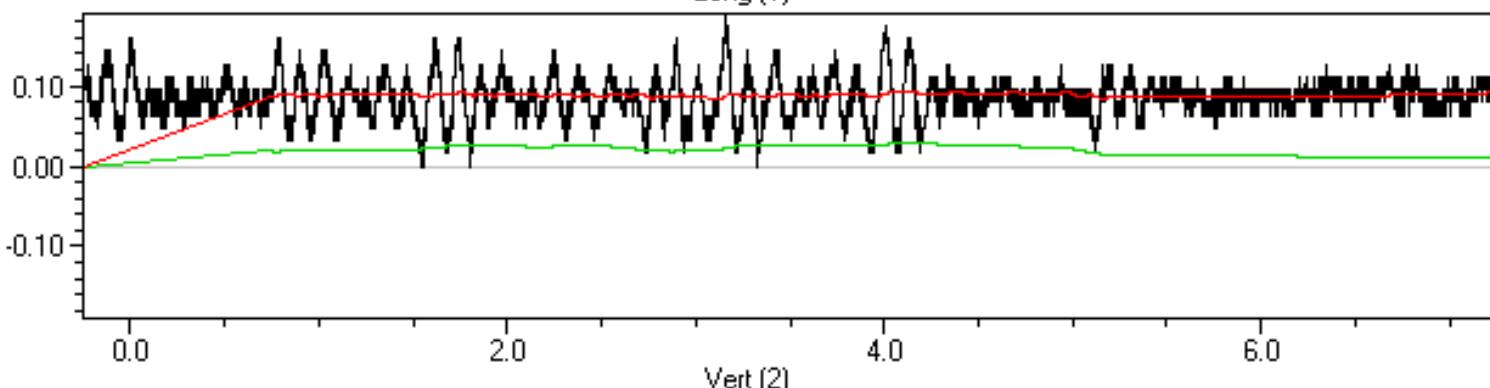
| | | | | |
|-------------------|---------|---------|---------|---|
| Peak Acceleration | 0.00497 | 0.00663 | 0.00663 | g |
|-------------------|---------|---------|---------|---|

| | | | | |
|-------------------|---------|---------|--------|---------------------|
| Peak Displacement | 0.00251 | 0.00122 | 0.0762 | mm rms of magnitude |
|-------------------|---------|---------|--------|---------------------|

| | | | | |
|-----------------|-------------|-------------|-------------|-------------|
| RMS (1s fw 5.6) | 0,02 | 0,02 | 0,03 | 0,04 |
|-----------------|-------------|-------------|-------------|-------------|

| | | | | |
|----------|-------------|-------------|-------------|-------------|
| RMS (1s) | 0,04 | 0,03 | 0,09 | 0,10 |
|----------|-------------|-------------|-------------|-------------|

Long (1)





Event Date: January 2, 2007

Event Time: 11:32:57

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHED.EX0

Trigger: Long

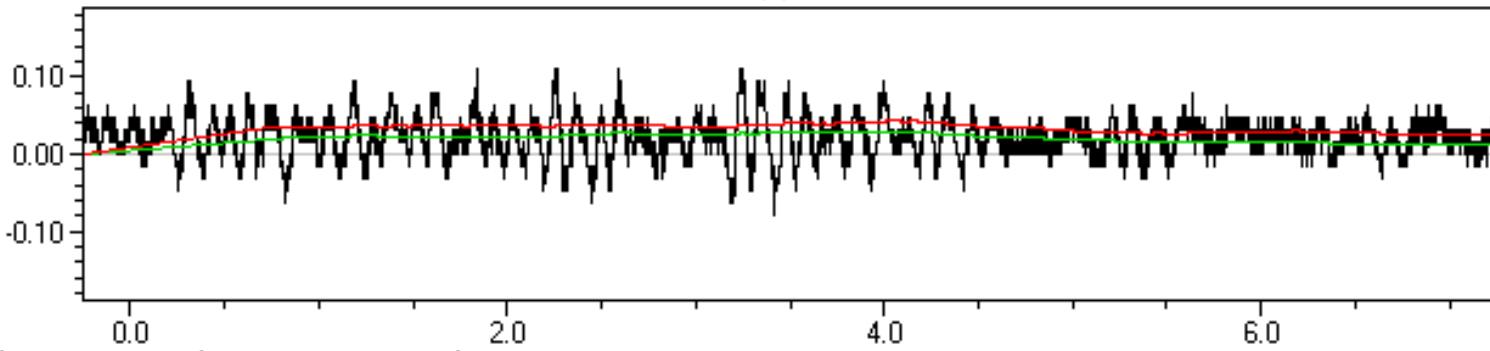
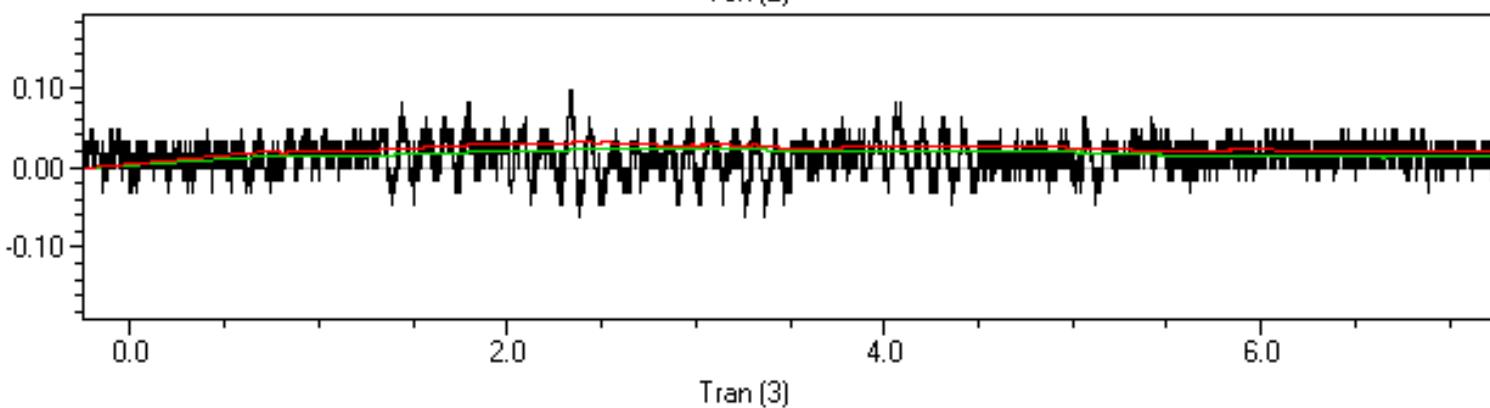
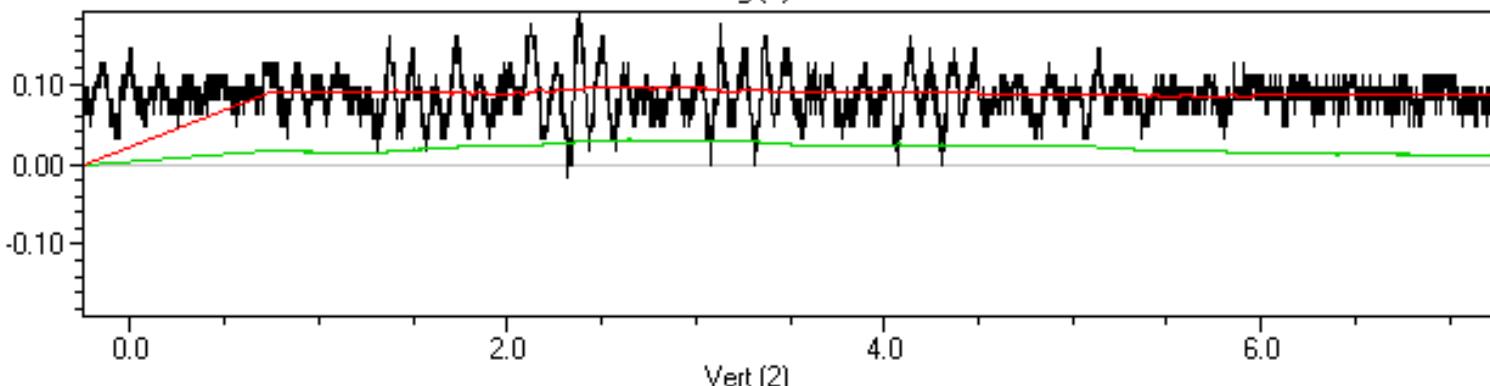
Record Time: 7.25 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.111 | 0.0952 | 0.190 | mm/s |
| ZC Freq | 9.0 | 12 | 5.2 | Hz |
| Time of Peak | 1.838 | 2.329 | 2.376 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00215 | 0.00133 | 0.0682 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,03 | 0,02 | 0,03 | 0,05 |
| RMS (1s) | 0,04 | 0,03 | 0,10 | 0,11 |

Long (1)





Event Date: January 2, 2007

Event Time: 12:32:31

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHEG.670

Trigger: Long

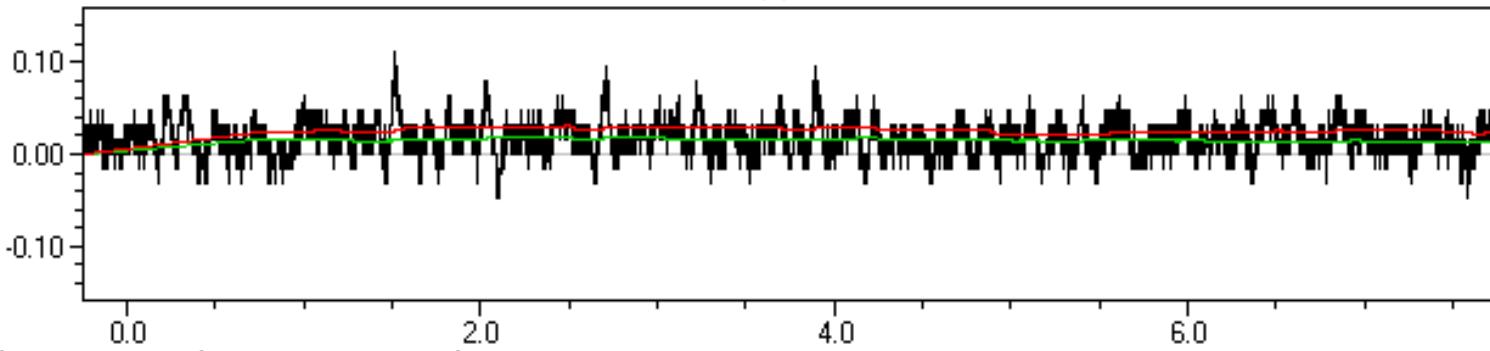
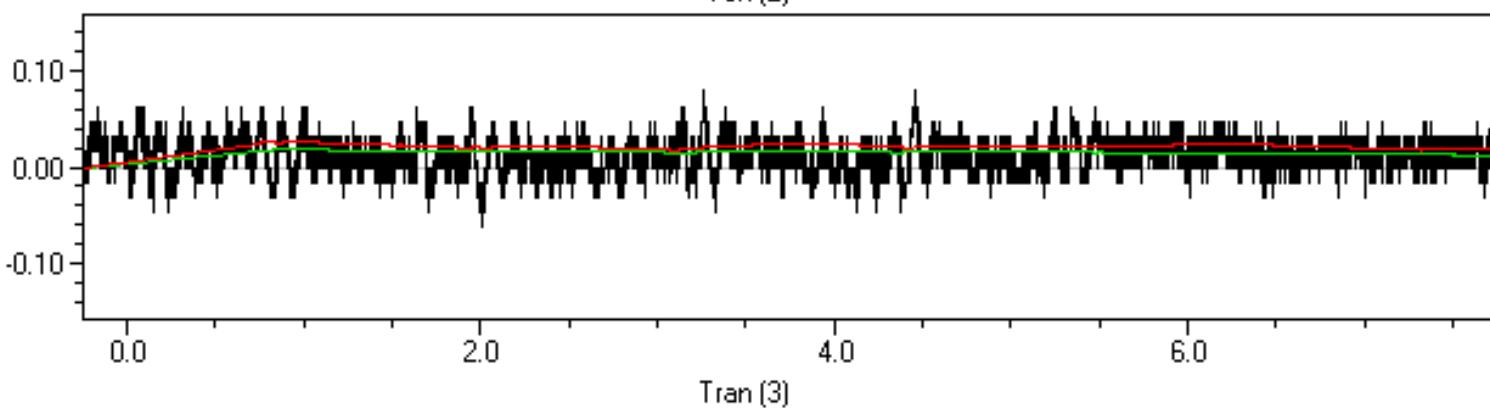
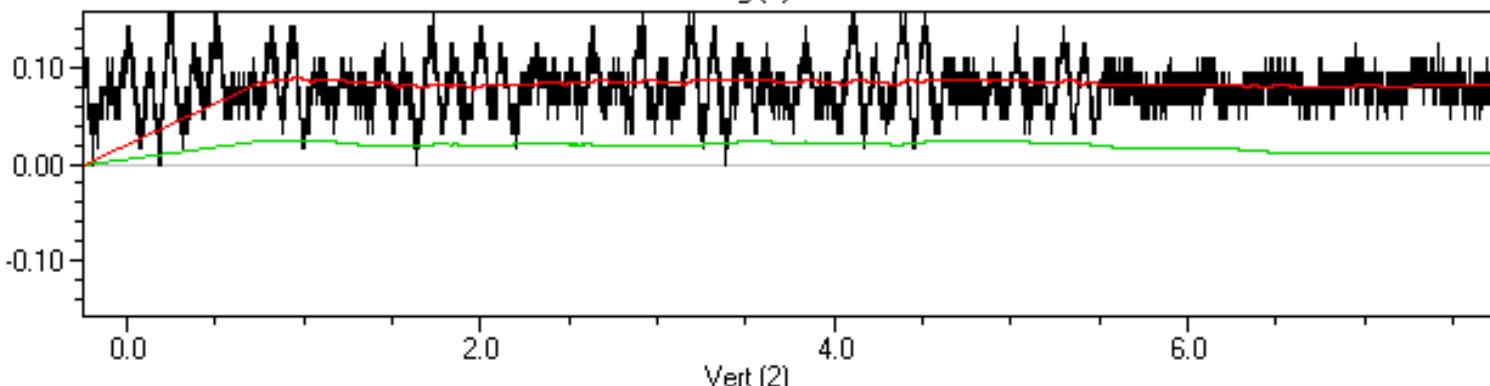
Record Time: 7.75 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.111 | 0.0794 | 0.159 | mm/s |
| ZC Freq | 7.2 | 17 | 4.2 | Hz |
| Time of Peak | 1.513 | 3.259 | 0.229 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00200 | 0.00105 | 0.0444 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,02 | 0,02 | 0,03 | 0,04 |
| RMS (1s) | 0,03 | 0,03 | 0,09 | 0,10 |

Long (1)





Event Date: January 2, 2007

Event Time: 15:50:39

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHEP.CF0

Trigger: Long

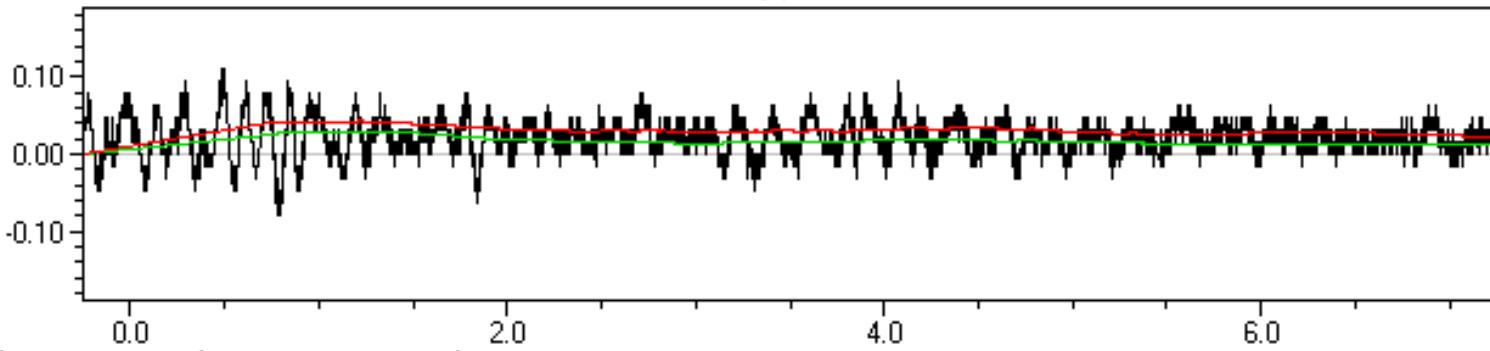
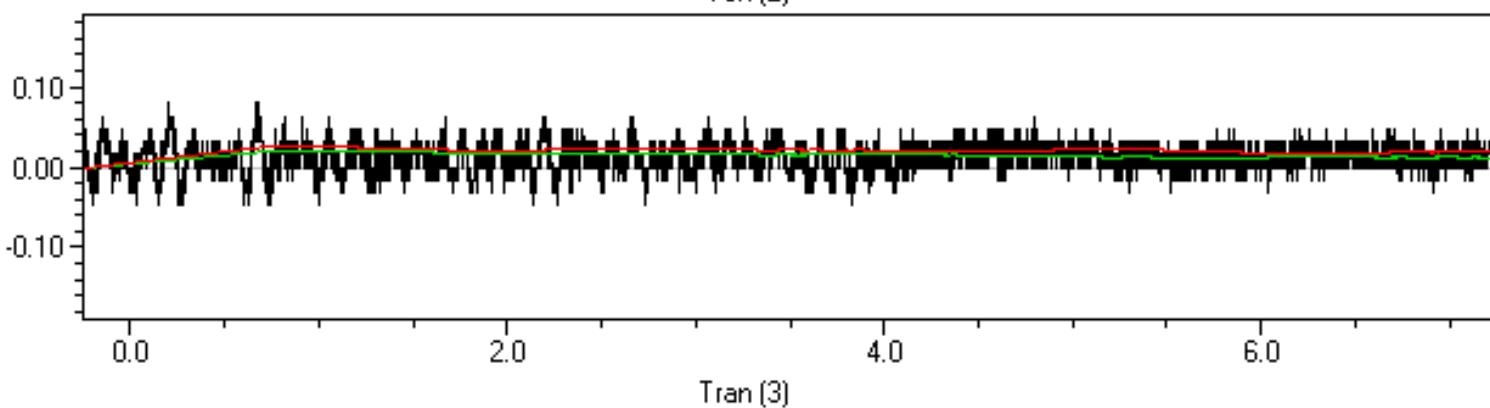
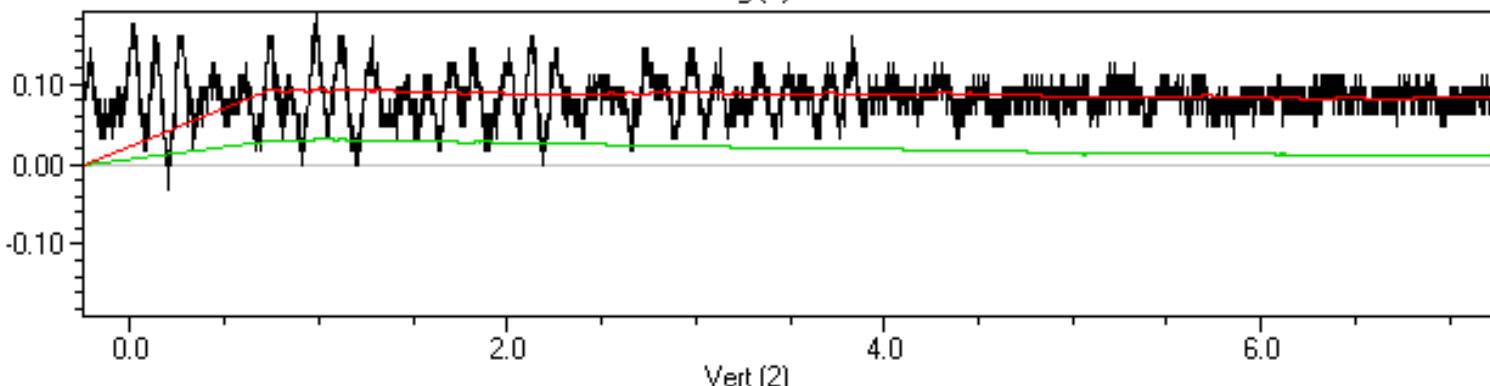
Record Time: 7.25 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.111 | 0.0794 | 0.190 | mm/s |
| ZC Freq | 7.4 | 14 | 2.0 | Hz |
| Time of Peak | 0.488 | 0.207 | 0.987 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00257 | 0.00108 | 0.0185 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,03 | 0,02 | 0,03 | 0,05 |
| RMS (1s) | 0,04 | 0,03 | 0,09 | 0,11 |

Long (1)





Event Date: January 2, 2007

Event Time: 22:33:12

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHF7.ZC0

Trigger: Long

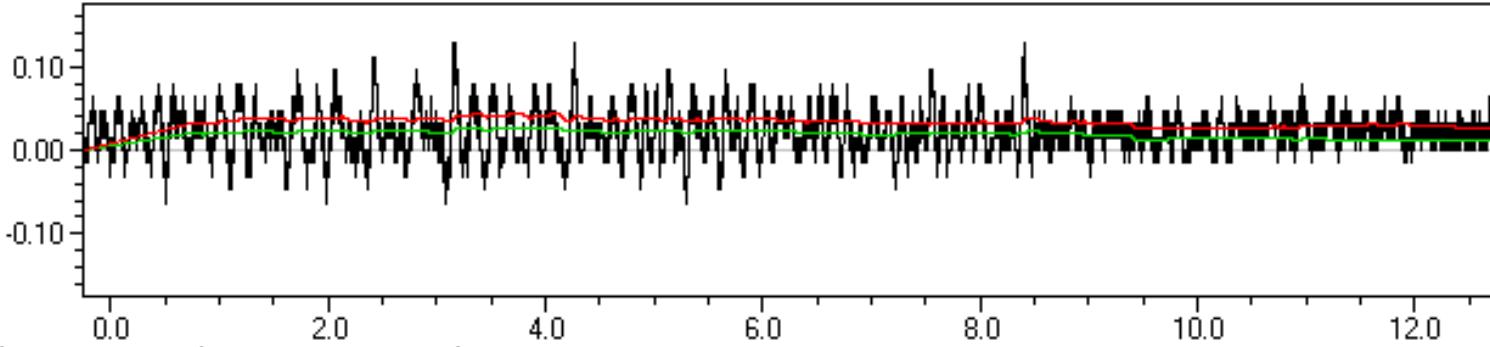
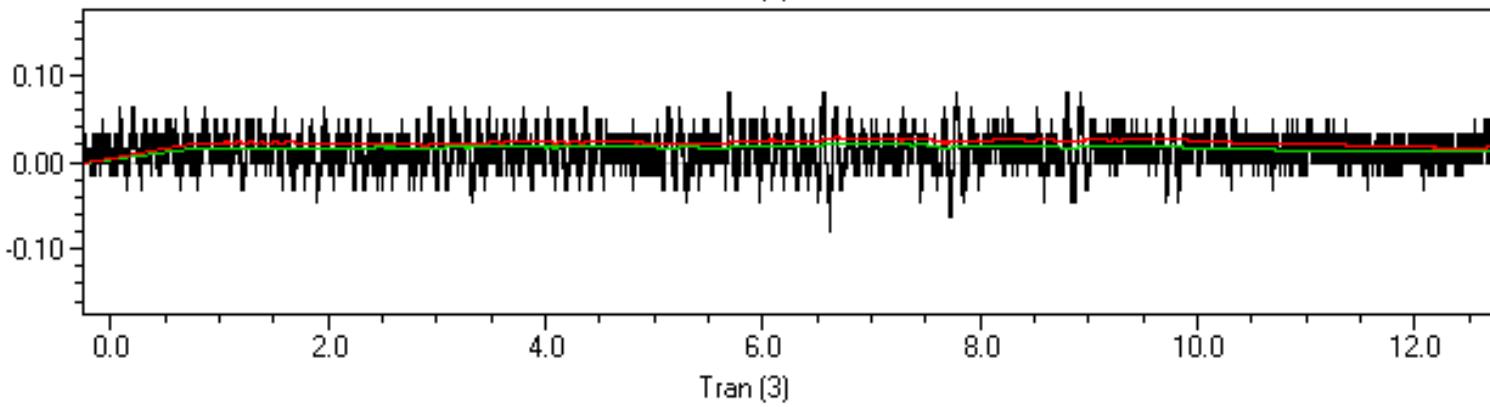
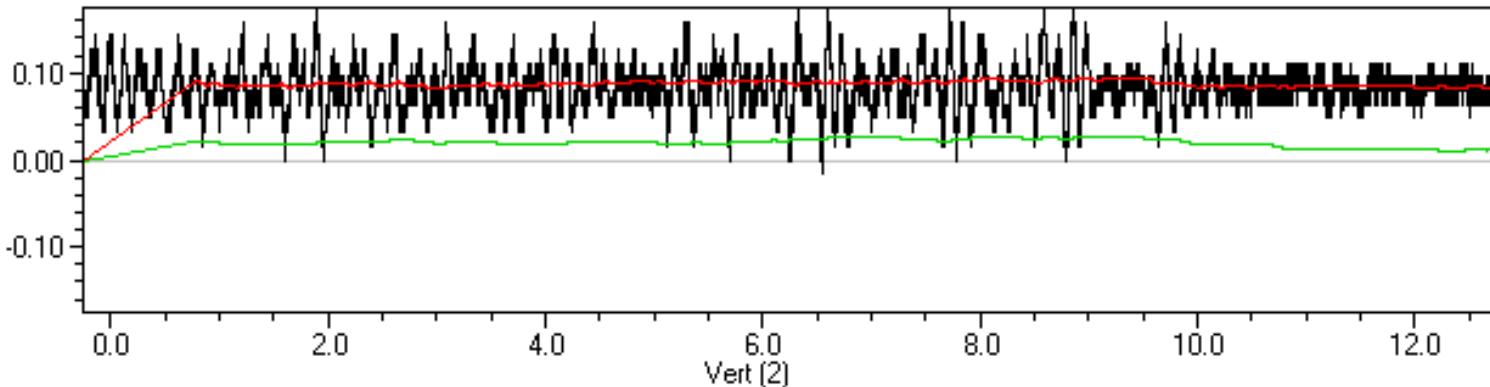
Record Time: 12.75 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.127 | 0.0794 | 0.175 | mm/s |
| ZC Freq | 6.6 | 11 | 1.5 | Hz |
| Time of Peak | 3.151 | 5.681 | 1.892 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00315 | 0.00114 | 0.113 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,03 | 0,02 | 0,03 | 0,04 |
| RMS (1s) | 0,04 | 0,03 | 0,09 | 0,10 |

Long (1)





Event Date: January 3, 2007

Event Time: 06:45:26

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHFU.RQ0

Trigger: Long

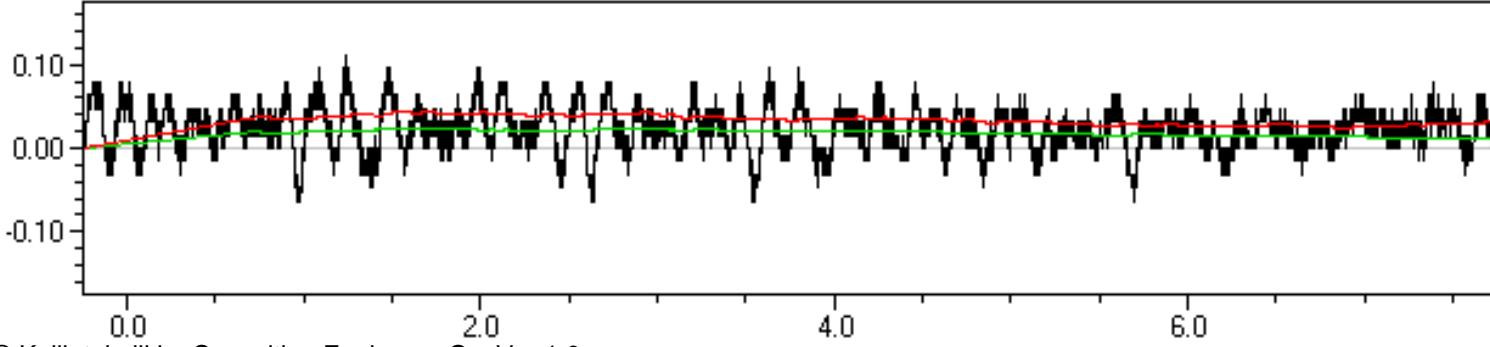
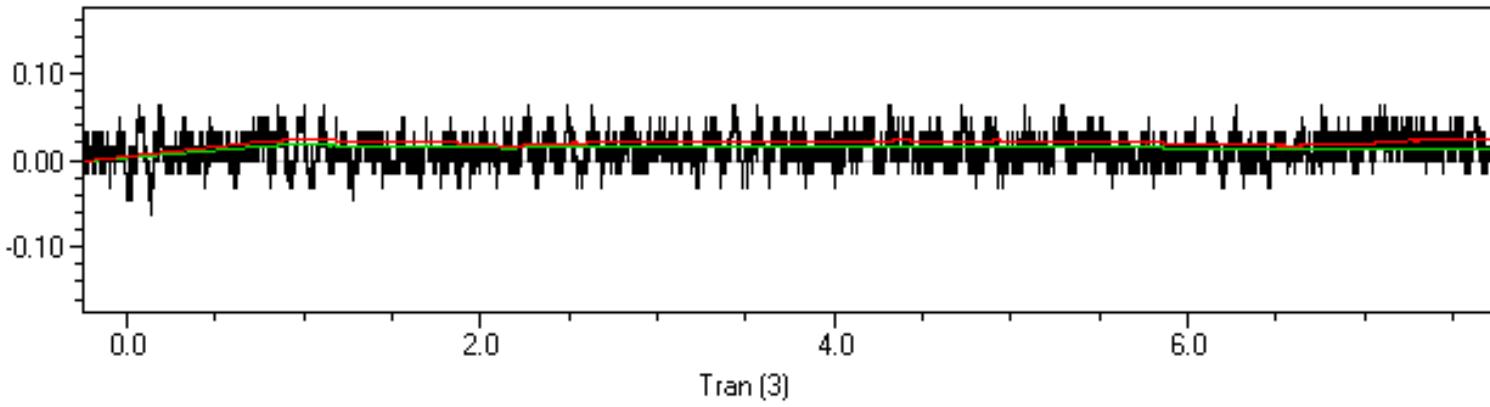
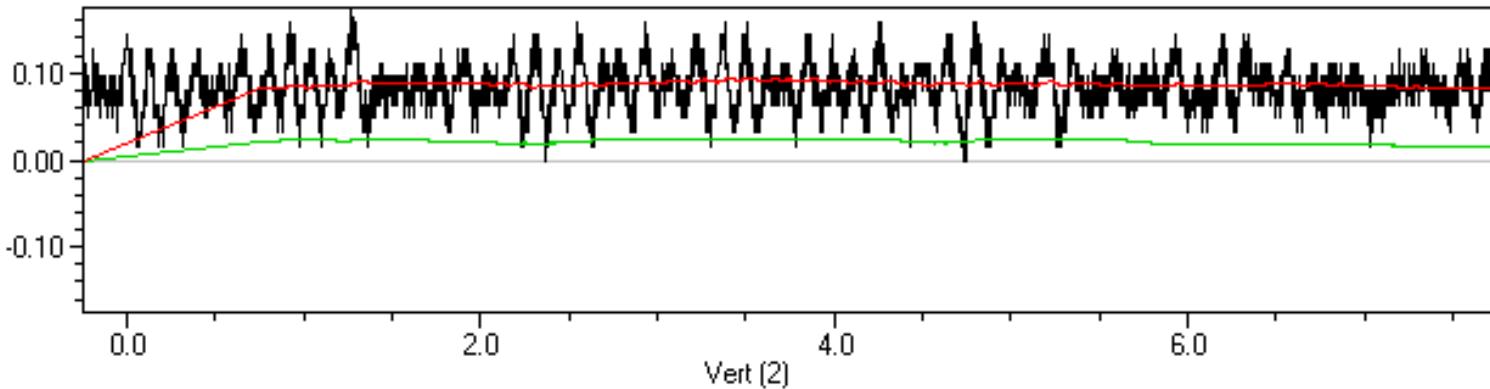
Record Time: 7.75 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.111 | 0.0635 | 0.175 | mm/s |
| ZC Freq | 6.6 | 13 | 1.9 | Hz |
| Time of Peak | 1.233 | 0.060 | 1.271 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00497 | g |
| Peak Displacement | 0.00315 | 0.00078 | 0.0720 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,02 | 0,02 | 0,02 | 0,04 |
| RMS (1s) | 0,04 | 0,02 | 0,09 | 0,10 |

Long (1)





Event Date: January 3, 2007

Event Time: 07:13:27

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHFW.2F0

Trigger: Long

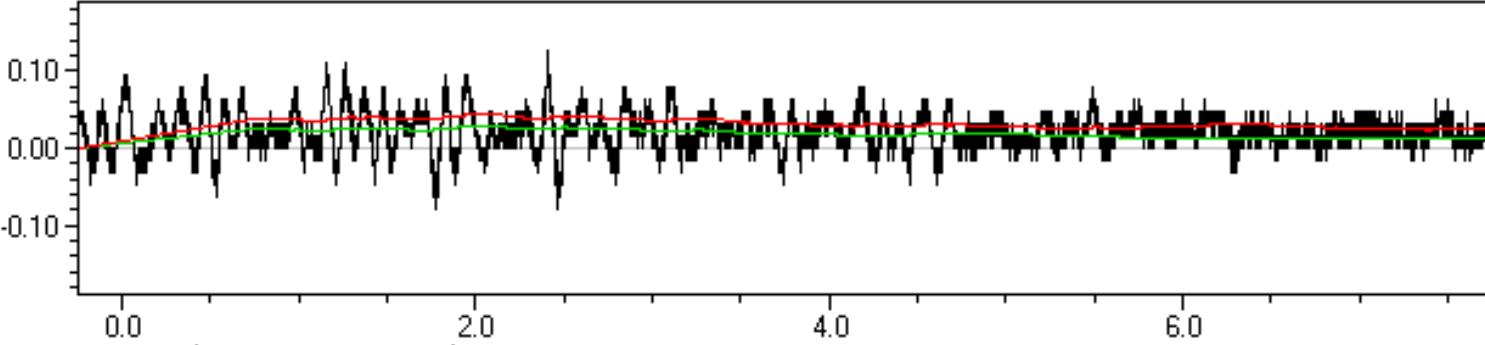
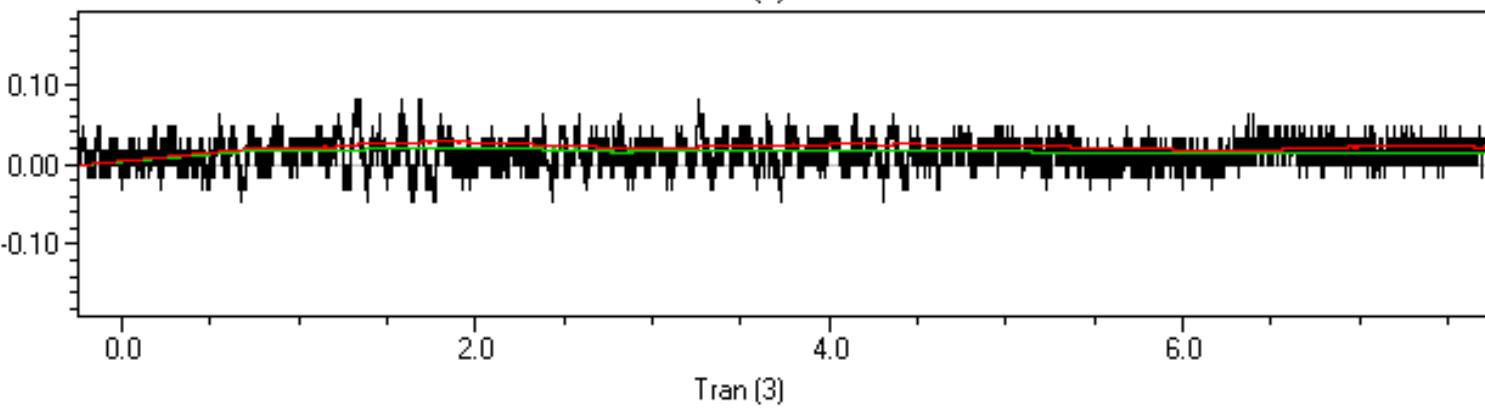
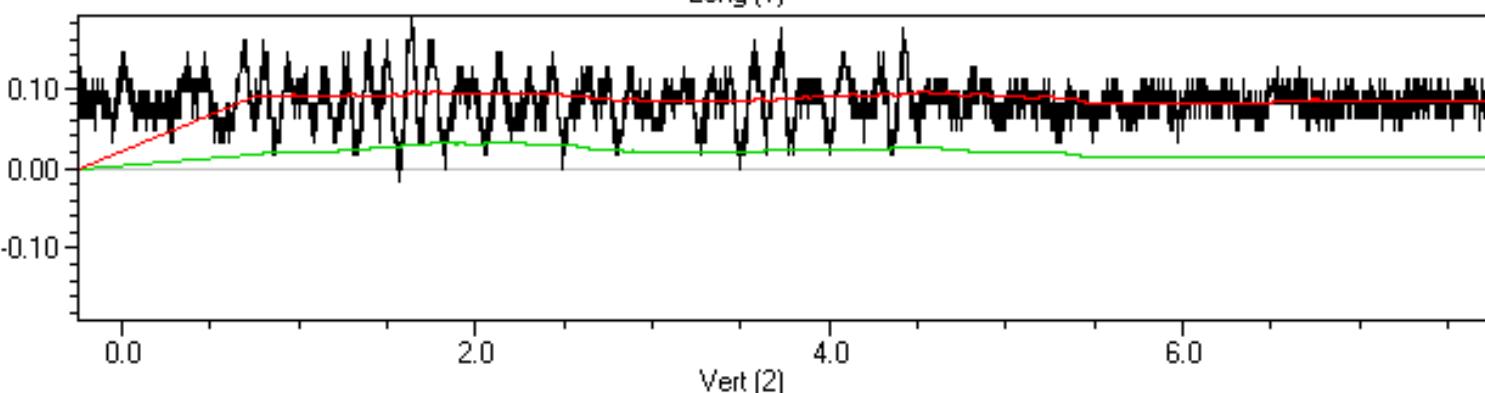
Record Time: 7.75 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.127 | 0.0794 | 0.190 | mm/s |
| ZC Freq | 8.1 | 12 | 2.2 | Hz |
| Time of Peak | 2.411 | 1.313 | 1.636 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00262 | 0.00117 | 0.0478 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,03 | 0,02 | 0,03 | 0,05 |
| RMS (1s) | 0,04 | 0,03 | 0,10 | 0,11 |

Long (1)





Event Date: January 3, 2007

Event Time: 09:33:08

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHG2.J80

Trigger: Long

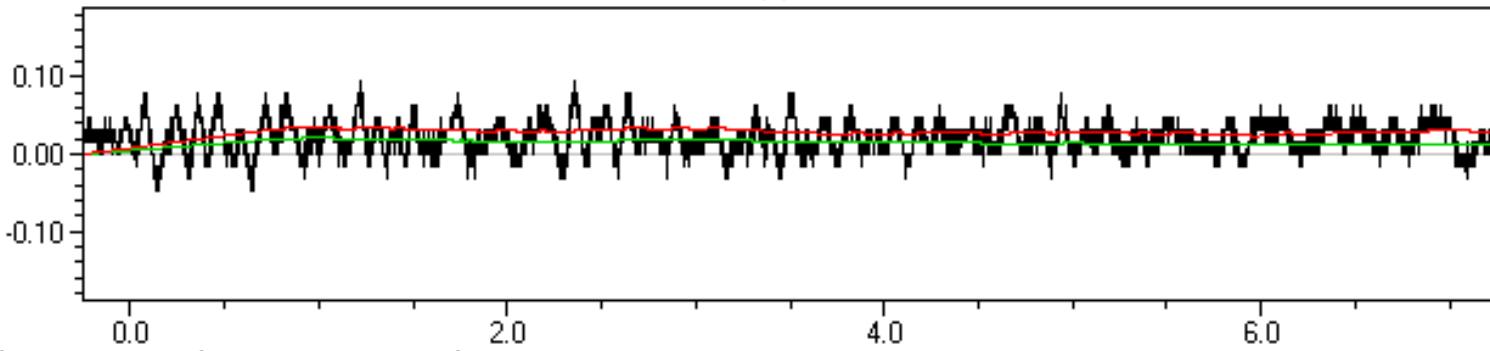
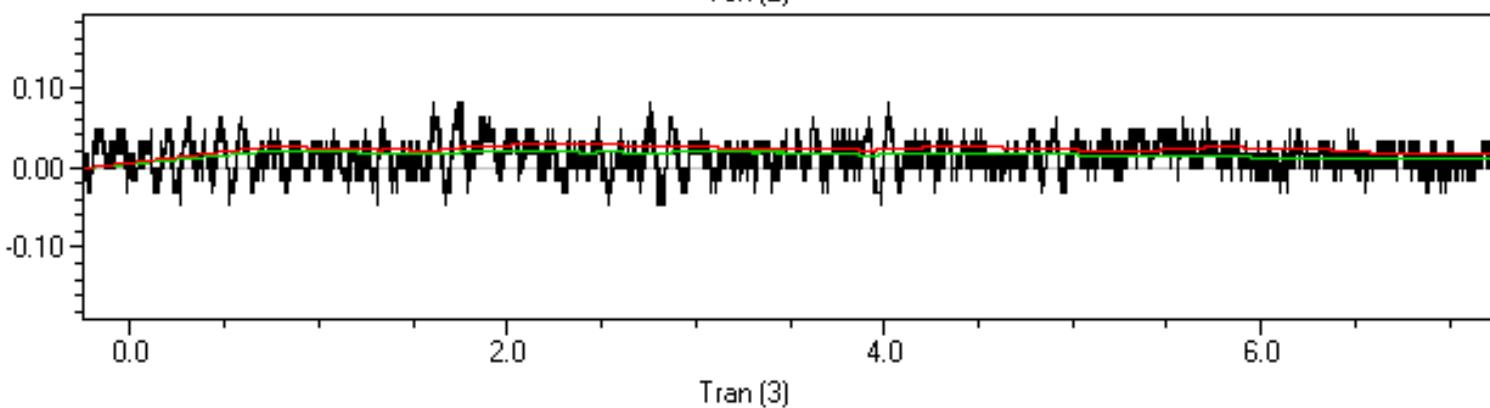
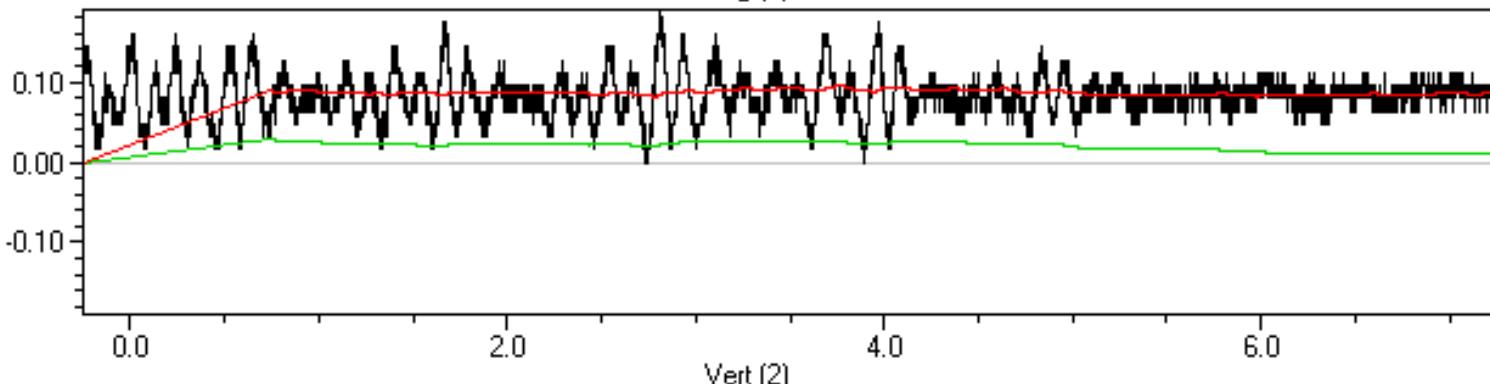
Record Time: 7.25 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.0952 | 0.0794 | 0.190 | mm/s |
| ZC Freq | 8.0 | 12 | 4.7 | Hz |
| Time of Peak | 1.220 | 1.613 | 2.806 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00283 | 0.00156 | 0.0345 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,02 | 0,02 | 0,03 | 0,04 |
| RMS (1s) | 0,04 | 0,03 | 0,10 | 0,10 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 12:32:01

File Name: M049BHLU.TD0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

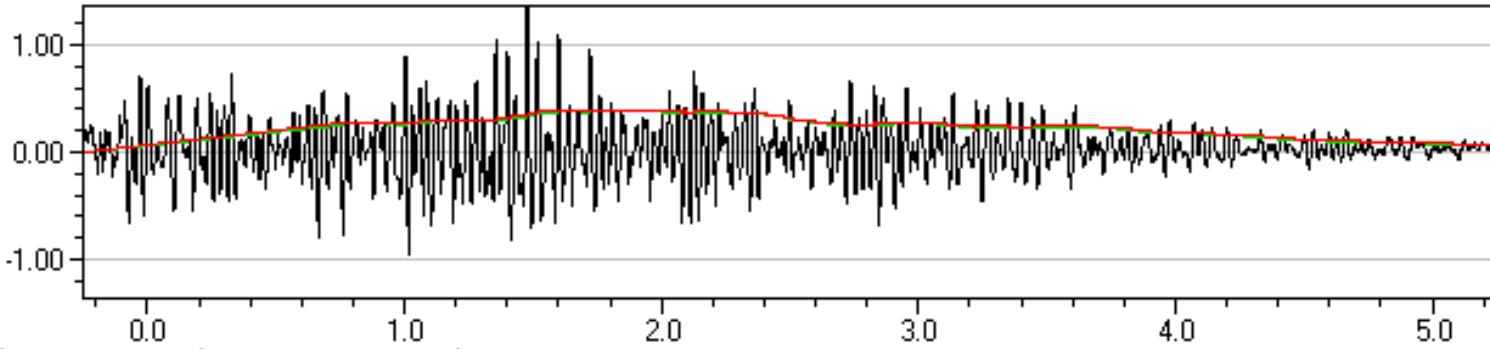
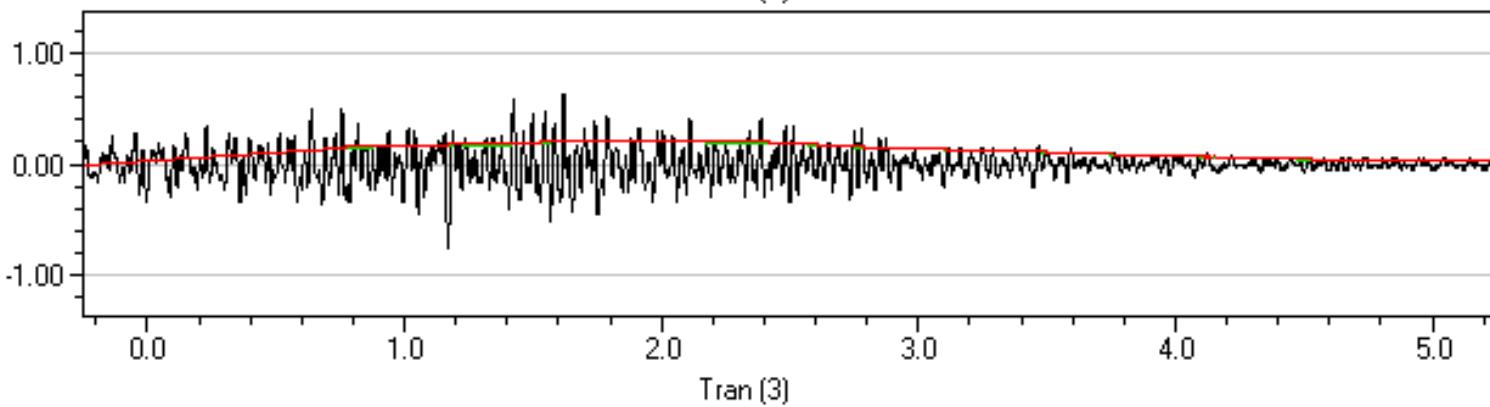
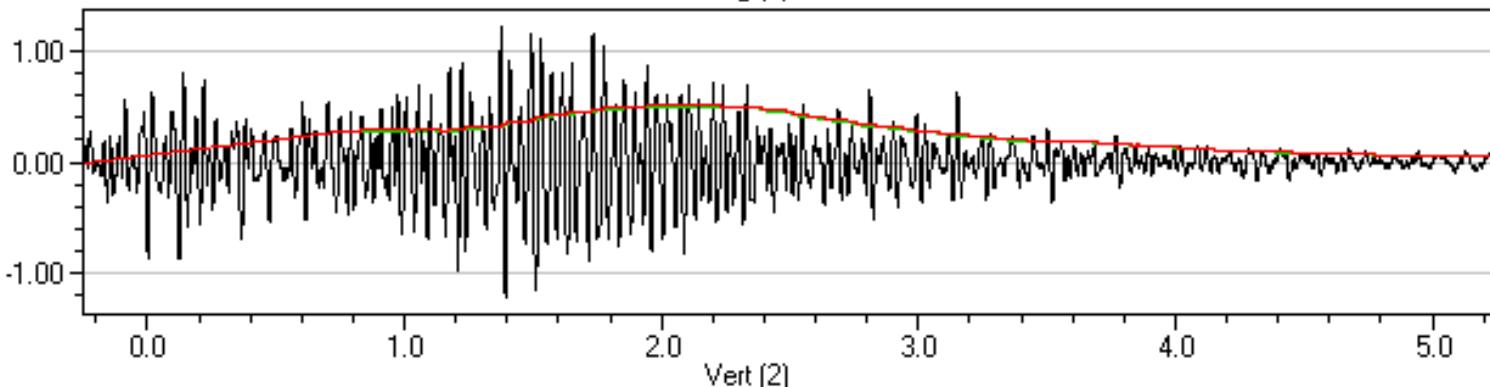
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.37 | 0.746 | 1.22 | mm/s |
| ZC Freq | 30 | 24 | 27 | Hz |
| Time of Peak | 1.477 | 1.168 | 1.376 | Sec |
| Peak Acceleration | 0.0249 | 0.0149 | 0.0232 | g |
| Peak Displacement | 0.00693 | 0.00445 | 0.00750 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,39 | 0,21 | 0,51 | 0,66 |
| RMS (1s) | 0,40 | 0,22 | 0,52 | 0,68 |

Long (1)





Event Date: January 6, 2007

Event Time: 18:34:38

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

File Name: M049BHMB.LQ0

Trigger: Tran

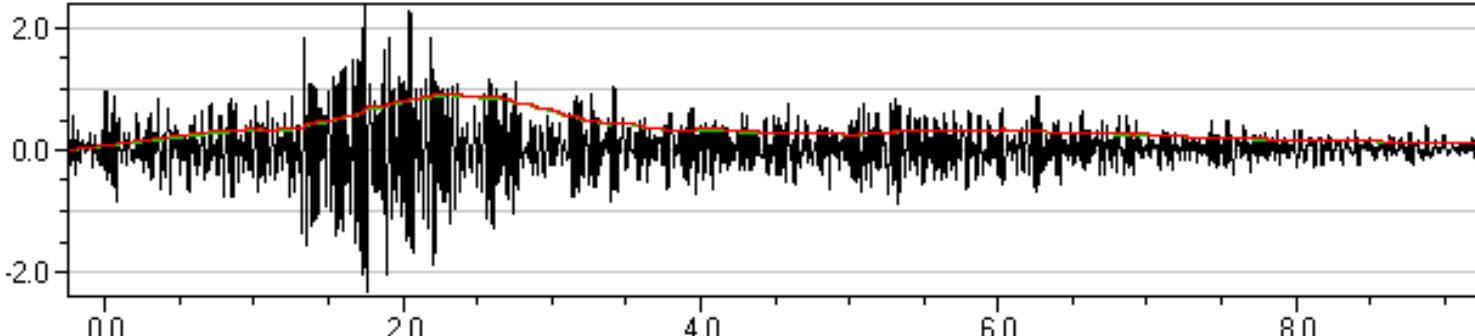
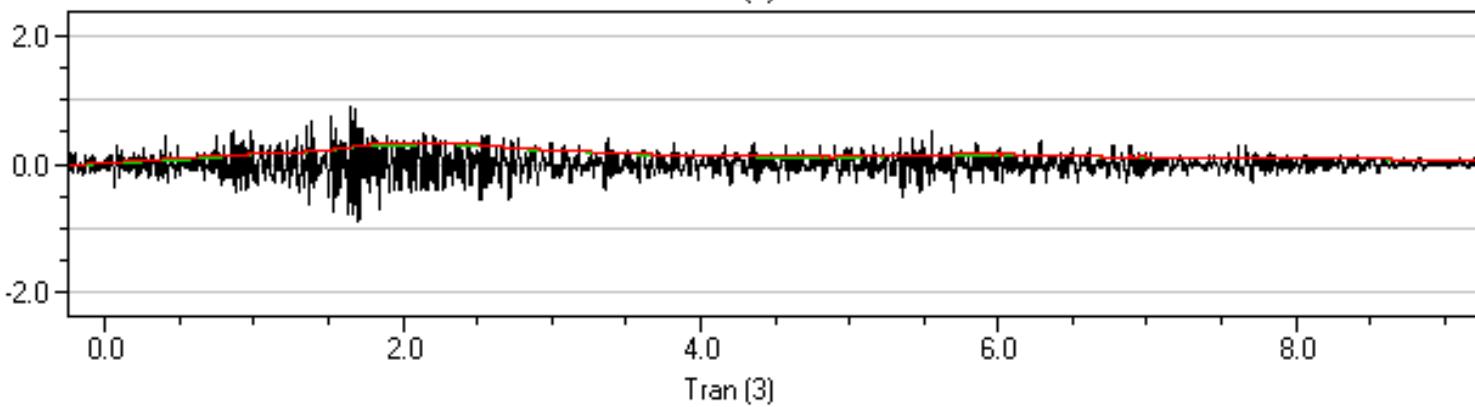
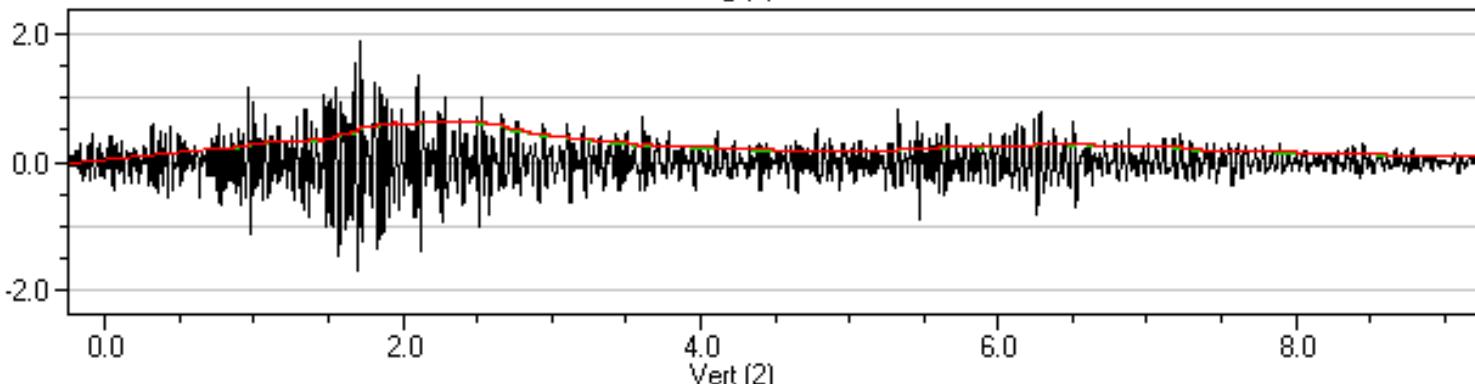
Record Time: 9.25 sec

Sample Rate: 1024 sps

Calibration: March 29, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 2.40 | 0.921 | 1.92 | mm/s |
| ZC Freq | 28 | 28 | 30 | Hz |
| Time of Peak | 1.739 | 1.701 | 1.715 | Sec |
| Peak Acceleration | 0.0481 | 0.0199 | 0.0348 | g |
| Peak Displacement | 0.0135 | 0.00488 | 0.0114 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.91 | 0.32 | 0.63 | 1.15 |
| RMS (1s) | 0.93 | 0.32 | 0.65 | 1.18 |

Long (1)





Event Date: January 6, 2007

Event Time: 22:29:38

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

File Name: M049BHMM.HE0

Trigger: Tran

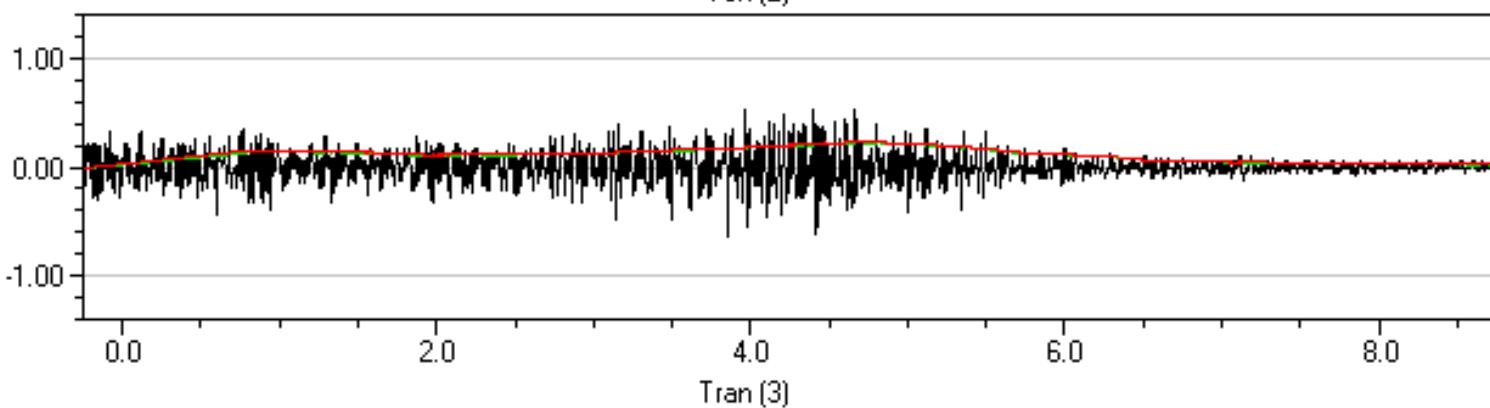
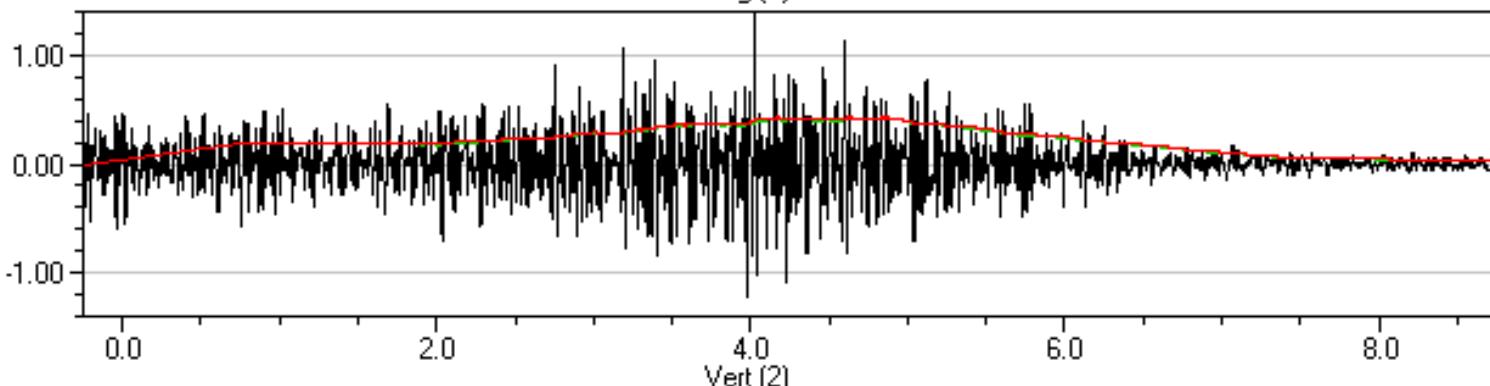
Record Time: 8.75 sec

Sample Rate: 1024 sps

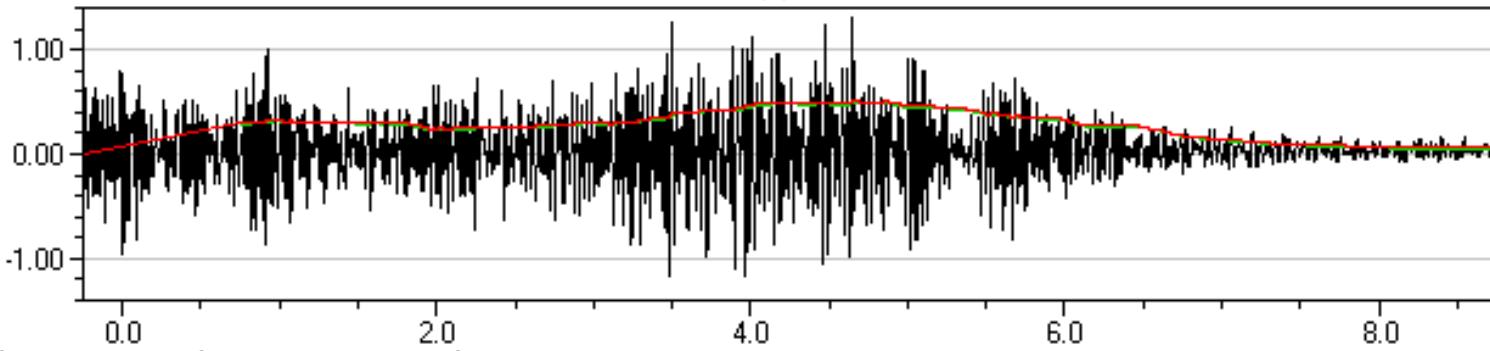
Calibration: March 29, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.30 | 0.635 | 1.40 | mm/s |
| ZC Freq | 32 | 30 | 32 | Hz |
| Time of Peak | 4.647 | 3.854 | 4.025 | Sec |
| Peak Acceleration | 0.0282 | 0.0149 | 0.0282 | g |
| Peak Displacement | 0.00710 | 0.00389 | 0.00656 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,50 | 0,22 | 0,42 | 0,69 |
| RMS (1s) | 0,51 | 0,23 | 0,43 | 0,70 |

Long (1)



Tran (3)



Long (1)



Event Date: January 6, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 23:31:43

File Name: M049BHMP.CV0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 9.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

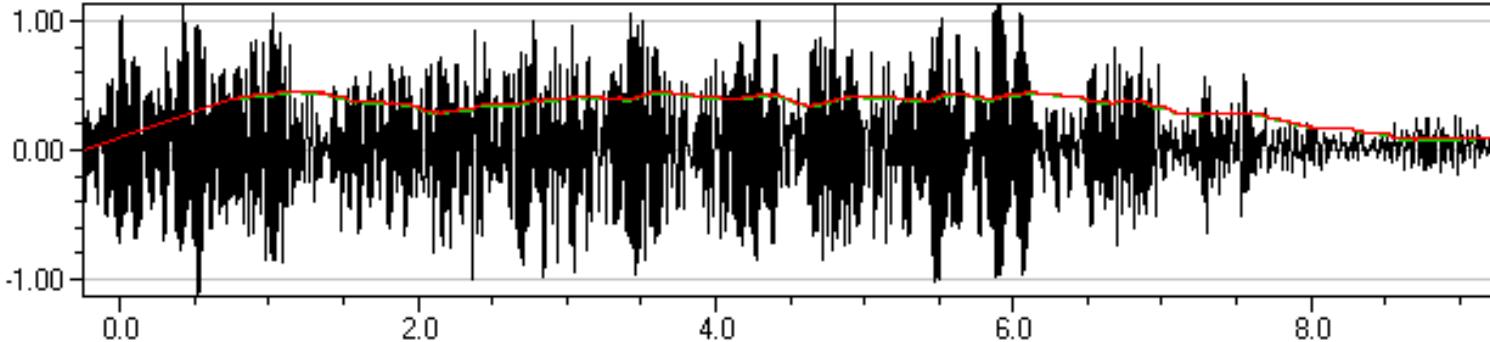
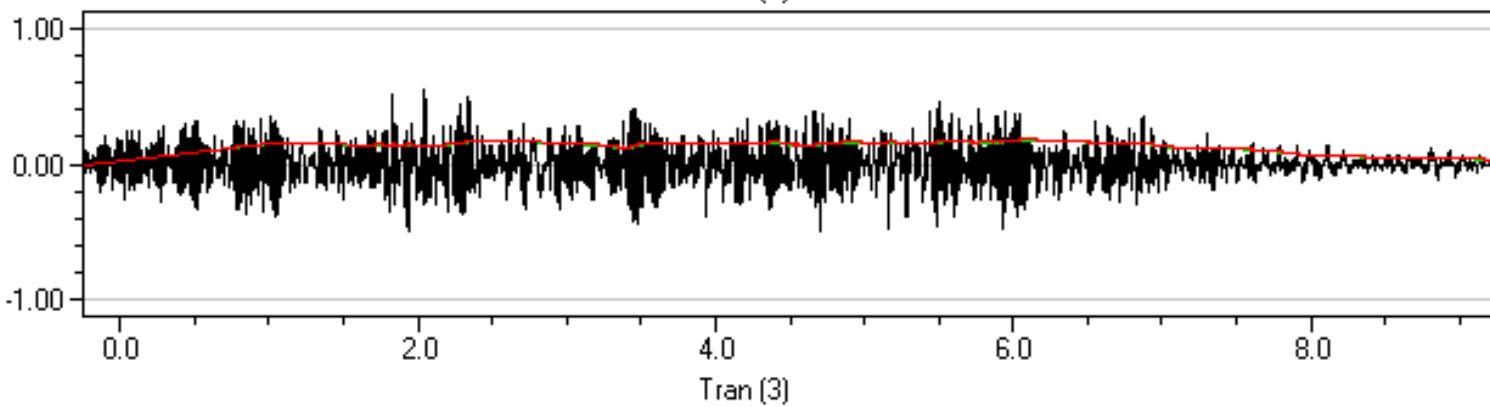
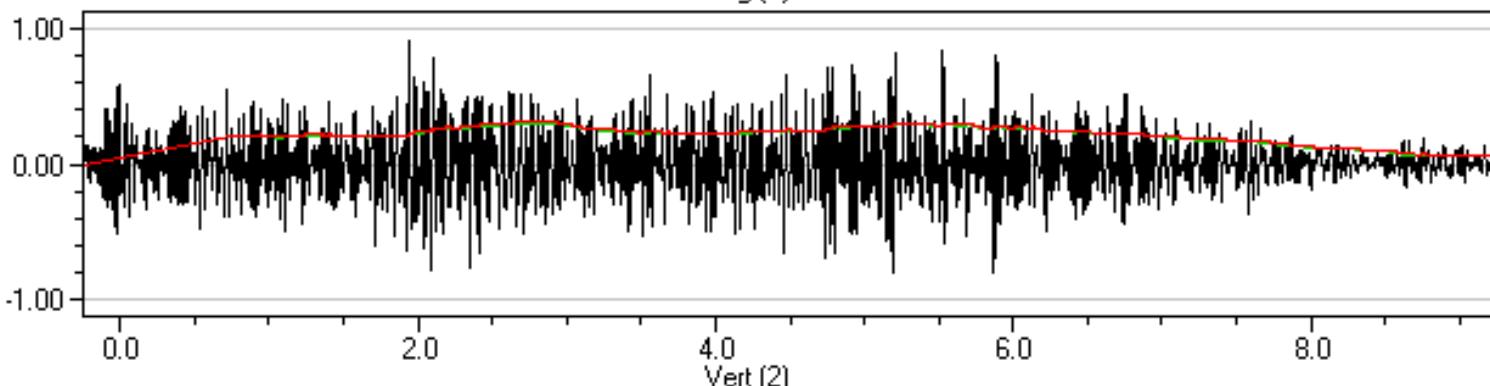
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.13 | 0.556 | 0.921 | mm/s |
| ZC Freq | 32 | 32 | 32 | Hz |
| Time of Peak | 0.425 | 2.044 | 1.938 | Sec |
| Peak Acceleration | 0.0249 | 0.0133 | 0.0182 | g |
| Peak Displacement | 0.00588 | 0.00269 | 0.00490 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,44 | 0,18 | 0,31 | 0,55 |
| RMS (1s) | 0,45 | 0,18 | 0,32 | 0,56 |

Long (1)





Event Date: January 7, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 09:32:20

File Name: M049BHNH.5W0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 8.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

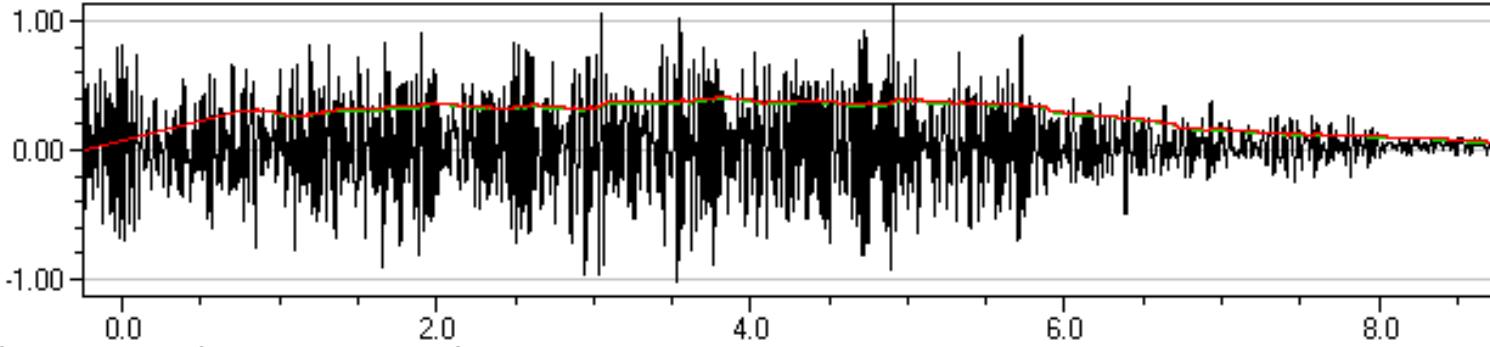
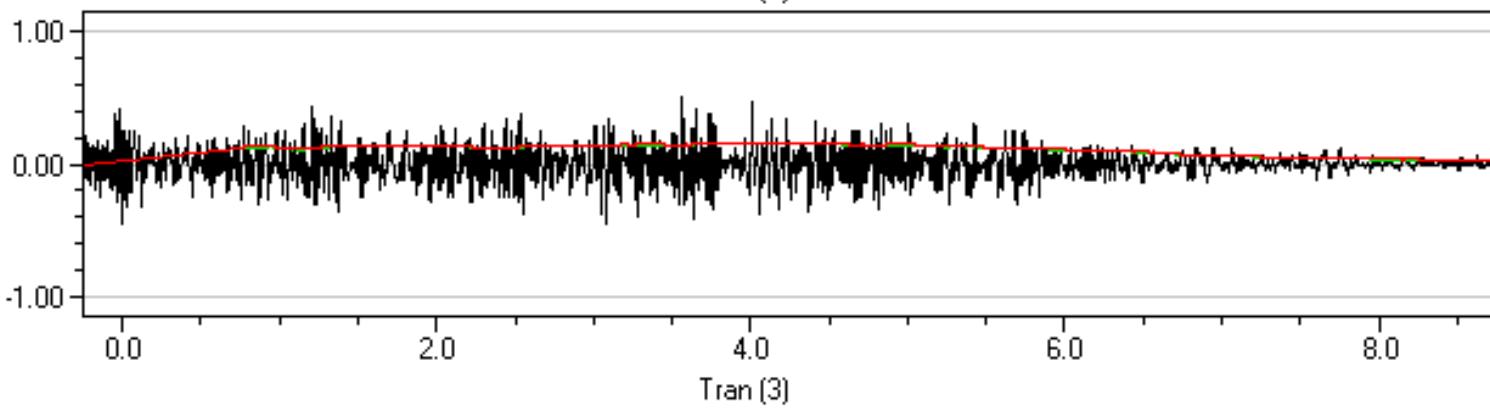
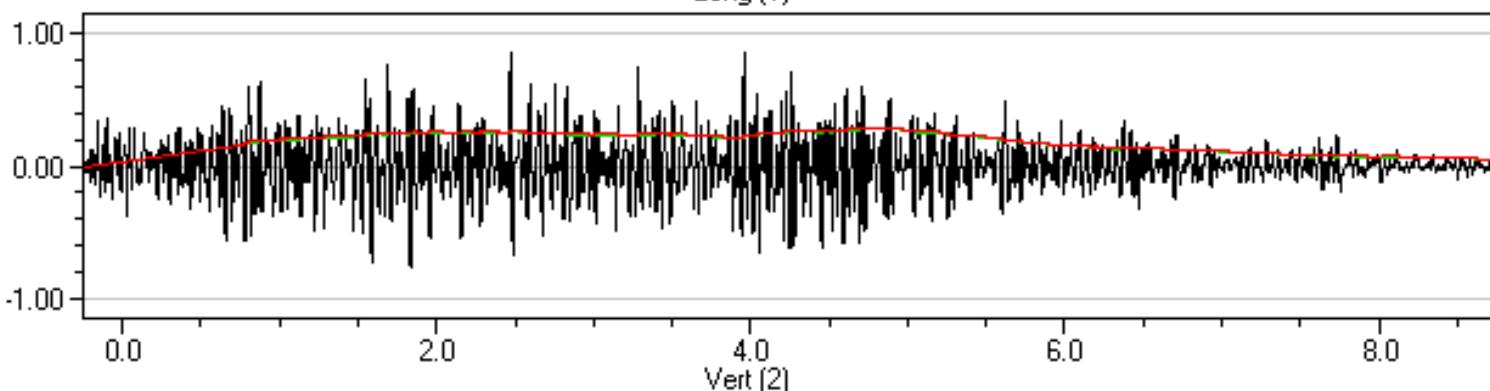
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.14 | 0.508 | 0.857 | mm/s |
| ZC Freq | 30 | 27 | 28 | Hz |
| Time of Peak | 4.905 | 3.564 | 2.470 | Sec |
| Peak Acceleration | 0.0232 | 0.0116 | 0.0182 | g |
| Peak Displacement | 0.00604 | 0.00272 | 0.00522 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,40 | 0,16 | 0,28 | 0,50 |
| RMS (1s) | 0,41 | 0,16 | 0,29 | 0,51 |

Long (1)





Event Date: January 7, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 11:31:37

File Name: M049BHNM.OPO

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 9.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

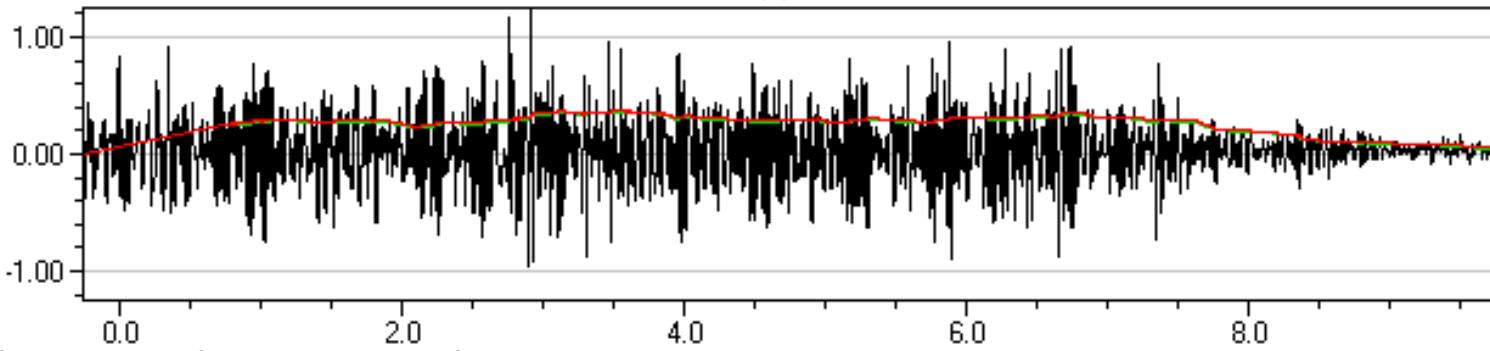
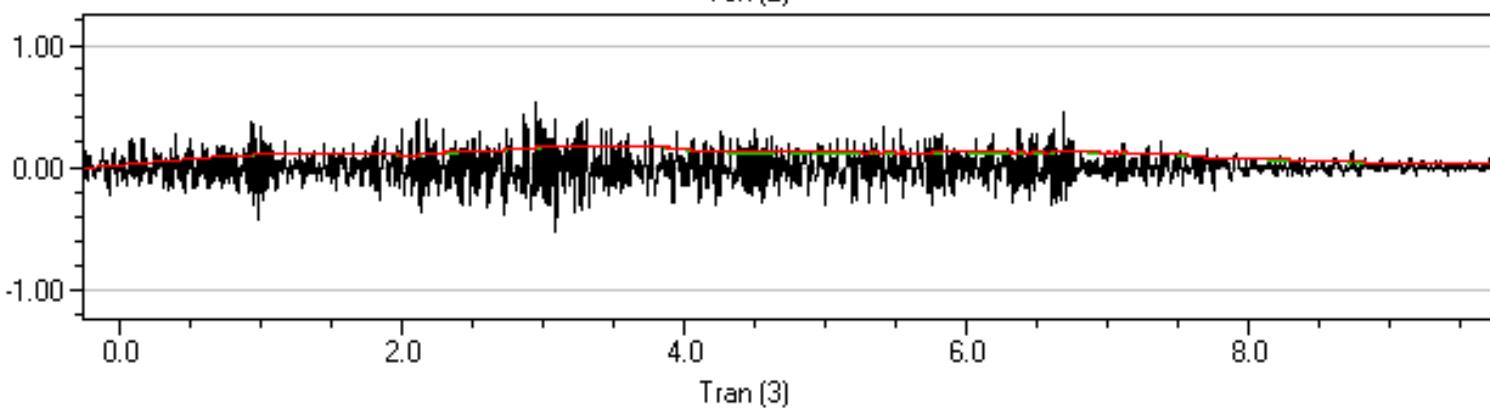
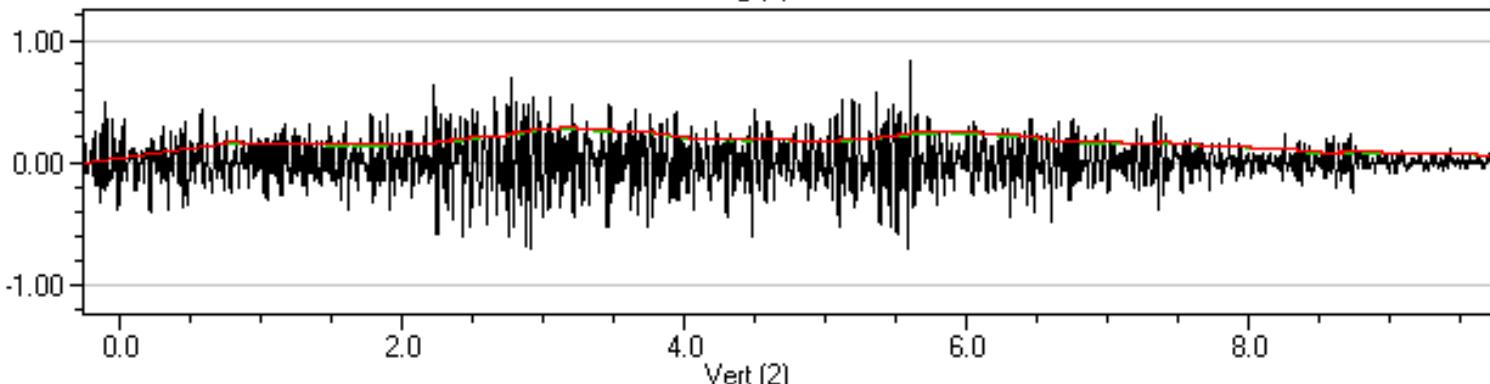
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.25 | 0.524 | 0.825 | mm/s |
| ZC Freq | 34 | 37 | 26 | Hz |
| Time of Peak | 2.915 | 2.956 | 5.600 | Sec |
| Peak Acceleration | 0.0265 | 0.0166 | 0.0166 | g |
| Peak Displacement | 0.00612 | 0.00290 | 0.00468 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,36 | 0,17 | 0,28 | 0,48 |
| RMS (1s) | 0,37 | 0,18 | 0,28 | 0,49 |

Long (1)





Event Date: January 7, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 14:33:19

File Name: M049BHNV.3J0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 8.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

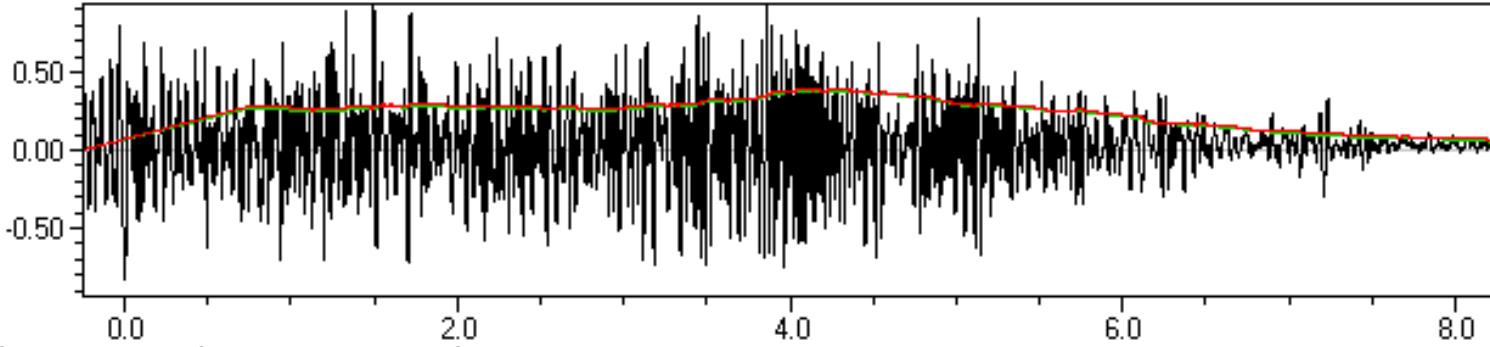
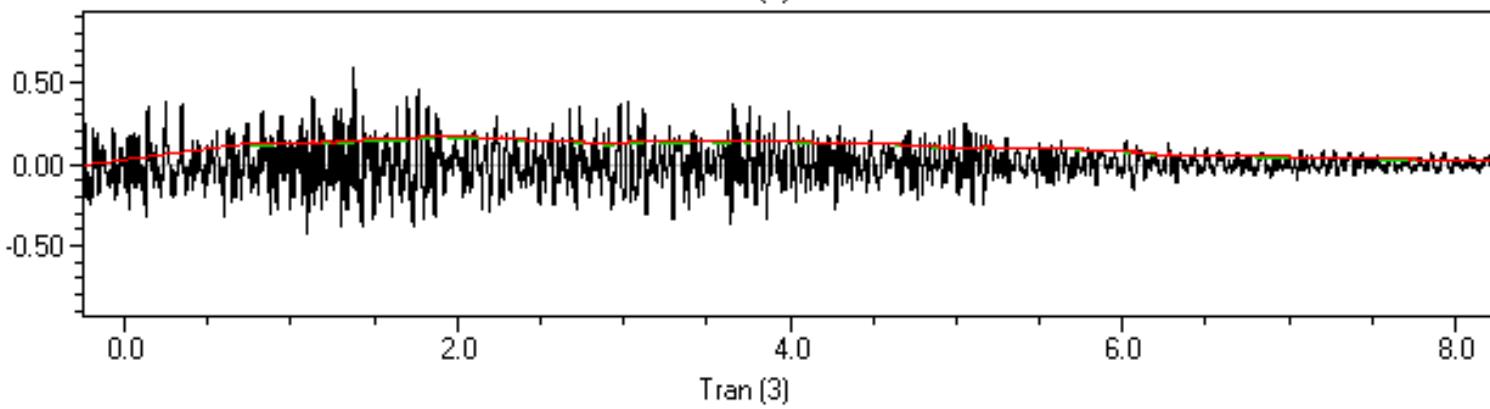
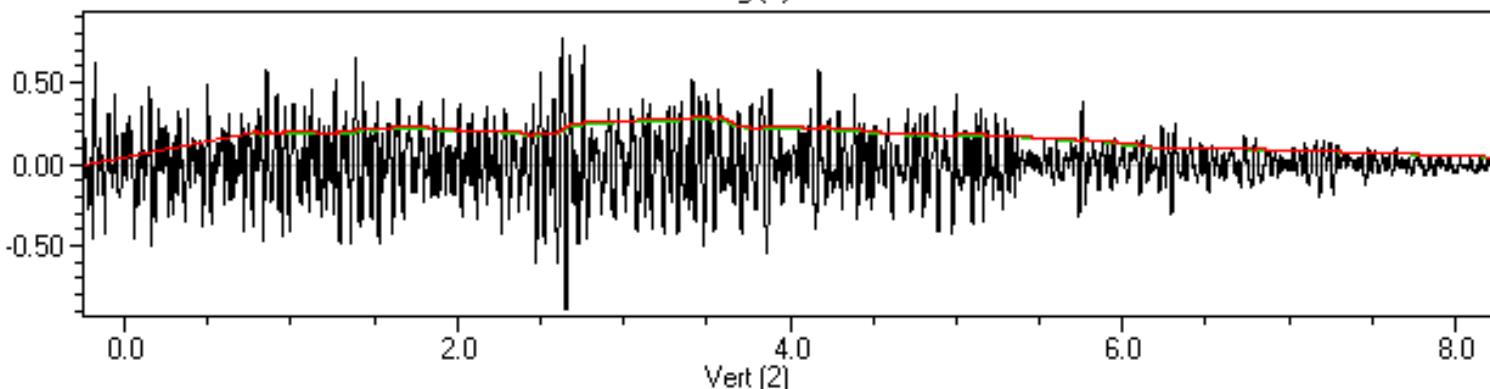
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.937 | 0.587 | 0.889 | mm/s |
| ZC Freq | 30 | 32 | 20 | Hz |
| Time of Peak | 3.861 | 1.378 | 2.652 | Sec |
| Peak Acceleration | 0.0199 | 0.0149 | 0.0149 | g |
| Peak Displacement | 0.00696 | 0.00367 | 0.00700 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,38 | 0,17 | 0,28 | 0,46 |
| RMS (1s) | 0,39 | 0,17 | 0,29 | 0,47 |

Long (1)





Event Date: January 7, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 17:42:04

File Name: M049BHO3.U40

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 8.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

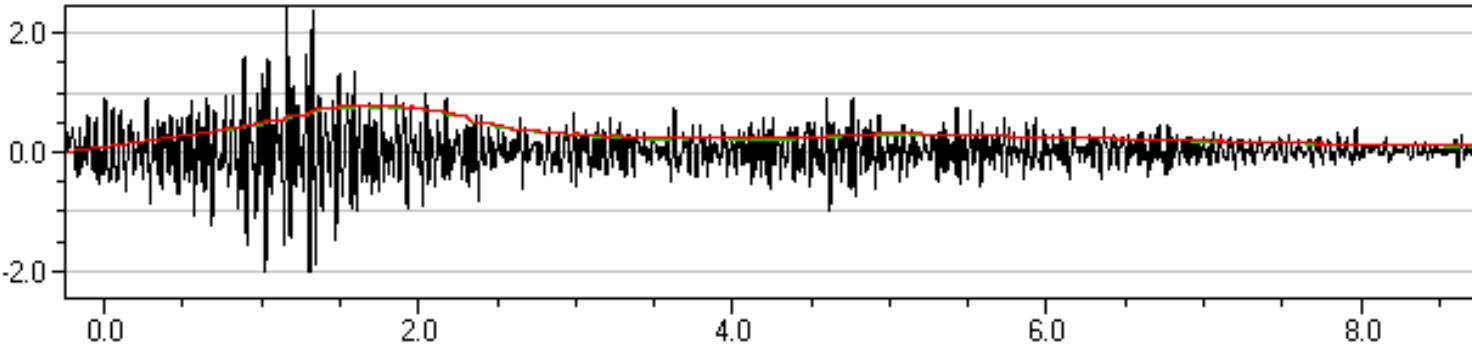
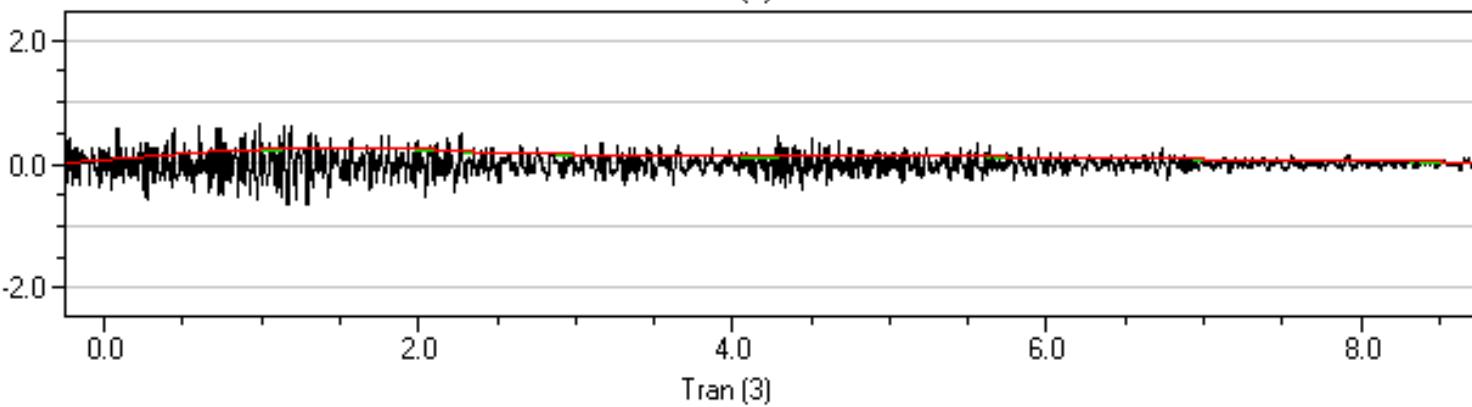
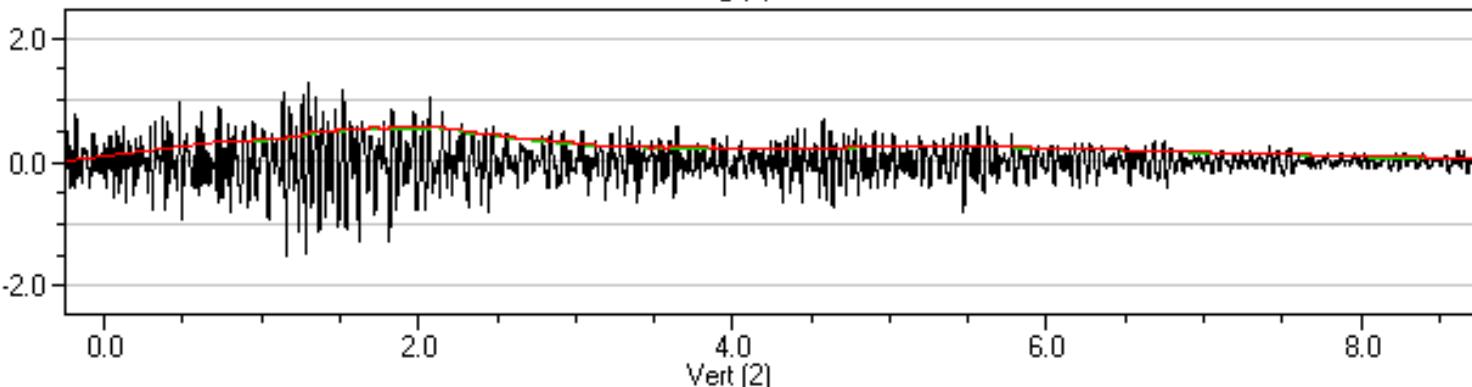
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 2.46 | 0.667 | 1.52 | mm/s |
| ZC Freq | 27 | 20 | 23 | Hz |
| Time of Peak | 1.162 | 1.166 | 1.158 | Sec |
| Peak Acceleration | 0.0398 | 0.0166 | 0.0282 | g |
| Peak Displacement | 0.0143 | 0.00462 | 0.00947 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,76 | 0,27 | 0,55 | 0,97 |
| RMS (1s) | 0,79 | 0,27 | 0,57 | 1,00 |

Long (1)





Event Date: January 8, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 08:24:31

File Name: M049BHP8.OV0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 4.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

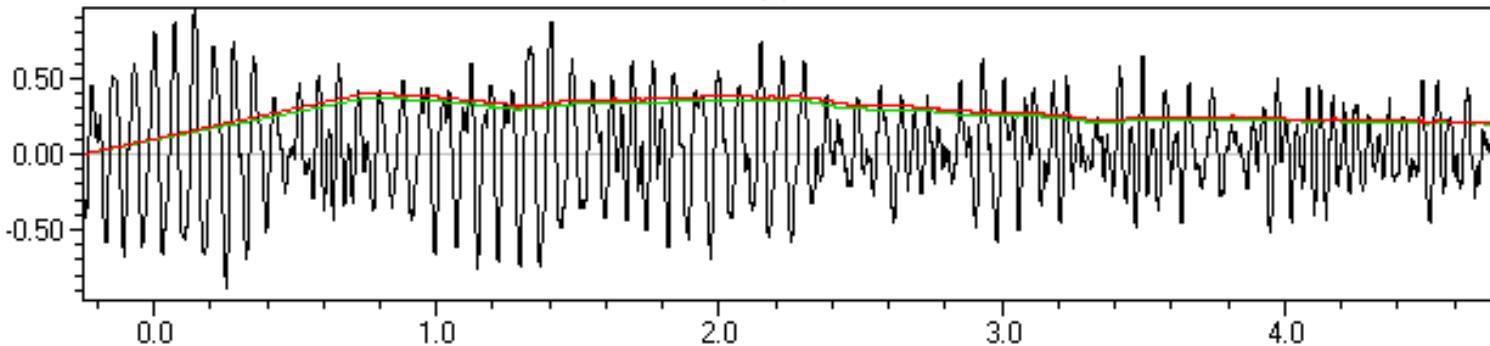
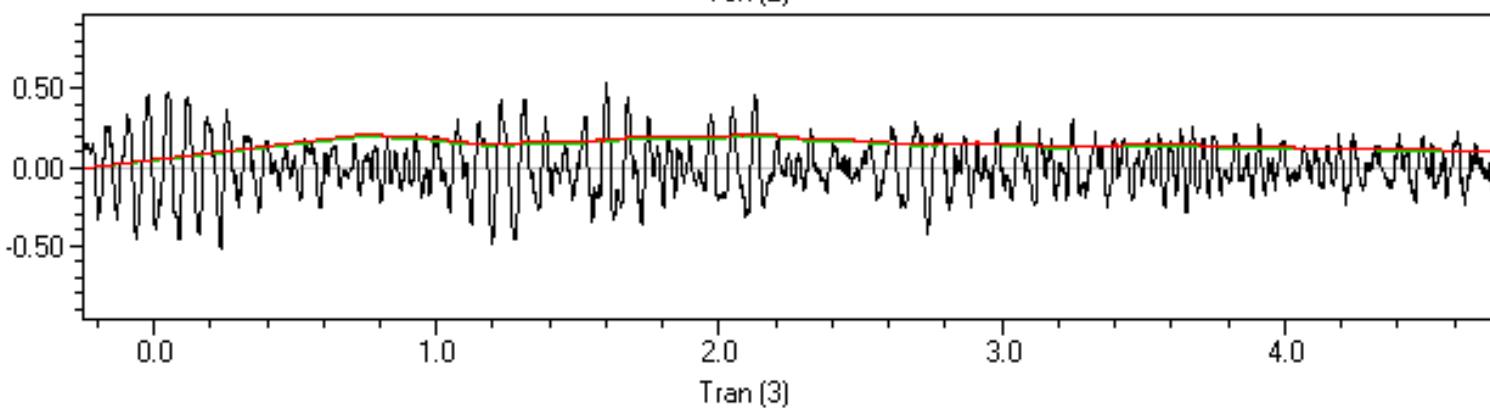
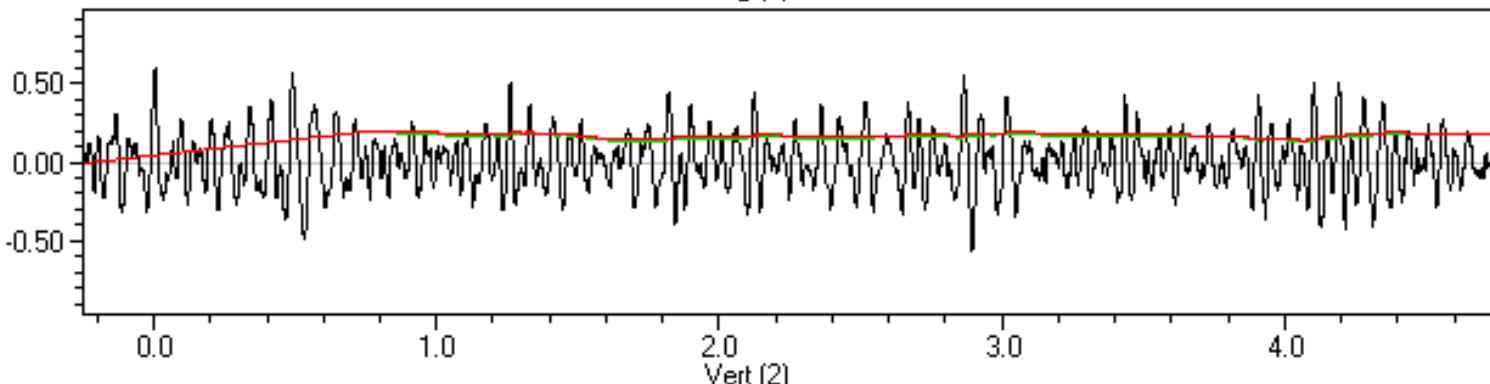
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.968 | 0.540 | 0.603 | mm/s |
| ZC Freq | 16 | 17 | 19 | Hz |
| Time of Peak | 0.143 | 1.600 | 0.004 | Sec |
| Peak Acceleration | 0.0116 | 0.00994 | 0.00994 | g |
| Peak Displacement | 0.00982 | 0.00540 | 0.00553 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,37 | 0,19 | 0,19 | 0,46 |
| RMS (1s) | 0,40 | 0,21 | 0,20 | 0,49 |

Long (1)





Event Date: January 8, 2007

Event Time: 15:31:35

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

File Name: M049BHPS.GN0

Trigger: Tran

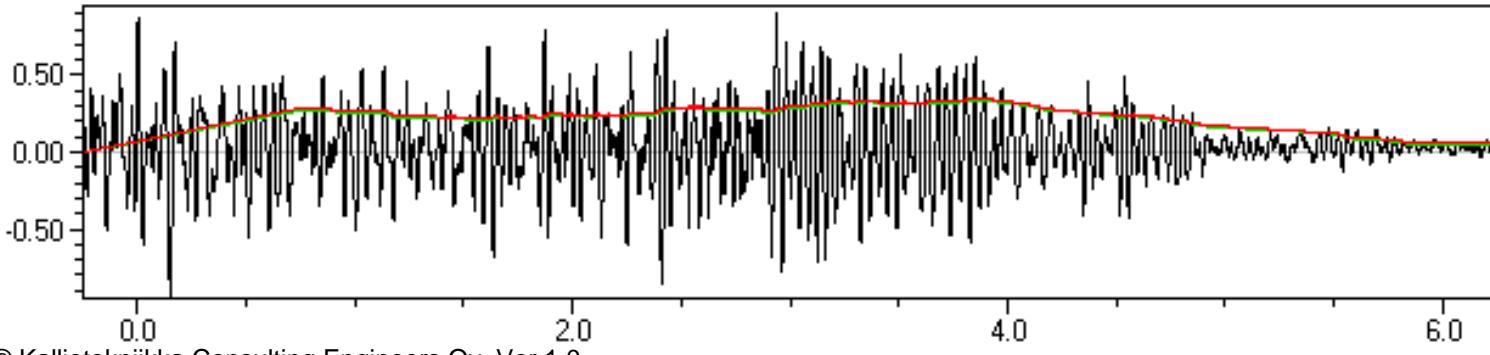
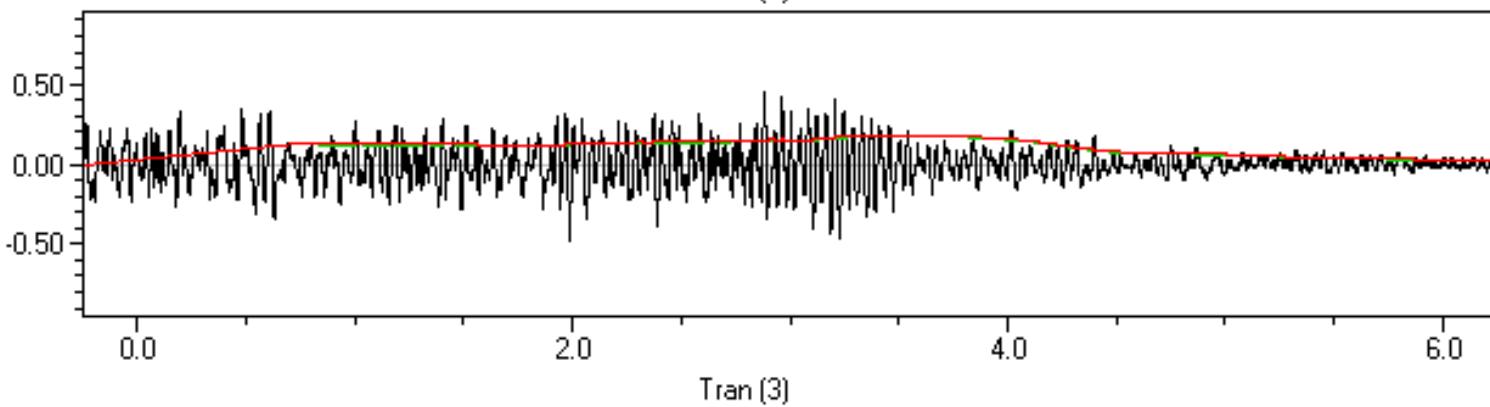
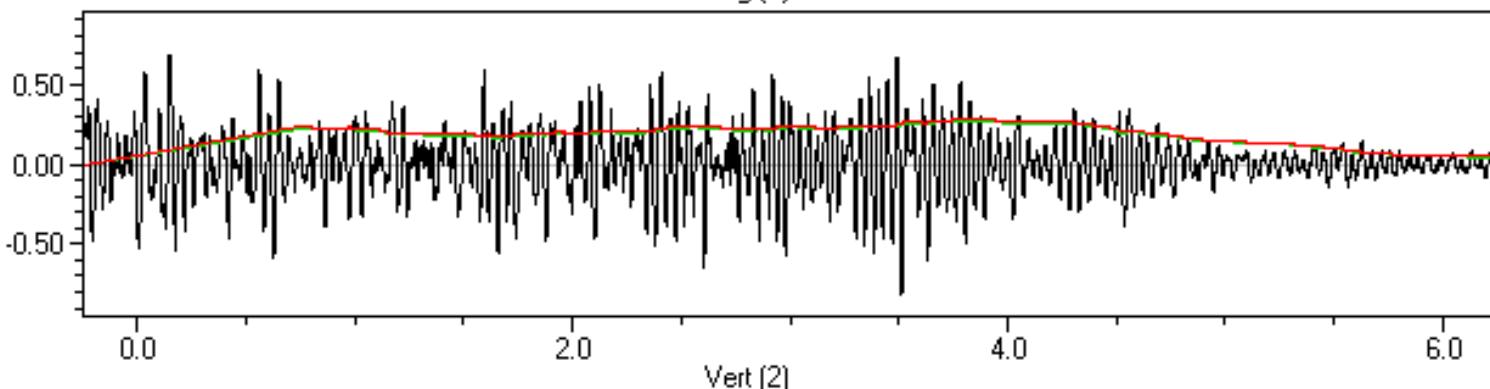
Record Time: 6.25 sec

Sample Rate: 1024 sps

Calibration: March 29, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.952 | 0.476 | 0.810 | mm/s |
| ZC Freq | 20 | 27 | 23 | Hz |
| Time of Peak | 0.149 | 1.985 | 3.513 | Sec |
| Peak Acceleration | 0.0166 | 0.0133 | 0.0133 | g |
| Peak Displacement | 0.00739 | 0.00297 | 0.00588 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,34 | 0,17 | 0,27 | 0,47 |
| RMS (1s) | 0,35 | 0,18 | 0,28 | 0,48 |

Long (1)





Event Date: January 8, 2007

Event Time: 17:52:51

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

File Name: M049BHPZ.030

Trigger: Tran

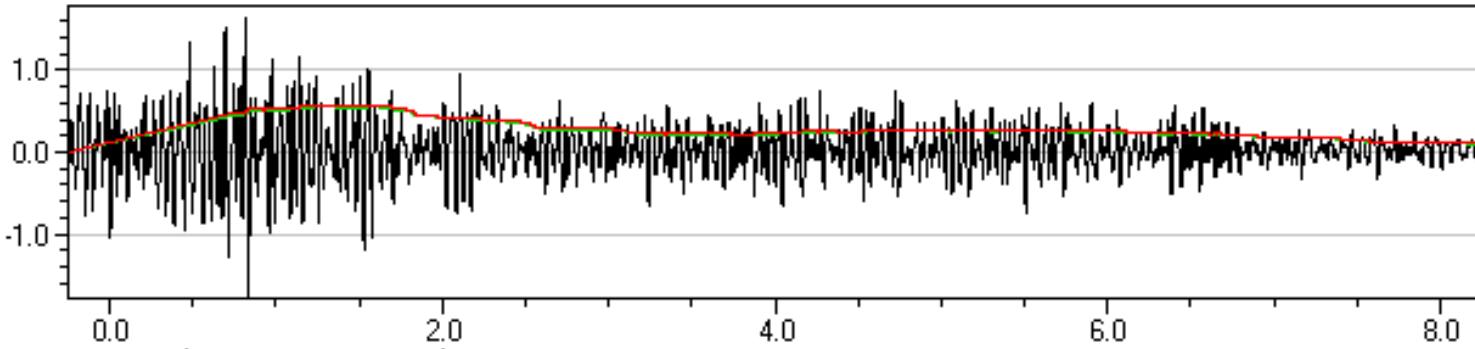
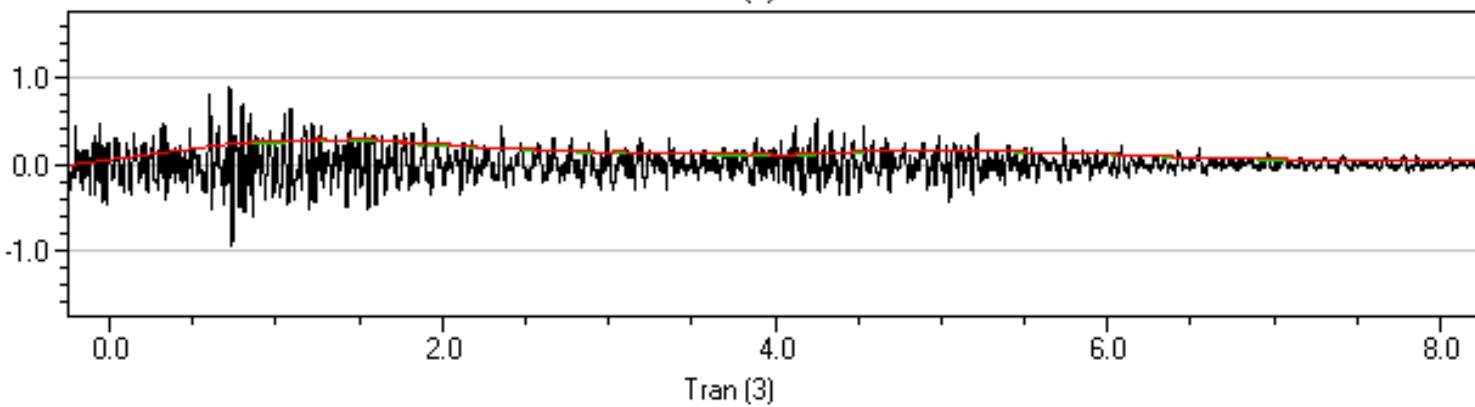
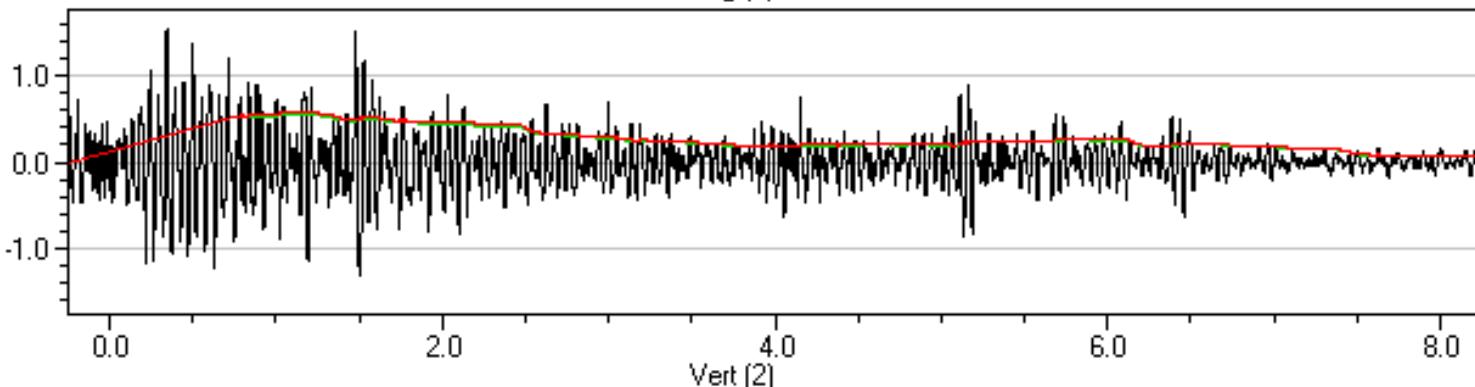
Record Time: 8.25 sec

Sample Rate: 1024 sps

Calibration: March 29, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.78 | 0.952 | 1.54 | mm/s |
| ZC Freq | 27 | 34 | 23 | Hz |
| Time of Peak | 0.834 | 0.735 | 0.342 | Sec |
| Peak Acceleration | 0.0315 | 0.0232 | 0.0232 | g |
| Peak Displacement | 0.0104 | 0.00514 | 0.0133 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.56 | 0.28 | 0.57 | 0.83 |
| RMS (1s) | 0.58 | 0.29 | 0.59 | 0.86 |

Long (1)





Event Date: January 9, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 18:01:23

File Name: M049BHRU.2B0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

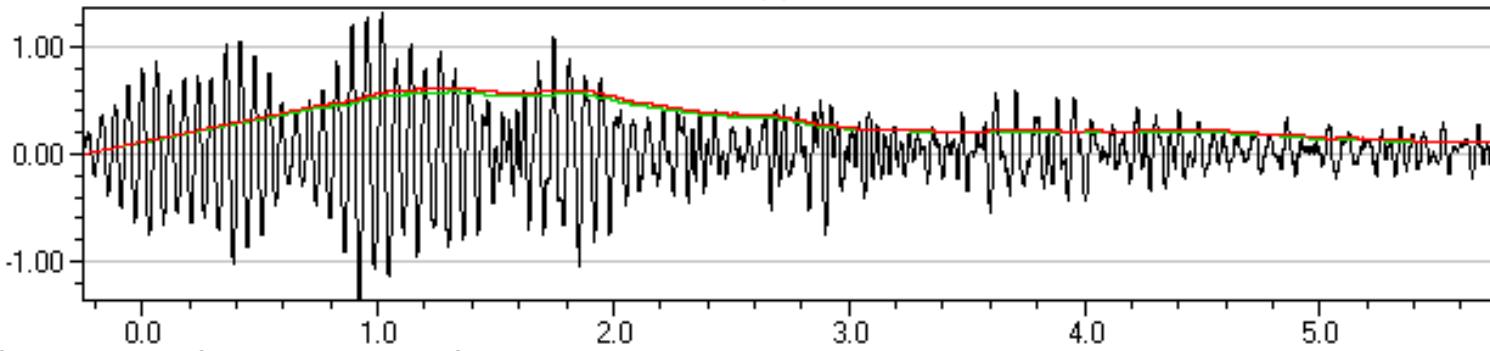
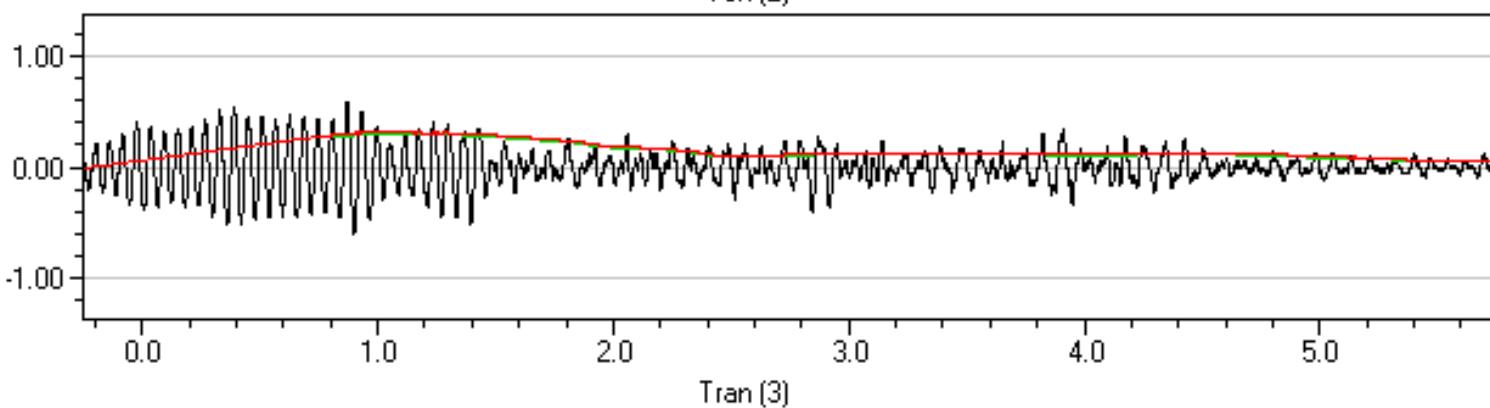
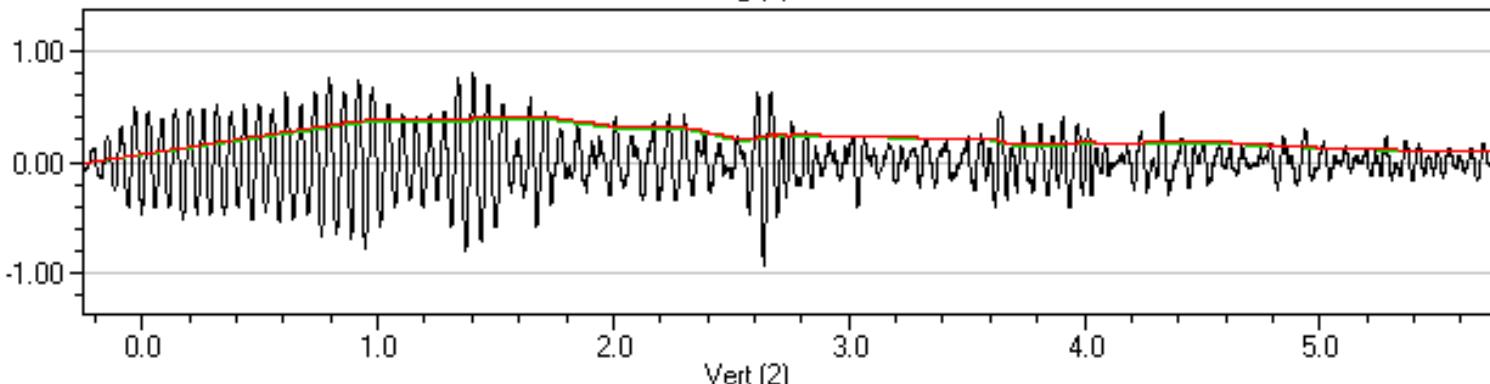
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.37 | 0.603 | 0.937 | mm/s |
| ZC Freq | 16 | 16 | 19 | Hz |
| Time of Peak | 0.922 | 0.899 | 2.638 | Sec |
| Peak Acceleration | 0.0166 | 0.00994 | 0.0116 | g |
| Peak Displacement | 0.0134 | 0.00605 | 0.00812 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.58 | 0.30 | 0.39 | 0.75 |
| RMS (1s) | 0.62 | 0.31 | 0.42 | 0.79 |

Long (1)





Event Date: January 9, 2007

Event Time: 21:49:29

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

File Name: M049BHS4.MH0

Trigger: Tran

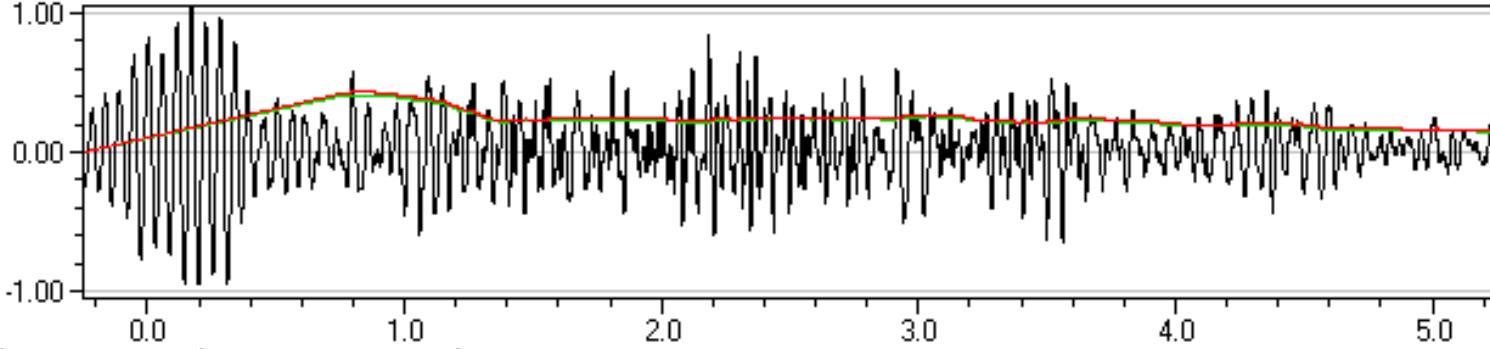
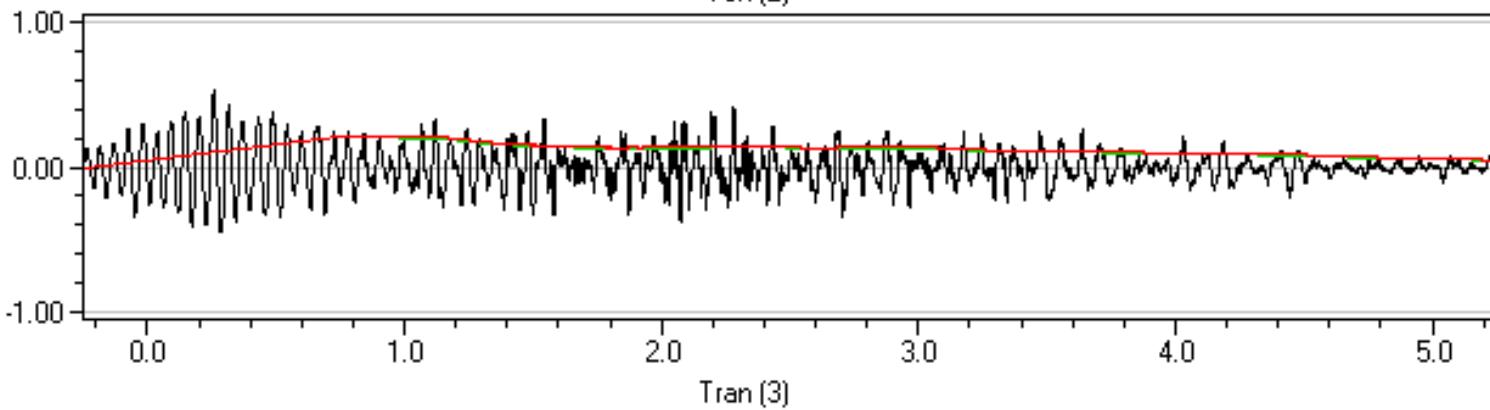
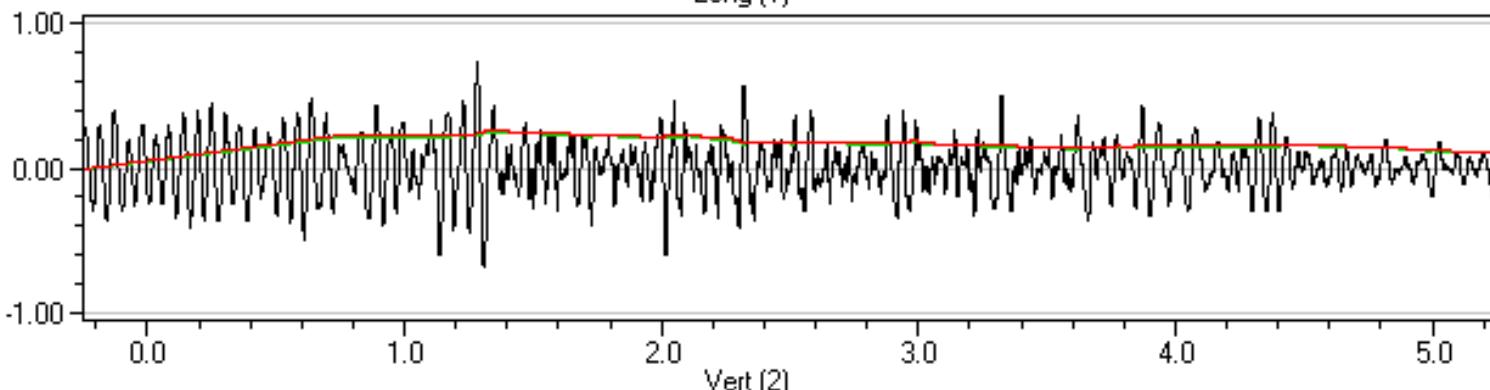
Record Time: 5.25 sec

Sample Rate: 1024 sps

Calibration: March 29, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.05 | 0.524 | 0.730 | mm/s |
| ZC Freq | 18 | 17 | 17 | Hz |
| Time of Peak | 0.170 | 0.260 | 1.283 | Sec |
| Peak Acceleration | 0.0182 | 0.0116 | 0.0116 | g |
| Peak Displacement | 0.00936 | 0.00475 | 0.00640 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,41 | 0,21 | 0,24 | 0,51 |
| RMS (1s) | 0,43 | 0,22 | 0,26 | 0,53 |

Long (1)





Event Date: January 10, 2007

Event Time: 06:14:46

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

File Name: M049BHSS.0M0

Trigger: Tran

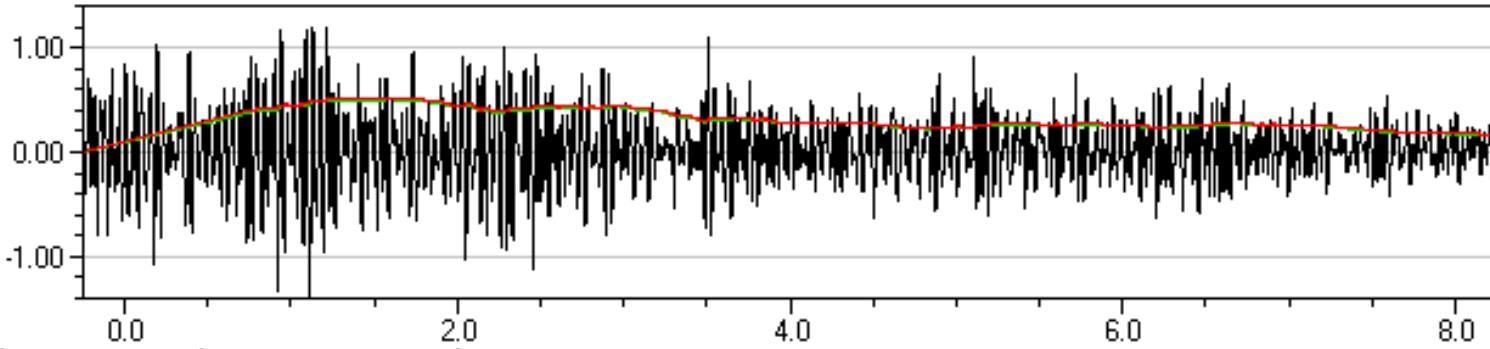
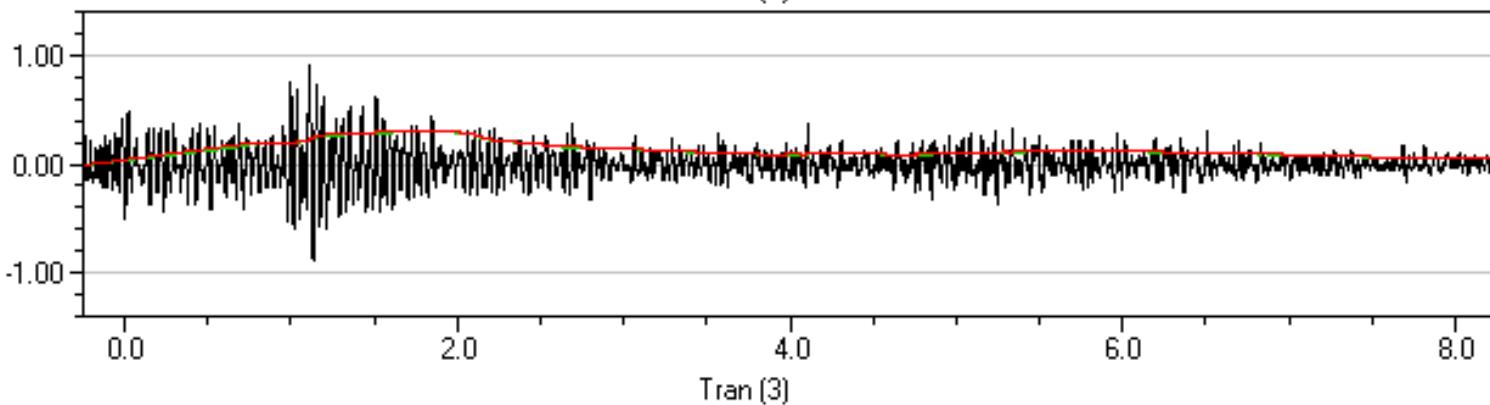
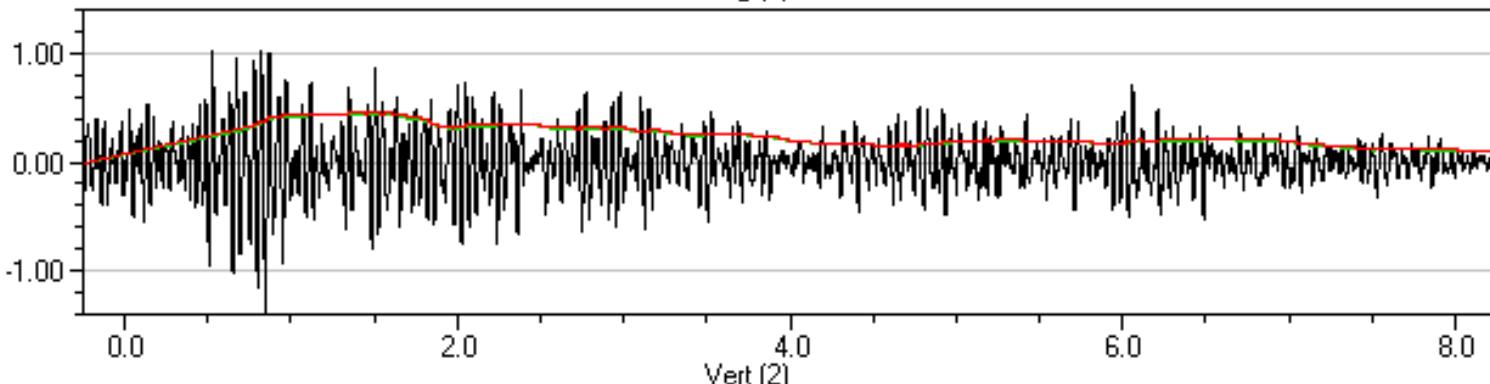
Record Time: 8.25 sec

Sample Rate: 1024 sps

Calibration: March 29, 2006 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.41 | 0.921 | 1.38 | mm/s |
| ZC Freq | 23 | 22 | 20 | Hz |
| Time of Peak | 1.109 | 1.110 | 0.845 | Sec |
| Peak Acceleration | 0.0265 | 0.0149 | 0.0215 | g |
| Peak Displacement | 0.00976 | 0.00663 | 0.00997 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.51 | 0.30 | 0.44 | 0.73 |
| RMS (1s) | 0.52 | 0.31 | 0.46 | 0.76 |

Long (1)





Event Date: January 10, 2007

Serial Number: BE11049, V 8.01-8.0 MiniMate Plus

Event Time: 10:28:19

File Name: M049BHT3.R70

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 4.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

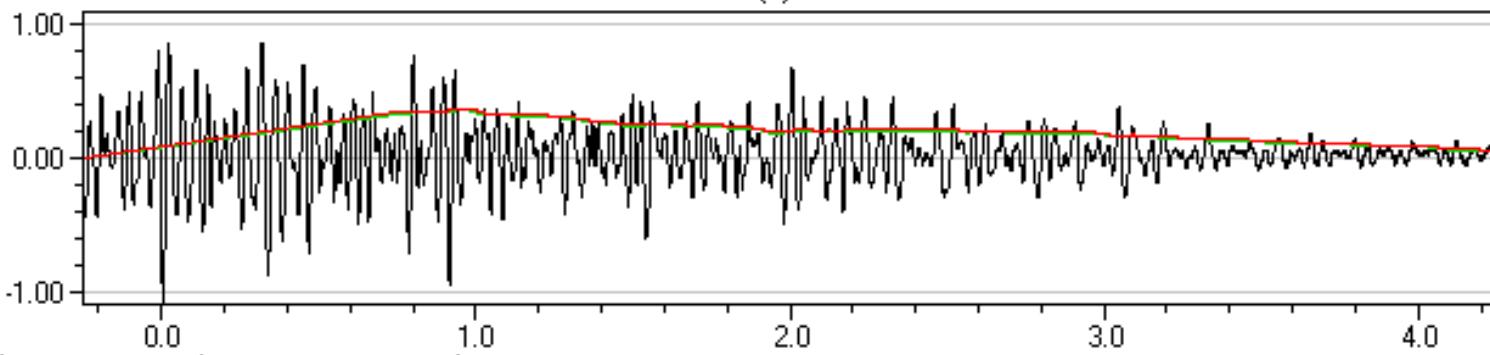
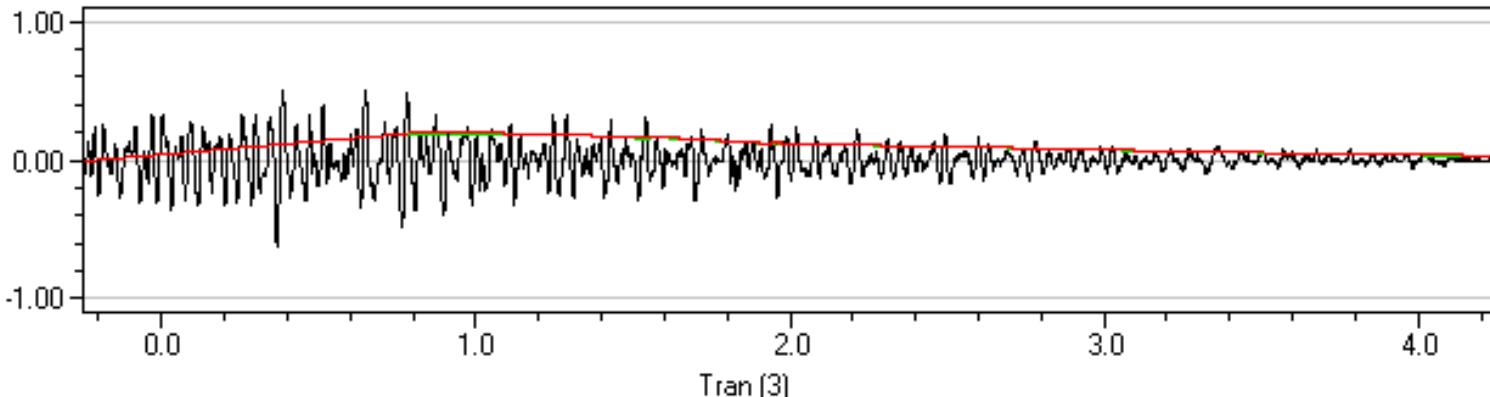
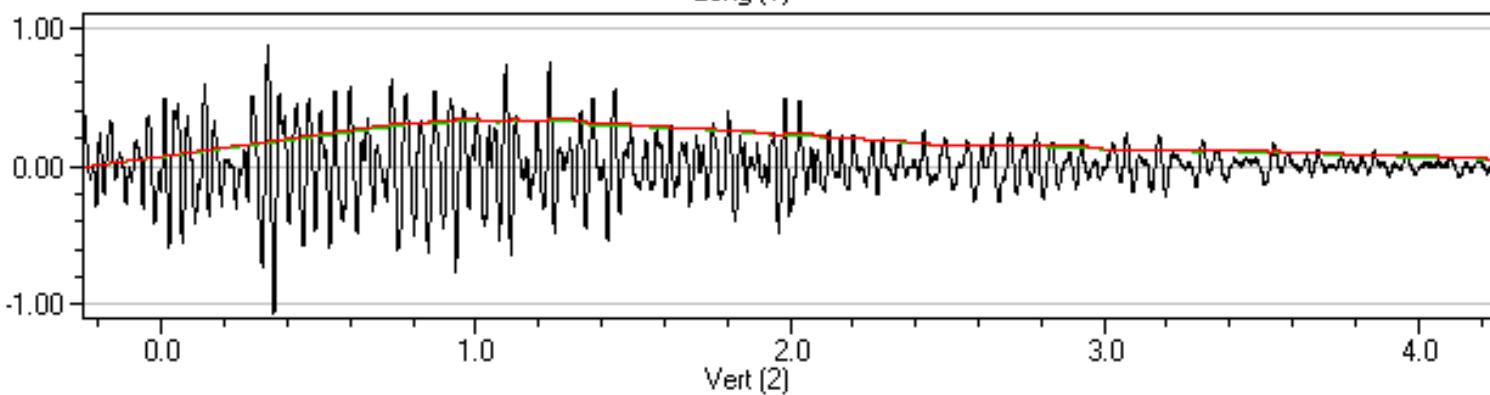
Job Number: 5296

Calibration: March 29, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 1.10 | 0.619 | 1.06 | mm/s |
| ZC Freq | 30 | 28 | 24 | Hz |
| Time of Peak | 0.003 | 0.367 | 0.356 | Sec |
| Peak Acceleration | 0.0215 | 0.0116 | 0.0166 | g |
| Peak Displacement | 0.00608 | 0.00353 | 0.00639 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,36 | 0,19 | 0,33 | 0,52 |
| RMS (1s) | 0,37 | 0,20 | 0,34 | 0,54 |

Long (1)





Event Date: January 5, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 14:33:24

File Name: M618BHK5.RO0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 10.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

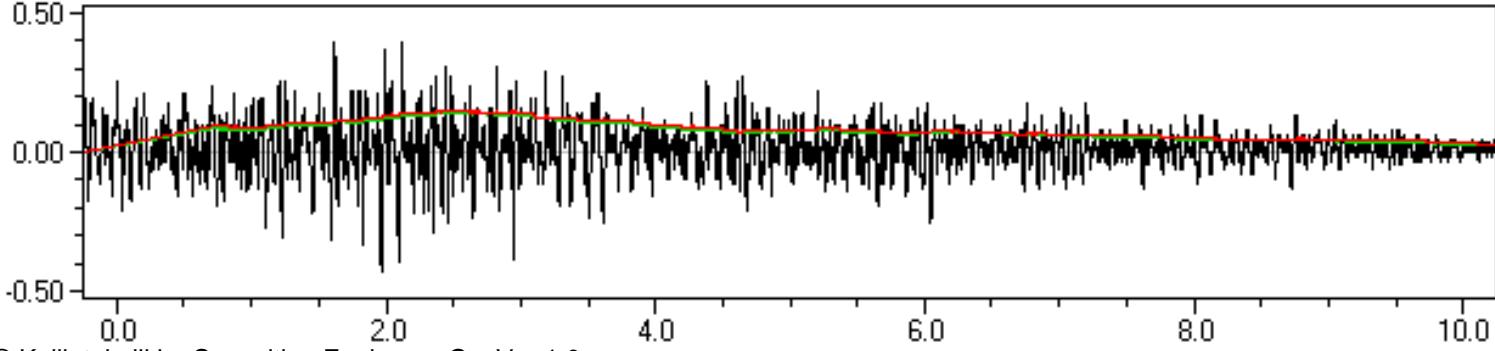
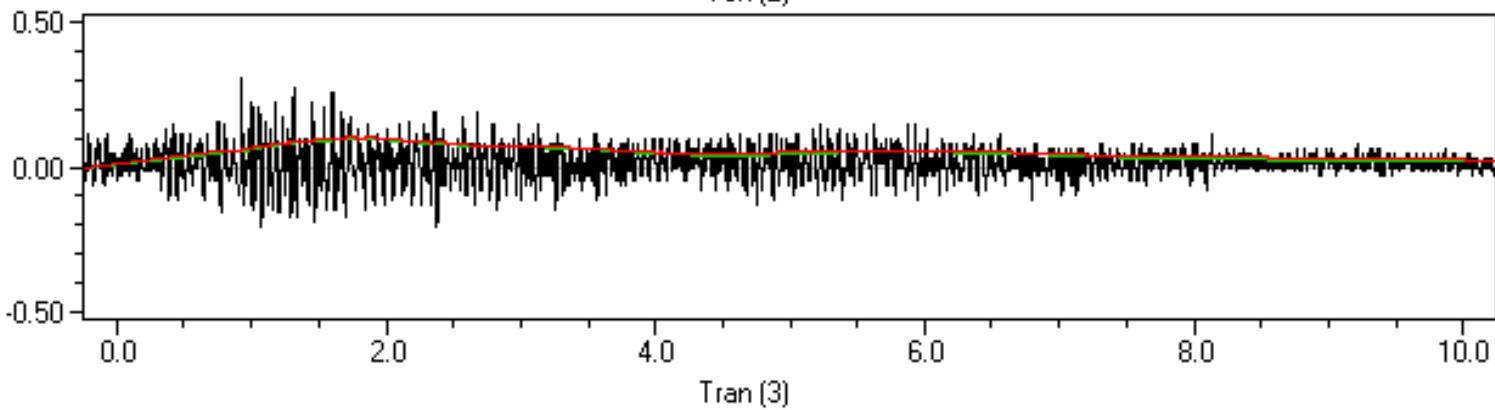
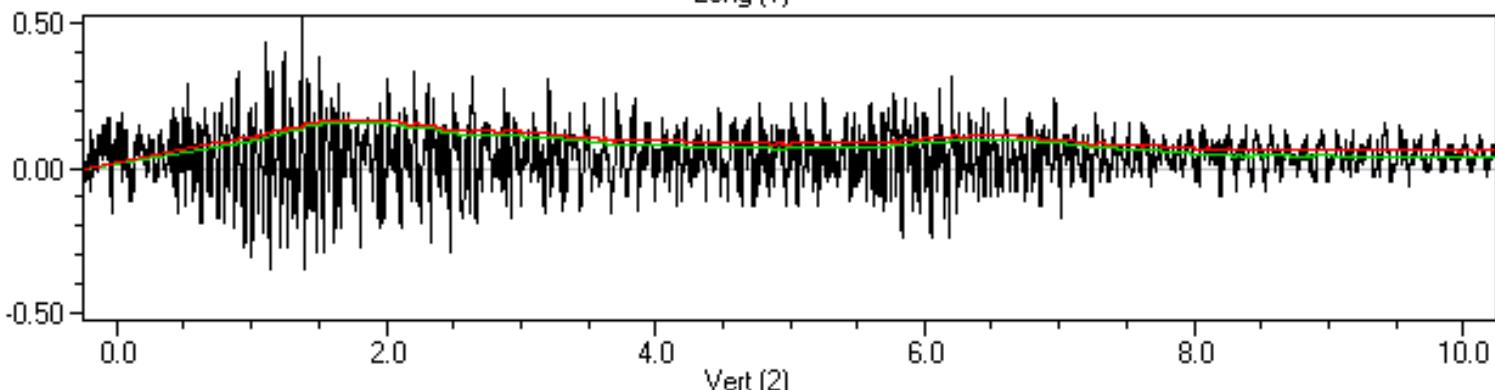
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.429 | 0.302 | 0.524 | mm/s |
| ZC Freq | 17 | 28 | 16 | Hz |
| Time of Peak | 1.964 | 0.926 | 1.373 | Sec |
| Peak Acceleration | 0.00829 | 0.00663 | 0.00829 | g |
| Peak Displacement | 0.00356 | 0.00187 | 0.00409 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,14 | 0,10 | 0,16 | 0,22 |
| RMS (1s) | 0,15 | 0,10 | 0,17 | 0,23 |

Long (1)





Event Date: January 5, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 18:29:11

File Name: M618BHKG.ON0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 11.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

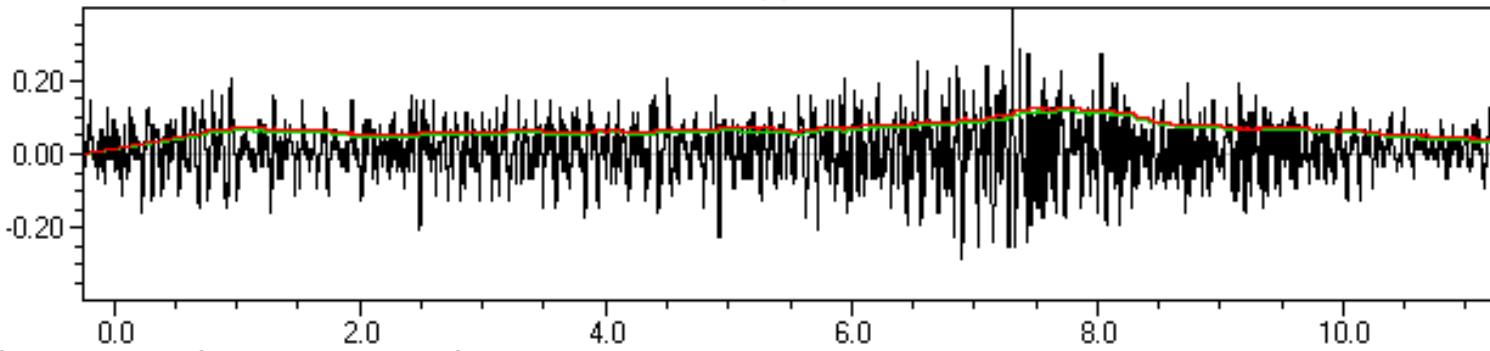
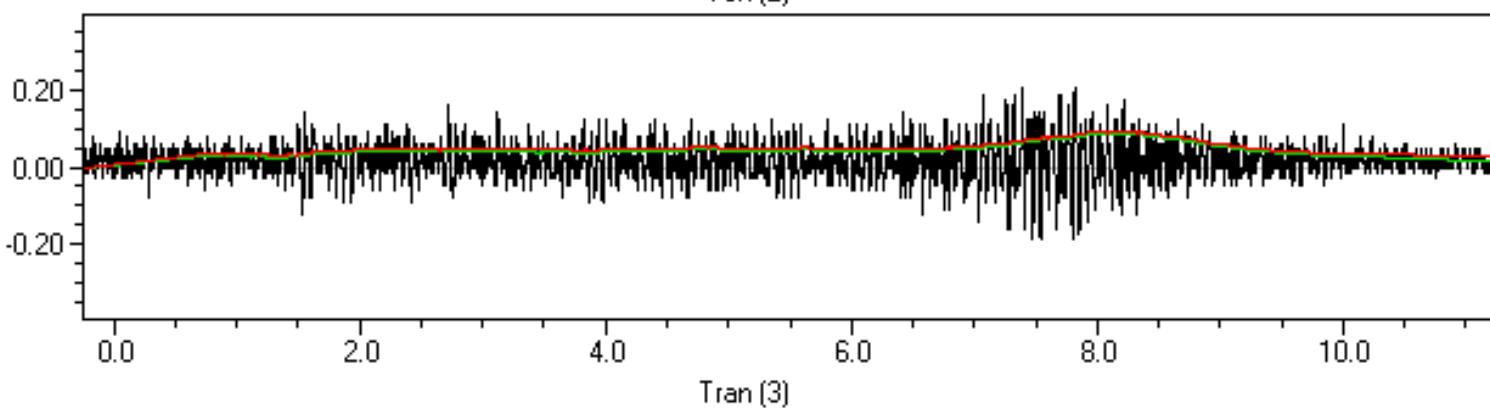
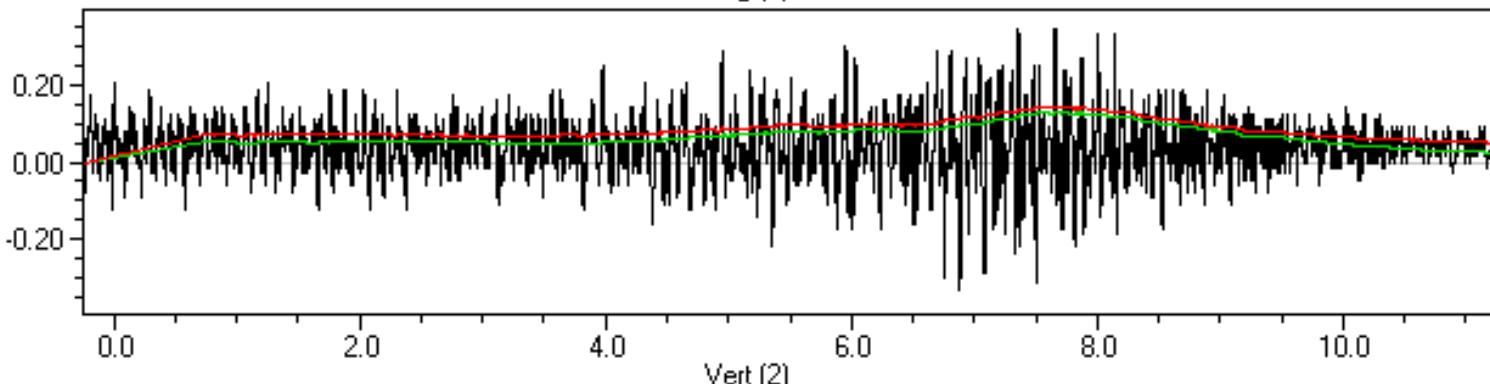
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.397 | 0.206 | 0.349 | mm/s |
| ZC Freq | 22 | 20 | 20 | Hz |
| Time of Peak | 7.307 | 7.389 | 7.359 | Sec |
| Peak Acceleration | 0.00829 | 0.00663 | 0.00829 | g |
| Peak Displacement | 0.00285 | 0.00205 | 0.00419 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,12 | 0,09 | 0,13 | 0,19 |
| RMS (1s) | 0,13 | 0,09 | 0,14 | 0,21 |

Long (1)





Event Date: January 5, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 20:34:27

File Name: M618BHKM.HF0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 10.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

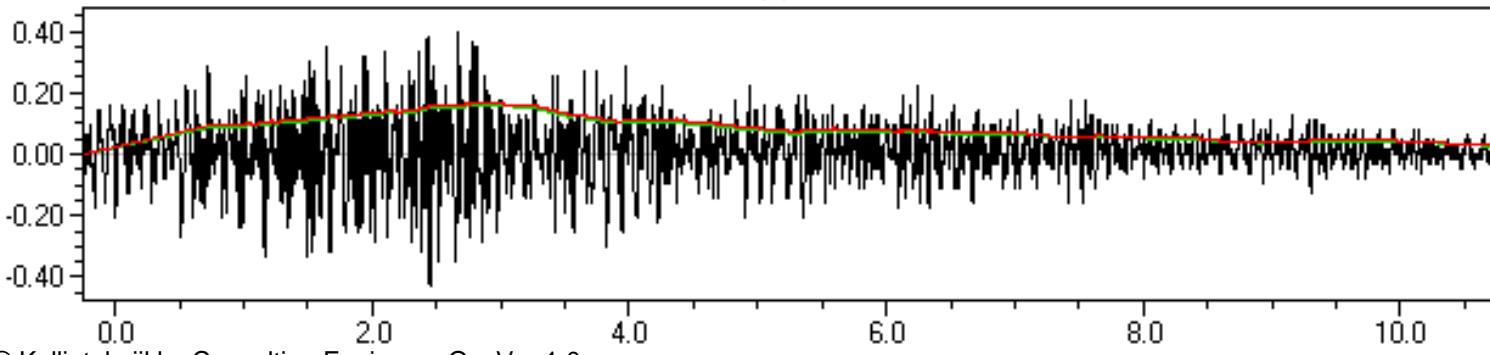
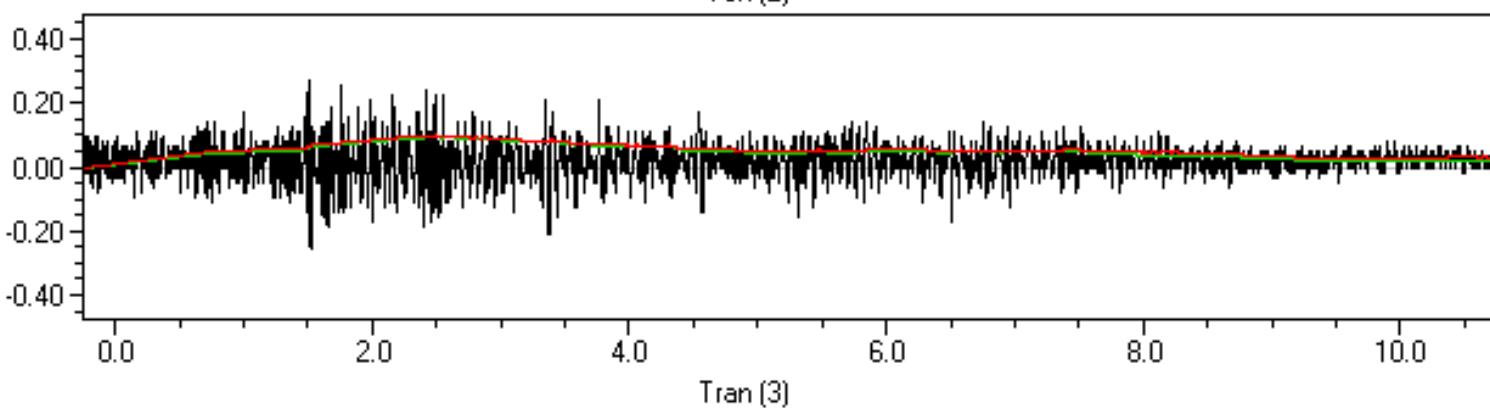
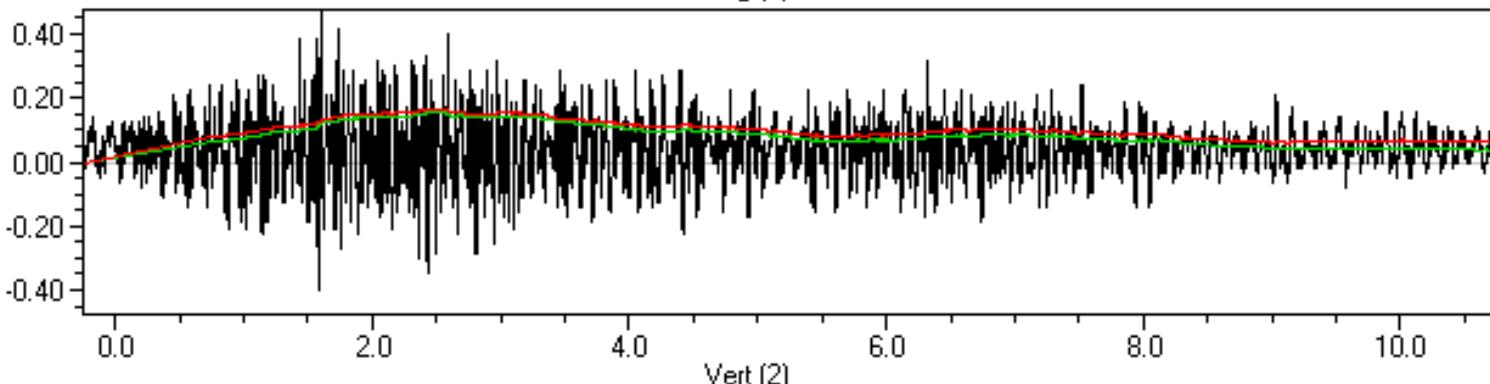
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.429 | 0.270 | 0.476 | mm/s |
| ZC Freq | 32 | 30 | 24 | Hz |
| Time of Peak | 2.447 | 1.503 | 1.601 | Sec |
| Peak Acceleration | 0.00994 | 0.00663 | 0.00994 | g |
| Peak Displacement | 0.00307 | 0.00181 | 0.00355 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,16 | 0,10 | 0,16 | 0,24 |
| RMS (1s) | 0,17 | 0,10 | 0,17 | 0,25 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 06:15:49

File Name: M618BHLD.ED0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 11.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

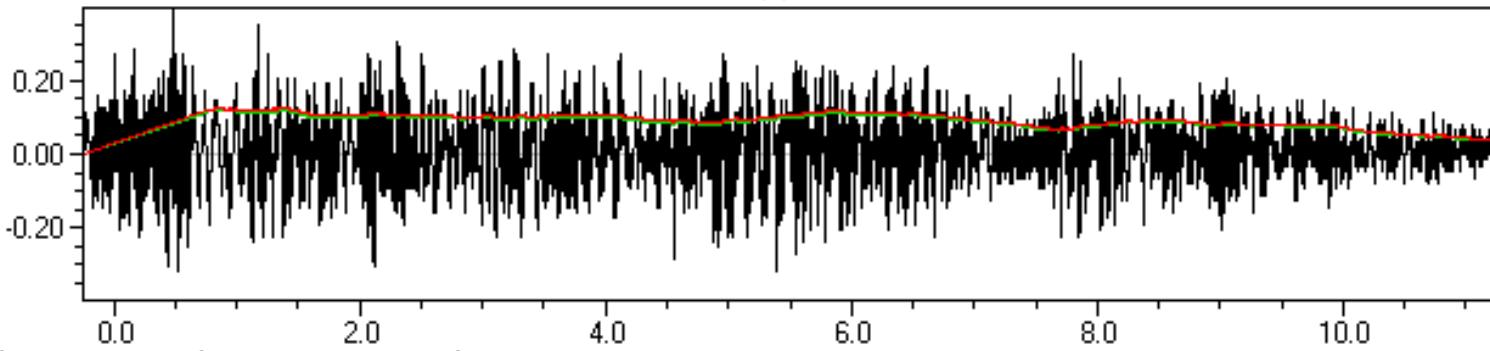
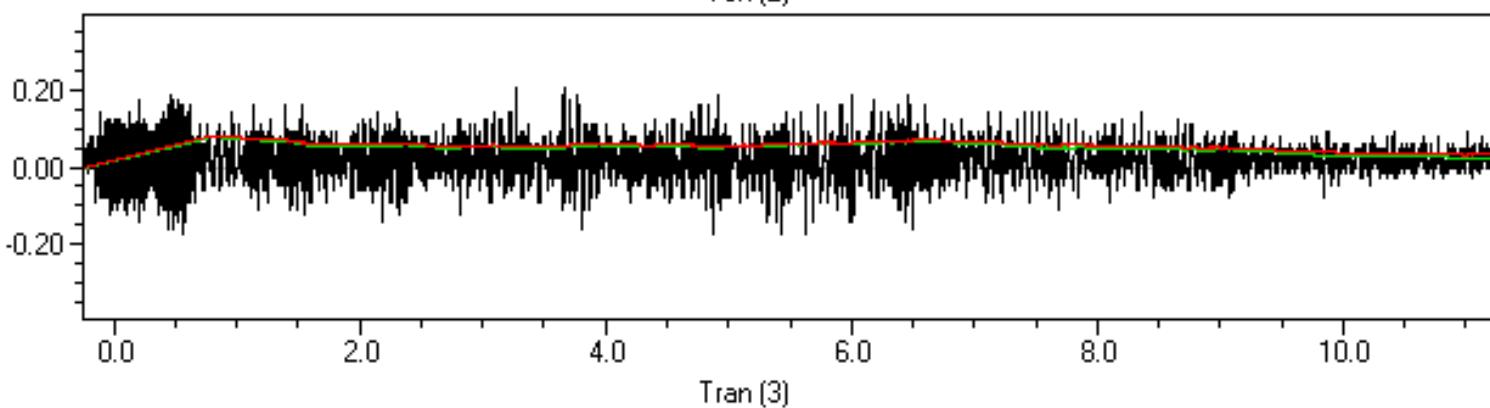
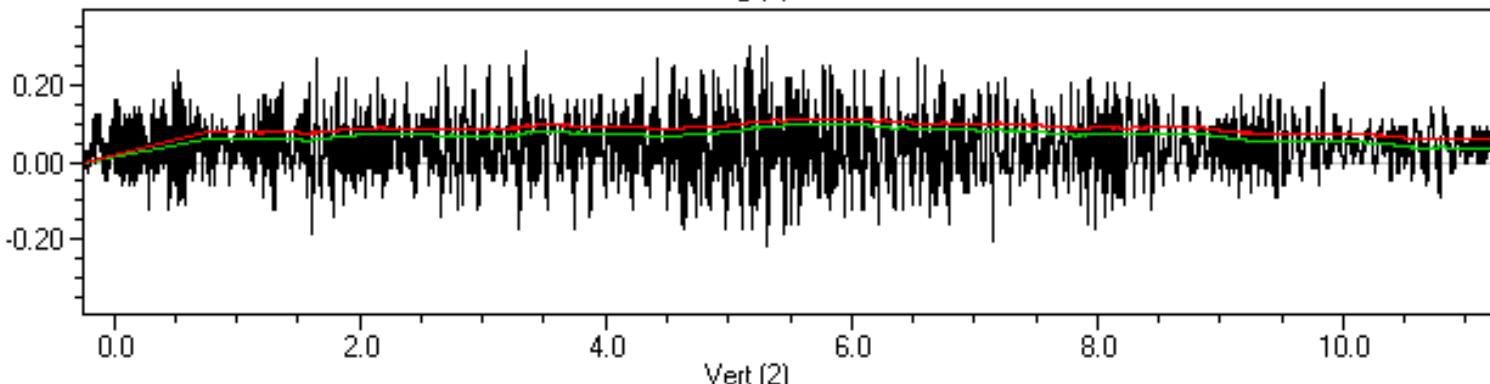
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.397 | 0.206 | 0.302 | mm/s |
| ZC Freq | 27 | 30 | 51 | Hz |
| Time of Peak | 0.476 | 3.277 | 5.178 | Sec |
| Peak Acceleration | 0.00994 | 0.00829 | 0.0133 | g |
| Peak Displacement | 0.00257 | 0.00140 | 0.00312 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,12 | 0,08 | 0,10 | 0,16 |
| RMS (1s) | 0,12 | 0,08 | 0,11 | 0,18 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 09:02:35

File Name: M618BHLL.4B0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 14.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

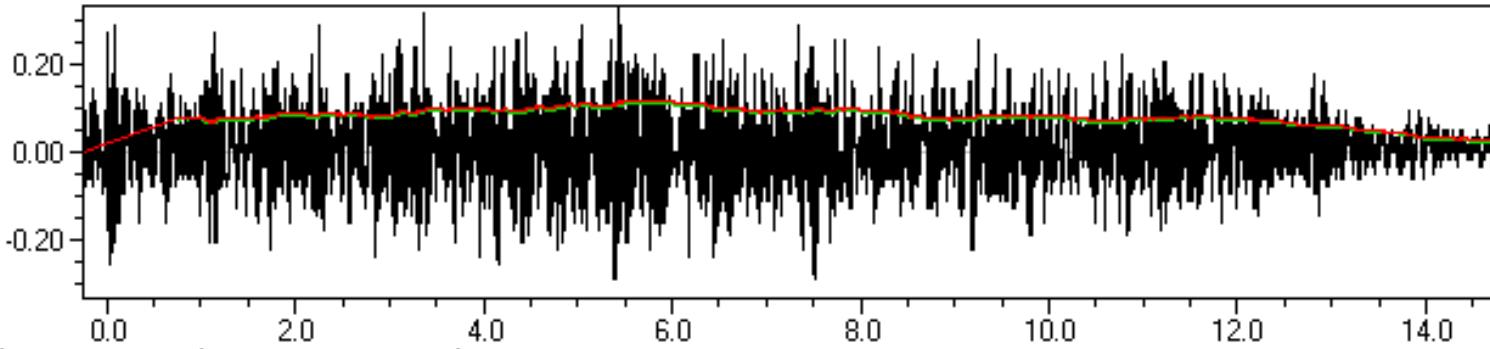
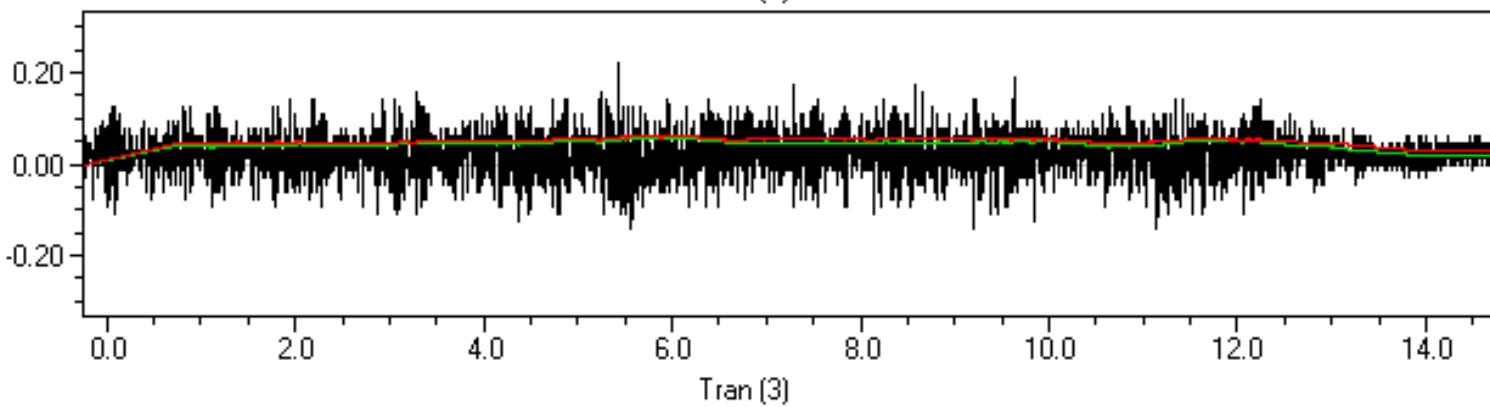
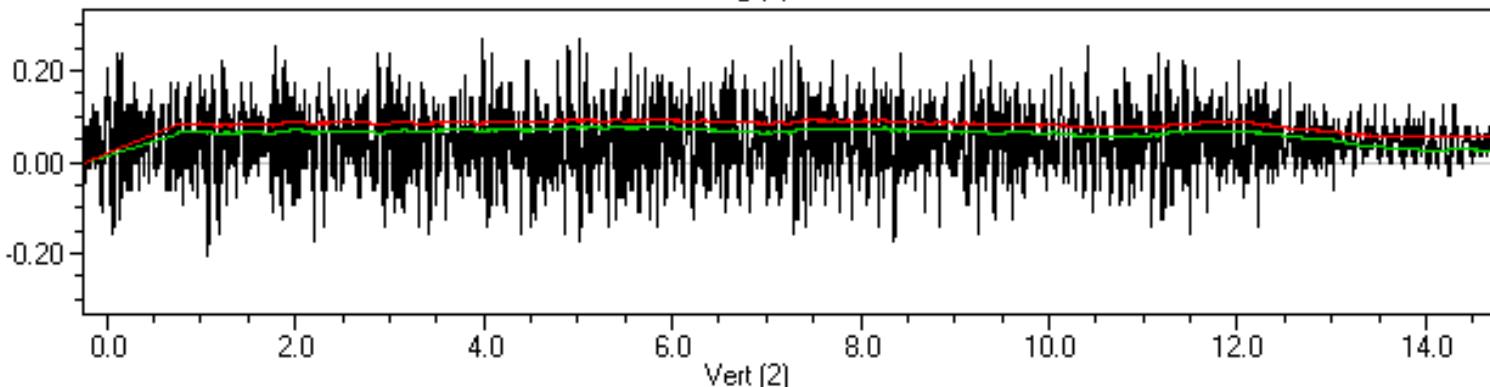
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.333 | 0.222 | 0.270 | mm/s |
| ZC Freq | 30 | 30 | 22 | Hz |
| Time of Peak | 5.436 | 5.426 | 3.982 | Sec |
| Peak Acceleration | 0.00829 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00206 | 0.00152 | 0.00395 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,11 | 0,06 | 0,08 | 0,15 |
| RMS (1s) | 0,12 | 0,06 | 0,09 | 0,16 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 09:31:08

File Name: M618BHL.M.FW0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 8.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

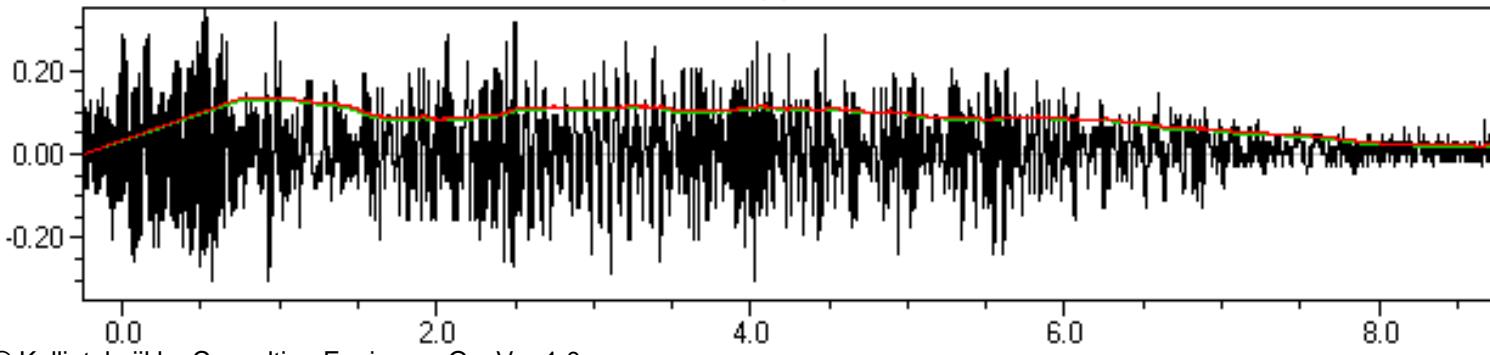
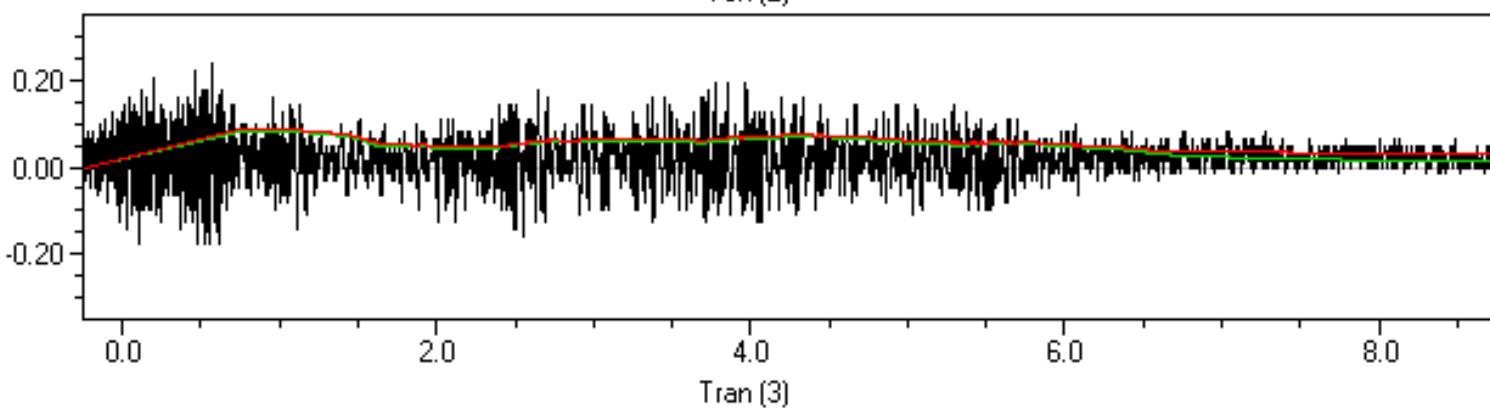
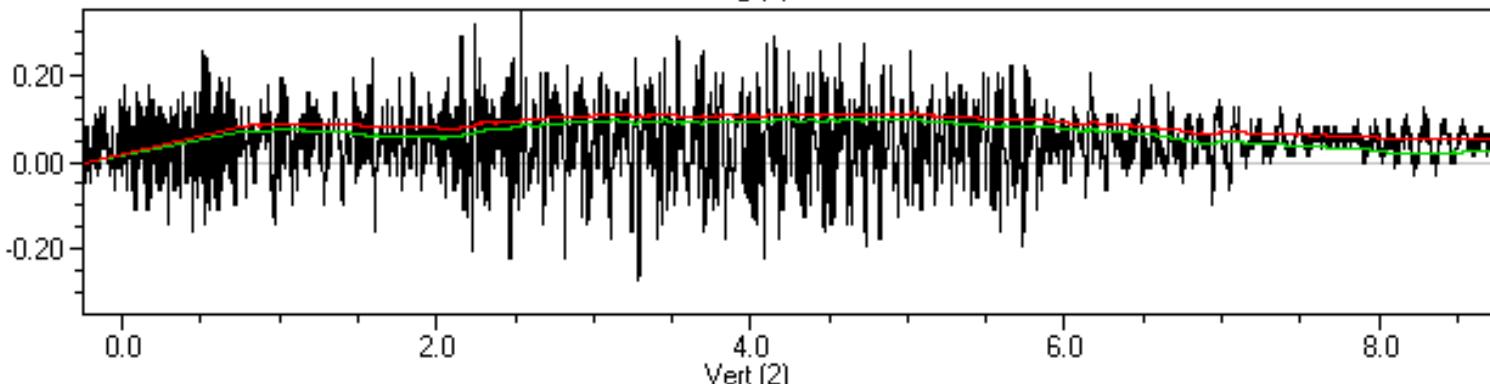
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.349 | 0.238 | 0.349 | mm/s |
| ZC Freq | 34 | 30 | 24 | Hz |
| Time of Peak | 0.529 | 0.569 | 2.536 | Sec |
| Peak Acceleration | 0.00829 | 0.00829 | 0.00829 | g |
| Peak Displacement | 0.00217 | 0.00122 | 0.00907 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,13 | 0,08 | 0,10 | 0,17 |
| RMS (1s) | 0,14 | 0,09 | 0,11 | 0,18 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 10:35:19

File Name: M618BHL.P.EV0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 11.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

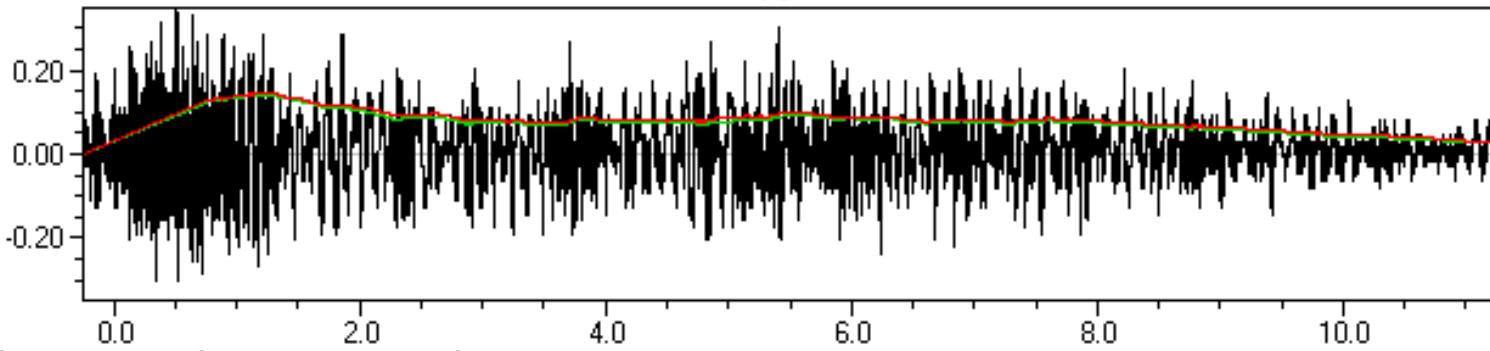
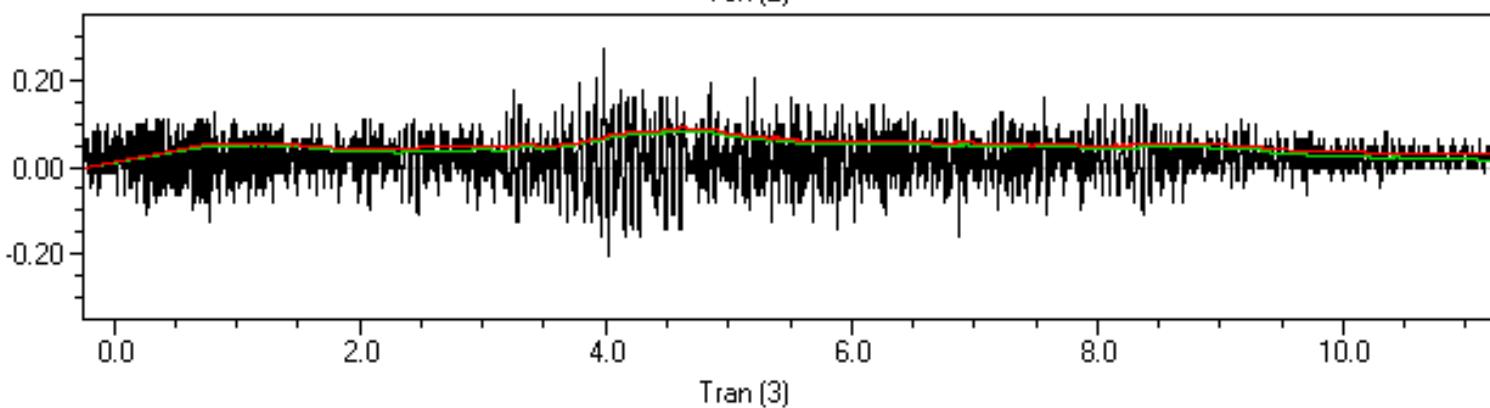
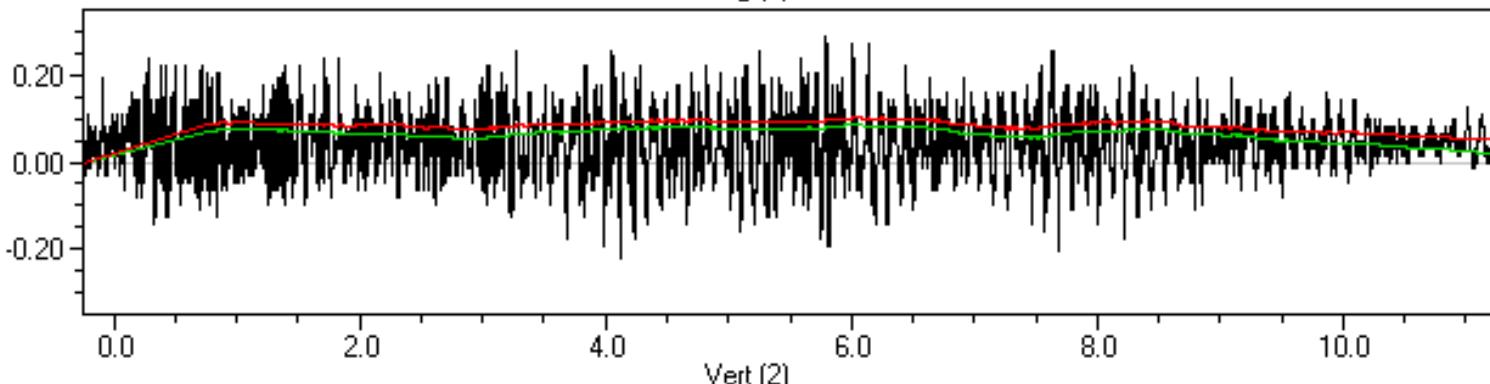
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.349 | 0.270 | 0.286 | mm/s |
| ZC Freq | 30 | 14 | 15 | Hz |
| Time of Peak | 0.511 | 3.979 | 5.793 | Sec |
| Peak Acceleration | 0.00829 | 0.00829 | 0.00829 | g |
| Peak Displacement | 0.00288 | 0.00222 | 0.00371 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,14 | 0,08 | 0,09 | 0,17 |
| RMS (1s) | 0,15 | 0,09 | 0,10 | 0,18 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 12:30:34

File Name: M618BHLU.QY0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

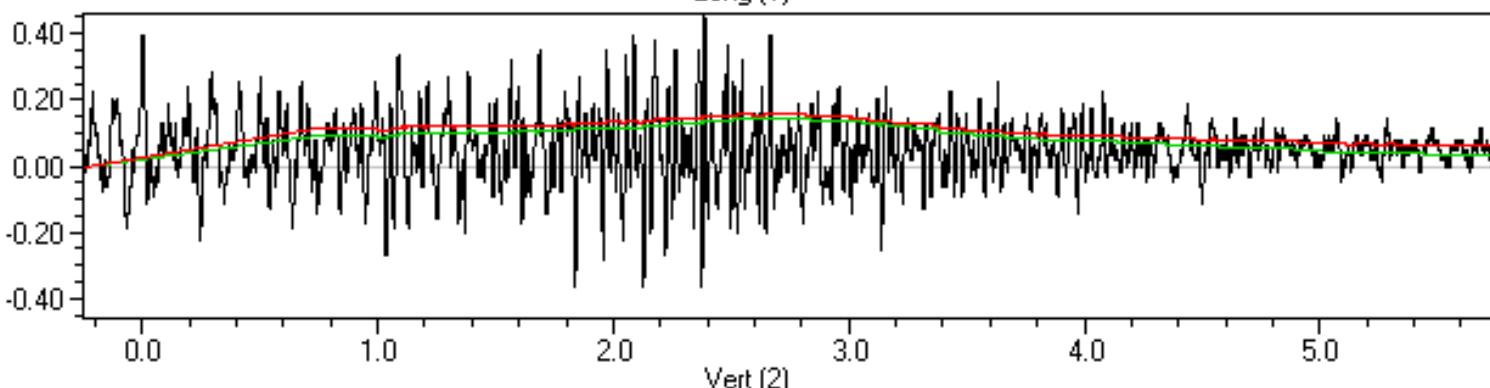
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

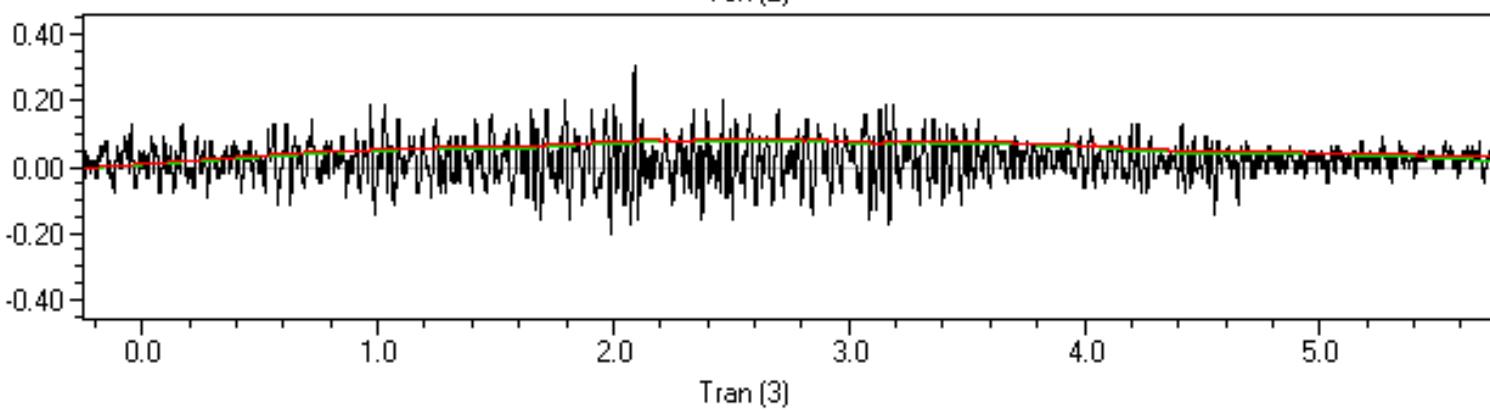
Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.444 | 0.302 | 0.460 | mm/s |
| ZC Freq | 27 | 30 | 37 | Hz |
| Time of Peak | 1.927 | 2.090 | 2.387 | Sec |
| Peak Acceleration | 0.00994 | 0.00663 | 0.0116 | g |
| Peak Displacement | 0.00267 | 0.00163 | 0.00447 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,16 | 0,08 | 0,15 | 0,23 |
| RMS (1s) | 0,16 | 0,09 | 0,16 | 0,24 |

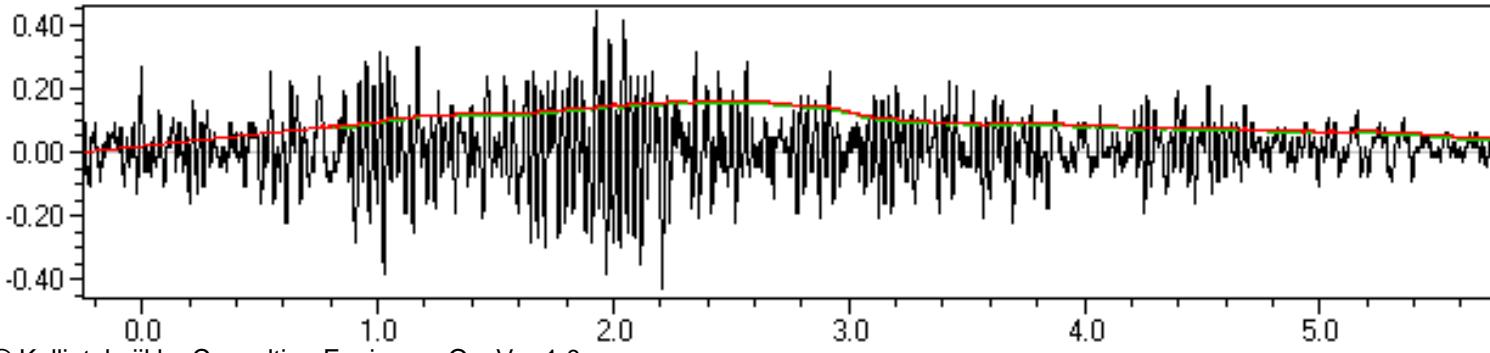
Long (1)



Vert (2)



Tran (3)





Event Date: January 6, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 18:33:14

File Name: M618BHMB.JE0

Location: Kirkkonummi Liikennetarina

Trigger: Vert

Client: SITO

Record Time: 4.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

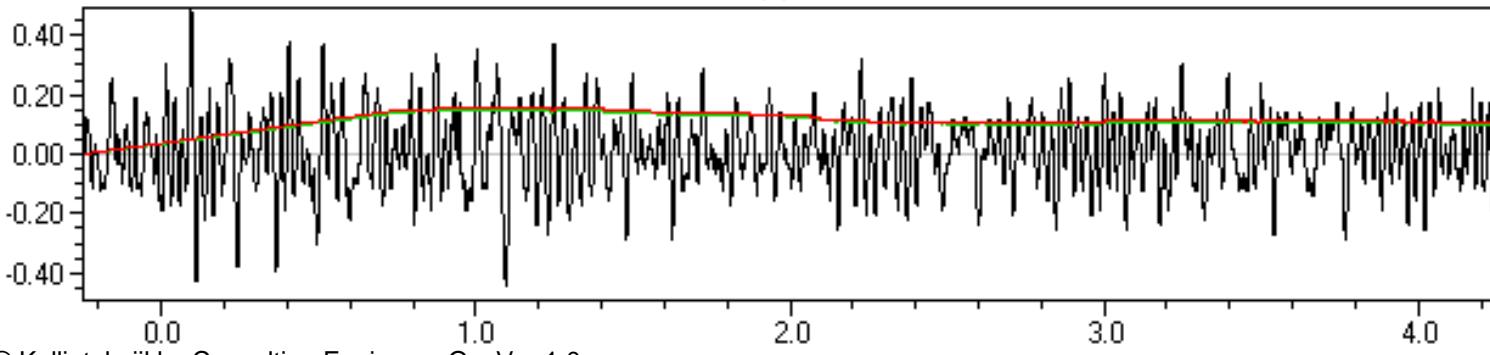
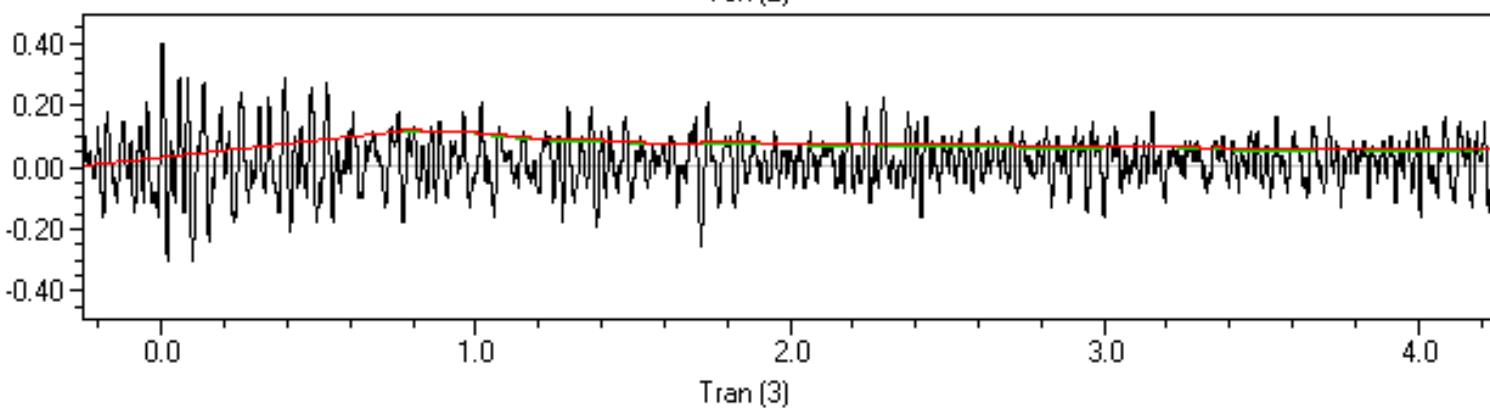
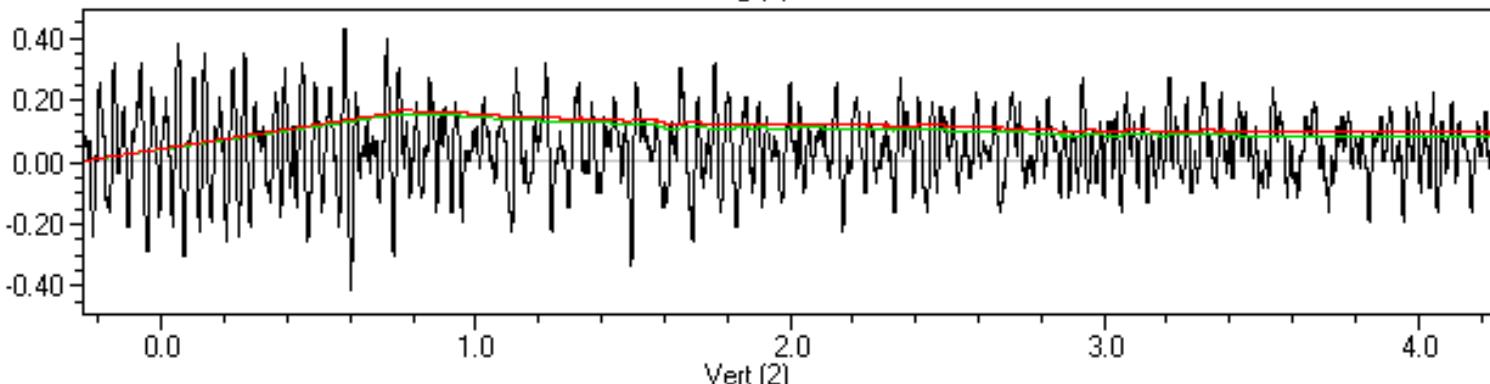
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.492 | 0.397 | 0.429 | mm/s |
| ZC Freq | 26 | 28 | 22 | Hz |
| Time of Peak | 0.093 | 0.000 | 0.580 | Sec |
| Peak Acceleration | 0.00994 | 0.00829 | 0.00994 | g |
| Peak Displacement | 0.00330 | 0.00224 | 0.00348 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,15 | 0,11 | 0,16 | 0,24 |
| RMS (1s) | 0,16 | 0,12 | 0,17 | 0,25 |

Long (1)





Event Date: January 7, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 17:42:04

File Name: M618BHO3.U40

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

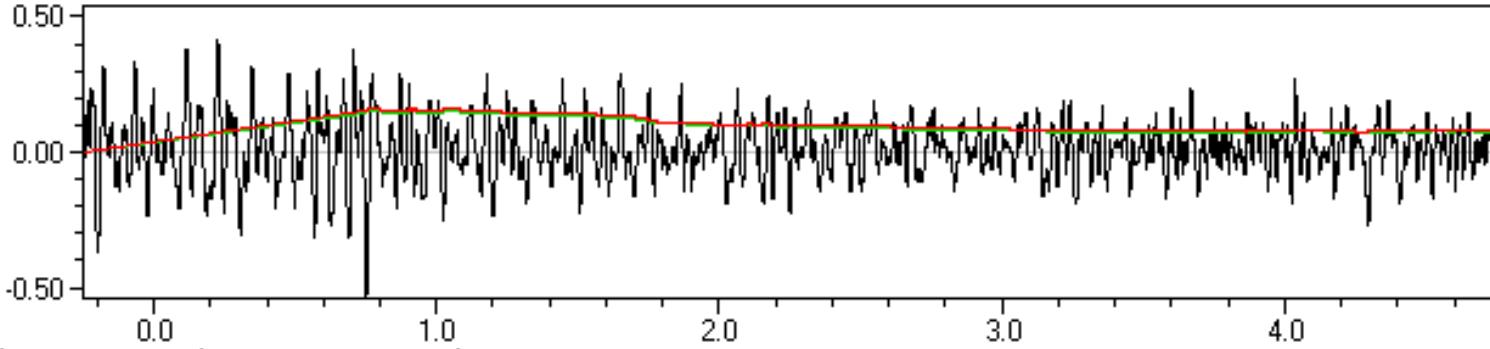
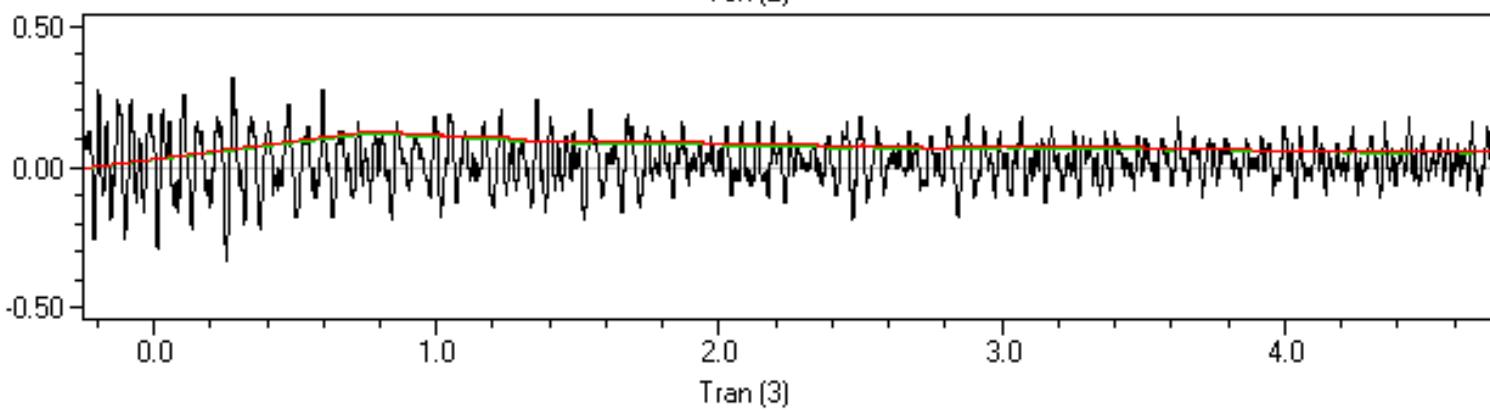
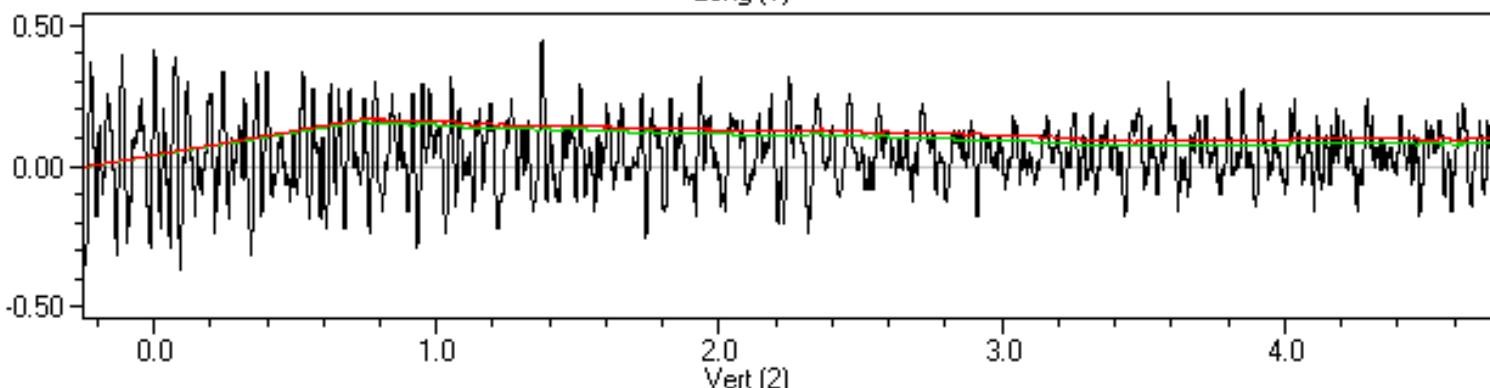
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.540 | 0.333 | 0.444 | mm/s |
| ZC Freq | 23 | 21 | 20 | Hz |
| Time of Peak | 0.751 | 0.256 | 1.372 | Sec |
| Peak Acceleration | 0.00994 | 0.00994 | 0.00994 | g |
| Peak Displacement | 0.00345 | 0.00249 | 0.00450 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,15 | 0,12 | 0,16 | 0,25 |
| RMS (1s) | 0,16 | 0,13 | 0,17 | 0,26 |

Long (1)





Event Date: January 7, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 21:28:22

File Name: M618BHOE.BA0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

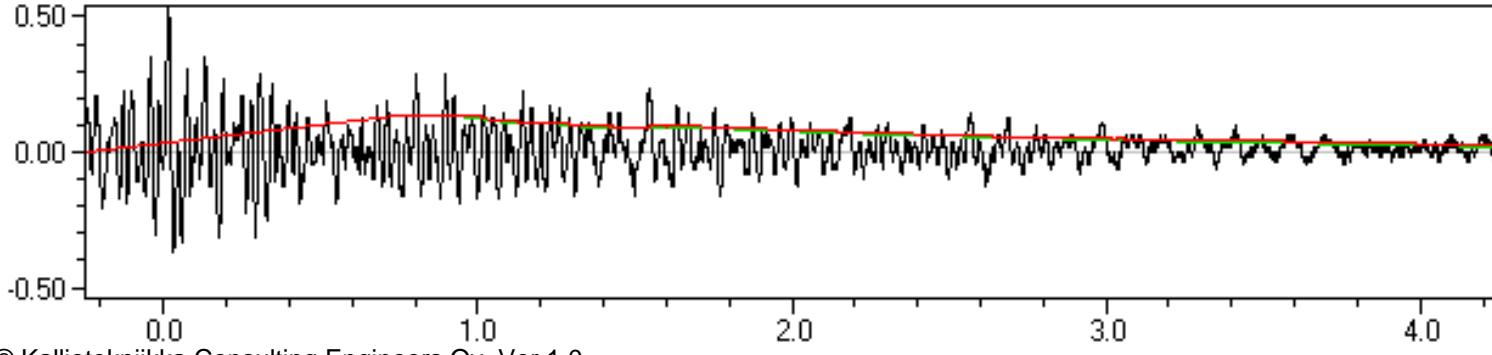
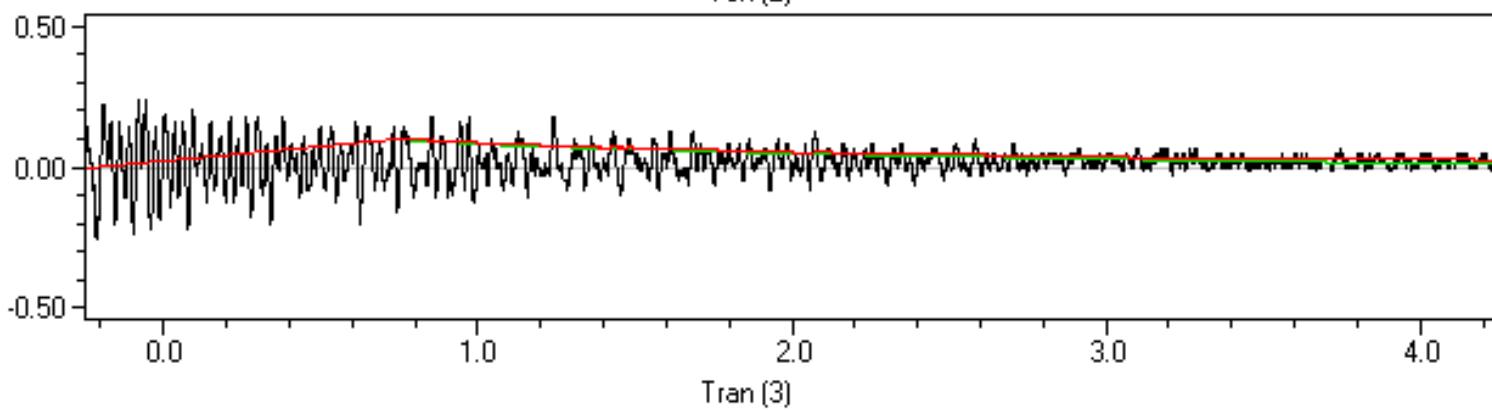
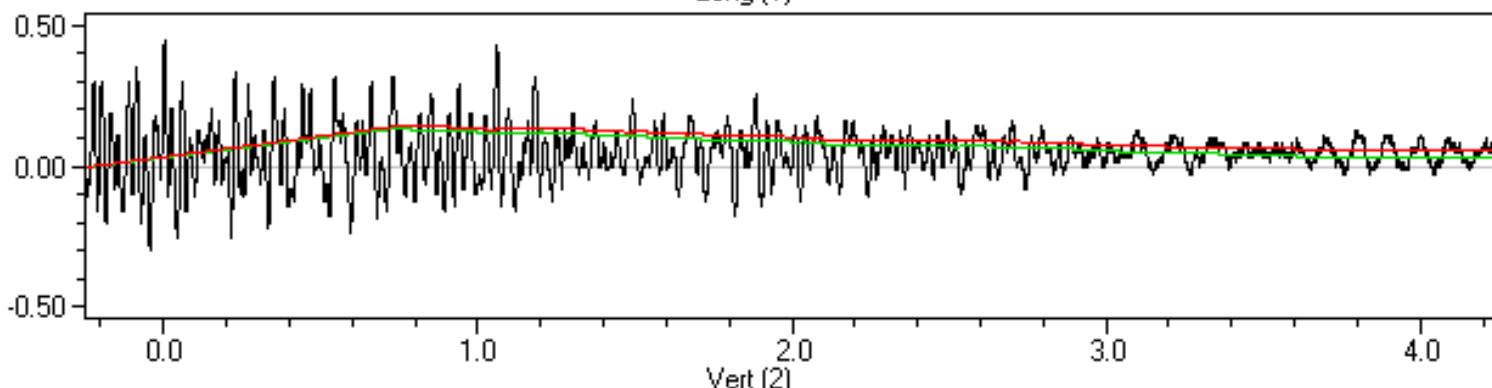
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.540 | 0.254 | 0.444 | mm/s |
| ZC Freq | 23 | 19 | 28 | Hz |
| Time of Peak | 0.013 | -0.216 | 0.001 | Sec |
| Peak Acceleration | 0.0116 | 0.00829 | 0.00829 | g |
| Peak Displacement | 0.00334 | 0.00196 | 0.00367 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,13 | 0,10 | 0,13 | 0,21 |
| RMS (1s) | 0,14 | 0,10 | 0,14 | 0,22 |

Long (1)





Event Date: January 8, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 17:52:51

File Name: M618BHPZ.030

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

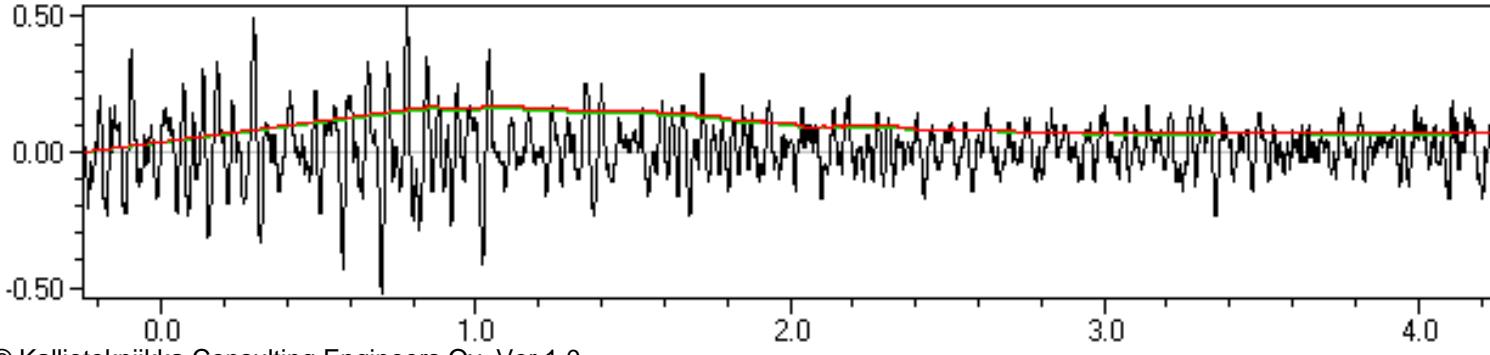
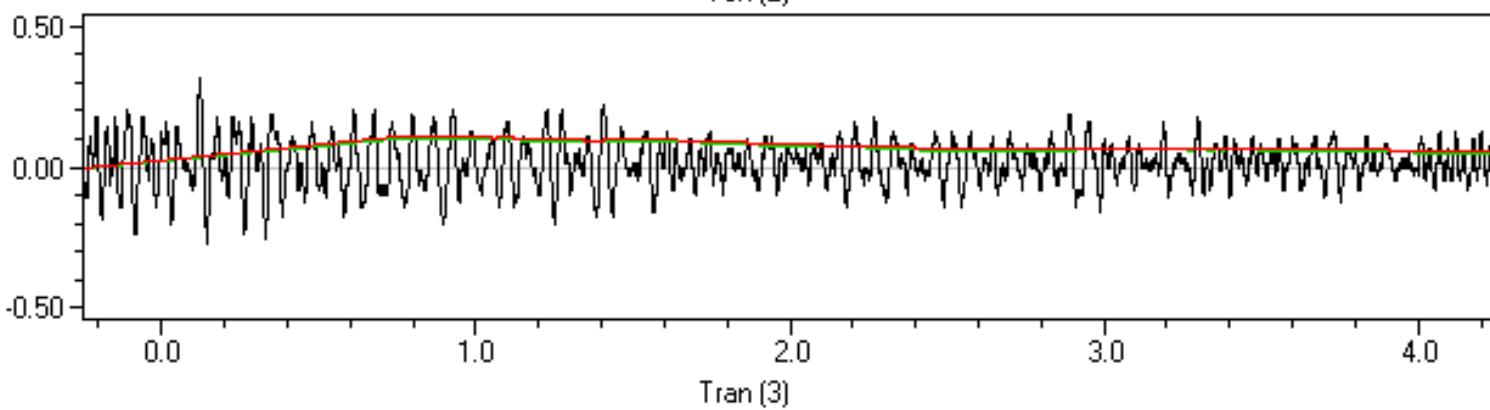
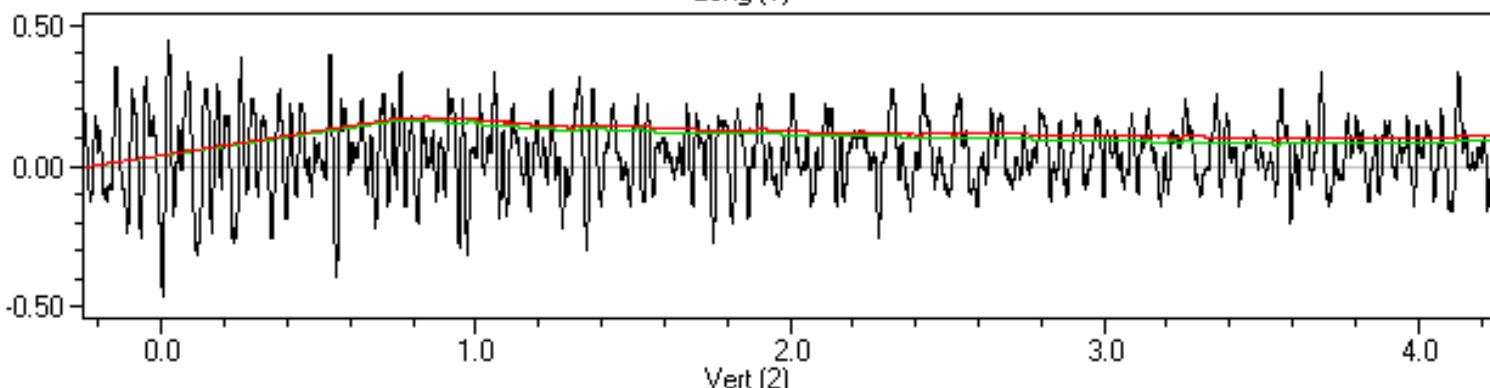
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.540 | 0.317 | 0.460 | mm/s |
| ZC Freq | 22 | 21 | 19 | Hz |
| Time of Peak | 0.779 | 0.122 | 0.002 | Sec |
| Peak Acceleration | 0.0116 | 0.00663 | 0.0116 | g |
| Peak Displacement | 0.00369 | 0.00243 | 0.00437 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,16 | 0,10 | 0,16 | 0,25 |
| RMS (1s) | 0,17 | 0,11 | 0,17 | 0,26 |

Long (1)





Event Date: January 9, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 14:33:00

File Name: M618BHRK.F00

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 6.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

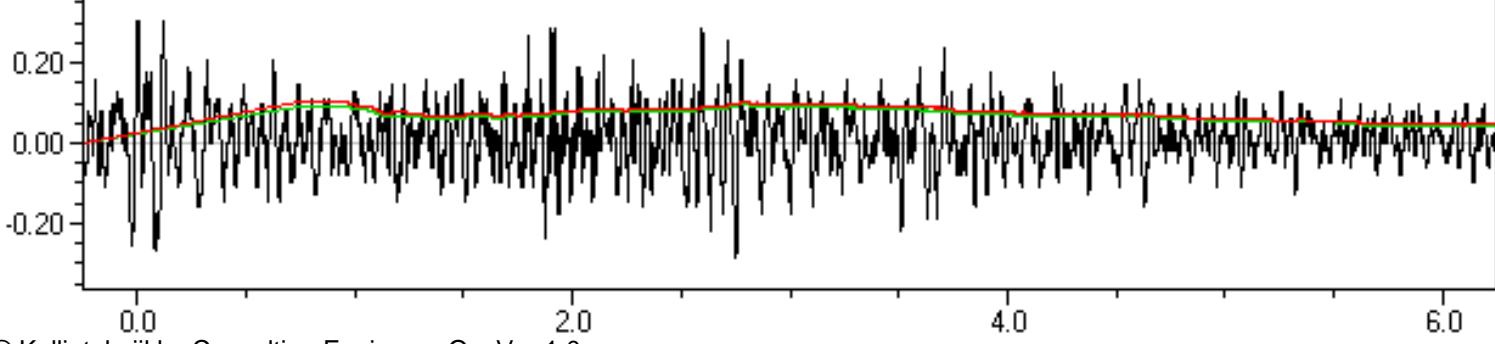
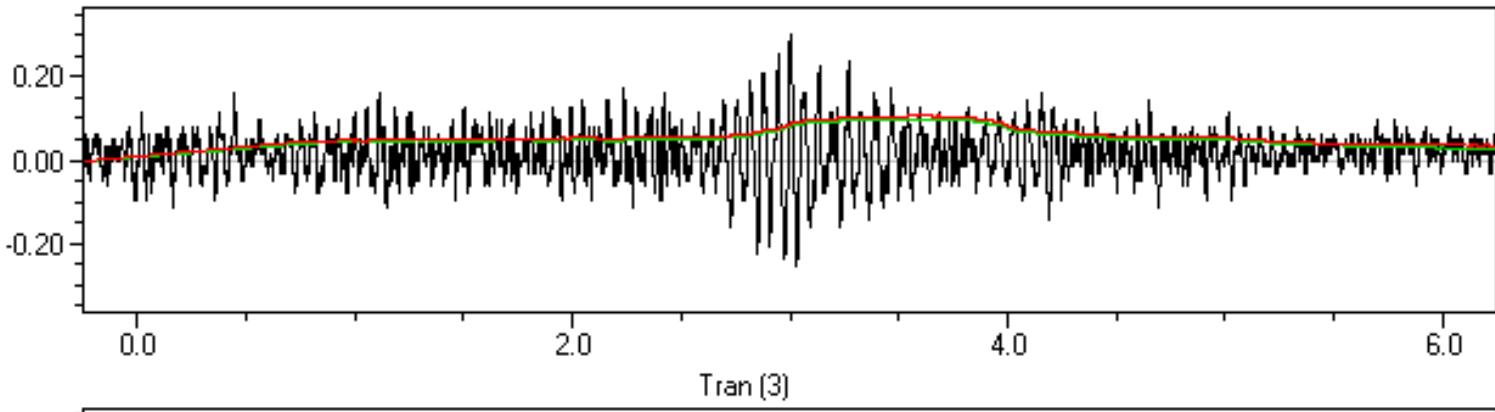
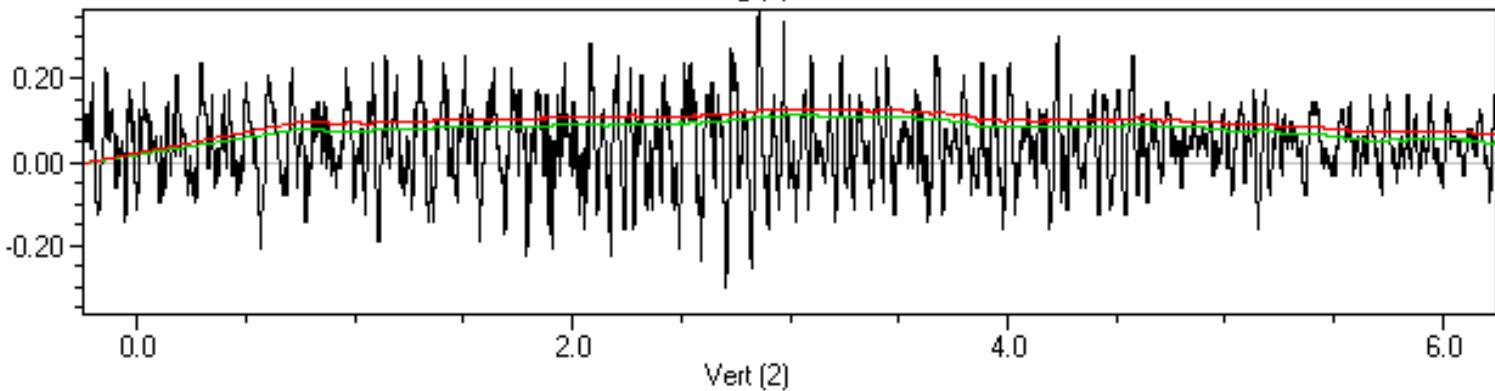
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.302 | 0.302 | 0.365 | mm/s |
| ZC Freq | 18 | 18 | 12 | Hz |
| Time of Peak | 0.000 | 3.000 | 2.856 | Sec |
| Peak Acceleration | 0.00829 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00345 | 0.00266 | 0.00491 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,10 | 0,10 | 0,11 | 0,17 |
| RMS (1s) | 0,10 | 0,11 | 0,13 | 0,19 |

Long (1)





Event Date: January 10, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 05:39:12

File Name: M618BHSQ.DC0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

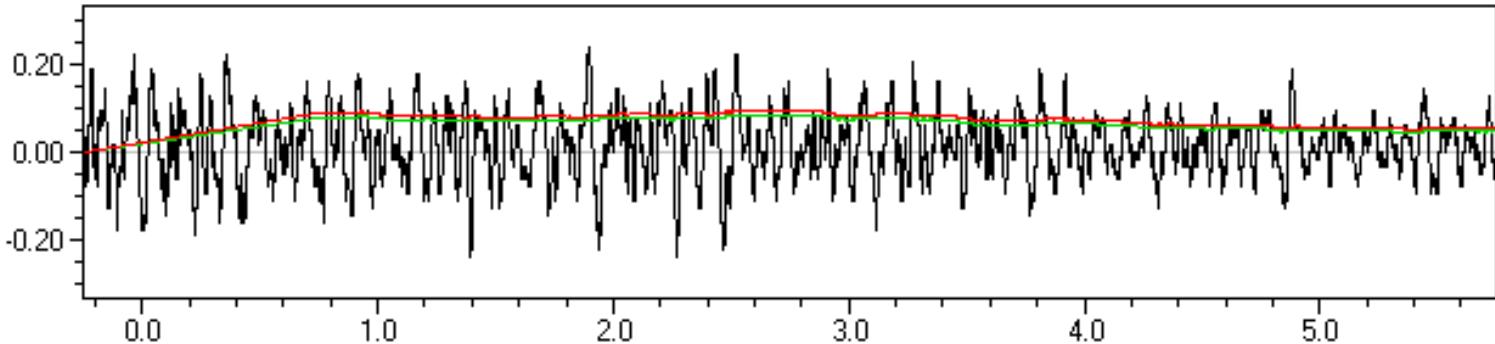
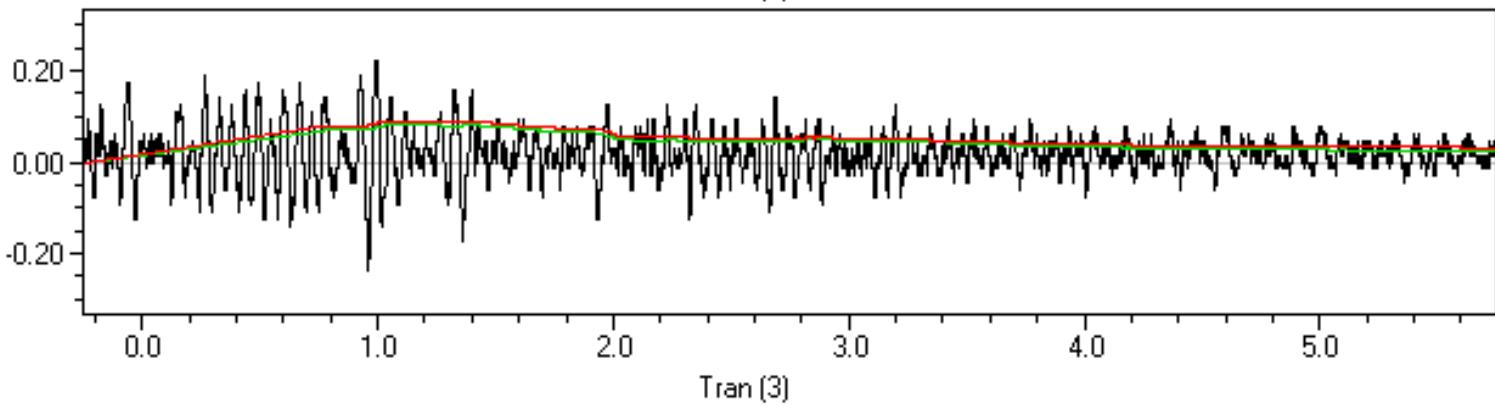
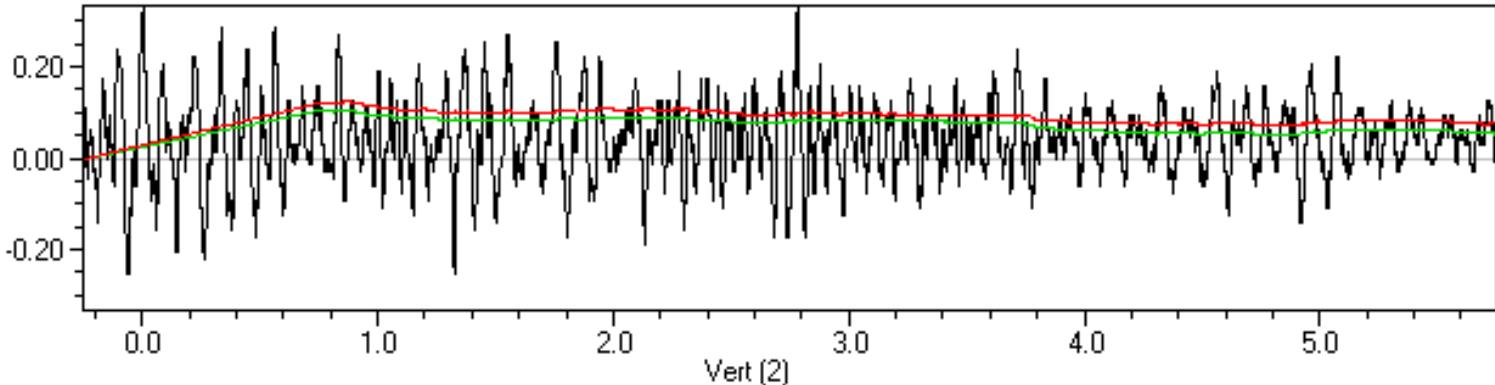
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.238 | 0.238 | 0.333 | mm/s |
| ZC Freq | 22 | 17 | 11 | Hz |
| Time of Peak | 1.395 | 0.959 | 0.003 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00331 | 0.00250 | 0.00445 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,08 | 0,08 | 0,10 | 0,15 |
| RMS (1s) | 0,10 | 0,09 | 0,12 | 0,17 |

Long (1)





Event Date: January 10, 2007

Serial Number: BE11618, V 8.01-8.0 MiniMate Plus

Event Time: 06:14:49

File Name: M618BHSS.0P0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

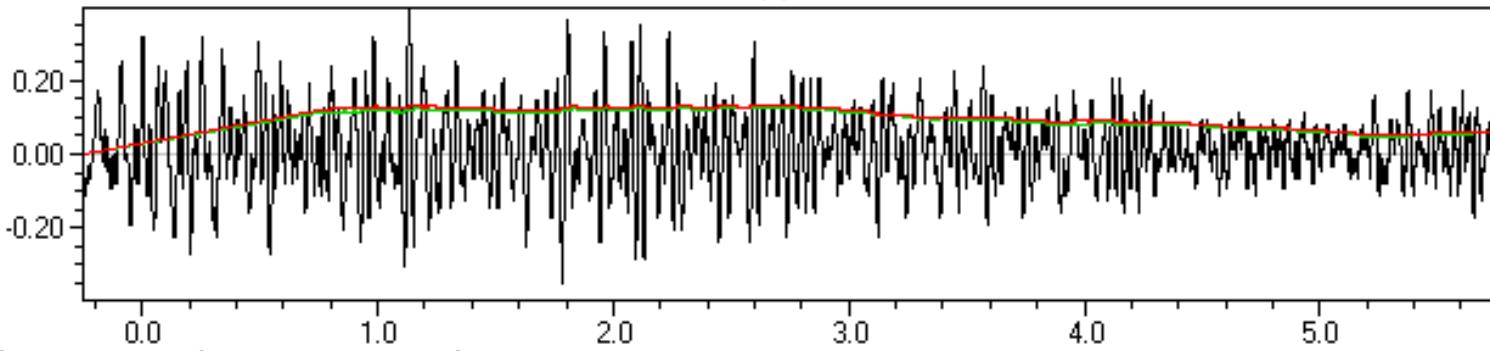
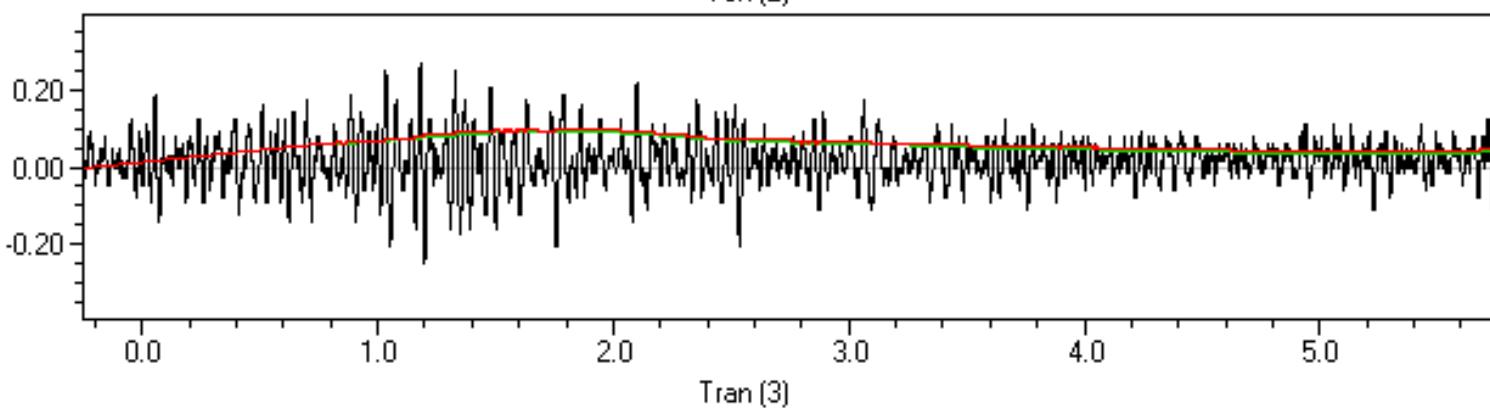
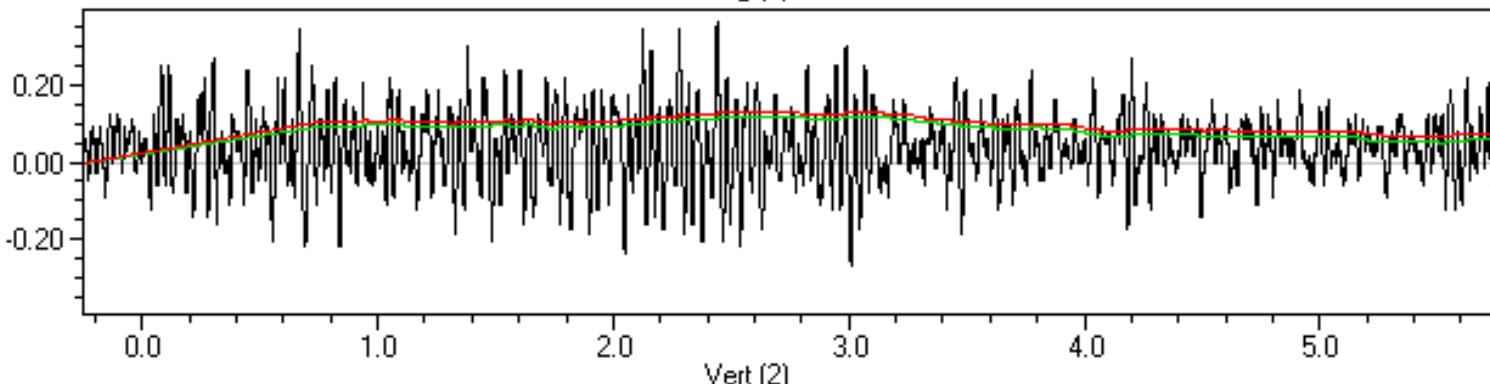
Job Number: 5296

Calibration: September 8, 2006 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.397 | 0.270 | 0.365 | mm/s |
| ZC Freq | 22 | 24 | 17 | Hz |
| Time of Peak | 1.132 | 1.180 | 2.439 | Sec |
| Peak Acceleration | 0.00829 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00329 | 0.00181 | 0.00310 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,13 | 0,10 | 0,12 | 0,19 |
| RMS (1s) | 0,13 | 0,10 | 0,13 | 0,20 |

Long (1)





Event Date: January 5, 2007

Event Time: 14:34:50

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHK5.U20

Trigger: Tran

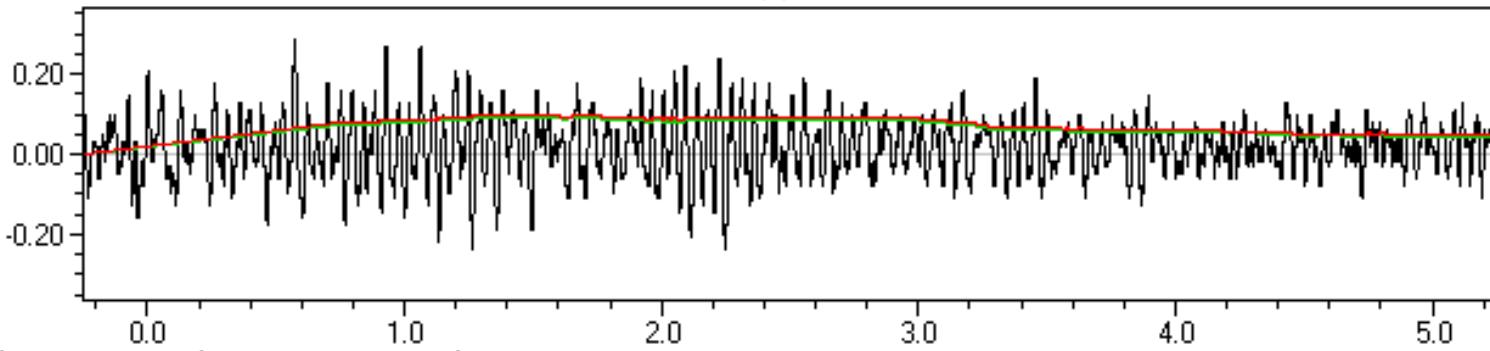
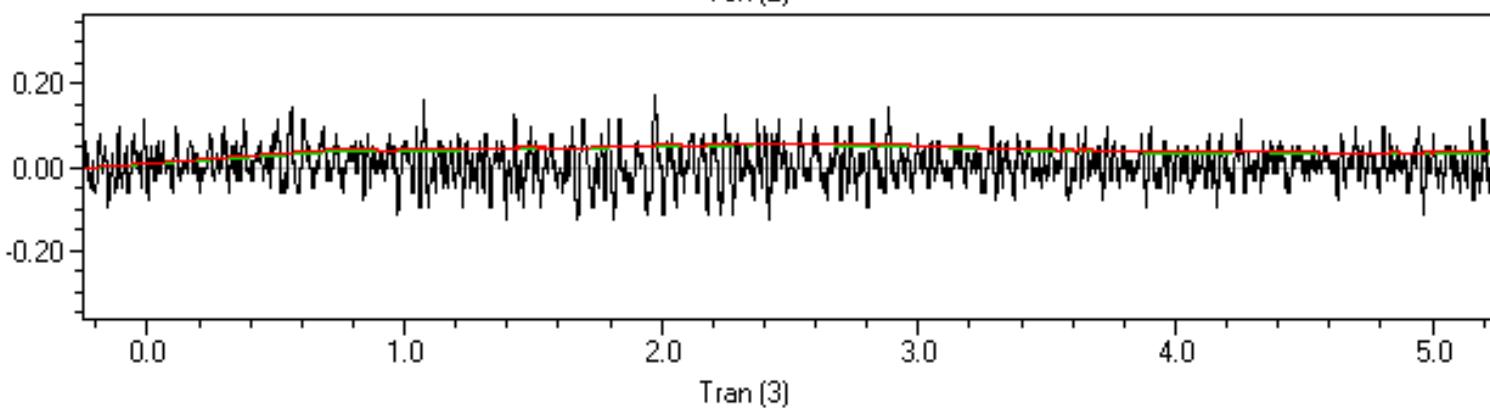
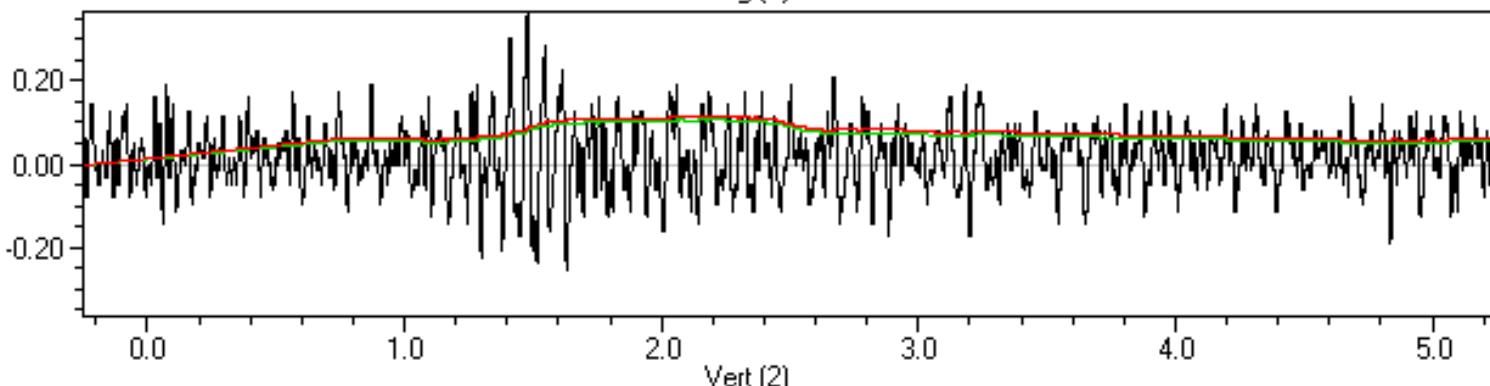
Record Time: 5.25 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.286 | 0.175 | 0.365 | mm/s |
| ZC Freq | 21 | 22 | 18 | Hz |
| Time of Peak | 0.572 | 1.975 | 1.478 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00198 | 0.00109 | 0.00305 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,09 | 0,05 | 0,11 | 0,15 |
| RMS (1s) | 0,10 | 0,06 | 0,11 | 0,16 |

Long (1)





Event Date: January 5, 2007

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

Event Time: 18:30:43

File Name: H081BHKG.R70

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 4.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

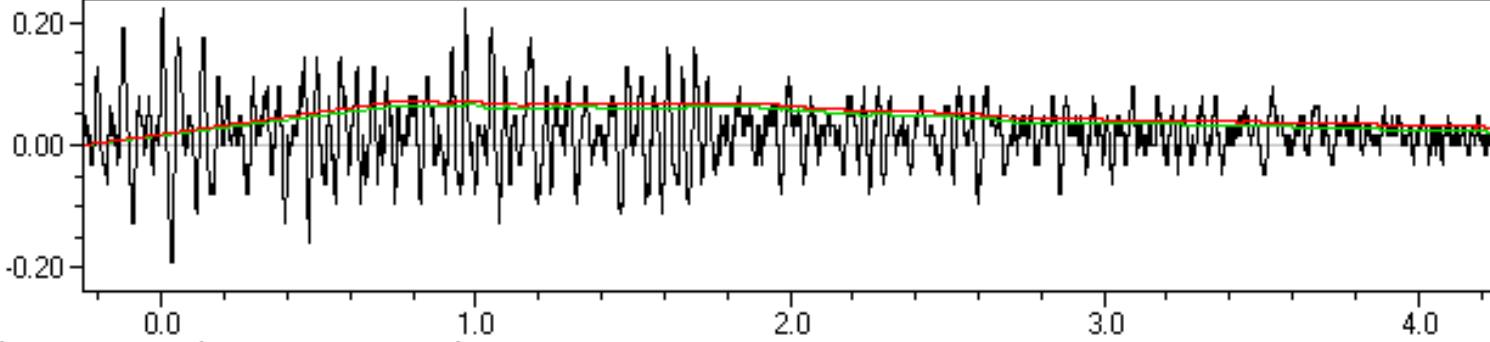
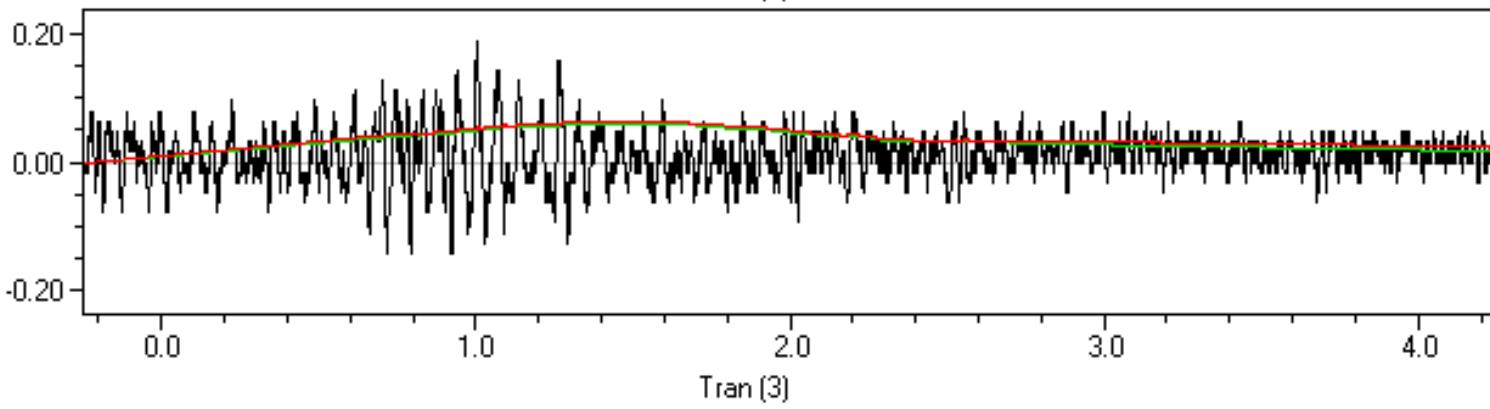
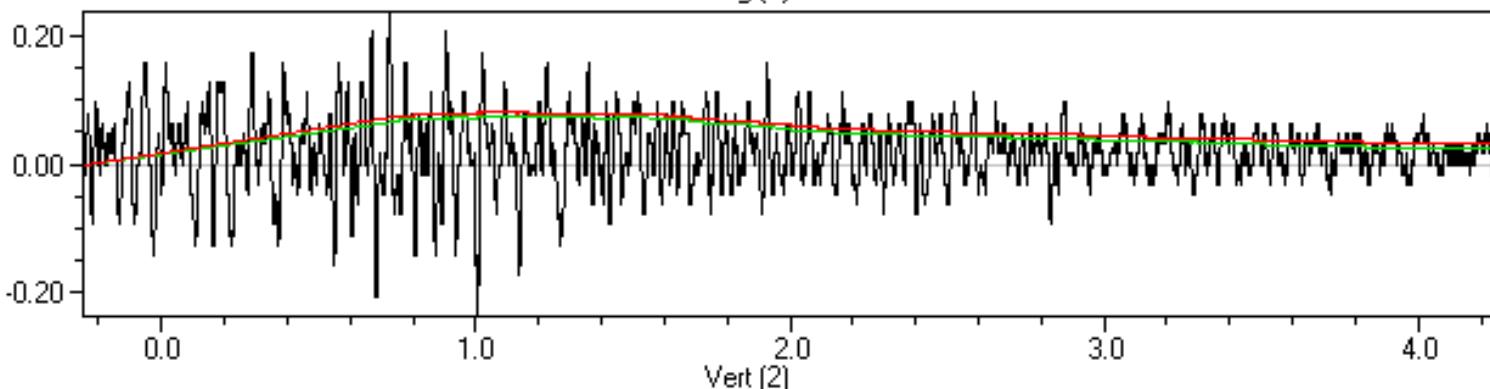
Job Number: 5296

Calibration: March 6, 1998 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.222 | 0.190 | 0.238 | mm/s |
| ZC Freq | 20 | 21 | 24 | Hz |
| Time of Peak | 0.002 | 1.003 | 0.724 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00180 | 0.00133 | 0.00164 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,07 | 0,06 | 0,08 | 0,11 |
| RMS (1s) | 0,07 | 0,06 | 0,08 | 0,12 |

Long (1)





Event Date: January 5, 2007

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

Event Time: 20:34:28

File Name: H081BHKM.HG0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

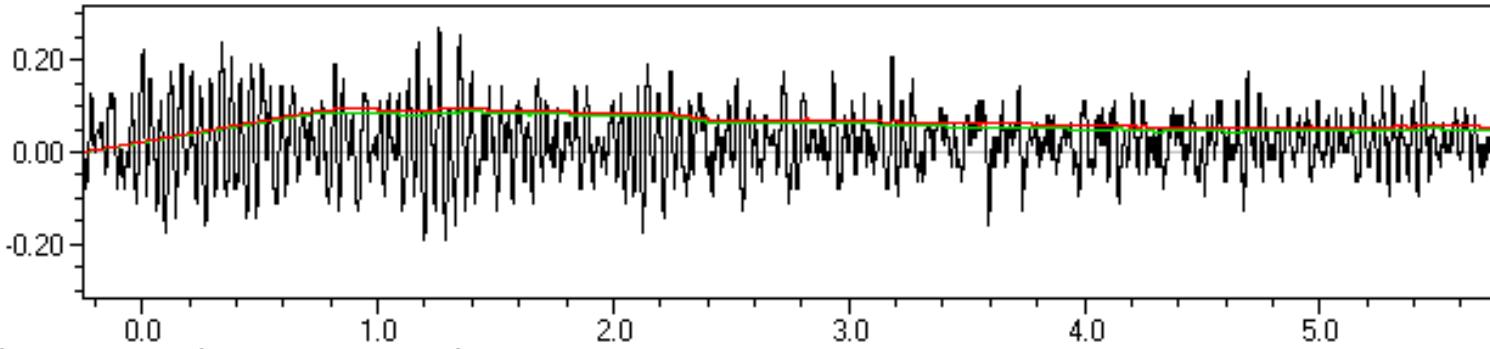
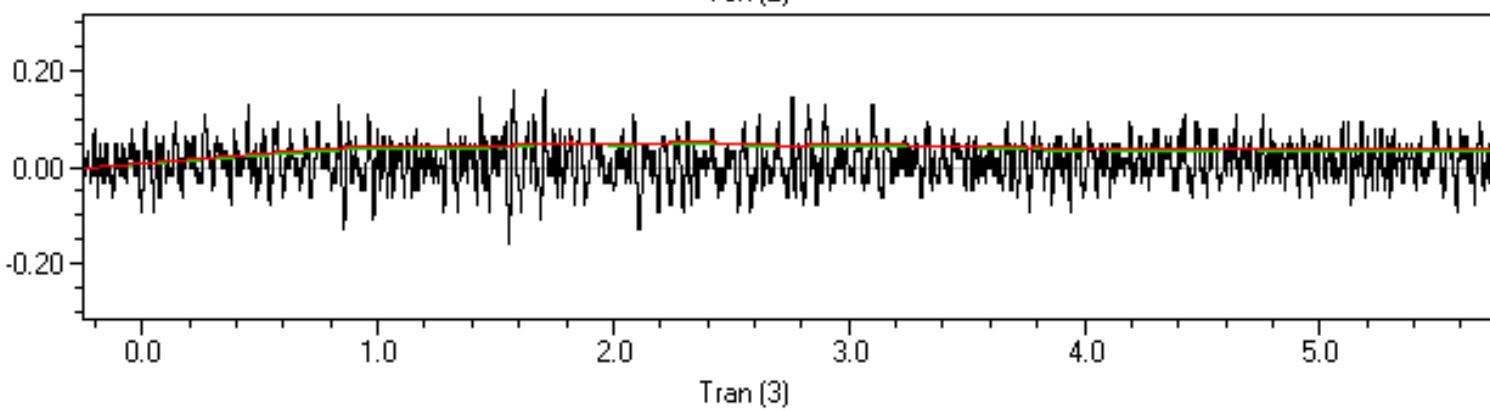
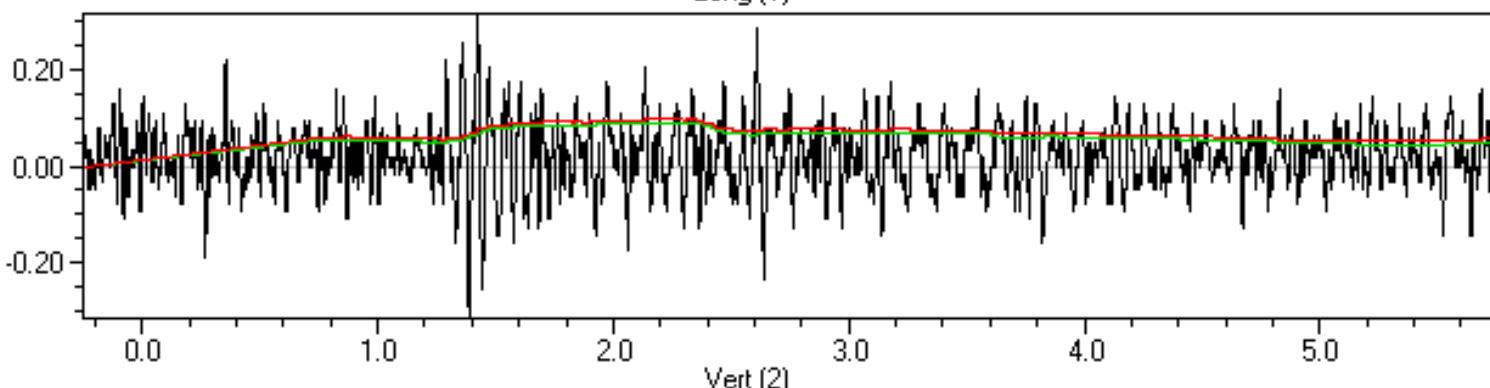
Job Number: 5296

Calibration: March 6, 1998 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.270 | 0.159 | 0.317 | mm/s |
| ZC Freq | 20 | 28 | 24 | Hz |
| Time of Peak | 1.262 | 1.557 | 1.388 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00215 | 0.00108 | 0.00265 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,09 | 0,05 | 0,09 | 0,13 |
| RMS (1s) | 0,10 | 0,05 | 0,10 | 0,14 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

Event Time: 22:29:42

File Name: H081BHMM.HIO

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 3.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

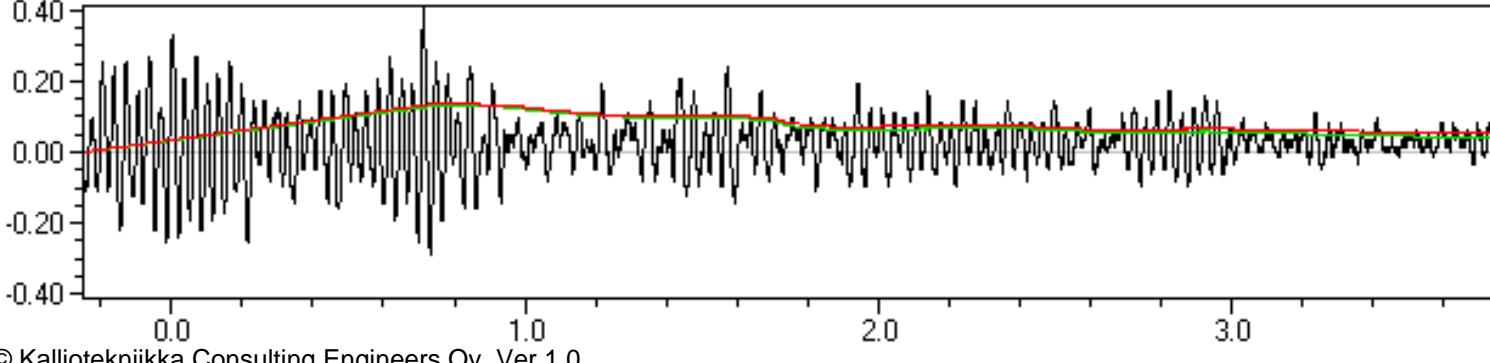
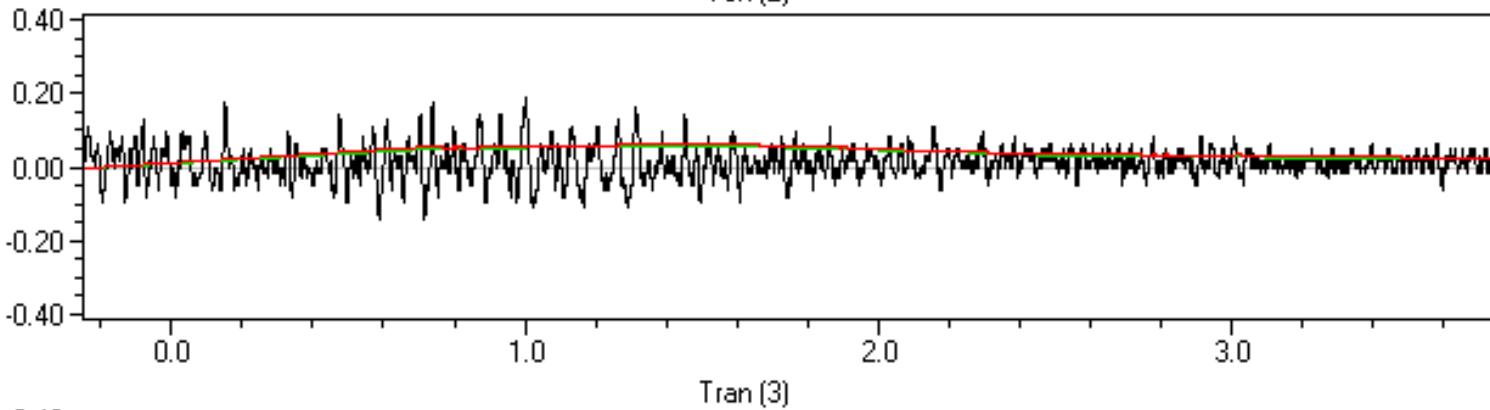
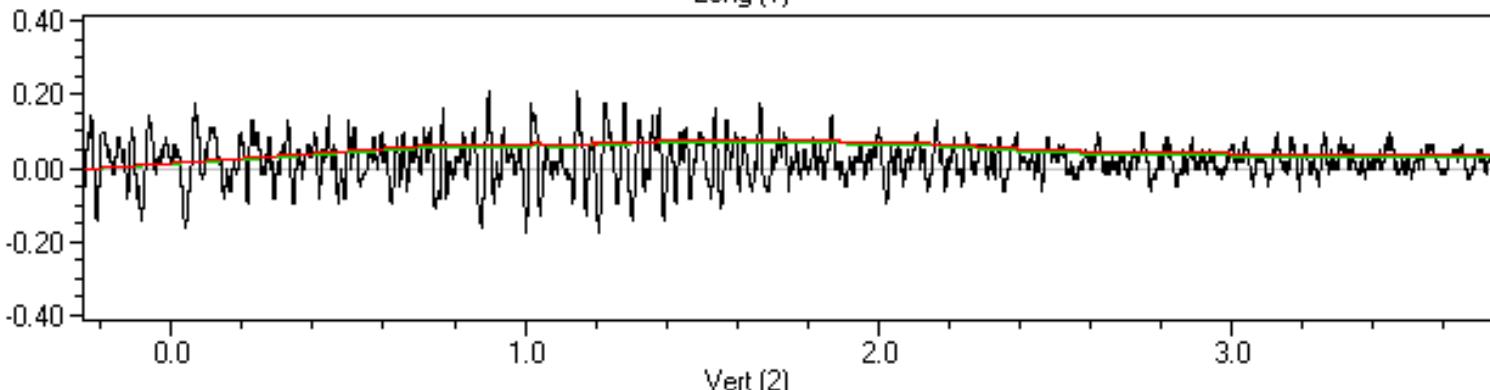
Job Number: 5296

Calibration: March 6, 1998 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.413 | 0.190 | 0.206 | mm/s |
| ZC Freq | 27 | 19 | 27 | Hz |
| Time of Peak | 0.712 | 1.001 | 0.897 | Sec |
| Peak Acceleration | 0.00829 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00223 | 0.00150 | 0.00171 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,13 | 0,06 | 0,07 | 0,15 |
| RMS (1s) | 0,14 | 0,06 | 0,08 | 0,16 |

Long (1)





Event Date: January 9, 2007

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

Event Time: 17:00:37

File Name: H081BHRR.910

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

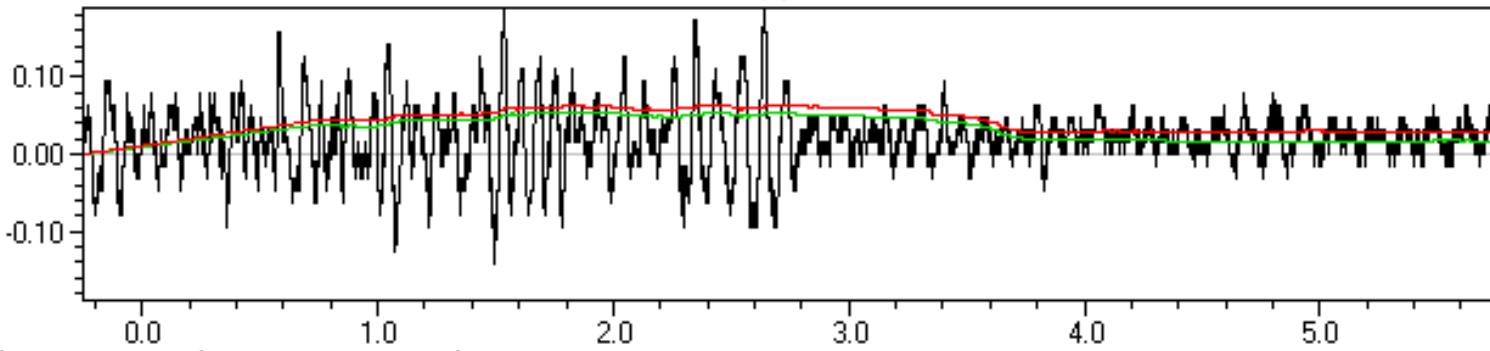
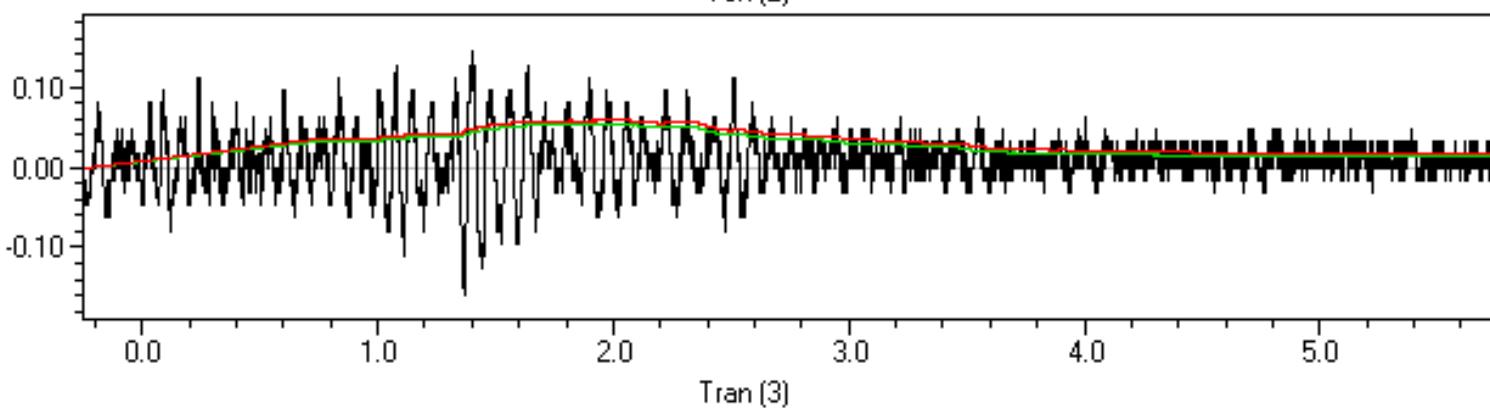
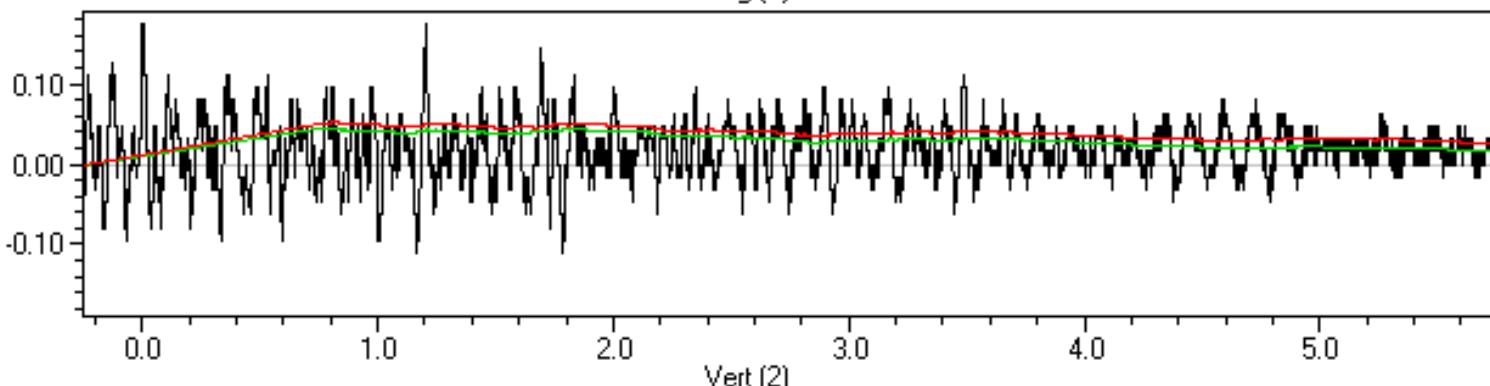
Job Number: 5296

Calibration: March 6, 1998 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.190 | 0.159 | 0.175 | mm/s |
| ZC Freq | 13 | 18 | 16 | Hz |
| Time of Peak | 1.536 | 1.365 | 0.002 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00240 | 0.00165 | 0.00214 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,05 | 0,05 | 0,04 | 0,09 |
| RMS (1s) | 0,06 | 0,06 | 0,05 | 0,10 |

Long (1)





Event Date: January 9, 2007

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

Event Time: 18:01:23

File Name: H081BHRU.2B0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 6.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

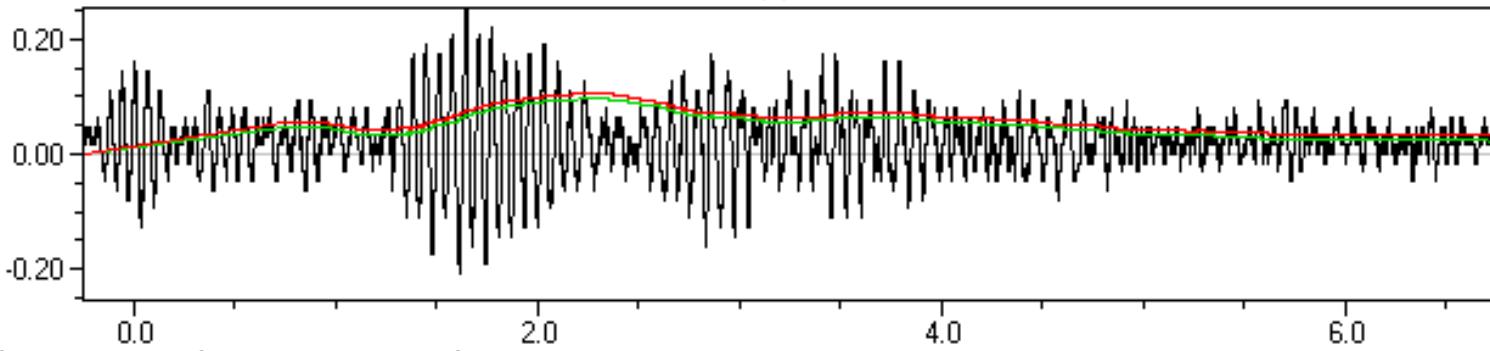
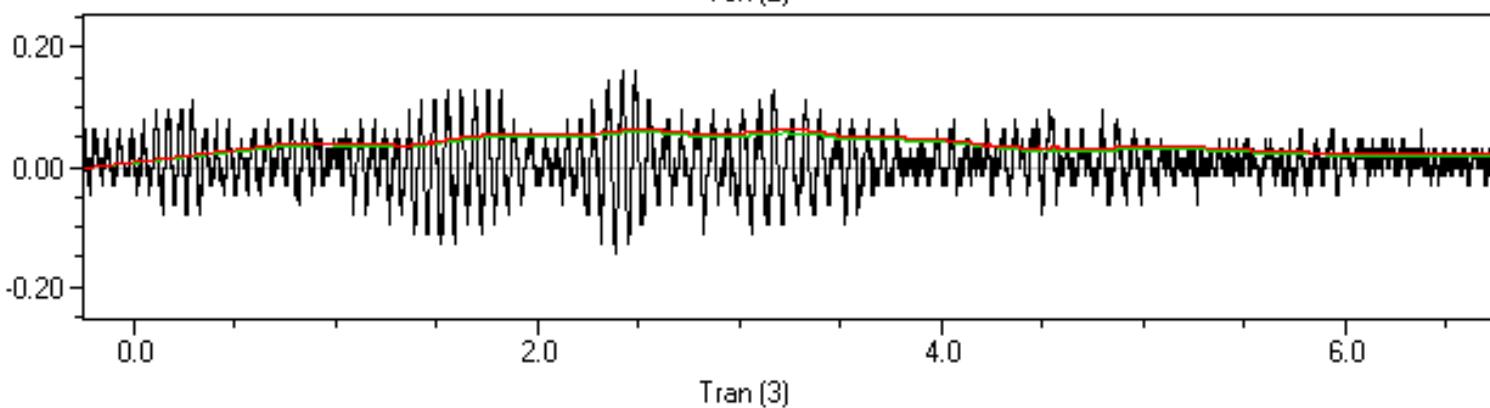
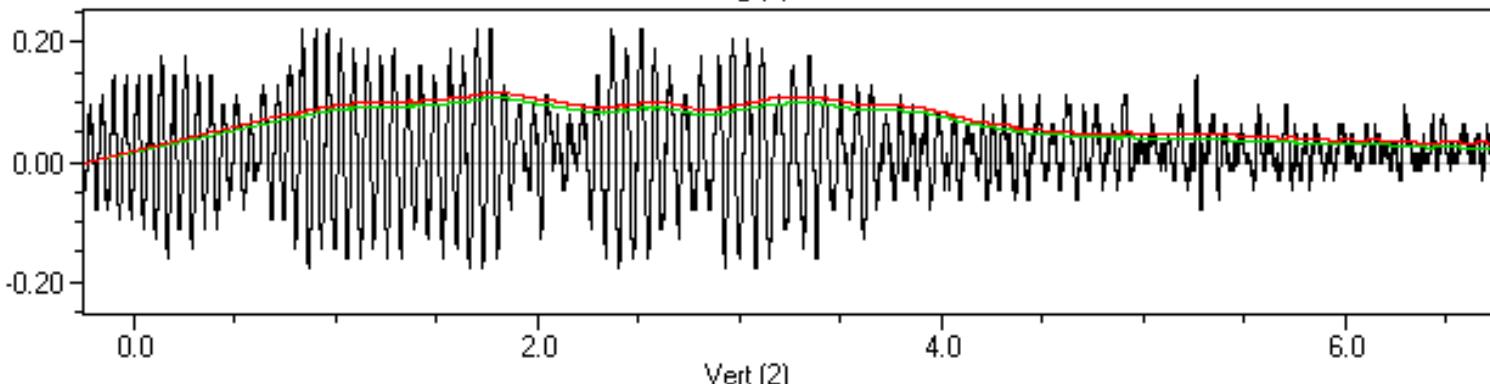
Job Number: 5296

Calibration: March 6, 1998 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.254 | 0.159 | 0.222 | mm/s |
| ZC Freq | 15 | 14 | 15 | Hz |
| Time of Peak | 1.643 | 2.418 | 0.838 | Sec |
| Peak Acceleration | 0.00497 | 0.00829 | 0.00497 | g |
| Peak Displacement | 0.00259 | 0.00178 | 0.00260 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,10 | 0,06 | 0,11 | 0,14 |
| RMS (1s) | 0,10 | 0,06 | 0,12 | 0,16 |

Long (1)





Event Date: January 9, 2007

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

Event Time: 18:17:22

File Name: H081BHRU.SY0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

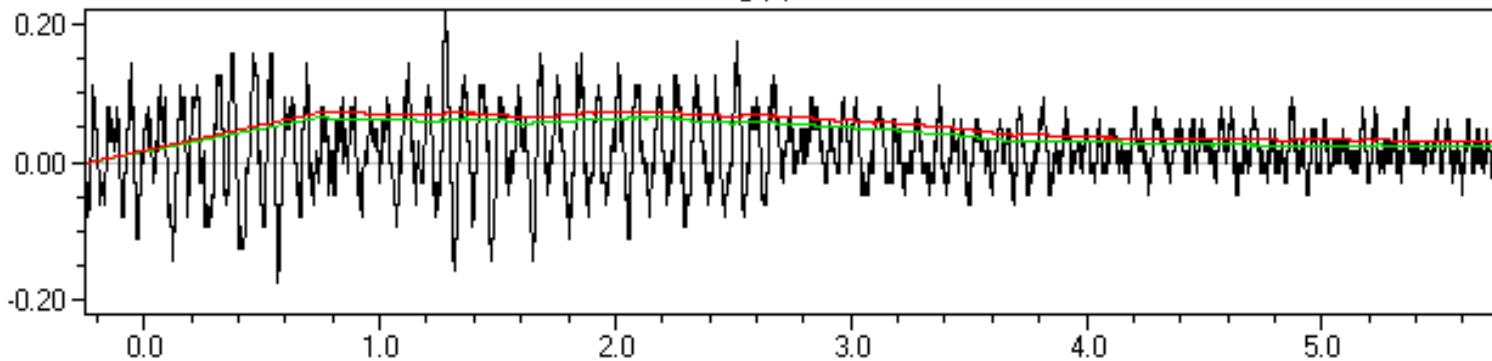
Job Number: 5296

Calibration: March 6, 1998 by Instantel Inc.

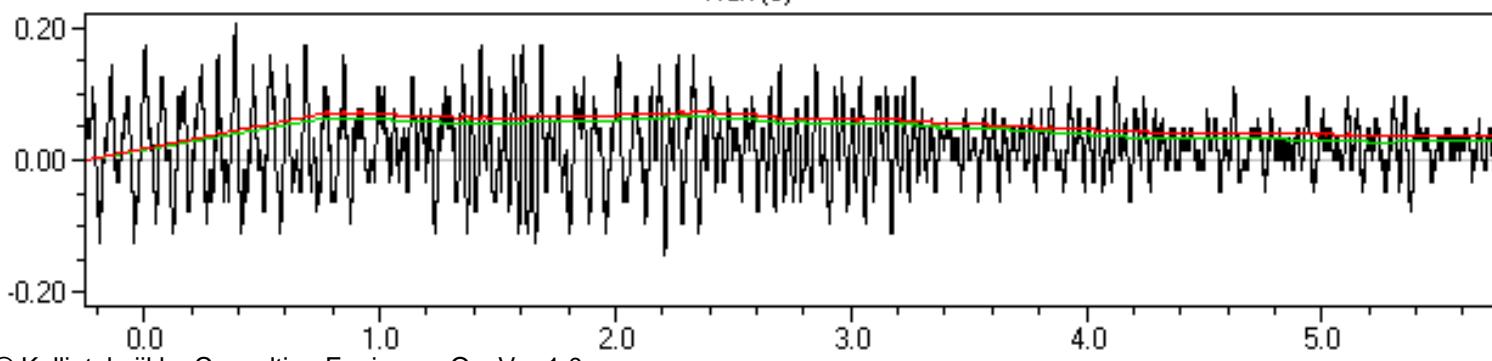
Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.206 | 0.143 | 0.222 | mm/s |
| ZC Freq | 16 | 17 | 14 | Hz |
| Time of Peak | 0.387 | 0.131 | 1.278 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00198 | 0.00136 | 0.00232 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,07 | 0,05 | 0,06 | 0,10 |
| RMS (1s) | 0,07 | 0,06 | 0,07 | 0,12 |

Long (1)



Tran (3)





Event Date: January 9, 2007

Event Time: 18:28:15

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHRV.B30

Trigger: Tran

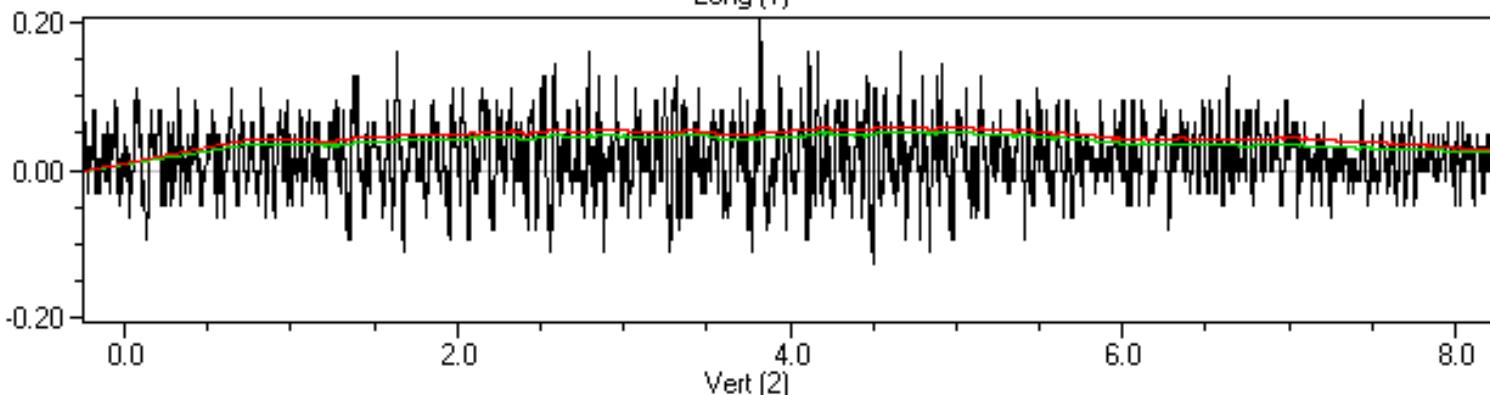
Record Time: 8.25 sec

Sample Rate: 1024 sps

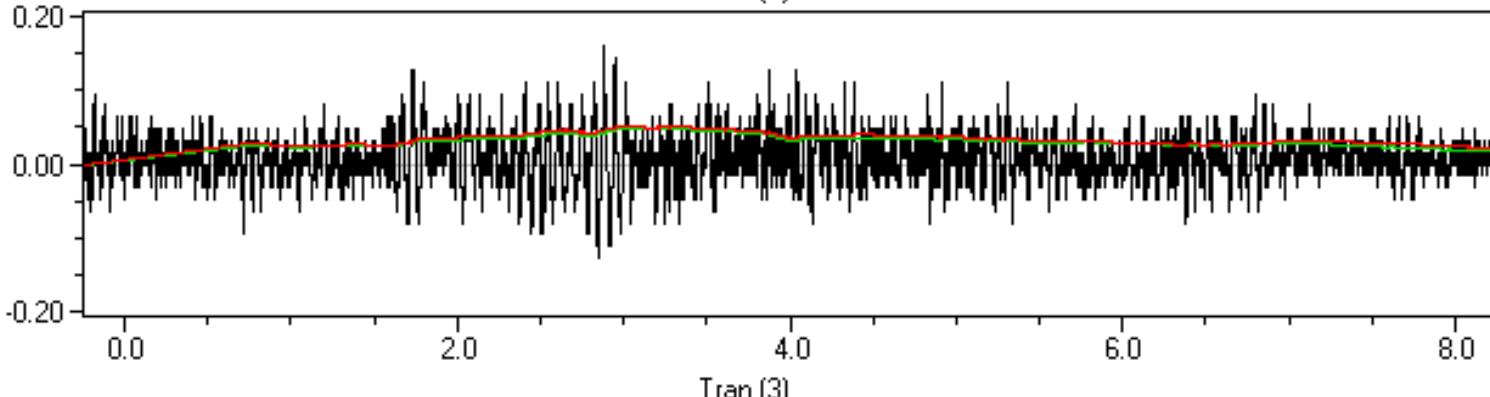
Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.175 | 0.159 | 0.206 | mm/s |
| ZC Freq | 19 | 19 | 13 | Hz |
| Time of Peak | 2.849 | 2.880 | 3.820 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00163 | 0.00126 | 0.00181 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,05 | 0,05 | 0,05 | 0,08 |
| RMS (1s) | 0,05 | 0,05 | 0,06 | 0,09 |

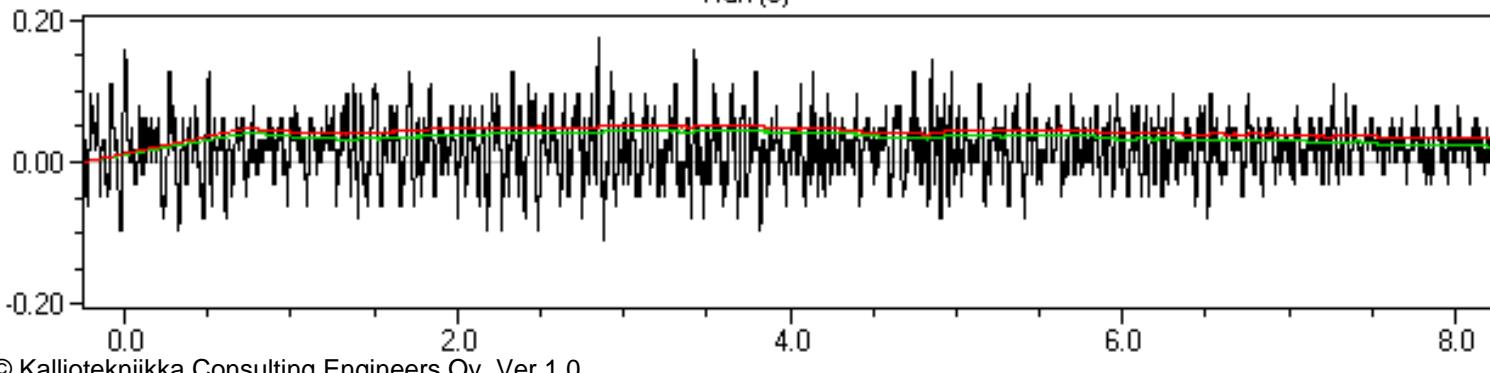
Long (1)



Vert (2)



Tran (3)





Event Date: January 9, 2007

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

Event Time: 18:45:14

File Name: H081BHRW.3E0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 8.75 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

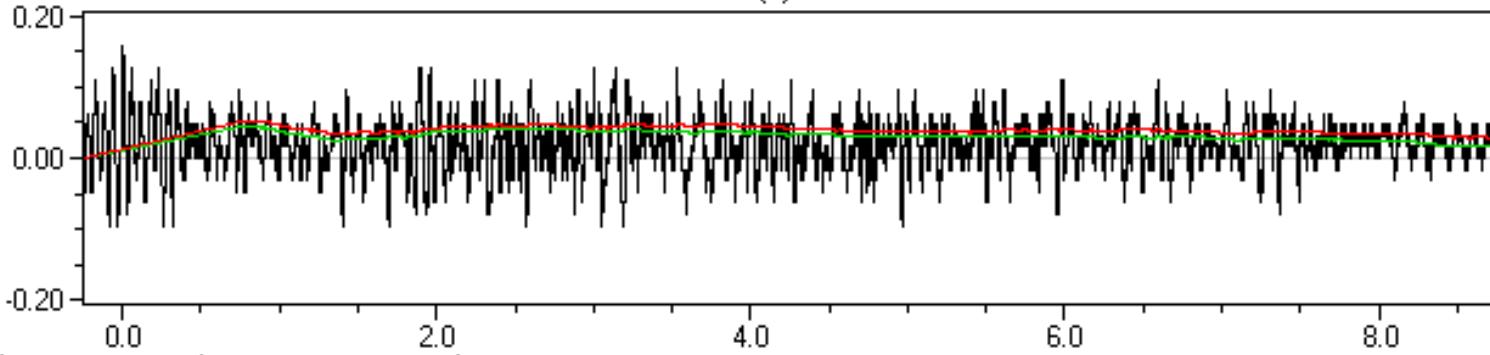
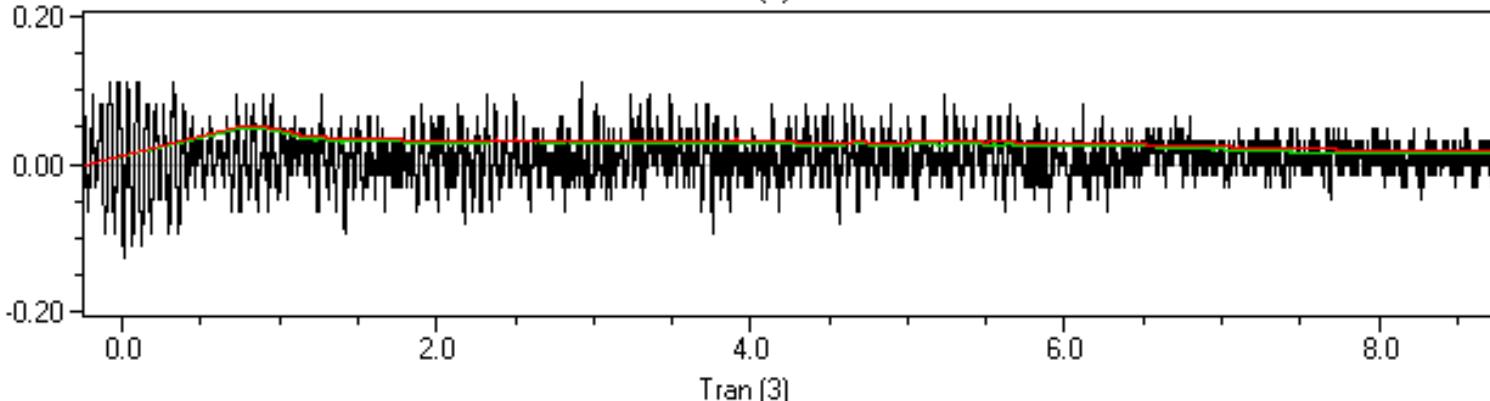
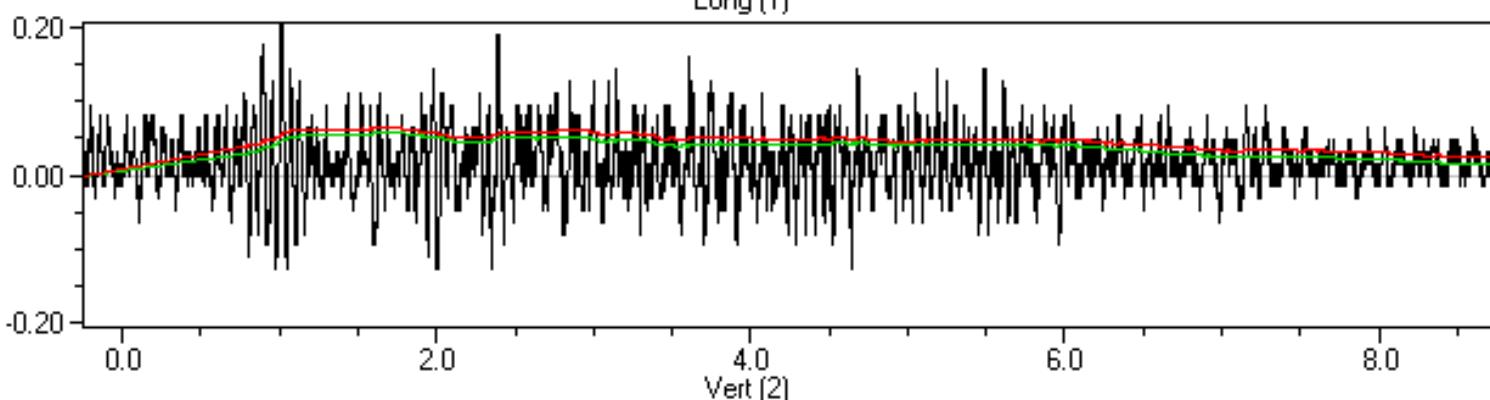
Job Number: 5296

Calibration: March 6, 1998 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.159 | 0.127 | 0.206 | mm/s |
| ZC Freq | 17 | 20 | 14 | Hz |
| Time of Peak | 0.003 | 0.009 | 1.009 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00191 | 0.00108 | 0.00229 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,04 | 0,05 | 0,06 | 0,07 |
| RMS (1s) | 0,05 | 0,05 | 0,06 | 0,09 |

Long (1)





Event Date: January 9, 2007

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

Event Time: 20:31:25

File Name: H081BHS1.0D0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 9.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

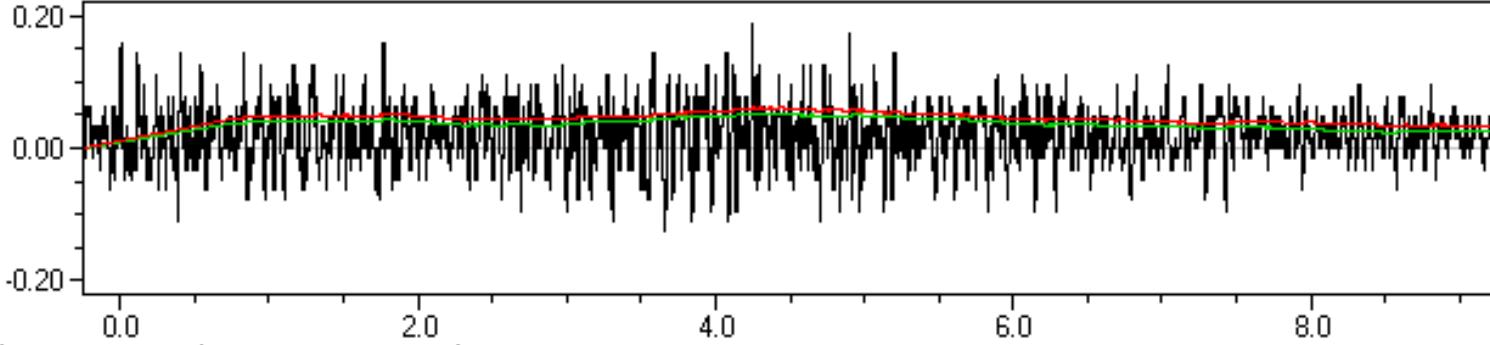
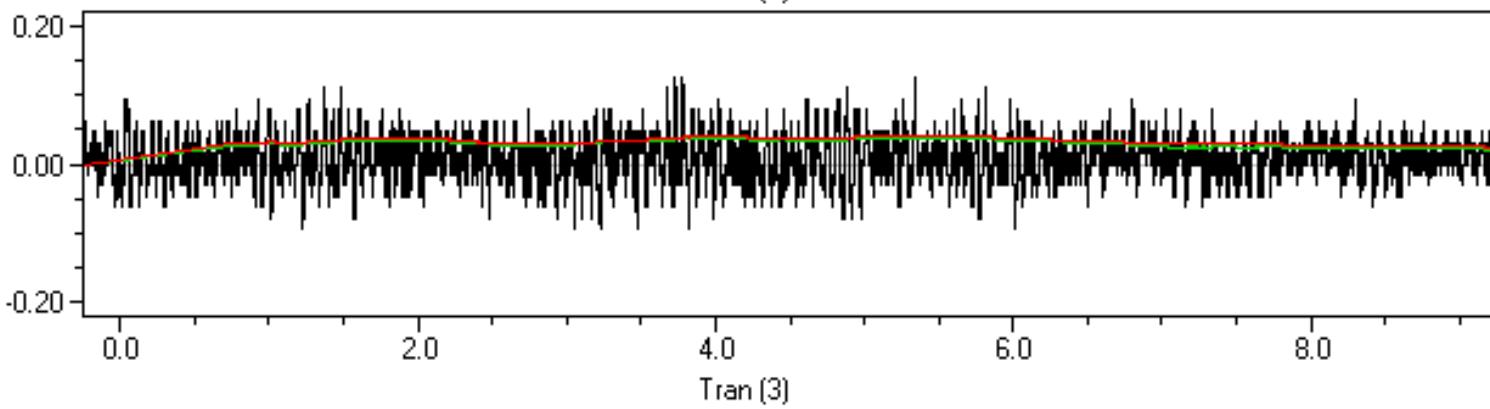
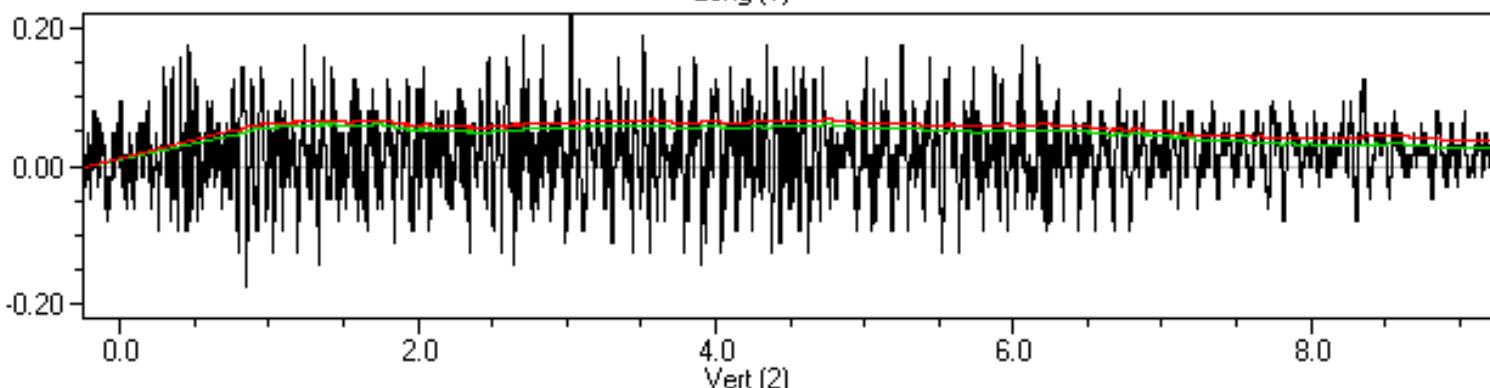
Job Number: 5296

Calibration: March 6, 1998 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.190 | 0.127 | 0.222 | mm/s |
| ZC Freq | 22 | 39 | 21 | Hz |
| Time of Peak | 4.248 | 3.729 | 3.027 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00204 | 0.00104 | 0.00209 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.05 | 0.04 | 0.06 | 0.09 |
| RMS (1s) | 0.06 | 0.04 | 0.07 | 0.10 |

Long (1)





Event Date: January 10, 2007

Event Time: 05:39:09

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHSQ.D90

Trigger: Tran

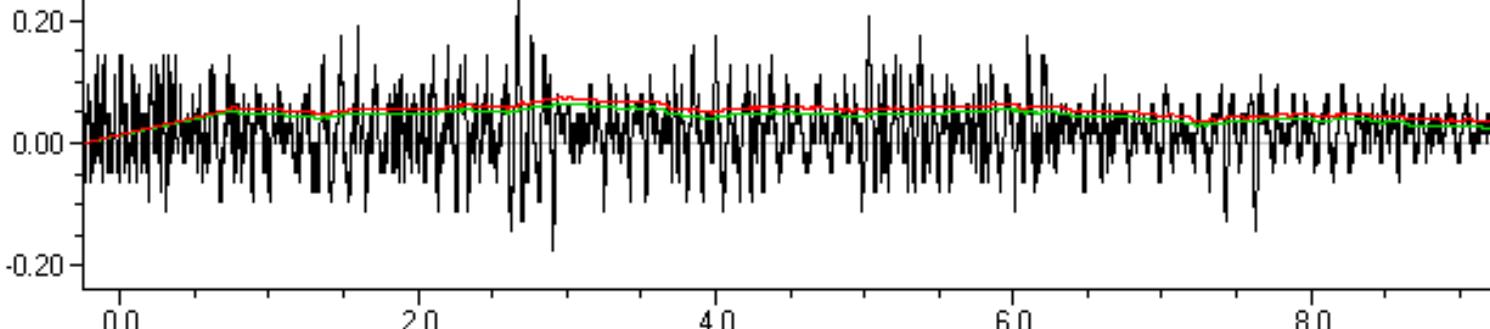
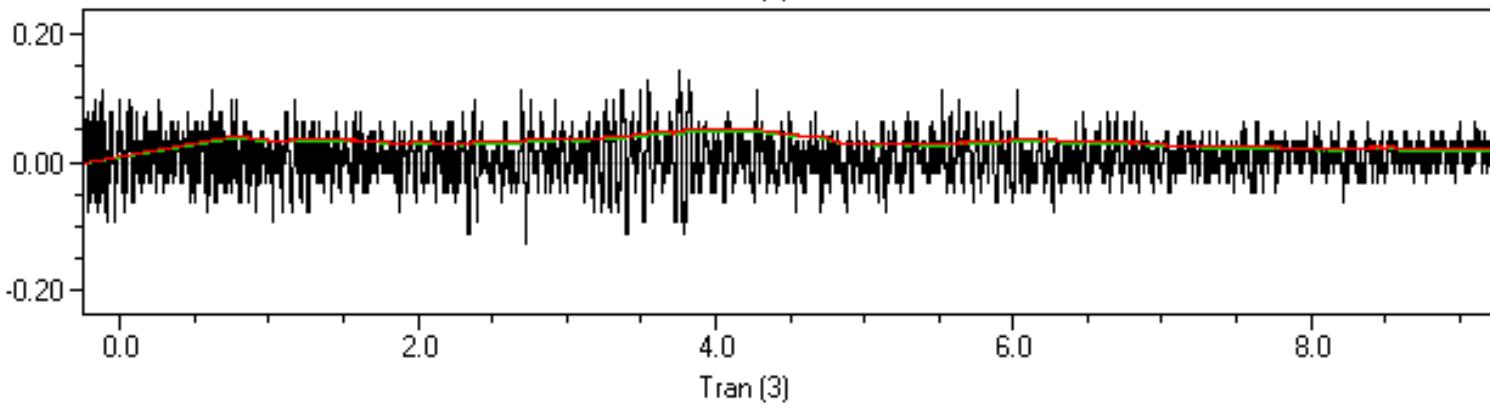
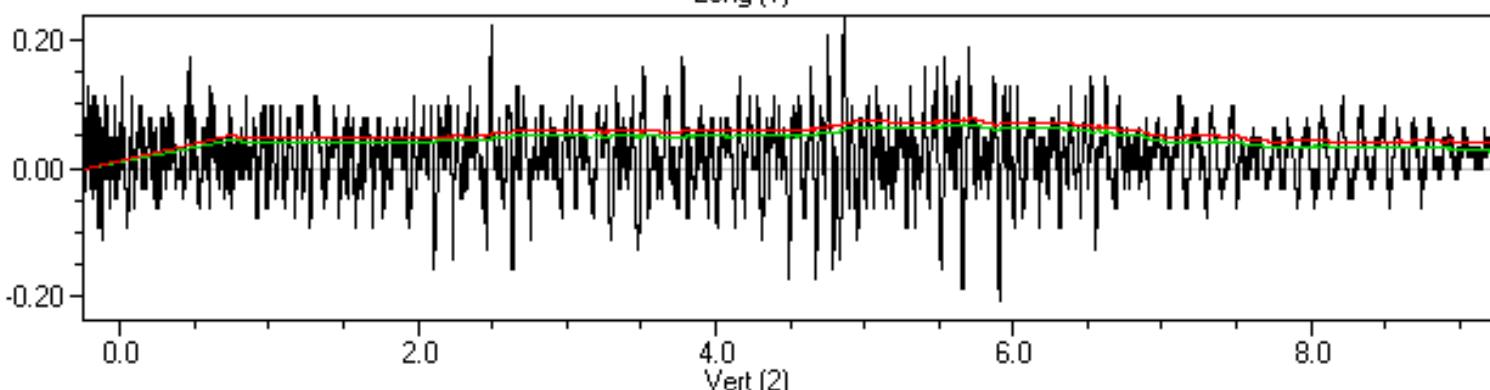
Record Time: 9.25 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.238 | 0.143 | 0.238 | mm/s |
| ZC Freq | 12 | 17 | 15 | Hz |
| Time of Peak | 2.671 | 3.758 | 4.860 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00273 | 0.00129 | 0.00233 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,05 | 0,07 | 0,09 |
| RMS (1s) | 0,07 | 0,05 | 0,08 | 0,10 |

Long (1)





Event Date: January 10, 2007

Event Time: 06:44:17

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHST.DT0

Trigger: Long

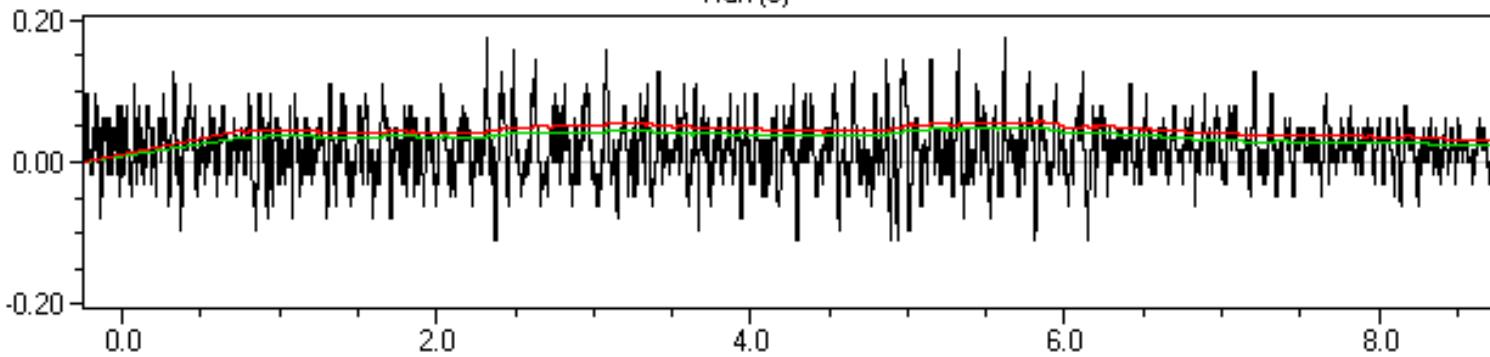
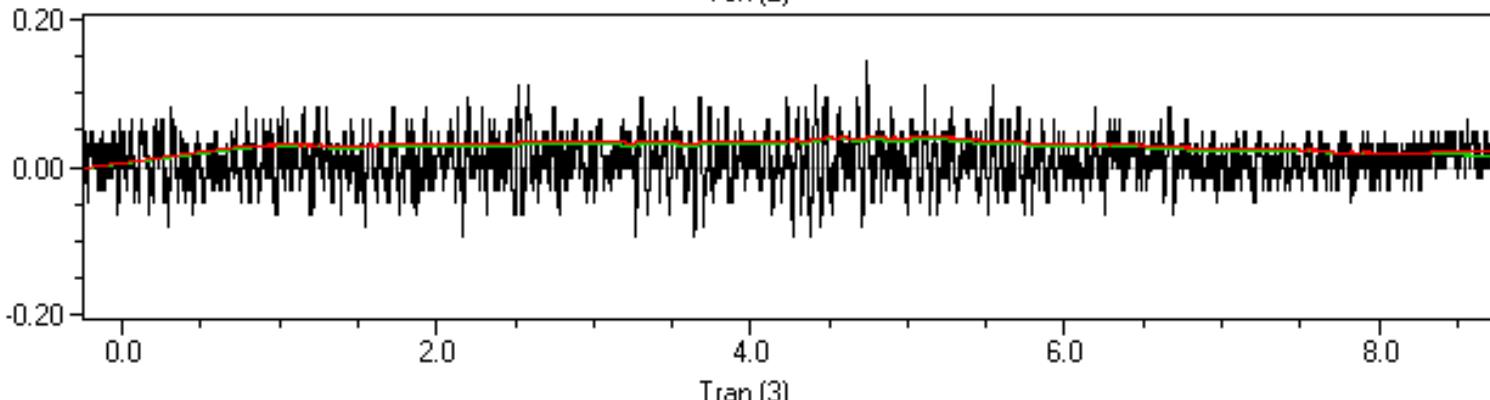
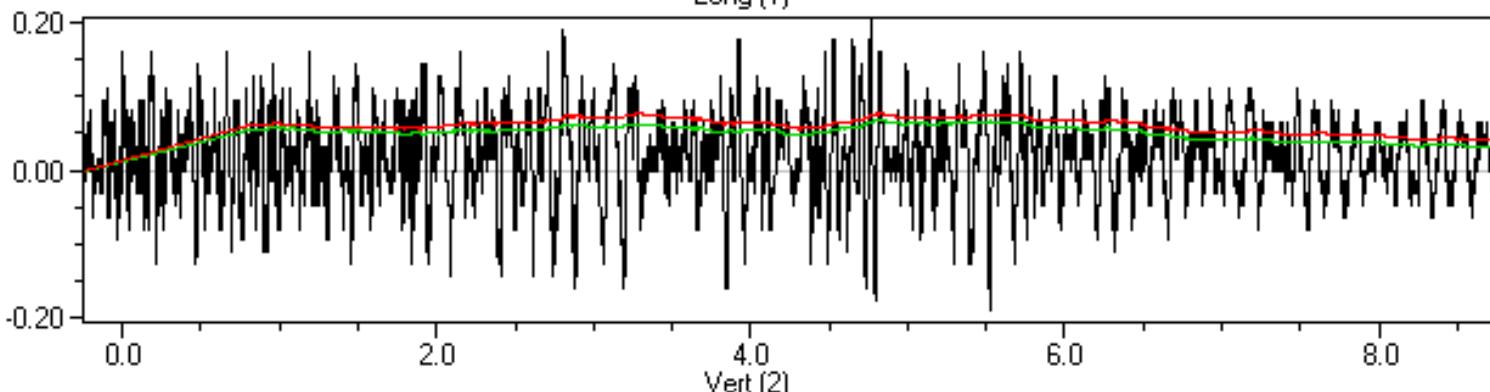
Record Time: 8.75 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.175 | 0.143 | 0.206 | mm/s |
| ZC Freq | 12 | 17 | 18 | Hz |
| Time of Peak | 2.318 | 4.741 | 4.763 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00240 | 0.00122 | 0.00312 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,05 | 0,04 | 0,07 | 0,09 |
| RMS (1s) | 0,06 | 0,04 | 0,08 | 0,10 |

Long (1)





Event Date: January 10, 2007

Event Time: 07:12:16

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHSU.OG0

Trigger: Long

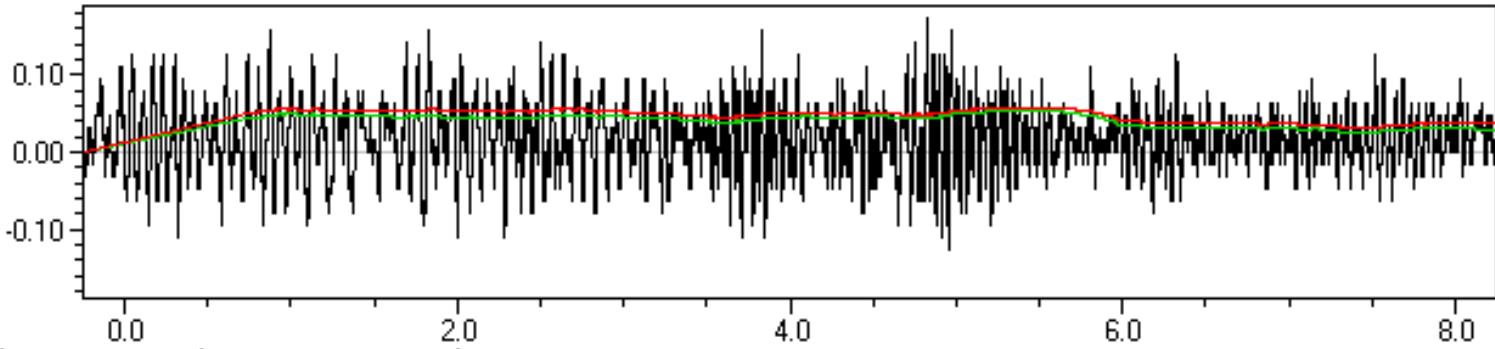
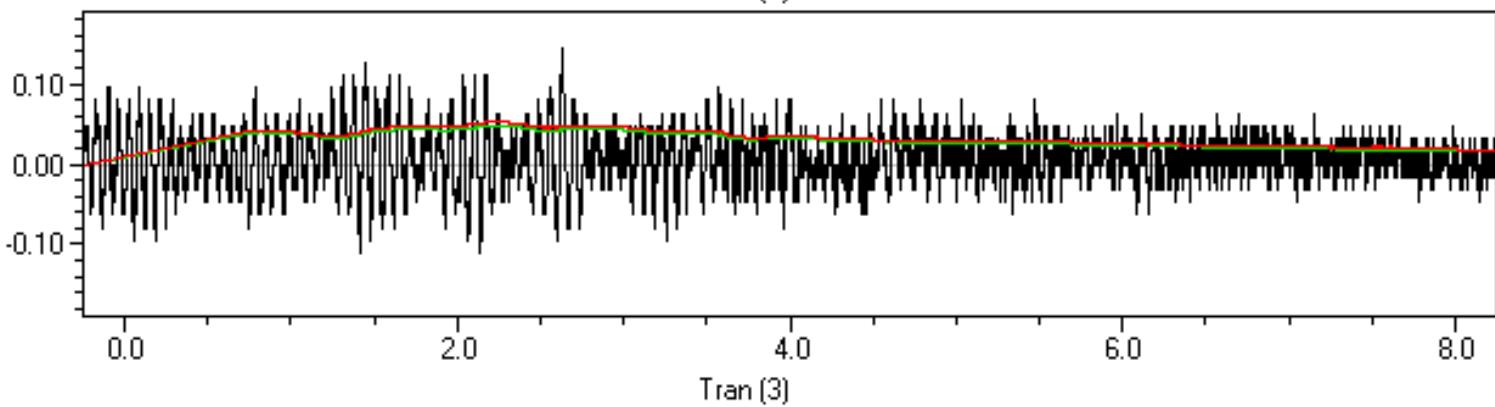
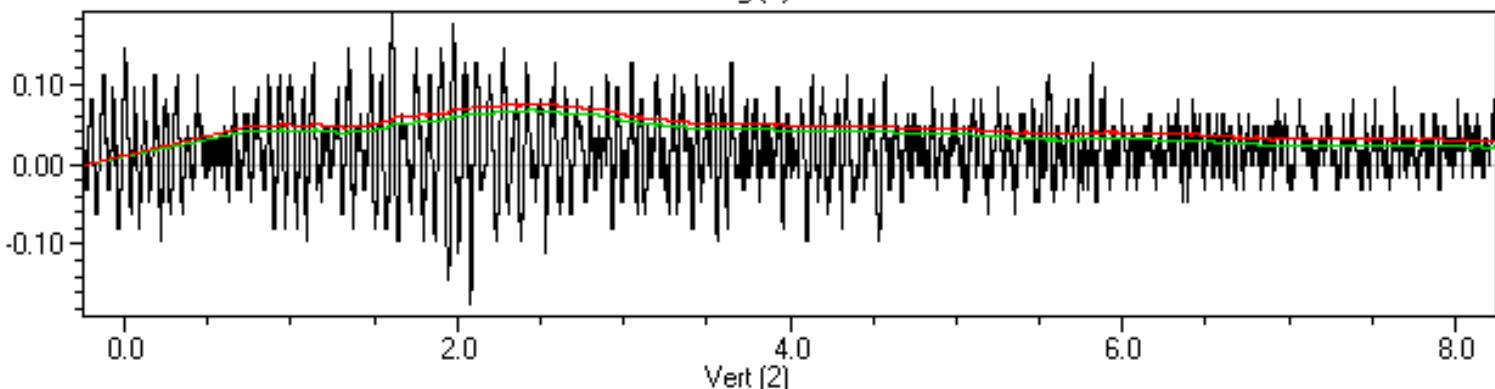
Record Time: 8.25 sec

Sample Rate: 1024 sps

Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.175 | 0.143 | 0.190 | mm/s |
| ZC Freq | 20 | 17 | 16 | Hz |
| Time of Peak | 4.825 | 2.630 | 1.603 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00157 | 0.00133 | 0.00202 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,05 | 0,05 | 0,07 | 0,09 |
| RMS (1s) | 0,06 | 0,05 | 0,08 | 0,10 |

Long (1)





Event Date: January 10, 2007

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

Event Time: 08:22:44

File Name: H081BHSX.XW0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 8.25 sec

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Sample Rate: 1024 sps

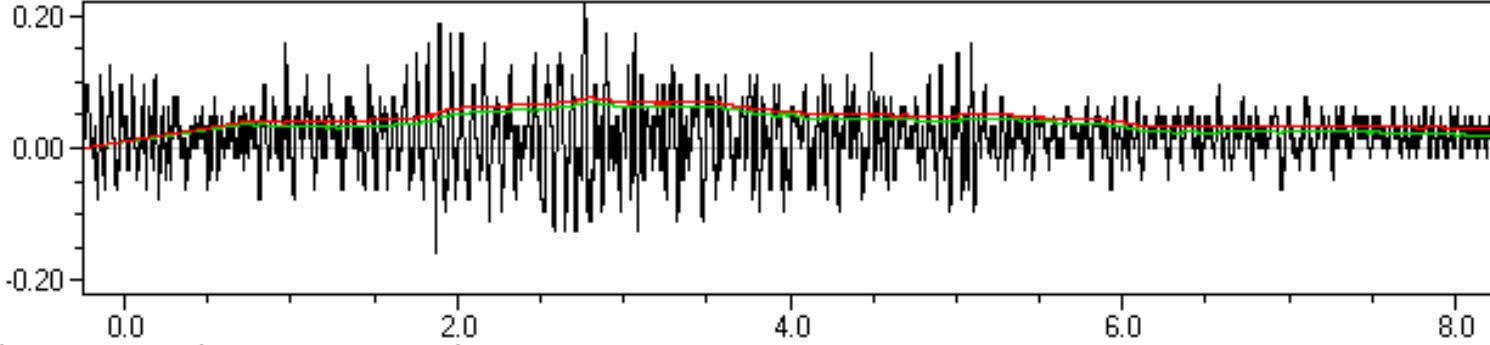
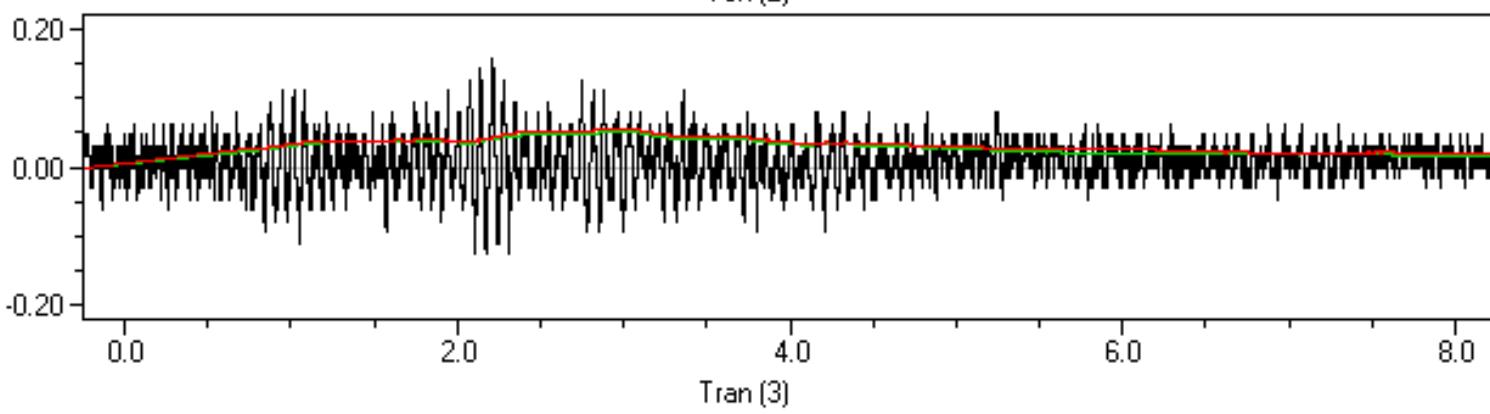
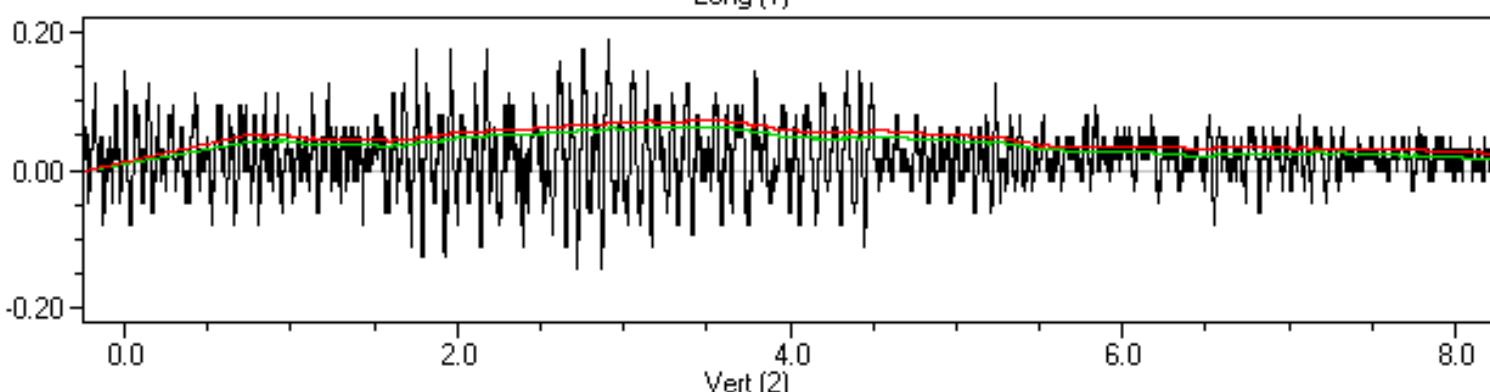
Job Number: 5296

Calibration: March 6, 1998 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.222 | 0.159 | 0.190 | mm/s |
| ZC Freq | 18 | 18 | 12 | Hz |
| Time of Peak | 2.763 | 2.211 | 2.910 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00212 | 0.00127 | 0.00241 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.07 | 0.05 | 0.06 | 0.10 |
| RMS (1s) | 0.08 | 0.06 | 0.07 | 0.11 |

Long (1)





Event Date: January 10, 2007

Event Time: 10:28:13

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy, p. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE6081, V 8.01-8.0 MiniMate Plus

File Name: H081BHT3.R10

Trigger: Tran

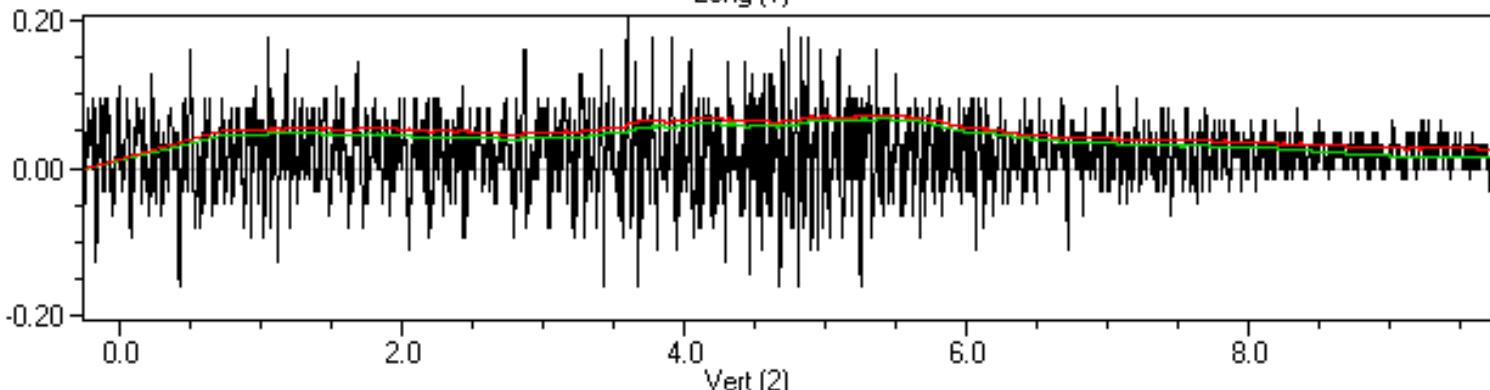
Record Time: 9.75 sec

Sample Rate: 1024 sps

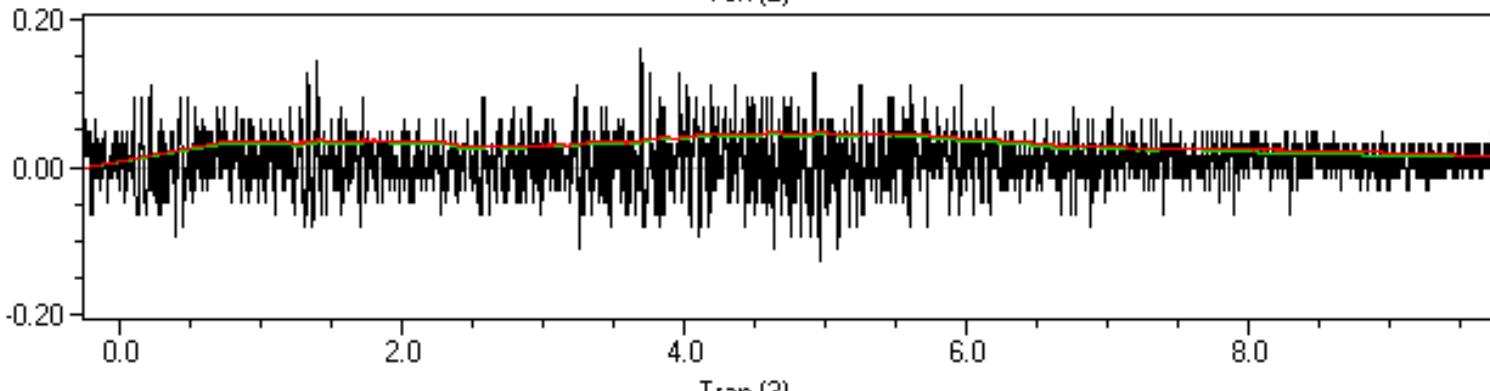
Calibration: March 6, 1998 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.206 | 0.159 | 0.206 | mm/s |
| ZC Freq | 24 | 26 | 18 | Hz |
| Time of Peak | 3.849 | 3.694 | 3.599 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00145 | 0.00098 | 0.00212 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,04 | 0,07 | 0,10 |
| RMS (1s) | 0,07 | 0,05 | 0,07 | 0,11 |

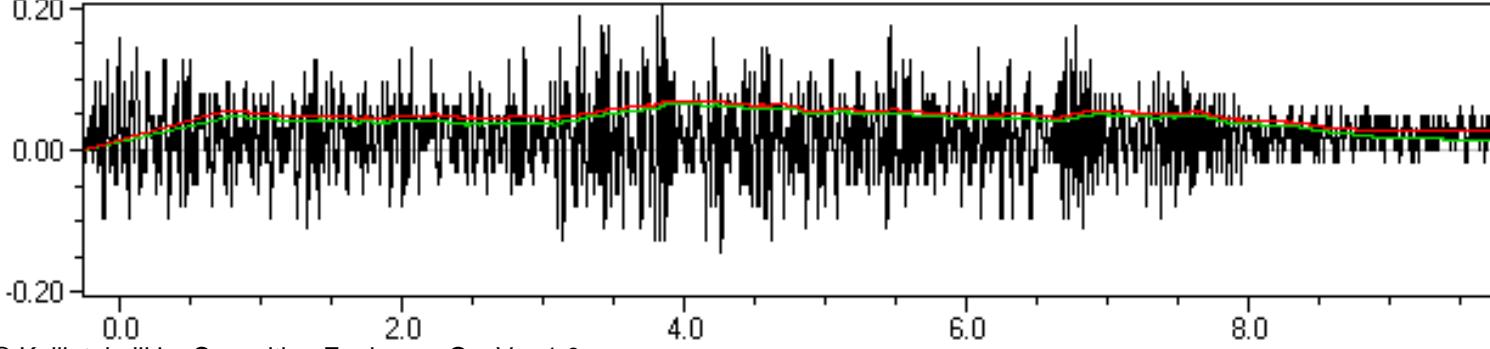
Long (1)



Vert (2)



Tran (3)





Event Date: January 5, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 16:33:17

File Name: L231BHKB.BH0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 8.25 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

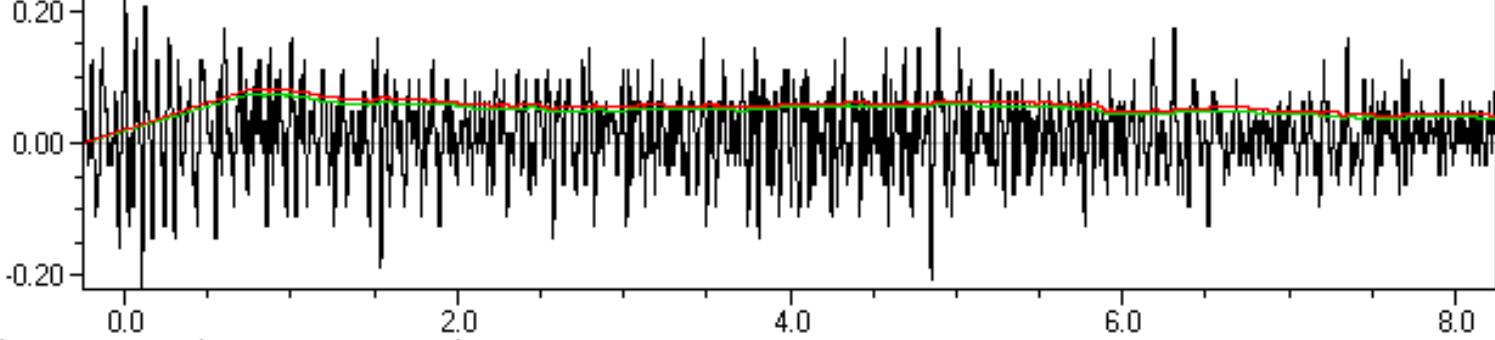
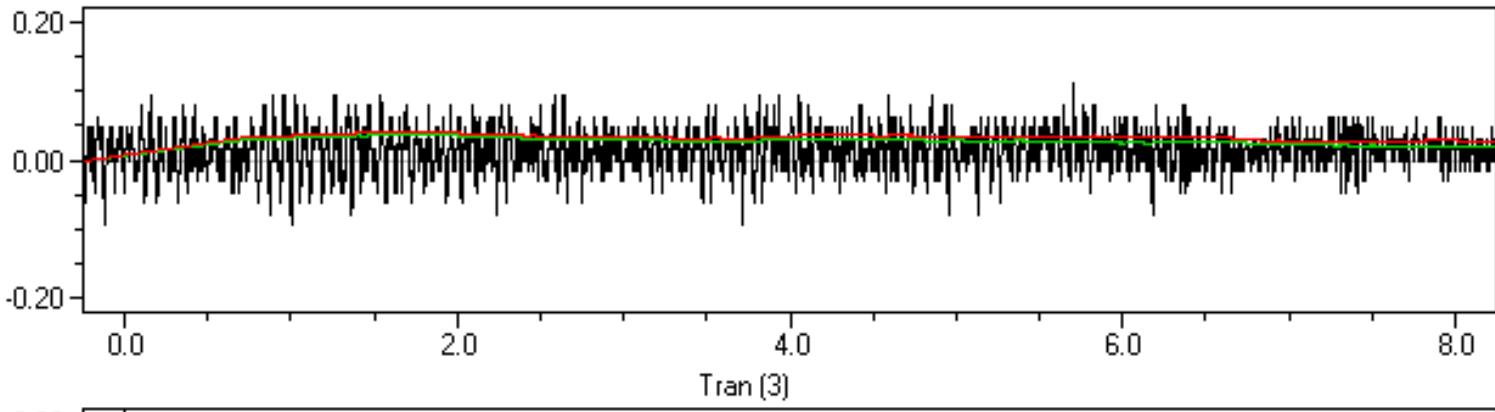
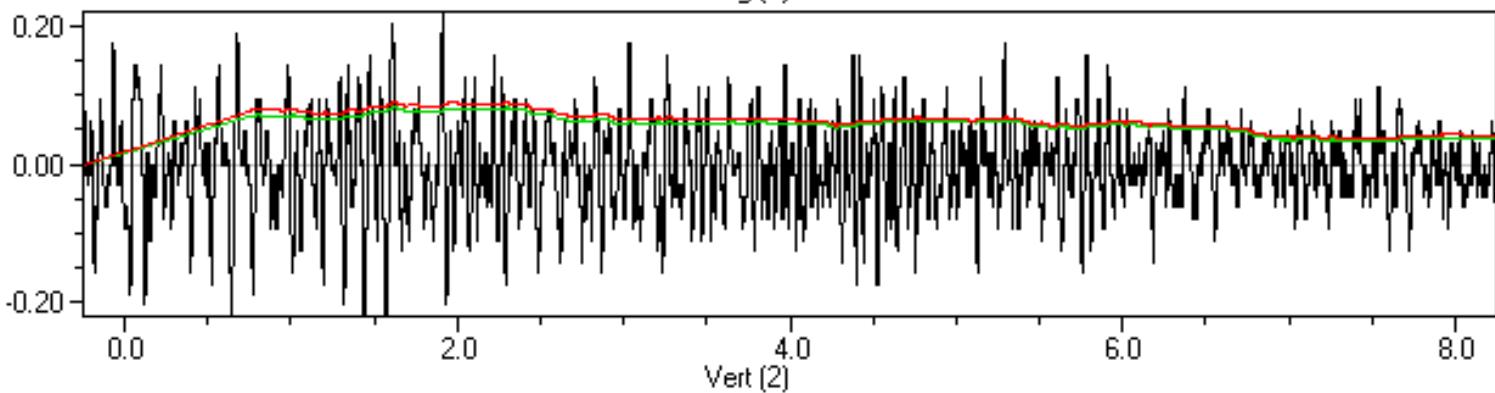
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.222 | 0.111 | 0.222 | mm/s |
| ZC Freq | 15 | 21 | 16 | Hz |
| Time of Peak | 0.003 | 5.703 | 0.639 | Sec |
| Peak Acceleration | 0.00663 | 0.00497 | 0.00663 | g |
| Peak Displacement | 0.00258 | 0.00088 | 0.00312 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,07 | 0,04 | 0,08 | 0,11 |
| RMS (1s) | 0,08 | 0,04 | 0,09 | 0,12 |

Long (1)





Event Date: January 5, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 18:29:13

File Name: L231BHKG.OP0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

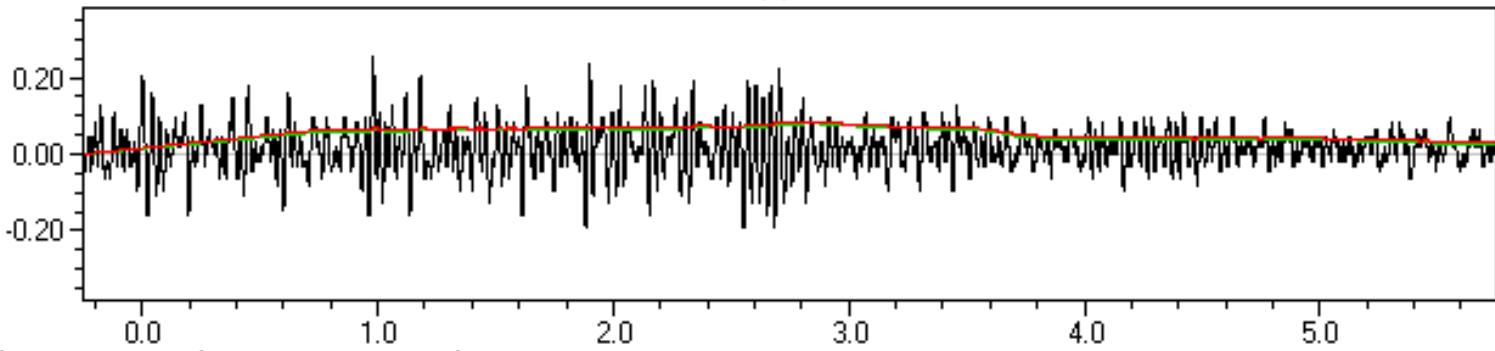
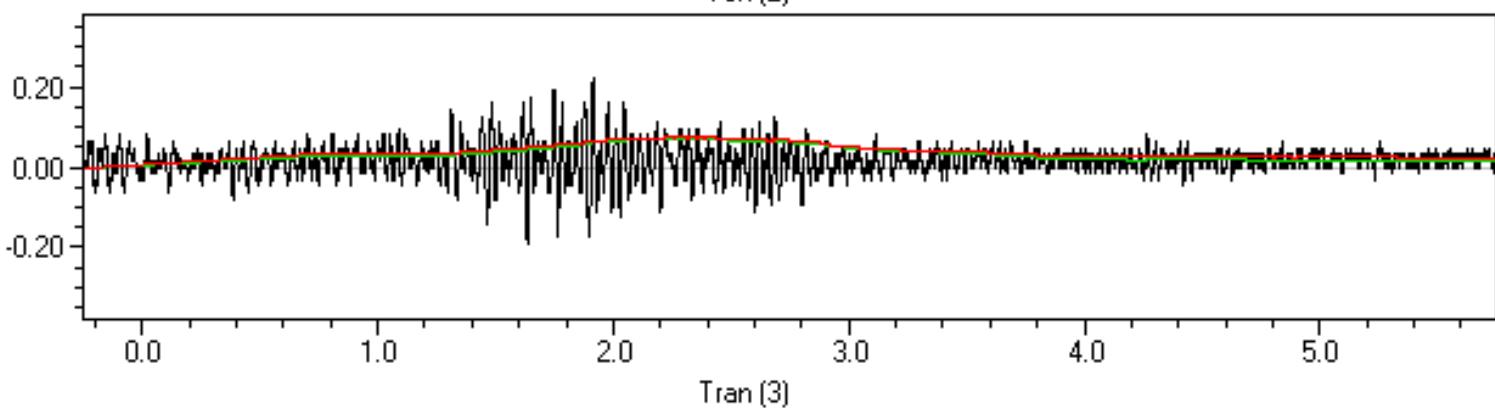
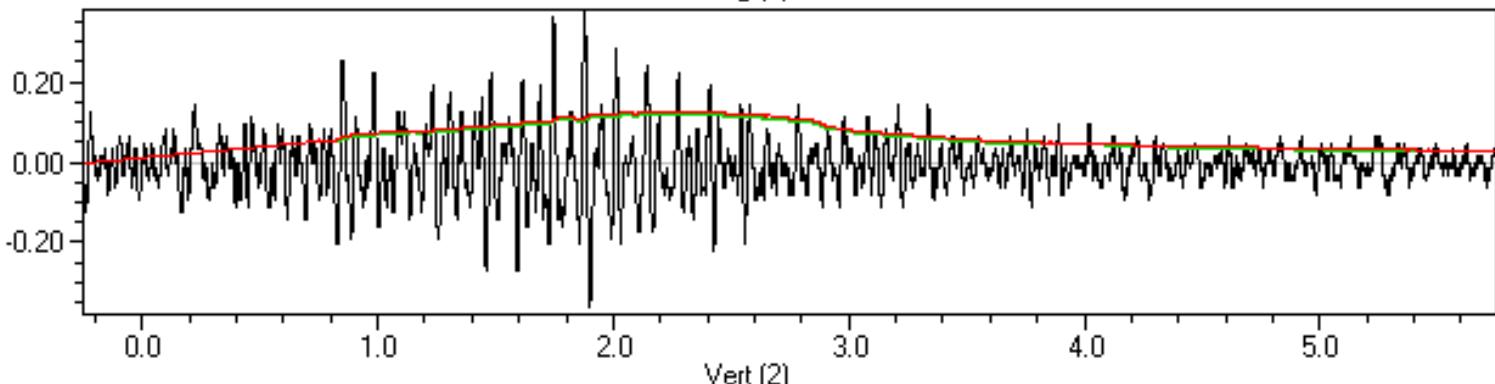
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.254 | 0.222 | 0.381 | mm/s |
| ZC Freq | 28 | 28 | 20 | Hz |
| Time of Peak | 0.979 | 1.913 | 1.877 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00153 | 0.00123 | 0.00298 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,08 | 0,07 | 0,12 | 0,15 |
| RMS (1s) | 0,08 | 0,07 | 0,13 | 0,16 |

Long (1)





Event Date: January 5, 2007

Event Time: 20:34:28

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

File Name: L231BHKM.HG0

Trigger: Tran

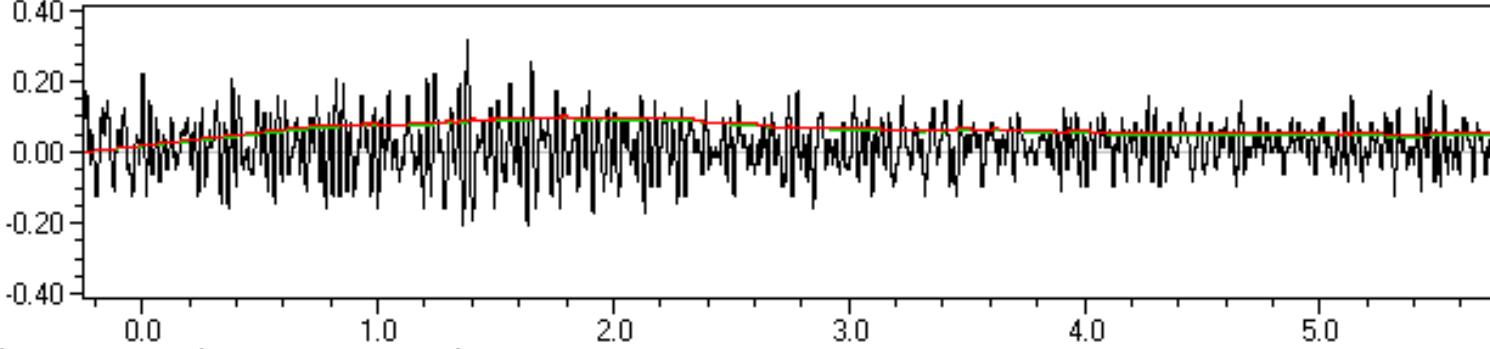
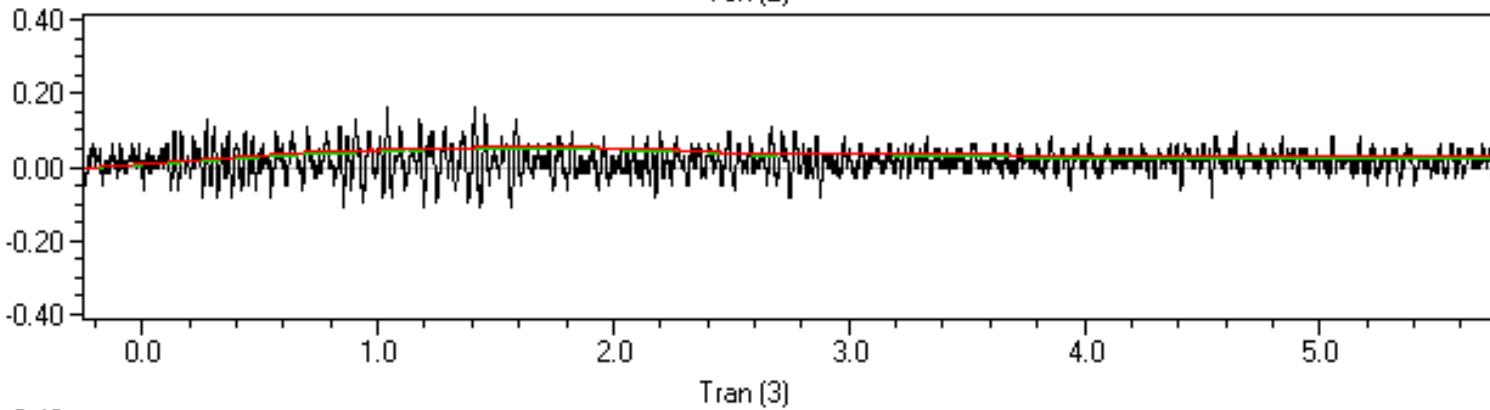
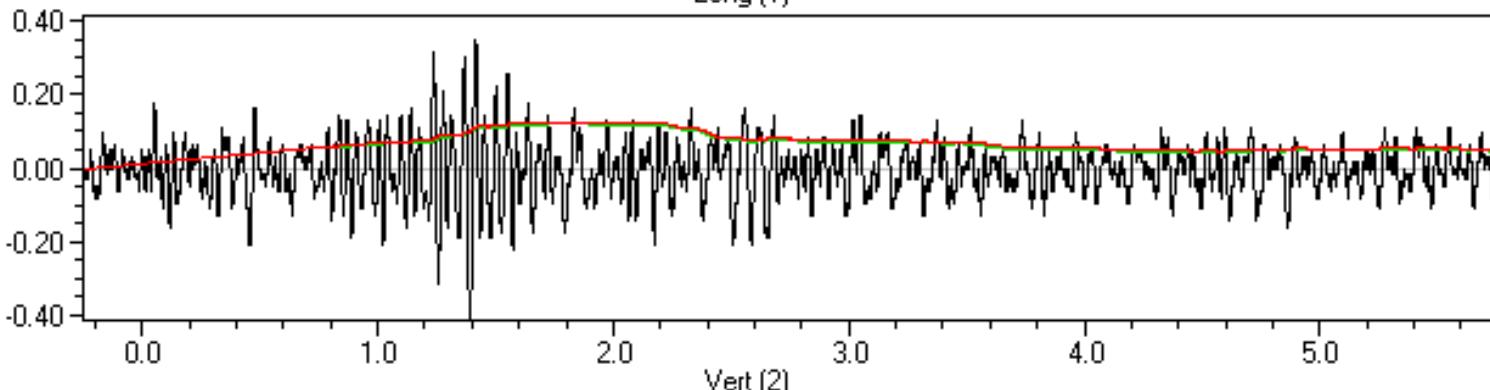
Record Time: 5.75 sec

Sample Rate: 1024 sps

Calibration: May 27, 2005 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.317 | 0.159 | 0.413 | mm/s |
| ZC Freq | 22 | 28 | 20 | Hz |
| Time of Peak | 1.379 | 1.038 | 1.391 | Sec |
| Peak Acceleration | 0.00663 | 0.00497 | 0.00829 | g |
| Peak Displacement | 0.00220 | 0.00109 | 0.00313 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,10 | 0,05 | 0,12 | 0,16 |
| RMS (1s) | 0,10 | 0,06 | 0,13 | 0,17 |

Long (1)





Event Date: January 5, 2007

Event Time: 23:31:00

Location: Kirkkonummi Liikennetarina

Client: SITO

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Job Number: 5296

Extended Notes:

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

File Name: L231BHKU.NO0

Trigger: Tran

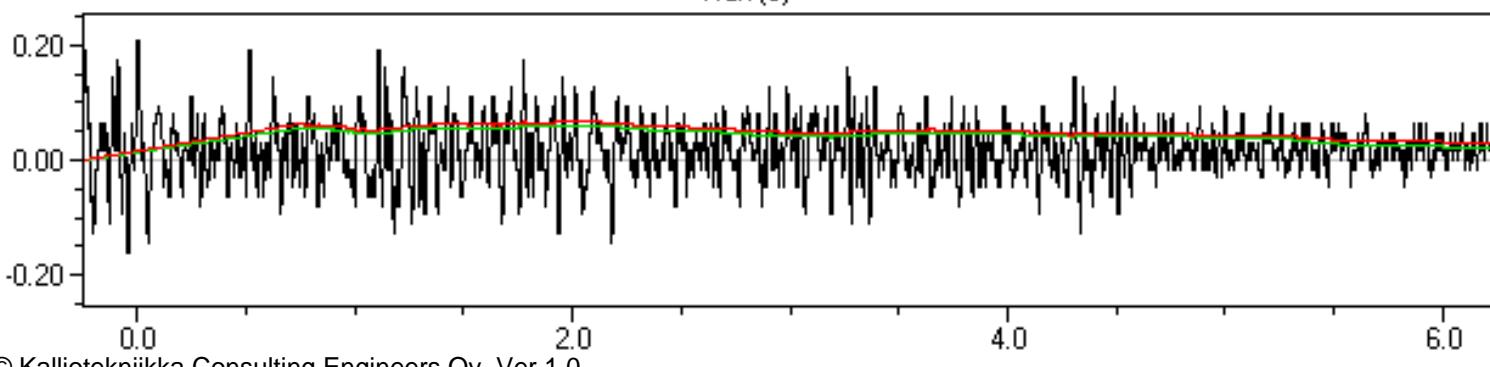
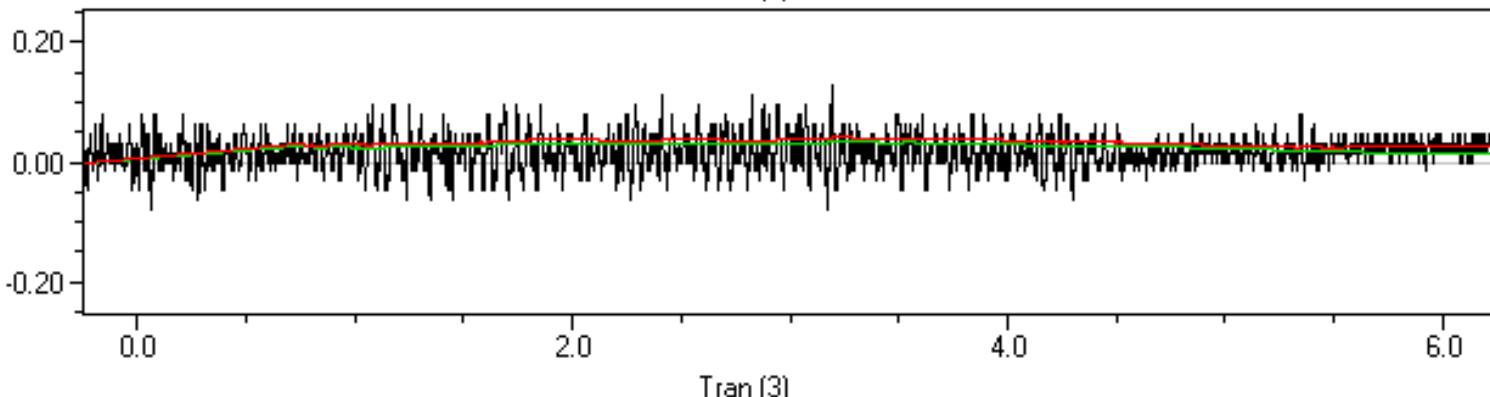
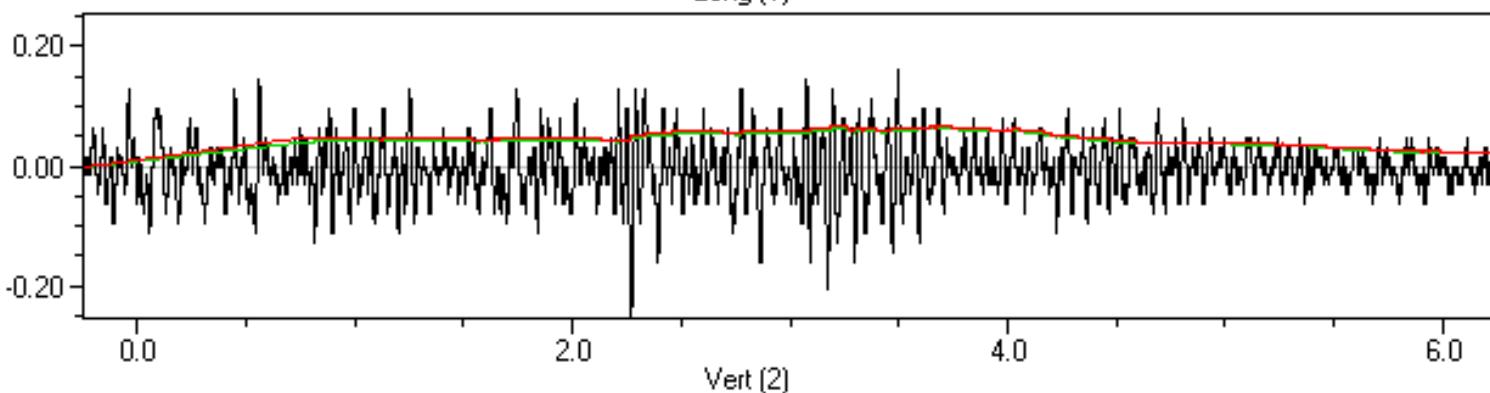
Record Time: 6.25 sec

Sample Rate: 1024 sps

Calibration: May 27, 2005 by Instantel Inc.

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.206 | 0.127 | 0.254 | mm/s |
| ZC Freq | 17 | 23 | 21 | Hz |
| Time of Peak | 0.000 | 3.191 | 2.270 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00178 | 0.00092 | 0.00182 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,03 | 0,06 | 0,08 |
| RMS (1s) | 0,07 | 0,04 | 0,07 | 0,09 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 00:32:01

File Name: L231BHKX.HD0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.75 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

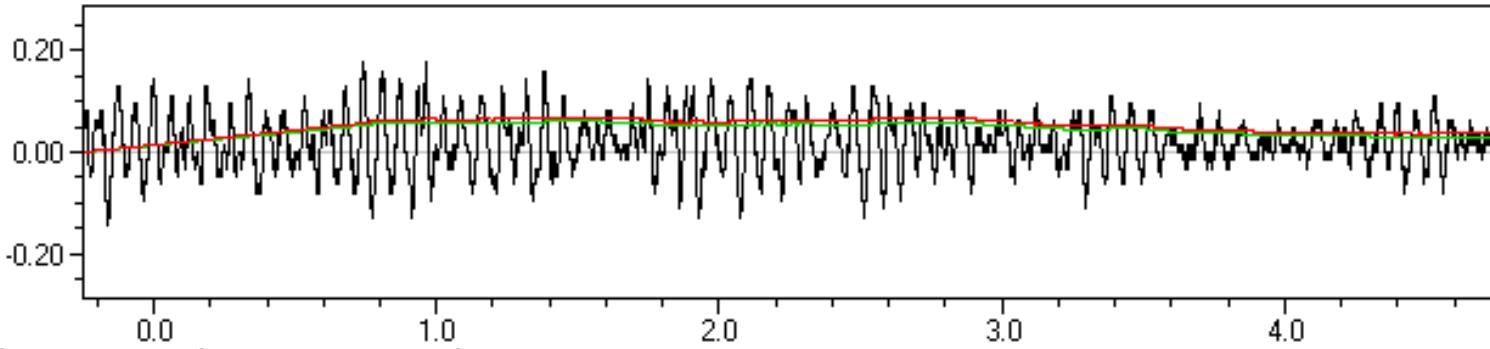
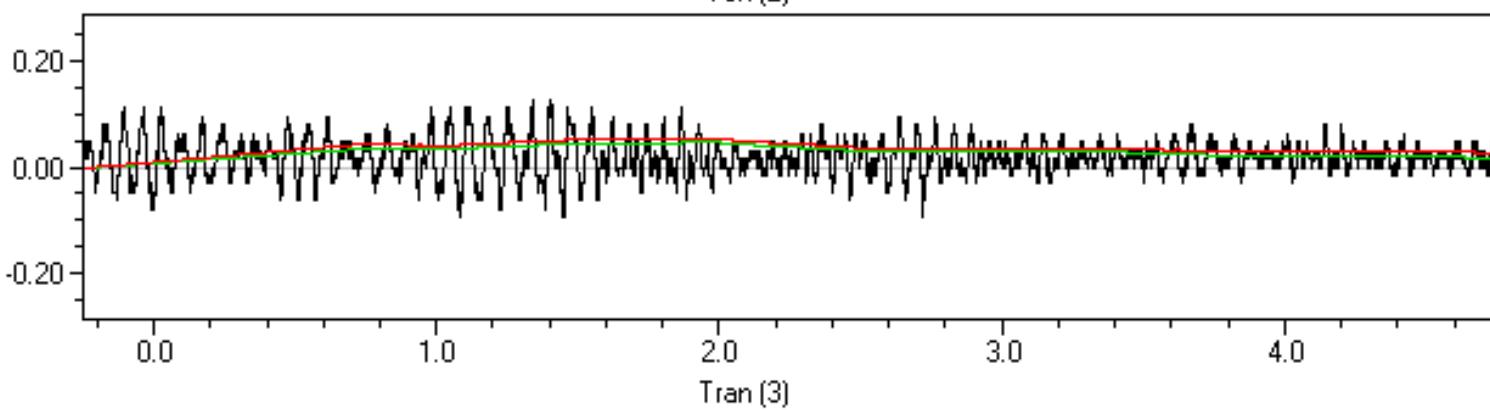
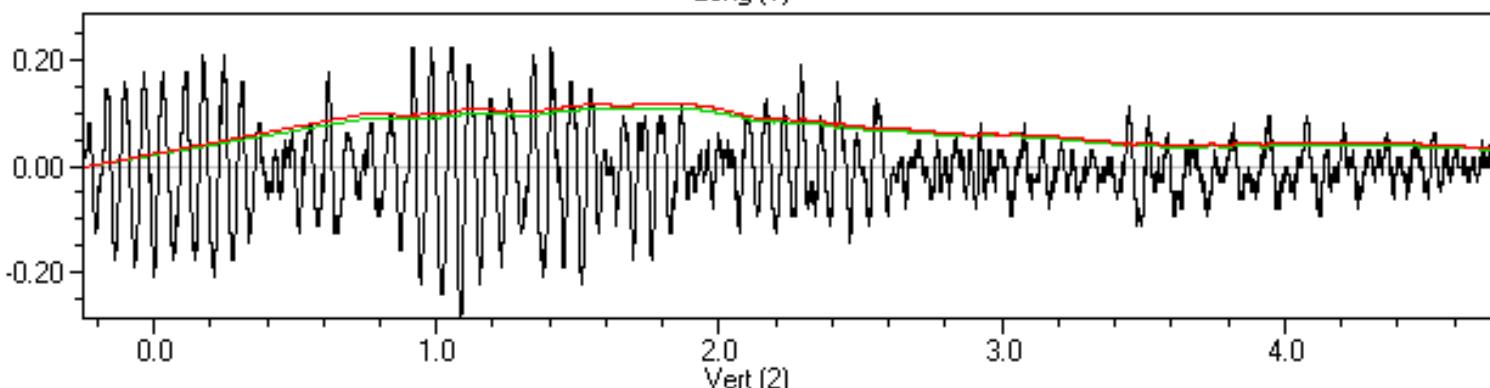
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.175 | 0.127 | 0.286 | mm/s |
| ZC Freq | 18 | 18 | 16 | Hz |
| Time of Peak | 0.737 | 1.338 | 1.083 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00663 | g |
| Peak Displacement | 0.00205 | 0.00132 | 0.00280 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,05 | 0,11 | 0,13 |
| RMS (1s) | 0,07 | 0,05 | 0,12 | 0,14 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 10:35:30

File Name: L231BHL.P.F60

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 6.25 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

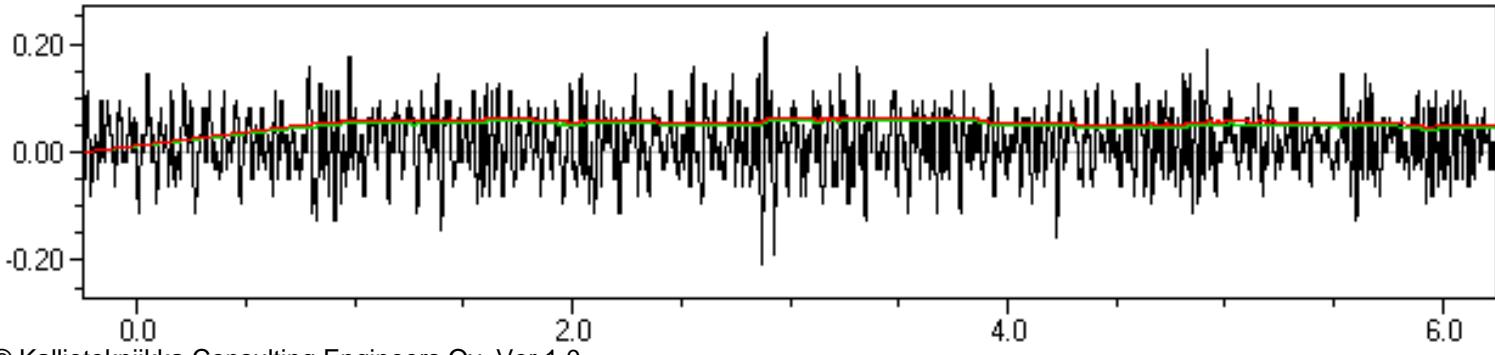
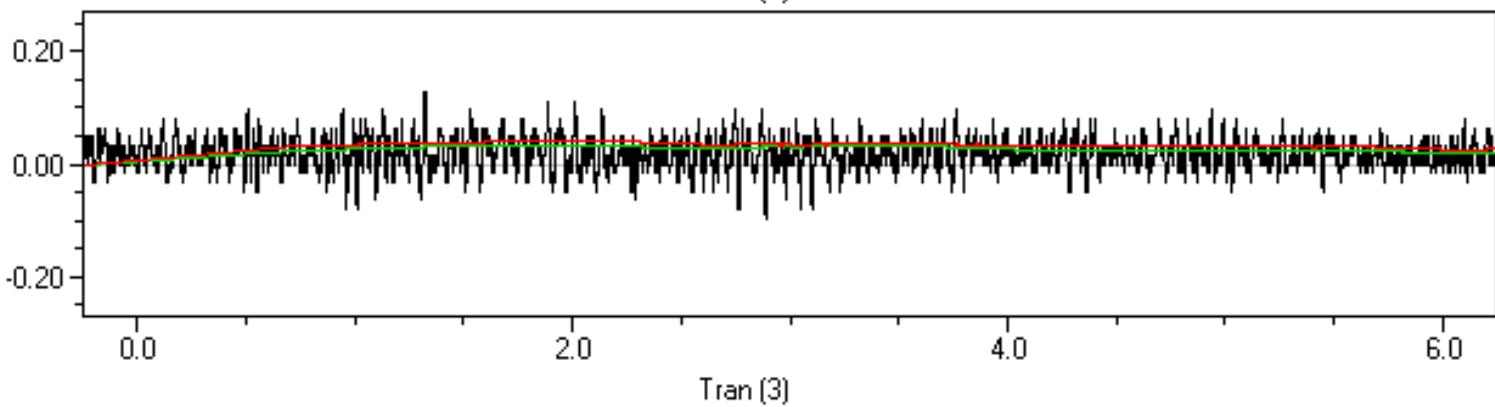
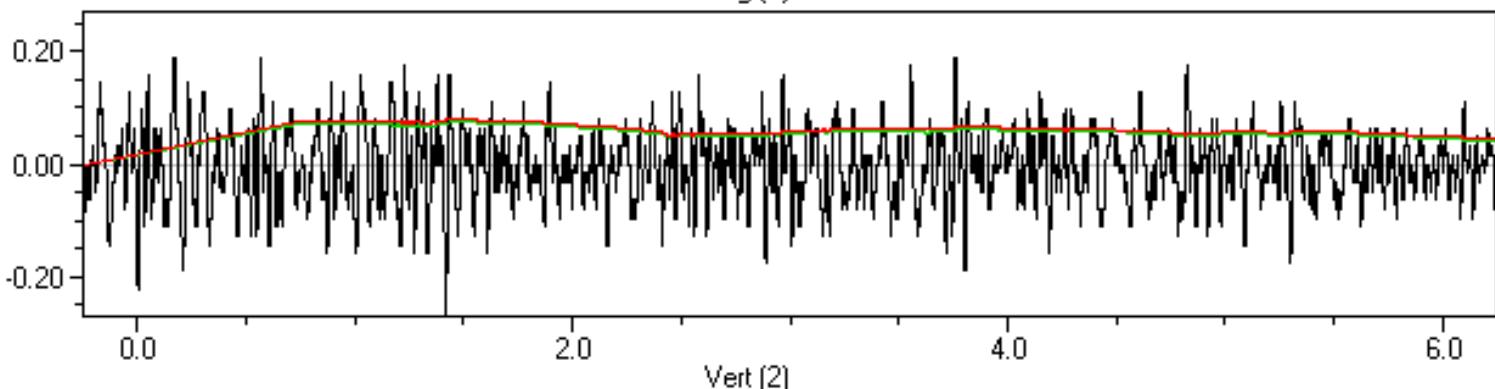
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.222 | 0.127 | 0.270 | mm/s |
| ZC Freq | 26 | 26 | 22 | Hz |
| Time of Peak | 2.888 | 1.320 | 1.418 | Sec |
| Peak Acceleration | 0.00663 | 0.00497 | 0.00663 | g |
| Peak Displacement | 0.00140 | 0.00113 | 0.00189 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0.06 | 0.03 | 0.07 | 0.10 |
| RMS (1s) | 0.06 | 0.04 | 0.08 | 0.11 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 11:31:09

File Name: L231BHLR.ZX0

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

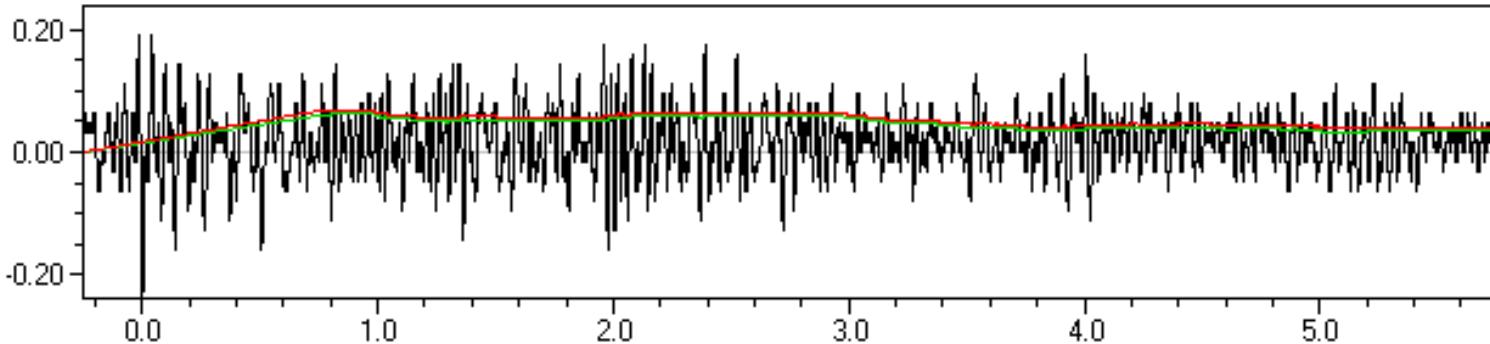
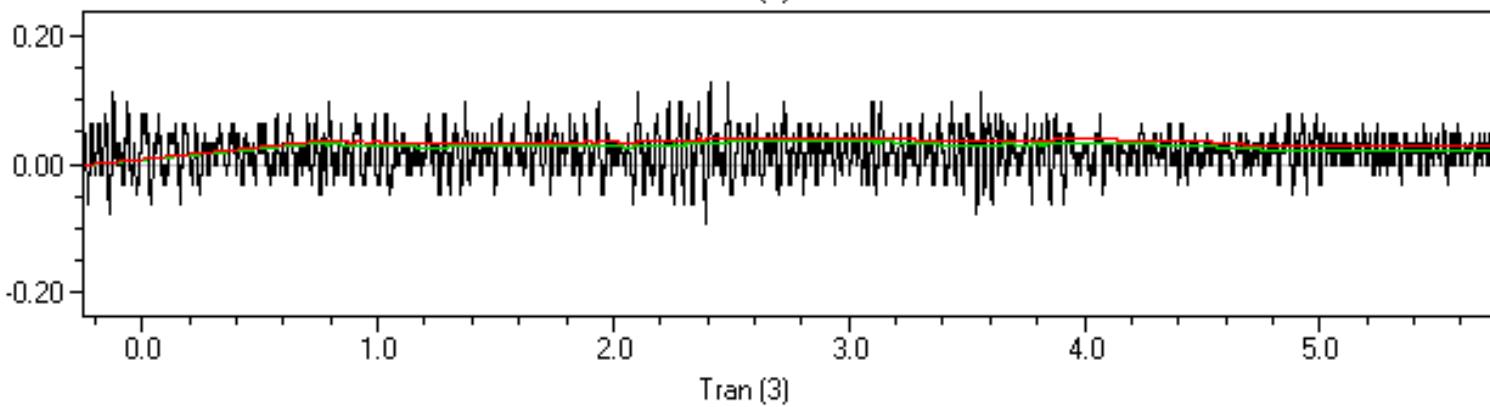
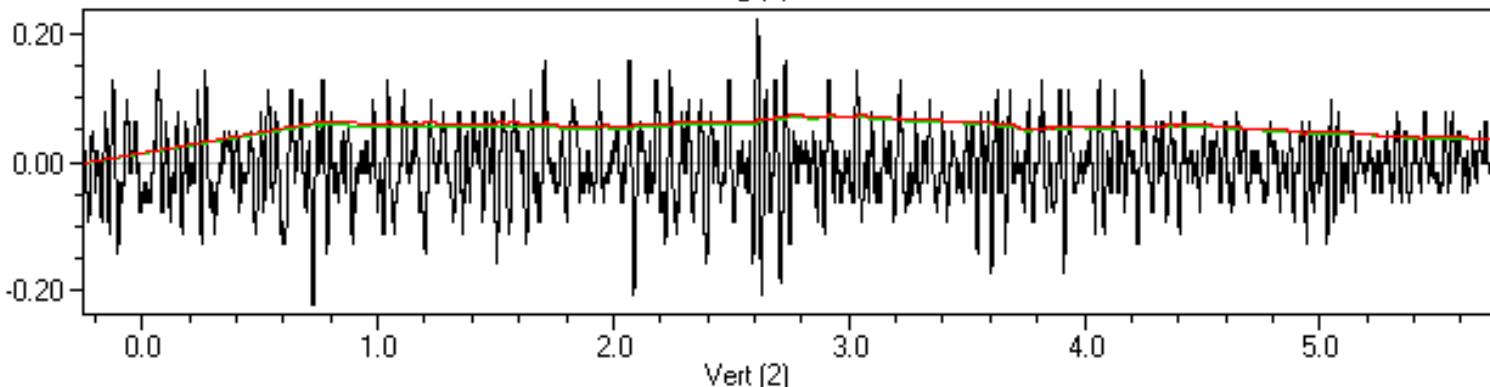
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.238 | 0.127 | 0.222 | mm/s |
| ZC Freq | 27 | 27 | 22 | Hz |
| Time of Peak | 0.002 | 2.410 | 0.724 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00188 | 0.00098 | 0.00174 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,04 | 0,07 | 0,10 |
| RMS (1s) | 0,07 | 0,04 | 0,07 | 0,11 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 12:16:59

File Name: L231BHLU.4B0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 5.75 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

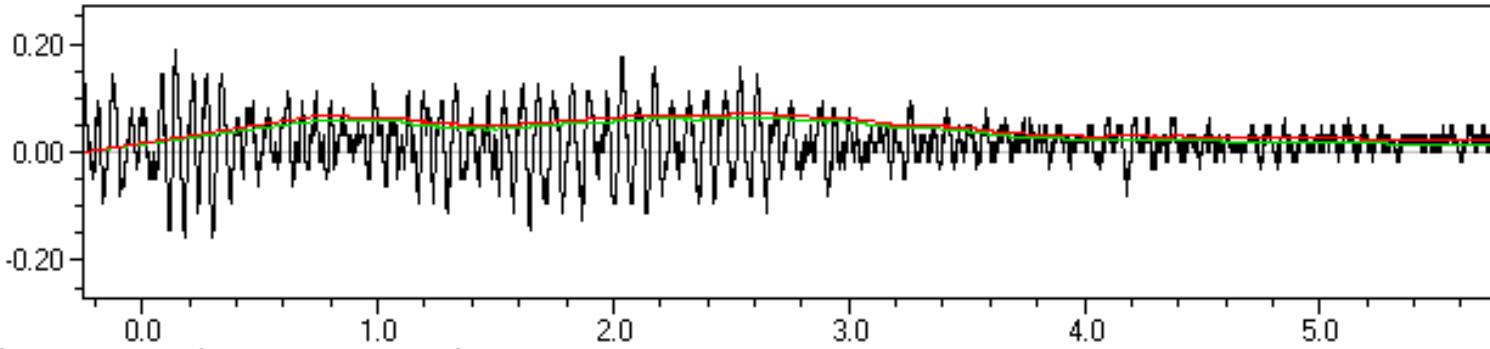
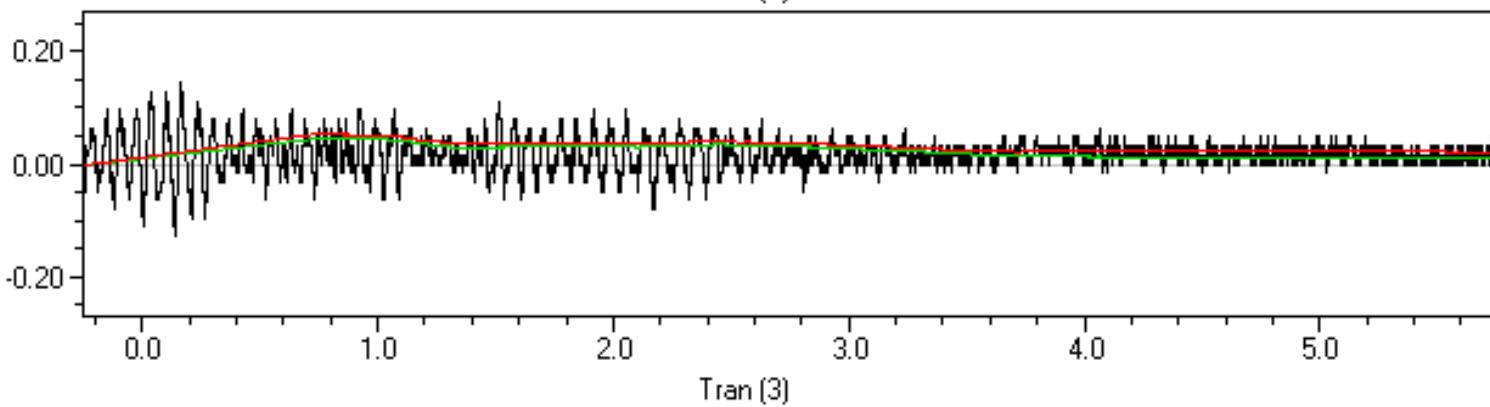
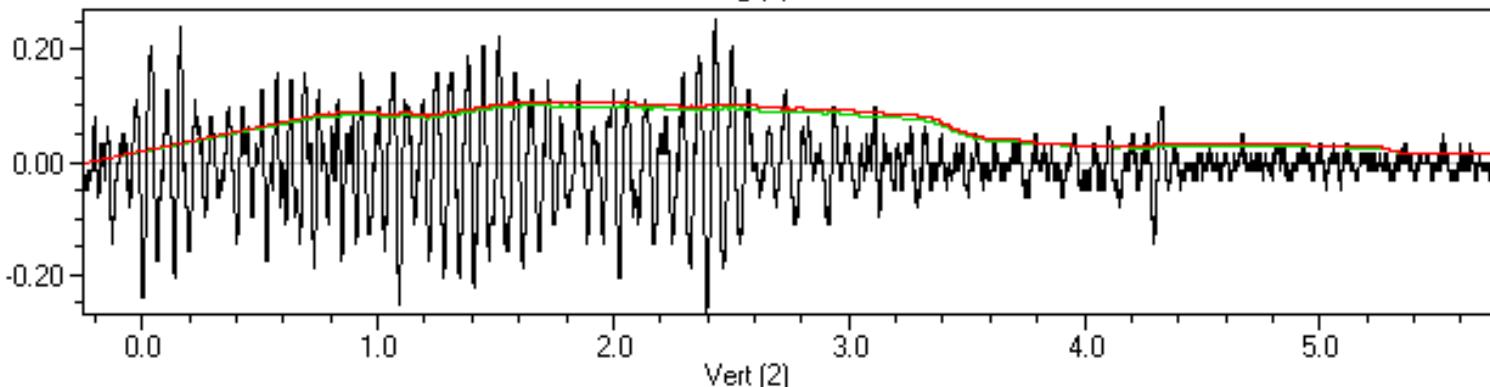
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.190 | 0.143 | 0.270 | mm/s |
| ZC Freq | 15 | 18 | 15 | Hz |
| Time of Peak | 0.139 | 0.160 | 2.396 | Sec |
| Peak Acceleration | 0.00497 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00193 | 0.00133 | 0.00272 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,05 | 0,10 | 0,12 |
| RMS (1s) | 0,07 | 0,05 | 0,11 | 0,13 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 12:30:32

File Name: L231BHLU.QW0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 8.75 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

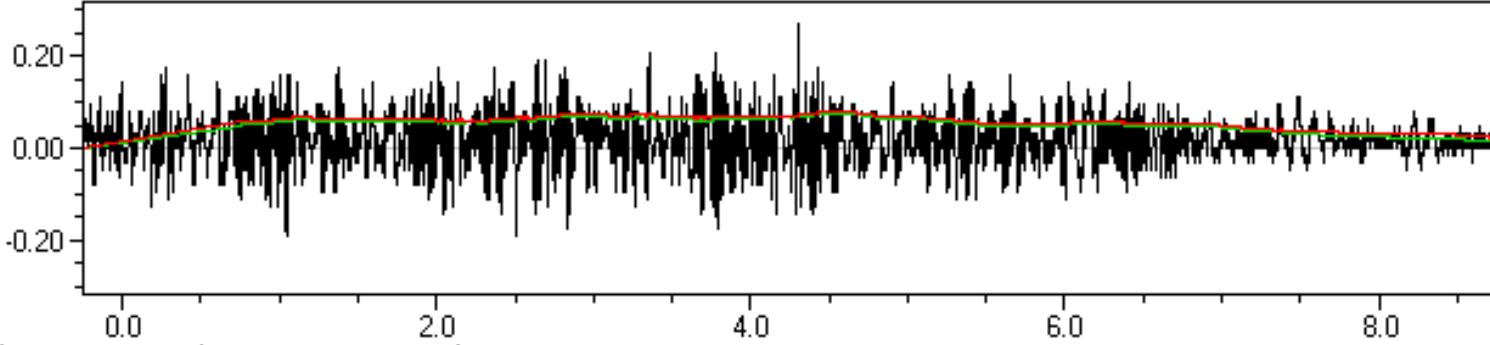
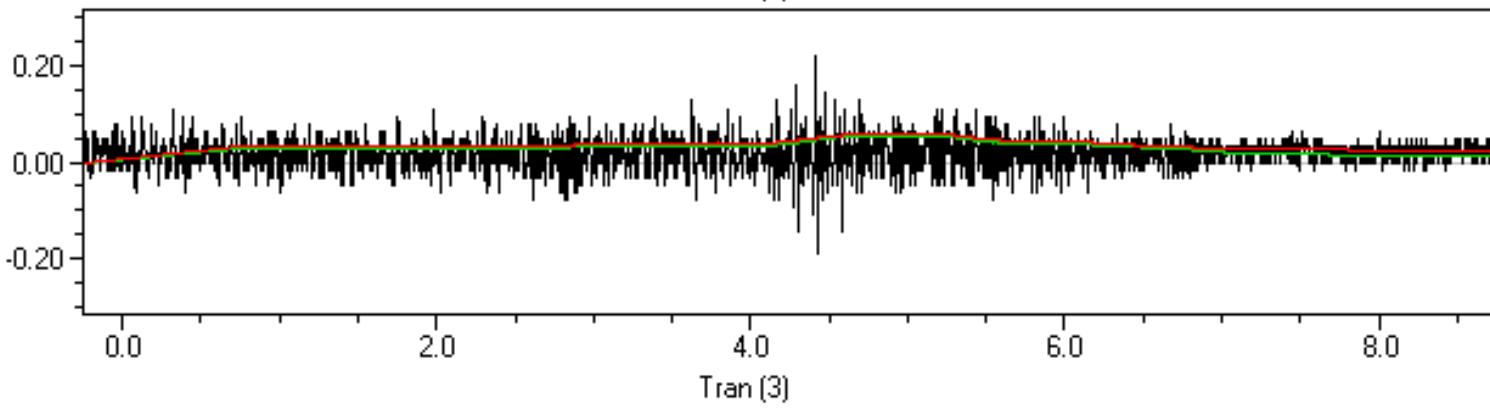
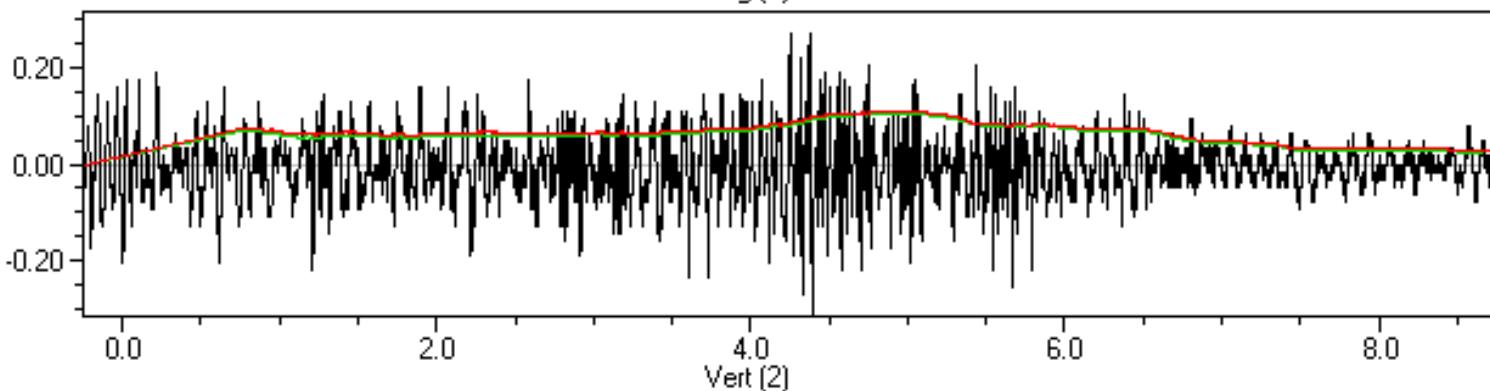
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.270 | 0.222 | 0.317 | mm/s |
| ZC Freq | 28 | 30 | 22 | Hz |
| Time of Peak | 4.302 | 4.413 | 4.394 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00829 | g |
| Peak Displacement | 0.00171 | 0.00113 | 0.00239 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,07 | 0,05 | 0,10 | 0,14 |
| RMS (1s) | 0,08 | 0,06 | 0,11 | 0,14 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 18:34:40

File Name: L231BHMB.LS0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 3.75 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

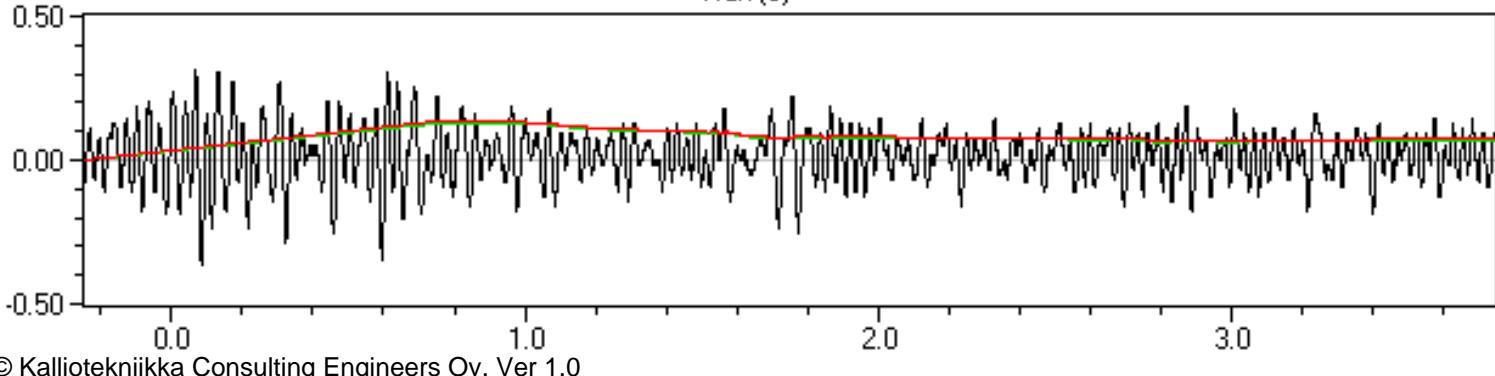
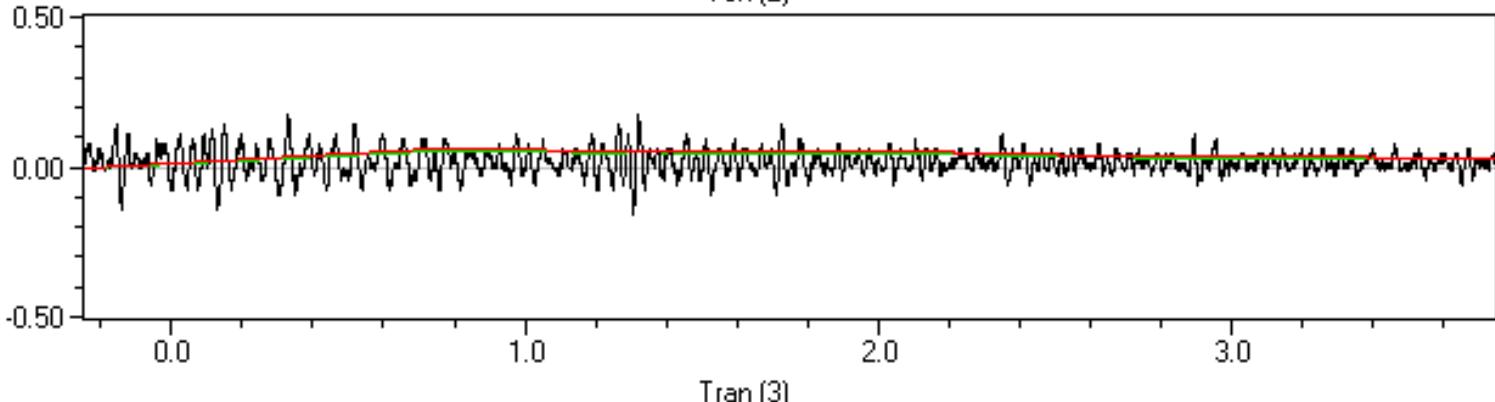
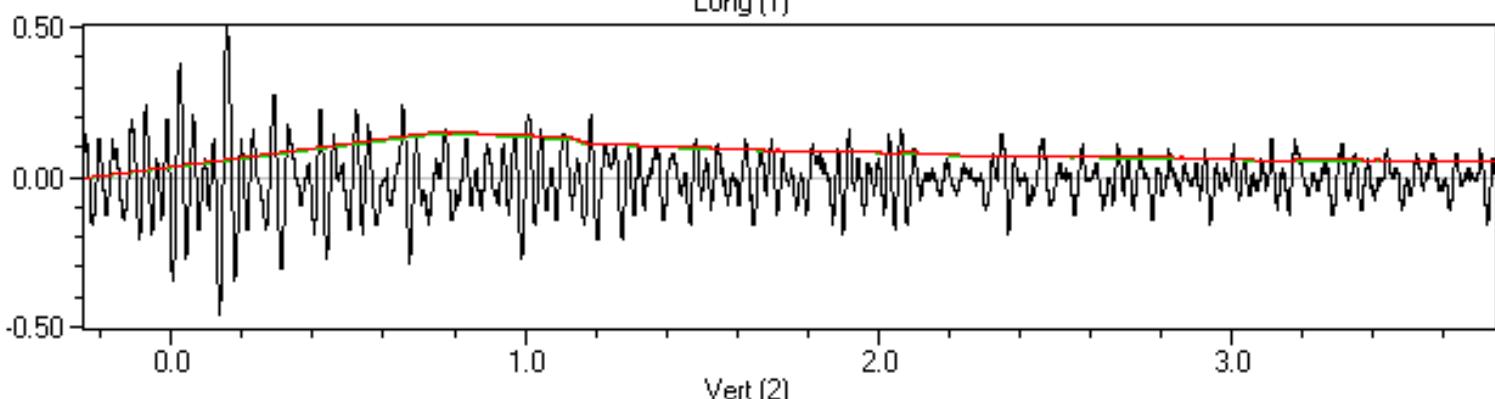
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.365 | 0.175 | 0.508 | mm/s |
| ZC Freq | 28 | 22 | 20 | Hz |
| Time of Peak | 0.083 | 0.329 | 0.157 | Sec |
| Peak Acceleration | 0.00829 | 0.00663 | 0.00829 | g |
| Peak Displacement | 0.00204 | 0.00114 | 0.00402 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,13 | 0,06 | 0,14 | 0,20 |
| RMS (1s) | 0,13 | 0,06 | 0,15 | 0,21 |

Long (1)





Event Date: January 6, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 22:29:42

File Name: L231BHMM.HIO

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 4.75 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

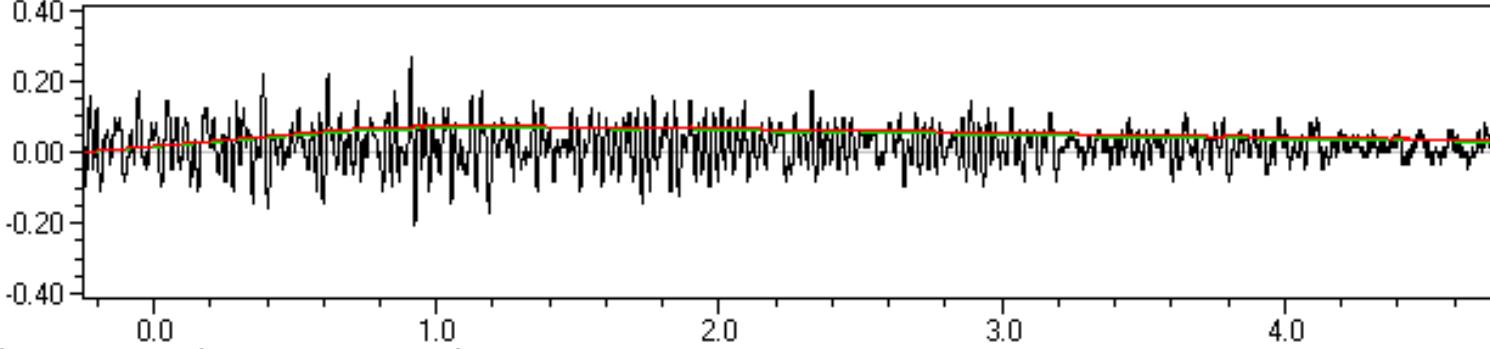
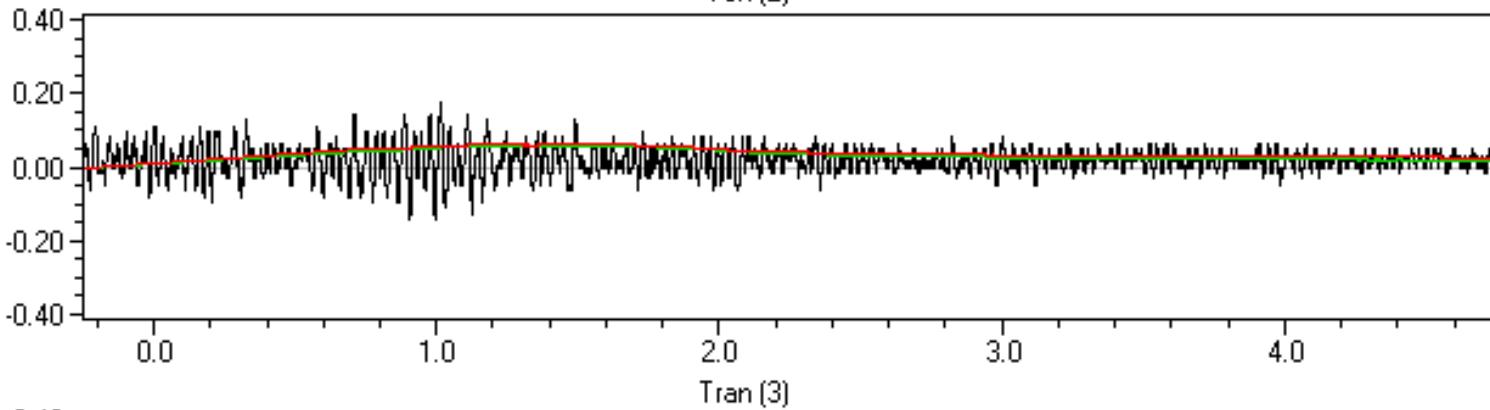
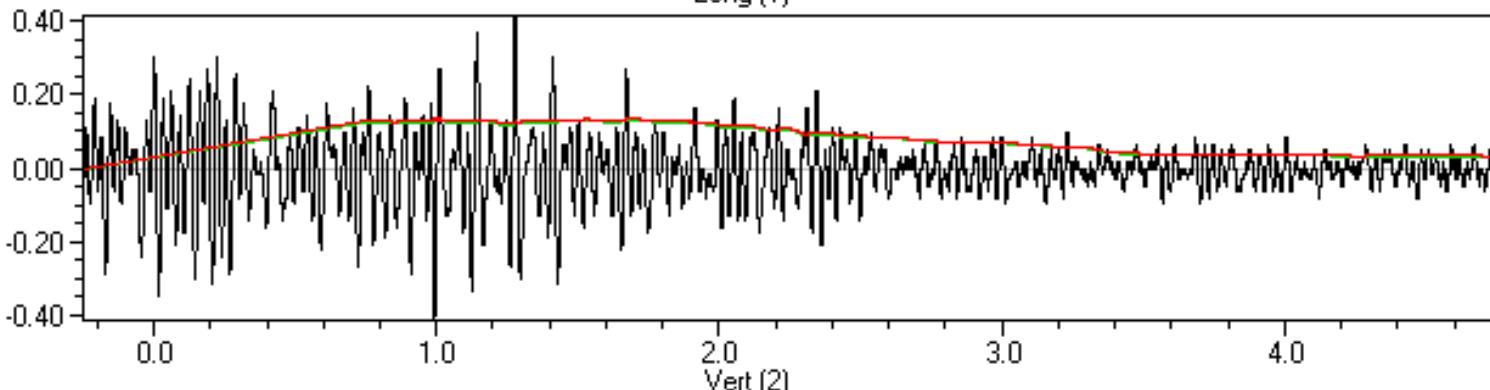
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.270 | 0.175 | 0.413 | mm/s |
| ZC Freq | 27 | 27 | 30 | Hz |
| Time of Peak | 0.908 | 1.014 | 0.991 | Sec |
| Peak Acceleration | 0.00663 | 0.00497 | 0.00994 | g |
| Peak Displacement | 0.00143 | 0.00106 | 0.00240 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,07 | 0,06 | 0,13 | 0,16 |
| RMS (1s) | 0,08 | 0,06 | 0,13 | 0,16 |

Long (1)





Event Date: January 7, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 17:42:03

File Name: L231BHO3.U30

Location: Kirkkonummi Liikennetarina

Trigger: Tran

Client: SITO

Record Time: 5.25 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

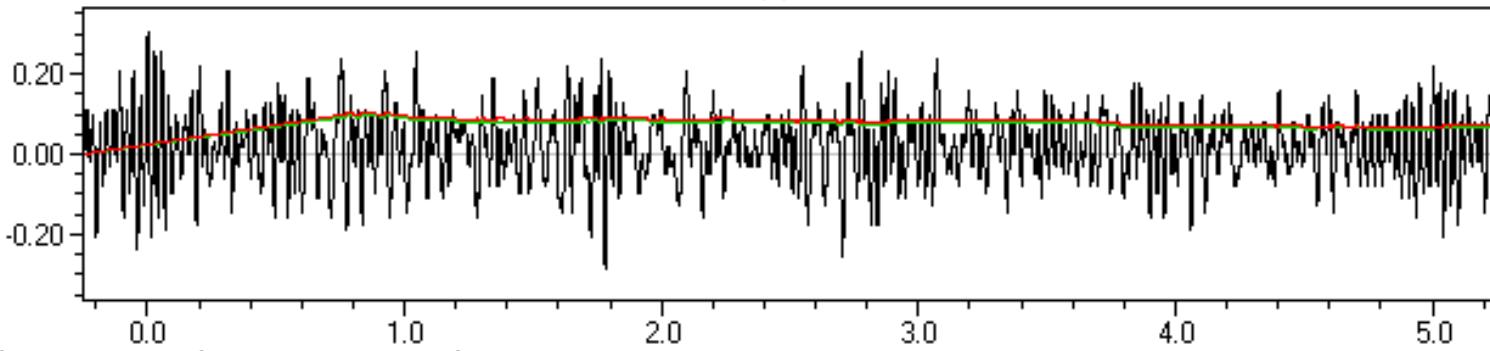
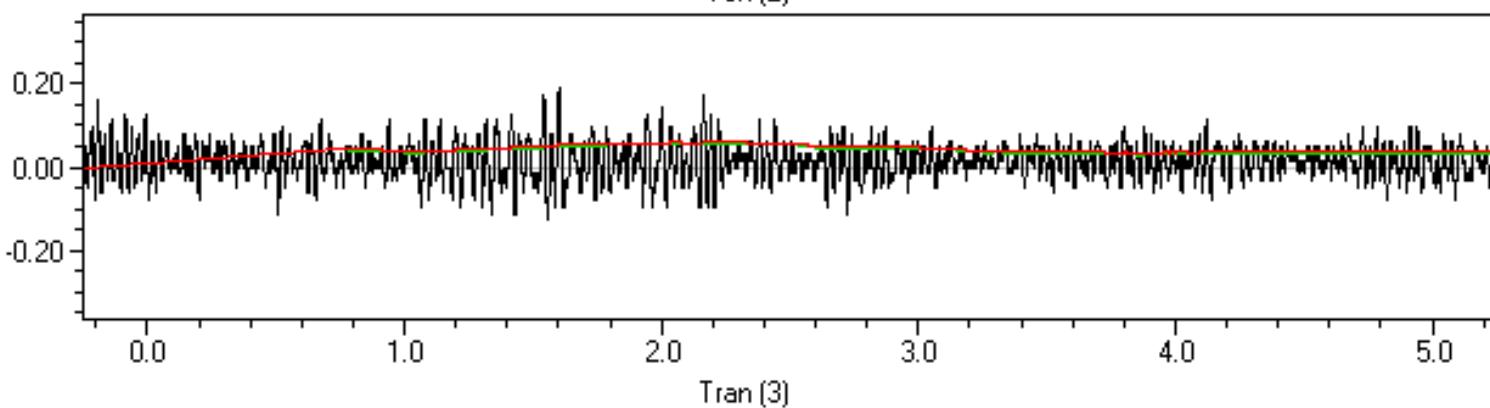
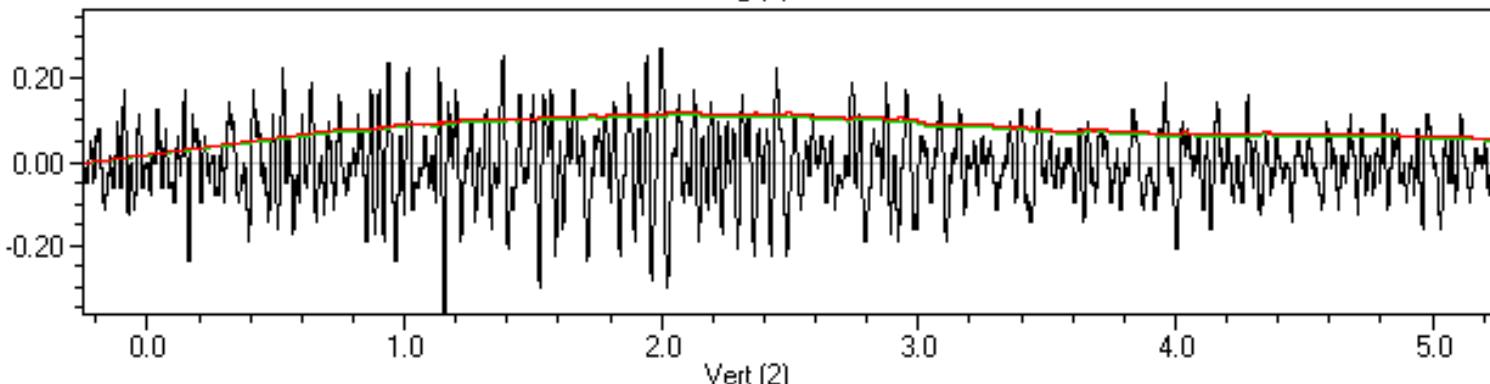
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.302 | 0.190 | 0.365 | mm/s |
| ZC Freq | 28 | 26 | 26 | Hz |
| Time of Peak | 0.000 | 1.601 | 1.152 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00257 | 0.00113 | 0.00278 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,10 | 0,06 | 0,11 | 0,15 |
| RMS (1s) | 0,10 | 0,06 | 0,12 | 0,16 |

Long (1)





Event Date: January 8, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 17:52:49

File Name: L231BHPZ.010

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 3.25 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

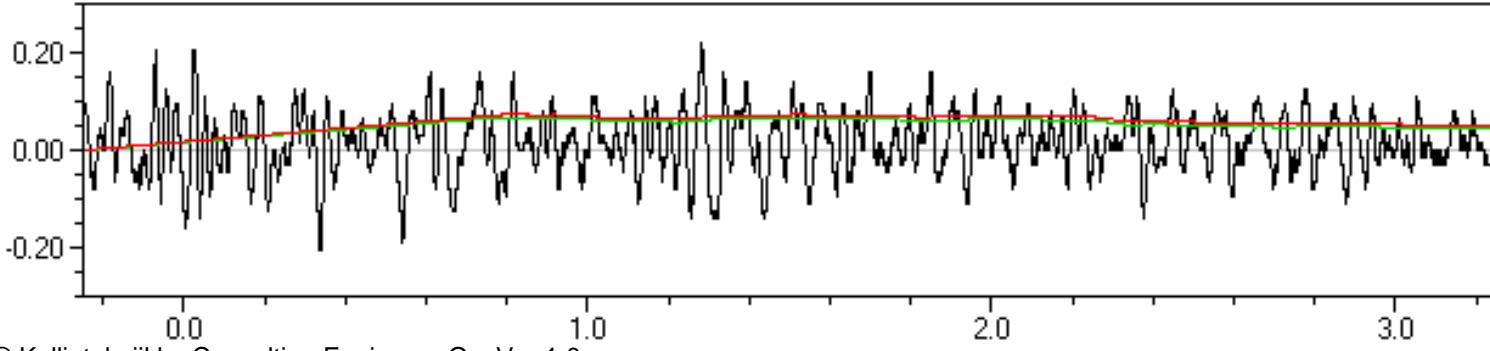
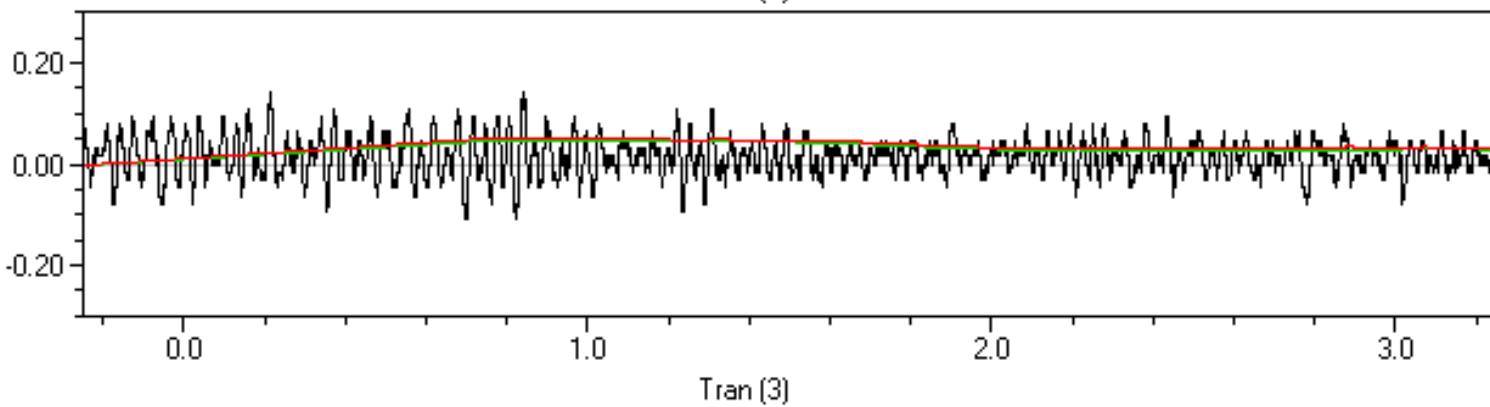
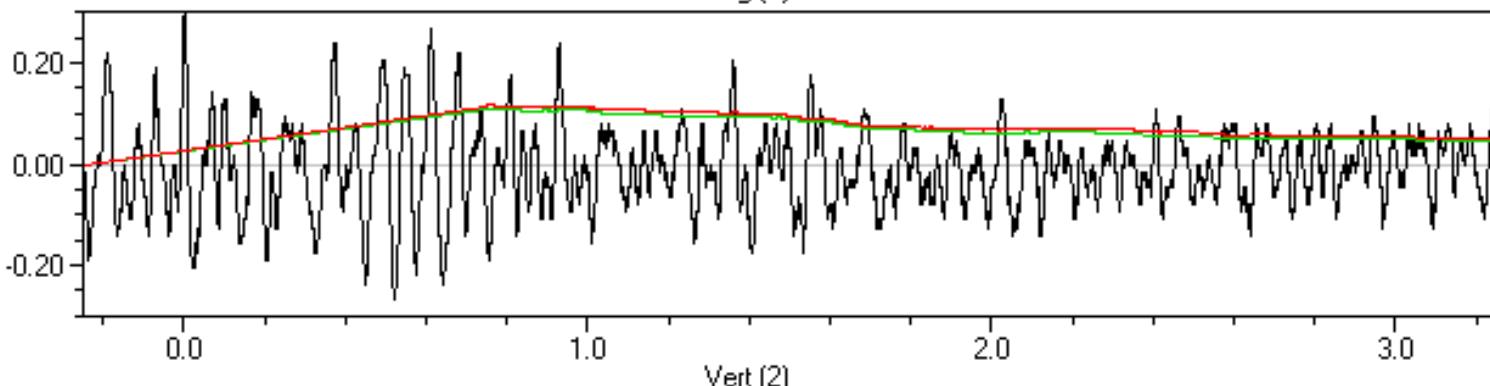
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.222 | 0.143 | 0.302 | mm/s |
| ZC Freq | 17 | 26 | 24 | Hz |
| Time of Peak | 1.280 | 0.212 | 0.000 | Sec |
| Peak Acceleration | 0.00497 | 0.00497 | 0.00663 | g |
| Peak Displacement | 0.00199 | 0.00088 | 0.00255 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,07 | 0,05 | 0,11 | 0,14 |
| RMS (1s) | 0,07 | 0,05 | 0,12 | 0,15 |

Long (1)





Event Date: January 8, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 21:27:46

File Name: L231BHQ8.YA0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 3.25 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

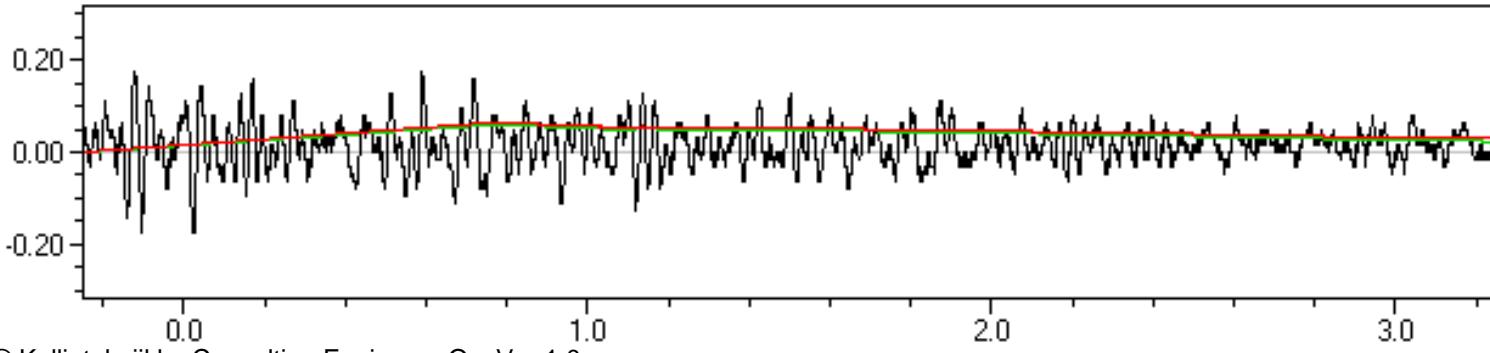
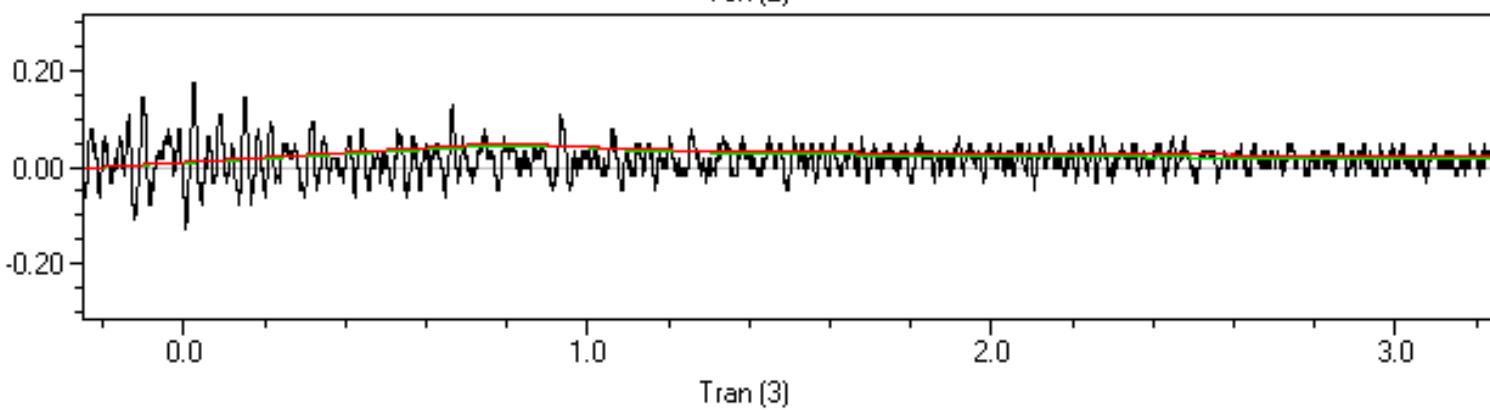
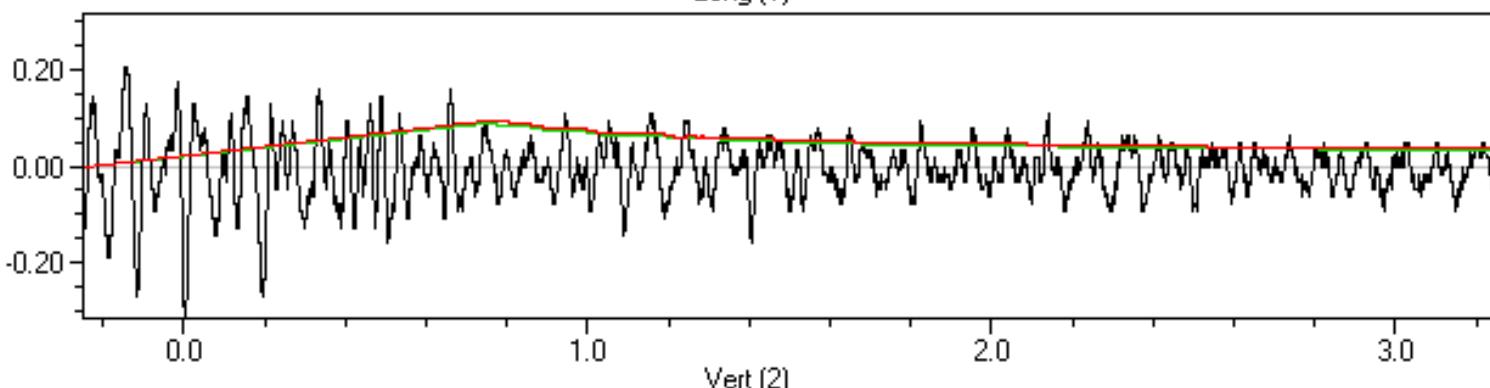
Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.175 | 0.175 | 0.317 | mm/s |
| ZC Freq | 26 | 23 | 22 | Hz |
| Time of Peak | -0.125 | 0.021 | 0.001 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00497 | g |
| Peak Displacement | 0.00112 | 0.00106 | 0.00236 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,06 | 0,05 | 0,09 | 0,11 |
| RMS (1s) | 0,06 | 0,05 | 0,09 | 0,12 |

Long (1)





Event Date: January 10, 2007

Serial Number: BE10231, V 8.01-8.0 MiniMate Plus

Event Time: 10:28:03

File Name: L231BHT3.QR0

Location: Kirkkonummi Liikennetarina

Trigger: Long

Client: SITO

Record Time: 3.25 sec

User Name: Kalliotekniikka CE Oy puh. 0207 437 400

Sample Rate: 1024 sps

Job Number: 5296

Calibration: May 27, 2005 by Instantel Inc.

Extended Notes:

| | <i>tran</i> | <i>vert</i> | <i>long</i> | |
|-------------------|-------------|-------------|-------------|---------------------|
| PPV | 0.270 | 0.254 | 0.317 | mm/s |
| ZC Freq | 24 | 27 | 23 | Hz |
| Time of Peak | 0.033 | 0.187 | 0.302 | Sec |
| Peak Acceleration | 0.00663 | 0.00663 | 0.00663 | g |
| Peak Displacement | 0.00166 | 0.00131 | 0.00202 | mm rms of magnitude |
| RMS (1s fw 5.6) | 0,08 | 0,07 | 0,11 | 0,15 |
| RMS (1s) | 0,09 | 0,07 | 0,11 | 0,15 |

Long (1)

