



CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES QUALITY ASSURANCE SURVEILLANCE REPORT

PROJECT NO.: 20-1402-471

REPORT NO.: 98-11

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SURVEILLANCE SCOPE: Surveillance on field equipment prior to geophysical surveys using differential GPS techniques.

REFERENCE DOCUMENTS: CNWRA Quality Assurance Manual, Section 12, Control of Measuring and Test Equipment; current Quality Requirements Application Matrices; QAP-004 Surveillance Control Procedure; CNWRA Program Manager's Periodic Report.

STARTING DATE: June 19, 1998

ENDING DATE: June 19, 1998

QA REPRESENTATIVE: Bruce Mabrito

PERSONS CONDUCTING FIELD ACTIVITY: Peter LaFemina, David Ferrill, John Stamatakos and others.

SATISFACTORY FINDINGS:

The complete Equipment List (attached) was made available for this surveillance by P. LaFemina approximately 3 work days prior to shipment of the equipment, as specified in the monthly CNWRA QA Status Reviews. This surveillance is similar to earlier surveillance checking of equipment prior to field work in April 1998. Equipment checked was in a locked room in CNWRA Bldg. 57 and was for the most part packaged and ready for shipment. A sampling of the shipping containers showed no deviations from the GPS Equipment List and all equipment was well protected from damage by purpose-built shipping containers with handles. The inside of each container is well padded and appears to provide a good protective environment for each piece of equipment. There were a total of 11 containers that were being prepared for shipment.

As explained previously to CNWRA QA, all the equipment being taken to the field is non-calibrateable. The differential GPS provides location information (x, y, and z axes) to within a relatively close tolerance (approximately 20 cm). Absolute calibration to a national standard is not needed because the readings are in relative units.

Technical Operating Procedure-024, Differential Global Positioning System Operation, is available to the team working in the field and they will be following that operating procedure, which was distributed in December 1997.

UNSATISFACTORY FINDINGS: None

NONCONFORMANCE REPORT NO.: N/A

ATTACHMENTS: Notification e-mail note to QA from P. LaFemina sent 6/19/98; DGPS Equipment List.

RECOMMENDATIONS/ACTIONS: None

APPROVED: 
CENTER DIRECTOR OF QUALITY ASSURANCE

DATE:

6/22/98

DISTRIBUTION:

ORIGINAL - CENTER QA DIRECTOR / QA Records
ORIGINATOR B. Mabrito
PRINCIPAL INVESTIGATOR D. Ferrill
ELEMENT MANAGERS
B. Sagar, P. LaFemina, C. Connor, J. Stamatakos
H. Garcia

Date: 6/19/98
Sender: Peter LaFemina
To: Bruce Mabrito
Priority: Normal
Receipt requested
Subject: Equipment Surveillance

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Attached is a list of the equipment which will be used for a differential GPS survey at Yucca Mountain, Nevada between June 25, 1998 and July 2, 1998. As is always the case, this equipment is non-calibratable. If you have any questions, please feel free to call me.

Regards,

Pete La Femina
ext. 6837



dgpeeqp.wpd

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Novatel GISMO 12-channel GPS receiver, mdl GISMO RT-20, #CGF96380001
Novatel GISMO 12-channel GPS receiver, mdl GISMO BASE, #CGF96370003
Novatel Millenium 12-channel GPS receiver, mdl PROPAK 2-STD, #CGT97340019
Novatel Millenium 12-channel GPS receiver, mdl PROPAK 2-RT-2, #CGT97340023
DAP portable GPS data logger, mdl PC9500, #CQ2827, #CQ4362, #CQ4342
Pacific Crest UHF base station radio/modem 35 watt, mdl RFM96W, #96306355
Pacific Crest UHF 2 watt radio/modem, mdl RFM96W, #96356664, #97362226, #97352079
Novatel Active GPS antennas, mdl 501, #CGA96210029, #CGA96230035
Novatel Active GPS antenna, mdl 502, #6255.502
Novatel Active GPS choke ring antenna, mdl 503, 6345.503
Motorola 5-watt VHF portable radios, mdl P-100, #1042, #1044, #1173
Panasonic laptop computer, mdl CF-25, #CF-25EGC2AAM 6IKSA01051
Radio Shack digital multimeter, mdl 22-178, #8A7 012367
Aluminum tripods, Capital Industries