NICHOLS
CONSULTING
ENGINEERS, Chtd.

# MEMORANDUM

TO: Aramis Lopez, Jr. FILE: 800.12.8.9.13, 3202
FROM: Srikanth S. Holikatti and Douglas J. Frith
DATE: October 1, 1997
SUBJECT: **Suspension of SMP Site Monitoring Activities, Site 320204**

This memo will serve as the SMP Site Monitoring Activities Suspension Status Report for Site 320204(32SB) near Battle Mountain, Nevada.

The site was last monitored on September 9, 1997. The following monitoring and data collection activities were performed:

- FWD deflection data
- Manual distress survey
- Elevation measurements
- Joint faulting measurements using the Georgia fault meter
- Ground water table and water table depth
- Joint opening measurements
- Automated moisture (TDR) measurements
- Automated resistance data
- Onsite data download from the CR10 datalogger
- Manual TDR traces
- 2 Point resistance calibration
- Manual 2 point resistance and 4 point resistivity

Longitudinal profile measurements of the section were performed on September 16, 1997.

After completion of the monitoring activities, the following close out activities were performed:

- The observation piezometer cap was cleaned, the well top threads cleaned, lubricated, and sealed. Drainage was also provided from the well to prevent any accumulation of water.

- The CR10 panel, terminal strip, and relay were removed from the instrument box.

1885 S. Arlington Ave., Suite 111
Reno, Nevada 89509

Telephone (702) 329-4955
Fax (702) 329-5098

- All TDR and other sensor cables in the instrument box were re-labeled, and the ends cleaned and electronic grade anti-corrosive compound was applied. The cable ends were organized in a logical manner, placed in a plastic bag, and taped with a bag of silica desiccant to keep them dry.

- The instrumentation hole and the access trench saw cuts were cleaned and resealed with silicone sealant.

- The weather station and support pole were dismantled. The pole top was capped, covered with a plastic bag, and taped.

- The snap ring holes were cleaned and sealed with silicone sealant.

- The pavement temperature measurement oil holes were cleaned, flushed, and sealed with silicone sealant.

- The instrumentation box was cleaned and adequate drainage provided to prevent accumulation of water.

- The instrumentation box lock was lubricated with graphite lubricant and scotch taped to keep the weather elements out.

- All test location markings and other section markings were refreshed.

- A layout schematic was drawn to facilitate re-establishment of the site without difficulty in the future.

The instrumentation hole is located 3.18m prior to the start of the section and the instrument box is located at a distance of 7.97m from the shoulder edge. The piezometer is located at 18.34m beyond the start of the section at an offset of 4.19m. Please refer to the enclosed layout schematic

Evaluation of data collected during the dismantle activities indicates that all installed instruments are functioning normally. There is no reason to believe otherwise at this site. Please refer to the enclosed SMPCheck plots.

We are also enclosing the following:

- Photographs taken during the data collection and dismantle activities.
- A summary table of seasonal data collection activities over the preceding monitoring cycles.

- Site layout schematic clearly showing the location of the instrument hole, observation well, weather station, equipment cabinet, FWD, and elevation locations and joint opening snap rings.
- Photos of onsite data and mobile data from SMPCheck indicating the functionality of installed sensors.

We trust this report and its attachments provide a complete documentation of the suspension and dismantle activities for this particular seasonal monitoring site.

SSH/rkp
Enclosures

cc: Dr. Gonzalo Rada

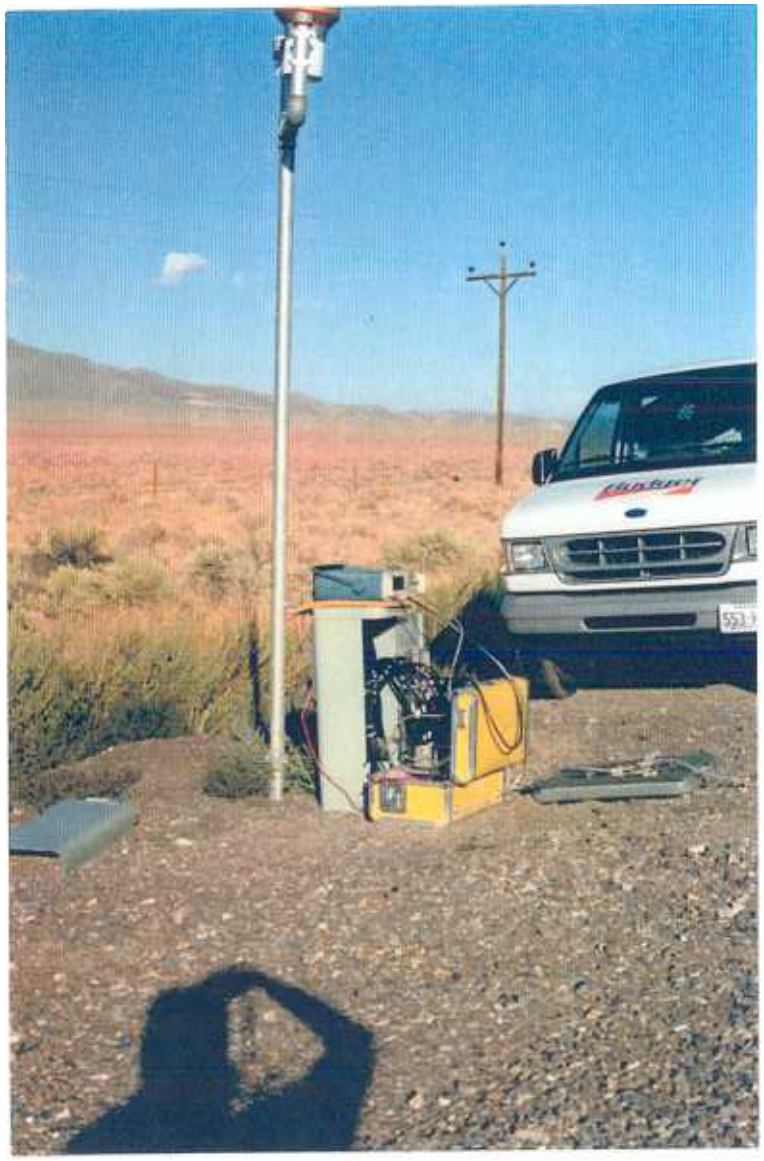


Photo Last set of data collection in progress

Photo Tied taped cable ends in the instrumentation box

Photo 3. Instrumentation hole and access trench.

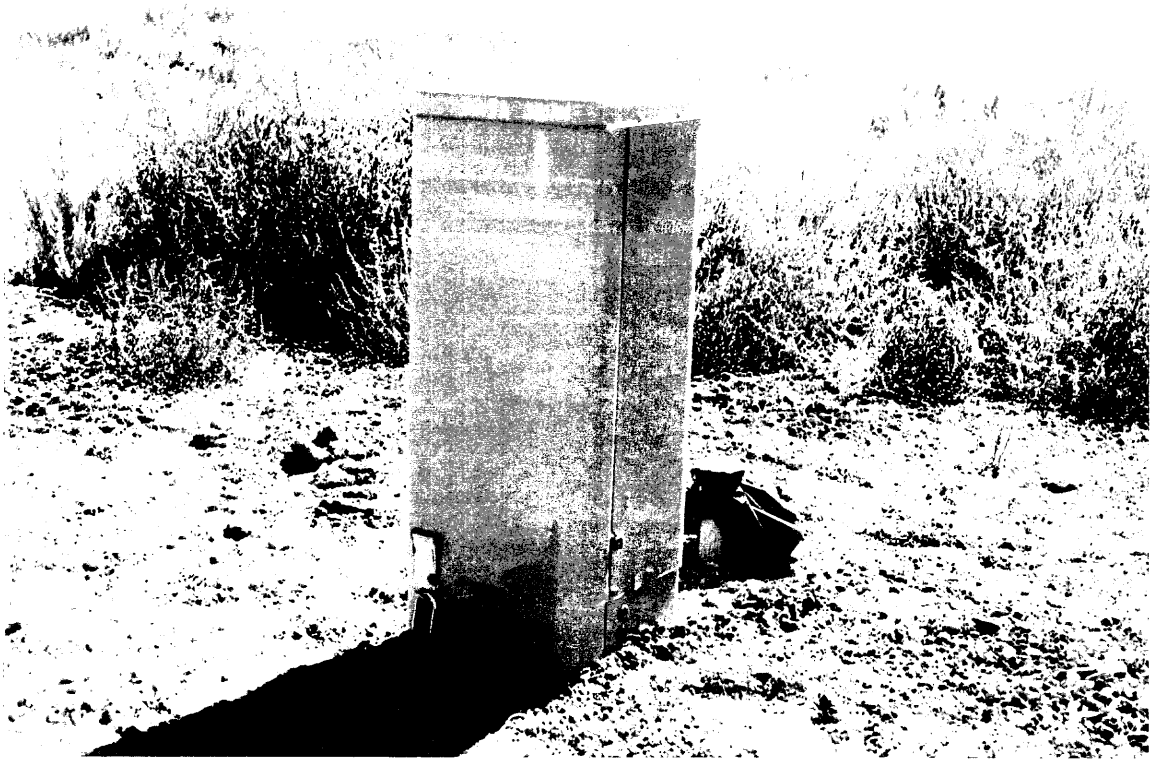


Photo 4. The instrumented area after dismantle.

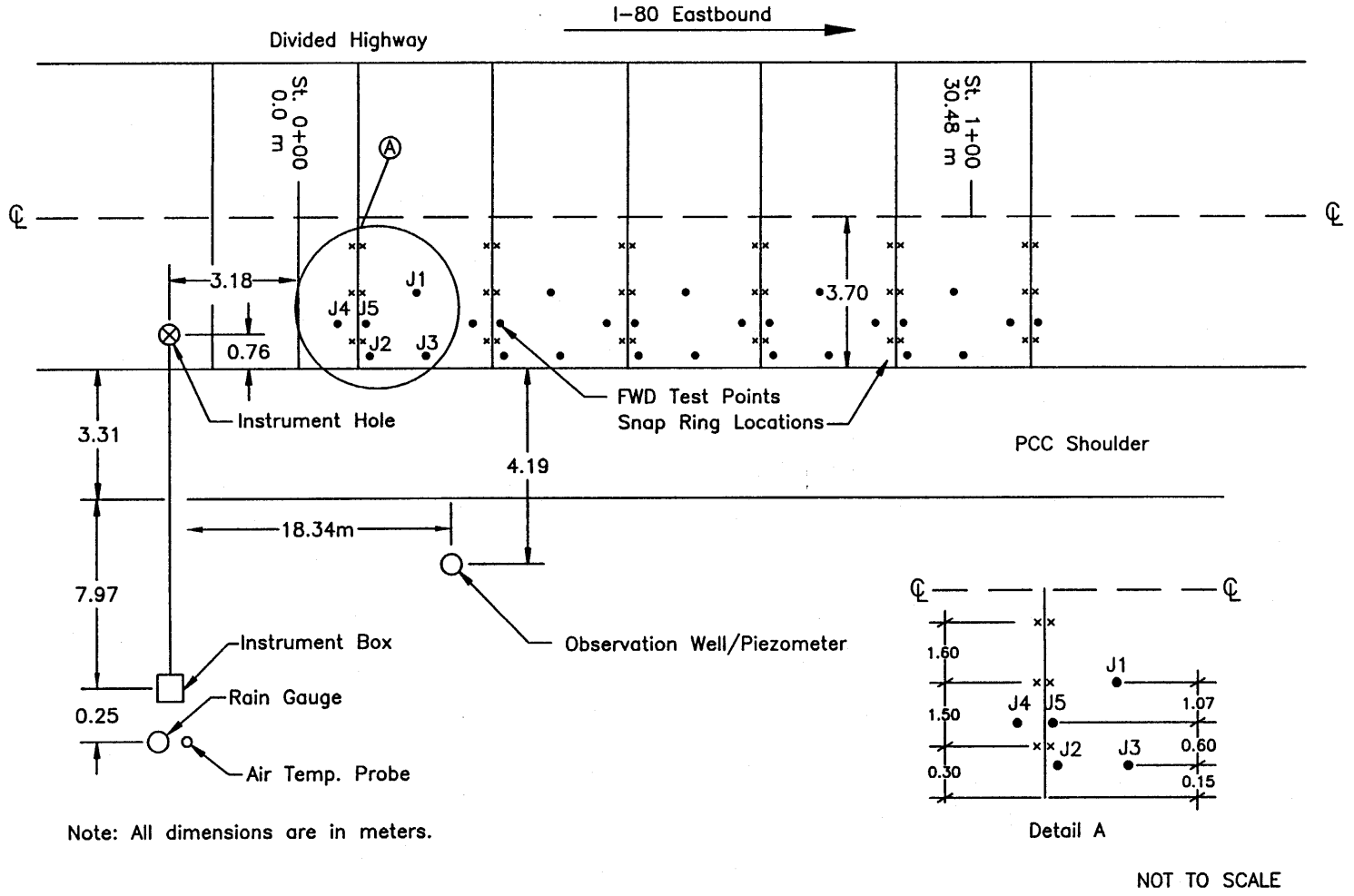
**SUMMARY of SMP DATA COLLECTED TILL DATE.**

**Agency Code:** 32, Nevada.
**LTPP Section Code:** 0204.

**Location:** Battle Mountain, Nevada.
**Pavement Type:** Portland Cement Concrete.

| | | ONSITE Data | | | MOBILE Data. | | Manual Data | | | | | | | | FWD Data | | | | Distress Data | | Profile Data | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Test Date dd/mm/yy | Visit Indentity \ Code | Pav Temp | Ambient Temp | Precptn. | Subsurface Moisture (TDR) | Frost Depth 2-Point | Backup Pav Temp | Backup Moisture (TDR) | Frost Depth 2-Point. | Frost Depth 4-Point. | Water Table. | Surface Elev. | Joint Open. | Joint Fault. | Surface Layer Temp. | No. of Cycles/Visit. Load Trnsf | Mid Panel | PE | Manual | PASCO | Profile | Comments |
| 10-Oct-96 | A | Y | Y | Y | N | N | N | Y | Y | Y | Y | Y | Y | Y | Y | 2 | 2 | 2 | Y | Y | N | Mobile Box Breakdown |
| 5-Nov-96 | B | Y | Y | Y | N | N | N | Y | Y | Y | Y | Y | Y | Y | Y | 3 | 3 | 3 | Y | N | N | |
| 2-Dec-96 | C | Y | Y | Y | Y | Y | N | Y | Y | Y | Y | N | Y | Y | Y | 3 | 3 | 3 | N | N | Y | |
| 7-Jan-97 | A | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 3 | 3 | 3 | N | N | N | |
| 4-Feb-97 | B | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 3 | 3 | 3 | N | N | N | |
| 12-Mar-97 | C | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 4 | 4 | 4 | Y | N | Y | No traffic control for faulting |
| 1-Apr-96 | D | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 2 | 2 | 2 | N | N | N | Snowing |
| 17-Apr-97 | E | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 2 | 2 | 2 | Y | N | Y | |
| 97-May-13 | G | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 2 | 2 | 2 | N | N | N | |
| 4-Jun-97 | H | Y | Y | Y | Y | Y | N | N | N | N | Y | N | Y | N | Y | 2 | 2 | 2 | N | N | N | No fault & rest. data due to rain |
| 14-Jul-97 | I | Y | Y | Y | Y | Y | N | N | Y | Y | Y | Y | Y | Y | Y | 2 | 2 | 2 | Y | N | N | |
| 14-Aug-97 | J | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 2 | 2 | 2 | N | N | Y | |
| 9-Sep-97 | K | Y | Y | Y | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | Y | 2 | 2 | 2 | Y | N | Y | Site Dismantle |
| | | | | | | | | | | | | | | | | | | | | | | |

SECTION 320204
Battle Mt., NV




Note: All dimensions are in meters.

Detail A

NOT TO SCALE

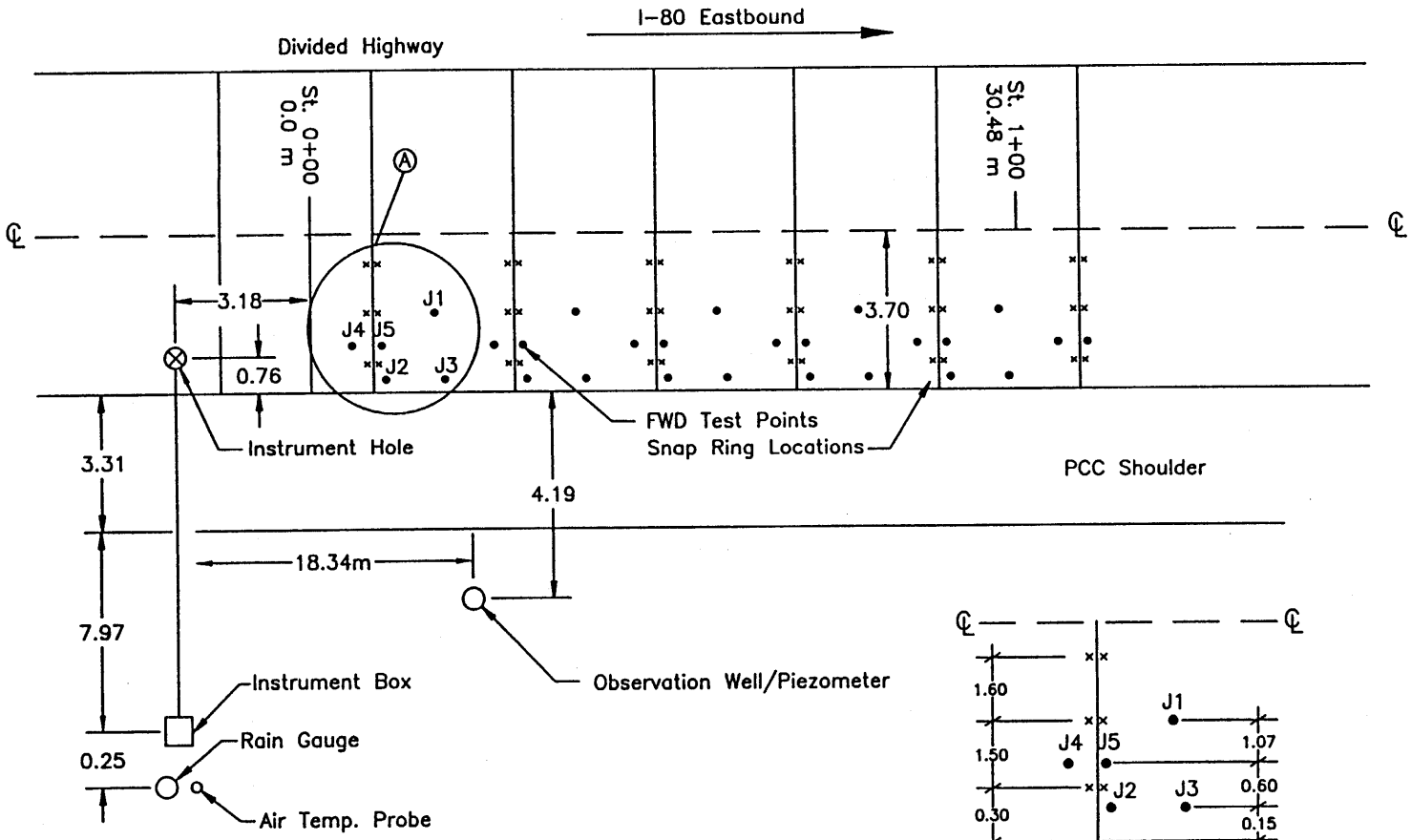
**SUMMARY of SMP DATA COLLECTED TILL DATE.**

**Agency Code:** 32, Nevada.
**LTPP Section Code:** 0204.

**Location:** Battle Mountain, Nevada.
**Pavement Type:** Portland Cement Concrete.

| | | ONSITE Data | | | MOBILE Data. | | Manual Data | | | | | | | | FWD Data | | | | Distress Data | | Profile Data | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | No. of Cycles/Visit. | | | | | | |
| Test Date dd/mm/yy | Visit Indentity \ Code | Pav Temp | Ambient Temp | Precptn. | Subsurface Moisture (TDR) | Frost Depth 2-Point | Backup Pav Temp | Backup Moisture (TDR) | Frost Depth 2-Point. | Frost Depth 4-Point. | Water Table. | Surface Elev. | Joint Open. | Joint Fault. | Surface Layer Temp. | Load Trnsf | Mid Panel | PE | Manual | PASCO | Profile | Comments |
| 10-Oct-96 | A | Y | Y | Y | N | N | N | Y | Y | Y | Y | Y | Y | Y | Y | 2 | 2 | 2 | Y | Y | N | Mobile Box Breakdown |
| 5-Nov-96 | B | Y | Y | Y | N | N | N | Y | Y | Y | Y | Y | Y | Y | Y | 3 | 3 | 3 | Y | N | N | |
| 2-Dec-96 | C | Y | Y | Y | Y | Y | N | Y | Y | Y | Y | N | Y | Y | Y | 3 | 3 | 3 | N | N | Y | |
| 7-Jan-97 | A | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 3 | 3 | 3 | N | N | N | |
| 4-Feb-97 | B | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 3 | 3 | 3 | N | N | N | |
| 12-Mar-97 | C | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 4 | 4 | 4 | Y | N | Y | No traffic control for faulting |
| 1-Apr-96 | D | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 2 | 2 | 2 | N | N | N | Snowing |
| 17-Apr-97 | E | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 2 | 2 | 2 | Y | N | Y | |
| 97-May-13 | G | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 2 | 2 | 2 | N | N | N | |
| 4-Jun-97 | H | Y | Y | Y | Y | Y | N | N | N | N | Y | N | Y | N | Y | 2 | 2 | 2 | N | N | N | No fault & rest. data due to rain |
| 14-Jul-97 | I | Y | Y | Y | Y | Y | N | N | Y | Y | Y | Y | Y | Y | Y | 2 | 2 | 2 | Y | N | N | |
| 14-Aug-97 | J | Y | Y | Y | Y | Y | N | N | Y | Y | Y | N | Y | Y | Y | 2 | 2 | 2 | N | N | Y | |
| 9-Sep-97 | K | Y | Y | Y | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | Y | 2 | 2 | 2 | Y | N | Y | Site Dismantle |
| | | | | | | | | | | | | | | | | | | | | | | |

SECTION 320204
Battle Mt., NV




Note: All dimensions are in meters.

Detail A

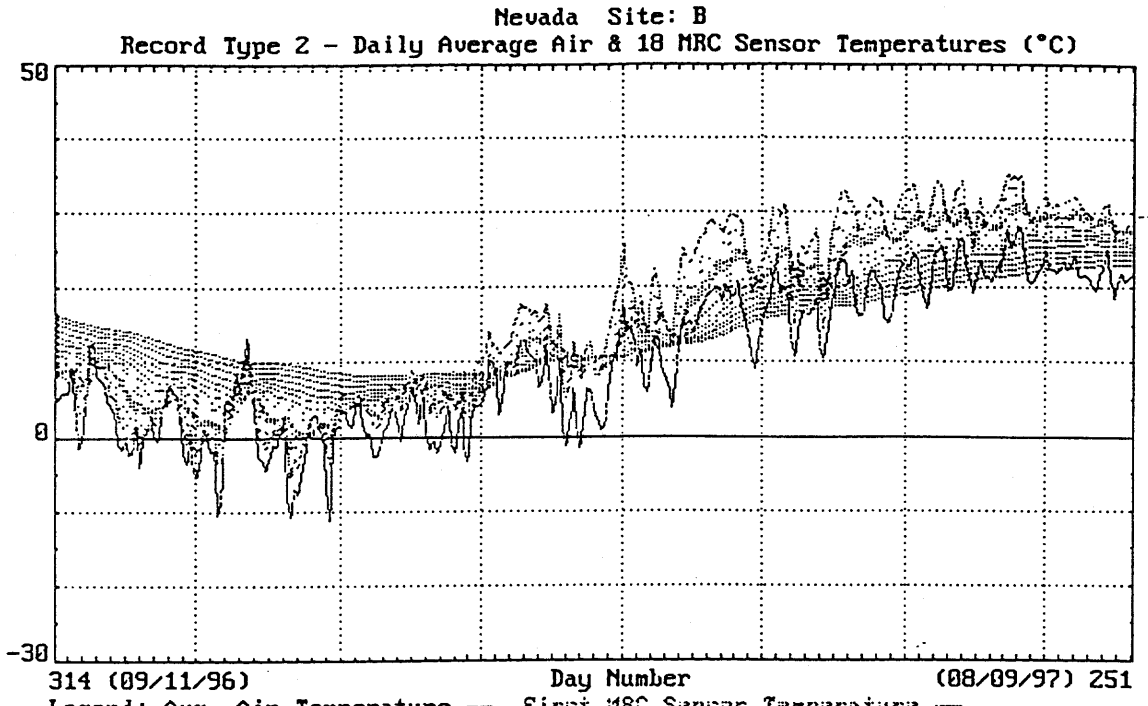
NOT TO SCALE

# SUMMARY of SMP DATA COLLECTED TILL DATE.

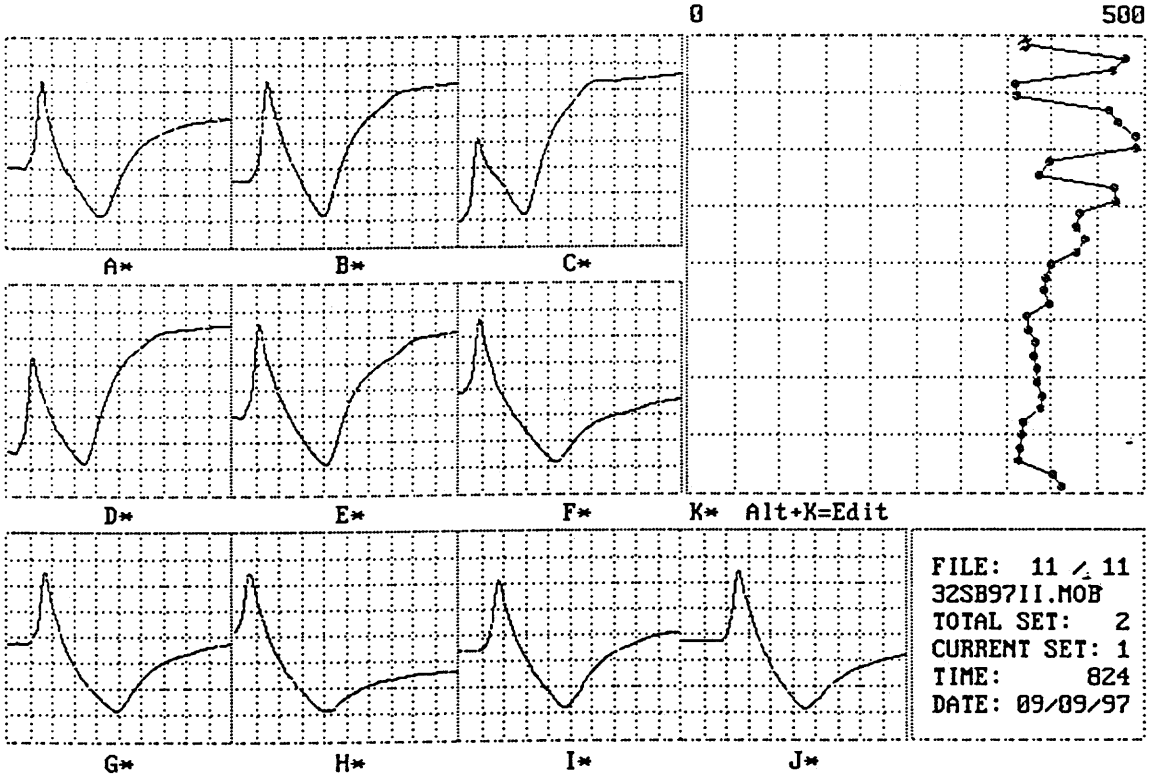
**Agency Code:** 32, Nevada.
**LTPP Section Code:** 0204.

**Location:** Battle Mountain, Nevada.
**Pavement Type:** Portland Cement Concrete.

| | | ONSITE Data | | | MOBILE Data. | | Manual Data | | | | | | | | F W D Data | | | | Distress Data | | Profile Data | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | No. of Cycles/Visit. | | | | | | |
| Test Date dd/mm/yy | Visit Indentity \ Code | Pav Temp | Ambient Temp | Precptn. | Subsurface Moisture (TDR) | Frost Depth 2-Point | Backup Pav Temp | Backup Moisture (TDR) | Frost Depth 2-Point. | Frost Depth 4-Point. | Water Table. | Surface Elev. | Joint Open. | Joint Fault. | Surface Layer Temp. | Load Trnsf | Mid Panel | PE | Manual | PASCO | Profile | Comments |
| 10-Oct-96 | A | X | X | X | | | | X | X | X | X | X | X | X | X | 2 | 2 | 2 | X | X | | Installation, Mobile Box Breakdown |
| 5-Nov-96 | B | X | X | X | | | | X | X | X | X | X | X | X | X | 3 | 3 | 3 | X | | | |
| 2-Dec-96 | C | X | X | X | X | X | | X | X | X | X | | X | X | X | 3 | 3 | 3 | | | X | |
| 7-Jan-97 | A | X | X | X | X | X | | | X | X | X | | X | X | X | 3 | 3 | 3 | | | | |
| 4-Feb-97 | B | X | X | X | X | X | | | X | X | X | | X | X | X | 3 | 3 | 3 | | | | |
| 12-Mar-97 | C | X | X | X | X | X | | | X | X | X | | X | X | X | 4 | 4 | 4 | X | | X | No traffic control for faulting |
| 1-Apr-96 | D | X | X | X | X | X | | | X | X | X | | X | X | X | 2 | 2 | 2 | | | | Snowing |
| 17-Apr-97 | E | X | X | X | X | X | | | X | X | X | | X | X | X | 2 | 2 | 2 | X | | X | |
| 97-May-13 | G | X | X | X | X | X | | | X | X | X | | X | X | X | 2 | 2 | 2 | | | | |
| 4-Jun-97 | H | X | X | X | X | X | | | | | X | | X | | X | 2 | 2 | 2 | | | | No fault & rest. data due to rain |
| 14-Jul-97 | I | X | X | X | X | X | | | X | X | X | X | X | X | X | 2 | 2 | 2 | X | | | |
| 14-Aug-97 | J | X | X | X | X | X | | | X | X | X | | X | X | X | 2 | 2 | 2 | | | X | |
| 9-Sep-97 | K | X | X | X | X | X | | X | X | X | X | X | X | X | X | 2 | 2 | 2 | X | | X | Site Dismantle |
| | | | | | | | | | | | | | | | | | | | | | | |

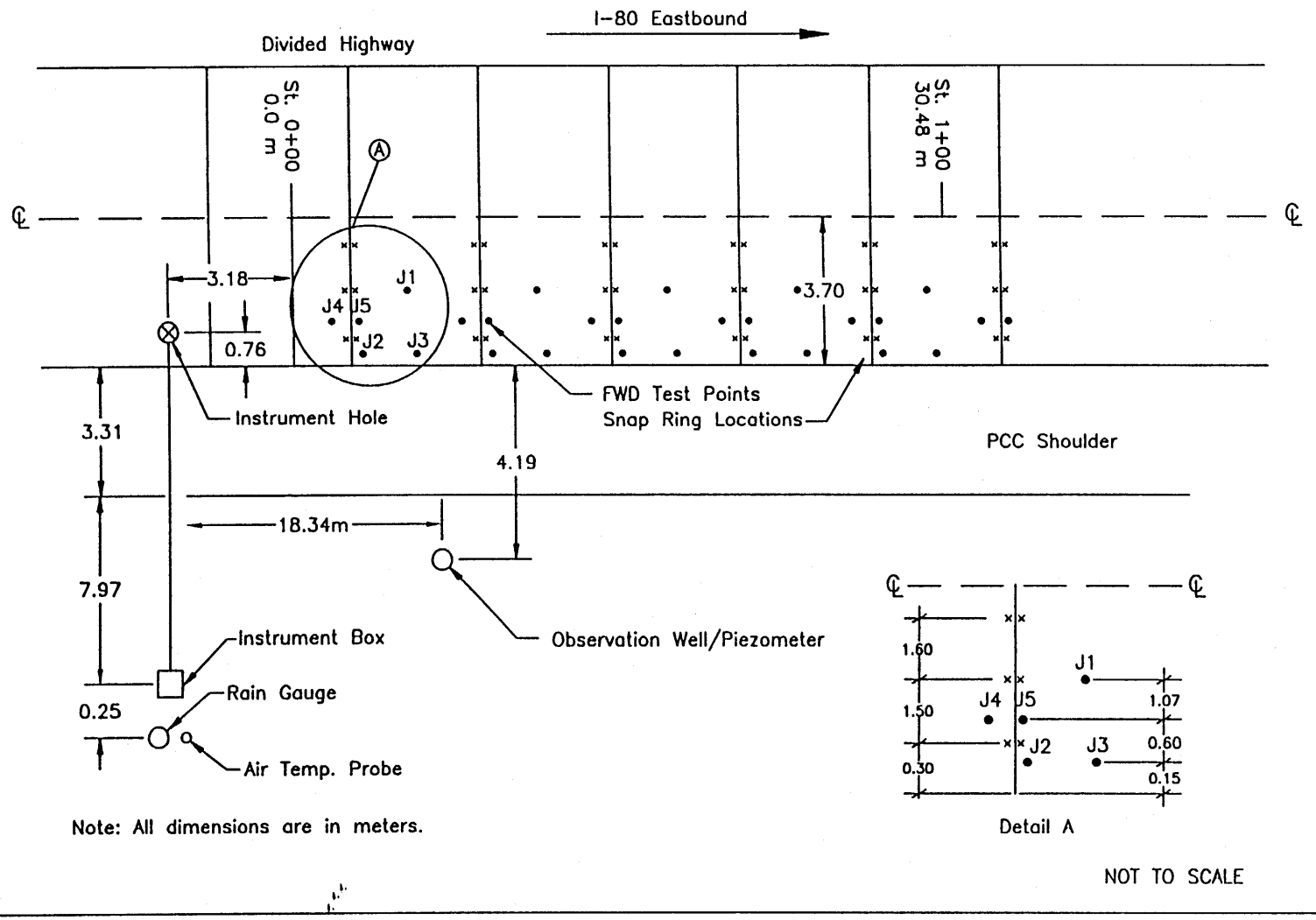



MRC Sensor: 1




Alt+Letter estimate VMC: Ctrl+T change time: Ctrl+D change date: Ctrl+C comment
Esc=Exit: Letter select(*): PgU/PgD=Prior/Next set: Ctrl+PgU/PgD=Prior/NextFile

SECTION 320204
Battle Mt., NV




Note: All dimensions are in meters.

NOT TO SCALE