

## **ATTACHMENT 1**

### **SOIL SAMPLING WORKPLAN**

As identified in diagram 1, the work to be performed during the pilot study involved the following:

- 1) Excavating identified test pits and trenches;
- 2) Monitoring the area and trench during excavation;
- 3) Taking grab soil samples approximately every 15-20 feet along each trench (and one grab sample per test pit);
- 4) Putting the excavated soil back into the trenches; and
- 5) Performing a final area radiation survey.

A decision was made to start the excavation from the areas identified test pit 1, 2 and 3 and work toward trench C. All trenches and test pits were approximately 2 feet deep (unless field measurements indicated a need to go deeper) x 3 feet wide (1 bucket width). The length of the trenches varied based on location from between 60 feet to 100 feet.

The excavation of the trenches was performed in a systematic fashion in order to control contamination. The excavation team finished trench A and began to excavate trench B while the sampling team did the appropriate work on trench A (see Soil Sampling and Monitoring below).

After the sampling team completed trench A the excavation team backfilled the trench.

A similar approach was used on the other side of the site. First the test pits (4,5,6 and 7) were excavated and then the last trench was excavated.

After all the test pits and trenches were backfilled the excavation team collected aggregate stone from all excavation areas and put them in 55 gallon drums for temporary storage. At this point all personnel and equipment were decontaminated before leaving the site.

## **SOIL SAMPLING AND MONITORING**

- 1) Removed soil was monitored with NaI survey meter to identify elevated levels;
- 2) The trench and/or test pits were monitored with NaI survey meter at depths of 12" and 24" at 15-20 foot intervals along the trench.
- 3) A 5 gallon grab sample of soil and debris was taken every 15-20 feet along the trench.
- 4) 5 gallon pails were transferred to the soil sample transfer area; 5 gallon pails were labelled as follows:

Three test pits -- TP -1, TP-2, and TP-3

1st trench -- A-1, A-2, .....

2nd trench - B-1, B-2, .....

3rd trench - C-1, C-2, .....

- 5) Five gallon field grab samples were used to prepare composite samples and small grab samples for gross alpha analysis.

## **PERIMETER AIR SAMPLING**

- 1) Air samples were collected from the perimeter of the site as well as one air sample in the excavation area.
- 2) Coordination with field personnel was necessary to obtain the 1 air sample in the exclusion zone.

## **BZA SAMPLES**

- 1) Five breathing zone air samplers were issued to identified field personnel.

## **Health and Safety Survey and Data**

In accordance with the health and safety plan and the work plan, various surveys were conducted to assess exposure conditions. These included the use of personnel dosimetry, breathing zone air sampling, general area air sampling, perimeter air sampling, and bioassay.

Personnel dosimetry consisting of Thermoluminescent dosimeters and self reading pocket dosimeters were issued to all personnel involved in the pilot study. Record keeping of personnel dosimetry is the responsibility of Texas Instruments as required by their license (SNM-23). As expected the results of the personnel dosimetry indicated no measurable exposures since the dose rates as measured in field were very small. (Appendix A-1)

Air sampling was performed to assess boundary, general area, and personnel exposures. The general area air samples (Appendix A-2) were evaluated in the field initially (approximately 1 hour post work initiation). The time (1 hr), flow rate (22 lpm), background count, were such that the minimum detectable concentration was at the non-occupational Maximum Permissible Concentration (MPC). Discrimination for radon progeny was achieved via a conservative two count technique. All air samples showed concentrations which were less than the Minimum Detectable Activity (MDA). As a result, the boundary and general area air sampling were allowed to run for the remaining time of work conduct. The two perimeter air samples were found not to be running (during time of collection) due to a ground fault interrupter trip. However, since the general area air sampler which was located in close proximity of the actual intrusion showed no indication of airborne radioactivity, it would be reasonable to assume that the perimeter would likewise indicate the same. All air samples were later analyzed for alpha and beta activity using a gas flow proportional counter at a time post sampling that was long in order to allow the radon progeny to decay. These sample results indicated less than MDA concentrations. Personnel air sampling was performed with the use of 2 lpm Breathing Zone Air (BZA) sampling devices. These samplers were allowed to run during the entire work phase to assess potential individual intakes. In all cases but one, the activity on the BZA filters were less than MDA which corresponds to an intake of less than  $2.5 \text{ E-2 MPC-h}$  and the single positive result corresponded to an intake estimate of  $4.1 \text{ E-2 MPC-h}$  (Appendix A-3). It should be noted that any MPC-h value less than 2 MPC-h is not recordable. (Code of Federal Regulations Chapter 10 Part 20)

Bioassay samples were required for all principals in accordance with the Health and Safety Plan. These bioassay samples included baseline and post work samples. The samples were urine samples which were analyzed for uranium via fluorometric techniques. The results were not available for this report. However, based on air sampling data it is anticipated that the urinalysis results will be within baseline levels.

## **Field Survey and Soil Analyses**

Sampling was performed from each test pit and along each trench as depicted within Diagram 1. General area surveys of the pits and trenches were performed at 0, -1', and -2' elevations in an attempt to correlate anomaly data of ORAU to actual excavation. This data (Appendix B-1) does demonstrate elevated levels in the suspected areas and confirms the choice of locations for pilot excavation.

Soil samples were obtained from each test pit and at 15-20' intervals along each trench. The sample volumes were approximately 4 gallons, collected in 5 gallon containers. From each of these containers 1 liter samples were extracted and composites generated. The composite samples were as follows: 1) Composite 1 - Test pits 1, 2, 3 and trench A; 2) Composite 2 - Trench B and C; 3) Composite 3 - Trench D and Test pits 4, 5, 6, and 7; and 4) Composite 4 - A sample from trench d which demonstrated a much higher direct reading than any other area and presumably would represent worst case. Each of these samples were sent to Lockheed Analytical Laboratories (LAL) (appendix B-2) for contract analyses of isotopic uranium and thorium. In addition, each sample from the 1 liter containers along with the composites and special composites of trench b and c were analyzed using a gross alpha screening technique (Appendix B-3) to ascertain spatial variations within the trench. A comparison of the LAL data and the gross alpha screening technique was made and demonstrated good correlation amongst the data.

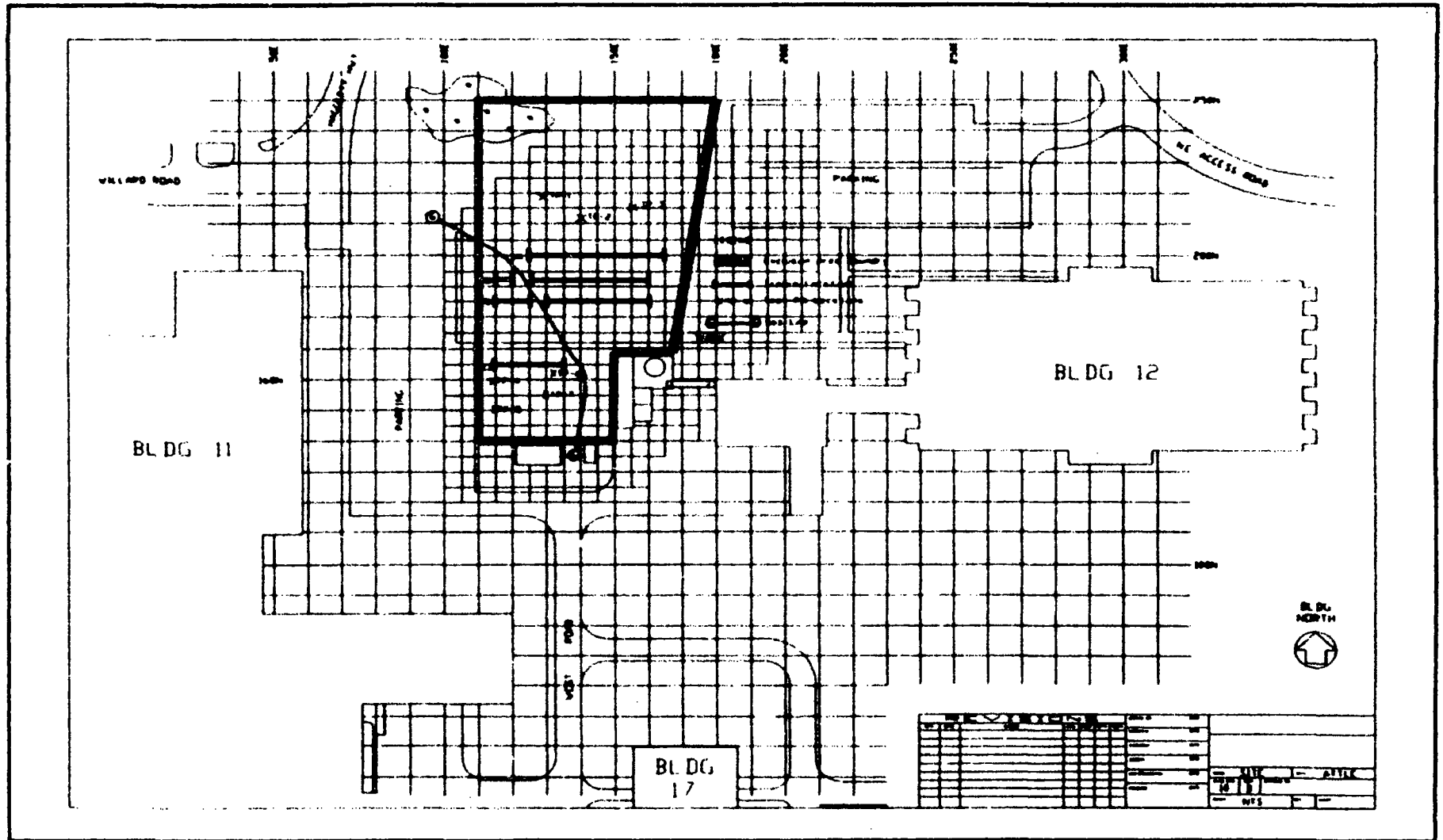
The LAL data represents a range of values in isotopic abundances. Of particular interest is the data which represents the special sample out of trench D. This sample was composed of a finer texture, and a color (grayish) composition that differed from the surrounding soil and contained debris in the appearance of small machining fines. In addition, the location of this area was identified by elevated direct radiation levels identified by ORAU and CPS at the surface and at depth by CPS. This particular location indicated a depth in excess of 3 feet although a maximum depth was not determined at this time.

Correlation between the LAL data and the gross alpha screening method was made. In addition to the composites, averages of the gross alpha data for each corresponding composite sample was made. This data (Appendix B-4) is in good agreement and demonstrates this method as a viable technique to quickly determine the extent of soil contamination. This method can be readily demonstrated to be a practical field analyses technique. We have also undergone preliminary correlation of the soil data to "pancake" G-M response and can demonstrate the ability to detect samples containing  $>100$  pCi/g of uranium in soil as a first pass method in actual remediation. This correlation will be developed further.

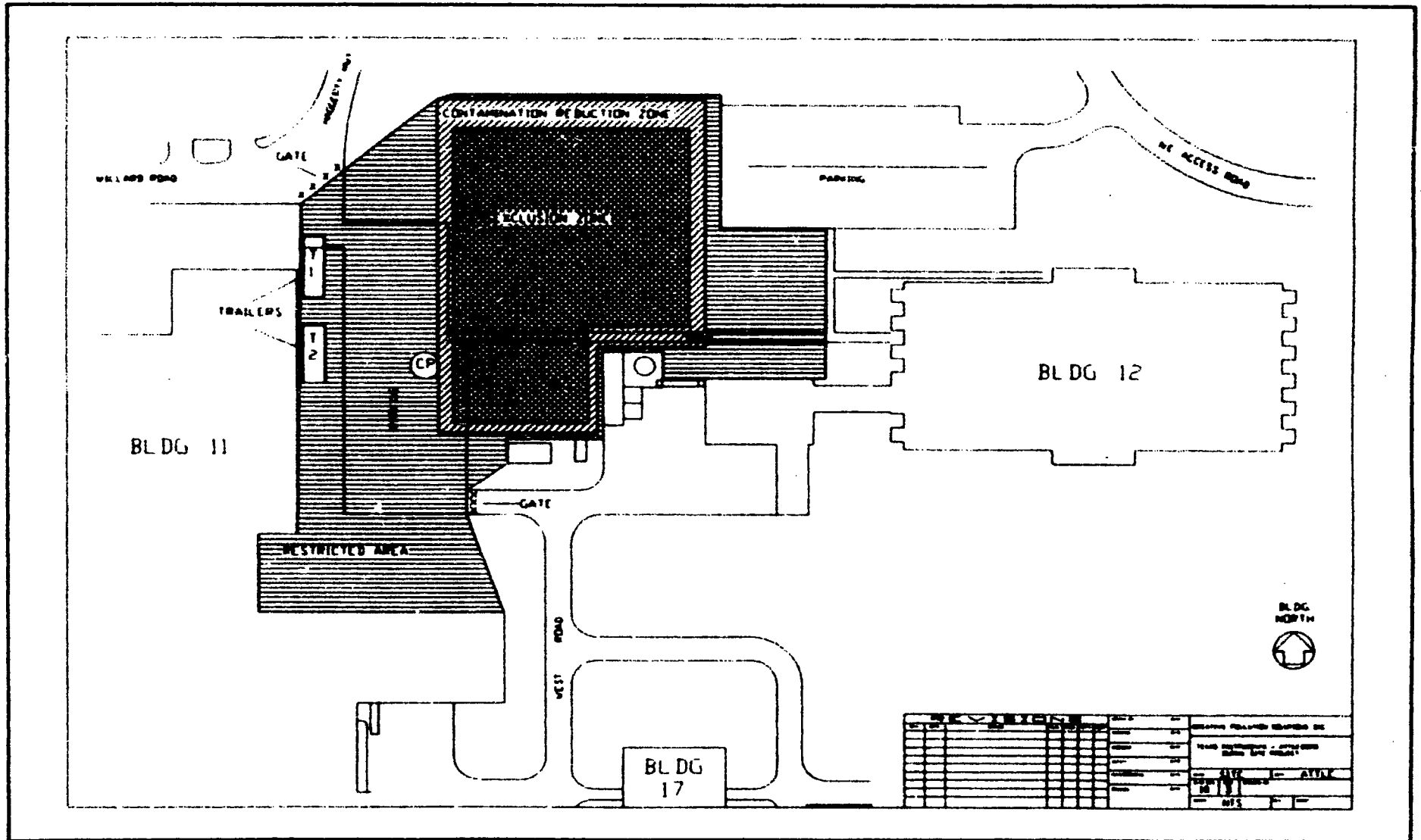


# Diagram 1

## Pilot Survey Site Layout



**Diagram 2**  
**Control Zone Layout**



## **Appendix A-1**

### **Peronnel Dosimetry Issuance and Data**

## TLD ISSUANCE

Date: 6/7/92

NAME	BADGE #	TOTAL DOSE
L. Branco	99004	Minimal
Mike England	99012	Minimal
Lee Mulligan	99013	Minimal
Bob Smith	99001	Minimal
Steve Ayotte	99002	Minimal
Steve Duquette	99009	Minimal
Don Goddard	99005	Minimal
Alan Cornell	99014	Minimal
Rich Moniz	99008 (blue)	Minimal
Al Brown	99016	Minimal
Marcia Austin	99008 (black)	Minimal
Jay Malcolm	99005	Minimal
Fred McWilliams	99006	Minimal
Mark Chartier	99005 June	Minimal
Werner Schuele	99016 June	Minimal
Mark Griffon	99007 June	Minimal
Mike Elliott	99009 June	Minimal
Mark Henault	99010 June	Minimal
Frank Veale	99015 June	Minimal
Rich Derby	99011 June	Minimal
Ray Lizotte	99013 June	Minimal

Note: Minimal is defined as an exposure less than 10 mrem.

# POCKET DOSIMETER RECORDS

NAME	BADGE #	READING IN (mrem)	READING OUT (mrem)
L. Bianco	9010179	0	-5
M. England	9010180	2	0
Allen Brown	9010182	0	-2
Lee Mulligan	9010183	0	-5
Bob Smith	9010184	0	-5
Steve Ayotte	9010198	0	-5
Steve Duquette	9010199	2	0
Don Goddard	9010201	0	0
Alan Cornell	9010203	1	-5
Rich Moniz	0122533	1	2
Jay Malcolm	0122534	-5	0
Mark Chartier	0122535	0	2
Marcia Austin	0122538	2	5
Werner Schuele	0122539	3	8
Mike Elliott	0122540	0	0
Mark Henault	0122544	2	2
Ernak Veale	0122545	3	5
Fred McWilliams	0122549	2	2
Mark Griffon	0122548	0	2
Rich Derby	0122574	0	-5
Ray Lizotte	0122569	2	8

## **Appendix A-2**

### **General Area Air Sampling**

## **GENERAL AREA AIR SAMPLING LOCATION AND DESCRIPTION**

Rotary vane type air sampling pumps were used to provide continuous boundary and general area air sampling. These air samples provide an estimate of boundary conditions and general area hazards created during intrusion of the affected areas. Each air sampler was calibrated to a flow of 22 lpm and a restrictive orifice on the pump system maintained continuous flow. The air sampling heads were 2 inch open face type. The filter media used was a standard glass fiber media with retention of 99.97%. At each location designated for air sampling, the air sampling pump was positioned so that the air sampling pump was at an elevation of approximately 5 feet representing the breathing zone. Each air sampler was protected with a ground fault interrupter due to wet conditions encountered within the field.

The location of air sampling systems were as follows (refer to attached diagram):

### **Location Description**

**Perimeter 1** At side walk intersection near building 12

**Perimeter 2** Between Flag pole and building 12 parking lot on line with side walk described in perimeter 1 location.

**Control Point** Located at control point (see health and safety plan) on right side of side walk at the edge of parking lot.

**Field - General Area** Various locations: 1. Between test pits 1, 2, & 3 and Trench A,

2. Between Trench B and C

3. Between Trench C and the sidewalk.

### **AIR SAMPLING ANALYSIS**

Analysis of air samples was performed initially in field to ascertain any immediate hazards and then later in laboratory to quantify total activity concentrations.

Field analysis was performed using a Ludlum 2200 scaler coupled to a Ludlum 43-10 sample probe capable of detecting both alpha and beta radiations. Field calibrations were performed.

**Table 1****Field Calibration Data**

Alpha Background:	0	c/m
Beta Background:	126	c/m
Alpha Efficiency:	0.17	c/d
Beta Efficiency:	0.228	c/d

Since environmental radon particulate progeny produces interferences in counting, it is necessary to develop a method to discriminate against these and still ascertain airborne activity quickly. In this case, a two count method was used where the initial count is followed by a second count 35 minutes later. Here it is presumed that the effective half life of radon progeny is 35 minutes. Therefore, the long lived alpha activity is given by:

$$A_L = 2(A_{35}) - A_0$$

Where:  $A_L$  is the long lived alpha activity,  
 $A_{35}$  is the activity based on the count 35 minutes post initial count, and  
 $A_0$  is the activity based on the initial count.

Field assessment was based on airborne activity using the initial count and the alpha to beta count ratio to obtain qualitative information on the extent of radon progeny. Subsequent counts 35 minutes later was used to better quantify the airborne alpha activity. Later all samples were taken to a laboratory for more accurate analysis once the radon progeny had decayed. The two count method in field and counting within the laboratory indicated all activity to be less than the minimal detectable activity (MDA).

The minimum detectable activity is can be developed as follows:

$$LLD = \frac{k^2}{2} + 2\sqrt{2}k\sigma_b$$

Where: LLD is the lower limit of detection  
K is the defined for a 95% confidence interval of a one tail test and is equal to 1.65, and  
 $\sigma_b$  is the standard deviation in the background count.



$$MDA = \frac{1}{\epsilon T} (LLD)$$

Where: MDA is the minimum detectable activity and  
 $\epsilon$  is the efficiency, and  
 T is the counting time.

$$MDC = \frac{MDA}{V}$$

Where: MDC is the minimum detectable concentration and  
 V is the volume of air sampled.

For field analysis the minimum detectable concentration was determined to be  $< 5.5E-13 \mu\text{Ci cc}^{-1}$  for a one hour sample period as was performed initially and  $< 6.8E-14 \mu\text{Ci cc}^{-1}$  for an 8 hour sample as performed subsequently. Sample analysis in the laboratory used increased count times and had a better efficiency given rise to a MDC of  $< 5.3 E-14 \mu\text{Ci cc}^{-1}$  and  $< 6.6 E-15 \mu\text{Ci cc}^{-1}$  for 1 and 8 hour sampling times respectfully.

## **Appendix A-3**

### **Breathing Zone Air Sampling**

## BREATHING ZONE AIR SAMPLING

Breathing zone air samplers were assigned to identified site personnel. These air samplers provide better estimates of actual intakes due to local generated sources than would general area air sampling. Hence estimates of intakes are best made on the basis of BZA data rather than on the general area air sampling program. Interpretation of BZA results is on the basis of comparing activity deposition on the filter as compared to the intake retention function (IRF) which the BZA represents. Hence, an estimate of the exposure an individual receives based on BZA data can be given as follows:

$$E = I \left( \frac{2000 \text{MPC-h}}{\text{AIL}} \right)$$

Where:  $E$  is the exposure (MPC-h),

$I$  is the intake corresponding to the exposure,  $E$ ,

$\text{AIL}$  is the annual intake limit based on a continuous exposure to 2000 MPC-h in any year of practice, and

$\text{MPC}$  is the maximum permissible concentration as defined under 10CFR20.

The intake can be represented by the ratio of the activity deposition and the intake retention function as follows:

$$I = \frac{A}{\text{IRF}}$$

Where:  $A$  is the activity deposited on the filter and all other variables are as previously defined.

The intake retention function defined here for a BZA is simply the Flow rate of the BZA ( $F_{\text{BZA}}$ ) as compared to the breathing rate of reference man ( $F_{\text{RM}}$ ). In the case depicted here the IRF can be written as follows:

$$\text{IRF} = \frac{F_{\text{BZA}}}{F_{\text{RM}}}$$

Substituting the various equations yields the following relationship for exposure:

$$E = \left( \frac{A}{AIL} \right) \left( \frac{F_{RM}}{F_{BZA}} \right) (2000 MPC-h)$$

The reference man breathing rate is 20 lpm; the breathing zone air samplers were calibrated to 2 lpm; the activity is the activity on the filter; and the annual intake limit is based on reference man inhaled volume (2.5E9 ml) in a occupational year and the MPC (the value of MPC is for the insoluble case) as follows:

<u>Nuclide</u>	<u>AIL (μCi)</u>
<sup>235</sup> U	0.25
<sup>238</sup> U	0.25

Substituting all appropriate values the preceding equation becomes:

$$E(MPC-h) = 8E4 * A$$

Each BZA was calibrated prior to issuance and allowed to run during the entire work evolution. Each filter (absolute) was analyzed on a gas flow proportional counter for total alpha and beta activity. In 4 of 5 cases the alpha and beta activity was reported at the Minimum Detectable Activity as 3.5 E-7 μCi. This corresponds to intakes at < 2.8E-2 MPC-hr. The fifth sample indicated alpha activity of 5.14E-7 with a corresponding exposure of 4.1E-2 MPC-h. It should be noted that the any MPC-h value less than 2 MPC-h is not recordable. (Code of Federal Regulations Chapter 10 Part 20)

BZA Calibration Data

BZA Sampling Pump: Gillian High Flow Sampler Model # HFS113A, P/N D80070  
 Calibrator: Buck Calibrator (20cc/m - 6 lpm) Gilian Instrument Corp., P/N D800286  
 Calibration Date: June 6, 1992

S/N:	9360	9366	9365	9359	9364
ID	H-2	N/A	H-7	H-1	H-6
Trial #					
1	2.014	2.013	2.001	2.013	2.070
2	2.014	2.052	2.005	1.999	2.069
3	2.027	2.040	2.000	2.000	2.068
4	2.013	2.040	2.010	1.997	2.070
5	2.018	2.043	1.999	2.001	2.079
6	2.021	2.041	2.001	2.009	2.073
mean	2.018	2.038	2.003	2.003	2.072
S.D.	0.005	0.013	0.004	0.006	0.004

Note: All Flow rates are expressed in lpm.

#### BZA Issuance Information

<u>Name</u>	<u>Company</u>	<u>BZA ID</u>
Brown, Al	Texas Instruments	H-2
Bianco, Lou	Franklin Environmental	9366
Mulligan, Lee	Franklin Environmental	H-7
Austin, Marcia	CPS, Inc.	H-6
England, Mike	Franklin Environmental	H-1

#### BZA Counting Data

Counting System: NMC PC-5 for alpha counting, NMC DS-3 for Beta counting

Count Date: 6/9/92  
 Background Count Time: 5 min.  
 Sample Count Time: 5 min  
 Alpha Efficiency: 0.35 c/d  
 Beta Efficiency: 0.28 c/d  
 Background Counts, Beta: 168 cts  
 Background Counts, Alpha: 0

<u>BZA #</u>	<u>9366</u>	<u>H-1</u>	<u>H-2</u>	<u>H-6</u>	<u>H-7</u>
Sample Counts, Alpha:	0	0	0	0	2
Net Counts, Alpha:	0	0	0	0	2
Net Counting Rate, Alpha:	0	0	0	0	0.4
Activity, Alpha ( $\mu$ Ci):	< mda	< mda	< mda	< mda	5.1E-7
Sample Counts, Beta:	175	176	158	169	173
Net Sample Counts, Beta:	35	10	0	1	5
Net Counting Rate, Beta:	1.4	2	0	0.2	1
Activity, Beta ( $\mu$ Ci):	< mda	< mda	< mda	< mda	< mda
Exposure (MPC-h):	< 2.5 E-2	< 2.5E-2	< 2.5 E-2	< 2.5E-2	4.1E-2

## **APPENDIX B-1**

### **DIRECT RADIATION READINGS OF TRENCH AND TEST PITS AT VARIOUS ELEVATIONS**

## TRENCH SURVEY RESULTS

(All survey readings performed with the NaI 1x1 survey meter)

All readings in  $\mu\text{R/hr}$

SAMPLE LOCATION	SURFACE	12"	24"	EXC. DIRT
B-1	13	17	20	14
B-2	13	13.5	13.5	12
B-3	12	12.5	14	12
B-4	13	14	14.5	12.5
B-5	13	13	13	12
B-6	12	13	14.5	12
B-7	12	12	15	12
B-8	12	13	14.5	12
C-1	11	13	15	12
C-2	14	16	17	12
C-3	17	20	25	15
C-4	15	19	20	16
C-5	15	15	20	15
C-6	13	13	16	14
C-7	17	17	18	13
C-8	13	15	17	12
C-9	13	15	16	13

SAMPLE LOCATION	SURFACE	12"	24"	EXC. DIRT
TP-4	20	25	25	30
TP-5	12	13	14	11
TP-6	12	12	13	12
TP-7	11	13	10	12
D-1	11	13	14	
D-2	12	14	16	
D-3	10.5	12	13	
D-4	11	12	12	
D-5	14	14	14	
D-6	20	25	25	*D Special Sample
D-7	12	12	12	
D-8	12	12	13	



## **APPENDIX B-2**

### **LOCKHEED ANALYTICAL LABORATORY RESULTS**

## Sample Preparation and Screening.

The samples consisted of wet soil and gravel. The samples were dried at 103°C overnight, sieved through a 4 mm sieve to remove gravel and other large particles. Composite numbers 1-3 showed little or no activity on the material on the top of the 4 mm screen. The material which was sieved through the 4 mm sieve was used for analysis. Composite Number 4 was sieved in the same manner. Metal turnings and shavings were evident in the material on the top of the 4 mm sieve. The metal shavings exhibited a significant portion of the activity of the sample. The metal shavings were added back to the sieved sample in the same ratio as they were taken out. As composite number 4 was obviously not homogeneous, duplicate aliquots of this sample were prepared for dissolution with the sample size doubled to help achieve a representative sub-sample for analysis. An aliquot of the dissolved material was taken for analysis. All results are reported on a dry weight basis.

## Total Uranium Analysis.

There were no problems with the total uranium analysis. All QC met criteria.

## Thorium isotopic Analysis.

Two different aliquot sizes were taken for Thorium analysis on the composite four sample. The larger sample size resulted in an unacceptable sample to spike ratio and the data is unacceptable. The data reported is on the smaller sample portion as the spike to sample was in the acceptable range. The blank showed a small amount of natural thorium contamination, which is not significant for the thorium levels determined in the samples. The Laboratory Control Sample and the Duplicate samples were within acceptance criteria.

## Uranium Isotopic Analysis.

The Uranium analysis were repeated. The yields on the repeat samples were in the acceptable range except for the Composite four sample. The composite four sample was analyzed in duplicate. The duplicate results for the composite four sample are within the acceptance limits. The blank showed a trace of natural uranium contamination, which is usual for samples which require dissolution with mineral acids. The amount of background uranium present is not significant in comparison to the amount of uranium determined in the samples. The LCS is within QC limits.

Parent Sample ID: COMPOSITE #1  
Date Collected: 07-JUN-92  
Matrix: SOIL

LAL Sample ID: A25476  
Date Received: 10-JUN-92  
Job Name: TEX-INST-....06102

Constituent	Batch	Activity	Estimated Uncertainty	MDA	Data Qual	Units
Gamma Spec. Analysis	R0064_8	0.0	0.0	0.0		pCi/g
U-234	R0108_2	11	0.15	0.014		pCi/g
U-235	R0108_2	0.91	0.042	0.005		pCi/L
U-238	R0108_2	4.3	0.090	0.018		pCi/g
Th-228	R0108_2	1.3	0.050	0.030		pCi/g
Th-230	R0108_2	1.6	0.050	0.005		pCi/g
Th-232	R0108_2	1.1	0.040	0.010		pCi/g
Uranium	R0168_10	9.1	0.31	0.097		ug/g

Comments on Data Qualifiers:

Client Sample ID: COMPOSITE #2  
Date Collected: 07-JUN-92  
Matrix: SOIL

LAL Sample ID: A25477  
Date Received: 10-JUN-92  
Job Name: TEX-INST-....061

Constituent	Batch	Activity	Estimated Uncertainty	MDA	Data Qual	Units
Gamma Spec. Analysis	R0064_8	0.0	0.0	0.0		pCi/g
U-234	R0108_2	20	0.23	0.019		pCi/g
U-235	R0108_2	1.6	0.064	0.019		pCi/g
U-238	R0108_2	7.0	0.13	0.007		pCi/g
Th-228	R0108_2	0.90	0.043	0.033		pCi/L
Th-230	R0108_2	1.2	0.050	0.020		pCi/g
Th-232	R0108_2	0.69	0.040	0.010		pCi/L
Uranium	R0168_10	14	0.47	0.099		ug/g

Comments on Data Qualifiers:

Client Sample ID: COMPOSITE #3  
Date Collected: 07-JUN-92  
Matrix: SOIL

LAL Sample ID: A25478  
Date Received: 10-JUN-92  
Job Name: TEX-INST-....06102

Constituent	Batch	Activity	Estimated Uncertainty	MDA	Data Qual	Units
Gamma Spec. Analysis	R0064_8	0.0	0.0	0.0		pCi/g
U-234	R0108_2	16	0.32	0.017		pCi/g
U-235	R0108_2	1.8	0.11	0.046		pCi/g
U-238	R0108_2	32	0.45	0.017		pCi/g
Th-228	R0108_2	1.5	0.070	0.030		pCi/g
Th-230	R0108_2	1.7	0.070	0.020		pCi/g
Th-232	R0108_2	1.8	0.070	0.030		pCi/g
Iranium	R0168_10	55	1.9	0.099		ug/g

Comments on Data Qualifiers:

Client Sample ID: COMPOSITE #4  
Date Collected: 07-JUN-92  
Matrix: SOIL

LAL Sample ID: A25479  
Date Received: 10-JUN-92  
Job Name: TEX-INST-....06102

Constituent	Batch	Activity	Estimated Uncertainty	MDA	Data Qual	Units
Gamma Spec. Analysis	R0064_8	0.0	0.0	0.0		pCi/g
-234	R0108_2	1100	26.	1.7		pCi/g
-235	R0108_2	79	7.0	1.7		pCi/g
-238	R0108_2	3200	45.	1.7		pCi/g
-228	R0108_2	110	2.6	0.70		pCi/g
-230	R0108_2	4.8	0.55	0.45		pCi/g
-232	R0108_2	110	2.6	0.20		pCi/g
Barium	R0168_10	800	27.	0.36		ug/g

Comments on Data Qualifiers:

# RADIOCHEMICAL QC DATA SUMMARY

TEX-INST-....06102

## Reagent Blank Analysis

Analyte	Batch ID	Minimum Detectable Activity pCi/g	Acceptance Limit pCi/g	Date Analyzed	Reagent Blank Result pCi/g
Radium-226					
U-234	R0108_2	.012	0.6	6-18-92	0.4
U-238	R0108_2	0.005	0.6	6-18-91	0.08
Th-232	R0108_2	0.004	0.1	6-18-92	0.000
U-Total µg/g	R0168_10	0.1	0.1	6-13-92	0.009

## Duplicate Sample Analysis

Analyte	Batch ID	Client Sample ID	LAL Sample ID	Date Analyzed	QC Sample Analyses			
					Sample Result pCi/L	Duplicate Result pCi/L	Relative Percent Difference (%)	Data Qualifier
Re-226								
U-234	R0108_2	Comp 4	A25479	6-18-92	1120	967	14	
U-238	R0108_2	Comp 4	A25479	6-18-92	3210	2780	13	
Th-232	R0108_2	Comp 4	A25479	6-18-92	112	108	4	
U-Total µg/g	R0168_10	Comp 4	A25479	6-18-92	802	740	8	

## Laboratory Control Sample

Analyte	Batch	Date Analyzed	QC Sample Analyses			
			Laboratory Control Sample Result pCi/L	Laboratory Control Sample Value pCi/L	(%) Recovery	Data Qualifier
Re-226						
U-234	R0108_2	6-18-92	5.55	5.4	103	
U-238	R0108_2	6-18-92	5.50	5.40	102	
Th-232	R0108_2	6-18-92	5.31	5.45	97	
U-total µg/g	R0168_10	6-13-92	34	36.6	93	

## **APPENDIX B-3**

### **GROSS ALPHA SCREENING PROCEDURES AND RESULTS**



## APPENDIX B-3

### GROSS ALPHA COUNTING PROCEDURES AND RESULTS

#### FIELD METHOD

The gross alpha counting technique will be used to limit volumes of soil excavated for disposition. As excavation is performed, in defined areas, soil samples will be collected and analyzed in a field laboratory. The purpose of this screening is to ensure that each area is below the 30 pCi/g level.

In addition, this technique can be used for the post excavation survey. The same counting technique will apply. The samples, in this case, will be vertical composites taken at all grid locations and at the center of each grid. Confirmatory uranium isotopic analysis will be performed on 5% of the total samples.

This gross alpha counting technique was used during the pilot study at Texas Instruments Incorporated and the results correlated very well with the isotopic uranium analysis performed by Lockheed.

#### INSTRUMENTATION

The technique employed was a gross alpha counting of a soil sample in intimate contact with a ZnS(Ag) detector. Using this method the ZnS(Ag) disc is disposable.

Assuming a detector response due to a thick source in contact with ZnS(Ag) is described by:

$$y(\text{cpm}) = C(\text{Alpha/min/mg}) A (\text{cm}^2) R, (\text{mg/cm}^2) / 4.$$

(Skrable, K.W., Phoenix, K.A., "Theoretical Response of a ZnS(Ag) Scintillation Detector to  $\alpha$ -emitting sources and Suggested Applications", Health Physics, Vol. 60, No. 1991)

## **SAMPLE COUNTING**

The analytical procedure is as follows:

- 1) The sample is prepared in a sample planchet under original field condition.
- 2) The range of the alphas in source material,  $R_s$ , was calculated using Zeigler's theoretical elemental ranges. The elemental ranges were weighted by the elemental mass fractions as determined for a standard soil by atomic absorption analysis.
- 3) Since the relative alpha energies were varied, we assumed an average energy of 5.5 MeV. The average energy of all alphas emitted by the U-238 chain is about 5.4 MeV, the average alpha energy for the Th-232 chain is about 5.8 MeV.
- 4) The water content was estimated by drying an aliquot of representative samples 1-2 days at 50-75° C. Due to past experience, dry soil was assumed to still have 10% water content. Both this 10% and the fraction lost during drying were included in the mass fractions for hydrogen and oxygen used in (2) above.
- 5) Uncertainties tabulated with the results are due solely to propagated counting error. Due to the assumptions made, especially in (3) above, an additional uncertainty could be assumed as a conservative measure.

**Texas Instruments Incorporated, Attleboro, MA**  
**Gross Alpha Screening Results**

Sample Count Time (min): 45  
 Background Rate (cpm): 0.02688

Area (cm<sup>2</sup>): 20.3  
 Bkg Time (min): 930

Sample ID	Wet Sample Mass (gm)	Dry Sample Mass (gm)	Frac. H2O Content	Theor. Range (mg/cm2)	Gross Alpha			Total Spec. Alpha Act. (pCi/gm)			MDA (pCi/gm)
					Counts	+/-	1 Sigma	Activity	+/-	1 Sigma	
TP-1	12.274	10.871	0.114	5.401	32	+/-	5.68	11.24	+/-	2.07	0.0015
TP-2	10.018	8.513	0.150	5.342	45	+/-	6.71	18.17	+/-	2.48	0.0015
TP-3	14.33	12.224	0.147	5.347	48	+/-	6.93	17.28	+/-	2.56	0.0015
A-1	12.754	11.258	0.117	5.398	26	+/-	5.10	9.06	+/-	1.87	0.0015
A-2	12.54	10.845	0.135	5.386	29	+/-	5.39	10.21	+/-	1.98	0.0015
A-3	14.222	12.775	0.102	5.422	57	+/-	7.55	20.30	+/-	2.75	0.0015
A-4	15.96	14.693	0.079	5.459	76	+/-	8.72	27.02	+/-	3.15	0.0015
A-5	15.78	14.283	0.095	5.433	46	+/-	6.78	16.26	+/-	2.46	0.0015
A-6	13.806	11.776	0.147	5.347	40	+/-	6.32	14.31	+/-	2.33	0.0015
A-7	13.427	11.857	0.117	5.386	124	+/-	11.14	44.88	+/-	4.07	0.0015
Special-2	15.301	13.262	0.133	5.370	9120	+/-	95.50	3349.61	+/-	35.08	0.0015
EXP-B	14.726	12.912	0.123	5.386	46	+/-	6.78	16.40	+/-	2.49	0.0015
EXP-C	17.321	15.584	0.100	5.424	142	+/-	11.92	51.20	+/-	4.33	0.0015
C-1	15.286	13.941	0.087	5.447	235	+/-	15.33	84.66	+/-	5.55	0.0015
C-2	16.51	14.725	0.108	5.411	57	+/-	7.55	20.34	+/-	2.75	0.0015
C-3	13.966	12.255	0.124	5.385	215	+/-	14.66	78.30	+/-	5.37	0.0015
C-4	13.064	10.947	0.162	5.323	211	+/-	14.53	77.74	+/-	5.38	0.0015
C-5	15.685	14.655	0.064	5.485	80	+/-	8.94	28.34	+/-	3.22	0.0015
C-6	16.79	15.809	0.070	5.475	117	+/-	10.82	41.72	+/-	3.90	0.0015
C-7	16.788	15.287	0.090	5.441	181	+/-	13.45	65.17	+/-	4.88	0.0015
C-8	13.685	11.97	0.124	5.385	73	+/-	8.54	26.30	+/-	3.13	0.0015
C-9	16.438	14.643	0.109	5.409	223	+/-	14.93	80.87	+/-	5.45	0.0015

**Texas Instruments Incorporated, Attleboro, MA**  
**Gross Alpha Screening Results**

Sample Count Time (min): 90  
 Background Rate (cpm): 0.02688

Area (cm<sup>2</sup>): 20.3  
 Bkg Time (min): 930

Sample ID	Wet Sample Mass (gm)	Dry Sample Mass (gm)	Frac. H <sub>2</sub> O Content	Theor. Range (mg/cm <sup>2</sup> )	Gross Alpha		Total Spec. Alpha Act. (pCi/gm)		MDA (pCi/g)
					Counts	+/- 1 Sigma	Activity	+/- 1 Sigma	
B-1	13.287	12.308	0.074	5.468	48	+/- 6.93	8.22	+/- 1.25	0.0015
B-2	14.682	13.553	0.078	5.462	62	+/- 7.87	10.76	+/- 1.42	0.0015
B-3	14.365	12.484	0.130	5.374	94	+/- 9.70	16.81	+/- 1.78	0.0015
B-4	14.619	13.344	0.087	5.448	157	+/- 12.53	27.99	+/- 2.27	0.0015
B-5	13.987	11.468	0.180	5.294	49	+/- 7.00	8.68	+/- 1.31	0.0015
B-6	14.926	13.234	0.113	5.402	68	+/- 9.38	15.62	+/- 1.71	0.0015
B-7	13.288	11.744	0.116	5.398	84	+/- 9.17	14.91	+/- 1.68	0.0015
B-8	12.933	10.885	0.158	5.329	78	+/- 8.83	13.99	+/- 1.64	0.0015
TP-4	16.668	15.048	0.097	5.429	650	+/- 25.50	117.63	+/- 4.63	0.0015
TP-5	14.356	12.839	0.106	5.415	87	+/- 9.33	15.40	+/- 1.70	0.0015
TP-6	12.981	11.829	0.104	5.418	177	+/- 13.30	31.78	+/- 2.42	0.0015
TP-7	12.277	10.738	0.125	5.383	131	+/- 11.45	23.56	+/- 2.10	0.0015
D-1	16.525	15.258	0.077	5.464	81	+/- 9.00	14.18	+/- 1.63	0.0015
D-2	16.017	14.197	0.114	5.402	96	+/- 9.80	17.08	+/- 1.79	0.0015
D-3	14.474	12.68	0.112	5.405	130	+/- 11.40	23.28	+/- 2.08	0.0015
D-4	15.067	13.515	0.103	5.420	136	+/- 11.66	24.31	+/- 2.12	0.0015
D-5	15.375	14.011	0.089	5.444	69	+/- 8.31	12.06	+/- 1.51	0.0015
D-6	14.66	13.12	0.104	5.417	533	+/- 23.09	96.59	+/- 4.20	0.0015
D-7	15.888	14.048	0.116	5.398	153	+/- 12.37	27.51	+/- 2.26	0.0015
Special	17.34	15.361	0.114	5.401	17877	+/- 133.70	3263.79	+/- 24.41	0.0015

## **APPENDIX B-4**

### **GROSS ALPHA SCREENING PROCEDURES AND RESULTS**

# COMPARATIVE ANALYSIS OF ALPHA SCREENING TECHNIQUE TO LOCKHEED ANALYTICAL LABORATORIES DATA

SAMPLE	GROSS ALPHA AVERAGES (pCi/g)	LAL TOTAL U ISOTOPES <sup>a</sup> (pCi/g)
Comp. 1	18.67 +/- 10.6 <sup>b</sup>	16.2
Comp. 2	33.8 +/- 24.6 <sup>c</sup>	28.6
Comp. 3	36.67 +/- 35.64 <sup>d</sup>	49.8
Comp. 4	3306 +/- 60 <sup>e</sup>	4379
Exp. B	16.4 <sup>f</sup>	
Exp. C	51.2 <sup>g</sup>	
Avg. C	55.94 +/- 26.5 <sup>h</sup>	
Avg. B	14.62 +/- 6.28 <sup>i</sup>	

- a. The total pCi/g was obtained by summing the pCi/g for the U-234, U-235 and U-238.
- b. Gross alpha number obtained by averaging TP-1, 2, 3 and trench A data. Error is in averaging only.
- c. Gross alpha number obtained by averaging composite of trench B and composite of trench C referred to as EXP-B and EXP-C. Note a similar number is obtained by averaging all of the trench C and trench B data.
- d. Gross alpha number obtained by averaging TP-4,5,6,7 and trench D data.
- e. Gross alpha number obtained by averaging Special and Special 2.
- f. Gross alpha obtained from a composite of the B trench.
- g. Gross alpha obtained from a composite of the C trench.
- h. Average of all the trench C data.
- i. Average of all the trench B data.

## **Appendix H**

### **Preliminary Cost Estimates of Various Remediation Options**

**Preliminary Cost Estimates  
of  
Various Remediation Options  
for  
Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Prepared by:  
Creative Pollution Solutions, Inc  
June 14, 1992**



## **Options for Remediation of Identified Area of Contamination**

The following are options by which the contaminated areas identified in the ORAU study can be remediated. In addition to the ORAU study the pilot excavation performed by Franklin Environmental Services and Creative Pollution Solutions, Inc. aided in estimating total cost for remediation of the identified area.

The data collected during the pilot excavation (Phase I) will be useful for cost estimation, development of the site remediation plan, and useful for cross reference with field measures to allow for field decision making. The data collected during phase I of this project included: trench relative exposure rate data, trench grab samples, and trench composite sample analysis performed at Lockheed Analytical Inc. This information will be presented in detail under separate cover.

The screening techniques employed were used as confirmatory measures, confirming the ORAU data, and may be used to modify the volume to be disposed. The gross alpha screening certainly confirm sample results in the ORAU report however, a correlation between gross alpha screening data and the Lockheed activity assays must be established to further estimate radionuclide concentrations in identified areas of each trench.

As identified in this report several options are available to Texas Instruments Incorporated. One of the options makes the assumption that the areas near trench A and trench B do not have to be remediated, except for isolated locations. This assumption may be supported by the analysis being performed by Lockheed.

The general approach of each option would be as follows:

- o Excavation of the soil using conventional excavation equipment
- o Screening of excavated soil primarily for volume reduction
- o Monitoring of the debris for contamination
- o Loading of the soil into roll-off containers
- o Compaction of the soil
- o Decontamination of the roll-off containers for transport
- o Transport by truck to rail, then by rail to waste disposal site

## **Option 1**

**This option would be to fully characterize all property at the Attleboro facility. Based upon this characterization a remediation of the site property would be detailed and a cost estimate provided. The scope of this work is extensive and is not considered further for the purposes of this agreement. However, Texas Instruments Incorporated may wish to consider full site characterization.**

## Option 2

### Assumptions:

- 1) Clean-up all areas with U-235 > 0.34 pCi/gram (background concentrations found by the ORAU study).
- 2) Surface contamination (as identified in the ORAU report) removed to a depth of 0.3 meters.
- 3) Areas identified by ORAU borings removed to a depth of 1.0 meter.
- 4) Volume calculated equals volume disposed of based on re-compaction upon packaging.
- 5) Small grids (5 meters x 5 meters), large grids (10 meters x 10 meters).
- 6) Disposal cost @ \$33/ft<sup>3</sup>.

### Volume Estimate: (see Figure 1)

- o Area of contamination to 1 meter depth =  
 $5 \times 5 \times 1 \times 14 \text{ locations} = 350 \text{ m}^3$
- o Area of surface contamination to surface (0.3 meters)  
 $5 \times 5 \times 0.3 \times 68 \text{ locations} = 510 \text{ m}^3$

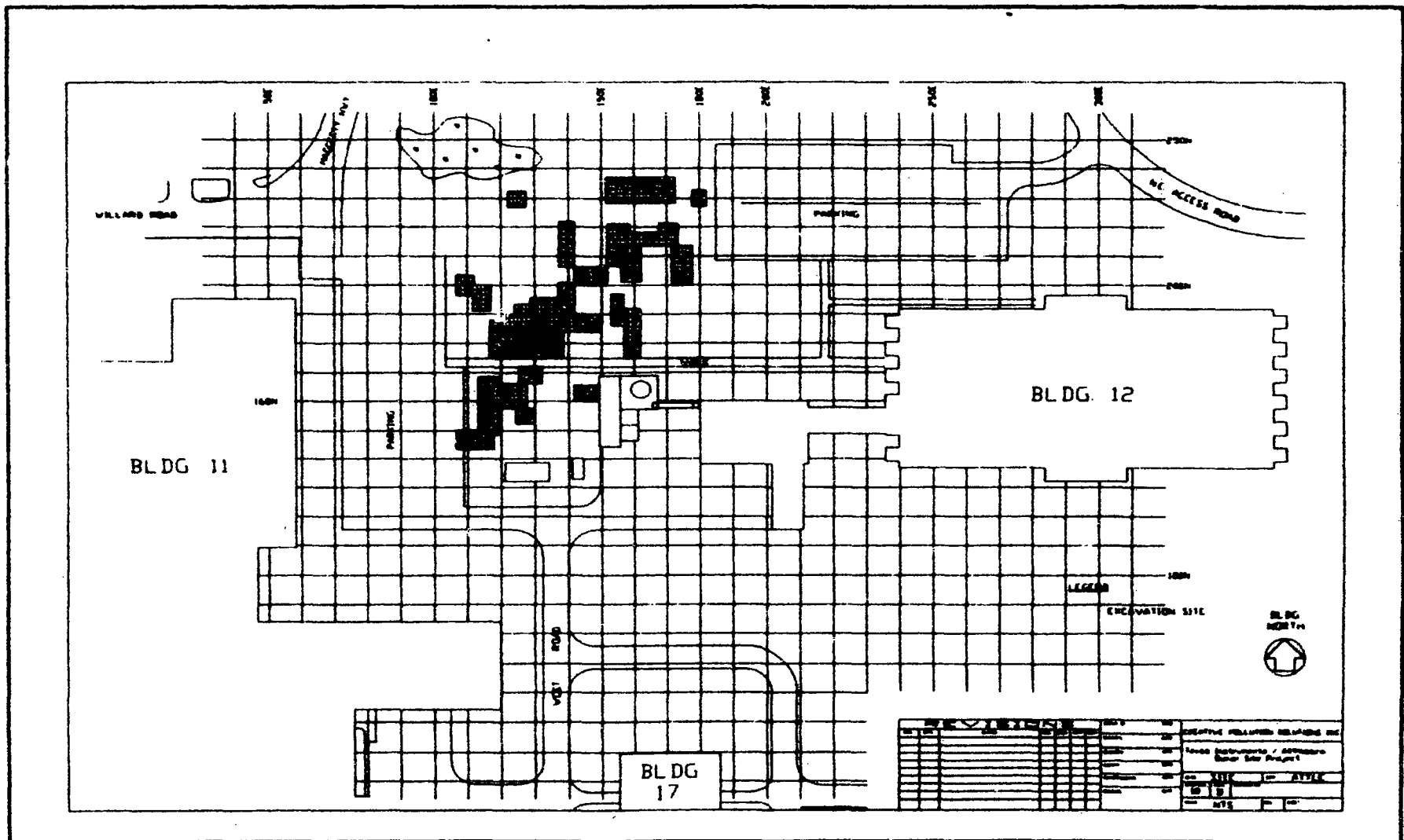
$$\text{Total volume} = 350 + 510 = 860 \text{ m}^3$$

$$860 \times 35.314 \text{ ft}^3/\text{m}^3 = 30,400 \text{ ft}^3$$

### Cost Estimate: (see Appendix A for explanation)

Disposal:	\$1,003,200
Packaging:	\$32,300
Transportation:	\$446,250
Excavation:	\$88,500
Health Physics:	\$60,000
<b>TOTAL :</b>	<b>\$1,630,000</b>

Figure 1



### Option 3

#### Assumptions:

- 1) Clean-up areas with U-235 > 30 pCi/gram; U-238 > 35 pCi/gram; Th-232 > 10 pCi/gram.
- 2) Contamination to depth of 1 meter.
- 3) Grid area =  $5 \times 5 = 25 \text{ m}^2$
- 4) Clean-up includes areas identified as contaminated by ORAU elevated contact radiation measurements.
- 5) Volume calculated equals volume disposed of based on re-compaction upon packaging.

#### Volume Estimate: (Figure 2)

Area of contamination =

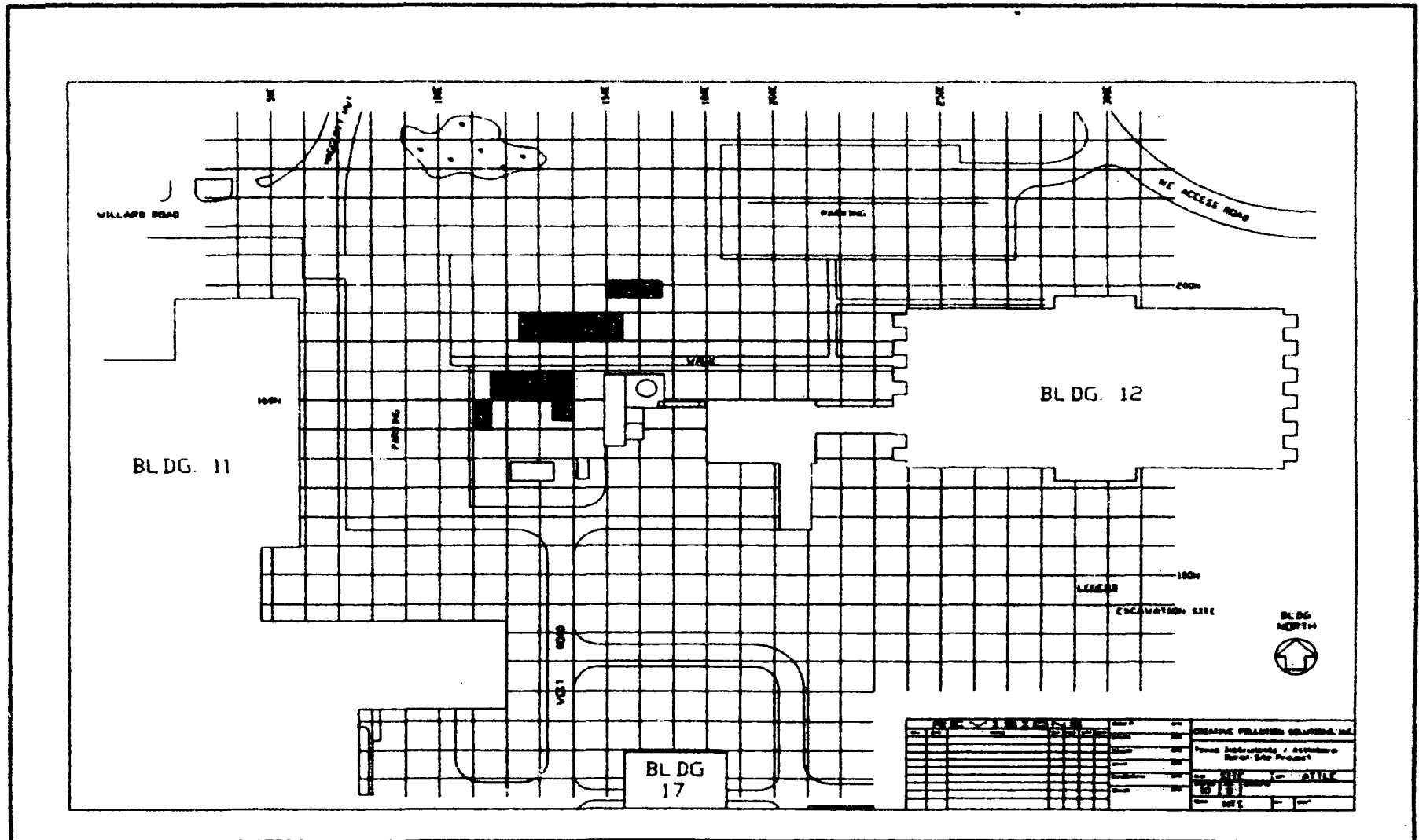
$$5 \times 5 \times 1 \times 21 \text{ locations} =$$

$$525 \text{ m}^3 \times 35.314 \text{ ft}^3/\text{m}^3 = 18,500 \text{ ft}^3$$

#### Cost Estimate:(see Appendix A)

Disposal:	\$610,500
Packaging:	\$16,120
Transportation:	\$273,000
Excavation:	\$66,375
Health Physics:	\$50,000
<b>TOTAL :</b>	<b>\$1,015,995</b>

Figure 2



## Option 4

### Assumptions:

- 1) All U-235 > 30 pCi/gram; U-238 > 35 pCi/gram; Th-232 > 10 pCi/gram.
- 2) Surface contamination to a depth of 0.6 meters.

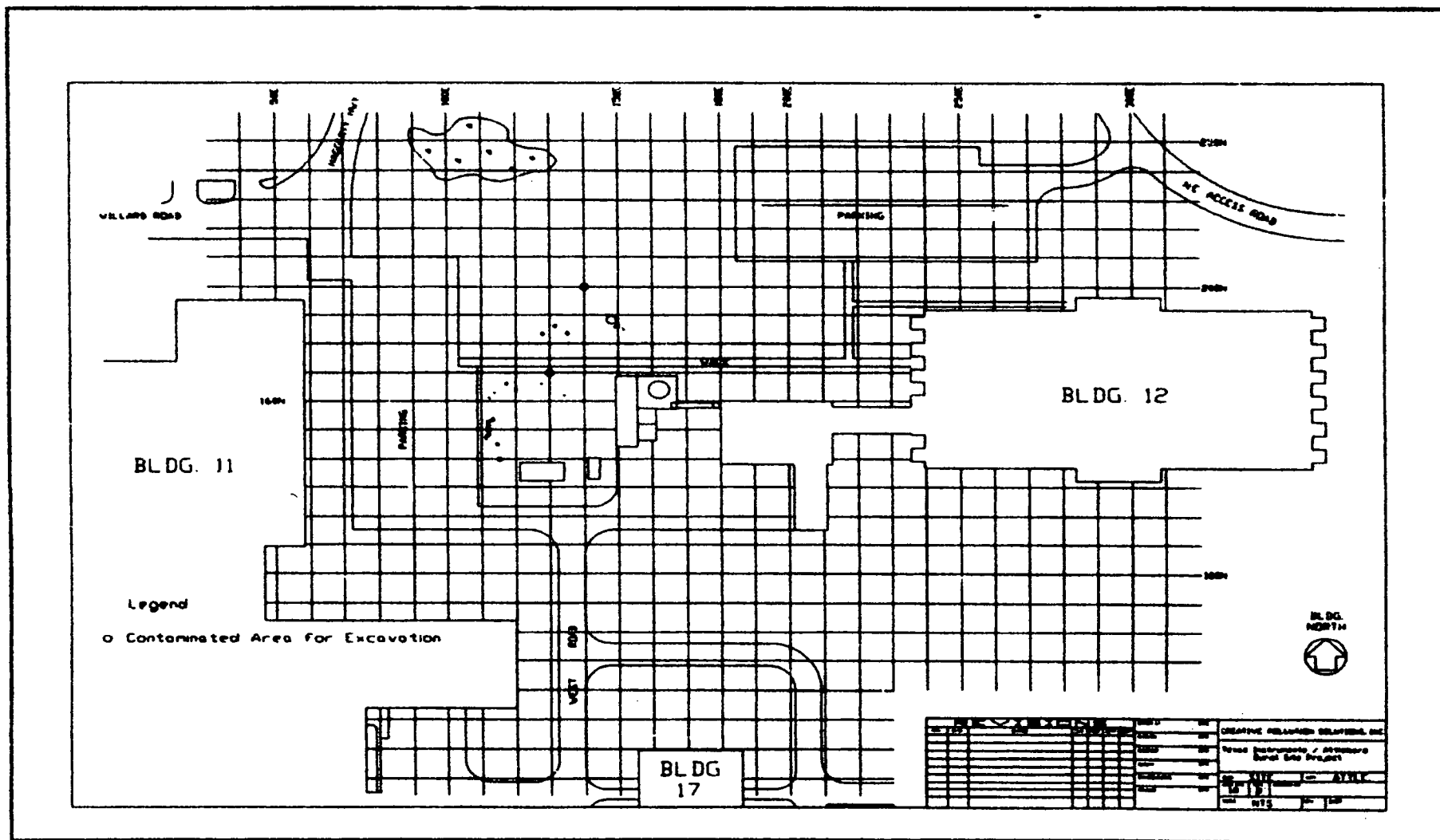
### Volume Estimate: (see figure 3)

$$170 \text{ m}^3 \times 35.3 = 6000 \text{ ft}^3$$

### Cost Estimate: (see Appendix A)

Disposal:	\$198,000
Packaging:	\$4080
Transportation:	\$89,250
Excavation:	\$44,250
Health Physics:	\$45,400
<b>TOTAL :</b>	<b>\$380,980</b>

Figure 3





## **Appendix A**

### **General Cost Estimates**

## APPENDIX A -- GENERAL COST ESTIMATES

### Transportation related costs:

Transportation costs are based on estimates from Franklin Environmental Services.

Transport using roll-off intermodal boxes with a capacity of 432 ft<sup>3</sup>. Cost estimate includes delivery of the empty roll-off to the TI site, transport from the TI site to rail, the rail transport charges, and charges from the rail to the waste disposal site in Utah.

Delivery from rail	\$325/roll-off
Transport to the rail	\$325/roll-off
Rail transport	\$4600/roll-off
Roll-off liner	\$100 ea.
Box/roll-off rental	\$70/week
Off-loading charge	unknown

Not including packaging (liner and box rental) transport will be approximately \$5250/roll-off.

### Waste Disposal:

\$33.00/ft<sup>3</sup> of soil

ASSUMING NO SURCHARGES.

### Excavation costs:

Excavation costs are based on estimates from Franklin Environmental Services.

Labor, material, equipment, heavy equipment and safety gear	\$4425/day
Excavation using 3/4" screen (assume 5 hour operation per day)	440 ft <sup>3</sup> /hr 2200ft <sup>3</sup> /day

## **Health Physics**

**Baseline Costs (Independent of Option):** **\$30,000**

**Layout dig areas, write remediation plan, modify Health and Safety plan, equip. and supplies, Post remediation survey (monitoring and sampling), and final report.**

**Field Costs:** **\$1540/day**

**Includes one HP @ \$75/hr, 3 technicians @ \$35/hr, and one HP on call @ \$100/day.**

## **APPENDIX B**

# **ASSUMPTIONS AND GENERAL CONSIDERATIONS FOR REMEDIATION**

## **APPENDIX B: ASSUMPTIONS AND GENERAL CONSIDERATIONS FOR REMEDATION**

### **Volume Reduction:**

Volume reduction is a common practice to minimize disposal costs. For soil, two methods can be employed. Screening the soil to remove aggregate followed by compaction of the soil. It is estimated that the aggregate content represents 20% of the unexcavated volume. The unexcavated density is assumed to be approximately 2 grams/cm<sup>2</sup> and the excavated density is approximately 1.2 gram/cm<sup>2</sup> based on weight and volume obtained in pilot excavation samples. Simple field compaction can achieve a 2:1 compaction ratio. Therefore an overall volume reduction of 20% is possible, however, not used in the option estimates.

### **Transportation:**

#### **Trucking**

The radioactive material from the affected areas meet the definition of Low Specific Activity, LSA. Requirements for transport are specified within 49 CFR 173.425 and specifies shipment as exclusive use. Cost estimates per exclusive use vehicle were obtained. According to Tri-State Motor Co., an experienced company in exclusive use transport of radioactive material, the costs would be approximately \$1.84/mile with a shipment cost to Clive, Utah coming to \$4500; to Barnwell South Carolina at \$2100; and to Hanford Washington at \$5800; and to Beutte, Nevada at \$5000.

A Gross vehicle weight limit of 80,000 lbs is imposed with an estimated cargo weight of 45,000 lbs. Regardless of soil density, the weight is the limiting factor in exclusive use, not the volume. Therefore, based upon volume excavated and assumed densities, the number of exclusive use vehicles can be determined.

#### **Rail**

Based on estimates received from Franklin Environmental Services, LSA shipments of 22 tons capacity per roll-off container, with three containers per rail car, would cost approximately \$5250/roll-off. The number of roll-offs depends on the volume option selected. The \$5250 does not include the \$70/week rental fee or the \$100/liner for the roll-offs.

## **Disposal Options:**

Site excavation and disposal prior to January 1, 1993 is the desired option regardless of the presented cost estimates. Since cost estimates after that date will be greatly enhanced due to surcharges and limited burial site access.

Disposal costs at the burial sites will vary and a bidding process would be prudent to ensure the lowest cost. Envirocare has suggested a cost per unit volume of approximately \$33/ft<sup>3</sup>. Other burial sites suggest that value for planning purposes but encourage a bidding process. Exclusive of actual burial charges, a surcharge is imposed as mandated by the LLW Act and is presently \$160/ft<sup>3</sup>.

EnviroCare, under its license, section 9, "Authorized Use", requires provisions be met for users outside the Northwest Compact. Massachusetts is outside this compact and therefore a surcharge may be imposed. The surcharge cost was not included in any cost estimates in this report.

## **Residual Radioactivity**

It is not entirely appropriate to provide mass estimates of residual radioactivity until remediation has been completed and a follow-up survey conducted. Due to the nature of the contaminants (i.e., U-238, U-235 without their respective progeny) the survey will rely primarily on soil sampling results.

Regardless, a preliminary assessment can be made based on a number of assumptions. For example, the residual could be based on the excavated area and assume this area to be 850m<sup>2</sup> with a depth of 1 meter. This volume corresponds to 1.02E9 grams of soil with a presumed density of 1.2 grams/cm<sup>3</sup>.

With regards to activity concentrations the following case assumptions could be made:

- Case I: Assume the uranium concentration is the same as background, i.e., 1-2 pCi/gram U-238 and 0.15-0.31 pCi/gram U-235. The mass would then be 4.59E3 grams and 110 grams of U-238 and U-235 respectively,
- Case II: Assume NRC position of 1981 on residual activity at 10 pCi/gram natural uranium and would yield 3.06E4 grams, and
- Case III: Assume NRC position of 1981 on residual activity at 30 pCi/gram for either enriched or depleted uranium. This would yield 9.2E4 grams.

# **Appendix I**

## **Supplemental Sub Surface Soil Sampling and New Cost Estimates**

**Supplemental Sub Surface Soil Sampling  
and  
New Cost Estimates  
for the  
Environmental Restoration Program  
of the  
Texas Instruments Incorporated, Attleboro Site**

**Prepared by  
Creative Pollution Solutions, Inc.  
August 18, 1992**



## Table of Contents

I.	Introduction .....	1
II.	Supplemental sub surface soil sampling .....	1
III.	Determination of affected areas .....	2
IV.	Cost projections .....	6

### Appendices

A.	Drilling data .....	7
B.	LAL Data .....	15
C.	Sample Alpha Screening Results and Correlation with LAL Data .....	27

## Appendix A

## Split Spoon Drilling Data

At \_\_\_\_\_ offer \_\_\_\_\_  
No Water  
At \_\_\_\_\_ offer \_\_\_\_\_

LOCATION OF BORIN

DEPTH	Casing Blows per foot	Sample Depths From - To
	B#	(175 N - )
	B#	(171 N - )
	B#	(165 N - )
	B#	(162 N - )
	B#	(165 N - )
	B#	(171 N - )
	B#	(160 N - )
	B#	(150 N - )

287

### III. PRE-EXCAV.

A pre-excavation S of the pre-excavati the area defined in Approximately fifty samples will be ve B) will be perform uranium distributio

#### IV. EXCAVATIO

**The planned excav  
Oak Ridge Associa  
Solutions, Inc.**

**Phase II will be potentially contaminated by mechanical screening, radiological monitoring. In addition, if contaminated material is not properly disposed.**

**. Demonstration of the feasibility of remediation.**

## Details

### **1.0 Individuals Contacted**

R. L. Churchill, Program Manager  
M. J. Elliott, Manager of Environmental Engineering  
M. Henault, Remediation Contractor  
F. J. Veale, Manager of Safety, Industrial Hygiene and Environmental Engineering

### **2.0 Site Tour**

During this inspection, the inspector observed remediation activities in process. It was noted that the entire area between the Building 11 and Building 12 parking lots was affected by these activities. The affected area covered about 2.5 acres. Of this, about 0.5 acres was excavated to about 10 feet deep as shown in Attachment 1. Piles of overburden soil covered about one acre.

The inspector noted that the licensee had established a contamination control change line; that individuals working in the affected area were wearing breathing zone air samplers; and that at least four environmental air samples had been installed in the area. One environmental air sampler was located in the Northeast corner of the site, another was located on the north edge of the site, and, a third sampler was located on the south edge of the site. The last sampler was relocated, as necessary adjacent to work areas.

### **3.0 Review of Air Sampling Results**

#### **3.1 Breathing Zone Air Samples**

The inspector reviewed the licensee's records of breathing zone air sampling results for the time period September 15 to October 31, 1992. The results indicated that the workers were not exposed to any significant airborne radioactivity. The maximum exposure was about 2 maximum permissible concentration - hours (mpc-hrs) exposure for uranium. The maximum permissible concentration for insoluble uranium specified in 10 CFR 20, Appendix B, Table 1, Column 1 is 1.0E-10 microcuries per cubic centimeter. No inadequacies were identified.

#### **3.2 Environmental Air Samples**

The inspector reviewed the licensee's records of environmental air sampling results for the time period September 15 to October 31, 1992. Typical results indicated the presence of about one to two percent of the maximum permissible concentration (MPC) for uranium specified in 10 CFR 20, Appendix B, Table 2, Column 1 in air. The maximum air concentration measured was about 20% of the applicable MPC. The applicable MPC for insoluble uranium in air is 4.0E-12 microcuries per cubic centimeter.

#### **4.0 Future Actions**

##### **4.1 Licensee**

The licensee expected to complete site remediation activities by November 15, 1992. The final shipment of contaminated soil was expected to leave the site no later than November 16, 1992. Following the completion of remediation activities, the licensee expected to initiate the final "bottom of the hole" surveys. These surveys will include soil sampling and analyses. That survey report was expected to be completed and sent to the NRC Region I office for review on or before December 1, 1992.

Upon completion of verification surveys by the NRC, the licensee will fill the excavated areas on site and will conduct a final survey and soil sample analysis of the entire affected area. Upon completion of that survey, a final survey report will be prepared and submitted to the NRC. That report will also contain a residual radiation dose evaluation and a request for license termination.

##### **4.2 NRC**

Upon receipt of the "bottom of the hole" survey report, the NRC will evaluate the report and arrange for a verification survey to be conducted by the NRC contractor, the Oak Ridge Institute for Science and Education. That survey is expected to take place during the week of December 14, 1992. NRC also expects to conduct a final verification survey of the affected area of the site during the spring of 1993.

#### **5.0 Licensee Discussions**

In lieu of an exit interview, the inspector held continuing discussions with the individuals identified in Paragraph 1.0 throughout the inspection on November 3, 1992. These discussions provided the licensee representatives with the results of the inspection.

**NRC Inspection Report of December 14-16, 1992**

(without attachment)



NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

DEC. 30 1992

Docket No. 70-33

Mr. Frank J. Veale, Jr.  
Manager, Environmental Engineering/  
Industrial Hygiene  
Metals and Controls Group  
Texas Instruments, Incorporated  
34 Forest Street  
Attleboro, Massachusetts 02703

Dear Mr. Veale:

Subject: NRC Inspection No. 70-33/92-04

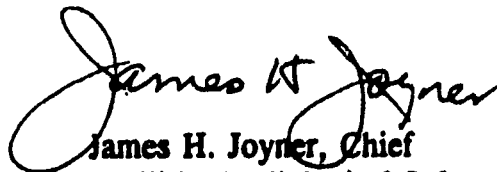
An announced safety inspection of your site remediation activities was conducted at your facility by Mr. J. Roth on December 14-16, 1992. The inspection findings were discussed with you, Mr. W. Schuele, and members of your staff on December 16, 1992 during the inspection.

The area reviewed during the inspection was important to health and safety and is discussed in the enclosed inspection report. This area was the observation of a confirmatory survey conducted by the NRC contractor, the Oak Ridge Institute for Science and Education.

All operations of the facility have been terminated with the exception of decommissioning and decontamination activities. Preliminary results of the surveys conducted by the NRC contractor during this inspection indicated that you appeared to have completed cleanup of the bottom of the excavated area of the former burial site in an appropriate manner. However, the existence of elevated radiation levels on the walls of the excavated area indicated that not all radioactive material, above the guidance values approved in your Remediation Plan (30 picocuries total uranium per gram of soil), had been removed. It is our understanding that you will remove this material, resurvey the edges of the excavated area and provide this office with a revised final survey report. Within the scope of this inspection, no safety concerns or violations of regulatory requirements were identified.

No response to this letter is required. Your cooperation with us is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "James H. Joyner". The signature is fluid and cursive, with the first name "James" and last name "Joyner" clearly legible.

James H. Joyner, Chief  
Facilities Radiological Safety  
and Safeguards Branch  
Division of Radiation Safety  
and Safeguards

Enclosure: NRC Region I Inspection Report No. 70-33/92-04

cc w/encl:

Public Document Room (PDR)

Local Public Document Room (LPDR)

Nuclear Safety Information Center (NSIC)

Commonwealth of Massachusetts (2)



Licensee Texas Instruments, Incorporated  
34 Forest Street  
Attleboro, Massachusetts 02702

Facility Name: HFIR Project

Inspection At: Attleboro, Massachusetts

Inspection Conducted: December 14-16, 1992

Inspector:

J. Roth  
J. Roth, Project Engineer  
Facilities Radiation Protection Section  
Facilities Radiological Safety and Safeguards Branch  
Division of Radiation Safety and Safeguards

12/29/92  
Date

Approved by:

W. J. Pasciak  
W. J. Pasciak, Chief  
Facilities Radiation Protection Section  
Facilities Radiological Safety and Safeguards Branch  
Division of Radiation Safety and Safeguards

1/12/93  
Date

**Areas Inspected:** Special, announced inspection by a region-based inspector to observe a survey conducted by the NRC contractor, the Oak Ridge Institute for Science and Education (ORISE), to verify survey results provided by the licensee.

**Results:** Preliminary results of the ORISE survey indicated that the licensee appeared to have completed cleanup of the bottom of the excavated area in an appropriate manner. However, elevated radiation levels obtained on the walls of the excavated areas indicate that not all radioactive material, above the NRC-approved guidance values, had been removed. No safety concerns or violations of regulatory requirements were identified.

## **DETAILS**

### **1.0 Individuals Contacted**

M. Elliot, Manager, Environmental Engineering  
M. Griffin, Project Manager  
T. Gutman, Consultant  
W. Lorenzen, Health Physicist  
J. O'Donnell, Corporate Health Physicist  
W. Schuele, Attleboro Site Manager  
F. Veale, Jr., Manager, Environmental Engineering/Industrial Hygiene

Other licensee representatives, employees and remediation contractor employees were also interviewed during this inspection.

### **2.0 Background**

On August 26, 1992, NRC issued Amendment No. 16 to Facility License SNM-23. This amendment authorized the licensee to perform remediation of the on-site low level radwaste burial site in accordance with the "Remediation Plan for the Identified Building 12 Burial Area" (Remediation Plan) and the "Radiological Health and Safety Plan dated July 30, 1992." The licensee performed the remediation activities between August 27 and November 13, 1992 and provided the NRC with the "Post Excavated Radiological Survey Report" dated November 28, 1992. This report, provided as Attachment 1, was used as the basis for preparation of the "Confirmatory Radiological Survey Plan for the Texas Instruments Incorporated Burial Site, Attleboro, Massachusetts" which was submitted to the NRC Region I office by the NRC contractor, the Oak Ridge Institute for Science and Education (ORISE) by letter dated December 10, 1992 (see Attachment 2). This plan was approved by the NRC and the confirmatory survey was conducted December 14-16, 1992.

### **3.0 Conduct of the Verification Survey**

ORISE personnel conducted the verification survey discussed in Paragraph 2.0. Available surfaces of the excavated and adjacent areas were scanned using gamma scintillation or GM detectors. Soil samples were taken from randomly selected locations within the excavated areas. Additional soil samples also were taken within the excavated areas at locations that exhibited elevated radiation readings during the scanning, or were identified as elevated in the licensee's report. Each of these samples was split with the licensee and will be analyzed to verify the licensee's analytical ability. The results will be included in correspondence to the licensee when the analyses are completed.

Preliminary results indicated that the licensee appeared to have completed cleanup of the bottom of the excavated area in an appropriate manner. However, elevated radiation levels (ranging from 2½ to 40 times background) identified on the walls of the excavation (see Attachment 3) indicated that radioactive material, above the 30 picocuries total uranium per gram of soil guidance value contained in the NRC-approved Remediation Plan, may not have been removed from the burial site. As a result, the licensee was requested by the inspector to perform additional remediation activities.

## **5.0 Additional Actions Required**

### **5.1 Licensee**

Upon completion of the additional remediation activities, the licensee is expected to resurvey the excavated areas and provide the NRC with a revised final survey report of the remediated area.

### **5.2 NRC**

Upon receipt of the licensee's final survey report, the NRC contractor will the site, resurvey the applicable areas and will perform final confirmatory surveys on the surface of the remediated area.

## **6.0 Exit Interview**

The inspector met with the licensee representatives denoted in Paragraph 1.0 at the conclusion of the inspection on December 16, 1992. The ORISE team leader and the inspector summarized the results of the confirmatory survey conducted by ORISE personnel. The inspector thanked the licensee for providing the survey team logistical support and backup when required.

During the exit interview, the inspector provided the licensee with guidance in regard to soil sample result averaging. It was stated that since the soil samples were taken at the grid block intersections, the average residual uranium value for each adjacent four grid blocks also had to meet the 30 picocuries total uranium per gram of soil criteria. In addition, the licensee was reminded that the results of groundwater monitoring for total uranium had to be incorporated into the final report.

## **NRC Inspection Report of June 2, 1993**



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

JUL 6 7 1993

Docket No. 70-33

Mr. Frank J. Veale, Jr.  
Manager, Environmental Engineering/  
Industrial Hygiene  
Metals and Controls Group  
Texas Instruments, Incorporated  
34 Forest Street  
Attleboro, Massachusetts 02703

Dear Mr. Veale:

Subject: NRC Inspection No. 70-33/93-01

An announced safety inspection of the site remediation activities at your facility was conducted by Mr. Roth on June 2, 1993. The inspection findings were discussed with you, Mr. Schuele, and members of your staff on June 2, 1993.

The area reviewed during the inspection was important to public health and safety and is discussed in the enclosed inspection report. This area involved site remediation activities and included the conduct of a confirmatory survey by the inspector.

All NRC-licensed operations at the facility have been terminated with the exception of decommissioning and decontamination activities. Preliminary results of the surveys conducted by the inspector during this inspection indicated that you have completed cleanup of the excavated area of the former burial site in an appropriate manner. Within the scope of this inspection, no safety concerns or violations of regulatory requirements were identified.

No response to this letter is required. Your cooperation with us is appreciated.

Sincerely,

James H. Joyner, Chief  
Facilities Radiological Safety  
and Safeguards Branch  
Division of Radiation Safety  
and Safeguards

**Enclosure: NRC Region I Inspection Report No. 70-33/93-01**

**cc w/encl:**

**Public Document Room (PDR)**

**Local Public Document Room (LPDR)**

**Nuclear Safety Information Center (NSIC)**

**Commonwealth of Massachusetts (2)**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No.: 70-33/93-01

Docket No.: 70-33

License No.: SNM-23

Priority 1

Category UHF

Licensee: Texas Instruments, Incorporated  
34 Forest Street  
Attleboro, Massachusetts 02702

Facility Name: HFIR Project

Inspection At: Attleboro, Massachusetts

Inspection Conducted: June 2, 1993

Inspector:

J. Roth  
J. Roth / Project Engineer  
Facilities Radiation Protection Section (FRPS)  
Facilities Radiological Safety and Safeguards  
Branch (FRSSB)  
Division of Radiation Safety and Safeguards

7/1/93  
Date

Approved by:

W. Pasciak  
W. Pasciak, Chief  
FRPS, FRSSB  
Division of Radiation Safety and Safeguards

7-1-93  
Date

**Areas Inspected:** Special, announced inspection by a region-based inspector to perform a radiological survey of portions of the onsite excavated area following remediation by the licensee.

**Results:** Preliminary results of the survey indicated that the licensee appeared to have completed remediation of the excavated area in an appropriate manner. No safety concerns or violations of regulatory requirements were identified.

## **Details**

### **1.0 Individuals Contacted**

M. J. Elliott, Manager, Environmental Engineering  
M. Griffin, Project Manager  
W. A. Lorenzen, Health Physicist  
F. F. McWilliams, Health Physicist  
W. Schuele, Attleboro Site Manager  
F. J. Veale, Jr., Manager, Environmental Engineering/Industrial Hygiene

Other licensee representatives, employees and remediation contractor employees were also interviewed during this inspection.

### **2.0 Background**

On December 14-16, 1992, the NRC contractor, the Oak Ridge Institute for Science and Education (ORISE), performed a verification survey of the remediated area of the Attleboro site. During that survey, it was determined from radiation levels (ranging from 2½ to 40 times background) on the walls of the excavation that radioactive material remained that was above the 30 picocuries total uranium per gram of soil guidance value contained in the NRC-approved Remediation Plan. In addition, analysis of soil samples taken by ORISE indicated that there were two locations on the bottom of the excavation that exceeded the NRC guidance value. Results of the ORISE survey are provided in Attachment 1. As a result, the licensee was requested by the inspector to perform additional remediation activities.

Since the December, 1992 NRC-survey the licensee has performed additional onsite remediation, drained the groundwater out of the excavated area, and verified that the excavated area met the NRC guidance value of 30 picocuries total uranium per gram of soil.

Since, according to a May 25, 1993 letter to the NRC (Attachment 2), the licensee intended to backfill the excavation as soon as the final survey was completed, a special inspection was conducted on June 2, 1993 in order to verify that the bottom of the excavation met the NRC guidance value indicated above.

### **3.0 Conduct of the Verification Survey**

The inspector performed the verification survey discussed in Paragraph 2.0. Surfaces adjacent to, in and on the walls of the excavation were scanned using a gamma scintillation detector. Micro-R readings were taken at one meter above the surface at random locations, soil samples were taken from the two remediated areas on the bottom of the excavation and from two locations that exhibited elevated radiation readings during the scanning. The two elevated areas were remediated by the licensee prior to sampling by the inspector.



a Ludlum Model 16 Analyzer equipped with a 1 inch sodium iodide scintillation detector. Prior to the survey, the instrument background was determined to be about 2500 counts per minute. Radiation levels in the excavated area were found to be between one and one and one-half times background except in two elevated areas (grid location 185N X 157E, three times background; grid location 177.5N X 122E, two times background). Both elevated areas were immediately remediated by the licensee. Subsequent to remediation, the radiation levels in these two areas was reduced to one to one and one-half times background.

#### 4.2 One-Meter Gamma Survey

The inspector performed gamma radiation measurements at one-meter above the surface using a Ludlum Micro-R Meter. The measurements were made in the following locations.

<u>Grid Location</u>	<u>Results</u> <u>(Micro-R/hr)</u>	<u>Grid Location</u>	<u>Results</u> <u>(Micro-R/hr)</u>
185N 157E	14	165N 130E	13.5
177.5N 122E	15	170N 130E	14
180N 120E	14	175N 130E	13
175N-125E	14	182N 140E	12
170N-125E	12.5	180N 130E	13.5
190N - 160E	12.5	190N 140E	11

#### 4.3 Soil Samples

Soil samples were obtained by the inspector for the two elevated grid locations identified by the inspector in paragraph 4.1 and from the two grid locations identified in the ORISE survey report discussed in paragraph 2.0.

<u>Sample Identification</u>	<u>Preliminary Sample Result</u> <u>(picocuries total uranium/gram soil)</u>
185N 157E	22
177.5N 122E	58
162N 130E	16
182N 132E	36



The preliminary sample analysis results were obtained by alpha counting in the licensee's laboratory. This technique has been shown to be conservative (higher) when compared to the analytical results obtained in the ORISE laboratories as indicated in Attachment 3. The samples will be sent to the ORISE laboratories for verification analyses and the results will be provided in a subsequent inspection report.

## **5.0 Additional Actions Required**

### **5.1 Licensee**

Upon completion of the additional remediation activities, the licensee is expected to resurvey the excavated areas and provide the NRC with a revised final survey report. The expected schedule for completion of these activities is provided in Attachment 2.

### **5.2 NRC**

Following receipt of the licensee's final survey report, the NRC contractor will visit the site, resurvey the applicable areas and will perform final confirmatory surveys on the surface of the remediated area.

## **6.0 Exit Interview**

The inspector met with the licensee representatives denoted in Paragraph 1.0 at the conclusion of the inspection on June 2, 1993. The scope of the inspection and the findings were discussed with the individuals present.

January 25, 1993

Mr. Jerry Roth  
Region 1  
Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19400

**SUBJECT: INTERIM RADIOLOGICAL SURVEY LETTER REPORT FOR THE TEXAS INSTRUMENTS, INCORPORATED BURIAL SITE, ATTLEBORO, MASSACHUSETTS**

Dear Mr. Roth:

The Environmental Survey and Site Assessment Program (ESSAP) of the Oak Ridge Institute for Science and Education (ORISE) performed a confirmatory radiological survey of the Texas Instruments Burial Site in Attleboro, Massachusetts, on December 15-16, 1993. Survey activities included gamma surface scans and collection of soil samples. ESSAP offers the following interim survey data for your review.

### **SURFACE SCANS**

Gamma surface scans were performed at the boundary of the excavated area. Several locations of elevated direct radiation were identified (Figure 1). At a number of these locations, the elevated activity was associated with small pieces of metal debris. A similar piece of material was identified while scanning around the overburden piles at grid block location 220N, 145E. Remedial activities by Creative Pollution Solutions (CPS), a contractor for Texas Instruments, were not effective. Furthermore, during these remedial activities, a relatively larger piece of scrap metal with elevated activity was excavated from the west side of the burial site, adjacent to the parking area.

### **SOIL SAMPLING**

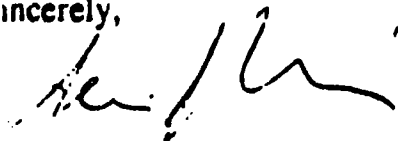
Ten soil samples were collected from the bottom of the excavated area and six samples were collected from the overburden piles. ESSAP has analyzed all samples by gamma spectrometry. The analytical results are presented in Table 1, and sample locations are shown in Figure 2. The total uranium concentrations for samples taken from the overburden piles ranged from 1.5 to 50 pCi/g. The total uranium concentrations for samples taken from the bottom of the excavation

ranged from 3 to 400 pCi/g. The sample with a total uranium concentration of 400 pCi/g was taken at grid coordinate 185N, 125E. A second sample, taken by the licensee at approximately the same location, was analyzed by ESSAP and contained 85 pCi/g of total uranium.

The soil concentration guideline, for enriched uranium, is 30 pCi/g. The total uranium concentration at a number of locations in the excavated area exceeds this limit. Furthermore, based on the survey findings, it is ESSAP's opinion that the full extent of the burial site, particularly on the west side, adjacent to Building 11 parking area, has not been determined.

If there are any questions or you need additional information, please do not hesitate to contact me at (615) 576-3355 or Michele Landis at (615) 576-2908.

Sincerely,



Armin Jaberaboansari  
Project Leader  
Environmental Survey and  
Site Assessment Program

AJ:mkp

cc: J. Parrott, NRC/6H3  
D. Tiktinsky, NRC/6E6  
T. Mo, NRC/6H3  
J. Swift/F. Brown, NRC/6H3  
J. Kinneman, NRC/Region 1  
NRC/PMDA, 6E6  
J. Berger, ORISE/ESSAP  
M. Landis, ORISE/ESSAP  
File/205

**TABLE 1**  
**URANIUM CONCENTRATIONS IN SOIL SAMPLES**  
**TEXAS INSTRUMENTS, INC.**  
**ATTLEBORO, MASSACHUSETTS**

Sample Location	Uranium Concentrations <sup>a</sup>		
	U-235	U-238	Total Uranium <sup>b</sup>
<b>Excavated Area<sup>c</sup></b>			
200N, 165E	0.7 ± 0.1	10.5 ± 2.2	27
185N, 125E, Sample 1	15.1 ± 2.0	48.5 ± 7.2	400
185N, 125E, Sample 2 <sup>d</sup>	1.7 ± 0.3	45.7 ± 6.7	85
185N, 150E	0.2 ± 0.1	5.3 ± 1.3	10
180N, 130E	1.9 ± 0.3	30.0 ± 4.5	74
170N, 190E	0.1 ± 0.1	0.5 ± 0.6	2.8
165N, 125E	0.3 ± 0.1	3.7 ± 1.2	11
160N, 135E	1.3 ± 0.1	54.3 ± 2.2	84
160N, 130E	2.1 ± 0.3	89 ± 13	140
155N, 115E	0.1 ± 0.1	1.2 ± 0.7	3.5
150N, 139E	0.6 ± 0.1	56.1 ± 2.4	70
<b>Overburden Piles<sup>e</sup></b>			
230N, 155E	1.0 ± 0.2	27.1 ± 4.2	50
220N, 155E	0.2 ± 0.1	4.4 ± 1.1	9.0
220N, 140E	0.9 ± 0.2	15.9 ± 2.6	37
210N, 145E	0.1 ± 0.1	0.8 ± 0.7	1.5
BFP1, Sample 1 <sup>f</sup>	1.1 ± 0.2	24.5 ± 4.0	50
BFP1, Sample 2	1.0 ± 0.2	16.8 ± 2.8	40

<sup>a</sup> Uncertainties represent the 95% confidence level based only on counting statistics.

<sup>b</sup> Total uranium concentrations are calculated based on a U-234 to U-235 activity ratio of 22:1.

<sup>c</sup> See Figure 2.

<sup>d</sup> This sample was provided to ESSAP by the licensee.

<sup>e</sup> Exact locations for soil samples from the overburden piles are not indicated on Figure 2. Approximate grid coordinates or a general description is provided.

<sup>f</sup> "Backfill Pile 1" (BFP1) is located to the west of the excavated area across from the parking area. Samples 1 and 2 were taken from the southwest and northeast corner of BFP1, respectively.

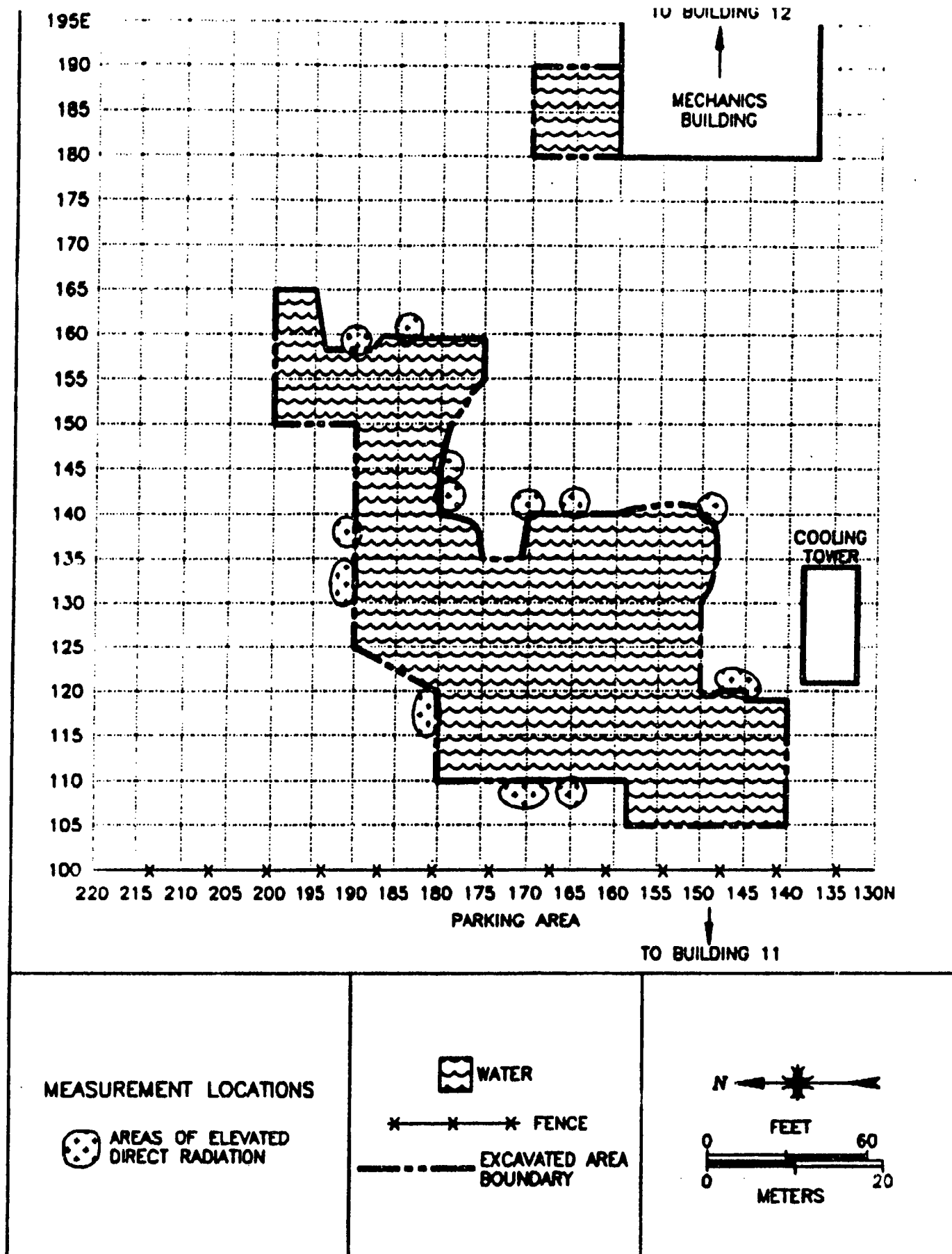


FIGURE 1: Plot Plan of the Burial Site – Areas of Elevated Direct Radiation

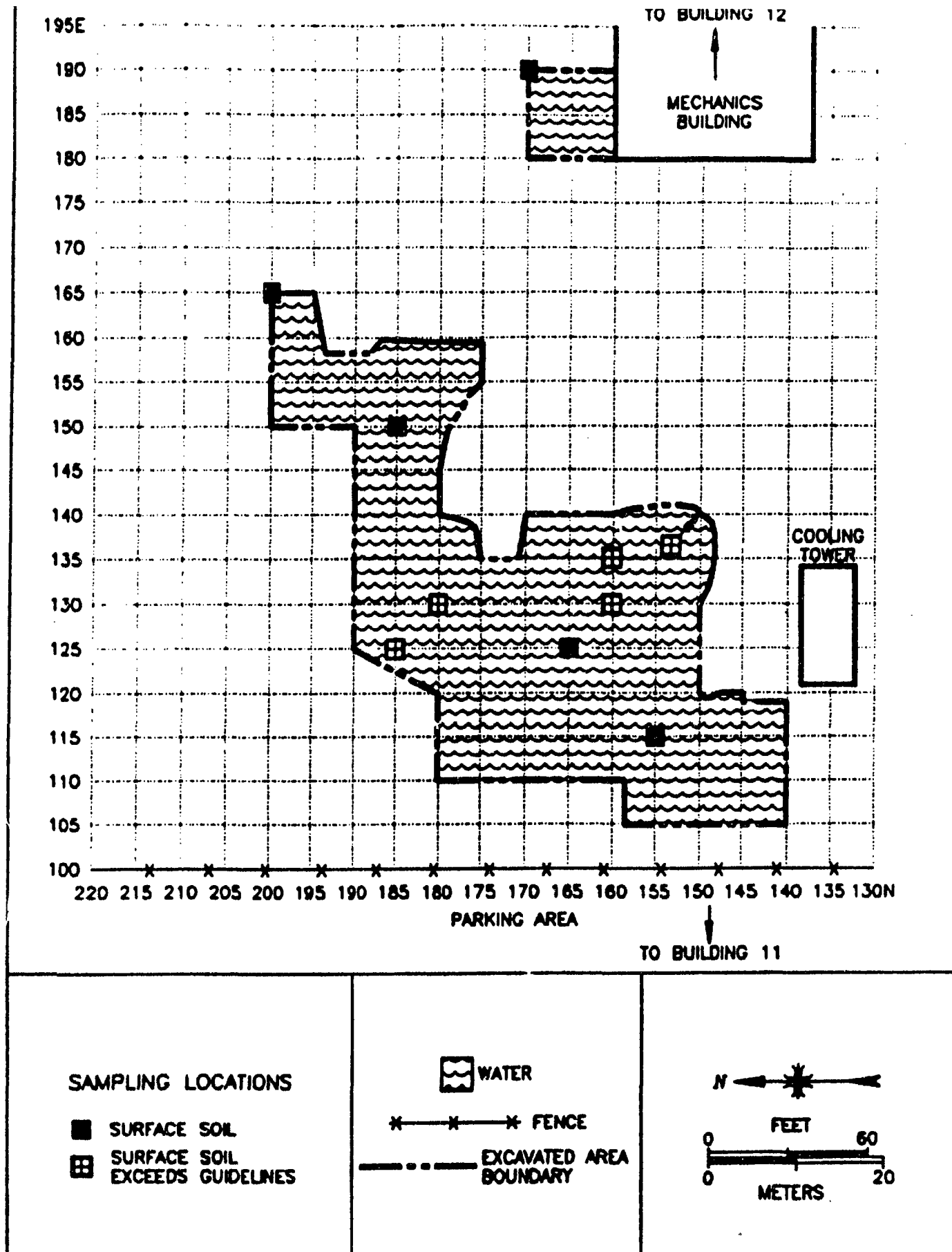


FIGURE 2: Plot Plan of the Burial Site - Surface Soil Sampling Locations

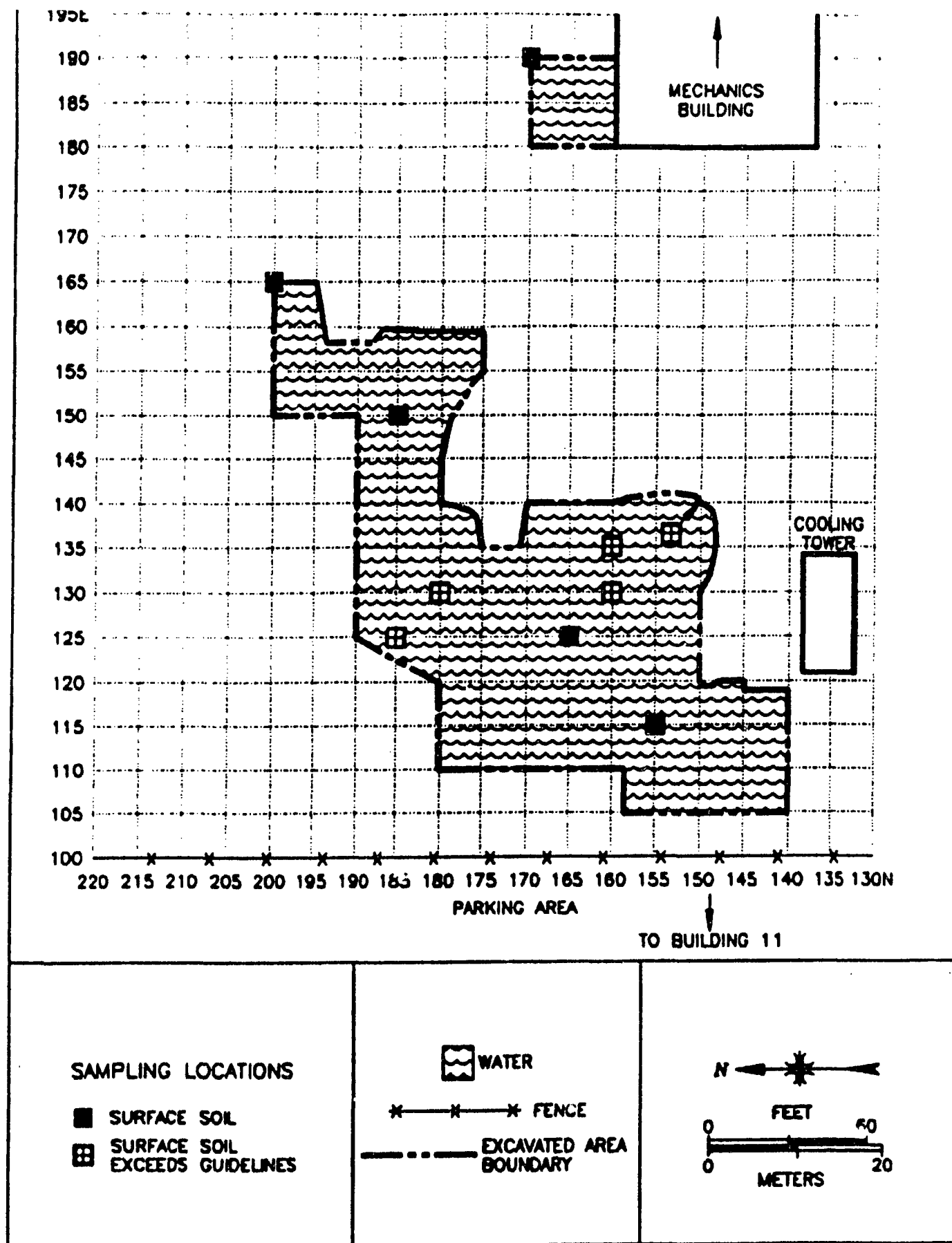


FIGURE 2: Plot Plan of the Burial Site - Surface Soil Sampling Locations



USNRC  
Attn: J. Roth  
Page 2  
May 25, 1993

This past weekend, May 19 and 20, TI's Health Physics contractor performed radiological surveys in the excavation to more accurately define the sediments requiring removal. Subsequent activities will adhere as closely as possible to the following schedule:

All dates are for 1993

- Sediment Removal May 26 to May 29
- Soil Sampling and Analysis May 28 to June 2
  - Gross Alpha Counting will occur simultaneously with "Sediment Removal." Samples will be collected according to the sampling grid pattern described in the Remediation Plan.
  - Gamma Spec Analysis will be performed to verify the Gross Alpha results on a few selected samples.
- Backfill Operation June 2 to June 9
- Final Walkover Survey June 10 to June 16
- Restoration and Landscaping June 17 to July 1
- Submit Final Report August 20

Please feel free to contact me if you have any questions concerning the above information or any other related matter.

Sincerely,

MATERIALS AND CONTROLS GROUP  
ENVIRONMENTAL, SAFETY, AND HEALTH DEPARTMENT

*Michael J. Elliott*

Michael J. Elliott  
Engineering Manager

MJE:bvs

cc: Mr. Daniel V. Bartosh Jr., TI - Dallas  
Mr. John O'Donnel' TI - Dallas  
Mr. Richard L. Jooste... Jr., TI - Dallas  
Mr. Francis J. Veale Jr., TI - Dallas

**ORISE**  
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

EXPERIMENTAL RESEARCH IN SCIENCE AND EDUCATION

December 10, 1992

Mr. Jerome Roth  
Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406


**SUBJECT: CONFIRMATORY RADIOLOGICAL SURVEY PLAN FOR THE TEXAS  
INSTRUMENTS INCORPORATED BURIAL SITE, ATTLEBORO,  
MASSACHUSETTS**

Dear Mr. Roth:

Enclosed is a copy of the subject document. As discussed in our earlier phone conversation, on-site activities have been scheduled for December 15-16, 1992.

If there are any questions, please direct them to me at (615) 576-3355 or Michele Landis at (615) 576-2908.

Sincerely,

  
Armin Jaberaloansari  
Project Leader  
Environmental Survey and  
Site Assessment Program

AJ:ttc

cc: J. Parrott, NRC/NMSS, 6H3  
T. Mo, NRC/NMSS, 6H3  
D. Tiktinsky, NRC/NMSS, 6H3  
J. Swift/F. Brown, NRC/NMSS, 6H3  
J. Kinneman, NRC/Region I  
M. Landis, ORISE  
J. Berger, ORISE  
PMDA, 6E6  
File/205

**CONFIRMATORY SURVEY PLAN  
FOR THE TEXAS INSTRUMENTS  
INCORPORATED BURIAL SITE,  
ATTLEBORO, MASSACHUSETTS**

**SITE HISTORY AND DESCRIPTION**

The Texas Instruments Incorporated site at Attleboro, Massachusetts, was owned and operated by Metals and Controls (M&C) until 1959, at which time M&C merged with Texas Instruments, Inc. The General Plate Division of M&C began processing nuclear materials in 1952, and between 1952 and 1959 fabricated uranium foils for reactor experiments and fuel components and complete reactor fuel cores for the U.S. Navy. Source material license D-549 was issued permitting acquisition and title to not more than 22.7 kg (50 pounds) of refined source material for use in the production of uranium foils; additional source material was acquired and used under contract with U.S. Government. Special nuclear materials license No. SNM-23 was issued, permitting acquisition and title to 110 kg of enriched uranium for fabrication of the fuel components and cores. After the merger in 1959, Texas Instruments continued fabricating reactor fuel cores, primarily for research and production reactors. Also, source materials, i.e., natural uranium and thorium, were still being fabricated for sale to various corporations.

A 1964 Texas Instruments health and safety manual states that uranium- and thorium-contaminated noncombustible scrap material and machinery were collected in 55-gallon steel drums and were disposed of through authorized agencies, or were buried on-site in compliance with 10CFR20.304. Burials were made from 1958 to 1961, and the burial site was closed in 1967. Records indicate two known burials, one in 1958 of contaminated ductwork, and one in 1961 of 28.4 mCi of enriched uranium noncombustible scrap. Work with nuclear materials was gradually reduced beginning in 1968 and was terminated 1974. The interior of the facility was decontaminated and released for unrestricted use by the Nuclear Regulatory Commission (NRC) in 1983.

---

Prepared by the Environmental Survey and Site Assessment Program of Oak Ridge Institute for Science and Education, Oak Ridge, TN, under interagency agreement (NRC Fin. A-9076) between the U.S. Nuclear Regulatory Commission and the U.S. Department of Energy.

The Texas Instruments Inc. Facility, Attleboro, MA is located in North Attleboro, approximately 48 kilometers south of Boston. The Radiological Site Assessment Program, predecessor to the Environmental Survey and Site Assessment Program, of the Oak Ridge Associated Universities (ORAU) conducted a radiological survey of portions of the facility's outdoor areas during April and May, 1984. The results of that survey indicated several areas with surface and/or subsurface uranium concentrations in excess of guidelines.<sup>1</sup>

Texas Instruments Inc. has completed the cleanup and final survey activities at the burial site located between Buildings 11 and 12. The excavated area at the burial site is approximately 1600 m<sup>2</sup> and the average depth of the excavated area is approximately 1.5 meters. The U.S. Nuclear Regulatory Commission, Region I Office, has requested that the Environmental Survey and Site Assessment Program (ESSAP) of the Oak Ridge Institute for Science and Education (ORISE) perform an independent confirmatory survey of the excavated area at the burial site.

### **OBJECTIVE**

The objective of a confirmatory survey is to provide independent document reviews and radiological data, for use by the NRC in evaluating the adequacy and accuracy of the licensee's radiological status report, relative to established guidelines.

### **RESPONSIBILITY**

Work described in this survey plan will be performed under the direction of Michele Landis, Project Manager and Armin Jaberabansari, Project Leader with ESSAP. The cognizant site supervisor has the authority to make appropriate changes to the survey procedures as deemed necessary. After consultation with the NRC site representative, the scope of the survey plan may be altered. Deviations to the survey plan or procedures will be documented in the site log book.

## **DOCUMENT REVIEW**

ESSAP will review the licensee's radiological survey data. Procedures and methods utilized by the licensee will be reviewed for adequacy and appropriateness. The post-remedial action data will be reviewed for accuracy, completeness and compliance with guidelines.

## **PROCEDURES**

Survey activities will be conducted in accordance with the ORISE ESSAP Survey Procedures Manual. Specific procedures applicable to this survey are listed on page 4 of this survey plan.

## **REFERENCE GRID**

A 10 m grid was established during ESSAP's radiological survey of the area in 1984 which was subsequently used by the licensee.<sup>2</sup> The same reference grid will be used in this survey.

## **SURFACE SCANS**

Surface scans of the excavated and the surrounding area (approximately 10,000 m<sup>2</sup>) will be performed using NaI detectors coupled to countrate meters with audible indicators. Areas of elevated direct radiation will be noted for further investigation.

## **SOIL SAMPLING**

Surface soil samples will be obtained from ten randomly selected grid line intersections. Ten to fifteen samples will be obtained from the overburden piles. Additional soil samples will be obtained from locations of elevated direct radiation, identified by surface scans, or at specific locations based on previous ESSAP and/or licensee's survey results.

Samples and data will be returned to ORISE's ESSAP laboratory in Oak Ridge, TN for analysis and interpretation. Soil samples will be analyzed by gamma spectrometry. Approximately 10% of the soil samples will be analyzed by alpha spectroscopy for isotopic uranium.

The data generated will be compared with the licensee's documentation and NRC guidelines established for release to unrestricted use. Results will be presented in a report and provided to the NRC for review and comment. Data and samples collected as a part of this survey will be archived by ESSAP.

## **GUIDELINES**

The soil concentration guideline, for enriched uranium, is 30 pCi/g.<sup>3</sup>

## **TENTATIVE SCHEDULE**

Measurement and Sampling	December 14-15, 1992
Sample Analysis	January, 1993
Draft Report	April, 1993

## **LIST OF CURRENT PROCEDURES**

Applicable procedures from ORISE ESSAP Survey Procedures Manual include:

- Section 5.0 Instrument Calibration and Operational Check-Out
  - 5.1 General Information
  - 5.2 Electronic Calibration of Ratemeters
  - 5.3 Gamma Scintillation Detector Check-Out and Cross Calibration
  - 5.4 Alpha Scintillation Detector Calibration and Check-Out

**5.5 GM Detector Calibration and Check-Out**

**5.13 Field Measuring Tape Calibration**

**Section 6.0 Site Preparation**

**6.2 Reference Grid System**

**Section 7.0 Scanning and Measurement Techniques**

**7.1 Surface Scanning**

**Section 8.0 Sampling Procedures**

**8.1 Surface Soil Sampling**

**8.9 Sample Identification and Labeling**

**Section 9.0 Integrated Survey Procedures**

**9.1 Background Measurements and Baseline Sampling**

**9.2 General Survey Approaches and Strategies**

**Section 10.0 Health and Safety and Control of Cross Contamination**

**Section 11.0 Quality Assurance and Quality Control**

## REFERENCES

1. "Radiological Survey of the Texas Instruments Site, Attleboro, Massachusetts," Oak Ridge Associated Universities, January, 1985.
2. "Post Excavation Radiological Survey Report, Texas Instruments Incorporated Burial Site, Attleboro, Massachusetts," Creative Pollution Solutions, Inc., November 28, 1992.
3. "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source or Special Nuclear Material," U.S. Nuclear Regulatory Commission, Division of Fuel Cycle and Material Safety, Washington D.C., August 1987.



**INCORPORATED BURIAL SITE,  
ATTLEBORO, MASSACHUSETTS**

**Plan Preparation - \$4,300**

Plan preparation includes the following activities: document reviews, survey plans, trip planning and the cost and time estimates.

**On-Site Activities - \$18,300**

On-site activities will include 6 man-days at the site performing the following: gamma scans and soil sampling.

The on-site expenses also include trip preparation (equipment calibration and packing), travel to and from the site (airlines and rental vehicles), hotel expenses, and per diem, unpacking equipment, and logging in samples.

**Sample Analysis - \$6,600**

Includes analysis of soil samples by gamma spectrometry and analysis of selected samples by alpha spectroscopy for isotopic uranium.

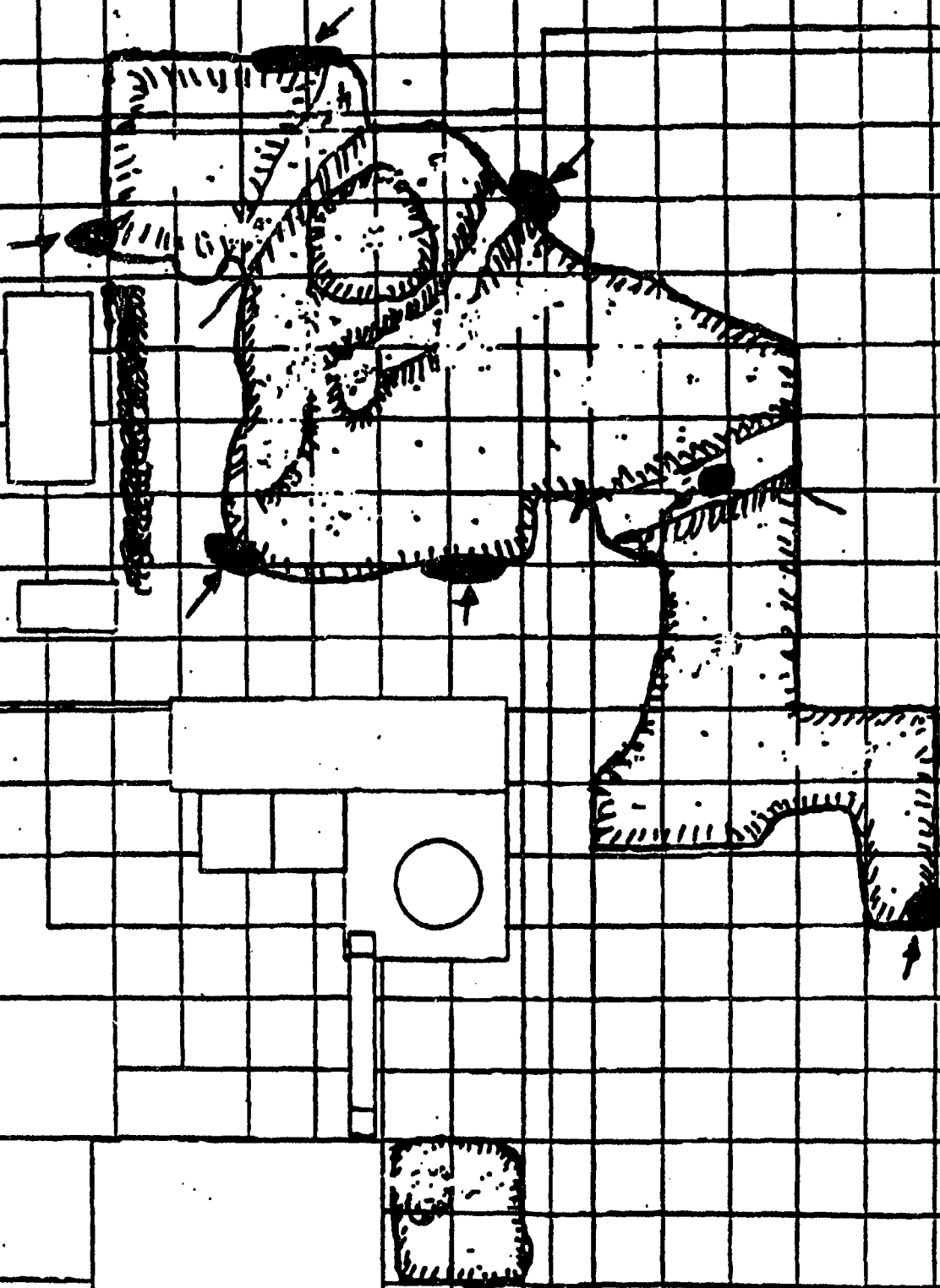
**Report Preparation - \$7,700**

The report preparation will include the following activities: tabulation of data, illustration, and writing and reviewing the final draft, final or interim report, word processing and reproduction.

**Total Cost Estimate - \$36,900**

*\*Estimates are for survey of all areas listed in the NRC Request for Technical Assistance received by ESSAP. Reduction or increase in the number of areas being surveyed would result in changes to the original estimate in the "on-site activities" and "sample analyses" categories. Due to the nature of the survey, this estimate is a best guess site and weather conditions and survey findings may change the scope of the survey and increase or decrease the cost estimate. The NRC site representative will be notified if major changes to the scope of the survey need to be taken.*

PARKING



APPROXIMATE ELEVATIONS SHOWN

NO. 1810732

February 4, 1993

Mr. Jerry Roth  
Region 1  
Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19400

**SUBJECT: CONFIRMATORY ANALYSIS, GAMMA SPECTROMETRY AND ALPHA  
SCREENING, TEXAS INSTRUMENTS INCORPORATED, ATTLEBORO,  
MASSACHUSETTS**

Dear Mr. Roth:

At the request of the Nuclear Regulatory Commission (NRC), the Texas Instruments Incorporated provided the Environmental Survey and Site Assessment Program (ESSAP) of the Oak Ridge Institute for Science and Education (ORISE) with several soil samples for the purpose of evaluating the analytical results reported by the licensee. ESSAP has completed the gamma spectrometry analysis of these samples and offers the following data for your review.

The results of the ESSAP gamma spectrometry analysis are presented in Table 1. The results of the licensee's gamma spectrometry and alpha screening analyses are presented in Table 2, and are plotted in Figures 1 and 2. Based on a pair-wise comparison *t*-test, there are no statistically significant differences ( $P > 0.6$ ) between the licensee's and the ESSAP gamma spectrometry data. In addition, for samples with a total uranium concentration of  $> 20$  pCi/g, the licensee's alpha screening data are statistically identical ( $p > 0.8$ ) to ESSAP's gamma spectrometry data. However, for samples with a total uranium concentration of  $< 20$  pCi/g, the alpha screening data are statistically different ( $p < 0.001$ ) from ESSAP's gamma spectrometry analysis. This fact should not be a concern because the alpha screening analysis appears to provide a more conservative estimate.

However, it should be noted that according to the licensee, the alpha screening data presented here are based on an average of 5 to 10 samples which tends to mask any significant variation among the individual samples. Therefore, because only single measurements are taken in the actual field surveys, reproducibility may still be a concern unless data to the contrary are presented. The uncertainties associated with these measurements, including those of gamma

spectrometry, may be rather high and cannot be accurately estimated. The method of statistical analysis utilized here does not take into account the level of uncertainty associated with individual measurements.

If there are any questions or you need additional information, please do not hesitate to contact me at (615) 576-3355 or Michele Landis at (615) 576-2908.

Sincerely,



Armin Jaberabansari  
Health Physicist/Project Leader  
Environmental Survey  
and Site Assessment Program

cc: J. Parrott, NRC/NMSS  
T. Mo, NRC/NMSS  
D. Tiktinsky, NRC/NMSS  
J. Swift/F.Brown, NRC/NMSS  
J. Kinneman, NRC/Region I  
M. Landis, ORISE  
J. Berger, ORISE  
PMDA, 6E6  
File/205

TABLE 1

**ESSAP GAMMA SPECTROMETRY ANALYSIS OF SOIL SAMPLES  
TEXAS INSTRUMENTS, INC., ATTLEBORO, MASSACHUSETTS**

Sample Identification <sup>a</sup>	Uranium Concentrations (pCi/g) <sup>b</sup>		
	U-235	U-238	Total Uranium <sup>c</sup>
134N, 118E	0.1 ± 0.1	3.0 ± 0.9	5.3
MP 4	0.2 ± 0.1	5.0 ± 1.0	9.6
MP 5	0.2 ± 0.1	6.0 ± 1.0	11
235N, 156E	0.4 ± 0.1	4.0 ± 1.0	13
MP 1-2	0.3 ± 0.1	8.0 ± 1.0	15
138N, 113E	0.3 ± 0.1	8.0 ± 1.0	15
Rock Pile	0.7 ± 0.1	12.0 ± 2.0	28
BFP I	0.8 ± 0.1	18.0 ± 3.0	36
RS 410-411	1.7 ± 0.2	36.0 ± 5.0	75
RS 414	1.3 ± 0.2	47.0 ± 7.0	77

<sup>a</sup> Sample identifications were provided by the Texas Instruments, Inc.

<sup>b</sup> Uncertainties represent the 95% confidence level based only on counting statistics.

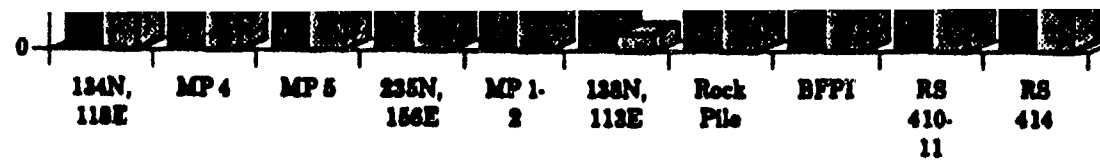
<sup>c</sup> Total uranium concentrations are calculated based on a U-234 to U-235 activity ratio of 22.

**TABLE 2****COMPARISON OF URANIUM CONCENTRATIONS IN SOIL SAMPLES AS  
DETERMINED BY ESSAP AND THE TEXAS INSTRUMENTS, INC.**

<b>Sample Identification</b>	<b>Total Uranium Concentration (pCi/g)<sup>a</sup></b>		
	<b>Gamma Spectrometry</b>		<b>Alpha Screening</b>
	<b>ESSAP</b>	<b>TIA<sup>b</sup></b>	<b>TIA</b>
<b>134N, 118E</b>	<b>5.3</b>	<b>4.7</b>	<b>12.8</b>
<b>MP 4</b>	<b>9.6</b>	<b>21.8</b>	<b>14.2</b>
<b>MP 5</b>	<b>11</b>	<b>7.1</b>	<b>16.0</b>
<b>235N, 156E</b>	<b>13</b>	<b>12.5</b>	<b>19.0</b>
<b>MP 1-2</b>	<b>15</b>	<b>11.7</b>	<b>19.2</b>
<b>138N, 113E</b>	<b>15</b>	<b>1.3</b>	<b>21.4</b>
<b>Rock Pile</b>	<b>28</b>	<b>27.0</b>	<b>25.8</b>
<b>BFP I</b>	<b>36</b>	<b>36.8</b>	<b>29.9</b>
<b>RS 410-411</b>	<b>75</b>	<b>57.0</b>	<b>75.3</b>
<b>RS 414</b>	<b>77</b>	<b>90.8</b>	<b>85.0</b>

<sup>a</sup> Total uranium concentrations are calculated based on a U-234 to U-235 activity ratio of 22:1.

<sup>b</sup> Texas Instruments, Inc., Attleboro, Massachusetts



### Sample Identification

Figure 1. Comparison of ESSAP and Texas Instruments gamma spectrometry analysis.



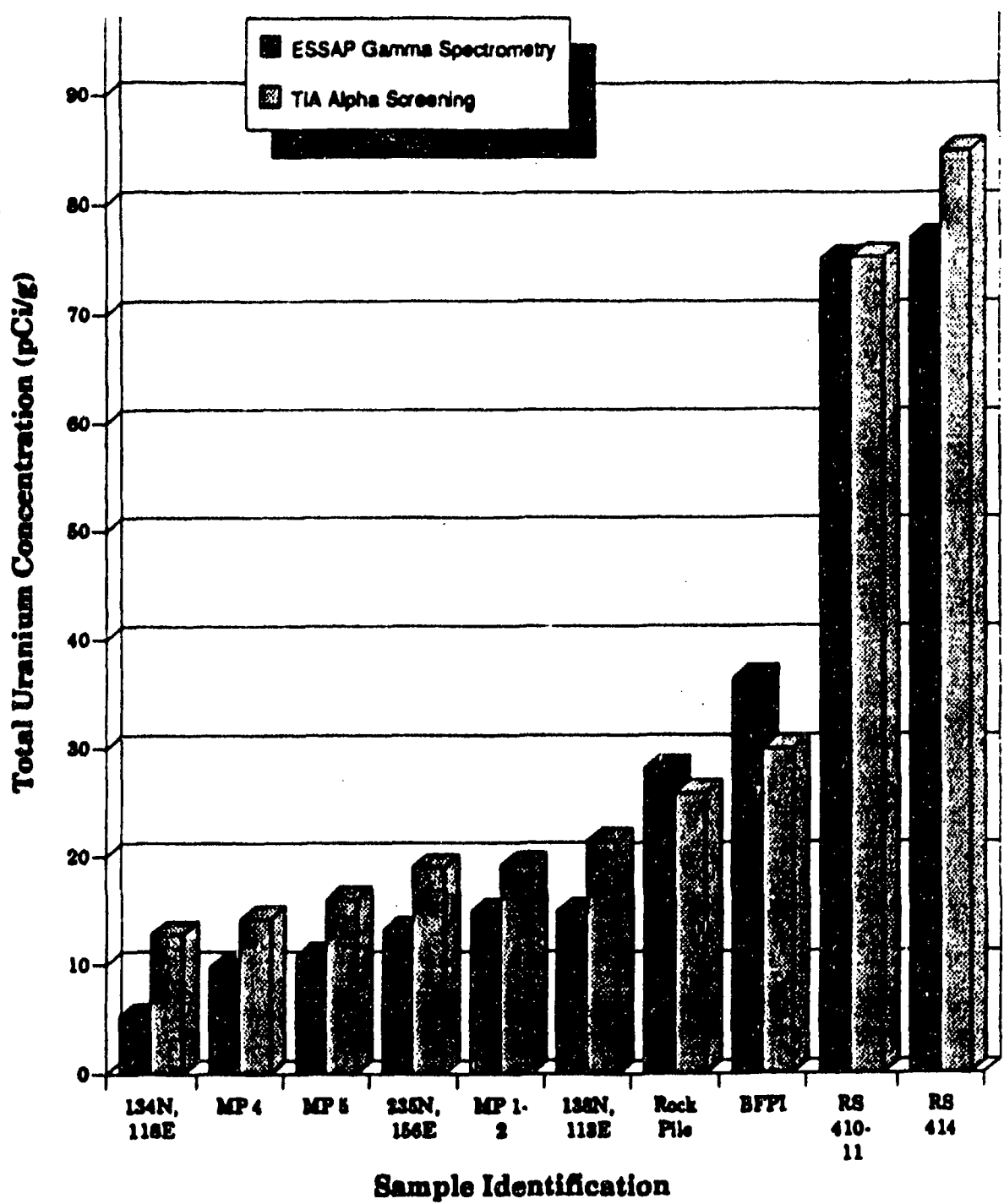


Figure 2. Comparison of ESSAP gamma spectrometry and Texas Instruments alpha screening analysis.

118945

# DOCUMENT PAGE(S) PULLED

-----  
**SEE APERTURE CARD FILES**

APERTURE CARD/PAPER COPY AVAILABLE THROUGH NRC FILE CENTER

\*\*\*\*\*

NUMBER OF OVERSIZE PAGES FILMED ON APERTURE CARD(S) 5

\*\*\*\*\*

ACCESSION NUMBERS OF OVERSIZE PAGES:

970916 0168-06

"

07

"

08

"

09

"

10

# **Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

## **Attachment 1**

### **GUILD DRILLING BORING REPORTS**

**Stockade Area and  
Unaffected Area Random Samples**

HOLE NO. NS-1  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING \_\_\_\_\_

GROUND SURFACE TO	USED	"CASING" THEN	
<u>Sample Type</u>	Proportions Used	140lb Wt. x 30" fall on 2" O.D. Sampler	<u>SUMMARY</u>
D=Dry C=Cored W=Washed	trace 0 to 10%	Cohesionless Density	Earth Boring <u>4</u>
UP=Undisturbed Piston	little 10 to 20%	0-10 Loose	Rock Coring <u>      </u>
TP=Test Pit A=Auger V=Vane Test	some 20 to 35%	10-30 Med. Dense	Samples <u>4</u>
UT=Undisturbed Thinwall	and 35 to 50%	30-50 Dense	
		50+ Verv Dense	
		0-4 Soft 30+ Hard	
		4-8 M/Stiff	
		8-15 Stiff	
		15-30 V-Stiff	

HOLE NO NS-1

HOLE NO. NS-2  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S _____	_____	START 8/4/94	_____
			Size: D _____	3 1/2" _____	_____	COMPLETE 8/4/94	_____
At _____	after _____	Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL HRS. _____	_____
			Hammer Fall _____	30" _____	_____	BORING FOREMAN R. Allen	_____
						INSPECTOR _____	_____
						SOILS ENGR. _____	_____

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Re
		0'-1'	D	Blows not Taken					Dry, Loam-Topsoil, Brown fine SAND & coarse Gravel	1	12"	10
		1'-2'	D	"	"	"			Dry, Brown fine SAND & coarse Gravel	2	12"	12
		2'-3'	D	"	"	"			Dry, Brown fine to medium SAND & coarse Gravel, trace silt	3	12"	12
		3'-4'	D	"	"	"			Dry, Brown fine to medium SAND & medium to coarse Gravel, trace silt	4	12"	12
							4'		Bottom of Boring 4'			

GROUND SURFACE TO

USED

"CASING: THEN

**Sample Type**

**D=Dry C=Cored W=Washed**

UP: Undisturbed Piston

TP= Test Pit    A= Auger    V= Vane Test

UT=Undisturbed Thinwall

### Proportions Used

trace 0.1010%

little	10 to 20%
--------	-----------

some 201035%

and 35 to 50%

140lb Wt. x 30" tall on 2" O.D. Sampler

Cohesionless Density:

0-10      1.003e

10-30 Med. Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

**O-4 Soft**

4-8 M/Siff

8-15 Stiff  
15-30 V-Stiff

## SUMMARY

Earth Boring 4

Rock Coring \_\_\_\_\_

Samples 4

HOLE NO NS-2

HOLE NO. NS-3  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/5/94	_____
		Size ID _____	3 1/2"	_____	COMPLETE 8/5/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	BIT	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Rec
		0'-1'	D	Blows not Taken					Dry, Topsoil - Brown fine SAND & coarse Gravel	1	12"	12
		1'-2'	D	"	"	"			Dry, Brown fine to medium SAND & medium to coarse Gravel	2	12"	12
		2'-3'	D	"	"	"			Dry, Brown fine to medium SAND & medium to coarse Gravel, trace silt	3	12"	11
		3'-4'	D	"	"	"		4'	Dry, Brown/Dark Brown fine to medium SAND & coarse Gravel, trace silt	4	12"	10
									Bottom of Boring 4'			

HOLE NO NS-3

HOLE NO. NS-4  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 8/5/94	_____
			Size I D _____	3 1/2"	_____	COMPLETE 8/5/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL MRS. _____	_____
			Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	_____
					BIT	INSPECTOR _____	_____
						SOILS ENGR. _____	_____

## LOCATION OF BORING

[illegible]

GROUND SURFACE TO _____		USED _____		CASING _____		THEN _____		SUMMARY:	
Sample Type		Proportions Used		140lb Wt. x 30" fall on 2" O.D. Sampler					
				Cohesionless	Density	Cohesive	Consistency		
D=Dry C=Cored W=Washed		trace	0 to 10%	0-10	Loose	0-4	Soft	30 + Hard	Earth Boring _____ 4'
UP=Undisturbed Piston		little	10 to 20%	10-30	Med. Dense	4-8	M/Stiff		Rock Coring _____
TP=Test Pit A=Auger V=Vane Test		some	20 to 35%	30-50	Dense	8-15	Stiff		Samples _____ 4
UT=Undisturbed Thinwall		and	35 to 50%	50 +	Very Dense	15-30	V-Stiff		

HOLE NO NS-4

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ. NO. \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

HOLE NO. NS-5  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____ after _____ Hours	Type _____		<u>S/S</u>		START <u>8/5/94</u>	
At _____ after _____ Hours	Size of _____		<u>3 1/2"</u>		COMPLETE <u>8/5/94</u>	
	Hammer Wt _____		<u>300#</u>	BIT	TOTAL HRS. _____	
	Hammer Fall _____		<u>30"</u>		BORING FOREMAN <u>R. Allen</u>	
					INSPECTOR _____	
					SOILS ENGR. _____	

### LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Re
		0'-1'	D	Blows not Taken					Dry, Brown fine SAND & coarse Gravel	1	12"	1
		1'-2'	D	"	"	"			Dry, Rust color Brown fine to medium SAND & coarse Gravel	2	12"	1
		2'-3'	D	"	"	"			Dry, Brown fine SAND & medium to coarse Gravel, trace silt	3	12"	1
		3'-4'	D	"	"	"				4	12"	1
								4'	Bottom of Boring 4'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

"CASING: THEN \_\_\_\_\_

#### Sample Type

D=Dry C=Cored W=Washed  
 UP=Undisturbed Piston  
 TP=Test Pit A=Auger V=Vane Test  
 UT=Undisturbed Thinwall

#### Proportions Used

Trace 0 to 10%  
 little 10 to 20%  
 some 20 to 35%  
 and 35 to 50%

140 lb Wt. x 30" fall on 2" O.D. Sampler

Cohesionless Density Cohesive Consistency

0-10 Loose	0-4 Soft	30 + Hard
10-30 Med. Dense	4-8 M/Stiff	
30-50 Dense	8-15 Stiff	
50 + Very Dense	15-30 V-Stiff	

#### SUMMARY:

Earth Boring 4'  
 Rock Coring \_\_\_\_\_  
 Samples 4

HOLE NO NS-5



HOLE NO. NS-6  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/5/94	a.m.
		Size ID _____	3 1/2"	_____	COMPLETE 8/5/94	p.m.
		Hammer Wt _____	300#	_____	TOTAL HRS. _____	a.m.
At _____	after _____ Hours	Hammer Fall _____	30"	BIT	BORING FOREMAN R. Allen	p.m.
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

USED _____	
Proportions Used	
trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

"CASING: THEN		
140lb Wt. x 30" fall on 2" O.D. Sampler		
Cohesionless Density	Cohesive Consistency	
0-10 Loose	0-4 Soft	30 + Hard
10-30 Med. Dense	4-8 M/Stiff	
30-50 Dense	8-15 Stiff	
50 + Verv Dense	15-30 V-Stiff	

**SUMMARY:**  
Earth Boring \_\_\_\_\_ 4'  
Rock Coring \_\_\_\_\_  
Samples \_\_\_\_\_ 4

HOLE NO. NS-6

HOLE NO. 10-7  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/5/94	_____
		Size : D _____	3 1/2"	_____	COMPLETE 8/5/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	BIT	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

USED \_\_\_\_\_ "CASING. THEN

D=Dry C=Cored W=Washed  
UP=Undisturbed Piston  
TP=Test Pit A=Auger V=Vane Test  
UT=Undisturbed Thinwall

Proportions Used	
trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

140lb Wt. x 30" fall on 2" O.D. Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft 30 + Hard
10-30 Med. Dense	4-8 M/Stiff
30-50 Dense	8-15 Stiff
50+ Very Dense	15-30 V-Stiff

## SUMMARY

**SUMMARY**

Earth Boring	4
Rock Coring	4
Samples	4

HOLE NO. NS-7

HOLE NO. NS-8  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

[illegible]

USED \_\_\_\_\_ "CASING: THEN

HOLE NO NS-8

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ. NO. \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

HOLE NO. NS-9  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____ after _____ Hours	Type _____	_____	<u>S/S</u>	_____	START <u>8/5/94</u>	_____
At _____ after _____ Hours	Size I D _____	_____	<u>3 1/2"</u>	_____	COMPLETE <u>8/8/94</u>	_____
	Hammer Wt _____	_____	<u>300#</u>	BIT _____	TOTAL HRS. _____	
	Hammer Fall _____	_____	<u>30"</u>	_____	BORING FOREMAN <u>R. Allen</u>	
					INSPECTOR _____	
					SOILS ENGR. _____	

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Re.
		<u>0'-1'</u>	<u>D</u>	<u>Blows not Taken</u>					<u>Dry, Brown fine SAND &amp; coarse Gravel, trace silt</u>	<u>1</u>	<u>12'</u>	<u>7</u>
		<u>1'-2'</u>	<u>D</u>	<u>"</u>	<u>"</u>	<u>"</u>			<u>Dry, Brown fine SAND &amp; coarse Gravel</u>	<u>2</u>	<u>12'</u>	<u>4</u>
		<u>2'-3'</u>	<u>D</u>	<u>"</u>	<u>"</u>	<u>"</u>				<u>3</u>	<u>12'</u>	<u>10</u>
		<u>3'-4'</u>	<u>D</u>	<u>"</u>	<u>"</u>	<u>"</u>			<u>Moist, Brown Gray fine to medium SAND, silty &amp; mottled, trace coarse gravel</u>	<u>4</u>	<u>12'</u>	<u>10</u>
								<u>4'</u>	<u>Bottom of Boring 4'</u>			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

"CASING: THEN \_\_\_\_\_

## Sample Type

D=Dry C=Cored W=Washed  
 UP=Undisturbed Piston  
 TP=Test Pit A=Auger V=Vane Test  
 UT=Undisturbed Thinwall

Proportions Used  
 trace 0 to 10%  
 little 10 to 20%  
 some 20 to 35%  
 and 35 to 50%

140 lb Wt. x 30" fall on 2" O.D. Sampler  
 Cohesionless Density Cohesive Consistency  
 0-10 Loose 0-4 Soft 30 + Hard  
 10-30 Med. Dense 4-8 M/Stiff  
 30-50 Dense 8-15 Stiff  
 50 + Very Dense 15-30 V-Stiff

## SUMMARY:

Earth Boring 4'  
 Rock Coring \_\_\_\_\_  
 Samples 4

HOLE NO NS-9

HOLE NO. NS-10  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/8/94	_____
		Size I D _____	3 1/2"	_____	COMPLETE 8/8/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	BIT	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

LOCATION OF BORING

[illegible]

GROUND SURFACE TO \_\_\_\_\_ USED \_\_\_\_\_ "CASING: THEN \_\_\_\_\_

**Sample Type**

D=Dry C=Cored W=Washed  
UP=Undisturbed Piston  
TP=Test Pit A=Auger V=Vane Test  
UT=Undisturbed Thinwall

### Proportions Used

trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

140lb Wt. x 30" fall on 2" O.D. Sampler

### Cohesionless Density

0-10      Loose

10-30 Med. Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

O-4 Soft

4-8 M/Stiff

8-15 Still  
16-20 V Still

**SUMMARY:**

Earth Boring \_\_\_\_\_ 4  
Rock Coring \_\_\_\_\_  
Samples \_\_\_\_\_ 4

HOLE NO NS-10

HOLE NO. NS-11  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/8/94	_____
		Size I D _____	3 1/2"	_____	COMPLETE 8/8/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	BIT	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

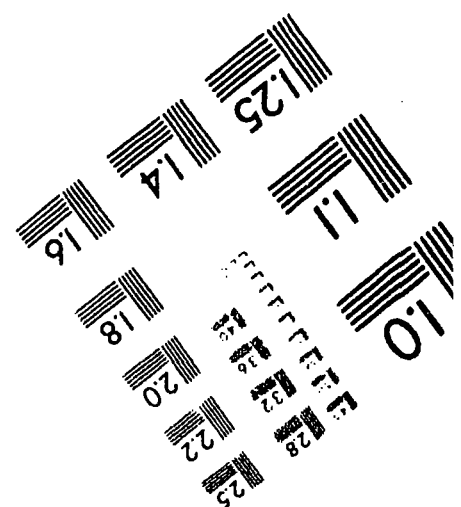
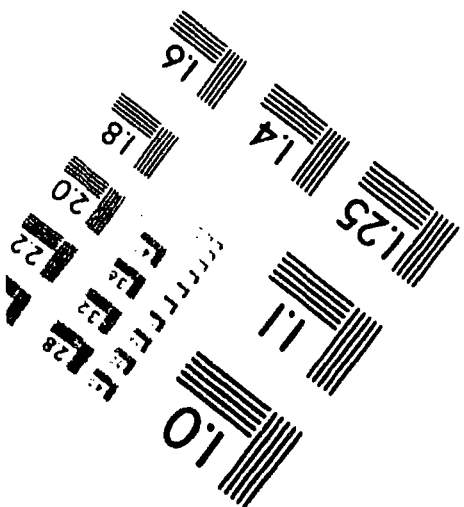
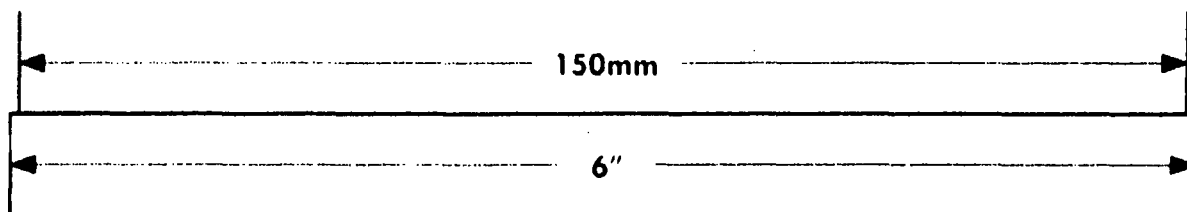
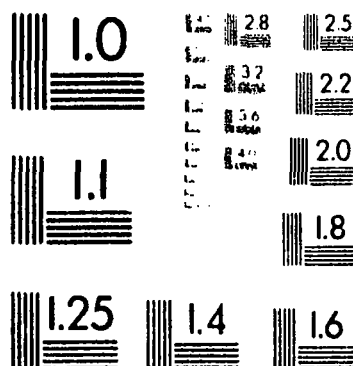
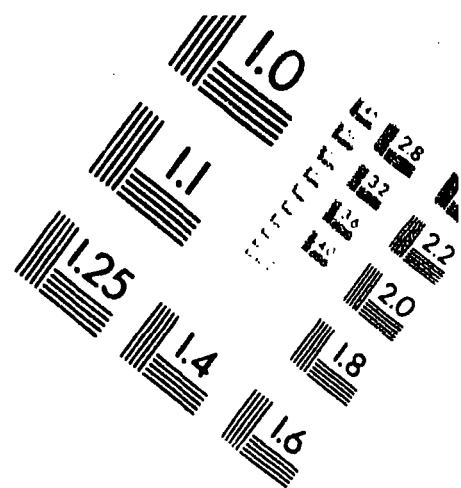
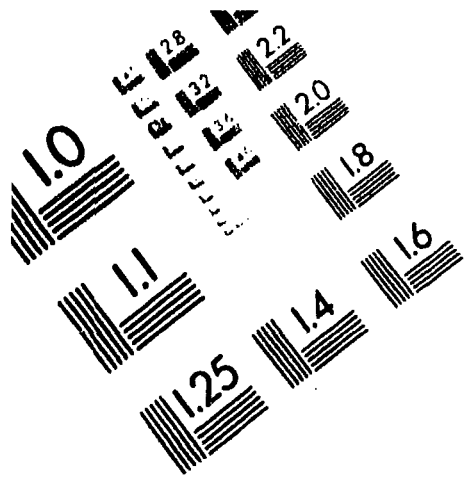
[illegible]

**USED**

"CASING: THEN

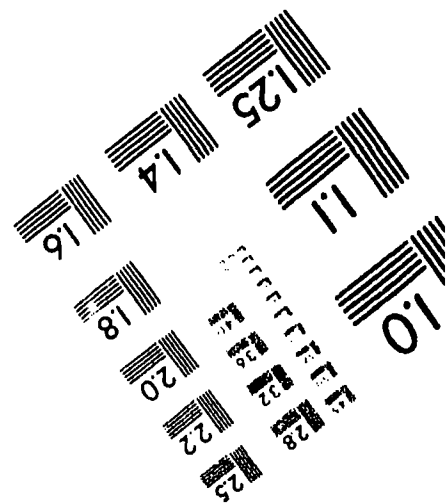
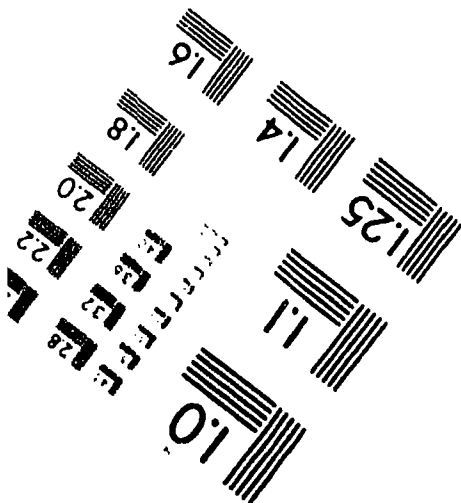
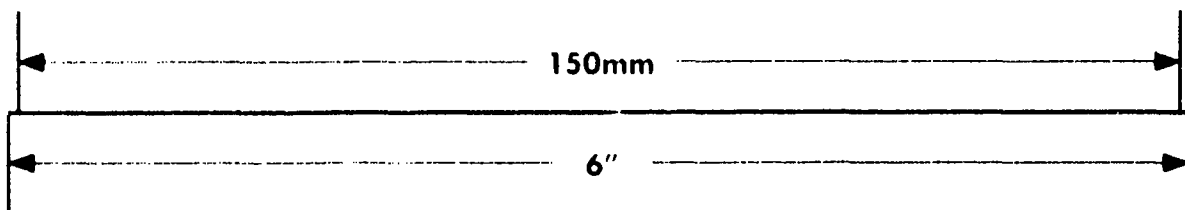
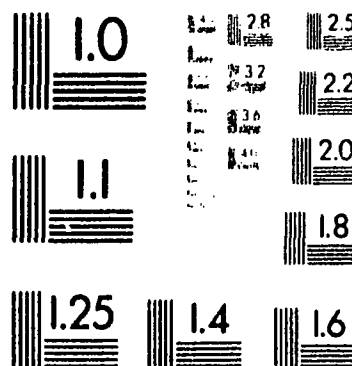
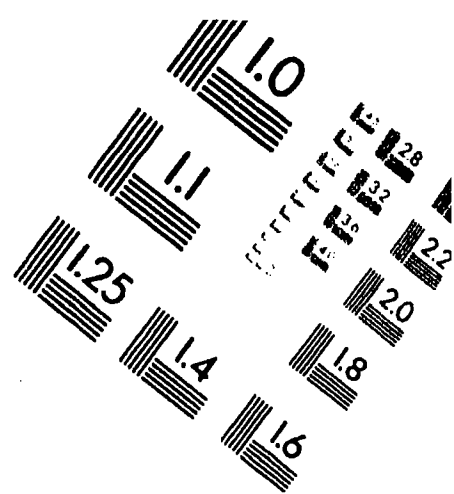
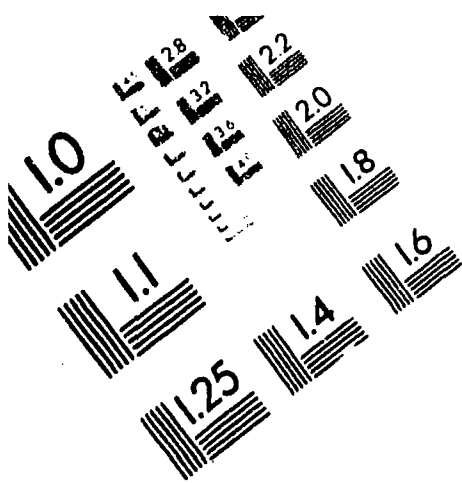
HOLE NO NS-11

**IMAGE EVALUATION  
TEST TARGET (MT-3)**



**PHOTOGRAPHIC SCIENCES CORPORATION**  
770 BASKET ROAD  
P.O. BOX 338  
WEBSTER, NEW YORK 14580  
(716) 265-1600

**IMAGE EVALUATION  
TEST TARGET (MT-3)**

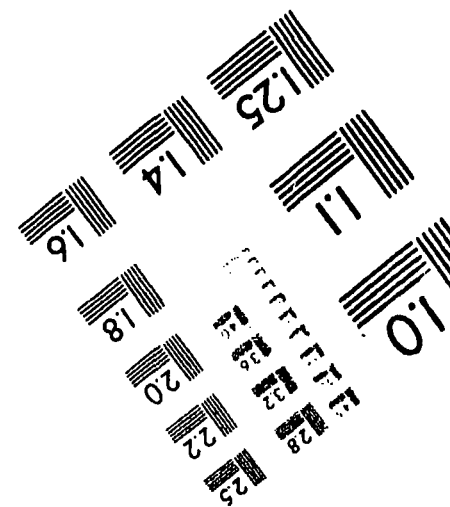
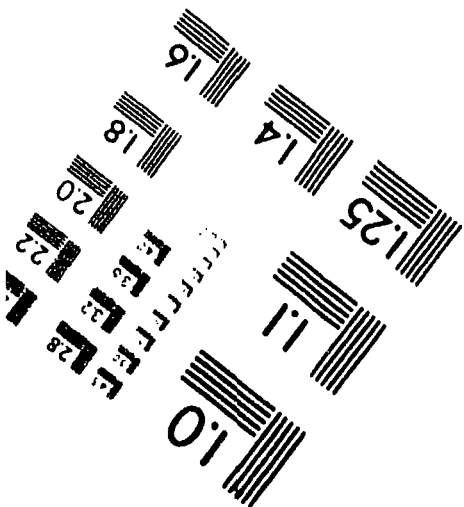
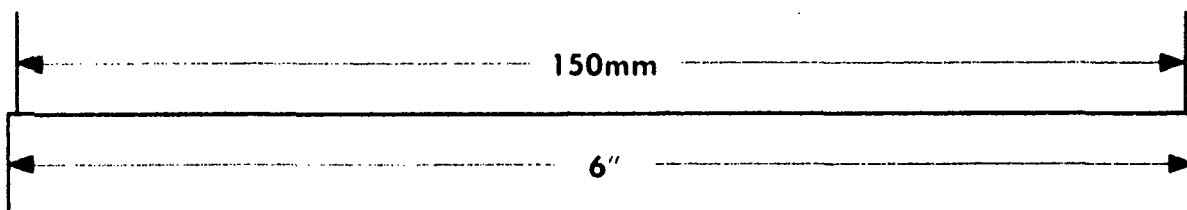
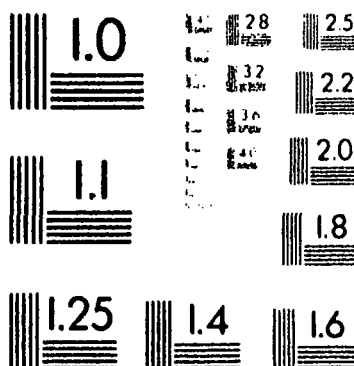
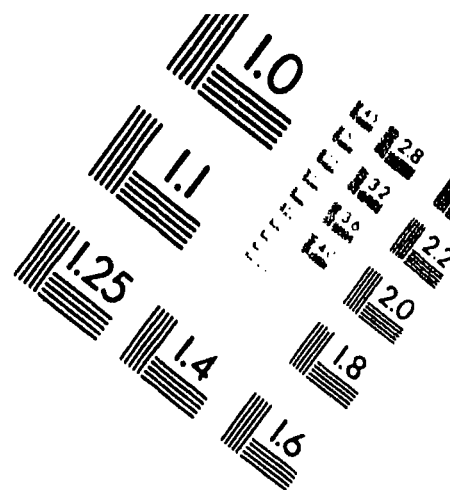
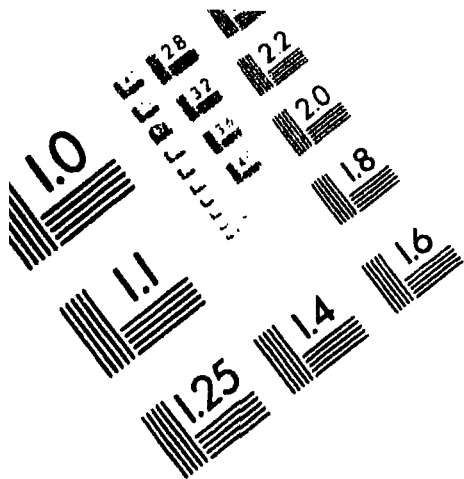


**PHOTOGRAPHIC SCIENCES CORPORATION**  
770 BASKET ROAD  
P.O. BOX 338  
WEBSTER, NEW YORK 14580  
(716) 265-1600





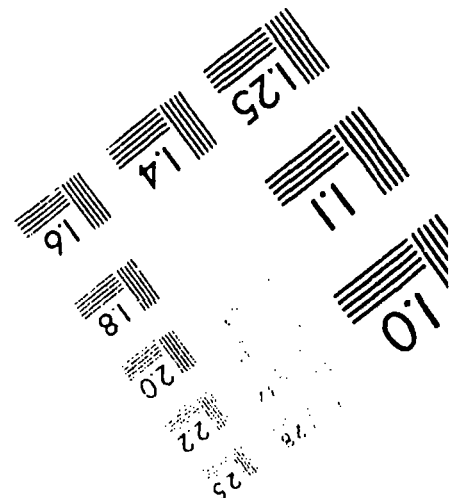
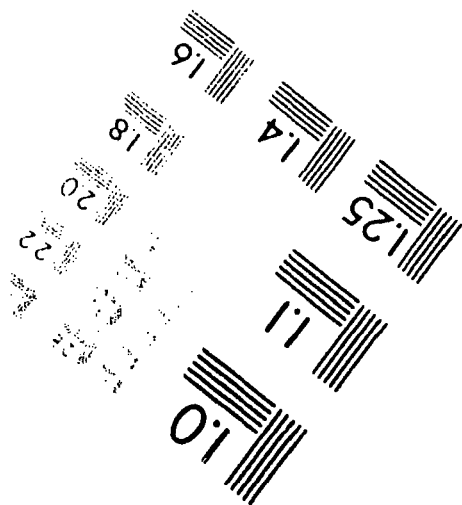
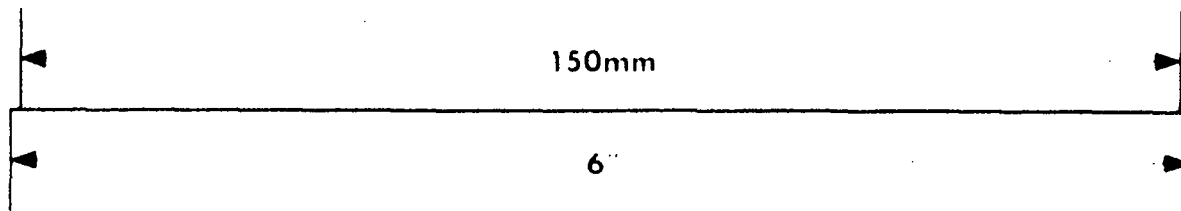
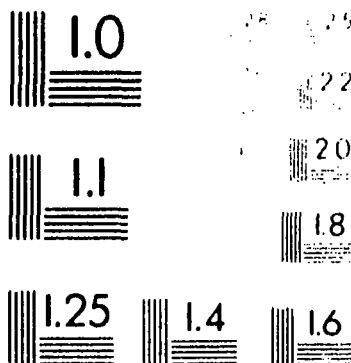
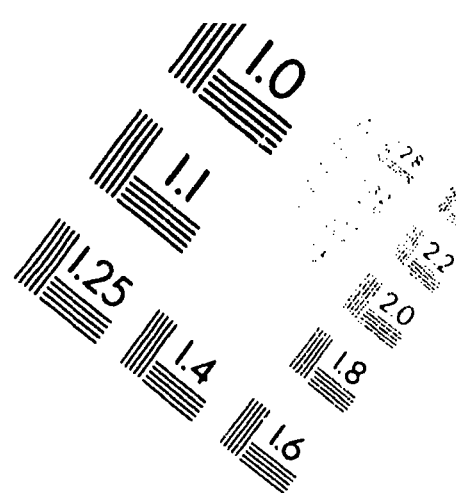
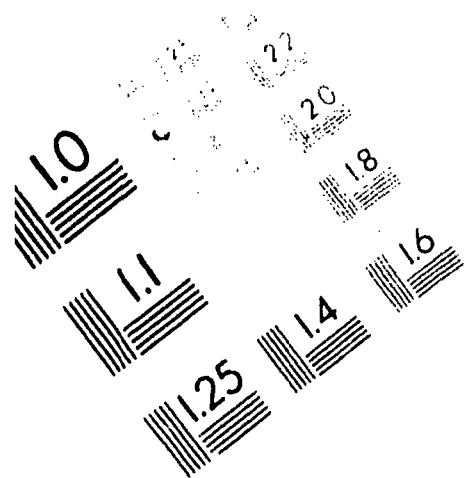
# IMAGE EVALUATION TEST TARGET (MT-3)



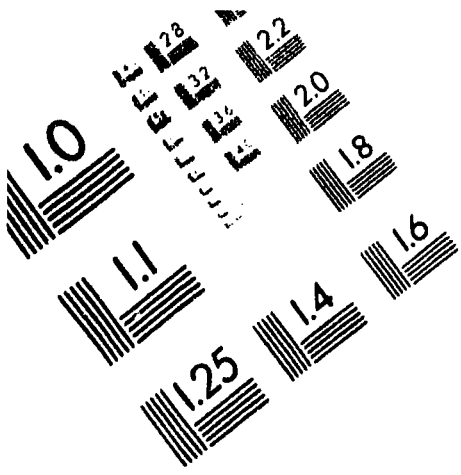
PHOTOGRAPHIC SCIENCES CORPORATION  
770 BASKET ROAD  
P.O. BOX 338  
WEBSTER, NEW YORK 14580  
(716) 265-1600



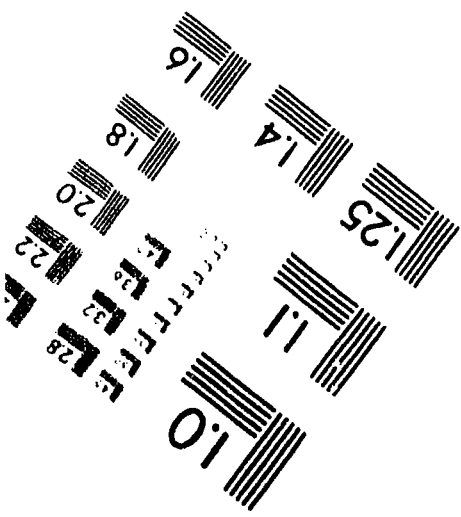
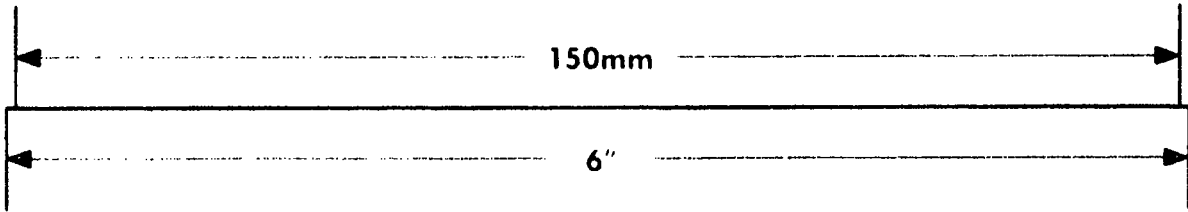
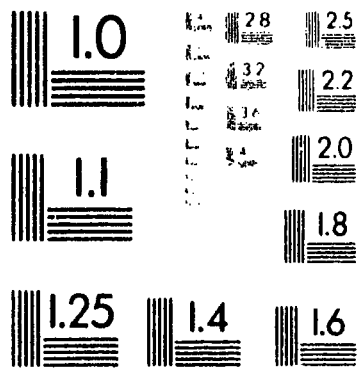
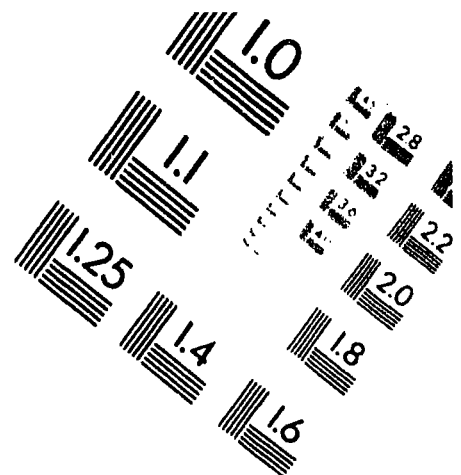
# IMAGE EVALUATION TEST TARGET (MT-3)



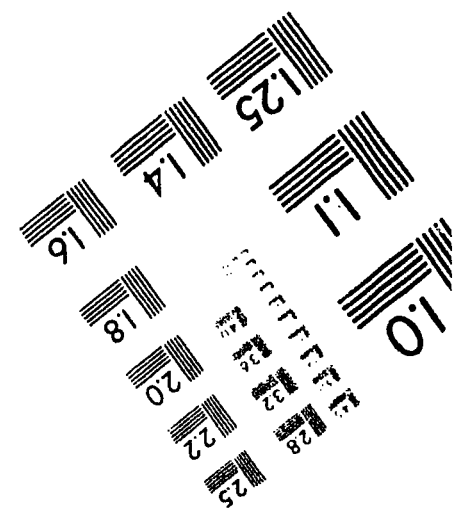
PHOTOGRAPHIC SCIENCES CORPORATION  
770 BASKET ROAD  
P.O. BOX 338  
WEBSTER, NEW YORK 14580  
(716) 265-1600



**IMAGE EVALUATION  
TEST TARGET (MT-3)**



**PHOTOGRAPHIC SCIENCES CORPORATION**  
770 BASKET ROAD  
P.O. BOX 338  
WEBSTER, NEW YORK 14580  
(716) 265-1600



HOLE NO. NS-12  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 8/8/94	_____
		Size ID _____	3 1/2"	_____	COMPLETE 8/8/94	_____
At _____	after _____ hours	Hammer Wt _____	300#	_____	TOTAL HRS _____	_____
		Hammer Fall _____	30"	BIT	BORING FOREMAN R. Allen	_____
					INSPECTOR _____	_____
					SOILS ENGR _____	_____

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Re
		0.5'-1.5'	D	Blows not Taken					Dry, Brown fine to medium SAND & coarse Gravel, trace silt	1	12	8
		1.5'-2.5'	D	"	"	"			Dry, Brown, trace Gray fine to medium SAND & coarse Gravel, trace silt	2	12	1
		2.5'-3.5'	D	"	"	"			Dry, Brown fine to medium SAND & coarse Gravel, trace silt	3	12	8
		3.5'-4.5'	D	"	"	"			(Pushed Cobble) Dry, Brown fine to medium SAND & coarse Gravel, trace silt	4	12	3
								4.5'	Bottom of Boring 4.5'			

GROUND SURFACE TO		USED	CASING		THEN	SUMMARY	
Sample Type		Proportions Used	140lb Wt. x 30" Fall on 2 O.D. Sampler				Earth Boring <u>4.5'</u>
D-Dry C Cored W-Washed		trace 0 to 10%	Cohesionless Density		Cohesive Consistency		Rock Coring
UP Undisturbed Piston		little 10 to 20%	0-10 Loose		0-4 Soft 30 + hard		Samples <u>4</u>
TP Test Pit A-Auger / Vane Test		some 20 to 35%	10-30 Med Dense		4-8 M/Stiff		
UT Undisturbed Thinwall		and 35 to 50%	30-50 Dense		8-15 Stiff		
			50 + Very Dense		15-30 V-Stiff		

HOLE NO NS-12

TO Texas Instruments  
 PROJECT NAME Low Level Radiation Invest  
 REPORT SENT TO above / Bldg. #5  
 SAMPLES SENT TO Taken at Site

ADDRESS Attleboro, Mass.  
 LOCATION Attleboro, Mass.  
 PROJ NO. \_\_\_\_\_  
 OUR JOB NO. 95-41

HOLE NO. NS-13  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START	8/8/94
At _____	after _____ hours	Size: D _____	3 1/2"	_____	COMPLETE	8/8/94
		Hammer Wt _____	300#	BIT	TOTAL HRS.	_____
		Hammer Fall _____	30"	_____	BORING FOREMAN	R. Allen
					INSPECTOR	_____
					SOILS ENGR.	_____

### LOCATION OF BORING

D.T.H.	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist.	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	R
		0.5'-1.5'	D	Blows not Taken					Dry, Brown fine to medium SAND & coarse Gravel, trace silt	1	12"	
		1.5'-2.5'	D	"	"	"			Dry, Gray fine to med. SAND & coarse Gravel, tr. silt, Black residual, type of asphalt	2	12"	
		2.5'-3.5'	D	"	"	"			Dry, Gray silty fine SAND & coarse Gravel, trace silt	3	12"	
		3.5'-4.5'	D	"	"	"			Dry, Light Brown, Black & Gray silty fine SAND & coarse Gravel	4	12"	
								4.5'	Bottom of Boring 4.5'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type  
 D: Dry C Cored & Augered  
 UP: Undisturbed Piston  
 TP: Test Pit & Auger V Vane Test  
 UT: Undisturbed Thinwall

Proportions Used  
 trace 0 to 10%  
 little 10 to 20%  
 some 20 to 35%  
 and 35 to 50%

140 lb Wt & 30" fall on 2" O.D. Sampler  
 Cohesionless Density  
 0-10 Loose  
 10-30 Med Dense  
 30-50 Dense  
 50+ Very Dense  
 Cohesive Consistency  
 0-4 Soft  
 4-8 M/Stiff  
 8-15 Stiff  
 15-30 V-Stiff

SUMMARY  
 Earth Boring 4.5'  
 Rock Coring \_\_\_\_\_  
 Samples 4

HOLE NO NS-13

HOLE NO. NS-14  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 8/8/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 8/8/94	_____
At _____	after _____ hours	Hammer At _____	3000	BIT	TOTAL MRS. _____	_____
		Hammer Fall _____	30"	_____	BOHRING FOREMAN R. Allen	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

CASING THEN

1401b WI: 30" fall on 2 00 Sampler

Cohesive Consistency

0.4 Solr

4-B M/S/11/1

8:15 Staff  
15:30 V-Suite

Rock Coring \_\_\_\_\_

HOLE NO NS-14

MOLE NO. NS-15  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START	_____
		Size D _____	3 1/2"	_____	COMPLETE	_____
		Hammer Wt _____	300#	_____	TOTAL HRS	_____
At _____	after _____ hours	Hammer Fall _____	30"	_____	BORING FOREMAN	R. Allen
				BIT	INSPECTOR	_____
					SOILS ENGR.	_____

[illegible]

HOLE NO NS-1

HOLE NO. NS-16  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 8/8/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 8/8/94	_____
At _____	after _____ hours	Hammer Wt _____	300#	_____	TOTAL MRS. _____	_____
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	_____
				BIT	INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

USED "CASING THEN

140lb Wt x 30' fall on 2 OD Sampler

Cohesive Consistency

( ) - 4 Soft 30 + Hard

4-B M/S/111

8-15 Stiff

Earth Boring 4.5'

Rock Coring \_\_\_\_\_

Samples 4

HOLE NO NS-16



HOLE NO. NS-17  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 8/8/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 8/8/94	_____
At _____	after _____ hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	
				BIT	INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

USED "CASING THEN

UT: Undisturbed Thinwall

and 35 to 50%

50-50 Dense  
50+ Very Dense

8-15 Shift  
15-20 V-Shift

Samples 4

HOLE NO NS-17

HOLE NO. NS-18  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

	<u>Date</u>	<u>Time</u>
START	<u>8/8/94</u>	_____
COMPLETE	<u>8/8/94</u>	_____
TOTAL MRS.		
BORING FOREMAN	<u>R. Allen</u>	
INSPECTOR		
SOILS ENGR.		

[illegible]

Sample Type	Proportions Used	140lb Wt. x 30" fall on 2" O.D. Sampler	SUMMARY
D: Dry C: Cored W: Washed	trace 0 to 10%	Cohesionless Density	Earth Boring 4.5
UP: Undisturbed Piston	little 10 to 20%	0-10 Loose	Rock Coring
TP: Test Pit A: Auger V: Vane Test	some 20 to 35%	10-30 Med Dense	Samples 4
UT: Undisturbed Thinwall	and 35 to 50%	30-50 Dense	
		50+ Very Dense	
		Cohesive Consistency	
		0-4 Soft 30+ Hard	
		4-8 M/Stiff	
		8-15 Stiff	
		15-30 V-Stiff	
			HOLE NO NS-

HOLE NO NS-1

HOLE NO. NS-19  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR.	Date	Time
At _____	after _____ Hours	Type _____	S/S _____	_____	START 8/9/94	_____
At _____	after _____ Hours	Size I.D. _____	3 1/2" _____	_____	COMPLETE 8/9/94	_____
		Hammer Wt. _____	300# _____	BIT _____	TOTAL HRS. _____	
		Hammer Fall _____	30" _____		BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

USED

"CASING THEN

HOLE NO NS-19

HOLE NO. NS-20  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING \_\_\_\_\_

GROUND SURFACE TO _____		USED _____	"CASING THEN _____		SUMMARY Earth Boring <u>4.5</u> Rock Coring _____ Samples <u>4</u>
Sample Type	Proportions Used	140lb Wt. 30" fall on 2" O.D. Sampler	Cohesionless Density	Cohesive Consistency	
D-Dry C-Cored W-Washed	trace 0 to 10%		0-10 Loose	0-4 Soft 30 + Hard	
UP-Undisturbed Piston	little 10 to 20%		10-30 Med Dense	4-8 M/Stiff	
TP-Test Pit A-Auger V-Vane Test	some 20 to 35%		30-50 Dense	8-15 Stiff	
UT-Undisturbed Thinwall	and 35 to 50%		50 + Very Dense	15-30 V-Stiff	

HOLE NO NS-2

HOLE NO. NS-21  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S _____	_____	START 8/9/94	_____
		Size ID _____	3 1/2" _____	_____	COMPLETE 8/9/94	_____
At _____	after _____ Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL HRS. _____	_____
		Hammer Fall _____	30" _____	_____	BORING FOREMAN <u>R. Allen</u>	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

USED \_\_\_\_\_ CASING THEN \_\_\_\_\_

### Proportions Used

140lb Wt. x 30" fall on 2 O.D. Sampler

trace 0.1010%

Cohesionless Density

Cohesive Consistency

blue 10 to 20%

0 10      Loose

0-4 Soft 30 + Hard

little	10 to 20 %
some	20 to 35 %

10-30 Med Dense

4-8 M/Stiff

and 35 to 50%

30-50 Dense  
50+ Very Dense

8-15 Stiff  
15-30 V-Stiff

## SUMMARY

SUMMARY  
Earth Boring 4.5'

Rock Coring \_\_\_\_\_

Samples 4

HOLE NO NS-21

TO <u>Texas Instruments</u>	ADDRESS <u>Attleboro, Mass.</u>	HOLE NO. <u>NS-22</u>
PROJECT NAME <u>Low Level Radiation Invest</u>	LOCATION <u>Attleboro, Mass.</u>	LINE & STA. _____
REPORT SENT TO <u>above / Bldg. #5</u>	PROJ. NO. _____	OFFSET _____
SAMPLES SENT TO <u>Taken at Site</u>	OUR JOB NO. <u>95-41</u>	SURF. ELEV. _____

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/9/94	_____
		Size D _____	3 1/2"	_____	COMPLETE 8/9/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	BIT	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED \_\_\_\_\_ CASING THEN \_\_\_\_\_

Sample Type

### Proportions Used

140lb Wt x 30" fall on 2 CD Sampler

D-Dry C-Cored W-Agave

trace 0.1010%

Cohesionless Density

Cohesive Consistency

UP - Undisturbed Fission

title 10 to 20%.

010 Loose

0.4 Soft 30 + Hard

TF: Test Pit A Auger V Vane Test

none	2019 70%
some	2019 35%

10-30 Med Dense

4-8 M/Shift

UT: Undisturbed Thinwall

000 351050%

30-50 Dense  
50+ Very Dense

8-15 Stiff  
16-30 V-Stiff

## SUMMARY

Earth Boring 4.5

Rock Coring \_\_\_\_\_

HOLF NO NS-2

HOLE NO. NS-23  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S _____	_____	START 8/9/94	_____
At _____	after _____ Hours	Size ID _____	3 1/2" _____	_____	COMPLETE 8/9/94	_____
		Hammer Wt _____	300# _____	BIT _____	TOTAL MRS. _____	
		Hammer Fall _____	30" _____		BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

USED

CASING THEN

Proportions Used	
trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

140lb Wt x 30" fall on 2" O.D. Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft 30+ Hard
10-30 Med Dense	4-8 M/Stiff
30-50 Dense	8-15 Stiff
50+ Very Dense	15-30 V-Stiff

## SUMMARY

Earth Boring 4.5'  
Rock Coring \_\_\_\_\_  
Samples 4

HOLE NO NS-23

HOLE NO. NS-24  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 8/9/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 8/9/94	_____
At _____	after _____ hours	Hammer Wt _____	300#	BIT	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN <u>R. Allen</u>	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

USF D

CASING THEN

### Proportions Used

140lb WL x 30' fall on 2' OD Sampler

Trace 11010%

Cohesionless Density

Cohesive Consistency

10 to 20%

0 10      Loose

0.4 Soft 30 + Hard

some 201035%

10-30 Med Dense

4-8 M/Siff

and 35 to 50%.

30-50 Dense  
50+ Very Dense

8-15 Stiff  
15-30 V-Stiff

## SUMMARY

Earth Boring 4.5'

### Rock Coring

Samples 4

HOLE NO NS-2.



ADDRESS Attleboro, Mass.  
LOCATION Attleboro, Mass.  
#5 PROJ NO. \_\_\_\_\_  
OUR JOB NO 95-41

<u>Date</u>	<u>Time</u>
<u>8/9/94</u>	<u>          </u>
<u>8/9/94</u>	<u>          </u>

5. REMAN R. Allen

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S _____	_____	START 8/9/94	_____
At _____	after _____	Hours	Size ID _____	3 1/2" _____	_____	COMPLETE 8/9/94	_____
			Hammer Wt _____	300# _____	BIT _____	TOTAL HRS. _____	
			Hammer Fall _____	30" _____	_____	BORING FOREMAN <u>R. Allen</u>	
						INSPECTOR _____	
						SOILS ENGR. _____	

[illegible]

USE 0

"CASING THEN

### Proportions Used

Trace 0.1010%

title 101020%

some 201935%

and 35 to 50%

Cohesionless Density

0 10 Loose

10 30 Med Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

0.4 Soft

4.8 M/Siff

8-15 Stiff  
15-20 Very Stiff

## SUMMARY

Earth Boring 4.5'

Rock Coring \_\_\_\_\_

Samples 4

HOLE NO NS-25



HOLE NO. NS-27  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S _____	_____	START 8/11/94	_____
At _____	after _____	Hours	Size D _____	3 1/2" _____	_____	COMPLETE 8/11/94	_____
At _____	after _____	Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL HRS. _____	_____
_____	_____	_____	Hammer Fall _____	30" _____	_____	BORING FOREMAN <u>R. Allen</u>	_____
_____	_____	_____	_____	_____	_____	INSPECTOR _____	_____
_____	_____	_____	_____	_____	_____	SOILS ENGR. _____	_____

[illegible]

USED

"CASING THEN

140lb Wt x 30" fall on 2" OD Sampler

Cohesive Consistency

0.4 Soft 30 + Hard

4-B M/Suff

8-15 SMH  
8-10 Y-SM-4

Earth Boring 4.5'

### Rock Coring

Samples 4

HOLE NO NS-27

HOLE NO. NS-28  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 8/11/94	_____
			Size ID _____	3 1/2"	_____	COMPLETE 8/11/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL MRS. _____	_____
			Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	_____
					BIT	INSPECTOR _____	_____
						SOILS ENGR. _____	_____

[illegible]

USED CASSING THEN

### Proportions Used

loss: 0.108%

title 101020%

none	10 to 20 %
some	20 to 35 %

and 35 to 50%

Cohesionless Density

0 10 Loose

10:30 Med Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

0.4 Soft

4-8 M/Silt

8-15 Stiff  
15-30 V-S-M

## SUMMARY

SUMMARY  
Earth Boring 4.5'

Rock Coring

Samples 4

HOLE NO NS-28

HOLE NO. NS-29  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START	8/11/94
			Size I D _____	3 1/2"	_____	COMPLETE	8/11/94
			Hammer Wt _____	300#	_____	TOTAL HRS.	_____
At _____	after _____	Hours	Hammer Fall _____	30"	_____	BORING FOREMAN	R. Allen
					BIT	INSPECTOR	_____
						SOILS ENGR.	_____

[illegible]

USED

CASING THE N

### Proportions Used

140lb Wt = 30" fall on 2 00 Sampler

trace 0.1010%

### Cohesionless Density

Cohesive Consistency

title 10 to 20%

010 Loose

0-4 Soft 30 + Hard

some 20 to 35%

10-30 Med Dense  
30-50 Dense

4-8 M/Siff  
8-15 Siff

und 35 to 50%

50 + Very Dense

15-30 V-Split

## SUMMARY

Earth Boring 4.5'

### Rock Coring

**Samples** \_\_\_\_\_

HOLE NO NS-29

HOLE NO. NS-30  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S _____	_____	START 8/11/94	_____
		Size: D _____	3 1/2" _____	_____	COMPLETE 8/11/94	_____
At _____	after _____ Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL MRS. _____	_____
		Hammer Fall _____	30" _____	_____	BORING FOREMAN R. Allen	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

GROUND SURFACE TO	USED	CASING	THEN	
Sample Type	Proportions Used	140lb WT x 30" fall on 2" O.D. Sampler		SUMMARY
D-Dry C-Cored W-Washed	trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Earth Boring 4.5'
UP: Undisturbed Piston	little 10 to 20%	0-10 Loose	0-4 Soft 30 + Hard	Rock Coring
TP: Test Pit A Auger V-Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	Samples 4
UT: Undisturbed Thinwall	and 35 to 50%	30-50 Dense	8-15 Stiff	
		50+ Very Dense	15-30 V-Stiff	

HOLE NO NS-30



MOLE NO. NS-32  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING

GROUND SURFACE TO

USED                      CASING                      THEN

## SUMMARY

Earth Boring 4.5'

Rock Coring .....

Samples 4

HOLE NO NS-32

HOLE NO NS-32



HOLE NO. NS-33  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/12/94	_____ a.m.
		Size I D _____	3 1/2"	_____	COMPLETE 8/12/94	_____ p.m.
At _____	after _____ Hours	Hammer Wt _____	300#	BIT	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

THEN

## SUMMARY

Earth-Boring 4.5'

Rock Coring

**Samples** \_\_\_\_\_

HOLE NO NS-33

MOLE NO. NS-34  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/12/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 8/12/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL MRS. _____	_____
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	_____
				BIT	INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

USED "CASING THEN

Proportions Used	
trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

140lb Wt + 30" fall on 2" O.D. Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft 30 + Hard
10-30 Med Dense	4-8 M/Stiff
30-50 Dense	8-15 Stiff
50 + Very Dense	15-30 V-Stiff

SUMMARY  
Earth Boring 4.5'  
Rock Coring         
Samples 4

HOLE NO NS-34

TO <u>Texas Instruments</u>	ADDRESS <u>Attleboro, Mass.</u>	HOLE NO. <u>NS-33</u>
PROJECT NAME <u>Low Level Radiation Invest</u>	LOCATION <u>Attleboro, Mass.</u>	LINE & STA. _____
REPORT SENT TO <u>above / Bldg. #5</u>	PROJ NO. _____	OFFSET _____
SAMPLES SENT TO <u>Taken at Site</u>	OUR JOB NO. <u>95-41</u>	SURF. ELEV. _____

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/17/94	_____
		Size ID _____	3 1/2"	_____	COMPLETE 8/17/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	
		Hammer Fall _____	30"	BIT _____	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

LOCATION OF BORING

[illegible]

GROUND SURFACE TO \_\_\_\_\_ USED \_\_\_\_\_ CASING THEN \_\_\_\_\_

Sample Type	Proportions Used	140lb Wt x 30" fall on 2" O.D. Sampler	SUMMARY:	
D: Dry C: Cored W: Washed	trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Earth Boring <u>4.5'</u>
UP: Undisturbed Piston	little 10 to 20%	0-10 Loose	0-4 Soft 30 + Hard	Rock Coring _____
TP: Test Pit A: Auger V: Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	Samples <u>4</u>
UT: Undisturbed Thinwall	and 35 to 50%	30-50 Dense	8-15 Stiff	
		50 + Very Dense	15-30 V-Stiff	

HOLE NO NS-35

TO <u>Texas Instruments</u>	ADDRESS <u>Attleboro, Mass.</u>	HOLE NO. <u>NS-36</u>	
PROJECT NAME <u>Low Level Radiation Invest</u>	LOCATION <u>Attleboro, Mass.</u>		LINE & STA. _____
REPORT SENT TO <u>above / Bldg. #5</u>	PROJ. NO. _____		OFFSET _____
SAMPLES SENT TO <u>Taken at Site</u>	OUR JOB NO. <u>95-41</u>		SURF. ELEV. _____

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START	<u>8/17/94</u>
		Size: O _____	3½"	_____	COMPLETE	<u>8/17/94</u>
		Hammer Wt _____	300#	_____	TOTAL HRS.	_____
At _____	after _____ Hours	Hammer Fall _____	30"	BIT _____	BORING FOREMAN	<u>R. Allen</u>
					INSPECTOR	_____
					SOILS ENGR.	_____

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED

'CASING THEN

THE N

Sample Type

D: Dry C: Cored W: Washed

U<sup>0</sup>: Undisturbed Pison

TP: Test Pit    A: Auger    V: Vane Test

UT Undisturbed Thinwall

### Proportions Used

troce 0 to 10%

little 10 to 20%

some 20 to 35%

and 35 to 50%

140lb Wt x 30" fall on 2' O D Sampler

### Cohesionless Density

0.10      Loose

10-30 Med. Dense  
10-50 Dense

30-50 Dense  
50+ Very Dense

**Cohesive Consistency**

0-4    Soft    30 + Hard

4-8 M/Stiff  
9-15 6-11

8-15 Still  
15-30 V-Still

## SUMMARY

Earth Boring 4.5

### Rock Coring

### Samples \_\_\_\_\_

HOLE NO NS-30



TO <u>Texas Instruments</u>	ADDRESS <u>Attleboro, Mass.</u>	HOLE NO. <u>NS-38</u>
PROJECT NAME <u>Low Level Radiation Invest</u>	LOCATION <u>Attleboro, Mass.</u>	LINE & STA. _____
REPORT SENT TO <u>above / Bldg. #5</u>	PROJ. NO. _____	OFFSET _____
SAMPLES SENT TO <u>Taken at Site</u>	OUR JOB NO. <u>95-41</u>	SURF. ELEV. _____

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	START	DATE	TIME
At _____	after _____	Hours	Type _____	S/S _____	_____	START	8/17/94	_____
_____	_____	_____	Size ID _____	3 1/2" _____	_____	COMPLETE	8/17/94	_____
At _____	after _____	Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL HRS.	_____	_____
_____	_____	_____	Hammer Fall _____	30" _____	_____	BORING FOREMAN	R. Allen	_____
						INSPECTOR	_____	_____
						SOILS ENGR.	_____	_____

LOCATION OF BORING

[illegible]

GROUND SURFACE TO \_\_\_\_\_ USED \_\_\_\_\_ " CASING THEN \_\_\_\_\_

Sample Type

D: Dry C: Cored W: Washed

UP: Undisturbed Piston

TP: Test Pit    A: Auger    V: Vane Test

UT: Undisturbed Thinwall

### Proportions Used

Process 01010%

title	10 to 20%
-------	-----------

some 20 to 35%

and 35 to 50%

140lb Wt. x 30" fall on 2" O D Sampler

### Cohesionless Density

0.10 L

10-30 Med Dense  
10-50 Dense

30-50 Dense  
50 + Very Dense

### Cohesive Consistency

0-4 Soft

4-B M/Siff  
8-16 C-M

8-15 Shift  
15-30 V-Shift

## SUMMARY

Earth Boring 4.5

Rock Coring 1

Samples 4

HOLE NO NS-3

TO <u>Texas Instruments</u>	ADDRESS <u>Attleboro, Mass.</u>	HOLE NO. <u>NR-39</u>
PROJECT NAME <u>Low Level Radiation Invest</u>	LOCATION <u>Attleboro, Mass.</u>	LINE & STA. _____
REPORT SENT TO <u>above / Bldg. #5</u>	PROJ NO. _____	OFFSET _____
SAMPLES SENT TO <u>Taken at Site</u>	OUR JOB NO. <u>95-41</u>	SURF. ELEV. _____

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S _____	_____	START 8/22/94	_____
			Size I D _____	3 1/2" _____	_____	COMPLETE 8/22/94	_____
At _____	after _____	Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL HRS. _____	_____
			Hammer Fall _____	30" _____	_____	BORING FOREMAN R. Allen	_____
						INSPECTOR _____	_____
						SOILS ENGR. _____	_____

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

(USED)

' CASING THEN N

Sample Type

### Proportions Used

140lb Wt. x 30" fall on 2' O.D. Sampler

D: Dry C: Cored W: Washed

loss 0 to 10%

Cohesionless Density

Cohesive Consistency

UP Undisturbed Piston

10 to 20%

0 10      Loose

0-4 Soft 30 + Hard

IF - Test Pit    A Auger    V-Vane Test

some	2019 35%
------	----------

10-30 Med Dense

4-8 M/Siff

UT Undisturbed Thinwall

35 to 50%

30-50 Dense  
50+ Very Dense

8-15 Stiff  
15-20 V-Stiff

## SUMMARY

Earth Boring 4.5

### Rock Coring

**Samples** \_\_\_\_\_

HOLE NO NS-3

EAST PROVIDENCE, R I

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO. NS-40  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____		<u>S/S</u>	_____	START <u>8/22/94</u>	_____
		Size <u>D</u>	_____	<u>3 1/2"</u>	_____	COMPLETE <u>8/22/94</u>	_____
At _____	after _____ hours	Hammer Wt _____	_____	<u>300#</u>	BIT	TOTAL HRS _____	
		Hammer Fall _____	_____	<u>30"</u>	_____	BORING FOREMAN <u>R. Allen</u>	
						INSPECTOR _____	
						SOILS ENGR _____	

LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	R
		0.5'-1.5'	D	Blows not	Taken				(Purged Water)			
									Wet, Gray medium SAND & coarse Gravel	1	12"	1
		1.5'-2.5'	D	"	"	"			Dry, Gray COBBLES, little fine to medium sand, trace silt	2	12"	
		2.5'-3.5'	D	"	"	"			Dry, Brown fine to medium SAND & coarse Gravel, trace silt	3	12"	1
		3.5'-4.5'	D	"	"	"			Molst, Dark Brown type of PEAT	4	12"	1
							4.5'		Bottom of Boring 4.5'			
										</		

GROUND SURFACE TO

1960

CASINO      THE F N

Sample Type  
D Dry C Cored & Sample  
UP Undisturbed Factor  
FF Test Pit & Sample & Fine Test  
UT Undisturbed Factor

Proportions Used	
trace	0 to 10%
little	10 to 20%
some	20 to 35%

140lb Wt x 30' fall on 2" O.D. Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft
10-30 Med Dense	4-8 M/Soft
30-50 Dense	8-15 Stiff

SUMMARY  
Earth Boring 4.5  
Rock Core  
Samples 4



100 WATER STREET

EAST PROVIDENCE, R I

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5

PROJ. NO. \_\_\_\_\_

SAMPLES SENT TO Taken at SiteOUR JOB NO. 95-41HOLE NO. NS-41

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ hours

Type \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

START 8/22/94COMPLETE 8/22/94

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN R. Allen

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

At \_\_\_\_\_ after \_\_\_\_\_ hours

Size: D \_\_\_\_\_

Hammer Wt. \_\_\_\_\_

Hammer Fall \_\_\_\_\_

S/S3 1/2"300030"

BIT

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Re
		<u>0.5'-1.5'</u>	<u>D</u>	<u>Blows not Taken</u>					<u>Dry, Brown to Black medium SAND &amp; coarse Gravel</u>	<u>1</u>	<u>12"</u>	
		<u>1.5'-2.5'</u>	<u>D</u>	<u>"</u>	<u>"</u>	<u>"</u>			<u>Pushed Cobble</u>	<u>2</u>	<u>12"</u>	
		<u>2.5'-3.5'</u>	<u>D</u>	<u>"</u>	<u>"</u>	<u>"</u>			<u>Pushed Cobble</u>	<u>3</u>	<u>12"</u>	
		<u>3.5'-4.5'</u>	<u>D</u>	<u>"</u>	<u>"</u>	<u>"</u>			<u>Pushed Cobble</u>	<u>4</u>	<u>12"</u>	
								<u>4.5'</u>	<u>Bottom of Boring 4.5'</u>			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type

D: Dry C: Cored W: Wet

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140 lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density Cohesive Consistency

0-10 Loose

10-30 Med Dense

30-50 Dense

0-4 Soft 30 + hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 4.5'

Rock Coring \_\_\_\_\_

Samples 4

HOLE NO. NS-42  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START	_____
		Size: O _____	3 1/2"	_____	COMPLETE	_____
At _____	after _____ hours	Hammer At _____	300#	_____	TOTAL HRS.	_____
		Hammer Fd. _____	30"	BIT	BORING FOREMAN	R. Allen
					INSPECTOR	
					SOILS ENGR.	

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

1560

CASING THEN

Sample Type

### Proportions used

140lb WT x 30" fall on 2" O.D. Sampler

D Dry C Cored w A...

Price 31010%

Conesionless Density

Cohesive Consistency

UN Undisturbed : 1 sign

title 01920%

0 10 Loose

0-4 Soft

Test For A Sugar & Vane Test

some 2010.35%

10:30 Med Den  
10:40      Den

4-8 M/Shift

UT - Undisturbed Terrain

and 1510509

30-50 Dense  
40-60 Very Dense

8-15 Staff  
8-20 Staff

## SUMMARY

Earth Boring 4.5

Rock Coring \_\_\_\_\_

Samples 4

HOL F NO NS-4

SURF. ELEV.

MOLE NO NS-42

HOLE NO NS-44  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	_____	S/S	_____	START	8/22/94
		Size D _____	_____	3 1/2"	_____	COMPLETE	8/22/94
		Hammer Wt _____	_____	300#	_____	TOTAL HRS.	_____
At _____	after _____ hours	Hammer Fall _____	_____	30"	BIT	BORING FOREMAN	R. Allen
						INSPECTOR	_____
						SOILS ENGR.	_____

[illegible]

USED                      CASING                      THEN

140lb WI - 30' tall on 2" OD Sampler

### Cohesionless Density

010 Loose

10:30 Med Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

0.4 Soft 3C + Hard

4.8 M/S/111

8-15 5:11 PM  
8-16 5:10 PM

## SUMMARY

Earth Boring 4.5'

### Rock Coring

Samples 4

HOLE NO NS-44

TO Texas InstrumentsPROJECT NAME Low Level Radiation InvestREPORT SENT TO above / Bldg. #5SAMPLES SENT TO Taken at SiteADDRESS Attleboro, Mass.LOCATION Attleboro, Mass.

PROJ. NO

OUR JOB NO 95-41HOLE NO. NS-45

LINE &amp; STA.

OFFSET

SURF. ELEV.

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type

Size: D

Hammer Wt

Hammer Fall

CASING

SAMPLER

CORE BAR

S/S

3 1/2"

300#

30"

BIT

Date

Time

START 8/22/94COMPLETE 8/22/94

TOTAL MRS.

BORING FOREMAN R. Allen

INSPECTOR

SOILS ENGR.

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From 0-6"	To 6-12"	To 12-18"				No	Pen	R
		0.5'-1.5'	D	Blows not Taken					Dry, Brown medium SAND & coarse Gravel	1	12"	1
		1.5'-2.5'	D	"	"	"			same as above	2	12"	
		2.5'-3.5'	D	"	"	"			Moist, Dark Brown medium SAND & coarse Gravel, trace silt	3	12"	1
		3.5'-4.5'	D	"	"	"			Dry, Brown medium SAND & coarse Gravel, trace silt	4	12"	1
								4.5'	Bottom of Boring 4.5'			

GROUND SURFACE TO

USED

CASING THEN

Sample Type

D-Dry C-Cored W-Washed

U-Undisturbed Piston

T-Test Pit A-Auger V-Value Test

H-Undisturbed Test Pit

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

many 35 to 50%

140 lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft

4-8 M/Stiff

8-15 Stiff

30+ Hard

SUMMARY

Earth Boring 4.5'

Rock Coring

Samples 4

HOLE NO. NS-45

HOLE NO. NS-46  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	START	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	COMPLETE	8/22/94	_____
			Size: D _____	3 1/2"	_____	TOTAL HRS.	8/22/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	BORING FOREMAN	R. Allen	_____
			Hammer Fall _____	30"	_____	INSPECTOR	_____	_____
					BIT	SOILS ENGR.	_____	_____

[illegible]

GROUND SURFACE TO	USED	CASING	THEN	SUMMARY
Sample Type	Proportions Used	140lb WT x 30" fall on 2 O.D Sampler		
D: Dry O: Oiled W: Washed	trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Earth Boring <u>4.5'</u>
UP: Undisturbed Piston	little 10 to 20%	0-10 Loose	0-4 Soft 30+ Hard	Rock Coring
TP: Test Pit A: Auger V: Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	Samples <u>4</u>
UT: Undisturbed Thinwall	and 35 to 50%	30-50 Dense	8-15 Stiff	
		50+ Very Dense	15-30 V-Stiff	

HOLE NO NS-46

DATE \_\_\_\_\_  
HOLE NO. **NS-47**  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/23/94	_____
		Size ID _____	3 1/2"	_____	COMPLETE 8/23/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	_____
		Hammer Fall _____	30"	_____	BORING FOREMAN <u>R. Allen</u>	_____
				BIT	INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

SUMMARY  
Earth Boring 4.5'  
Rock Coring \_\_\_\_\_  
Samples 4

TO Texas InstrumentsPROJECT NAME Low Level Radiation InvestREPORT SENT TO above / Bldg. #5SAMPLES SENT TO Taken at SiteADDRESS Attleboro, Mass.LOCATION Attleboro, Mass.

PROJ. NO. \_\_\_\_\_

OUR JOB NO. 95-41DATE \_\_\_\_\_ HOLE NO. NS-48

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type \_\_\_\_\_

Size: D \_\_\_\_\_

Hammer Wt \_\_\_\_\_

Hammer Fall \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

START 8/23/94COMPLETE 8/23/94

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN R. Allen

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From- To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From	To					No	Pen	R
		0.5'-1.5'	D	Blows not	Taken				Dry, Brown fine to medium SAND & coarse Gravel, little silt	1	12"	1
		1.5'-2.5'	D	"	"	"			Dry, Brown silty fine to medium SAND, trace coarse gravel	2	12"	1
		2.5'-3.5'	D	"	"	"			Dry, Light Brown silty fine to medium SAND, trace coarse gravel	3	12"	
		3.5'-4.5'	D	"	"	"			Dry, PEAT	4	12"	
								4.5'	Bottom of Boring 4.5'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_ CASING \_\_\_\_\_ THEN \_\_\_\_\_

Sample Type

D: Dry C: Cored W: Washed

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

UT: Undisturbed Thinwall

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

100 35 to 50%

140lb Wt. x 30" fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 4.5'

Rock Coring \_\_\_\_\_

Samples 4HOLE NO. NS-48



HOLE NO. NS-49  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S _____	_____	START 8/23/94	_____
At _____	after _____ Hours	Size: D _____	3 1/2" _____	_____	COMPLETE 8/23/94	_____
At _____	after _____ Hours	Hammer Wt _____	300# _____	_____	TOTAL HRS. _____	_____
At _____	after _____ Hours	Hammer Fall _____	30" _____	BIT _____	BORING FOREMAN R. Allen	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

## Samples

HOLE NO NS-49

HOLE NO. NS-50  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/23/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 8/23/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	
				BIT	INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

USED "CASING THEN

140lb Wt x 30' fall on 2" OD Sampler

### Cohesionless Density

0 10 Loose

10:30 Med Dense

30-50 Dense  
50+ Very Dense

### Cohesive Consistency

C-4 Soft 30 + Hard

4.8 M/Shift

8-15 Stiff

## SUMMARY

Earth Boring 4.5'

Rock Coring

Samples 4

HOLE NO NS-50

HOLE NO. NS-51  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	hours	Type _____	S/S	_____	START	8/23/94
			Size: D _____	3 1/2"	_____	COMPLETE	8/23/94
At _____	after _____	hours	Hammer Wt _____	300#	_____	TOTAL HRS.	_____
			Hammer Fall _____	30"	_____	BORING FOREMAN	R. Allen
					BIT	INSPECTOR	_____
						SOILS ENGR.	_____

[illegible]

GROUND SURFACE TO		USED	CASING		THEN	SUMMARY	
Sample Type	Proportions Used	140lb WT x 30' fall on 2" O.D. Sampler	Cohesionless Density		Cohesive Consistency	Earth Boring 4.5'	
D-Dry, C-Cored, W-Washed	trace 0 to 10%	0-10 Loose	0-4 Soft		30 + Hard	Rock Coring	
UP Undisturbed Section	little 10 to 20%	10-30 Med Dense	4-8 M/Stiff			Samples 4	
TP Test Pit, A Auger, V Vane Test	some 20 to 35%	30-50 Dense	8-15 Stiff			HOLE NO. NS-51	
UT Undisturbed Thinwall	and 35 to 50%	50 + Very Dense	15-30 Very Stiff				

HOLE NO. ND-32  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

	<u>Date</u>	<u>Time</u>
START	8/23/94	
COMPLETE	8/23/94	
TOTAL HRS.		
BORING FOREMAN	R. Allen	
INSPECTOR		
SOILS ENGR.		

## LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED                      CASING                      THEN

Sample Type

D: Dry C: Cored W: Washed

UP - Undisturbed Fission

TP = Test Pit    A = Auger    V = Vane Test

UT = Undisturbed Thinwall

### Proportions Used

trace (0.010%)

time 10 to 20%

some 20 to 35%

and 35 to 50%

140lb Wt. x 30 fall on 2 00 Sampler

### Cohesionless Density

0 10 Loose

10-30 Med Dense  
10-50 Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

0.4 Soft 30 + Hard

4-B M/Siff

8-15 Still  
15-30 V-Still

## SUMMARY

Earth Boring 2.5'

Rock Coring

Samples 2

HOLE NO NS-52

HOLE NO. NS-53  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S _____	_____	STAR _____	8/23/94
At _____	after _____	Hours	Size i D _____	3 1/2" _____	_____	COMPLETE _____	8/23/94
At _____	after _____	Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL HRS. _____	
			Hammer Fall _____	30" _____		BORING FOREMAN _____	R. Allen
						INSPECTOR _____	
						SOILS ENGR. _____	

[illegible]

GROUND SURFACE TO	USED	CASING	THEN	SUMMARY
Sample Type	Proportions Used	140lb Wt x 30" fall on 2" O.D. Sampler		
D-Dry C-Cored W-Washed	Trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Earth Boring <u>4.5'</u>
UP Undisturbed Piston	little 10 to 20%	0-10 Loose	0-4 Soft 30+ Hard	Rock Coring
TP Test Pit A-Auger V-Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	Samples <u>4</u>
UT Undisturbed Thinwall	and 35 to 50%	30-50 Dense	8-15 Stiff	
		50+ Very Dense	15-30 V-Stiff	

HOLE NO NS-53

HOLE NO. NS-54  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START	8/24/94
		Size: D _____	3 1/2"	_____	COMPLETE	8/24/94
		Hammer Wt _____	300#	_____	TOTAL HRS.	_____
At _____	after _____ Hours	Hammer Fall _____	30"	BIT _____	BORING FOREMAN	R. Allen
					INSPECTOR	_____
					SOILS ENGR.	_____

[illegible]

CASING THEN

140lb Wt & 30" fall on 2' O.D. Sampler

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Shift

8-15 Staff  
16-20 V-Staff

Samples 4

HOLE NO NS-54

HOLE NO. NS-56  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/24/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 8/24/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	_____
		Hammer Fall _____	30"	BIT _____	BORING FOREMAN R. Allen	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

1 1 8 9 4 5

GROUND SURFACE TO	USED	CASING	THEN	SUMMARY
Sample Type	Proportions Used	140lb Wt x 30" fall on 2" O.D. Sampler		Earth Boring <u>4.5'</u>
D-Dry C Cored Wt Washed	trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Rock Coring
UP Undisturbed Piston	fine 10 to 20%	0-10 Loose	0-4 Soft 30+ Hard	Samples <u>4</u>
TP Test Pit A Auger V Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	
UT Undisturbed Thinwall	and 35 to 50%	30-50 Dense	8-15 Stiff	
		50+ Very Dense	15-30 V-Stiff	

HOLE NO NS-56

HOLE NO. NS-57  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S _____	_____	START _____	_____
		Size: D _____	3 1/2" _____	_____	COMPLETE _____	_____
At _____	after _____ Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL HRS. _____	_____
		Hammer Fall _____	30" _____	_____	BORING FOREMAN <u>R. Allen</u>	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

HOLE NO NS-5



HOLE NO. NS-58  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START	_____
			Size I D _____	3 1/2"	_____	COMPLETE	_____
			Hammer Wt _____	300#	_____	TOTAL HRS.	_____
At _____	after _____	Hours	Hammer Fall _____	30"	_____	BORING FOREMAN	R. Allen
					BIT	INSPECTOR	_____
						SOILS ENGR.	_____

[illegible]

USED

## CASING THE N

## SUMMARY

Earth Boring 4.5'

### Rock Coring

Samples 4

8-15 Shift  
15-30 V-Shift

HOLE NO NS-58

HOLE NO. NS-59  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING \_\_\_\_\_

GROUND SURFACE TO	USED	CASING	THEN	SUMMARY
Sample Type	Proportions Used	140lb Wt. x 30" fall on 2" O.D. Sampler		Earth Boring <u>4.5'</u>
D-Dry C-Cored W-Augment	trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Rock Coring
UP - Undisturbed Piston	little 10 to 20%	0-10 Loose	0-4 Soft 30 + Hard	Samples <u>4</u>
TP - Test Pit A - Auger V - Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Shift	
UT - Undisturbed Throwall	and 35 to 50%	30-50 Dense	8-15 Shift	
		50 + Very Dense	15-30 V-Shift	

HOLE NO NS-59

HOLE NO. NS-60  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/24/94	_____
		Size I D _____	3 1/2"	_____	COMPLETE 8/24/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	
		Hammer Fall _____	30"	BIT _____	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

151 (1)

CASING THEN

140lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density

Earth Boring 4.5'

O-4 Soft

10-30 Med Dense

4-8 M/Stiff

50-50 Dense  
50+ Very Dense

8-15 Shift  
15-30 V-Shift

HOLE NO NS-6

MOLE NO. NS-61  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/24/94	_____
		Size D _____	3 1/2"	_____	COMPLETE 8/24/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	
		Hammer Fall _____	30"	BIT _____	BORING FOREMAN <u>R. Allen</u>	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

CASING THE N

## SUMMARY

Earth Boring 4.5'

### Rock Coring

Samples 4

HOLE NO NS-61

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ. NO. \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

HOLE NO. NS-62  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

# GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type \_\_\_\_\_

Size: D \_\_\_\_\_

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Hammer Wt \_\_\_\_\_

Hammer Fall \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

S/S

3 1/2"

300#

30"

BIT

Date 8/24/94 Time \_\_\_\_\_  
 START 8/24/94 \_\_\_\_\_  
 COMPLETE 8/24/94 \_\_\_\_\_  
 TOTAL HRS. \_\_\_\_\_  
 BORING FOREMAN R. Allen  
 INSPECTOR \_\_\_\_\_  
 SOILS ENGR. \_\_\_\_\_

# LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	6-12	12-18				No	Pen	Re
		0.5'-1.5'	D	Blows not Taken					Dry, Brown TOPSOIL & fine SAND, trace roots & coarse gravel	1	12	12
		1.5'-2.5'	D	"	"	"			Dry, Brown fine SAND & coarse Gravel, trace silt	2	12	12
		2.5'-3.5'	D	"	"	"			Moist, Brown fine to medium SAND & coarse Gravel, trace silt	3	12	12
		3.5'-4.5'	D	"	"	"			Moist, Gray silty fine to medium SAND & coarse Gravel	4	12	11
								4.5'	Bottom of Boring 4.5'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type

D-Dry C-Cored W-Washed

UP Undisturbed Piston

TP Test Pit A Auger V-Vane Test

UT Undisturbed Thinwall

Proportions Used

trace 0 to 10%

fine 10 to 20%

some 20 to 35%

and 35 to 50%

140lb Wt x 30 fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

50+ Very Dense

Cohesive Consistency

0-4 Soft 30+ Hard

4-8 M/Stiff

8-15 Stiff

15-30 V-Stiff

SUMMARY

Earth Boring 4.5'

Rock Coring \_\_\_\_\_

Samples 4

HOLE NO NS-62

HOLE NO. NS-63  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING

GROUND SURFACE TO

USED "CASING THEN

Sample Type	Proportions Used	140lb Wt x 30" fall on 2" O.D. Sampler	SUMMARY
D-Dry C-Cored W-Washed	trace 0 to 10%	Cohesionless Density	Earth Boring <u>4.5'</u>
UP Undisturbed Piston	little 10 to 20%	0-10 Loose	Rock Coring _____
TP-Test Pit A Auger V Vane Test	some 20 to 35%	10-30 Med Dense	Samples <u>4</u>
UT Undisturbed Thinwall	and 35 to 50%	30-50 Dense	
		50+ Very Dense	
		0-4 Soft 30+ Hard	
		4-8 M/Stiff	
		8-15 Stiff	
		15-30 V-Stiff	
			HOLE NO NS-63

HOLE NO. NS-64  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 8/25/94	_____
		Size - D _____	3 1/2"	_____	COMPLETE 8/25/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	_____
		Hammer Fall _____	30"	_____	BORING FOREMAN <u>R. Allen</u>	_____
				BIT	INSPECTOR _____	_____
					SOILS ENGR. _____	_____

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	R
		0.5'-1.5'	D	Blows not	Taken			Moist, Brown silty fine to medium SAND & coarse Gravel	1	12'	1	
		1.5'-2.5'	D	"	"	"		Wet, Brown medium SAND & coarse Gravel, little silt	2	12'	2	
		2.5'-3.5'	D	"	"	"		Wet, Brown silty fine to medium SAND & coarse Gravel	3	12'	3	
		3.5'-4.5'	D	"	"	"		" "	4	12'	4	
							4.5'	Bottom of Boring 4.5'				

CASING THEN

140lb Wt x 30" tall on 2' O.D. Sampler

Cohesionless Density

( ) 10 Loose

10-30 Med Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff  
15-30 V-Stiff

## SUMMARY

Earth Boring 4.5'

Rock Coring \_\_\_\_\_

Samples 4

HOLE NO NS-6

ADDRESS Attleboro, Mass.  
LOCATION Attleboro, Mass.  
#5 PROJ NO \_\_\_\_\_  
OUR JOB NO 95-41

SURF. ELEV.

LOCATION OF BORING

WOLF NO NO-LE



TO Texas InstrumentsPROJECT NAME Low Level Radiation InvestREPORT SENT TO above / Bldg. #5SAMPLES SENT TO Taken at SiteADDRESS Attleboro, Mass.LOCATION Attleboro, Mass.

PROJ. NO. \_\_\_\_\_

OUR JOB NO. 95-41

DATE \_\_\_\_\_

HOLE NO. NS-66

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type \_\_\_\_\_

Size I D \_\_\_\_\_

Hammer Wt \_\_\_\_\_

Hammer Fall \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

START 8/25/94COMPLETE 8/25/94

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN R. Allen

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

Date \_\_\_\_\_

Time \_\_\_\_\_

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	R
		0.5'-1.5'	D	Blows not Taken					Dry, Brown fine to medium SAND & coarse Gravel, trace silt	1	12"	
		1.5'-2.5'	D	"	"	"			Moist, Dark Brown silty fine to medium SAND, trace coarse gravel	2	12"	
		2.5'-3.5'	D	"	"	"			Wet, Gray fine to medium SAND & coarse Gravel, little silt	3	12"	
		3.5'-4.5'	D	"	"	"			Wet, Dark Brown PEAT, trace roots	4	12"	
								4.5'	Bottom of Boring 4.5'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type

D: Dry C Cored W: Washed

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

UT: Undisturbed Thin

Proportions Used

Trace 0 to 10%

little 10 to 20%

some 20 to 35%

15 to 50%

140 lb Wt + 30" fall on 2" OD Sampler

Cohesiveness Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 4.5'

Rock Coring \_\_\_\_\_

Samples 4HOLE NO. NS-66

Samples 4

100 WATER STREET EAST PROVIDENCE, R I  
 TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ NO. \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

HOLE NO. NS-68  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	<u>S/S</u>	_____	START <u>8/25/94</u>	_____
At _____	after _____ hours	Size I D _____	<u>3 1/2"</u>	_____	COMPLETE <u>8/25/94</u>	_____
		Hammer Wt _____	<u>300#</u>	_____	TOTAL HRS. _____	
		Hammer Fall _____	<u>30"</u>	BIT _____	BORING FOREMAN <u>R. Allen</u>	
					INSPECTOR _____	
					SOILS ENGR. _____	

### LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Ri
		<u>0.5'-1.5'</u>	<u>D</u>	<u>Blows not Taken</u>					<u>Dry, Brown fine to medium SAND &amp; coarse Gravel, trace silt</u>	<u>1</u>	<u>12'</u>	<u>1</u>
		<u>1.5'-2.5'</u>	<u>D</u>	<u>"</u>	<u>"</u>	<u>"</u>			<u>Moist, Brown medium SAND &amp; coarse Gravel, trace silt</u>	<u>2</u>	<u>12'</u>	<u>1</u>
		<u>2.5'-3.5'</u>	<u>D</u>	<u>"</u>	<u>"</u>	<u>"</u>			<u>(No Recovery)</u>	<u>3</u>	<u>12'</u>	<u>0</u>
		<u>3.5'-4.5'</u>	<u>D</u>	<u>"</u>	<u>"</u>	<u>"</u>			<u>Moist, Dark Brown to Black PEAT, trace fiber</u>	<u>4</u>	<u>12'</u>	<u>1</u>
								<u>4.5'</u>	<u>Bottom of Boring 4.5'</u>			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type  
 D-Dry C Cores W-Washed  
 UP-Undisturbed Piston  
 TP-Test Pit A-Auger V-Vane Test  
 UT-Undisturbed Thruwall

Proportions Used  
 trace 0 to 10%  
 little 10 to 20%  
 some 20 to 35%  
 and 35 to 50%

140lb Wt x 30" fall on 2" O.D. Sampler  
 Cohesionless Density Cohesive Consistency  
 0-10 Loose 0-4 Soft 30+ Hard  
 10-30 Med Dense 4-8 M/Stiff  
 30-50 Dense 8-15 Stiff

SUMMARY  
 Earth Boring 4.5'  
 Rock Coring \_\_\_\_\_  
 Samples 4

HOLE NO. NS-68



100 WATER STREET

EAST PROVIDENCE, R I

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5

PROJ. NO. \_\_\_\_\_

SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

DATE \_\_\_\_\_  
 HOLE NO. NS-70  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

CASING

SAMPLER

CORE BAR

Date \_\_\_\_\_ Time \_\_\_\_\_

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type \_\_\_\_\_

S/S

START 8/25/94

S.P.

COMPLETE 8/25/94

S.P.

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN R. Allen

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Size: D \_\_\_\_\_

3 1/2"

Hammer Wt \_\_\_\_\_

300#

Hammer Fall \_\_\_\_\_

30"

BIT

## LOCATION OF BORING

DEPTH	Casing Blows per 100'	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	6-12	To 12-18				No	Pen	Re
		0.5'-1.5'	D	Blows not Taken					Dry, Brown fine to medium SAND & coarse Gravel, trace silt	1	12"	4
		1.5'-2.5'	D	"	"	"			" "	2	12"	7
		2.5'-3.5'	D	"	"	"			Moist, Brown fine to medium SAND, trace silt, trace coarse gravel	3	12"	5
		3.5'-4.5'	D	"	"	"			Moist, Brown medium SAND & coarse Gravel	4	12"	-
								4.5'	Bottom of Boring 4.5'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING \_\_\_\_\_

THEN \_\_\_\_\_

Sample Type

D: Dry C: Cored W: Washed

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

UT: Undisturbed Test Pit

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140 lb Wt x 30" fall on 2 O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 4.5'

Rock Coring \_\_\_\_\_

Samples 4

TO Texas InstrumentsPROJECT NAME Low Level Radiation InvestREPORT SENT TO above / Bldg. #5SAMPLES SENT TO Taken at Site

ADDRESS

Attleboro, Mass.

LOCATION

Attleboro, Mass.

PROJ. NO.

OUR JOB NO 95-41

DATE

HOLE NO. NS-71

LINE &amp; STA.

OFFSET

SURF. ELEV.

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ hours

Type

CASING

SAMPLER

CORE BAR

S/S3 1/2"300#30"

BIT

START

Date

8/25/94

Time

COMPLETE

8/25/94

TOTAL HRS.

BORING FOREMAN R. Allen

INSPECTOR

SOILS ENGR.

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From	To					No	Pen	Re
		0.5'-1.5'	D	Blows not	Taken				Dry, Brown fine to medium SAND & coarse Gravel, trace silt	1	12"	1'
		1.5'-2.5'	D	"	"	"			" "	2	12"	2'
		2.5'-3.5'	D	"	"	"			Moist, Gray Brown fine to medium SAND & coarse Gravel, little silt	3	12"	3'
		3.5'-4.5'	D	"	"	"			Wet, PEAT, trace roots	4	12"	4'
								4.5'	Bottom of Boring 4.5'			

GROUND SURFACE TO \_\_\_\_\_

USED

CASING THEN

Sample Type

D: Dry C: Core G: Washed

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

UT: Undisturbed Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

35 to 50%

140 lb Wt x 30' fall on 2 O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 4.5'

Rock Coring

Samples 4

WOLF AND NS-72

DATE \_\_\_\_\_  
HOLE NO. **NS-73**  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S _____	_____	START 8/29/94	_____
		Size D _____	3 1/2" _____	_____	COMPLETE 8/29/94	_____
At _____	after _____ Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL HRS. _____	_____
		Hammer Fall _____	30" _____	_____	BORING FOREMAN R. Allen	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

Sample Type	Proportions Used	140lb Wt. x 30" fall on 2" O.D. Sampler	SUMMARY
D: Dry C: Cored W: Washed	trace 0 to 10%	Cohesionless Density	Earth Boring <u>4.5'</u>
UP: Undisturbed Piston	little 10 to 20%	0-10 Loose	Rock Coring _____
TP: Test Pit A: Auger V: Vane Test	some 20 to 35%	10-30 Med Dense	Samples <u>4</u>
UT: Undisturbed Test Pit	_____	30-50 Dense	
		0-4 Soft 30+ Hard	
		4-8 M/Stiff	
		8-15 Stiff	



DATE \_\_\_\_\_  
HOLE NO. NS-74  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START	8/29/94
			Size i D _____	3 1/2"	_____	COMPLETE	8/29/94
			Hammer Wt _____	300#	_____	TOTAL HRS.	_____
At _____	after _____	Hours	Hammer Fall _____	30"	BIT	BORING FOREMAN	R. Allen
						INSPECTOR	_____
						SOILS ENGR.	_____

[illegible]

SUMMARY  
Earth Boring 4.5  
Rock Coring \_\_\_\_\_  
Samples 4

HOLE NO. NS-75  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING \_\_\_\_\_

GROUND SURFACE TO _____		USED _____		CASING THEN _____		SUMMARY	
Sample Type		Proportions Used		140lb Wt. x 30" fall on 2" O.D. Sampler			
				Cohesionless Density		Cohesive Consistency	
D: Dry	C: Cored	W: Washed	trace	0 to 10%	0-10	Loose	0-4 Soft 30 + Hard
UP: Undisturbed	Piston	little	10 to 20%	10-30	Med Dense	4-8 M/Stiff	Earth Boring <u>4.5'</u>
TP: Test Pit	A: Auger	V: Vane Test	some	20 to 35%	30-50	Dense	8-15 Stiff
UT: Undisturbed	Thiwall	and	35 to 50%	50-60	Very Dense	15-30	Stiff
							Rock Coring _____ Samples <u>4</u> HOLE NO. <u>MS-75</u>



TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ. NO. \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

HOLE NO. NS-77  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

START

Date

Time

9/2/94

COMPLETE

9/2/94

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN R. Allen

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Size: D \_\_\_\_\_

Hammer Wt \_\_\_\_\_

Hammer Fall \_\_\_\_\_

S/S3 1/2"300#30"

BIT \_\_\_\_\_

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Ret
		0'-1'	D	Blows not Taken					Dry, Brown fine to medium SAND & coarse Gravel, trace silt	1	12"	12"
		1'-2'	D	"	"	"			" "	2	12"	12"
		2'-3'	D	"	"	"			Moist, Dark Brown fine to medium SAND, little silt, trace coarse gravel	3	12"	7"
		3'-4'	D	"	"	"			Wet, Fibrous PEAT, trace roots	4	12"	12"
								4'	Bottom of Boring 4'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING \_\_\_\_\_

THEN \_\_\_\_\_

## Sample Type

D-Dry C-Cored W-Washed

UP-Undisturbed Piston

TP-Test Pit A-Auger V-Vane Test

## Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140 lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

## SUMMARY

Earth Boring 4'

Rock Coring \_\_\_\_\_

Samples 4HOLE NO. NS-77

[illegible]

GROUND SURFACE TO _____		USED _____		CASING THEN _____		
Sample Type		Proportions Used		140lb Wt x 30" fall on 2 O.D. Sampler		SUMMARY
D=Dry C=Cored W=Washed		trace 0 to 10%	Cohesionless Density	Cohesive Consistency		Earth Boring _____ 4'
UP=Undisturbed Piston		silt 10 to 20%	0-10 Loose	0-4 Soft	30 + Hard	Rock Coring _____
TP=Test Pit A=Auger V=Vane Test		some 20 to 35%	10-30 Med Dense	4-8 M/Stiff		Samples _____ 4
		very some 35 to 60%	30-50 Dense	8-15 Stiff		HOLE NO. _____

HCLE NO NS-79  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 9/2/94	_____
		Size D _____	3 1/2"	_____	COMPLETE 9/2/94	_____
At _____	after _____ hours	Hammer Wt _____	300#	_____	TOTAL MRS. _____	_____
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	_____
				BIT	INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

USE O

CASING      THEN

### Proportions Used

140lb Wt x 30" fall on 2" O.D. Sampler

trace 0.0010%

### Cohesionless Density

Cohesive Consistency

10/12/2017

0 10 Loose

0.4 Soft 30 + Hard

2010 35%

10:30 Med Dense

4-8 M/Stiff

and 35 to 50%

30-50 Dense  
50+ Very Dense

8-15 S.M.  
15-30 V.S.M.

## SUMMARY

Earth Boring 4.5

Rock Coring \_\_\_\_\_

Samples 4

HOLE NO NS-7

HOLE NO. NS-80  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 9/2/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 9/2/94	_____
		Hammer Wt _____	300#	_____	TOTAL HRS. _____	
At _____	after _____ hours	Hammer Fall _____	30"	BIT	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

15f13

CASING THEN

Proportions Used	
None	0 to 10%
Little	10 to 20%
Some	20 to 35%
and	35 to 50%

140lb Wt & 30" fall on 2" O.D. Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft 30 + Hard
10-30 Med Dense	4-8 M/Stiff
30-50 Dense	8-15 Stiff
50+ Very Dense	15-30 V-Stiff

SUMMARY  
Earth Boring 4.5'  
Rock Coring       
Samples 4

HOLE NO NS-80

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ. NO. \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

HOLE NO. NS-79  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____ after _____ Hours	Type _____	Auger	S/S	_____	START <u>9/15/94</u>	_____
At _____ after _____ Hours	Size: D _____	_____	3 1/2"	_____	COMPLETE <u>9/15/94</u>	_____
	Hammer Wt _____	_____	300#	BIT	TOTAL HRS. _____	
	Hammer Fall _____	_____	30"	_____	BORING FOREMAN <u>R. Allen</u>	
					INSPECTOR _____	
					SOILS ENGR. _____	

### LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Re
		4'-5'	D	Blows not Taken					Moist, Brown & Gray silty fine SAND	1	12"	1
		5'-6'	D	"	"	"			" "	2	12"	1
		6'-7'	D	"	"	"			Wet, Gray silty fine SAND (Heavy Chemical Odor)	3	12"	1
		7'-8'	D	"	"	"			Wet, Brown silty fine SAND	4	12"	
								8'	Bottom of Boring 8'			

GROUND SURFACE TO \_\_\_\_\_

USED

CASING THEN

Sample Type

D-Dry C-Cored W-Washed

UP-Undisturbed Piston

TP-Test Pit A-Auger V-Vane Test

UT-Undisturbed Thinwall

Proportions Used

Trace 0 to 10%

little 10 to 20%

some 20 to 35%

mod. 35 to 50%

140 lb Wt x 30 fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

50+ Very Dense

Cohesive Consistency

0-4 Soft 30+ Hard

4-8 M/Soft

8-15 Stiff

15-30 Very Stiff

SUMMARY

Earth Boring 8'

Rock Coring

Samples 4

HOLE NO NS-79



HOLE NONS-79

HOLE NO NS-80  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING \_\_\_\_\_

GROUND SURFACE TO	USE	TESTING	THEN	
Sample Type	Proportions Use 1	140lb Wt x 30	Full on 2 0.0 Sampler	
D Dry C Cores W Washed	fine 0 to 10%	Cohesionless	Density	Cohesive Consistency
UP Undisturbed Station	fine 10 to 20%	0-10	Loose	0-4 Soft 30 + Hard
TP Test Pit A Auger V Vane Test	some 20 to 35%	10-30	Med Dense	4-8 M/Stiff
UT Undisturbed Test	fine 35 to 60%	30-50	Dense	8-15 Stiff
		50-100	Very Dense	15-30 Very Stiff

**SUMMARY**

Earth Boring 8'

Rock Coring \_\_\_\_\_

Samples 4

**HOLE NO. NS-80**

HOLE NO. NS-80  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 9/16/94	_____
			Size I D _____	3 1/2"	_____	COMPLETE 9/16/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL MRS. _____	_____
			Hammer Fall _____	30"	_____	BORING FOREMAN J. Medeiros	_____
					BIT	INSPECTOR _____	_____
						SOILS ENGR. _____	_____

[illegible]

USED                      "CASING                      THEN

### Proportions Used

POCP 010103

title 10/10/2007

some 2019 35%

and 35 to 50%

Cohesionless Density | Cohesive Consistency

0.4 Soft

4-A M/S/11

8-15 Staff  
15-12 V. Smith

Earth Boring 10'

Samples 2

HOLE NO NS-80

TO Texas Instruments ADDRESS Attleboro, Mass. HOLE NO. NS-81  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass. LINE & STA. \_\_\_\_\_  
 REPORT SENT TO above / Bldg. #5 PROJ. NO. \_\_\_\_\_ OFFSET \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____ after _____ hours	Type _____	Auger	S/S	_____	START	9/15/94
At _____ after _____ hours	Size: D _____	_____	3 1/2"	_____	COMPLETE	9/15/94
	Hammer Wt _____	_____	300#	BIT	TOTAL HRS. _____	
	Hammer Fall _____	_____	30"	_____	BORING FOREMAN <u>R. Allen</u>	
					INSPECTOR _____	
					SOILS ENGR. _____	

### LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Re
		4'-5'	D	Blows not Taken					Wet, Brown PEAT, fine Sand, coarse Gravel	1	12"	8
		5'-6'	D	"	"	"			Wet, Gray fine SAND (Odor)	2	12"	12
		6'-7'	D	"	"	"			Wet, Gray fine SAND (High Odor)	3	12"	12
		7'-8'	D	"	"	"			" "	4	12"	12
								8'	Bottom of Boring 8'			

GROUND SURFACE TO	USED	CASING	THEN	SUMMARY
Sample Type	Proportions Used	140lb Wt x 30' fall on 2" O.D. Sampler		Earth Boring <u>8'</u>
D-Dry C Cored W. Washed	trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Rock Coring _____
UP Undisturbed Piston	little 10 to 20%	0-10 Loose	0-4 Soft 30 + Hard	Samples <u>4</u>
TP Test Pit A Auger V-Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	
UT Undisturbed Thinwall	and 35 to 50%	30-50 Dense	8-15 Stiff	
		50 + Very Dense	15-30 V. Stiff	

HOLE NO NS-81

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ NO. \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO. NS-82  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____ after _____ Hours	Type _____	Auger	S/S	_____	START <u>9/15/94</u>	_____
At _____ after _____ Hours	Size: D _____	_____	3 1/2"	_____	COMPLETE <u>9/15/94</u>	_____
	Hammer Wt _____	_____	300#	BIT	TOTAL HRS. _____	
	Hammer Fall _____	_____	30"	_____	BORING FOREMAN <u>J. Medeiros</u>	
					INSPECTOR _____	
					SOILS ENGR. _____	

### LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Re
		4'-5'	D	Blows not Taken					Brown sandy SILT	1	12"	6
		5'-6'	D	"	"	"			Organic SILT & Peat Fibers	2	12"	8
		6'-7'	D	"	"	"			" "	3	12"	12
		7'-8'	D	"	"	"		7'	Gray fine sandy SILT	4	12"	12
								8'	Bottom of Boring 8'			

GROUND SURFACE TO	USED	CASING	THEN	SUMMARY
Sample Type	Proportions Used	140lb Wt x 30' fall on 2" O.D. Sampler	Cohesive Consistency	Earth Boring <u>8</u>
0 Dry 0 Cored W. Washed	None 0 to 10%	Cohesionless Density	0-4 Soft 30+ Hard	Rock Coring
UP Undisturbed Piston	fine 10 to 20%	0-10 Loose	4-8 M/Stiff	Samples <u>4</u>
TP: Test Pit A Auger V Vane Test	some 20 to 35%	10-30 Med Dense	8-15 Stiff	
UT Undisturbed Thin	just 35 to 50%	30-50 Dense		

HOLE NO. NS-82

HOLE NO. NS-83  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 9/28/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 9/28/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	_____
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	_____
				BIT	INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

HOLE NO NS-83

HOLE NO. NS-84  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 9/28/94	_____
			Size: D _____	3 1/2"	_____	COMPLETE 9/28/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	
			Hammer Fall _____	30"	_____	BORING FOREMAN J. Medeiros	
					BIT	INSPECTOR _____	
						SOILS ENGR. _____	

[illegible]

SUMMARY  
Earth Boring 6'  
Rock Coring \_\_\_\_\_  
Samples 3

HOLE NO NS-84

HOLE NO NB-8.



HOLE NO. NS-86  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING \_\_\_\_\_

GROUND SURFACE TO	USED	CASING	THEN	
Sample Type	Proportions Used	140lb WT x 30' tall on 2" O.D. Sampler		<u>SUMMARY:</u>
D: Dry C Cores W: Washed	trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Earth Boring <u>6</u>
UP: Undisturbed Piston	little 10 to 20%	0-10 Loose	0-4 Soft 30' + Hard	Rock Coring
TP: Test Pit A-Auger V-Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	Samples <u>3</u>
UT: Undisturbed Thinwall	and 35 to 50%	30-50 Dense	8-15 Stiff	
		50+ Very Dense	15-30 Very Stiff	

HOLE NO NS-86

HOLE NO. NS-87  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING

GRIND SURFACE TO

USED                      CASING                      THEN

Sample Type	Proportions Used	140lb WT x 30" fall on 2" O.D. Sampler	SUMMARY	
D-Dry, D-Cored, W-Washed	Trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Earth Boring <u>2</u>
UP-Undisturbed Piston	little 10 to 20%	0-10 Loose	0-4 Soft 30+ Hard	Rock Coring
TP-Test Pit A Auger V-Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	Samples <u>2</u>
UT-Undisturbed Thinwall	and 35 to 50%	30-50 Dense	8-15 Stiff	HOLE NO NS-8
		50+ Very Dense	15-30 V-Stiff	

HOLE NO. NS-88  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 9/28/94	_____
			Size I D _____	3 1/2"	_____	COMPLETE 9/28/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	_____
			Hammer Fall _____	30"	_____	BORING FOREMAN J. Medeiros	_____
					BIT	INSPECTOR _____	_____
						SOILS ENGR. _____	_____

[illegible]

(USED) \_\_\_\_\_ CASING THEN \_\_\_\_\_

Proportions Used	
trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

40lb Wt + 30" fall on 2" O.D. Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft 30 + Hard
10-30 Med Dense	4-8 M/Stiff
30-50 Dense	8-15 Stiff
50 + Very Dense	15-30 V-Stiff

SUMMARY  
Earth Boring \_\_\_\_\_  
Rock Coring \_\_\_\_\_  
Samples \_\_\_\_\_

HOLE NO NS-88

HOLE NO NS-89  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 9/28/94	_____
			Size: D _____	3 1/2"	_____	COMPLETE 9/28/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL MRS _____	
			Hammer Fall _____	30"	_____	BORING FOREMAN <u>R. Allen</u>	
					BIT	INSPECTOR _____	
						SOILS ENGR. _____	

[illegible]

USED "CASING THEN

### Proportions Used

Trace 0.1010%

the 10 to 20%.

some 201935%

und 35 to 50%

140lb Wt x 30' tall on 2' O.D. Sampler

Cohesionless Density

0 10      Loose

10-30 Med Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

Q-4 Soft 30 + Hard

4-8 M/Sitt

8-15 Smt  
15-30 V-Smt

## SUMMARY

Earth Boring 6

Rock Coring \_\_\_\_\_

Samples 3

HOLE NO NS-89

HOLE NO. NS-90  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 9/28/94	_____
		Size D _____	3 1/2"	_____	COMPLETE 9/28/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	_____
		Hammer Fall _____	30"	BIT _____	BORING FOREMAN J. Medeiros	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

SUMMARY  
Earth Boring 3  
Rock Coring \_\_\_\_\_  
Samples 2

HOLE NO NS-90

HOLE NO. NS-91  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S _____	_____	START 9/28/94	_____
		Size: D _____	3 1/2" _____	_____	COMPLETE 9/28/94	_____
At _____	after _____ Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL HRS _____	_____
		Hammer Fall _____	30" _____	_____	BORING FOREMAN <u>R. Allen</u>	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

USED "CASING THEN

140lb wt x 30" fall on 2" O.D. Sampler

### Cohesionless Density

0 10      Loose

10-30 Med Dense  
10-50 Dense

30-50 Dense  
50+ Very Dense

( ) - 4 Soft

4-8 M/Sill

8-15 Shift  
15:30 V-Shift

Earth Boring 6'

Rock Coring \_\_\_\_\_

Samples 3

HOLE NO NS-91

HOLE NO. NS-92  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 9/28/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 9/28/94	_____
		Hammer Wt _____	300#	_____	TOTAL HRS. _____	
At _____	after _____ Hours	Hammer Fall _____	30"	BIT _____	BORING FOREMAN J. Medeiros	
					INSPECTOR _____	
					SOILS ENGR. _____	

## LOCATION OF BORING

[illegible]

GROUND SURFACE TO	USED	CASING	THEN	
Sample Type	Proportions Used	140lb WT + 30" fall on 2" O.D. Sampler		SUMMARY
Dry Cored Auger	Trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Earth Boring 5.5'
UP Undisturbed Fusion	little 10 to 20%	0-10 Loose	0-4 Soft 30 + Hard	Rock Coring
Test Pit Auger Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	Samples 3
UT Undisturbed Thinwall	and 35 to 50%	30-50 Dense	8-15 Stiff	
		50 + Very Dense	15-30 Very Stiff	

HOLE NO NS-92

HOLE NO. NS-93  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 9/29/94	_____
			S.P. B _____	3 1/2"	_____	COMPLETE 9/29/94	_____
At _____	after _____	Hours	Hammer At _____	300#	_____	TOTAL HRS _____	
			Hammer Fall _____	30"	_____	BIT _____	
						INSPECTOR <u>R. Allen</u>	
						SOILS ENGR. _____	

[illegible]

۱۵۸۵

CASING THEN

### Proportions Used

10310 11-10-97

0.020%

some 2010 35%

308 351050%

40lb wt + 30' fall on 2 DD Sampler

### Compressionless Density

3 0 Loose

10	30	Med Dense
12	15	5

30-50 Dense  
50+ Very Dense

Conesive Consistency

0.4 Soft 30 + Hard

4-8 M/S...

8-15      Smt  
15-30      V-Exp

## SUMMARY

Earth Being 3

Rock Coring \_\_\_\_\_

Samples 2

HOLE NO NS-93



TO Texas InstrumentsADDRESS Attleboro, Mass.HOLE NO. NS-94PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.

LINE &amp; STA. \_\_\_\_\_

REPORT SENT TO above / Bldg. #5

PROJ NO \_\_\_\_\_

OFFSET \_\_\_\_\_

SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ hours

At \_\_\_\_\_ after \_\_\_\_\_ hours

CASING

SAMPLER

CORE BAR

Type

Size D

Hammer Wt

Hammer Fall

S/S

3 1/2"

300#

30"

BIT

Date

Time

START 9/28/94COMPLETE 9/28/94

TOTAL HRS \_\_\_\_\_

BORING FOREMAN J. Medeiros

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	R.
		0'-2'	D	Blows not Taken					4" Asphalt Brown SAND & Gravel	1	24	2
		2'-4'	D	"	"	"			" "	2	24	1
		4'-5'	D	"	"	"			" "	3	12	1
								5'	Bottom of Boring 5'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type

D Dry C Cores At Water

UP Undisturbed Fusion

TP Test Pit A Auger - 2' zone Test

AT Underwater Test Pit

Proportions Used

trace 0 to 10%

fine 10 to 20%

some 20 to 35%

fine 35 to 50%

140 lb Wt + 30 fall on 2" D Sampler

Cohesionless Density

0 10 Loose

10 30 Med Dense

30 50 Dense

Cohesive Consistency

0 4 Soft 30 + Hard

4 8 M/Stiff

8 15 Stiff

SUMMARY

Earth Boring 5'

Rock Boring \_\_\_\_\_

Samples 3HOLE NO. NS-94

HOLE NO. NS-95  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 9/29/94	_____
		Size D _____	3 1/2"	_____	COMPLETE 9/29/94	_____
		Hammer Wt _____	300#	_____	TOTAL HRS. _____	
At _____	after _____ hours	Hammer Fall _____	30"	BIT	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

LOCATION OF BORING

[illegible]

GROUND SURFACE TO:

USE:

CASING THEN

Sample Type

### Proportions Used

140 lb wt = 30' fall on 2 OC Sampler

O: Dry C Cored W: Asched

Trace 01010%

### Consciousness Density

### Cohesive Consistency

UP: Undisturbed Piston

"We 10 to 20%,"

010 Loose

0-4 Soft 30 + Hard

TP: Test Pit    A: Auger    V: Vane Test

some 20 to 35%.

10-30 Med Dense

4.8 M/Stiff

UT - Undeclared Thesis

and 15,000,000

30-50 Dense  
EC 1. 1000-1500

8-15 Shift

## SUMMARY

Earth Boring 6

Rock Coring

**Samples** \_\_\_\_\_

WOLF NO NS-95

HOLE NO. NS-96  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS				CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	_____	S/S	_____	START	9/29/94	_____
		Size: D _____	_____	3 1/2"	_____	COMPLETE	9/29/94	_____
At _____	after _____ Hours	Hammer Wt _____	_____	300#	_____	TOTAL HRS.		
		Hammer Fall _____	_____	30"	BIT	BORING FOREMAN	J. Medeiros	
						INSPECTOR		
						SOILS ENGR.		

[illegible]

USEU

CASING THEN

### Proportions Used

140lb WI x 30 fall on 2 OD Samplers

Price 01010%

**Cohesive Consistency**

... 20%

0 10 Loose

0-4    Soft    30 + Hard

some 201035%

10:30 Med Dense  
10:50 Dense

4-8 M/Stff  
2-15 2-14

and 35 to 50%

50+ Very Dense

8-15 SUFF  
15-30 V-SUFF

## SUMMARY

Earth Boring 8

Rock Coring \_\_\_\_\_

Samples 4

HOLE NO NS-90

HOLE NO. NS-97  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 9/29/94	_____
			Size D _____	3 1/2"	_____	COMPLETE 9/29/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	
			Hammer Fall _____	30"	BIT	BORING FOREMAN R. Allen	
						INSPECTOR _____	
						SOILS ENGR. _____	

[illegible]

USED

CASING THEN

### Proportions Used

140lb Wt x 30 fall on 2 SEC Sampler

Loss 0.100%

Cohesionless Density

Cohesive Consistency

1010 2.32

0-0 Loose

Q. 3. Soft 30 + hard

TYPE 3010-1504

10 30 Med Dense

4.8 M/Siff

and 35 to 50%

30-50 Dense  
50+ Very Dense

8-15 Staff

## SUMMARY

Earth Boring 6

### Rock Coring

Samples \_\_\_\_\_

HOLE NO NS-9

HOLE NO. NS-98  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____		<u>S/S</u>	_____	START <u>9/29/94</u>	_____
		Size D _____		<u>3 1/2"</u>	_____	COMPLETE <u>9/29/94</u>	_____
At _____	after _____ hours	Hammer Wt _____		<u>300#</u>	BIT	TOTAL HRS.	
		Hammer Fall _____		<u>30"</u>	_____	BORING FOREMAN <u>J. Medeiros</u>	
						INSPECTOR _____	
						SOILS ENGR. _____	

[illegible]

USED \_\_\_\_\_ CASING THEN \_\_\_\_\_

140lb Wt x 30' fall on 2" O.D. Sampler

### Conectionless Density

0 10 Loose

10:30 Med Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

0-4    Soft    30 + Hard

4-8 M/Siff

8-15 Shift  
15-30 V-SMA

## SUMMARY

Earth Boring 6'

Rock Coring \_\_\_\_\_

Samples 3

HOLE NO NS-98

MOLE NO. NS-99  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 9/29/94	_____
		Size _____	3 1/2"	_____	COMPLETE 9/29/94	_____
At _____	after _____ hours	Hammer Wt _____	300#	BIT _____	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

USED CASING THEN

### Proportions Used

Price 010109.

0.1020%

some 201035%

and 35 to 50%

### Cohesionless Density

0 10 Loose

10 30 Med Dense

50-50 Dense  
50-50 Very Dense

Cohesive Consistency

C-4 Soft

4-A M/Shift

8-15 Staff  
16-20 5-14

## SUMMARY

Earth Boring 6'

Rock Coring \_\_\_\_\_

Samples 3

NOI F NO NS-9

HOLE NO. NS-100  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	<u>S/S</u>	_____	START <u>9/29/94</u>	_____
			Size : D _____	<u>3 1/2"</u>	_____	COMPLETE <u>9/29/94</u>	_____
			Hammer Wt _____	<u>300#</u>	_____	TOTAL HRS _____	
At _____	after _____	Hours	Hammer Fall _____	<u>30"</u>	_____	BORING FOREMAN <u>J. Medeiros</u>	
					BIT	INSPECTOR _____	
						SOILS ENGR. _____	

[illegible]

Sample Type  
D Dry C-Cored W/Asphlt  
UP Undisturbed Union  
TP Test Pit A Auger V Vane Test  
UT Undisturbed Thinwall

Proportions Used	
trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

140lb Wt x 30' fall on 2" O.D. Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft 30' + Hard
10-30 Med Dense	4-8 M/Stiff
30-50 Dense	8-15 Stiff
50+ Very Dense	15-30 V-Stiff

SUMMARY	
Earth Boring	6
Rock Coring	3
Samples	3

HOLE NONS-100

HOLE NO. NS-101  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____		<u>S/S</u>	_____	START <u>9/29/94</u>	_____
		Size: D _____		<u>3½"</u>	_____	COMPLETE <u>9/29/94</u>	_____
At _____	after _____ Hours	Hammer Wt _____		<u>300#</u>	BIT _____	TOTAL HRS.	
		Hammer Fall _____		<u>30"</u>	_____	BORING FOREMAN <u>R. Allen</u>	
						INSPECTOR _____	
						SOILS ENGR. _____	

[illegible]

GROUND SURFACE TO		USED	CASING	THEN				
Sample Type		Proportions Used	140lb WT x 30 ft on 2" O.D.	Sampler				SUMMARY
D-Dry C Cored W-Washed	trace	0 to 10%	Cohesionless	Density	Cohesive	Consistency		Earth Boring <u>6</u>
UP - Undisturbed Piston	fine	10 to 20%	0-10 Loose	0-4	Soft	30 + Hard		Rock Coring
TP - Test Pit A Auger V-Vane Test	some	20 to 35%	10-30 Med Dense	4-8	M/Shift			Samples <u>3</u>
UT - Undisturbed Thinwall	and	35 to 50%	30-50 Dense	8-15	Shift			HOLE NONS-10
			50+ Very Dense	15-30	V-Shift			



HOLE NO. NS-102  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

CASING	SAMPLER	CORE BAR
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33
34	34	34
35	35	35
36	36	36
37	37	37
38	38	38
39	39	39
40	40	40
41	41	41
42	42	42
43	43	43
44	44	44
45	45	45
46	46	46
47	47	47
48	48	48
49	49	49
50	50	50
51	51	51
52	52	52
53	53	53
54	54	54
55	55	55
56	56	56
57	57	57
58	58	58
59	59	59
60	60	60
61	61	61
62	62	62
63	63	63
64	64	64
65	65	65
66	66	66
67	67	67
68	68	68
69	69	69
70	70	70
71	71	71
72	72	72
73	73	73
74	74	74
75	75	75
76	76	76
77	77	77
78	78	78
79	79	79
80	80	80
81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

Type

**S/S**

**CORE BAR**

START 9/29/94 \_\_\_\_\_

COMPLETE 9/29/94 \_\_\_\_\_

TOTAL HRS. 100

**BORING FOREMAN** J. Medeiros

INSPECTOR \_\_\_\_\_  
SPECIAL AGENT \_\_\_\_\_

SOILS ENGA. \_\_\_\_\_

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	6-12	To 12-18				No	Pen	R
		0'-2'	D	Blows not Taken					Brown SAND & Gravel	1	24	'2
		2'-4'	D	"	"	"			" "	2	24	'1
		4'-6'	D	"	"	"			" "	3	24	'1
								5.5'				
								6'	PEAT			
									Bottom of Boring 6'			

151

ASING THEN

### Abbreviations used

100% 100%

11.2 01.2.31

some 20 to 35%

1901 35 to 50%

40 lb Wt + 30' fall on 2.00 Sampler

Unitless Density | Cohesive Consistency

0 10050

30 Med Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

0-4 Soft 30 + 400

4 R M/Stiff

8-15 Shift  
8-10 M-SHIFT

## SUMMARY

Earth Bearing 61

Rock Coring

Samples 3

HOLE NO NS-10

HOLE NO. NS-103  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 9/29/94	_____
		Size D _____	3 1/2"	_____	COMPLETE 9/29/94	_____
At _____	after _____ hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN <u>R. Allen</u>	
				BIT _____	INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

۱۳۳۳

CASING THEN

### Proportions Used

14015 WI x 30 fall on 2 00 Sampler

were 100%.

### Cohesionless Density

Cohesive Consistency

1.0 1020%

C 10      loose

0 4 Soft 30 + Hard

same 2010 35%

10:30 Med Dense

4.8 M/Sht

35 to 50%

50 50 Dense  
50 + Very Dense

8:15 Sun  
5:30 V-Sun

## SUMMARY

Earth Bearing 6

Rock Coring \_\_\_\_\_

Samples 3

HOLE NONS-10

HOLE NO. NS-104  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

[illegible]

GROUND SURFACE TO		USED		CASING THEN		SUMMARY	
Sample Type	Proportions used	40lb Wt x 30" fall on 2" O.D. Sampler	Cohesionless Density	Cohesive Consistency	Earth Boring	Rock Boring	Samples
Dry, Cored, Well-sorted	fine 10 to 10%	1-0 Loose	2-4 Soft	30+ hard			
UP Undisturbed Material	fine 10 to 20%	10-30 Med Dense	4-8 M/Stiff				
TP Test Pit, A Auger, & Cone Test	same 20 to 35%	30-50 Dense	8-15 Stiff				
UP Undisturbed Thinwall	and 35 to 50%	50+ Very Dense	15-30 V-Stiff				

HOLE NONS-104

HOLE NO. NS-105  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	_____	_____	START	9/30/94
			Auger	S/S	_____	COMPLETE	9/30/94
			Size D	1-3/8"	_____	TOTAL HRS.	
At _____	after _____	Hours	Hammer Wt	300#	_____	BORING FOREMAN	R. Allen
			Hammer Fall	30"	_____	INSPECTOR	
					BIT	SOILS ENGR.	

[illegible]

USED

CASING THEN

140lb WT x 30 full on 2 00 Sampler

### Proportions Used

5118 10 to 20%

same 2010 15%

and 35 to 50%

140lb WT x 30 full on 2 O O Sampler

### Cohesionless Density

00 Loose

10-30 Med Dense

30-50 Dense  
50+ Very Dense

### Cohesive Consistency

0-4 Soft 30 + Hard

4.8 M/Suff

8-15 Shift  
8-10 V Shift

## SUMMARY

Earth Binding 8

Rock Coring

Samples 2

HOLE NO NS-105

TO <u>Texas Instruments</u>	ADDRESS <u>Attleboro, Mass.</u>	WOLE NO. <u>NS-106</u>
PROJECT NAME <u>Low Level Radiation Invest</u>	LOCATION <u>Attleboro, Mass.</u>	LINE & STA. _____
REPORT SENT TO <u>above</u> / <u>Bldg. #5</u>	PROJ NO _____	OFFSET _____
SAMPLES SENT TO <u>Taken at Site</u>	OUR JOB NO <u>95-41</u>	SURF. ELEV. _____

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
Air _____	after _____ hours	Type _____		<u>S/S</u>	_____	START <u>9/29/94</u>	_____
		Size D _____		<u>3 1/2"</u>	_____	COMPLETE <u>9/29/94</u>	_____
Air _____	after _____ hours	Hammer Wt _____		<u>300#</u>	BIT _____	TOTAL HRS. _____	
		Hammer Fall _____		<u>30"</u>	_____	BORING FOREMAN <u>J. Medeiros</u>	
						INSPECTOR _____	
						SOILS ENGR. _____	

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USE:

CASING THEN

Sample Type

### Proportions Used

14010 WI x 30' fall on 2 00 Sampler

0 Dry Colored & Approx

trace 11.10(0%)

### Cationless Density

Cohesive Consistency

LD undisturbed eggs

the 0 to 20%

Loose

3-4 Soft 30 + Hard

10- Test For A Dancer / Time Test

some 201035%

10 30 Med Dense

4-8 M/Sill

UT Undisturbed Throughfall

and 35 to 50%

30 50 Dense  
50 Very Dense

8-15 SMH  
15-10 V-SMH

## SUMMARY

Earth Boring 8

Rock Coring

Samples 4

HOLE NO NS-10

HOLE NO. NS-107  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 9/30/94	_____
			Size: D _____	1-3/8"	_____	COMPLETE 9/30/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	BIT _____	TOTAL HRS. _____	_____
			Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	_____
						INSPECTOR _____	_____
						SOILS ENGR. _____	_____

[illegible]

USE D

CASING THEN N

### Materials Used

140 lb WI x 30" fall on 2" O.D. Sampler

1992 1110-097

Cohesionless Density

Cohesive Consistency

116 117 2000

0 :0 Loose

0-4 Soft 30 + Hard

1990 20 to 35%

10:30 Med Dense

4.8 M/Shift

and 35 to 50%

30-50 Dense  
50+ Very Dense

8-15      Stiff

## SUMMARY

Earth Boring 8

Rock Coring

Samples \_\_\_\_\_

HOLE NO NS-107

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO. NS-108  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	<u>S/S</u>	_____	START <u>9/29/94</u>	<u>8:00</u>
At _____	after _____ Hours	Size: D _____	<u>1-3/8"</u>	_____	COMPLETE <u>9/29/94</u>	<u>8:00</u>
		Hammer Wt _____	<u>300#</u>	BIT _____	TOTAL HRS. _____	
		Hammer Fall _____	<u>30"</u>		BORING FOREMAN <u>J. Medeiros</u>	
					INSPECTOR _____	
					SOILS ENGR. _____	

### LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist.	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From 0-6	6-12	12-18				No	Pen	Re
									<u>4" Asphalt</u>			
									(Did not sample until 4')			
		<u>4'-6'</u>	<u>D</u>	<u>Blows not Taken</u>					<u>Brown silty fine SAND</u>	<u>1</u>	<u>24'</u>	<u>12'</u>
		<u>6'-8'</u>	<u>D</u>	<u>"</u>	<u>"</u>	<u>"</u>			<u>Brown Gray silty fine SAND</u>	<u>2</u>	<u>24'</u>	<u>20'</u>
								<u>8'</u>				
									<u>Bottom of Boring 8'</u>			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

#### Sample Type

D: Dry O: Cored W: Wet

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

UT: Undisturbed Thinwall

#### Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

and 35 to 50%

140 lb Wt & 30' fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

50+ Very Dense

Cohesive Consistency

0-4 Soft 30+ Hard

4-8 M/Stiff

8-15 Stiff

15-30 V-Stiff

#### SUMMARY

Earth Boring 8'

Rock Coring \_\_\_\_\_

Samples 2

HOLE NO NS-108

HOLE NO. NS-109  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 9/30/94	_____
		Size: D _____	1-3/8"	_____	COMPLETE 9/30/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	BIT _____	TOTAL HRS. _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	
					INSPECTOR _____	
					SOILS ENGR. _____	

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	R
									(Augered to 4')			
		4'-6'	D	Blows not Taken					Wet, Dark Brown type of PEAT to Brown silty fine SAND	1	24'	24'
		6'-8'	D	"	"	"			Wet, Gray silty fine SAND	2	24'	24'
								8'				
									Bottom of Boring 8'			

USE IT:

CASING THEN

### Proportions Used

Trace 11 to 10%

1990 10-20%

none	10 to 20%
some	20 to 35%

and 35 to 50%

140lb Wt x 30" fall on 2" O.D. Sampler

### Cohesionless Density

010 Loose

10:30 Med Dense

30 50 Dense  
50 + Very Dense

Cohesive Consistency

0 4 Soft 30 + Hard

4.8 M/Suff

8-15 Staff  
8-30 V-SMA

## SUMMARY

Earth Boring 8'

Rock Coring \_\_\_\_\_

Samples 2

HOLE NO NS-109



HOLE NO. NS-110  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 9/30/94	_____
			Size: D _____	1-3/8"	_____	COMPLETE 9/30/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	BIT	TOTAL HRS. _____	_____
			Hammer Fall _____	30"	_____	BORING FOREMAN J. Medeiros	_____
						INSPECTOR _____	_____
						SOILS ENGR. _____	_____

[illegible]

USE ( )

"CASING THEN

### Proportions Used

100% 0.0000%

the 1990s.

some 20 to 45%.

and 35 to 50%

140lb Wt x 30' Fall on 2" O.D. Sampler

### Cohesionless Density

0 0 Loose

10 30 Med Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

0-4 Sc<sup>4+</sup>

4.8 M/S.11

8-15 Stiff  
15-20 V-Stiff

## SUMMARY

Earth Boring 8'

Rock Coring

Samples 2

HOLE NONS-11C

HOLE NO. NS-111  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 9/30/94	_____
		Size: D _____	1-3/8"	_____	COMPLETE 9/30/94	_____
At _____	after _____ hours	Hammer Wt. _____	300#	BIT _____	TOTAL HRS. _____	_____
		Hammer Fcl. _____	30"	_____	BORING FOREMAN <u>R. Allen</u>	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

USED

CASING THEN

### Proportions Used

140lb Wt x 30" fall on 2 DD Sampler

Trace 0.0010%

Cohesionless Density

Cohesive Consistency

10 to 20%

010 Loose

0.4 Soft 30 + word

some 20 to 35%.

10-30 Med. Dense

4.8 M/Suff

and 35 to 50%

30-50 Dense  
50+ Very Dense

8-15 Sulf  
15-20 V-Sulf

## SUMMARY

Earth Boring 8'

Rock Coring

Samples 2

HOLE NO NS-111

HOLE NO. NS-111  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 9/30/94	_____
			Size D _____	1-3/8"	_____	COMPLETE 9/30/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL HRS _____	
			Hammer Fall _____	30"	_____	BORING FOREMAN <u>R. Allen</u>	
					BIT	INSPECTOR _____	
						SOILS ENGR. _____	

[illegible]

356

CASING THEN

140lb wt x 30 ft on 2 00 Sampler

### Compressionless Density

Loose

10 30 Med Dense  
10 60 Dense

30-50 Dense  
50+ Very Dense

### Cohesive Consistency

3000 5000 30 + 4000

48 M/SIII

8-15 Shift  
15-30 Shift

## SUMMARY

Earth Boring 8

Rock Coring \_\_\_\_\_

Samples 2

HOLE NO NS-111

HOLE NO. NS-112  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 9/30/94	_____
		Size D _____	1-3/8"	_____	COMPLETE 9/30/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	BIT	TOTAL HRS. _____	
		Hammer Fg _____	30"	_____	BORING FOREMAN J. Medeiros	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

USE:

CASING THEN

140 lb Wt x 30' fall on 2" O.D. Sampler

### Cohesionless Density

0 0 Loose

10-30 Med Dense

30-50 Dense  
50+ Very Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-B M/Suff

8-15 Stiff  
15-30 W. Side

Earth Boring 8

### Rock Coring

Samples 2

HOLE NO NS-112

HOLE NO. NS-113  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START	9/30/94
			Auger	1-3/8"	_____	COMPLETE	9/30/94
			Size i D _____	300#	_____	TOTAL HRS.	_____
At _____	after _____	Hours	Hammer Wt _____	30"	BIT	BORING FOREMAN	R. Allen
			Hammer Fall _____			INSPECTOR	_____
						SOILS ENGR.	_____

[illegible]

GROUND SURFACE TO _____		USED _____	CASING THEN _____	SUMMARY	
Sample Type	Proportions Used	140lb Wt x 30" fall on 2" O.D. Sampler		Earth Boring	8
D-Dry C-Cored W. Auger	trace 0% to 10%	Cohesiveness Density	Cohesive Consistency	Rock Coring	
UP: Undisturbed Station	little 10% to 20%	0-10 Loose	0-4 Soft 30+ Hard	Samples	3
TP: Test Pit A-Auger V-Vane Test	some 20% to 35%	10-30 Med Dense	4-8 M/Stiff	HOLE NONS-113	
UT: Undisturbed Thinwall	and 35% to 50%	30-50 Dense	8-15 Stiff		
		50+ Very Dense	15-30 V. Stiff		

HOLE NO. NS-114  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	DATE	TIME
At _____	after _____ Hours	Type _____	_____	S/S	_____	START	10/3/94
		Size - O _____	_____	3 1/2"	_____	COMPLETE	10/3/94
		_____	_____	300#	_____	TOTAL MRS	_____
At _____	after _____ Hours	Hammer Wt _____	_____	30"	BIT	BORING FOREMAN	J. Medeiros
		Hammer Fall _____	_____	_____	_____	INSPECTOR	_____
						SOILS ENGR.	_____

LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Re
		0'-2'	D	Blows not Taken					4" Asphalt	1	24	1
		2'-4'	D	"	"	"			Brown SAND & Gravel	2	24	6
								4'	" "			
									Bottom of Boring 4'			

GROUND WATER TO

10

CASING THE N

Sample Type

### Impurities Used

140lb WT - 1 fall on 2 10 Sampler

## SUMMARY

Only a Cored A. ...

Page 11052

### Cohesionless Density

Cohesive Consistency

## Earth Boring

4th - undisturbed - 100%

811P 8119200%

010 Loose

4 Soft

### Rock Coring

1st Test For A Auger V-Vane Test

Source: 2010, 35%

10 50 Med Dense

4 8 M/Shift

**Samples** \_\_\_\_\_

UT - Undisturbed Thinwall

and 15,000/

50-50 Dense  
50-50 Very Dense

A-15      S111

NO: F NONG-11/

HOLE NO. NS-115  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	_____	S/S	_____	START 10/3/94	_____
		Size: D _____	_____	3 1/2"	_____	COMPLETE 10/3/94	_____
At _____	after _____ hours	Hammer Wt _____	_____	300#	_____	TOTAL HRS. _____	_____
		Hammer Fall _____	_____	30"	_____	BORING FOREMAN J. Medeiros	_____
					BIT	INSPECTOR _____	_____
						SOILS ENGR. _____	_____

[illegible]

GROUND SURFACE TO	USED	CASING	THEN	
Sample Type	Proportions	140lb WT + 30' (at on 2' x 3' Sampler)		<u>SUMMARY</u>
D Dry C Cored & Air-dried	trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Earth Boring <u>3'</u>
UP Undisturbed Piston	fine 10 to 20%	0-0 Loose	2-4 Soft 30' + Hard	Rock Boring
TP Test Pit A-Auger & Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	Samples <u>2</u>
UT Undisturbed Thinwall	and 35 to 50%	30-50 Dense	8-15 Stiff	
		50+ Very Dense	15-30 V. Stiff	

HOLE NONS-115

100 WATER STREET

EAST PROVIDENCE, R. I.

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO aboveBldg. #5PROJ. NO. SAMPLES SENT TO Taken at SiteOUR JOB NO. 95-41

DATE

HOLE NO. NS-116LINE & STA. OFFSET SURF. ELEV. 

Date

Time

## GROUND WATER OBSERVATIONS

At  after  Hours

Type

CASING

SAMPLER

CORE BAR

START 11/23/94COMPLETE 11/23/94TOTAL HRS. BORING FOREMAN R. AllenINSPECTOR SOILS ENGR. At  after  Hours

Size: D

Hammer Wt

Hammer Fall

S/S3 1/2"300#30"

BIT

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Re
		0'-2'	D	Blows not Taken					Moist, Brown fine to medium SAND & coarse Gravel, trace silt	1	24	'24
		2'-4'	D	"	"	"			Moist, Gray silty fine SAND, trace coarse gravel	2	24	'18
		4'-6'	D	"	"	"			Moist, Brown Gray silty fine SAND	3	24	'24
								6'	Bottom of Boring 6'			

GROUND SURFACE TO

USED

CASING

THEN

Sample Type

O Dry, C Cores, W Washed

UP Undisturbed Piston

TP Test Pit, A Auger, V Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + hard

4-8 M/Stiff

8-15 C.Stiff

SUMMARY

Earth Boring 6'Rock Coring 3Samples 3



DATE \_\_\_\_\_  
HOLE NO NS-117  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ. NO. \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

HOLE NO. NS-117  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 11/23/94	_____
		Size I D _____	3 1/2"	_____	COMPLETE 11/23/94	_____
		Hammer Wt _____	300#	_____	TOTAL HRS. _____	
At _____	after _____ Hours	Hammer Fall _____	30"	_____	BORING FOREMAN J. Medeiros	
				BIT	INSPECTOR _____	
					SOILS ENGR. _____	

### LOCATION OF BORING

[illegible]

1 1 8 9 4 5

GROUND SURFACE TO	USED	CASING	THEN	SUMMARY
Sample Type	Proportions Used	140lb WT + 30' fall on 2" O.D. Sampler		
2" Dry C-Cored W/ Washed	trace 0 to 10%	Cohesionless Density	Cohesive Consistency	Earth Boring 5
UP - Undisturbed Piston	fine 10 to 20%	0-10 Loose	0-4 Soft 30 + Hard	Rock Coring
TR Test Pit - A Auger - Vane Test	same 20 to 35%	10-30 Med Dense	4-8 M/Stiff	Samples 3
		30-60 Dense	8-15 C/Stiff	

100 WATER STREET

EAST PROVIDENCE, R I

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO aboveBldg. #5

PROJ. NO. \_\_\_\_\_

SAMPLES SENT TO Taken at SiteOUR JOB NO. 95-41

DATE \_\_\_\_\_

HOLE NO. NS-118

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

Size I D \_\_\_\_\_

S/S

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Hammer Wt \_\_\_\_\_

3 1/2"

Hammer Fall \_\_\_\_\_

300#

BIT \_\_\_\_\_

30"

Date \_\_\_\_\_ Time \_\_\_\_\_

START 11/23/94COMPLETE 11/23/94

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN R. Allen

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	12-18				No	Pen	Ret
		0'-2'	D	Blows not Taken					Moist, Brown fine to medium SAND & coarse Gravel, trace silt	1	24"	24"
		2'-4'	D	"	"	"			" "	2	24"	18"
		4'-6'	D	"	"	"			Moist, Brown Gray fine to medium SAND & coarse Gravel trace silt	3	24"	24"
								6'	Bottom of Boring 6'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type

Proportions Used

140lb Wt + 30 fall on 2 00 Sampler

SUMMARY

D Dry C Cored W: Ashed

trace 0 to 10%

Cohesionless Density

Cohesive Consistency

Earth Boring 6'

UP Undisturbed Piston

little 10 to 20%

0-10

Loose

0-4

Soft

30 + Hard

Rock Coring

TP: Test Pit A: Auger V: Vane Test

some 20 to 35%

10-30

Med Dense

4-8

M/Stiff

Samples 3

DATE \_\_\_\_\_  
HOLE NO. NS-119  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S _____	_____	START	11/23/94 _____
		Size ID _____	3 1/2" _____	_____	COMPLETE	11/23/94 _____
At _____	after _____ Hours	Hammer Wt _____	300# _____	BIT _____	TOTAL HRS.	_____
		Hammer Fall _____	30" _____	_____	BORING FOREMAN	J. Medeiros
					INSPECTOR	_____
					SOILS ENGR.	_____

[illegible]

1500

CASING THE N

Sample Type  
D-Dry C-Cored W-Water  
U-Undisturbed Piston  
T-Test Pit A-Auger V-Vane Test

Proportions Used	
Trace	0 to 10%
Low	10 to 20%
Some	20 to 35%

140lb Wt x 30" fall on 2" O.D. Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft 30 + Hard
10-30 Med Dense	4-8 M/Stiff
30-50 Dense	8-15 Stiff

**SUMMARY**  
Earth Boring 6  
Rock Coring 3  
Samples 3



100 WATER STREET

EAST PROVIDENCE, R. I.

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO aboveBldg. #5

PROJ NO

SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

DATE

HOLE NO. NS-121

LINE &amp; STA.

OFFSET

SURF. ELEV.

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type

Size: D

Hammer Wt

Hammer Fall

CASING

SAMPLER

CORE BAR

S/S3 1/2"300#30"

BIT

Date

Time

START 11/23/94COMPLETE 11/23/94

TOTAL HRS.

BORING FOREMAN J. Medeiros

INSPECTOR

SOILS ENGR.

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From	To					No	Pen	R
				0-6	6-12	12-18						
		0'-2'	D	Blows not Taken					Brown SAND & Gravel	1	24	2
		2'-4'	D	"	"	"			" "	2	24	2
		4'-6'	D	"	"	"			" "	3	24	2
								6'	Bottom of Boring 6'			

GROUND SURFACE TO

USED

CASING THEN

Sample Type

D: Dry C: Cored W: Wet

UP: Undisturbed Piston

T: Test Pit A: Auger V: Vane Test

Proportions Used

trace 0 to 10%

fine 10 to 20%

some 20 to 35%

140 lb Wt &amp; 30 fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-60 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-16 Stiff

SUMMARY

Earth Boring 6'

Rock Coring

Samples 3

DATE \_\_\_\_\_  
HOLE NO NS-122  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 11/23/94	_____
			Size: D _____	3 1/2"	_____	COMPLETE 11/23/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL MRS. _____	_____
			Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	_____
					BIT	INSPECTOR _____	_____
						SOILS ENGR. _____	_____

LOCATION OF BORING

[illegible]

GROUND SURFACE TO \_\_\_\_\_ USED \_\_\_\_\_ "CASING THEN \_\_\_\_\_

Sample Type  
Dry, Colored, Washed  
Undisturbed Piston  
16in Test Pit, Auger, V-Vane Test

Proportions used

None	0 to 10%
Little	0 to 20%
Some	20 to 35%

140lb WT x 30 fall on 2" O.D. Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft 30 + Hard
10-30 Med Dense	4-8 M/Stiff
30-60 Dense	8-12 H/Stiff
60-80 Very Dense	12-16 Rigid
80-100 Extremely Dense	16-20 Very Rigid

SUMMARY

Earth Boring 6

Rock Coring       

Samples 3

EAST PROVIDENCE R I

DATE \_\_\_\_\_  
HOLE NO. NS-123  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO. \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 11/23/94	_____
		Size ID _____	3 1/2"	_____	COMPLETE 11/23/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	
		Hammer Fall _____	30"	BIT _____	BORING FOREMAN J. Medeiros	
					INSPECTOR _____	
					SOILS ENGR. _____	

### LOCATION OF BORING

[illegible]

GROUND SURFACE TO \_\_\_\_\_ USED \_\_\_\_\_ CASING THEN \_\_\_\_\_

Sample Type  
 O: Dry C: Cored W: Washed  
 UP: Undisturbed Pison  
 TP: Test Pit A: Auger V: Vane Test

Proportions used	
Trace	0 to 10%
Little	10 to 20%
Some	20 to 35%

140lb Wt + 30' fall on 2 00 Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft 30 + hard
10-30 Med Dense	4-8 M/Stiff
30-60 Dense	8-15 C. St

SUMMARY  
Earth Boring 6"  
Rock Coring —  
Samples I

DATE \_\_\_\_\_  
HOLE NO. NS-124  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 11/23/94	_____
		Size I D _____	3 1/2"	_____	COMPLETE 11/23/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	BIT	TOTAL MRS. _____	_____
		Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

GROUND SURFACE TO \_\_\_\_\_ USED \_\_\_\_\_ CASING THEN \_\_\_\_\_

Sample Type  
D: Dry C: Cored W: Wet  
UP: Undisturbed Pison  
TP: Test Pit A: Auger V: Vane Test

Proportions Used	
trace	0 to 10%
little	10 to 20%
some	20 to 35%

140lb Wt x 30' fall on 2" O.D. Sampler	
Coneless Density	Cohesive Consistency
0-10 Loose	0-4 Soft 30+ Hard
10-30 Med Dense	4-8 M/Stiff

SUMMARY:  
Earth Boring 6'  
Rock Coring         
Samples 3



EAST PROVIDENCE, R I

DATE \_\_\_\_\_  
HOLE NO. NS-125  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 11/23/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 11/23/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	BIT	TOTAL HRS _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN J. Medeiros	
					INSPECTOR _____	
					SOILS ENGR. _____	

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED

"CASING THEN

Sample Type

### Proportions used

140lb WI + 30" tall on 2' OD Sampler

## SUMMARY:

D Dry C Cores A A. 15-25

Trace 0 to 0.2%

### Conectionless Density

Cohesive Consistency

Earth Boring

UP Undisturbed Position

Rate : 0 to 20%

0 10 Loose

0-4 Soft 30 + Hard

Rock Coring \_\_\_\_\_

TP: Test Pt    A: Auger    V: Vane Test

some 20 to 35%

10:30 Med Dense

4 8 M/Siff

Samples 3

EAST PROVIDENCE R I

DATE

HOLE NO NS-126

LINE &amp; STA.

OFFSET

SURF. ELEV.

to Texas Instruments

ADDRESS Attleboro, Mass.

PROJECT NAME Low Level Radiation Invest

LOCATION Attleboro, Mass.

REPORT SENT TO above / Bldg. #5

**PROJ NO**

SAMPLES SENT TO            Taken at Site

OUR JOB NO 95-41

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 11/23/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 11/23/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	_____
		Hammer Fall _____	30"	BIT _____	BORING FOREMAN R. Allen	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

0500

CASING THEN

Sample Type

### Proportions Used

14015 WI + 30" fall on 2 CD Sampler

D. Dwyer & Co. Ltd. & Associates

Page 010109

### Dimensionless Density

Cohesive Consistency

UP - Indistinct fiction

1992-1993

00 Loose

0-4 Soft 30 + Hard

IF: Test for A Auger V-Vine Test

some 2018 15%

10 30 Med Dense

4.8 M/Stiff

## SUMMARY

Earth Boring 6'

Rock Coring \_\_\_\_\_

Samples 3



EAST PROVIDENCE R I

DATE \_\_\_\_\_  
HOLE NO. NS-128  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO Above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 11/23/94	_____
			Size D _____	3 1/2"	_____	COMPLETE 11/23/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL HRS.	_____
			Hammer Fall _____	30"	_____	BORING FOREMAN J. Medeiros	_____
					BIT	INSPECTOR _____	_____
						SOILS ENGR. _____	_____

### LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USE2

## CASING

THEN

Sample Type  
 0 Dry C Cored W/ Auger  
 00 Undisturbed Piston  
 10 Test Pit A Auger V-Vane Test

Proportions Used	
trace	0 to 10%
little	10 to 20%
some	20 to 35%

140:0 Wt % 30" Full on 2" O.D. Sampler	
Cohesive Density	Cohesive Consistency
0-10 Loose	0-4 Soft
10-30 Med Dense	4-8 M/Stiff
30-50 Dense	8-15 Stiff

SUMMARY  
Earth Boring 6'  
Rock Coring \_\_\_\_\_  
Samples 3

DATE \_\_\_\_\_  
HOLE NO. NS-129  
LINE & STA \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S	_____	START 11/23/94	_____
			Size ID _____	3 1/2"	_____	COMPLETE 11/23/94	_____
At _____	after _____	Hours	Hammer Wt _____	300#	_____	TOTAL HRS. _____	_____
			Hammer Fall _____	30"	_____	BORING FOREMAN R. Allen	_____
					BIT _____	INSPECTOR _____	_____
						SOILS ENGR. _____	_____

## LOCATION OF BORING

[illegible]

~~OFFICIAL RECORD COPY~~ ~~REL 10~~

1 1 8 9 4 5

GROUND SURFACE TO		USED		CASING		THEN		SUMMARY	
Sample Type		Proportions Used		140lb Wt & 30 ft on 2" O.D. Sampler				Earth Boring	6'
Dry, Coarse, & Shale		Ratio to 6"		Cohesionless Density		Cohesive Consistency		Rock Coring	
UP, mostly, pebbles		fine 10 to 20%		2-40 Loose		0-4 Soft 30 - Hard		Samples	3
Int. Test Pit & Auger & cone test		same 20 to 25%		10-30 Med Dense		4-8 M/Shift			
				30-40 Dense		8-16 S-16			



**SUMMARY**

Earth Boring	6
Rock Coring	1
Samples	1

HOLE NO NS-132

LINE &amp; STA

OFFSET

SURF. ELEV.

TO Texas Instruments

ADDRESS

Attleboro, Mass.PROJECT NAME Low Level Radiation Invest

LOCATION

Attleboro, Mass.REPORT SENT TO above

Bldg. #5

PROJ NO

OUR JOB NO 95-41SAMPLES SENT TO Taken at Site

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type

CASING

SAMPLER

CORE BAR

START 11/23/94COMPLETE 11/23/94

TOTAL HRS

BORING FOREMAN R. Allen

INSPECTOR

SOILS ENGR

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Size D

Hammer Wt

Hammer Fall

S/S

3 1/2"

300#

30"

BIT

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From	To					No	Pen	Re
		0'-2'	D	Blows not Taken					Dry, Brown silty fine SAND & coarse Gravel	1	24"	2
		2'-4'	D	"	"	"			Moist, Brown Gray fine SAND & coarse Gravel, trace silt	2	24"	1
		4'-6'	D	"	"	"			Moist to Wet, Brown fine to medium SAND & coarse Gravel	3	24"	1
								6'	Bottom of Boring 6'			

GROUND WATER

DATE

Casing

Type

Sample Type

Location

4.0 Wt &amp; 3.0 ft on 2.00 Sampler

Moisture Density

Consistency

SUMMARY

Earth Boring 6'

Rock Coring

Samples 3

1.0 ft. Sample A. 1.0 ft. Sample B.

1.0 ft. Sample C. 1.0 ft. Sample D.

1.0 ft. Sample E. 1.0 ft. Sample F.

1.0 ft. Sample G. 1.0 ft. Sample H.

1.0 ft. Sample I. 1.0 ft. Sample J.

1.0 ft. Sample K. 1.0 ft. Sample L.

1.0 ft. Sample M. 1.0 ft. Sample N.

1.0 ft. Sample O. 1.0 ft. Sample P.



HOLE NO. NS-133  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 11/28/94	_____
		Size D _____	3 1/2"	_____	COMPLETE 11/28/94	_____
At _____	after _____ Hours	Hammer A' _____	300#	_____	TOTAL HRS _____	_____
		Hammer B' _____	30"	BIT _____	BORING FOREMAN J. Medeiros	_____
					INSPECTOR _____	_____
					SOILS ENGR. _____	_____

[illegible]

CLASING - THEN	
400 Wt. x 300 ton 2" H. Sampler	
Unconsolid. Density	Cohesive Consistency
10 Loose	1-4 Soft 30+ Hard
20-30 Med Dense	4-8 M-Shift
30-40 Dense	8-16 Shift
40+ Very Dense	16-32 M-Shift

**SUMMARY**

Earth Boring	6'
Rock Coring	3'
Samples	3

HOLE NO NS-13

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO NS-134  
LINE & STA \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	_____	_____	S/S	_____	START 11/28/94	_____
_____	_____	Size _____	_____	3 1/2"	_____	COMPLETE 11/28/94	_____
At _____	after _____ hours	Hammer Wt _____	_____	300#	_____	TOTAL HRS _____	_____
_____	_____	Hammer Fg _____	_____	30"	BIT	BORING FOREMAN <u>R. Allen</u>	_____
						INSPECTOR _____	_____
						SOILS ENGR. _____	_____

LOCATION OF BORING

[illegible][illegible]

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
HOLE NO NS-135  
LINE & STA \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF ELEV. \_\_\_\_\_

<u>GROUND WATER OBSERVATIONS</u>						<u>CASING</u>	<u>SAMPLER</u>	<u>CORE BAR</u>	<u>DATE</u>	<u>TIME</u>
A1 _____	after _____ hours	Type _____		S/S	_____	START	11/28/94	_____	G.M.	
		SIZE D _____		3½"	_____	COMPLETE	11/28/94	_____	P.M.	
		Hammer A' _____		300#	_____	TOTAL MRS.				
A' _____	after _____ hours	Hummer B' _____		30"	BIT	BORING FOREMAN	R. Allen			
		Hummer Fd' _____				INSPECTOR				
						SOILS ENGR.				

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6 in Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard ness, Drilling time, seams and etc	SAMPLE		
				From	To					No	Pen	Rec
		0'-2'	D	Blows not Taken					Dry, Brown silty fine to medium SAND, trace coarse gravel " becomes Wet  " becomes Dry	1	24	'22
		2'-4'	D	"	"	"				2	24	'12
		4'-6'	D	"	"	"				3	24	'24
								6'		Bottom of Boring 6'		

FOUND SURFACE TO Sample Type Dry, Filled, W. S. 100 100% Moist, bed 100 100% Filled, W. S. 100 100% Filled, W. S. 100		CASING 140lb Wt. 30' for on 2 140lb Wt. 30' for on 2 140lb Wt. 30' for on 2 140lb Wt. 30' for on 2		THEN 140lb Wt. 30' for on 2 140lb Wt. 30' for on 2 140lb Wt. 30' for on 2 140lb Wt. 30' for on 2		SUMMARY Earth Boring 6' R. 10' for on 2 Samples 3 HOLE NO. NS-12	
--	--	--	--	--	--	--	--

TO Texas InstrumentsADDRESS Attleboro, Mass.HOLE NO NS-136PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.

LINE &amp; STA

REPORT SENT TO above / Bldg. #5

PROJ NO

OFFSET

SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

SURF. ELEV.

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At	after	hours	Type	S/S		START	11/28/94
At	after	hours	Size D	3 1/2"		COMPLETE	11/28/94
			Hammer Wt	300#	BIT	TOTAL HRS	
			Hammer Fall	30"		BORING FOREMAN	J. Medeiros
						INSPECTOR	
						SOILS ENGR.	

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Ret
		0'-2'	D	Blows not Taken					Brown SAND & Gravel	1	24	18
		2'-4'	D	"	"	"			" "	2	24	24
		4'-6'	D	"	"	"			" "	3	24	12
								6'	Bottom of Boring 6'			

GROUND SURFACE

ELEV

AS NOTED

Sample Type

D Dry Core W A

W A

Test Test A Auger

Test Test A Auger

Proportions used

None

1/2" 20"

Same 20" 15"

Same 15" 15"

40# Wt x 30" 10" 2" 1" Sampler

Moisture Density Cohesive Consistency

Loose 1-4 Soft 30+ Hard

Med Dense 4-8 M-Stiff

Dense 8-15 Stiff

SUMMARY

Earth Boring 6'

Rock Boring

Samples 3

HOLE NO NS-136

HOLE NO. NS-137  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START 11/28/94	_____
		Size: D _____	3 1/2"	_____	COMPLETE 11/28/94	_____
At _____	after _____ Hours	Hammer Wt _____	300#	_____	TOTAL HRS _____	
		Hammer Fall _____	30"	BIT _____	BORING FOREMAN J. Medeiros	
					INSPECTOR _____	
					SOILS ENGR. _____	

[illegible]

1960

CASING THEN

Proportions Used	
Trace	0 to 10%
Low	11 to 20%
Some	21 to 35%
and	36 to 50%

140lb WT x 30' fall on 2" O.D. Sampler	
Cohesionless Density	Cohesive Consistency
0-10 Loose	0-4 Soft
10-30 Med Dense	4-8 M/Soft
30-50 Dense	8-15 Stiff
50+ Very Dense	15-30 V. Stiff

## SUMMARY

Earth Boring \_\_\_\_\_ 2  
Rock Coring \_\_\_\_\_ 1  
Samples \_\_\_\_\_ 1

HOLE NONS-137

HOLE NO. NS-138  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BURING \_\_\_\_\_

[illegible]

HOLE NO. NS-139  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ Hours	Type _____	S/S	_____	START	11/30/94
		Size: D _____	3 1/2"	_____	COMPLETE	11/30/94
At _____	after _____ Hours	Hammer: _____	3000	_____	TOTAL HRS.	
		Hammer falls _____	30"	BIT	BORING FOREMAN	P. Vieira
					INSPECTOR	
					SOILS ENGR.	

[illegible]

GROUND SURFACE TO	USED	PLACING	THEN	SUMMARY
Sample Type	Proportions Used	40lb WT + 30" Fall on 2" O.D.	Sampler	Earth Boring
D Dry, C Coated, A Sealed	fine 0 to 100%	Cohesionless Density	Cohesive Consistency	Rock Coring
off Undersized Grains	fine 10 to 20%	0-10 Loose	0-4 Soft 30 + Hard	Samples
70% Test Pass A Aggreg. v. Vane Test	some 20 to 35%	10-30 Med Dense	4-8 M/Stiff	
100% Test Pass B Aggreg. v. Vane Test	some 35 to 50%	30-50 Dense	8-15 Stiff	

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest. LOCATION Attleboro, Mass.  
 REPORT SENT TO above Bldg. #5 PROJ NO \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
 HOLE NO NS-140  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____ after _____ hours	Type _____		S/S		START	11/30/94
At _____ after _____ hours	Size D _____		3 1/2"		COMPLETE	11/30/94
	Hammer Wt _____		300#	BIT	TOTAL HRS	
	Hammer Fall _____		30"		BORING FOREMAN	P. Vieira
					INSPECTOR	
					SOILS ENGR	

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depth from top	Type of Sample	Blows per 6 in Sampler			Moisture Density or Consist	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				0-6"	6-12"	12-18"				No	Pen	Re
		0'-2'	D	Blows not Taken					Dark Brown fine to medium SAND	1	24'	2
		2'-4'	D	"	"	"			Light Brown fine to medium SAND	2	24'	2
		4'-6'	D	"	"	"			" "	3	24'	2
								6'	Bottom of Boring 6'			

GROUND SURFACE TO	USED	CASING	THEN	SUMMARY
Sample Type	Proportions used	140lb Wt x 30' fall on 2" ID Sampler		Earth Boring <u>6'</u>
D-Dry C-Cored W. Sealant	Trace 10 to 15%	Cohesiveness Density	Cohesive Consistency	Rock Coring
EP Undisturbed Sample	fine 10 to 20%	0-30 Loose	0-4 Soft 30+ Hard	Samples <u>3</u>
TP Test Pit A Auger & Vane Test	coarse 20 to 35%	10-30 Med Dense	4-8 M-Stiff	
		30-50 Dense	8-15 Stiff	



HOLE NO NS-141  
LINE & STA \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	_____	S/S	_____	START 11/30/94	_____
		Size: D _____	_____	3 1/2"	_____	COMPLETE 11/30/94	_____
At _____	after _____ hours	Hammer Wt _____	_____	300#	_____	TOTAL HRS. _____	_____
		Hammer Fall _____	_____	30"	_____	BORING FOREMAN P. Vieira	_____
					BIT	INSPECTOR _____	_____
						SOILS ENGR. _____	_____

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Rec
		0'-2'	D	Blows not Taken					Dark Brown fine to medium SAND	1	24	24
		2'-4'	D	"	"	"			Light Brown fine to medium SAND	2	24	20
		4'-6'	D	"	"	"			" "	3	24	24
								6'	Bottom of Boring 6'			

GROUND SURFACE TO		USE	BASING		THEN	SUMMARY	
Sample Type		Proportions Used	140B Wt + 30 fallon 2	10 Sampler			Earth Boring 6'
1. Dry T. Cored A. V. 100		fine 100%	Coneless Density	Coneless Consistency			Rock Coring
2. 100% Cored A. V. 100		fine 100%	0 100%	1 4 Soft	30 + Hard		Samples 3
3. 100% Cored A. V. 100		fine 100%	10 30 Med Dense	4 8 M/S.H.			
4. 100% Cored A. V. 100		fine 100%	30 60 Dense	8 15 Stiff			
5. 100% Cored A. V. 100		fine 100%	60 100 Very Dense				



TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO NS-143

LINE &amp; STA \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ hours

Type \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

COPE BAR \_\_\_\_\_

START 11/30/94

Date \_\_\_\_\_ Time \_\_\_\_\_

COMPLETE 11/30/94

TOTAL HRS \_\_\_\_\_

BORING FOREMAN P. Vieira

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

At \_\_\_\_\_ after \_\_\_\_\_ hours

Size D \_\_\_\_\_

Hammer Wt \_\_\_\_\_

Hammer Fall \_\_\_\_\_

S/S3 1/2"300#30"

BIT \_\_\_\_\_

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6 on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	To 6-12	To 12-18				No	Pen	Rec
		0'-2'	D	Blows not Taken					Dark Brown fine SAND	1	24	'24
		2'-4'	D	"	"	"			Brown fine to medium SAND, some gravel	2	24	'20
		4'-6'	D	"	"	"			" "	3	24	'12
								6'	Bottom of Boring 6'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type \_\_\_\_\_

Proportions Used \_\_\_\_\_

140lb Wt + 30" fall on 2" O.D. Sampler

SUMMARY \_\_\_\_\_

Dry, Coarse, W. A. Test

Moisture 0% to 10%

Cohesiveness Density

Cohesive Consistency

Earth Boring 6'

Dry, Coarse, W. A. Test

Moisture 0% to 20%

0-10 Loose

0-4 Soft 30 + Hard

Rock Boring \_\_\_\_\_

Dry, Coarse, W. A. Test

Moisture 20% to 35%

10-30 Med Dense

4-8 M/Soft

Samples 3

Dry, Coarse, W. A. Test

Moisture 35% to 50%

30-50 Dense

8-15 Stiff

HOLE NO NS-143

HOLE NO. NS-144  
LINE & STA \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

[illegible]

THEN

8-15      Stiff

Samples 2

WOLF MONROE - 1/.

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above Bldg. # 5 PROJ NO \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO NS-145  
 LINE & STA \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At 3' after \_\_\_\_\_ hours

At \_\_\_\_\_ after \_\_\_\_\_ hours

Type

Size D

Hammer Wt

Hammer Fall

CASING

SAMPLER

CORE BAR

S/S

3 1/2"

300#

30"

BIT

Date

Time

START 11/30/94COMPLETE 11/30/94

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN P. Vieira

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

a.m.  
p.m.

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				0-6	6-12	12-18				No	Pen	Rec
		0'-2'	D	Blows not Taken					Dark Brown medium SAND, some gravel	1	24	18'
		2'-4'	D	"	"	"			Gray fine to medium SAND, Cobbles	2	24	16'
		4'-6'	D	"	"	"			" "	3	24	20'
								6'	Bottom of Boring 6'			

GROUND SURFACE TO \_\_\_\_\_

USED

CASING THEN

Sample Type

D: Dry &amp; Cored W. sampler

UP: Undisturbed Fusion

TP: Test Pit - A Gauge - &amp; vane Test

OT: Undisturbed Thin

Proportions Used

fine 0 to 10%

fine 10 to 20%

some 20 to 35%

and 35 to 60%

140 lb Wt & 30' fall on 2" O.D. Sampler  
Cohesionless Density

0-4 Loose

10-30 Med Dense

30-100 Dense

100+ Very Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

15-30 Very Stiff

SUMMARY

Earth Boring 6'

Rock Coring \_\_\_\_\_

Samples 3

HOLE NONS-145



TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO NS-147  
 LINE & STA \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START	12/1/94
At _____	after _____ hours	Size: D _____	3 1/2"	_____	COMPLETE	12/1/94
		Hammer Wt _____	300#	BIT	TOTAL HRS _____	
		Hammer Fall _____	30"	_____	BORING FOREMAN	P. Vieira
					INSPECTOR _____	
					SOILS ENGR _____	

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE		
				0-6"	6-12"	12-18"				No	Pen	Re
		0'-2'	D	Blows not Taken					Dark Brown medium to fine SAND	1	24	24
		2'-4'	D	"	"	"			Brown medium to fine SAND, some gravel	2	24	78
		4'-6'	D	"	"	"			" "	3	24	78
								6'	Bottom of Boring 6'			

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING \_\_\_\_\_

THEN \_\_\_\_\_

Sample Type \_\_\_\_\_  
 D-Dry, C-Cored, W-Water  
 GR-Grindstone, Fusion  
 T-Terrace, A-Auger, V-Vane Test  
 OF-Consistency, Thaum

Proportions Used  
 trace 0 to 10%  
 fine 10 to 20%  
 some 20 to 35%  
 coarse 35 to 50%

140lb WT x 30' fall on 2" ID Sampler  
 Cohesionless Density Cohesive Consistency  
 0-10 Loose 0-4 Soft 30+ Hard  
 10-30 Med Dense 4-8 M/Stiff  
 30-50 Dense 8-15 Stiff  
 50+ Very Dense

SUMMARY  
 Earth Boring 6'  
 Rock Coring \_\_\_\_\_  
 Samples 3

HOLE NO NS-147

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above 7 Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
HOLE NO. NS-148  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____	Hours	Type _____	S/S _____	_____	START 12/1/94	_____
			Size _____	3 1/2" _____	_____	COMPLETE 12/1/94	_____
At _____	after _____	Hours	Hammer At _____	300# _____	BIT _____	TOTAL HRS _____	
			Hammer For _____	30" _____	_____	BORING FOREMAN <u>P. Vieira</u>	
						INSPECTOR _____	
						SOILS ENGR. _____	

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

1586

CASING THEN

Sample Type  
D Dry C-Cored & Anisotropic  
Un-Indurated Pelton  
Fib. Test Pul. & Auger & Vane Test  
1.5 x 1.5 x 1.5

Proportions Used	
trace	0 to 10%
line	10 to 20%
some	20 to 35%

Coneless Density		Cohesive Consistency	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	M/Stiff
30-50	Dense	8-16	Stiff

SUMMARY  
Earth Boring 3'  
Rock Coring 2  
Samples 2



TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5

PROJ NO

SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

## GROUND WATER OBSERVATIONS

CASING

SAMPLER

CORE BAR

Date

Time

At \_\_\_\_\_ after \_\_\_\_\_ hours

Type

S/S

START

12/1/94

a.

p.

COMPLETE

12/1/94

p.

TOTAL HRS

BORING FOREMAN P. Vieira

INSPECTOR

SOILS ENGR

At \_\_\_\_\_ after \_\_\_\_\_ hours

Size D

3 1/2"

Hammer Wt

300#

BIT

Hammer Fall

30"

## LOCATION OF BORING

DEPTH	Casing Blows per 100'	Sample Depths From - To	Type of Sample	Blows per 6 in Sampler			Moisture Density or Consist	Strain Change Etc.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 2-6	6-12	12-18				No	Pen	Re
		0'-2'	D	Blows not Taken					Dark Brown fine to medium SAND	1	24"	24"
		2'-4'	D	"	"	"			Brown fine to medium SAND & Gravel	2	24"	24"
		4'-6'	D	"	"	"			" "	3	24"	24"
								6'	Bottom of Boring 6'			

GROUND SURFACE TO

USED

CASING

THIN

Sample Type

0 Dry, 1 Coated, 2 Wet, 3

4 Dry, 5 Coated, 6 Wet, 7

8 Dry, 9 Coated, 10 Wet, 11

12 Dry, 13 Coated, 14 Wet, 15

Proportions Used

Moisture 10-20%

Moisture 20-30%

Moisture 30-40%

Moisture 40-50%

140 lb Wt x 30' fall on 2" ID Sampler

Moisture Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft

4-8 M/Soft

8-15 Stiff

SUMMARY

Earth Boring 6'

Rock Coring

Samples 3

HOLE NO NS-149

MOLE NO. NS-150  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START 12/1/94	_____
		Size _____	3 1/2"	_____	COMPLETE 12/1/94	_____
		Hammer Wt _____	300#	_____	TOTAL HRS _____	
At _____	after _____ hours	Hammer Fall _____	30"	BIT _____	BORING FOREMAN P. Vieira	
					INSPECTOR _____	
					SOILS ENGR _____	

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler			Moisture Density or Consist	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard- ness, Drilling time, seams and etc.	SAMPLE		
				2-6	5-12	12-18				No	Pen	Re
		0'-2'	D	Blows not Taken					Dark Brown medium to fine SAND	1	24	24
		2'-4'	D	"	"	"			Brown medium to fine SAND, some gravel	2	24	16
		4'-6'	D	"	"	"			" "	3	24	24
								6'	Bottom of Boring 6'			

SUMMARY  
Earth Boring 6'  
Hole Coring  
Samples 3

WOLF MONS-151

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95 41

DATE \_\_\_\_\_  
 HOLE NO NS-151  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____	S/S	_____	START	12/1/94
At _____	after _____ hours	Size _____	3 1/2"	_____	COMPLETE	12/1/94
		Hammer At _____	300#	BIT	TOTAL HRS	_____
		Hammer Co. _____	30"	_____	BORING FOREMAN	P. Vieira
					INSPECTOR	_____
					SOILS ENGR.	_____

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From To	Type of Sample	Blows per 6 on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From	To	From				No	Pen	Re
		0'-2'	D	Blows not Taken					Brown medium to fine SAND	1	24'	24'
		2'-4'	D	"	"	"			" trace gravel	2	24'	24'
		4'-6'	D	"	"	"			Yellowish fine SAND, trace gravel	3	24'	24'
								6'	Bottom of Boring 6'			

UNSATURATED	MOISTURE TEST	PROPORTIONS USED	CASING	TYPE	SUMMARY
Sample Type	40 lb WT x 30 lb (100 lb) 2" D Sampler	Proportions used	40 lb WT x 30 lb (100 lb) 2" D Sampler	Earth Boring	6'
0 Dry, 0 Liquid, 0 Water	Moisture Density	Moisture Density	Moisture Density	Rock Core	3
0.5 Undisturbed	Loose	Loose	Loose		
1.0 Test Pit, A. Approx. 1.0	Med Dense	Med Dense	Med Dense		
	Dense	Dense	Dense		



TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above Bldg. #5 PROJ NO \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
 HOLE NO NS-153  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____		S/S		START <u>12/1/94</u>	8 P.
			3 1/2"		COMPLETE <u>12/1/94</u>	9 P.
At _____	after _____		300#	BIT	TOTAL HRS. _____	
			30"		BORING FOREMAN <u>P. Vieira</u>	
					INSPECTOR _____	
					SOILS ENGR. _____	

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per Foot on Sampler			Moisture Density, or Consist	Strata Change Elev.	SOIL IDENTIFICATION Remarks: include color, gradation, Type of soil etc. Rock color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				0-6"	6-12"	12-18"				No	Pen	Re
		0'-2'	D	Blows not Taken					Dark Brown medium to fine SAND, some gravel	1	24'	24
		2'-4'	D	"	"	"			Brown medium SAND & Gravel	2	24'	-
		4'-6'	D	"	"	"			" "	3	24'	24
								6'	Bottom of Boring 6'			

GROUND SURFACE TO \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type \_\_\_\_\_  
 0 Dry 10 Cores W. A. 100  
 20 Undisturbed 100  
 10 Test Pit 100  
 10 Test Pit 100

Equipment used \_\_\_\_\_  
 Name \_\_\_\_\_  
 Date \_\_\_\_\_  
 Time \_\_\_\_\_

140lb Wt x 30' fall on 2" ID Sampler  
 Cohesiveness Density \_\_\_\_\_  
 0-10 Loose \_\_\_\_\_  
 10-30 Med Dense \_\_\_\_\_  
 30-50 Dense \_\_\_\_\_  
 Cohesive Consistency \_\_\_\_\_  
 0-4 Soft \_\_\_\_\_  
 4-8 Medium \_\_\_\_\_  
 8-15 Stiff \_\_\_\_\_

SUMMARY  
 Earth Boring \_\_\_\_\_  
 Rock Boring \_\_\_\_\_  
 Samples \_\_\_\_\_

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5

PROJ NO

SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41HOLE NO NS-154

LINE &amp; STA

OFFSET

SURF ELEV.

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ hours

Type

CASING

SAMPLER

CORE BAR

START 12/1/94COMPLETE 12/1/94

TOTAL HRS

BORING FOREMAN P. Vieira

INSPECTOR

SOILS ENGR.

At \_\_\_\_\_ after \_\_\_\_\_ hours

Size D

Hammer Wt

Hammer Fall

S/S

3"

300#

30"

BIT

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 5' on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From 0-6	6-12	12-18				No	Pen	Re
		0'-2'	D	Blows not Taken					Dark Brown medium to fine SAND, some gravel	1	24	'24
		2'-4'	D	"	"	"			Brown medium SAND & Gravel	2	24	'18
		4'-6'	D	"	"	"			" "	3	24	'24
								6'				
									Bottom of Boring 6'			

GRACE TO

USED

CASING THEN

Sample Type

D Dry C-Cored W/ Auger

C/C Undisturbed Piston

In Test Pit A Auger W/ Vane Test

At \_\_\_\_\_

Proportions Used

trace 10 to 20%

some 20 to 35%

15 to 20%

40 lb wt x 30 ft long 2 1/2" D Sampler

Cohesiveness Density

0-2 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30+ Hard

4-8 M/Soft

8-15 Stiff

SUMMARY

Earth Boring 6'

Rock Coring

Samples 3

HOLE NO NS-154

TO Texas InstrumentsADDRESS Attleboro, Mass.HOLE NO NS-155PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.

LINE &amp; STA

REPORT SENT TO above / Bldg. #5

PROJ NO

OFFSET

SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

SURF. ELEV.

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At	after	hours	Type	S/S		START	12/1/94
			Size D	3"		COMPLETE	12/1/94
At	after	hours	Hammer At	300#	BIT	TOTAL HRS	
			Hammer Fall	30"		BORING FOREMAN	P. Vieira
						INSPECTOR	
						SOILS ENGR.	

## LOCATION OF BORING

DEPTH	Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 5 on Sampler			Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock - color, type, condition, hard- ness, Drilling time, seams and etc	SAMPLE		
				From	To					No	Pen	F
		0'-2'	D	Blows not	Taken				Brown medium to fine SAND	1	24"	
		2'-4'	D	"	"	"			" "	2	24"	
		4'-6'	D	"	"	"			" with Cobbles	3	24"	
								6'	Bottom of Boring 6'			

CUTTING		CUTTING		CUTTING		CUTTING		CUTTING		CUTTING		CUTTING	
Sample Type		Sample Type		Sample Type		Sample Type		Sample Type		Sample Type		Sample Type	
0 Dry, 0 Moist, 0 Very Wet		0 Dry, 0 Moist, 0 Very Wet		0 Dry, 0 Moist, 0 Very Wet		0 Dry, 0 Moist, 0 Very Wet		0 Dry, 0 Moist, 0 Very Wet		0 Dry, 0 Moist, 0 Very Wet		0 Dry, 0 Moist, 0 Very Wet	
0 Hard, 0 Soft, 0 Very Soft		0 Hard, 0 Soft, 0 Very Soft		0 Hard, 0 Soft, 0 Very Soft		0 Hard, 0 Soft, 0 Very Soft		0 Hard, 0 Soft, 0 Very Soft		0 Hard, 0 Soft, 0 Very Soft		0 Hard, 0 Soft, 0 Very Soft	
0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test	
0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test		0 Test, 0 No Test, 0 No Test	

## SUMMARY

Earth Boring 6'

Rock Boring

Samples 3

HOLE NO NS-1

HOLE NO. NS-156  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

GROUND WATER OBSERVATIONS			CASING	SAMPLER	CORE BAR	Date	Time
At _____	after _____ hours	Type _____		S/S _____		START 12/2/94	_____
		Size: D _____		3" _____		COMPLETE 12/2/94	_____
At _____	after _____ hours	Hammer Wt _____		300# _____	BIT _____	TOTAL HRS _____	
		Hammer Fall _____		30" _____		BORING FOREMAN P. Vieira	
						INSPECTOR _____	
						SOILS ENGR _____	

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

REF

CASING THEN

Sample Type

### Proportions Used

140lb Wt & 30" fall on 2 CD Sampler

D Dry C Cores A A. 1. 1. 1.

### Proportions Used

Cohesionless Density

Cohesive Consistency

UP: Undisturbed: 6 sites

more 1000%  
time 1020%

**0-0**      **Loose**

0.4 Soft 3C + Hard

TP- Test Pit A Aug 1964 - June Test

same 2010-15%.

10 30 Med Dense

4-B M/Siff

117. H. J. ...

15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850.

30-50 Dense  
50-100 Very Dense

8-15 Staff

## SUMMARY

Earth Boring 6

### Rock Coring

Samples \_\_\_\_\_

HOLE NONS-150



HOLE NO. NS-157  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER | CORE BAR  | Date                     | Time  |
|---------------------------|-------------------|-------------------|---------|-----------|--------------------------|-------|
| At _____                  | after _____ Hours | Type _____        | S/S     | _____     | START 12/2/94            | _____ |
|                           |                   | Size D _____      | 3"      | _____     | COMPLETE 12/2/94         | _____ |
|                           |                   | Hammer Wt _____   | 300#    | _____     | TOTAL HRS. _____         |       |
| At _____                  | after _____ Hours | Hammer Fali _____ | 30"     | BIT _____ | BORING FOREMAN P. Vieira |       |
|                           |                   |                   |         |           | INSPECTOR _____          |       |
|                           |                   |                   |         |           | SOILS ENGR. _____        |       |

[illegible]

1553

Sample Type  
D. Dry & Cured W. Shrinkage  
UP Undisturbed Specimen  
TP Test Piece A. After 7 Days Test  
UT Undisturbed Thickness

|                  |           |
|------------------|-----------|
| Proportions Used |           |
| none             | 0 to 10%  |
| little           | 0 to 20%  |
| some             | 20 to 35% |
| most             | 35 to 50% |

| 140lb Wt x 30' fall on 2' OD Sampler |                      |
|--------------------------------------|----------------------|
| Cohesionless Density                 | Cohesive Consistency |
| 0-30 Loose                           | 0-4 Soft 30 + hard   |
| 30-50 Med Dense                      | 4-8 M/Stiff          |
| 50-60 Dense                          | 8-15 Stiff           |
| 60+ Very Dense                       | 15-30 v. Stiff       |

SUMMARY  
Earth Boring 6'  
Rock Boring  
Samples 3

HOLE NO NS-15

100 WATER STREET

EAST PROVIDENCE, R. I.

TO Texas InstrumentsPROJECT NAME Low Level Radiation Invest.REPORT SENT TO above / Bldg. #5SAMPLES SENT TO Taken at SiteADDRESS Attleboro, Mass.LOCATION Attleboro, Mass.PROJ NO 95-41OUR JOB NO 95-41

DATE

HOLE NO. NS-158

LINE &amp; STA.

OFFSET

SURF. ELEV.

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ hours

At \_\_\_\_\_ after \_\_\_\_\_ hours

CASING

SAMPLER

CORE BAR

Type

Size: D

Hammer Wt

Hammer Fall

S/S

3 1/2"

300#

24"

BIT

Date

Time

START 1/5/95COMPLETE 1/5/95

TOTAL HRS.

BORING FOREMAN K. Allen

INSPECTOR

SOILS ENGR.

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 5<br>on Sampler |    |   | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|--------------------------------|-------------------------------|----------------------|---------------------------|----|---|--------------------------------------|--------------------------|--|--------|-----|----|
|       |                                |                               |                      | From                      | To |   |                                      |                          |  | No     | Pen | Re |
|       |                                | 0'-2'                         | D                    | Blows not Taken           |    |   |                                      |                          | Brown fine to coarse SAND<br>& Gravel, trace cinders &<br>asphalt  | 1      | 24" | 18 |
|       |                                | 2'-4'                         | D                    | "                         | "  | " |                                      |                          | " "  | 2      | 24" | 24 |
|       |                                | 4'-6'                         | D                    | "                         | "  | " |                                      |                          | " "  | 3      | 24" | 24 |
|       |                                | 6'-8'                         | D                    | "                         | "  | " |                                      |                          | " "  | 4      | 24" | 10 |
|       |                                | 8'-10'                        | D                    | "                         | "  | " |                                      |                          | " "  | 5      | 24" | 24 |
|       |                                |                               |                      |                           |    |   |                                      | 10'                      | Bottom of Boring 10'   |        |     |    |

GROUND SURFACE TO

Sample Type

D Dry C Cored W/ Ashpit

UP Undisturbed Piston

TR Test Pit A Auger V Vane Test

USED

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

CASING THEN

140lb Wt &amp; 30' fall on 2 O.D. Sampler

Cohesionless Density Cohesive Consistency

0-10 Loose 0-4 Soft 30+ Hard

10-30 Med Dense 4-8 M/Shift

30-50 Dense 8-15 Stiff

SUMMARY

Earth Boring 10'

Rock Coring

Samples 5

Samples 3

100 WATER STREET

EAST PROVIDENCE, R. I.

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation Invest.LOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5PROJ NO 95-41SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

DATE

HOLE NO. NS-160

LINE &amp; STA

OFFSET

SURF. ELEV.

Date Time

START 1/5/95 8:00  
 COMPLETE 1/5/95 8:00  
 TOTAL HRS.  
 BORING FOREMAN K. Allen  
 INSPECTOR  
 SOILS ENGR.

## GROUND WATER OBSERVATIONS

## CASING

## SAMPLER

## CORE BAR

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type

S/S

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Size: D

3 1/2"

Hammer Wt

300#

Hammer Fall

24"

BIT

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6"<br>on Sampler |       |        | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock - color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-------------------------------|----------------------|----------------------------|-------|--------|--------------------------------------|--------------------------|--|--------|-----|-----|
|       |                                |                               |                      | From<br>0-6"               | 6-12" | 12-18" |                                      |                          |  | No     | Pen | Rec |
|       |                                | 0'-2'                         | D                    | Blows not Taken            |       |        |                                      |                          | Brown fine to coarse SAND,<br>some fine to coarse gravel   | 1      | 24" | 24' |
|       |                                | 2'-4'                         | D                    | "                          | "     | "      |                                      |                          | " "  | 2      | 24" | 24' |
|       |                                | 4'-6'                         | D                    | "                          | "     | "      |                                      |                          | Brown fine to coarse SAND,<br>some peat, little fine to<br>coarse gravel, trace wood   | 3      | 24" | 24' |
|       |                                | 6'-8'                         | D                    | "                          | "     | "      |                                      |                          | Brown fine to coarse SAND,<br>some fine to medium gravel   | 4      | 24" | 24' |
|       |                                | 8'-10'                        | D                    | "                          | "     | "      |                                      | 10'                      | Brown silty fine SAND,<br>little coarse sand &<br>fine to medium gravel  | 5      | 24" | 24' |
|       |                                |                               |                      |                            |       |        |                                      |                          | Bottom of Boring 10'   |        |     |     |

## GROUND SURFACE TO

## USED

## CASING THEN

Sample Type  
 D-Dry C-Cored W-Washed  
 UP-Undisturbed Piston  
 TP-Test Pit A-Auger V-Vane Test

Proportions Used  
 trace 0 to 10%  
 little 10 to 20%  
 some 20 to 45%

140lb Wt x 30' fall on 2" D Sampler  
 Cohesionless Density Cohesive Consistency  
 0-10 Loose 0-4 Soft 30 + Hard  
 10-30 Med Dense 4-8 M/SHH  
 30-50 Dense 8-15 Clay

## SUMMARY

Earth Boring 10'  
 Rock Coring  
 Samples 5

DATE

TO Texas Instruments  
PROJECT NAME Low Level Radiation Invest.  
REPORT SENT TO above / Bldg.  
SAMPLES SENT TO Taken at Site

ADDRESS Attleboro, Mass.  
LOCATION Attleboro, Mass.  
\$5 PROJ NO \_\_\_\_\_  
OUR JOB NO 95-41

HOLE NO NS-161  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURE ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER | CORE BAR  | Date                    | Time  |
|---------------------------|-------------------|-------------------|---------|-----------|-------------------------|-------|
| At _____                  | after _____ Hours | Type _____        | S/S     | _____     | START 1/6/95            | _____ |
|                           |                   | Size: D _____     | 3 1/2"  | _____     | COMPLETE 1/6/95         | _____ |
| At _____                  | after _____ Hours | Hammer Wt _____   | 300#    | _____     | TOTAL HRS _____         |       |
|                           |                   | Hammer Fall _____ | 24"     | BIT _____ | BORING FOREMAN K. Allen |       |
|                           |                   |                   |         |           | INSPECTOR _____         |       |
|                           |                   |                   |         |           | SOILS ENGR. _____       |       |

LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6"<br>on Sampler |      |             | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, type of<br>soil etc. Rock color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-------------------------------|----------------------|----------------------------|------|-------------|--------------------------------------|--------------------------|--|--------|-----|-----|
|       |                                |                               |                      | From<br>0-6                | 6-12 | To<br>12-18 |                                      |                          |  | No     | Pen | Re  |
|       |                                | 0'-2'                         | D                    | Blows not Taken            |      |             |                                      |                          | Brown fine to coarse SAND<br>& fine to medium Gravel,<br>trace asphalt   | 1      | 24" |     |
|       |                                | 2'-4'                         | D                    | "                          | "    | "           |                                      |                          | Brown fine to coarse SAND,<br>some fine to medium gravel   | 2      | 24" |     |
|       |                                | 4'-6'                         | D                    | "                          | "    | "           |                                      |                          | Brown Gray fine to coarse<br>SAND, little sandy peat,<br>little silt   | 3      | 24" | 24" |
|       |                                | 6'-8'                         | D                    | "                          | "    | "           |                                      |                          | Brown fine to coarse SAND<br>& fine Gravel   | 4      | 24" | 24" |
|       |                                | 8'-10'                        | D                    | "                          | "    | "           |                                      |                          | Brown fine to coarse SAND<br>& fine to medium Gravel,<br>little gray silty fine sand   | 5      | 24" | 24" |
|       |                                |                               |                      |                            |      |             | 10'                                  |                          | Bottom of Boring 10'   |        |     |     |

GROUND SURFACE TO

USED

EASING THEN

Sample type

### Procedures used

140lb WT + 30 ft on 2 OD Sampler

C. Dr. C. Jones & Associates

more 110 0%

### Dimensionless Density

### Cohesive Consistency

UN - UNCLASSIFIED Foreign

the 1920s.

0 10 Loose

0-4 Soft 30 + Hard

FF Test For A Dodge, y your loss!

score: 2010 35%

10:50 Med Dense  
10:50 Dense

4.8 M/S/11

## SUMMARY

Earth Boring 10'

Rock Coring \_\_\_\_\_

Samples 5

DATE \_\_\_\_\_  
HOLE NO. NS-162  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |             |       | CASING            | SAMPLER | CORE BAR | Date                           | Time  |
|---------------------------|-------------|-------|-------------------|---------|----------|--------------------------------|-------|
| At _____                  | after _____ | Hours | Type _____        | S/S     | _____    | START 1/7/95                   | _____ |
|                           |             |       | Size D _____      | 3 1/2"  | _____    | COMPLETE 1/7/95                | _____ |
| At _____                  | after _____ | Hours | Hammer Wt _____   | 300#    | BIT      | TOTAL MRS _____                |       |
|                           |             |       | Hammer Fall _____ | 24"     | _____    | BORING FOREMAN <u>K. Allen</u> |       |
|                           |             |       |                   |         |          | INSPECTOR _____                |       |
|                           |             |       |                   |         |          | SOILS ENGR. _____              |       |

LOCATION OF BORING

[illegible]

| GROUND SURFACE TO                 | USED             | CASING                                 | THEN                 | SUMMARY          |
|-----------------------------------|------------------|--|----------------------|------------------|
| Sample Type                       | Proportions used | 140lb WT x 30" tall on 2" O.D. Sampler |                      |                  |
| Dry C Cores W. Water              | trace 0 to 10%   | Cohesionless Density                   | Cohesive Consistency | Earth Boring 10' |
| UP Undisturbed Fusion             | little 10 to 20% | 0-10 Loose                             | 0-4 Soft 30 + Hard   | Rock Coring      |
| 1st Test Pit A Auger V. Vane Test | some 20 to 35%   | 10-30 Med Dense                        | 4-8 M/Stiff          | Samples 5        |
|                                   |                  | 30-50 Dense                            | 8-15 Stiff           |                  |

TO Texas InstrumentsADDRESS Attleboro, Mass.DATE NS-163PROJECT NAME Low Level Radiation Invest.LOCATION Attleboro, Mass.

LINE &amp; STA. \_\_\_\_\_

REPORT SENT TO above / Bldg. #5

PROJ NO \_\_\_\_\_

OFFSET \_\_\_\_\_

SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                          | CASING            | SAMPLER     | CORE BAR  | Date                              | Time  |
|---------------------------|--------------------------|-------------------|-------------|-----------|-----------------------------------|-------|
| At <u>5.5'</u>            | after <u>Comp.</u> Hours | Type _____        | <u>S/S</u>  | _____     | START <u>1/7/95</u>               | _____ |
| At _____                  | after _____ Hours        | Size D _____      | <u>3"</u>   | _____     | COMPLETE <u>1/7/95</u>            | _____ |
|                           |                          | Hammer Wt _____   | <u>300#</u> | BIT _____ | TOTAL HRS. _____                  |       |
|                           |                          | Hammer Fall _____ | <u>30"</u>  | _____     | BORING FOREMAN <u>A. Whitaker</u> |       |
|                           |                          |                   |             |           | INSPECTOR _____                   |       |
|                           |                          |                   |             |           | SOILS ENGR. _____                 |       |

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6"<br>on Sampler |      |             | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock-color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|--------------------------------|-------------------------------|----------------------|----------------------------|------|-------------|--------------------------------------|--------------------------|--|--------|-----|----|
|       |                                |                               |                      | From<br>0-6                | 6-12 | To<br>12-18 |                                      |                          |  | No     | Pen | Re |
|       |                                | 0'-2'                         | D                    | Blows not Taken            |      |             | Moist                                |                          | Dark Brown coarse to fine<br>SAND & Gravel & Cobbles   | 1      | 24" | 2' |
|       |                                | 2'-4'                         | D                    | "                          | "    | "           |                                      | 3'                       |  | 2      | 24" | 2' |
|       |                                | 4'-6'                         | D                    | "                          | "    | "           | Moist                                | 5'                       | Gray fine to coarse SAND<br>& Gravel & Cobbles   | 3      | 24" | 2' |
|       |                                | 6'-8'                         | D                    | "                          | "    | "           | Wet<br>Moist                         | 6'                       | Dark Brown loamy PEAT  | 4      | 24" | 1' |
|       |                                | 8'-10'                        | D                    | "                          | "    | "           | Moist                                | 8'                       | Tan organic silty fine SAND  | 5      | 24" | 1' |
|       |                                |                               |                      |                            |      |             |                                      | 10'                      | Gray silty fine SAND   |        |     |    |
|       |                                |                               |                      |                            |      |             |                                      |                          | Bottom of Boring 10'   |        |     |    |

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING \_\_\_\_\_

THEN \_\_\_\_\_

Sample Type

D Dry C Cores W. Auger

UP Undisturbed Piston

TP Test Pit A Auger Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140 lb Wt + 30" fall on 2 O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 10'

Rock Coring \_\_\_\_\_

Samples 5

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation Invest.LOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5

PROJ NO

OUR JOB NO 95-41SAMPLES SENT TO Taken at Site

DATE

HOLE NO. NS-164

LINE &amp; STA.

OFFSET

SURF. ELEV.

| GROUND WATER OBSERVATIONS |                         | CASING      | SAMPLER     | CORE BAR | Date                              | Time          |
|---------------------------|-------------------------|-------------|-------------|----------|-----------------------------------|---------------|
| At <u>5.5'</u>            | after <u>Comp</u> hours | Type        | <u>S/S</u>  |          | START                             | <u>1/5/95</u> |
| At                        | after                   | Size: D     | <u>3"</u>   |          | COMPLETE                          | <u>1/5/95</u> |
|                           | Hours                   | Hammer Wt   | <u>300#</u> | BIT      | TOTAL HRS.                        |               |
|                           |                         | Hammer Fall | <u>30"</u>  |          | BORING FOREMAN <u>A. Whitaker</u> |               |
|                           |                         |             |             |          | INSPECTOR                         |               |
|                           |                         |             |             |          | SOILS ENGR.                       |               |

## LOCATION OF BORING

| DEPTH | Casing Blows per 100' | Sample Depths From - To | Type of Sample | Blows per 6" on Sampler |          |          | Moisture Density or Consist | Strata Change Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc | SAMPLE   |            |            |
|-------|-----------------------|-------------------------|----------------|-------------------------|----------|----------|-----------------------------|--------------------|--|----------|------------|------------|
|       |                       |                         |                | From 0-6                | To 6-12  | 12-18    |                             |                    |  | No       | Pen        | Re         |
|       |                       | <u>0'-2'</u>            | <u>D</u>       | <u>Blows not Taken</u>  |          |          | <u>Moist</u>                | <u>0.5'</u>        | <u>Asphalt</u>   | <u>1</u> | <u>24"</u> | <u>24'</u> |
|       |                       | <u>2'-4'</u>            | <u>D</u>       | <u>"</u>                | <u>"</u> | <u>"</u> |                             |                    | <u>Dark Gray Brown silty fine to coarse SAND &amp; Gravel &amp; Cobbles</u>  | <u>2</u> | <u>24"</u> | <u>24'</u> |
|       |                       | <u>4'-6'</u>            | <u>D</u>       | <u>"</u>                | <u>"</u> | <u>"</u> | <u>Moist</u>                | <u>3.5'</u>        |  |          |            |            |
|       |                       |                         |                |                         |          |          | <u>Moist</u>                | <u>4.5'</u>        | <u>Dark Brown loamy PEAT</u>   | <u>3</u> | <u>24"</u> | <u>24'</u> |
|       |                       |                         |                |                         |          |          |                             |                    | <u>Tan Organic SILT</u>  |          |            |            |
|       |                       | <u>6'-8'</u>            | <u>D</u>       | <u>"</u>                | <u>"</u> | <u>"</u> |                             | <u>6.5'</u>        |  | <u>4</u> | <u>24"</u> | <u>18'</u> |
|       |                       | <u>8'-10'</u>           | <u>D</u>       | <u>"</u>                | <u>"</u> | <u>"</u> | <u>Wet</u>                  |                    | <u>Gray silty fine SAND</u>  | <u>5</u> | <u>24"</u> | <u>18'</u> |
|       |                       |                         |                |                         |          |          |                             | <u>10'</u>         |  |          |            |            |
|       |                       |                         |                |                         |          |          |                             |                    | <u>Bottom of Boring 10'</u>  |          |            |            |

GROUND SURFACE TO

USED

CASING

THEN

Sample Type

D Dry C Cored W Washed

UP Undisturbed Piston

TP Test Pit A Auger V Vane Test

Proportions Used

trace (1 to 10%)

little 10 to 20%

some 20 to 35%

140 lb Wt x 30" fall on 2 O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Shift

8-15 Stiff

SUMMARY

Earth Boring 10'

Rock Coring

Samples 5





100 WATER STREET

EAST PROVIDENCE, R I

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5

PROJ. NO. \_\_\_\_\_

SAMPLES SENT TO Taken at SiteOUR JOB NO. 95-41

DATE \_\_\_\_\_

HOLE NO. NS-166

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At None after \_\_\_\_\_ Hours

Type \_\_\_\_\_

Size I D \_\_\_\_\_

Hammer Wt \_\_\_\_\_

Hammer Fall \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

START

Date

Time

1/7/95

COMPLETE

1/7/95

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN A. Whitaker

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6" on Sampler |            |             | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-------------------------------|----------------------|-------------------------|------------|-------------|--------------------------------------|--------------------------|--|--------|-----|-----|
|       |                                |                               |                      | From<br>0-6             | To<br>6-12 | To<br>12-18 |                                      |                          |  | No     | Pen | Rec |
|       |                                | 0'-2'                         | D                    | Blows not Taken         |            |             | Moist                                |                          | Brown fine to coarse SAND & Gravel, Cobbles & Boulders   | 1      | 24" | 24" |
|       |                                | 2'-4'                         | D                    | "                       | "          | "           |                                      |                          |  | 2      | 24" | 24" |
|       |                                | 4'-4.1'                       | D                    | "                       |            |             |                                      | 4.1'                     |  | -      | 1"  | 0'  |
|       |                                |                               |                      |                         |            |             |                                      |                          | Refusal - Bottom of Boring 4.1'  |        |     |     |

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING \_\_\_\_\_

THEN \_\_\_\_\_

Sample Type

D-Dry C-Cored W-Washed

UP=Undisturbed Piston

TP=Test Pit A-Auger V-Vane Test

Proportions Used

trace 0 to 10%

fine 10 to 20%

some 20 to 35%

140lb Wt x 30 fall on 2" D Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30+ Hard

4-8 M/Stiff

8-16 C.Stiff

SUMMARY

Earth Boring 4.1'

Rock Coring \_\_\_\_\_

Samples 2

DATE \_\_\_\_\_  
HOLE NO. NS-167  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest. LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO. NS-167  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                         |             | CASING | SAMPLER     | CORE BAR | Date                              | Time |
|---------------------------|-------------------------|-------------|--------|-------------|----------|-----------------------------------|------|
| At <u>5'</u>              | after <u>Comp</u> Hours | Type        |        | <u>S/S</u>  |          | START <u>1/7/95</u>               |      |
|                           |                         | Size: D     |        | <u>3"</u>   |          | COMPLETE <u>1/7/95</u>            |      |
| At _____                  | after _____ hours       | Hammer Wt   |        | <u>300#</u> |          | TOTAL HRS. _____                  |      |
|                           |                         | Hammer Fall |        | <u>30"</u>  | BIT      | BORING FOREMAN <u>A. Whitaker</u> |      |
|                           |                         |             |        |             |          | INSPECTOR _____                   |      |
|                           |                         |             |        |             |          | SOILS ENGR. _____                 |      |

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED

CASING THEN

Sample Type

0 Dry 0 Cored W. 50000

UF: Undisturbed Piston

T: Test Pin A Auger V: Vane Test

### Proportions Used

Trace 0.1010%

time 10 to 20%

some 2019 35%

14010 WI x 30" fall on 2 00 Sampler

### Concessionless Density

0 10 Loose

10 30 Med Dense

Cohesive Consistency

0-4 Soft 30 + hard

4-8 M/Shift

## SUMMARY

Earth Boring 10'

### Rock Coring

Samples 5

100 WATER STREET

EAST PROVIDENCE, R. I.

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation Invest.LOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5PROJ NO 95-41SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

DATE

HOLE NO. NS-168

LINE &amp; STA.

OFFSET

SURF. ELEV.

## GROUND WATER OBSERVATIONS

At 5' after Comp. Hours

Type

Size: D

Hammer Wt

Hammer Fall

CASING

SAMPLER

CORE BAR

S/S3"300#30"

BIT

Date

Time

START 1/6/95COMPLETE 1/6/95

TOTAL HRS.

BORING FOREMAN A. Whitaker

INSPECTOR

SOILS ENGR.

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6" on Sampler |             |              | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock - color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|--------------------------------|-------------------------------|----------------------|-------------------------|-------------|--------------|--------------------------------------|--------------------------|--|--------|-----|----|
|       |                                |                               |                      | From<br>0-6"            | To<br>6-12" | To<br>12-18" |                                      |                          |  | No     | Pen | Re |
|       |                                | 0'-2'                         | D                    | Blows not Taken         |             |              | Moist                                |                          | Brown Gray fine to coarse<br>SAND & Gravel   | 1      | 24" | 24 |
|       |                                | 2'-4'                         | D                    | "                       | "           | "            |                                      |                          |  | 2      | 24" | 24 |
|       |                                | 4'-6'                         | D                    | "                       | "           | "            | Moist                                | 4'                       | Dark loamy PEAT  | 3      | 24" | 24 |
|       |                                | 6'-8'                         | D                    | "                       | "           | "            | Wet                                  | 5'                       | Tan Organic SILT   | 4      | 24" | 24 |
|       |                                | 8'-10'                        | D                    | "                       | "           | "            |                                      | 8.5'                     | Gray silty SAND  | 5      | 24" | 18 |
|       |                                |                               |                      |                         |             |              |                                      | 10'                      | Bottom of Boring 10'   |        |     |    |

GROUND SURFACE TO

USED

CASING THEN

Sample Type

D-Dry C-Cured W-Washed

UP-Undisturbed Piston

TP-Test Pit A-Auger V-Vane Test

Proportions Used

trace 0 to 10%

silt 10 to 20%

some 20 to 35%

140lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-12 Very Stiff

SUMMARY

Earth Boring 10'

Rock Coring

Samples 5

100 WATER STREET

EAST PROVIDENCE, R I

DATE

HOLE NO. NS-169

TO Texas Instruments

ADDRESS Attleboro, Mass.

PROJECT NAME Low Level Radiation Invest.

LOCATION Attleboro, Mass.

REPORT SENT TO above / Bldg. #5

PROJ NO

SAMPLES SENT TO Taken at Site

OUR JOB NO 95-41

OFFSET

SURF. ELEV.

## GROUND WATER OBSERVATIONS

At 6' after Comp. Hours

Type

CASING

SAMPLER

CORE BAR

S/S

Size D

3"

Hammer Wt

300#

BIT

Hammer Fall

30"

Date

Time

START 1/6/95

COMPLETE 1/6/95

TOTAL HRS.

BORING FOREMAN A. Whitaker

INSPECTOR

SOILS ENGR.

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6'<br>on Sampler |             |              | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock - color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-------------------------------|----------------------|----------------------------|-------------|--------------|--------------------------------------|--------------------------|--|--------|-----|-----|
|       |                                |                               |                      | From<br>0-6'               | To<br>6-12' | To<br>12-18' |                                      |                          |  | No     | Pen | Re  |
|       |                                | 0'-2'                         | D                    | Blows not Taken            |             |              | Moist                                |                          | Dark Brown fine to coarse<br>SAND & Gravel & Cobbles   | 1      | 24" | 24" |
|       |                                | 2'-4'                         | D                    | "                          | "           | "            | Moist                                | 2'                       | Brown fine to coarse SAND<br>& Gravel  | 2      | 24" | 24" |
|       |                                | 4'-6'                         | D                    | "                          | "           | "            |                                      | 5'                       |  | 3      | 24" | 18" |
|       |                                | 6'-8'                         | D                    | "                          | "           | "            | Wet                                  | 8'                       | Dark Brown loamy PEAT  | 4      | 24" | 6"  |
|       |                                | 8'-10'                        | D                    | "                          | "           | "            | Wet                                  | 10'                      | Gray silty fine SAND   | 5      | 24" | 6"  |
|       |                                |                               |                      |                            |             |              |                                      |                          | Bottom of Boring 10'   |        |     |     |

GROUND SURFACE TO

USED

CASING

THEN

Sample Type

D-Dry C-Cored W-Washed

UP-Undisturbed Piston

TP-Test Pit A-Auger V-Vane Test

Proportions Used

Trace 0 to 10%

little 10 to 20%

some 20 to 35%

140lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density

Cohesive Consistency

0-10 Loose

0-4 Soft 30 + Hard

10-30 Med. Dense

4-8 M/Stiff

SUMMARY

Earth Boring 10'

Rock Coring

Samples 5



100 WATER STREET

EAST PROVIDENCE, R. I.

TO Texas InstrumentsPROJECT NAME Low Level Radiation InvestREPORT SENT TO above / Bldg. #5SAMPLES SENT TO Taken at SiteADDRESS Attleboro, Mass.LOCATION Attleboro, Mass.

PROJ NO. \_\_\_\_\_

OUR JOB NO. 95-41

DATE \_\_\_\_\_

HOLE NO. NS-171

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At None after \_\_\_\_\_ Hours

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type \_\_\_\_\_

Size D \_\_\_\_\_

Hammer Wt \_\_\_\_\_

Hammer Fall \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

S/S3"300#30"

BIT \_\_\_\_\_

Date \_\_\_\_\_

Time \_\_\_\_\_

START 1/6/95COMPLETE 1/6/95

TOTAL HRS \_\_\_\_\_

BORING FOREMAN A. Whitaker

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6"<br>on Sampler |          |          | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock-color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE   |            |          |  |  |  |
|-------|--------------------------------|-------------------------------|----------------------|----------------------------|----------|----------|--------------------------------------|--------------------------|--|----------|------------|----------|--|--|--|
|       |                                |                               |                      | From To                    |          |          |                                      |                          |  | No       | Pen        | R        |  |  |  |
|       |                                |                               |                      | 0-6                        | 6-12     | 12-18    |                                      |                          |  |          |            |          |  |  |  |
|       |                                | <u>0'-2'</u>                  | <u>D</u>             | <u>Blows not Taken</u>     |          |          | <u>Moist</u>                         |                          | <u>Brown fine to coarse SAND<br/>&amp; Gravel &amp; Cobbles</u>  | <u>1</u> | <u>24"</u> | <u>-</u> |  |  |  |
|       |                                | <u>2'-4'</u>                  | <u>D</u>             | <u>"</u>                   | <u>"</u> | <u>"</u> |                                      | <u>4'</u>                |  | <u>2</u> | <u>24"</u> | <u>-</u> |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          | <u>Refusal - Bottom<br/>of Boring 4'</u>   |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          | <u>Note: Drilled 2 Holes with<br/>refusal at 1'</u>  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |
|       |                                |                               |                      |                            |          |          |                                      |                          |  |          |            |          |  |  |  |

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type

D Dry C Cored W Washed

UP Undisturbed Piston

TPT Test Pit A Auger V Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140 lb Wt &amp; 30 fall on 2 O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 4'

Rock Coring \_\_\_\_\_

Samples 2

100 WATER STREET

EAST PROVIDENCE, R I

DATE

HOLE NO. NS-172

LINE &amp; STA.

OFFSET

SURF. ELEV.

TO Texas Instruments

ADDRESS Attleboro, Mass.

PROJECT NAME Low Level Radiation Invest.

LOCATION Attleboro, Mass.

REPORT SENT TO above / Bldg. #5

PROJ. NO.

SAMPLES SENT TO Taken at Site

OUR JOB NO. 95-41

| GROUND WATER OBSERVATIONS |                   | CASING      | SAMPLER | CORE BAR | Date                       | Time |
|---------------------------|-------------------|-------------|---------|----------|----------------------------|------|
| At 5'                     | after Comp. Hours | Type        | S/S     |          | START 1/6/95               |      |
| At                        | after Hours       | Size: D     | 3"      |          | COMPLETE 1/6/95            |      |
|                           |                   | Hammer Wt   | 300#    | BIT      | TOTAL HRS.                 |      |
|                           |                   | Hammer Fall | 30"     |          | BORING FOREMAN A. Whitaker |      |
|                           |                   |             |         |          | INSPECTOR                  |      |
|                           |                   |             |         |          | SOILS ENGR.                |      |

## LOCATION OF BORING

| DEPTH | Casing Blows per foot | Sample Depths From - To | Type of Sample | Blows per 6" on Sampler |         |          | Moisture Density or Consist | Strata Change Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|-----------------------|-------------------------|----------------|-------------------------|---------|----------|-----------------------------|--------------------|--|--------|-----|----|
|       |                       |                         |                | From 0-6                | To 6-12 | To 12-18 |                             |                    |  | No     | Pen | Ri |
|       |                       | 0'-2'                   | D              | Blows not Taken         |         |          |                             |                    | Brown fine to coarse SAND & Gravel & Cobbles   | 1      | 24" | 2  |
|       |                       | 2'-4'                   | D              | "                       | "       | "        |                             |                    |  | 2      | 24" | 2  |
|       |                       | 4'-6'                   | D              | "                       | "       | "        |                             |                    |  | 3      | 24" | 2  |
|       |                       | 6'-8'                   | D              | "                       | "       | "        |                             | 5.5'               |  |        |     |    |
|       |                       | 8'-10'                  | D              | "                       | "       | "        |                             | 6.5'               | Dark Brown loamy PEAT  | 4      | 24" | 1  |
|       |                       |                         |                |                         |         |          |                             | 7.5'               | Tan SILT   |        |     |    |
|       |                       |                         |                |                         |         |          |                             |                    | Gray silty fine SAND   | 5      | 24" | 1  |
|       |                       |                         |                |                         |         |          |                             | 10'                |  |        |     |    |
|       |                       |                         |                |                         |         |          |                             |                    | Bottom of Boring 10'   |        |     |    |

GROUND SURFACE TO

USED

CASING

THEN

Sample Type

D: Dry C: Cores W: Washed

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

Proportions Used

trace 0 to 10%

silt 10 to 20%

same 20 to 35%

140lb Wt x 30" fall on 2 O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 10'

Rock Coring

Samples 5



100 WATER STREET

EAST PROVIDENCE, R. I.

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5

PROJ NO \_\_\_\_\_

SAMPLES SENT TO Taken at SiteOUR JOB NO. 95-41

DATE \_\_\_\_\_

HOLE NO. NS-173

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At None after Comp Hours

At \_\_\_\_\_ after \_\_\_\_\_ Hours

CASING

SAMPLER

CORE BAR

Type

S/S

Size: D

3"

Hammer Wt

300#

Hammer Fall

30"

BIT

START

Date

1/7/95

Time

COMPLETE

1/7/95

TOTAL HRS.

BORING FOREMAN A. Whitaker

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6"<br>on Sampler |      |             | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock-color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE   |            |   |
|-------|--------------------------------|-------------------------------|----------------------|----------------------------|------|-------------|--------------------------------------|--------------------------|--|----------|------------|---|
|       |                                |                               |                      | From<br>0-6                | 6-12 | To<br>12-18 |                                      |                          |  | No       | Pen        | R |
|       |                                | <u>0'-2'</u>                  | <u>D</u>             | <u>Blows not Taken</u>     |      |             | <u>Moist</u>                         |                          | <u>Dark Gray Brown fine to<br/>coarse SAND &amp; Gravel,<br/>Cobbles &amp; Boulders</u>  | <u>1</u> | <u>24"</u> |   |
|       |                                | <u>2'-2.5'</u>                | <u>D</u>             |                            |      |             |                                      | <u>2.5'</u>              |  | <u>2</u> | <u>6"</u>  |   |
|       |                                |                               |                      |                            |      |             |                                      |                          | <u>Refusal - Bottom<br/>of Boring 2.5'</u>   |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |
|       |                                |                               |                      |                            |      |             |                                      |                          |  |          |            |   |

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING \_\_\_\_\_

THEN \_\_\_\_\_

Sample Type

D Dry C Cored W. Anched

UP Undisturbed Piston

TP Test Pit A Auger V Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140 lb Wt x 30" fall on 2' O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY:

Earth Boring 2.5

Rock Coring \_\_\_\_\_

Samples 2

100 WATER STREET

EAST PROVIDENCE, R. I.

TO Texas InstrumentsPROJECT NAME Low Level Radiation Invest.REPORT SENT TO above / Bldg. #5SAMPLES SENT TO Taken at SiteADDRESS Attleboro, Mass.LOCATION Attleboro, Mass.PROJ. NO. 95-41OUR JOB NO. 95-41

DATE

HOLE NO. NS-174

LINE &amp; STA.

OFFSET

SURF. ELEV.

| GROUND WATER OBSERVATIONS |                          | CASING      | SAMPLER     | CORE BAR | Date                              | Time |
|---------------------------|--------------------------|-------------|-------------|----------|-----------------------------------|------|
| At <u>6'</u>              | after <u>Comp.</u> hours | Type        | <u>S/S</u>  |          | START <u>1/5/95</u>               |      |
|                           |                          | Size: D     | <u>3"</u>   |          | COMPLETE <u>1/5/95</u>            |      |
| At                        | after                    | Hammer Wt   | <u>300#</u> | BIT      | TOTAL HRS.                        |      |
|                           | hours                    | Hammer Fall | <u>30"</u>  |          | BORING FOREMAN <u>A. Whitaker</u> |      |
|                           |                          |             |             |          | INSPECTOR                         |      |
|                           |                          |             |             |          | SOILS ENGR.                       |      |

## LOCATION OF BORING

| DEPTH | Casing Blows per foot | Sample Depths From-To | Type of Sample | Blows per 6' on Sampler |         |          | Moisture Density or Consist | Strata Change Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|-----------------------|-----------------------|----------------|-------------------------|---------|----------|-----------------------------|--------------------|--|--------|-----|----|
|       |                       |                       |                | From 0-6                | To 6-12 | To 12-18 |                             |                    |  | No     | Pen | Re |
|       |                       | 0'-2'                 | D              | Blows not Taken         |         |          | Moist                       |                    | Dark Brown fine to coarse SAND & Gravel & Cobbles  | 1      | 24" | 24 |
|       |                       | 2'-4'                 | D              | "                       | "       | "        |                             |                    |  | 2      | 24" | 24 |
|       |                       | 4'-6'                 | D              | "                       | "       | "        |                             | 5.2'               |  | 3      | 24" | 24 |
|       |                       | 6'-8'                 | D              | "                       | "       | "        | Moist to Wet                | 5.7'               | Dark Brown loamy PEAT  | 4      | 24" | 22 |
|       |                       | 8'-10'                | D              | "                       | "       | "        |                             | 8'                 | Tan Organic SILT   | 5      | 24" | 18 |
|       |                       |                       |                |                         |         |          |                             | 10'                | Gray silty fine SAND   |        |     |    |
|       |                       |                       |                |                         |         |          |                             |                    | Bottom of Boring 10'   |        |     |    |

GROUND SURFACE TO

USED

CASING

THEN

Sample Type

D Dry C Cores W Washed

UP Undisturbed Piston

TP Test Pit A Auger V Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 10'

Rock Coring

Samples 5

EAST PROVIDENCE R I

DATE \_\_\_\_\_  
HOLE NO. NS-175  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest. LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO. \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

| GROUND WATER OBSERVATIONS |                         | CASING      | SAMPLER     | CORE BAR | Date                              | Time |
|---------------------------|-------------------------|-------------|-------------|----------|-----------------------------------|------|
| At <u>6'</u>              | after <u>Comp</u> Hours | Type        | <u>S/S</u>  |          | START <u>1/5/95</u>               |      |
|                           |                         | Size D      | <u>3"</u>   |          | COMPLETE <u>1/5/95</u>            |      |
| At _____                  | after _____ Hours       | Hammer Wt   | <u>300#</u> |          | TOTAL HRS.                        |      |
|                           |                         | Hammer Fall | <u>30"</u>  | BIT      | BORING FOREMAN <u>A. Whitaker</u> |      |
|                           |                         |             |             |          | INSPECTOR _____                   |      |
|                           |                         |             |             |          | SOILS ENGR. _____                 |      |

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USE 3

## CASING

THEN

**Sample Type**

### Proportions Used

140lb Wt x 30" fall on 2' O D Sampler

## SUMMARY

D-Dry C-Cored W-Washed

Proportions Used  
trace 0.1 to 0.3%

Cohesionless Density

Cohesive Consistency

**SUMMARY**  
Earth Boring 10

UP - Undisturbed Piston

10 to 20%

010 Loose

0.4 Soft 30 + Hard

Rock Coring \_\_\_\_\_

10: Test for A Auger V-Vane Test

some 20 to 35%.

10-30 Med Dense

4-8 M/Stiff

Samples 5

100 WATER STREET

EAST PROVIDENCE, R. I.

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation Invest.LOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5PROJ NO 95-41SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

DATE

HOLE NO. NS-176

LINE &amp; STA.

OFFSET

SURF. ELEV.

Date Time

START 1/7/95COMPLETE 1/7/95

TOTAL MRS.

BORING FOREMAN K. Allen

INSPECTOR

SOILS ENGR.

## GROUND WATER OBSERVATIONS

CASING

SAMPLER

CORE BAR

At after Hours

Type

S/S

At after Hours

Size

3 1/2"

Diameter At

300#

Hammer Fall

24"

BIT

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depth<br>From - To | Type<br>of<br>Sample | Blows per 6<br>on Sample |            |             | Moisture<br>Density<br>or<br>Consist. | Strata<br>Change<br>Elev. | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock-color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|------------------------------|----------------------|--------------------------|------------|-------------|---------------------------------------|---------------------------|--|--------|-----|-----|
|       |                                |                              |                      | From<br>0-6              | To<br>6-12 | To<br>12-18 |                                       |                           |  | No     | Pen | Rec |
|       |                                | 0'-2'                        | D                    | Blows not Taken          |            |             |                                       |                           | Brown fine to coarse SAND<br>& Gravel, trace wood (RR Tie)   | 1      | 24" | 24" |
|       |                                | 2'-4'                        | D                    | "                        | "          | "           |                                       |                           | Gray fine to coarse SAND<br>& Gravel   | 2      | 24" | 24" |
|       |                                | 4'-6'                        | D                    | "                        | "          | "           |                                       |                           | Brown PEAT & Roots, some<br>fine to coarse sand &<br>gravel  | 3      | 24" | 24" |
|       |                                | 6'-8'                        | D                    | "                        | "          | "           |                                       |                           | Brown PEAT, some silty<br>fine sand  | 4      | 24" | 24" |
|       |                                | 8'-10'                       | D                    | "                        | "          | "           |                                       |                           | Gray silty fine SAND, trace<br>organic silt, trace roots   | 5      | 24" | 24" |
|       |                                |                              |                      |                          |            |             |                                       | 10'                       |  |        |     |     |
|       |                                |                              |                      |                          |            |             |                                       |                           | Bottom of Boring 10'   |        |     |     |

GROUND SURFACE TO

USED

CASING THEN

Sample Type

D-Dry C Cores W Washed

UP: Undisturbed Piston

TP: Test Pit A Auger V-Vane Test

Proportions Used

more 0 to 10%

fine 10 to 20%

some 20 to 35%

140lb Wt x 30' fall on 2 O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 10'

Rock Coring

Samples 5

TO Texas InstrumentsPROJECT NAME Low Level Radiation Invest.REPORT SENT TO above / Bldg. #5SAMPLES SENT TO Taken at SiteADDRESS Attleboro, Mass.LOCATION Attleboro, Mass.

PROJ NO. \_\_\_\_\_

OUR JOB NO 95-41

DATE \_\_\_\_\_

HOLE NO. NS-177

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At 3' after Comp Hours

Type \_\_\_\_\_

Size: D \_\_\_\_\_

Hammer Wt \_\_\_\_\_

Hammer Fall \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

START \_\_\_\_\_

Date

Time

1/5/95

COMPLETE \_\_\_\_\_

1/5/95

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN A. Whitaker

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6"<br>on Sampler |             |              | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock - color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|--------------------------------|-------------------------------|----------------------|----------------------------|-------------|--------------|--------------------------------------|--------------------------|--|--------|-----|----|
|       |                                |                               |                      | From<br>0-6'               | To<br>6-12' | To<br>12-18' |                                      |                          |  | No     | Pen | Re |
|       |                                | 0'-2'                         | D                    | Blows not Taken            |             |              | Moist                                |                          | Dark Brown & Black silty<br>fine to coarse SAND &<br>Gravel & Cobbles  | 1      | 24" | 24 |
|       |                                | 2'-4'                         | D                    | "                          | "           | "            |                                      |                          |  | 2      | 24" | 24 |
|       |                                | 4'-6'                         | D                    | "                          | "           | "            |                                      |                          |  | 3      | 24" | 24 |
|       |                                | 6'-8'                         | D                    | "                          | "           | "            | Wet                                  | 5'                       | Dark Brown PEAT  |        |     |    |
|       |                                | 8'-10'                        | D                    | "                          | "           | "            | Wet                                  | 5.5'                     | Brown organic silty PEAT   | 4      | 24" | 18 |
|       |                                |                               |                      |                            |             |              | Wet                                  | 8'                       | Gray silty SAND  | 5      | 24" | 18 |
|       |                                |                               |                      |                            |             |              |                                      | 10'                      | Bottom of Boring 10'   |        |     |    |

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type

D-Dry C-Cored W-Washed

UP-Undisturbed Piston

TP-Test Pit A-Auger V-Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140lb Wt &amp; 30" fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-12 Very Stiff

SUMMARY

Earth Boring 10'

Rock Coring \_\_\_\_\_

Samples 5

100 WATER STREET

EAST PROVIDENCE, R I

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation Invest.LOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5PROJ NO 95-41SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

DATE

HOLE NO. NS-178

LINE &amp; STA.

OFFSET

SURF. ELEV.

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type

CASING

SAMPLER

CORE BAR

Size: D

S/S

3 1/2"

Hammer Wt

300#

BIT

Hammer Fall

24"

Date

Time

START

1/7/95

COMPLETE

1/7/95

TOTAL MRS.

BORING FOREMAN K. Allen

INSPECTOR

SOILS ENGR.

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6"<br>on Sampler |            |             | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock-color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|--------------------------------|-------------------------------|----------------------|----------------------------|------------|-------------|--------------------------------------|--------------------------|--|--------|-----|----|
|       |                                |                               |                      | From<br>0-6                | To<br>6-12 | To<br>12-18 |                                      |                          |  | No     | Pen | Re |
|       |                                | 0'-2'                         | D                    | Blows not Taken            |            |             |                                      |                          | Brown fine to coarse SAND,<br>some fine to coarse gravel   | 1      | 24" | 24 |
|       |                                | 2'-4'                         | D                    | "                          | "          | "           |                                      |                          | " "  | 2      | 24" | 24 |
|       |                                | 4'-6'                         | D                    | "                          | "          | "           |                                      |                          | " "  | 3      | 24" | 24 |
|       |                                | 6'-8'                         | D                    | "                          | "          | "           |                                      |                          | Brown PEAT, some fine sand   | 4      | 24" | 2  |
|       |                                | 8'-10'                        | D                    | "                          | "          | "           |                                      |                          | Brown silty fine SAND,<br>some organic silt  | 5      | 24" | 4  |
|       |                                |                               |                      |                            |            |             |                                      | 10'                      | Bottom of Boring 10'   |        |     |    |

GROUND SURFACE TO

USED

CASING

THEN

Sample Type

D: Dry C: Cored W: Washed

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140 lb Wt x 30' fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-60 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Very Stiff

SUMMARY

Earth Boring 10'

Rock Coring

Samples 5

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation Invest.LOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5

PROJ NO

OUR JOB NO 95-41SAMPLES SENT TO Taken at Site

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER | CORE BAR | Date           | Time     |
|---------------------------|-------------------|-------------------|---------|----------|----------------|----------|
| At _____                  | after _____ Hours | Type _____        | S/S     | _____    | START          | 1/6/95   |
| At _____                  | after _____ Hours | Size D _____      | 3 1/2"  | _____    | COMPLETE       | 1/6/95   |
|                           |                   | Hammer Wt _____   | 300#    | BIT      | TOTAL HRS      | _____    |
|                           |                   | Hammer Fall _____ | 24"     | _____    | BORING FOREMAN | K. Allen |
|                           |                   |                   |         |          | INSPECTOR      | _____    |
|                           |                   |                   |         |          | SOILS ENGR.    | _____    |

## LOCATION OF BORING

| DEPTH | Casing Blows per foot | Sample Depths From - To | Type of Sample | Blows per 5' on Sampler |          |           | Moisture Density or Consist | Strata Change Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|-----------------------|-------------------------|----------------|-------------------------|----------|-----------|-----------------------------|--------------------|--|--------|-----|----|
|       |                       |                         |                | From 0-6"               | To 6-12" | To 12-18" |                             |                    |  | No     | Pen | Re |
|       |                       | 0'-2'                   | D              | Blows not Taken         |          |           |                             |                    | Brown fine to coarse SAND, some fine to coarse gravel, little concrete   | 1      | 24" | 24 |
|       |                       | 2'-4'                   | D              | "                       | "        | "         |                             |                    | Brown fine to coarse SAND, some fine to medium gravel, trace silt  | 2      | 24" | 14 |
|       |                       | 4'-6'                   | D              | "                       | "        | "         |                             |                    | Brown fine to medium SAND, some peat, little silt  | 3      | 24" | 14 |
|       |                       | 6'-8'                   | D              | "                       | "        | "         |                             |                    | Brown PEAT, little fine to coarse sand   | 4      | 24" | 6  |
|       |                       | 8'-10'                  | D              | "                       | "        | "         |                             |                    | Gray silty fine SAND, little coarse sand   | 5      | 24" | 12 |
|       |                       |                         |                |                         |          |           |                             | 10'                | Bottom of Boring 10'   |        |     |    |

| GROUND SURFACE TO               | USED             | CASING                                 | THEN                 | SUMMARY                 |
|---------------------------------|------------------|--|----------------------|-------------------------|
| Sample Type                     | Proportions Used | 140lb Wt x 30" fall on 2" O.D. Sampler | Cohesive Consistency | Earth Boring <u>10'</u> |
| D Dry C Cored Wt Washed         | trace 0 to 10%   | 0-10 Loose                             | 0-4 Soft 30+ Hard    | Rock Coring             |
| UP Undisturbed Piston           | little 10 to 20% | 10-30 Med Dense                        | 4-8 M/Stiff          | Samples <u>5</u>        |
| TP Test Pit A Auger V-Vane Test | some 20 to 35%   | 30-50 Dense                            | 8-15 Stiff           |                         |

100 WATER STREET

EAST PROVIDENCE, R. I.

TO Texas InstrumentsPROJECT NAME Low Level Radiation Invest.REPORT SENT TO above / Bldg. #5SAMPLES SENT TO Taken at SiteADDRESS Attleboro, Mass.LOCATION Attleboro, Mass.

PROJ NO

OUR JOB NO 95-41

DATE

HOLE NO NS-180

LINE &amp; STA.

OFFSET

SURF. ELEV.

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type

Size: D

Hammer Wt

Hammer Fall

CASING

SAMPLER

CORE BAR

S/S3 1/2"300#24"

BIT

Date

Time

START 1/7/95COMPLETE 1/7/95

TOTAL HRS

BORING FOREMAN K. Allen

INSPECTOR

SOILS ENGR.

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6"<br>on Sampler |            |             | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock - color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|--------------------------------|-------------------------------|----------------------|----------------------------|------------|-------------|--------------------------------------|--------------------------|--|--------|-----|----|
|       |                                |                               |                      | From<br>0-6                | To<br>6-12 | To<br>12-18 |                                      |                          |  | No     | Pen | Re |
|       |                                | 0'-2'                         | D                    | Blows not Taken            |            |             |                                      |                          | Brown fine to coarse SAND,<br>some fine to medium gravel   | 1      | 24" | 24 |
|       |                                | 2'-4'                         | D                    | "                          | "          | "           |                                      |                          | " "  | 2      | 24" | 24 |
|       |                                | 4'-6'                         | D                    | "                          | "          | "           |                                      |                          | " "  | 3      | 24" | 24 |
|       |                                | 6'-8'                         | D                    | "                          | "          | "           |                                      |                          | Brown fine to coarse SAND,<br>some fine to medium gravel,<br>trace peat & silt   | 4      | 24" | 7  |
|       |                                | 8'-10'                        | D                    | "                          | "          | "           |                                      |                          | " "  | 5      | 24" | 9  |
|       |                                |                               |                      |                            |            |             |                                      | 10'                      | Bottom of Boring 10'   |        |     |    |

GROUND SURFACE TO

USED

CASING

THEN

Sample Type

D - Dry C - Cored W - Washed

UP - Undisturbed Piston

TP - Test Pit A - Auger V - Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140 lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-60 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Shift

0-10

SUMMARY

Earth Boring 10'

Rock Coring

Samples 5



TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest. LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 35-41

DATE \_\_\_\_\_  
HOLE NO. NS-181  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |             |       | CASING            | SAMPLER      | CORE BAR  | Date                    | Time  |
|---------------------------|-------------|-------|-------------------|--------------|-----------|-------------------------|-------|
| At _____                  | after _____ | Hours | Type _____        | S/S _____    | _____     | START 1/6/95            | _____ |
| _____                     | _____       | _____ | Size D _____      | 3 1/2" _____ | _____     | COMPLETE 1/6/95         | _____ |
| At _____                  | after _____ | Hours | Hammer No. _____  | 300# _____   | BIT _____ | TOTAL HRS. _____        | _____ |
| _____                     | _____       | _____ | Hammer Fall _____ | 24" _____    | _____     | BORING FOREMAN K. Allen | _____ |
|                           |             |       |                   |              |           | INSPECTOR _____         | _____ |
|                           |             |       |                   |              |           | SOILS ENGR. _____       | _____ |

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED \_\_\_\_\_ CASING THEN \_\_\_\_\_

Sample Type

D-Dry C-Cored W-Ashbed

UB<sup>1</sup> - Undisturbed piston

TP: Test Pit A: Auger V: Vane Test

### Proportions Used

Trace 0 to 10%

10 to 20%

some 20 to 35%

140lb Wt x 30" tall on 2" O.D. Sampler

### Cohesionless Density

Q 10 Loose

10-30 Med Dense  
30-60 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Suff

## SUMMARY

Earth Boring 10'

Rock Coring

Samples 5

EAST PROVIDENCE R I

DATE \_\_\_\_\_  
HOLE NO. NS-182  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments  
PROJECT NAME Low Level Radiation Invest.  
REPORT SENT TO above / Bldg.  
SAMPLES SENT TO Taken at Site

ADDRESS Attleboro, Mass.  
LOCATION Attleboro, Mass.  
#5 PROJ NO. \_\_\_\_\_  
OUR JOB NO. 95-41

PROJ NO. \_\_\_\_\_  
OUR JOB NO. 95-41

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER      | CORE BAR  | Date                    | Time  |
|---------------------------|-------------------|-------------------|--------------|-----------|-------------------------|-------|
| At _____                  | after _____ Hours | Type _____        | S/S _____    | _____     | START 1/6/95            | _____ |
|                           |                   | Size: D _____     | 3 1/2" _____ | _____     | COMPLETE 1/6/95         | _____ |
| At _____                  | after _____ Hours | Hammer Wt _____   | 300# _____   | BIT _____ | TOTAL HRS. _____        | _____ |
|                           |                   | Hammer Fall _____ | 24" _____    | _____     | BORING FOREMAN K. Allen | _____ |
|                           |                   |                   |              |           | INSPECTOR _____         | _____ |
|                           |                   |                   |              |           | SOILS ENGR. _____       | _____ |

LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>100' | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6'<br>on Sample |            |             | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock-color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |   |
|-------|--------------------------------|-------------------------------|----------------------|---------------------------|------------|-------------|--------------------------------------|--------------------------|--|--------|-----|---|
|       |                                |                               |                      | From<br>0-6               | To<br>6-12 | To<br>12-18 |                                      |                          |  | No     | Pen | R |
|       |                                | 0'-2'                         | D                    | Blows not Taken           |            |             |                                      |                          | Brown fine to coarse SAND,<br>some fine to coarse gravel   | 1      | 24" | 2 |
|       |                                | 2'-4'                         | D                    | "                         | "          | "           |                                      |                          | " "  | 2      | 24" | 2 |
|       |                                | 4'-6'                         | D                    | "                         | "          | "           |                                      |                          | " "  | 3      | 24" | 2 |
|       |                                | 6'-8'                         | D                    | "                         | "          | "           |                                      |                          | Brown fine to coarse SAND<br>& fine to medium Gravel,<br>little peat & organic silt  | 4      | 24" | 1 |
|       |                                | 8'-10'                        | D                    | "                         | "          | "           |                                      |                          | Gray Brown silty fine SAND,<br>little peat & organic silt  | 5      | 24" | 2 |
|       |                                |                               |                      |                           |            |             | 10'                                  |                          | Bottom of Boring 10'   |        |     |   |

GROUND SURFACE TO

(15) (i)

CASING THEN

Sample Type  
D Dry C Cored W Washed  
UP Undisturbed Piston  
TP Test Pit A Auger V Vane Test

Proportions Used  
 trace 0 to 10%  
 little 10 to 20%  
 some 20 to 35%

| 140lb Wt & 30" Fall on 2" O.D. Sampler |                      |
|--|----------------------|
| Cohesiveness Density                   | Cohesive Consistency |
| 0-10 Loose                             | 0-4 Soft             |
| 10-30 Med Dense                        | 4-8 M/Stiff          |
| 30-50 Dense                            | 8-15 Stiff           |

SUMMARY  
Earth Boring 10  
Rock Coring 5  
Samples 5

118945

100 WATER STREET

EAST PROVIDENCE R 1

TO Texas Instruments

PROJECT NAME Hazardous Waste Study

REPORT SENT TO above / Lot

SAMPLES SENT TO Taken at Site

ADDRESS Attleboro, Mass.

LOCATION Attleboro, Mass.

PROJ NO

OUR JOB NO 95-146

DATE

HOLE NO. 25 S x 8

LINE &amp; STA.

OFFSET

SURF. ELEV.

## GROUND WATER OBSERVATIONS

At Dry after 0 hours

At after hours

Type

Size D

Hammer W

Hammer Fall

CASING

SAMPLER

CORE BAR

S/S

3"

300#

24"

BIT

Date

Time

START

12/8/94

COMPLETE

12/8/94

TOTAL HRS.

BORING FOREMAN A. Mason

INSPECTOR

SOILS ENGR.

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per ft.<br>on Sampler |      |       | Moisture<br>Density<br>or<br>Consist. | Strata<br>Change<br>Elev. | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock-color, type, condition, hard-<br>ness, Drilling time, seams and etc. | SAMPLE |     |   |
|-------|--------------------------------|-------------------------------|----------------------|-----------------------------|------|-------|---------------------------------------|---------------------------|---|--------|-----|---|
|       |                                |                               |                      | 0-6                         | 6-12 | 12-18 |                                       |                           |   | No     | Pen | R |
|       |                                | 0'-2'                         | D                    | 2                           | 3    | 8     |                                       | 10"                       | Dark Brown TOPSOIL  | 1      | 24" | 2 |
|       |                                | 2'-4'                         | D                    | 7                           | 11   | 12    |                                       |                           | Brown fine to medium SAND,<br>little silt, little fine<br>to coarse gravel, trace<br>coarse sand  | 2      | 24" | 2 |
|       |                                | 4'-6'                         | D                    | 20                          | 25   | 25    |                                       |                           |   | 3      | 24" | 2 |
|       |                                | 6'-8'                         | D                    | 15                          | 15   | 15    |                                       |                           |   | 4      | 24" | 2 |
|       |                                |                               |                      |                             |      | 13    |                                       | 8'                        |   |        |     |   |
|       |                                |                               |                      |                             |      |       |                                       |                           | Bottom of Boring 8'   |        |     |   |

118845

GROUND SURFACE TO

USED

CASING THEN

Sample Type

D-Dry C-Cored W-Nutrient

UP-Undisturbed Piston

T-Test Pit A Auger V-Vane Test

Proportions used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140lb Wt + 30' fall on 2" D Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30+ Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 8

Rock Coring 4

Samples 4



100 WATER STREET

EAST PROVIDENCE R I

TO Texas Instruments

PROJECT NAME Hazardous Waste Study

ADDRESS Attleboro, Mass.

REPORT SENT TO above / Lot K1

LOCATION Attleboro, Mass.

SAMPLES SENT TO Taken at Site

PROJ NO

OUR JOB NO 95-146

DATE

HOLE NO 45 8 x 75 R

LINE &amp; STA

OFFSET

SURF ELEV.

## GROUND WATER OBSERVATIONS

At after hours

Type

CASING SAMPLER CORE BAR

S/S

3"

300#

30"

BIT

Date Time

START 12/8/94

COMPLETE 12/8/94

TOTAL HRS

BORING FOREMAN R. Allen

INSPECTOR

SOILS ENGR

## LOCATION OF BORING

| DEPTH | Casing<br>blows<br>per<br>foot | Sample<br>Depths<br>From To | Type<br>of<br>Sample | Blows per 6<br>on Sampler |       |        | Moisture<br>Density,<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock color, type, condition, hard<br>ness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-----------------------------|----------------------|---------------------------|-------|--------|---------------------------------------|--------------------------|---|--------|-----|-----|
|       |                                |                             |                      | From<br>0-6"              | 6-12" | 12-18" |                                       |                          |   | No     | Per | Rec |
|       |                                | 0'-2'                       | D                    | 5                         | 6     | 10     |                                       |                          | Dry, Brown fine to medium<br>SAND & coarse Gravel,<br>trace silt  | 1      | 24" | 12  |
|       |                                | 2'-4'                       | D                    | 4                         | 4     | 7      |                                       |                          | Moist, Brown silty fine<br>SAND "ODOR"  | 2      | 24" | 14' |
|       |                                | 4'-6'                       | D                    | 6                         | 6     | 7      |                                       |                          | Wet, Gray silty fine SAND   | 3      | 24" | 24' |
|       |                                | 6'-8'                       | D                    | 5                         | 7     | 8      |                                       |                          | " "   | 4      | 24" | 24' |
|       |                                |                             |                      |                           |       | 10     |                                       | 8'                       |   |        |     |     |
|       |                                |                             |                      |                           |       |        |                                       |                          | Bottom of Boring 8'   |        |     |     |

## GROUND SURFACE TO

## USE

## CASING THEN

Sample Type

P Dry, C Cores, A Auger

all undisturbed samples

For Test Per A Auger &amp; vane test

Properties used

Name (City, State)

Age (C to 20%)

Some 20 to 15%

40lb Wt. 10' fall on 2" ID Sampler

Penetration Density

0-4 Loose

4-8 Med Dense

8-15 Dense

Adhesive Consistency

1-4 Soft 5-8 Hard

4-8 M/Soft

8-15 Crust

SUMMARY

Earth Boring 8'

Rock Boring

Samples 4

100 WATER STREET

EAST PROVIDENCE R I

TO Texas InstrumentsPROJECT NAME Hazardous Waste StudyREPORT SENT TO above / LotSAMPLES SENT TO Taken at SiteADDRESS Attleboro, Mass.LOCATION Attleboro, Mass.

PROJ NO

OUR JOB NO 95-146

DATE

HOLE NO 50 S x 80

LINE &amp; STA

OFFSET

SURF. ELEV.

## GROUND WATER OBSERVATIONS

At 4'6" after 0 hours

At after hours

CASING

SAMPLER

CORE BAR

Type

S/S

Size

3"

Weight

300#

Material

24"

Date

Time

START 12/8/94COMPLETE 12/8/94

TOTAL HRS

BORING FOREMAN A. MASON

INSPECTOR

SOILS ENGR

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depth<br>from top | Type<br>of<br>Sample | Blows per 6 in. Sample |    |    | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev. | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-----------------------------|----------------------|------------------------|----|----|--------------------------------------|---------------------------|--|--------|-----|-----|
|       |                                |                             |                      | 6                      | 12 | 24 |                                      |                           |  | No     | Pen | Rec |
|       |                                | 0'-2'                       | D                    | 53                     | 15 | 8  |                                      | 2"                        | Black Top  | 1      | 24' | 24' |
|       |                                | 2'-4'                       | D                    | 7                      | 7  | 7  |                                      |                           | Brown fine to coarse SAND,<br>little fine to coarse<br>gravel, trace silt  | 2      | 24' | 24' |
|       |                                | 4'-6'                       | D                    | 2                      | 2  | 4  |                                      | 4'                        | Brown fine to coarse SAND,<br>trace silt   | 3      | 24' | 8'  |
|       |                                | 6'-8'                       | D                    | 9                      | 9  | 11 |                                      | 7'                        |  | 4      | 24' | -   |
|       |                                |                             |                      |                        |    | 10 |                                      | 8'                        | Gray Brown silty fine SAND   |        |     |     |
|       |                                |                             |                      |                        |    |    |                                      |                           | Bottom of Boring 8'  |        |     |     |

GROUND SURFACE TO

FEET

CASING

FEET

Sample Type

A Dry, C Cores, A Sample

C1 Undisturbed Soil

C2 Test Pit, A Sample, Same Test

Sample Size (in)

Type

Time

Date

400 Wt. 50 lb. on 2" 10 Sampler

Moisture Density

Cohesive Consistency

0-4 Loose 0-4 Soft 30+ Hard

4-8 Med Dense 4-8 M/Stiff

30-50 Dense 8-15 Solid

SUMMARY

Earth Boring 8'

Rock Core

Samples 4

TO Texas InstrumentsPROJECT NAME Hazardous Waste StudyREPORT SENT TO above / LotSAMPLES SENT TO Taken at Site

100 WATER STREET

EAST PROVIDENCE R I

ADDRESS Attleboro, Mass.LOCATION Attleboro, Mass.PROJ NO 95-146OUR JOB NO 95-146

DATE

HOLE NO 65 S x 75

LINE &amp; STA

OFFSET

SURF ELEV.

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ hours

At \_\_\_\_\_ after \_\_\_\_\_ hours

Type

Size D

Hammer At

Hammer Ed

CASING

SAMPLER

CORE BAR

S/S

3 1/2"

300#

30"

B.T

Date

Time

START 12/8/94COMPLETE 12/8/94

TOTAL HRS

BORING FOREMAN R. Allen

INSPECTOR

SOILS ENGR

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6 in Sampler |       |        | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock color, type, condition, hard<br>ness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-------------------------------|----------------------|------------------------|-------|--------|--------------------------------------|--------------------------|---|--------|-----|-----|
|       |                                |                               |                      | From<br>0-6"           | 6-12" | 12-18" |                                      |                          |   | No     | Pen | Re  |
|       |                                | 0'-2'                         | D                    | 15                     | 5     | 4      |                                      |                          | Dry, Dark Brown fine to med<br>SAND & coarse Gravel, trace<br>silt  | 1      | 24" | 8'  |
|       |                                | 2'-4'                         | D                    | 2                      | 2     | 4      |                                      |                          | Moist to Wet, Brown silty<br>fine SAND & coarse Gravel  | 2      | 24" | 12' |
|       |                                | 4'-6'                         | D                    | 6                      | 10    | 10     |                                      |                          | Moist, Brown changing to<br>Gray silty fine SAND,<br>trace coarse gravel  | 3      | 24" | 24' |
|       |                                | 6'-8'                         | D                    | 3                      | 7     | 10     |                                      | 8'                       | Wet, Brown & Gray silty<br>fine SAND  | 4      | 24" | 24' |
|       |                                |                               |                      |                        |       | 7      |                                      |                          | Bottom of Boring 8'   |        |     |     |

GROUND SURFACE TO

FEET

CASING

FEET

Sample Type

100 lb. 2" med. A. Sampler

100 lb. 2" med. A. Sampler

100 lb. 2" med. A. Sampler

100 lb. 2" med. A. Sampler

100 lb. 2" med. A. Sampler

100 lb. 2" med. A. Sampler

100 lb. 2" med. A. Sampler

100 lb. 2" med. A. Sampler

100 lb. 2" med. A. Sampler

100 lb. 2" med. A. Sampler

100 lb. 2" med. A. Sampler

SUMMARY

Earth Boring 8'

Rock Boring

Samples 4



100 WATER STREET

EAST PROVIDENCE R 1

TO Texas Instruments

ADDRESS Attleboro, Mass.

PROJECT NAME Hazardous Waste Study

LOCATION Attleboro, Mass.

REPORT SENT TO above / Lot "K"

PROJ NO

SAMPLES SENT TO Taken at Site

OUR JOB NO 95-146

DATE

HOLE NO 85 S x 75

LINE &amp; STA

OFFSET

SURF. ELEV.

Date Time

START 12/8/94

COMPLETE 12/8/94

TOTAL HRS

BORING FOREMAN R. Allen

INSPECTOR

SOILS ENGR

## GROUND WATER OBSERVATIONS

At after hours

Type

CASING SAMPLER CORE BAR

S/S

Size: D

3 1/2"

At after hours

Hammer Wt

300#

BIT

Hammer Fall

30"

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sampler | Blows per 6<br>in Sampler |      |       | Moisture<br>Density,<br>or<br>Consist | Strata<br>Change<br>Elev. | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock color, type, condition, hard<br>ness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|--------------------------------|-------------------------------|-----------------------|---------------------------|------|-------|---------------------------------------|---------------------------|---|--------|-----|----|
|       |                                |                               |                       | 5-6                       | 6-12 | 12-18 |                                       |                           |   | No     | Pen | Re |
|       |                                | 0'-2'                         | D                     | 9                         | 7    | 7     |                                       |                           | Moist, Olive Brown & Gray<br>silty fine SAND, trace<br>coarse gravel  | 1      | 24" | 1  |
|       |                                | 2'-4'                         | D                     | 3                         | 1    | 1     |                                       |                           | Moist, Dark Gray & Black<br>silty fine SAND, trace<br>coarse gravel   | 2      | 24" | 1  |
|       |                                | 4'-6'                         | D                     | 1                         | 1    | 1     |                                       |                           | Moist, Dark Brown PEAT<br>changing to Olive Brown<br>silty fine SAND  | 3      | 24" | 24 |
|       |                                | 6'-8'                         | D                     | 1                         | 1    | 6     |                                       |                           | Moist, Dark Brown PEAT<br>with Gray silty fine Sand   | 4      | 24" | 24 |
|       |                                |                               |                       |                           |      | 7     |                                       | 8'                        |   |        |     |    |
|       |                                |                               |                       |                           |      |       |                                       |                           | Bottom of Boring 8'   |        |     |    |

## GROUND SURFACE

REF

CASING THEN

Sample Type

Type: C Core: A

Undisturbed Sample

Test Pit: A Auger &amp; Cone Test

Equipment used

Type: Auger

Size: 20"

Sample: 20 to 35 ft

40 lb Wt &amp; 30 ft long 2" ID Sampler

Consistency: Density

Loose

Med Dense

Dense

Cohesive Consistency

4-8 M/Soft

30+ Hard

R/S

## SUMMARY

Earth Boring 8'

Rock Coring

Samples 4

118045

4015 NO IRS-

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
HOLE NO. URS-2  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER | CORE BAR | Date                       | Time  |
|---------------------------|-------------------|-------------------|---------|----------|----------------------------|-------|
| At _____                  | after _____ Hours | Type _____        | S/S     | _____    | START 10/28/94             | _____ |
|                           |                   | Size: D _____     | 3 1/2"  | _____    | COMPLETE 10/28/94          | _____ |
| At _____                  | after _____ Hours | Hammer Wt _____   | 300#    | _____    | TOTAL HRS. _____           | _____ |
|                           |                   | Hammer Fall _____ | 30"     | _____    | BORING FOREMAN J. Medeiros | _____ |
|                           |                   |                   |         | BIT      | INSPECTOR _____            | _____ |
|                           |                   |                   |         |          | SOILS ENGR. _____          | _____ |

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USFO

CASING THEN

Sample Type

| Proportions Used |           |
|------------------|-----------|
| trace            | 0 to 10%  |
| little           | 10 to 20% |
| some             | 20 to 35% |

| 140lb WT x 30" fall on 2" O.D. Sampler |                      |
|--|----------------------|
| Cohesiveless Density                   | Cohesive Consistency |
| 0-10 Loose                             | 0-4 Soft             |
| 10-30 Med Dense                        | 4-8 M/Stiff          |
| 30-50 Dense                            | 8-15 Stiff           |

## SUMMARY

Earth Boring \_\_\_\_\_ 6  
Rock Coring \_\_\_\_\_  
Samples \_\_\_\_\_ 3

O: Dry C: Cored W: Aspects

Undisturbed piston

Test Pit A Auger Vane Test

WOLF NO URS-

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO URS-4

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Size: D \_\_\_\_\_

Hammer Wt \_\_\_\_\_

Hammer Cal. \_\_\_\_\_

S/S \_\_\_\_\_

3 1/2" \_\_\_\_\_

300# \_\_\_\_\_

30" \_\_\_\_\_

BIT \_\_\_\_\_

START 10/28/94COMPLETE 10/28/94

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN J. Medeiros

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>100' | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6" on Sampler |             |              | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of soil etc. Rock color, type, condition, hardness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-------------------------------|----------------------|-------------------------|-------------|--------------|--------------------------------------|--------------------------|--|--------|-----|-----|
|       |                                |                               |                      | From<br>0-6'            | To<br>6-12' | To<br>12-18' |                                      |                          |  | No     | Pen | Rec |
|       |                                | 0'-2'                         | D                    | Blows not Taken         |             |              |                                      |                          | 4" Asphalt   | 1      | 24  | 12  |
|       |                                |                               |                      |                         |             |              |                                      |                          | Brown Red SAND & Gravel  |        |     |     |
|       |                                | 2'-4'                         | D                    | "                       | "           | "            |                                      |                          | " "  | 2      | 24  | 12  |
|       |                                |                               |                      |                         |             |              |                                      | 4'                       |  |        |     |     |
|       |                                |                               |                      |                         |             |              |                                      |                          | Refusal - Bottom of Boring 4'  |        |     |     |

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING \_\_\_\_\_

THEN \_\_\_\_\_

Sample Type

D: Dry C: Cored W: Washed

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

UT: Undisturbed Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140 lb Wt &amp; 30" fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY:

Earth Boring 4

Rock Coring \_\_\_\_\_

Samples 2HOLE NO URS-4

DATE \_\_\_\_\_  
HOLE NO. URS-5  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

HOLE NO. URS-5  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                   |                   | CASING | SAMPLER | CORE BAR | Date                       | Time  |
|---------------------------|-------------------|-------------------|--------|---------|----------|----------------------------|-------|
| At _____                  | after _____ Hours | Type _____        |        | S/S     |          | START 10/28/94             | _____ |
|                           |                   | Size: D _____     |        | 3 1/2"  |          | COMPLETE 10/28/94          | _____ |
| At _____                  | after _____ Hours | Hammer Wt _____   |        | 300#    | BIT      | TOTAL HRS. _____           |       |
|                           |                   | Hammer Fall _____ |        | 30"     |          | BORING FOREMAN J. Medeiros |       |
|                           |                   |                   |        |         |          | INSPECTOR _____            |       |
|                           |                   |                   |        |         |          | SOILS ENGR. _____          |       |

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED "CASING THEN

Sample Type

D: Dry C: Cored W: Waxed

UF: Undisturbed Piston

TP: Test Pin A: Auger V: Vane Test

### Proportions Used

Trace 0 to 10%

10 to 20%

some 201035%

140lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density

0 10 Loose

10-30 Med Dense  
30-50 Dense

Cohesive Consistency

0.4 Soft 30 + Hard

4-8 M/Stiff

## SUMMARY

Earth Boring 6

Rock Coring \_\_\_\_\_

Samples 3

DATE \_\_\_\_\_  
HOLE NO. URS-6  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING

GROUND SURFACE TO

USED                    CASING                    THEN

### Proportions Used

Trace 0.1010%

100% 0 to 100%

Cohesionless Density

0 10      Loose

10:30 Med Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

## SUMMARY

Earth Boring

Rock Coring \_\_\_\_\_

Samples 3





TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
HOLE NO. URS-8  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |             |       | CASING            | SAMPLER | CORE BAR | Date                     | Time  |
|---------------------------|-------------|-------|-------------------|---------|----------|--------------------------|-------|
| At _____                  | after _____ | Hours | Type _____        | S/S     | _____    | START 10/28/94           | _____ |
|                           |             |       | Size: D _____     | 3 1/2"  | _____    | COMPLETE 10/28/94        | _____ |
| At _____                  | after _____ | Hours | Hammer Wt _____   | 300#    | _____    | TOTAL HRS. _____         |       |
|                           |             |       | Hammer Fall _____ | 30"     | BIT      | BORING FOREMAN P. Vieira |       |
|                           |             |       |                   |         |          | INSPECTOR _____          |       |
|                           |             |       |                   |         |          | SOILS ENGR. _____        |       |

### LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED

"CASING THEN

**Sample Type**

D: Dry C: Cored W: Washed

UP: Undisturbed Fission

TP: Test Pit    A: Auger    V: Vane Test

### Proportions Used

trace 0.1010%

|       | 10 | 10 | 20% |
|-------|----|----|-----|
| title |    |    |     |

some 20 to 35%

140lb Wt x 30" fall on 2' O D Sampler

Cohesionless Density | Cohesive Consistency

0-10      Loose

10-30 Med Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Siff

**SUMMARY:**

Earth Boring 6

### Rock Coring

Samples 3

REF ID: A68882

LOCATION OF BORING

GROUND SURFACE TO

Sample Type

D: Dry C: Cored W: Washed

UP: Undisturbed fishery

IP: Test Pt    A: Auger    V: Vane test

1054 (1)

### Proportions Used

Trace (1 to 10) %

| title     | 10 to 20% |
|-----------|-----------|
| 10 to 20% | 10 to 20% |

some 20 to 35%.

CASING THE N

140lb Wt x 50' fall on 2' O.D. Sampler

### Cinchesionless Density

010      Loose

10 30 Med Dense

### Cohesive Consistency

( ) 4 Soft

4.8 M/Suff

## SUMMARY

Earth Boring 6

Rock Coring -----

**Samples** 3

0-1000000000

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ. NO. \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

DATE \_\_\_\_\_  
HOLE NO. URS-10  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER | CORE BAR | Date                     | Time  |
|---------------------------|-------------------|-------------------|---------|----------|--------------------------|-------|
| At _____                  | after _____ Hours | Type _____        | S/S     | _____    | START 10/28/94           | _____ |
|                           |                   | Size I D _____    | 3 1/2"  | _____    | COMPLETE 10/28/94        | _____ |
| At _____                  | after _____ Hours | Hammer Wt _____   | 300#    | _____    | TOTAL HRS. _____         |       |
|                           |                   | Hammer Fall _____ | 30"     | _____    | BORING FOREMAN P. Vieira |       |
|                           |                   |                   |         | BIT      | INSPECTOR _____          |       |
|                           |                   |                   |         |          | SOILS ENGR. _____        |       |

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED

"CASING THEN

**Sample Type**

### Proportions Used

140lb Wt. x 30" fall on 2" O.D. Sampler

D: Dry C: Cored W: Washed

Trace 01010%

Cohesionless Density

Cohesive Consistency

UP: Undisturbed Fission

title 101020%

0 10      loose

0-4 Soft 30 + Hard

TP: Test Pin A: Auger V: Vane Test

some 20 to 35%

10-30 Med Dense  
30-60 Dense

4-8 M/Siff

### SUMMARY:

Earth Boring 4' 4'

### Rock Coring

Samples —

100-110000-1

DATE \_\_\_\_\_  
HOLE NO. URS-11  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER | CORE BAR  | Date                       | Time  |
|---------------------------|-------------------|-------------------|---------|-----------|----------------------------|-------|
| At _____                  | after _____ Hours | Type _____        | S/S     | _____     | START 10/29/94             | _____ |
|                           |                   | Size ID _____     | 3 1/2"  | _____     | COMPLETE 10/29/94          | _____ |
| At _____                  | after _____ Hours | Hammer Wt _____   | 300#    | _____     | TOTAL HRS. _____           | _____ |
|                           |                   | Hammer Fall _____ | 30"     | BIT _____ | BORING FOREMAN J. Medeiros | _____ |
|                           |                   |                   |         |           | INSPECTOR _____            | _____ |
|                           |                   |                   |         |           | SOILS ENGR. _____          | _____ |

[illegible]

| SUMMARY      |    |
|--------------|----|
| Earth Boring | 6' |
| Rock Coring  |    |
| Samples      | 3  |

100 WATER STREET

EAST PROVIDENCE, R I

TO Texas InstrumentsADDRESS Attleboro, Mass.DATE \_\_\_\_\_  
HOLE NO. URS-12PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.

LINE &amp; STA. \_\_\_\_\_

REPORT SENT TO above / Bldg. #5

PROJ. NO. \_\_\_\_\_

OFFSET \_\_\_\_\_

SAMPLES SENT TO Taken at SiteOUR JOB NO. 95-41

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

CASING

SAMPLER

CORE BAR

At \_\_\_\_\_ after \_\_\_\_\_ hours

Type

S/S

At \_\_\_\_\_ after \_\_\_\_\_ hours

Size: D

3 1/2"

Hammer Wt

300#

BIT

Hammer Fall

30"START 10/29/94COMPLETE 10/29/94

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN P. Vieira

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6<br>on Sampler |      |             | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-------------------------------|----------------------|---------------------------|------|-------------|--------------------------------------|--------------------------|--|--------|-----|-----|
|       |                                |                               |                      | From<br>0-6               | 6-12 | To<br>12-18 |                                      |                          |  | No     | Pen | Ret |
|       |                                | 0'-2'                         | D                    | Blows not Taken           |      |             |                                      |                          | 3" Asphalt - Brown medium<br>SAND & Yellowish fine Sand<br>& Gravel  | 1      | 24  | 24  |
|       |                                | 2'-4'                         | D                    | "                         | "    | "           |                                      |                          | Yellowish fine SAND  | 2      | 24  | 24  |
|       |                                | 4'-6'                         | D                    | "                         | "    | "           |                                      |                          | " "  | 3      | 24  | 20  |
|       |                                |                               |                      |                           |      |             |                                      | 6'                       |  |        |     |     |
|       |                                |                               |                      |                           |      |             |                                      |                          | Bottom of Boring 6'  |        |     |     |

GROUND SURFACE TO \_\_\_\_\_

USED

CASING

THEN

Sample Type

D: Dry C: Cored W: Washed

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140 lb Wt &amp; 30" fall on 2" O.D. Sampler

Cohesionless Density Cohesive Consistency

0-10 Loose

10-30 Med Dense

30-50 Dense

0-4 Soft

4-8 M/Shift

8-15 Stiff

30 + Hard

SUMMARY

Earth Boring 6'

Rock Coring \_\_\_\_\_

Samples 3



100 WATER STREET

EAST PROVIDENCE, R I

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO above Bldg. #5

PROJ NO

SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

DATE

HOLE NO URS-14

LINE &amp; STA.

OFFSET

SURF. ELEV.

Date Time

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type

CASING

SAMPLER

CORE BAR

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Size: D

Hammer Wt

Hammer Fall

S/S

3 1/2"

300#

30"

BIT

START 10/29/94COMPLETE 10/29/94

TOTAL HRS.

BORING FOREMAN P. Vieira

INSPECTOR

SOILS ENGR.

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per Foot<br>on Sampler |      |             | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock-color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-------------------------------|----------------------|------------------------------|------|-------------|--------------------------------------|--------------------------|--|--------|-----|-----|
|       |                                |                               |                      | From<br>0-6                  | 6-12 | To<br>12-18 |                                      |                          |  | No     | Pen | Rec |
|       |                                | 0'-2'                         | D                    | Blows not Taken              |      |             |                                      |                          | Brown medium SAND, some<br>gravel  | 1      | 24' | 24  |
|       |                                | 2'-4'                         | D                    | "                            | "    | "           |                                      |                          | Brown medium to fine SAND<br>with Peat   | 2      | 24' | 24  |
|       |                                | 4'-6'                         | D                    | "                            | "    | "           |                                      |                          | " with Wood  | 3      | 24' | 18  |
|       |                                |                               |                      |                              |      |             |                                      | 6'                       | Bottom of Boring 6'  |        |     |     |

GROUND SURFACE TO

USED

CASING

THEN

Sample Type

D: Dry C: Cored W: Washed

UP: Undisturbed Piston

TP: Test Pit A: Auger V: Vane Test

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

140lb Wt x 30" fall on 2 O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft

4-8 M/Stiff

8-15 Stiff

30 + Hard

SUMMARY

Earth Boring

Rock Coring

Samples

6'

3



TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above Bldg. #5 PROJ NO. \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO. 95-41

HOLE NO. URS-15

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ hours

At \_\_\_\_\_ after \_\_\_\_\_ hours

Type \_\_\_\_\_

Size, D \_\_\_\_\_

Hammer Wt \_\_\_\_\_

Hammer Fall \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

S/S3 1/2"300#30"

BIT \_\_\_\_\_

Date

Time

START 10/29/94COMPLETE 10/29/94

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN P. Vieira

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6" on Sampler |            |             | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock - color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE   |            |           |
|-------|--------------------------------|-------------------------------|----------------------|-------------------------|------------|-------------|--------------------------------------|--------------------------|--|----------|------------|-----------|
|       |                                |                               |                      | From<br>0-6             | To<br>6-12 | To<br>12-18 |                                      |                          |  | No       | Pen        | Ri        |
|       |                                | <u>0'-2'</u>                  | <u>D</u>             | <u>Blows not Taken</u>  |            |             |                                      |                          | <u>Brown medium SAND &amp; Gravel</u>  | <u>1</u> | <u>24'</u> | <u>2'</u> |
|       |                                | <u>2'-4'</u>                  | <u>D</u>             | <u>"</u>                | <u>"</u>   | <u>"</u>    |                                      |                          | <u>Rusty fine SAND &amp; Gravel</u>  | <u>2</u> | <u>24'</u> | <u>2'</u> |
|       |                                | <u>4'-6'</u>                  | <u>D</u>             | <u>"</u>                | <u>"</u>   | <u>"</u>    |                                      |                          | <u>Yellowish fine to medium<br/>SAND &amp; Gravel</u>  | <u>3</u> | <u>24'</u> | <u>1'</u> |
|       |                                |                               |                      |                         |            |             |                                      | <u>6'</u>                | <u>Bottom of Boring 6'</u>   |          |            |           |

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING \_\_\_\_\_

THEN \_\_\_\_\_

Sample Type

D-Dry C-Cored W-Washed

UP-Undisturbed Piston

TP-Test Pit A-Auger V-Vane Test

UT-Undisturbed Throwall

Proportions Used

trace 0 to 10%

little 10 to 20%

some 20 to 35%

and 35 to 50%

140 lb Wt x 30' fall on 2 O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY:

Earth Boring 6'

Rock Coring \_\_\_\_\_

Samples 3

HOLE NO. HRS-1

DATE \_\_\_\_\_  
HOLE NO. URS-16  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

LOCATION OF BORING

Samples 3



TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above Bldg. # 5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
HOLE NO. URS-18  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER | CORE BAR | Days           | Time      |
|---------------------------|-------------------|-------------------|---------|----------|----------------|-----------|
| At _____                  | after _____ Hours | Type _____        | S/S     | _____    | START          | 10/29/94  |
|                           |                   | Size ID _____     | 3 1/2"  | _____    | COMPLETE       | 10/29/94  |
| At _____                  | after _____ Hours | Hammer Wt _____   | 300#    | BIT      | TOTAL HRS.     | _____     |
|                           |                   | Hammer Fall _____ | 30"     | _____    | BORING FOREMAN | P. Vieira |
|                           |                   |                   |         |          | INSPECTOR      | _____     |
|                           |                   |                   |         |          | SOILS ENGR.    | _____     |

### LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED

CASING THEN

| Sample | Type |
|--------|------|
| 1      | ...  |
| 2      | ...  |
| 3      | ...  |
| 4      | ...  |
| 5      | ...  |
| 6      | ...  |
| 7      | ...  |
| 8      | ...  |
| 9      | ...  |
| 10     | ...  |
| 11     | ...  |
| 12     | ...  |
| 13     | ...  |
| 14     | ...  |
| 15     | ...  |
| 16     | ...  |
| 17     | ...  |
| 18     | ...  |
| 19     | ...  |
| 20     | ...  |
| 21     | ...  |
| 22     | ...  |
| 23     | ...  |
| 24     | ...  |
| 25     | ...  |
| 26     | ...  |
| 27     | ...  |
| 28     | ...  |
| 29     | ...  |
| 30     | ...  |
| 31     | ...  |
| 32     | ...  |
| 33     | ...  |
| 34     | ...  |
| 35     | ...  |
| 36     | ...  |
| 37     | ...  |
| 38     | ...  |
| 39     | ...  |
| 40     | ...  |
| 41     | ...  |
| 42     | ...  |
| 43     | ...  |
| 44     | ...  |
| 45     | ...  |
| 46     | ...  |
| 47     | ...  |
| 48     | ...  |
| 49     | ...  |
| 50     | ...  |
| 51     | ...  |
| 52     | ...  |
| 53     | ...  |
| 54     | ...  |
| 55     | ...  |
| 56     | ...  |
| 57     | ...  |
| 58     | ...  |
| 59     | ...  |
| 60     | ...  |
| 61     | ...  |
| 62     | ...  |
| 63     | ...  |
| 64     | ...  |
| 65     | ...  |
| 66     | ...  |
| 67     | ...  |
| 68     | ...  |
| 69     | ...  |
| 70     | ...  |
| 71     | ...  |
| 72     | ...  |
| 73     | ...  |
| 74     | ...  |
| 75     | ...  |
| 76     | ...  |
| 77     | ...  |
| 78     | ...  |
| 79     | ...  |
| 80     | ...  |
| 81     | ...  |
| 82     | ...  |
| 83     | ...  |
| 84     | ...  |
| 85     | ...  |
| 86     | ...  |
| 87     | ...  |
| 88     | ...  |
| 89     | ...  |
| 90     | ...  |
| 91     | ...  |
| 92     | ...  |
| 93     | ...  |
| 94     | ...  |
| 95     | ...  |
| 96     | ...  |
| 97     | ...  |
| 98     | ...  |
| 99     | ...  |
| 100    | ...  |

### Proportions Used

140lb Wt x 30" fall on 2 O.D. Sampler

D-Dry C-Cored W-Washed

Trace 0.1010%

Cohesionless Density | Cohesive Consistency

UD - Undisturbed Fission

title 101p20%

|      |       |     |      |
|------|-------|-----|------|
| 0-10 | Loose | 0-4 | Soft |
|------|-------|-----|------|

TP: Test Pt A Auger V-Vane Test

some 20 to 35%.

|    |    |           |     |         |
|----|----|-----------|-----|---------|
| 10 | 30 | Med Dense | 4.8 | M/Stiff |
|----|----|-----------|-----|---------|

THE UNIVERSITY OF CHICAGO

10-5511

|       |       |      |       |
|-------|-------|------|-------|
| 30-50 | Dense | 8-15 | Stiff |
|-------|-------|------|-------|

## SUMMARY

Earth Boring 6'

Rock Coring \_\_\_\_\_

Samples 3

100-101000-10

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
HOLE NO. URS-19  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |             |       | CASING            | SAMPLER | CORE BAR | Date                       | Time  |
|---------------------------|-------------|-------|-------------------|---------|----------|----------------------------|-------|
| At _____                  | after _____ | Hours | Type _____        | S/S     | _____    | START 10/29/94             | _____ |
|                           |             |       | Size: D _____     | 3 1/2"  | _____    | COMPLETE 10/29/94          | _____ |
| At _____                  | after _____ | Hours | Hammer Wt _____   | 300#    | _____    | TOTAL HRS. _____           |       |
|                           |             |       | Hammer Fall _____ | 30"     | _____    | BORING FOREMAN J. Medeiros |       |
|                           |             |       |                   |         | BIT      | INSPECTOR _____            |       |
|                           |             |       |                   |         |          | SOILS ENGR. _____          |       |

## LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED                      CASING                      THEN

Sample Type  
D-Dry C-Cored W-Washed

UP: Undisturbed Position

TP. Test Pit A: Auger V. Vane Test

### Proportions Used

Trace 0.1010%

10 to 20%

some 20 to 35%

140lb Wt x 30' fall on 2' O D Sampler

Cohesionless Density

010 Loose

10-30 Med Dense

Cohesive Consistency

O-4 Soft

4-8 M/Stiff

### SUMMARY

Earth Boring 6

### Rock Coring

Samples 3

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO. URS-20

LINE & STA. \_\_\_\_\_

**OFFSET** \_\_\_\_\_

**SURF. ELEV.** \_\_\_\_\_

| Date | Time |
|------|------|
|------|------|

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER | CORE BAR | DATE                     | TIME  |
|---------------------------|-------------------|-------------------|---------|----------|--------------------------|-------|
| At _____                  | after _____ Hours | Type _____        | S/S     | _____    | START 10/29/94           | _____ |
|                           |                   | Size: D _____     | 3 1/2"  | _____    | COMPLETE 10/29/94        | _____ |
| At _____                  | after _____ Hours | Hammer Wt _____   | 300#    | BIT      | TOTAL HRS. _____         | _____ |
|                           |                   | Hammer Fall _____ | 30"     | _____    | BORING FOREMAN P. Vieira | _____ |
|                           |                   |                   |         |          | INSPECTOR _____          | _____ |
|                           |                   |                   |         |          | SOILS ENGR. _____        | _____ |

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USE ()

"CASING THEN

Sample Type  
D: Dry C-Cored W: Washed  
UP Undisturbed Piston  
TP: Test Pit A-Auger V Vane Test

| Proportions Used |           |
|------------------|-----------|
| trace            | 0 to 10%  |
| little           | 10 to 20% |
| some             | 20 to 35% |

| 140lb Wt x 30" fall on 2" O.D. Sampler |                      |
|--|----------------------|
| Coneless Density                       | Cohesive Consistency |
| 0-10 Loose                             | 0-4 Soft 30 + Hard   |
| 10-30 Med Dense                        | 4-8 M/Stiff          |
| 30-50 Dense                            | 8-15 Stiff           |

SUMMARY

Earth Boring 4

Rock Coring 2

Samples 2

FILE NO IRS-2

EAST PROVIDENCE, R I

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
HOLE NO. URS-21  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                   |                   | CASING | SAMPLER | CORE BAR | Date                       | Time  |
|---------------------------|-------------------|-------------------|--------|---------|----------|----------------------------|-------|
| At _____                  | after _____ hours | Type _____        | _____  | S/S     | _____    | START 10/30/94             | _____ |
| At _____                  | after _____ hours | Size: D _____     | _____  | 3 1/2"  | _____    | COMPLETE 10/30/94          | _____ |
|                           |                   | Hammer Wt _____   | _____  | 300#    | _____    | TOTAL HRS. _____           |       |
|                           |                   | Hammer Fall _____ | _____  | 30"     | _____    | BORING FOREMAN J. Medeiros |       |
|                           |                   |                   |        |         | BIT      | INSPECTOR _____            |       |
|                           |                   |                   |        |         |          | SOILS ENGR. _____          |       |

### LOCATION OF BORING

[illegible]

GROUND SURFACE 1.0

0561:

CASING THEN

Sample Type

### Proportions used

140lb WT + 30' fall on 2 QD Samplers.

D: Dry C: Cored W: Wound

Trace 0.100%

### Cohesionless Density

Cohesive Consistency

UP Undisturbed Position

**NAME** \_\_\_\_\_ **DATE** \_\_\_\_\_

0-0 Loose

2 4 Soft 30 + hard

TP: Test Pt. A Auger V. Core Test

1980 101-168/

10 30 Med Dense

4.8 M/S 1.11

117. *Ischnura elegans* (L.)

some 20 to 35%

30 50 Dense

8:5 Skill

## SUMMARY

Earth Being 6

Rock Spring

## Samples

| GROUND SURFACE TEST             | USED             | CASING                              | THEN                 | SUMMARY               |
|---------------------------------|------------------|-------------------------------------|----------------------|-----------------------|
| Sample Type                     | Proportions Used | 140 lb Wt x 30 fall on 2 00 Sampler |                      | Earth Boring <u>6</u> |
| D Dry C Cored W Washed          | trace 0 to 10%   | Cohesionless Density                | Cohesive Consistency | Rock Coring           |
| UP Undisturbed Fusion           | fine 10 to 20%   | 0 10 Loose                          | 0-4 Soft 30 + Hard   | Samples <u>3</u>      |
| TP Test Pit A Auger - Cone Test | some 20 to 35%   | 10 30 Med Dense                     | 4-8 M/Stiff          |                       |
| UT Undisturbed Triaxial         | 15 to 20%        | 30 50 Dense                         | 8-15 Stiff           |                       |



TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
 HOLE NO. URS-23  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER | CORE BAR  | Date           | Time      |
|---------------------------|-------------------|-------------------|---------|-----------|----------------|-----------|
| At _____                  | after _____ hours | Type _____        | S/S     | _____     | START          | 10/30/94  |
| At _____                  | after _____ hours | Size I D _____    | 3 1/2"  | _____     | COMPLETE       | 10/30/94  |
|                           |                   | Hammer Wt _____   | 300#    | BIT _____ | TOTAL HRS.     | _____     |
|                           |                   | Hammer Fall _____ | 30"     | _____     | BORING FOREMAN | P. Vieira |
|                           |                   |                   |         |           | INSPECTOR      | _____     |
|                           |                   |                   |         |           | SOILS ENGR.    | _____     |

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>100' | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6" on Sampler |    |   | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of soil etc. Rock color, type, condition, hardness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|--------------------------------|-------------------------------|----------------------|-------------------------|----|---|--------------------------------------|--------------------------|--|--------|-----|----|
|       |                                |                               |                      | From                    | To |   |                                      |                          |  | No     | Pen | Re |
|       |                                | 0'-2'                         | D                    | Blows not Taken         |    |   |                                      |                          | 4" Asphalt<br>Yellowish medium to fine<br>SAND & Gravel  | 1      | 24  | 20 |
|       |                                | 2'-4'                         | D                    | "                       | "  | " |                                      |                          | Yellowish fine SAND, little<br>gravel  | 2      | 24  | 19 |
|       |                                | 4'-6'                         | D                    | "                       | "  | " |                                      |                          | Rusty fine SAND  | 3      | 24  | 24 |
|       |                                |                               |                      |                         |    |   |                                      | 6'                       | Bottom of Boring 6'  |        |     |    |

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING \_\_\_\_\_

THEN \_\_\_\_\_

Sample Type \_\_\_\_\_  
 D: Dry C: Cored W: Washed  
 UP: Undisturbed Fusion  
 TP: Test Pit A: Auger V: Vane Test

Proportions Used  
 fine 0 to 10%  
 silt 10 to 20%  
 some 20 to 35%

140 lb Wt x 30' fall on 2" O.D. Sampler  
 Cohesionless Density Cohesive Consistency  
 0-10 Loose 0-4 Soft 30 + hard  
 10-30 Med Dense 4-8 M/Stiff  
 30-50 Dense 8-15 Stiff

SUMMARY  
 Earth Boring 6'  
 Rock Coring \_\_\_\_\_  
 Samples 3

EAST PROVIDENCE, R I

TO Texas Instruments ADDRESS Attleboro, Mass.  
PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
REPORT SENT TO above / Bldg. #5 PROJ NO \_\_\_\_\_  
SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

DATE \_\_\_\_\_  
HOLE NO. URS-24  
LINE & STA. \_\_\_\_\_  
OFFSET \_\_\_\_\_  
SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |                   | CASING            | SAMPLER | CORE BAR  | Date                              | Time  |
|---------------------------|-------------------|-------------------|---------|-----------|-----------------------------------|-------|
| At _____                  | after _____ Hours | Type _____        | S/S     | _____     | START 10/30/94                    | _____ |
|                           |                   | Size: D _____     | 3 1/2"  | _____     | COMPLETE 10/30/94                 | _____ |
| At _____                  | after _____ Hours | Hammer Wt _____   | 300#    | _____     | TOTAL HRS. _____                  |       |
|                           |                   | Hammer Fall _____ | 30"     | BIT _____ | BORING FOREMAN <u>J. Medeiros</u> |       |
|                           |                   |                   |         |           | INSPECTOR _____                   |       |
|                           |                   |                   |         |           | SOILS ENGR. _____                 |       |

LOCATION OF BORING

[illegible]

GROUND SURFACE TO

USED

CASING THEN

Sample Type  
D-Dry C-Cored W-Washed  
U-Undisturbed Piston  
TP-Test Pit A-Auger V-Vane Test

| Proportions Used |           |
|------------------|-----------|
| trace            | 0 to 10%  |
| little           | 10 to 20% |
| some             | 20 to 35% |

| 140lb WT x 30' fall on 2" O.D. Sampler |                      |
|--|----------------------|
| Cohesionless Density                   | Cohesive Consistency |
| 0-10 Loose                             | 0-4 Soft             |
| 10-30 Med Dense                        | 4-8 M/Soft           |
| 30-50 Dense                            | 8-15 Stiff           |

**SUMMARY:**  
Earth Boring \_\_\_\_\_ 6"  
Rock Coring \_\_\_\_\_  
Samples \_\_\_\_\_ 3



TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO above / Bldg. #5

PROJ NO

SAMPLES SENT TO Taken at SiteOUR JOB NO 95-41

DATE

HOLE NO. URS-26

LINE &amp; STA.

OFFSET

SURF. ELEV.

Date

Time

START 10/30/94COMPLETE 10/30/94

TOTAL HRS.

BORING FOREMAN P. Vieira

INSPECTOR

SOILS ENGR.

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type

CASING

SAMPLER

CORE BAR

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Size 0

Hammer Wt

Hammer Fall

S/S

3 1/2"

300#

30"

BIT

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From To | Type<br>of<br>Sample | Blows per E<br>on Sampler |       |    | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock-color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |     |
|-------|--------------------------------|-----------------------------|----------------------|---------------------------|-------|----|--------------------------------------|--------------------------|--|--------|-----|-----|
|       |                                |                             |                      | From                      | To    | To |                                      |                          |  | No     | Pen | Rec |
|       |                                | 0'-2'                       | D                    | Blows not                 | Taken |    |                                      |                          | Brown medium SAND, some<br>gravel  | 1      | 24' | 24  |
|       |                                | 2'-4'                       | D                    | "                         | "     | "  |                                      |                          | Brown fine SAND & Gravel   | 2      | 24' | 18  |
|       |                                | 4'-6'                       | D                    | "                         | "     | "  |                                      |                          | White fine SAND  | 3      | 24' | 18  |
|       |                                |                             |                      |                           |       |    |                                      | 6'                       | Bottom of Boring 6'  |        |     |     |

GROUND SURFACE TO

USED

CASING THEN

Sample Type

D Dry C Tared W. Ashes

UP Undisturbed Piston

TP Test Pit A Auger V. Vane Test

Proportions Used

Rock 0-100%

Gravel 0-20%

Sand 20-35%

40lb Wt x 30" Taren 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30+ Hard

4-8 M/Soft

8-15 Stiff

SUMMARY

Earth Boring 6'

Rock Coring

Samples 3

NO 5 MA 1925

TO Texas Instruments ADDRESS Attleboro, Mass.  
 PROJECT NAME Low Level Radiation Invest LOCATION Attleboro, Mass.  
 REPORT SENT TO above Bldg. # 5 PROJ NO \_\_\_\_\_  
 SAMPLES SENT TO Taken at Site OUR JOB NO 95-41

HOLE NO. URS-28  
 LINE & STA. \_\_\_\_\_  
 OFFSET \_\_\_\_\_  
 SURF. ELEV. \_\_\_\_\_

| GROUND WATER OBSERVATIONS |             |             | CASING            | SAMPLER | CORE BAR | Date             | Time        |
|---------------------------|-------------|-------------|-------------------|---------|----------|------------------|-------------|
| At _____                  | after _____ | Hours _____ | Type _____        | S/S     | _____    | START            | 10/30/94    |
| At _____                  | after _____ | Hours _____ | Size: D _____     | 3 1/2"  | _____    | COMPLETE         | 10/30/94    |
|                           |             |             | Hammer Wt _____   | 300#    | _____    | TOTAL HRS _____  |             |
|                           |             |             | Hammer Fall _____ | 30"     | _____    | BORING FOREMAN   | J. Medeiros |
|                           |             |             |                   |         | BIT      | INSPECTOR _____  |             |
|                           |             |             |                   |         |          | SOILS ENGR _____ |             |

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>100' | Sample<br>Depths<br>From To | Type<br>of<br>Sample | Blows per 6"<br>in Sampler |       |   | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |     |    |
|-------|--------------------------------|-----------------------------|----------------------|----------------------------|-------|---|--------------------------------------|--------------------------|--|--------|-----|----|
|       |                                |                             |                      | From                       | To    |   |                                      |                          |  | No     | Pen | Re |
|       |                                | 0'-2'                       | D                    | Blows not                  | Taken |   |                                      |                          | Brown SAND & Gravel  | 1      | 24" | 1  |
|       |                                | 2'-4'                       | D                    | "                          | "     | " |                                      |                          | " "  | 2      | 24" | 1  |
|       |                                | 4'-6'                       | D                    | "                          | "     | " |                                      |                          | " "  | 3      | 24" | 1  |
|       |                                |                             |                      |                            |       |   |                                      | 6'                       | Bottom of Boring 6'  |        |     |    |

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type

D-Dry C-Cored W-Washed

JP-Undisturbed Test

TP-Test Pit A-Auger V-Vibro Test

at \_\_\_\_\_

Proportions used

fine 0 to 5%

fine 10 to 20%

silt 20 to 35%

at \_\_\_\_\_

140lb Wt &amp; 30 fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30+ Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY

Earth Boring 6'

Rock Coring

Samples 3

HOLE NO. URS-28



HOLE NO. URS-30

LINE &amp; STA. \_\_\_\_\_

OFFSET \_\_\_\_\_

SURF. ELEV. \_\_\_\_\_

TO Texas InstrumentsADDRESS Attleboro, Mass.PROJECT NAME Low Level Radiation InvestLOCATION Attleboro, Mass.REPORT SENT TO aboveBldg. #5

PROJ. NO. \_\_\_\_\_

SAMPLES SENT TO Taken at SiteOUR JOB NO. 95-41

## GROUND WATER OBSERVATIONS

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Type \_\_\_\_\_

CASING \_\_\_\_\_

SAMPLER \_\_\_\_\_

CORE BAR \_\_\_\_\_

START 10/30/94COMPLETE 10/30/94

TOTAL HRS. \_\_\_\_\_

BORING FOREMAN J. Medeiros

INSPECTOR \_\_\_\_\_

SOILS ENGR. \_\_\_\_\_

At \_\_\_\_\_ after \_\_\_\_\_ Hours

Size: D \_\_\_\_\_

Hammer Wt \_\_\_\_\_

Hammer Fall \_\_\_\_\_

S/S3 1/2"300#30"

BIT \_\_\_\_\_

## LOCATION OF BORING

| DEPTH | Casing<br>Blows<br>per<br>foot | Sample<br>Depths<br>From - To | Type<br>of<br>Sample | Blows per 6"<br>on Sampler |       |   | Moisture<br>Density<br>or<br>Consist | Strata<br>Change<br>Elev | SOIL IDENTIFICATION<br>Remarks include color, gradation, Type of<br>soil etc. Rock-color, type, condition, hard-<br>ness, Drilling time, seams and etc | SAMPLE |       |
|-------|--------------------------------|-------------------------------|----------------------|----------------------------|-------|---|--------------------------------------|--------------------------|--|--------|-------|
|       |                                |                               |                      | From                       | To    |   |                                      |                          |  | No     | Pen F |
|       |                                | 0'-2'                         | D                    | Blows not                  | Taken |   |                                      |                          | Brown SAND & Gravel  | 1      | 24"   |
|       |                                | 2'-4'                         | D                    | "                          | "     | " |                                      |                          | " "  | 2      | 24"   |
|       |                                | 4'-6'                         | D                    | "                          | "     | " |                                      |                          | (No Recovery)  | 3      | 24"   |
|       |                                |                               |                      |                            |       |   |                                      | 6'                       | Bottom of Boring 6'  |        |       |

OFFICIAL RECORD COPY ML 10

118945

GROUND SURFACE TO \_\_\_\_\_

USED \_\_\_\_\_

CASING THEN \_\_\_\_\_

Sample Type

0 Dry, 1 Cored, W. Auger

UP Undisturbed Piston

1 1/2 Test Pit, A Auger, V Vane Test

Proportions Used

fine 0 to 10%

fine 10 to 20%

some 20 to 35%

140lb Wt x 30" fall on 2" O.D. Sampler

Cohesionless Density

0-10 Loose

10-30 Med Dense

30-50 Dense

Cohesive Consistency

0-4 Soft 30 + Hard

4-8 M/Stiff

8-15 Stiff

SUMMARY:

Earth Boring 6'Rock Coring 3Samples 3



**OVERSIZE  
DOCUMENT  
PAGE(S) PULLED**

# SEE APERTURE CARD FILES

APERTURE CARD/PAPER COPY AVAILABLE THROUGH NRC FILE CENTER

NUMBER OF OVERSIZE PAGES FILMED ON APERTURE CARD(S)

2

**ACCESSION NUMBERS OF OVERSIZE PAGES:**

9709160168 - 11  
" 12

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Special Nuclear Material License No. 23  
Docket No. 70-33**

**Revision 0.0**

**Prepared by**

**CPS Environmental, Inc.  
May 1995**

**1 1 8 9 4 5**

Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

**Table of Contents**

|       |   |    |
|-------|---|----|
| 1.0   | Executive Summary   | 1  |
| 2.0   | Affected Area Survey  | 2  |
| 2.1   | Overview of Affected Open Land Area                             | 2  |
| 2.1.1 | Description of Areas  | 2  |
| 2.1.2 | Scope of Survey   | 3  |
| 2.1.3 | Survey Results  | 3  |
| 2.2   | Stockade Area and Railroad Spur                                 | 4  |
| 2.2.1 | Description of Area   | 4  |
| 2.2.2 | Scope of Survey   | 4  |
| 2.2.3 | Survey Results  | 5  |
| 2.3   | Building 10 Perimeter and Building 10 Alleged Zirc Burning Area | 5  |
| 2.3.1 | Description of Area   | 5  |
| 2.3.2 | Scope of Survey   | 6  |
| 2.3.3 | Survey Results  | 6  |
| 2.4   | Building 12 South Lawn and Building 11 Drainage Ditch           | 7  |
| 2.4.1 | Description of Area   | 7  |
| 2.4.2 | Scope of Survey   | 7  |
| 2.4.3 | Survey Results  | 7  |
| 2.5   | Building 12 North and West Side                                 | 8  |
| 2.5.1 | Description of Area   | 8  |
| 2.5.2 | Scope of Survey   | 8  |
| 2.5.3 | Survey Results  | 9  |
| 2.6   | Hill South of Building 17                                       | 9  |
| 2.6.1 | Description of Area   | 9  |
| 2.6.2 | Scope of Survey   | 9  |
| 2.6.3 | Survey Results  | 10 |
| 2.7   | Building 12 Airline Debris                                      | 10 |
| 2.7.1 | Description of Area   | 10 |
| 2.7.2 | Scope of Survey   | 10 |
| 2.7.3 | Survey Results  | 11 |
| 3.0   | Unaffected Area Survey  | 11 |

**Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas**

**List of Tables**

|                  |  |
|------------------|--|
| <b>Table I</b>   | <b>Stockade Area and Railroad Spur Subsurface Soil Sample Results</b>                              |
| <b>Table II</b>  | <b>Building 10 Perimeter and Building 10 Zirconium Burning Area Subsurface Soil Sample Results</b> |
| <b>Table III</b> | <b>Building 12 South Lawn and Building 11 Drainage Ditch Subsurface Soil Sample Results</b>        |
| <b>Table IV</b>  | <b>Building 12 North and West Side Subsurface Soil Sample Results</b>                              |
| <b>Table V</b>   | <b>Hill South of Building 17 Subsurface Soil Sample Results</b>                                    |
| <b>Table VI</b>  | <b>Building 12 Airline Debris Subsurface Soil Sample Results</b>                                   |

Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

**List of Figures**

- |                  |  |
|------------------|--|
| <b>Figure 1</b>  | <b>Site Plan</b>   |
| <b>Figure 2</b>  | <b>Affected Open Land Area Site Map (DWG# CPS-TI-0101C)</b>  |
| <b>Figure 3</b>  | <b>Unaffected and Undeveloped Open Land Area Site Map (DWG# CPS-TI-0101D)</b>  |
| <b>Figure 4</b>  | <b>Stockade Area and Railroad Spur Soil Sample Locations (DWG# CPS-TI-0109A)</b>   |
| <b>Figure 5</b>  | <b>Stockade Area and Railroad Spur Grid Cell Averages and Maximum Depths (DWG# CPS-TI-0109H)</b>   |
| <b>Figure 6</b>  | <b>Building 10 Perimeter and Building 10 Alleged Zirc Burning Area Sub Surface Soil Sample Locations (DWG# CPS-TI-0106A)</b>                     |
| <b>Figure 7</b>  | <b>Building 10 Perimeter and Building 10 Alleged Zirc Burning Area Grid Cell Averages and Maximum Depths (DWG# CPS-TI-0106H)</b>                 |
| <b>Figure 8</b>  | <b>Building 12 South Lawn and Building 11 Drainage Ditch Sub Surface Soil Sample Locations (DWG# CPS-TI-0103A)</b>                               |
| <b>Figure 9</b>  | <b>Building 12 South Lawn and Building 11 Drainage Ditch Sub Surface Soil Sample Locations in Concentrated Sampling Area (DWG# CPS-TI-0103B)</b> |
| <b>Figure 10</b> | <b>Building 12 Grid Cell Averages and Maximum Depths (DWG# CPS-TI-0103H)</b>   |
| <b>Figure 11</b> | <b>Building 12 North and West Side Sub Surface Soil Sample Locations (DWG# CPS-TI-0103C)</b>   |
| <b>Figure 12</b> | <b>Building 12 Grid Cell Averages and Maximum Depths (DWG# CPS-TI-0103H)</b>   |
| <b>Figure 13</b> | <b>Hill South of Building 17 Sub Surface Soil Sample Locations (DWG# CPS-TI-0108A)</b>   |
| <b>Figure 14</b> | <b>Hill South of Building 17 Grid Cell Averages and Maximum Depths (DWG# CPS-TI-0108H)</b>   |
| <b>Figure 15</b> | <b>Building 12 Airline Debris Sub Surface Soil Sample Locations (DWG# CPS-TI-0107A)</b>  |
| <b>Figure 16</b> | <b>Building 12 Airline Debris Grid Cell Averages and Maximum Depths (DWG# CPS-TI-0107H)</b>  |
| <b>Figure 17</b> | <b>Unaffected Area Random Sub Surface Soil Sample Locations (DWG# CPS-TI-0101E)</b>  |

## **Appendices**

### **Appendix A: Stockade Area and Railroad Spur**

- A1 Sub-Surface Soil Sampling Data
- A2 Drawing CPS-TI-0109A Sub Surface Soil Sample Locations
- A3 Drawing CPS-TI-0109H Grid Cell Averages and Maximum Depths
- A4 Bore Hole Measurements and Static Measurements
- A5 Grid Cell Averages
- A6 Massachusetts Grid System Reference Coordinates

### **Appendix B: Building 10 Perimeter and Building 10 Alleged Zirc Burning Area**

- B1 Sub-Surface Soil Sampling Data
- B2 Drawing CPS-TI-0106A Sub-Surface Soil Sample Locations
- B3 Drawing CPS-TI-0106H Grid Cell Averages and Maximum Depths
- B4 Bore Hole Measurements and Static Measurements
- B5 Grid Cell Averages
- B6 Massachusetts Grid System Reference Coordinates

### **Appendix C: Building 12 South Lawn, North and West Side, and Building 11 Drainage Ditch**

- C1 Sub-Surface Soil Sampling Data
- C2 Drawing CPS-TI 0103A Sub-Surface Soil Sample Locations Building 12 South Lawn and Building 11 Drainage Ditch
- C3 Drawing CPS-TI-0103B Subsurface Soil Sample Locations in Concentrated Sampling area within the Building 12 South Lawn
- C4 Drawing CPS-TI-0103C Subsurface Soil Sampling of Building 12 North and West Sides.
- C5 Drawing CPS-TI-0103H Grid Cell Averages and Maximum Depths
- C6 Bore Hole Measurements and Static Measurements
- C7 Grid Cell Averages
- C8 Massachusetts Grid System Reference Coordinates

Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

**Appendix D: Hill South of Building 17**

- D1 Sub-Surface Soil Sampling Data
- D2 Drawing CPS-TI-0108A Sub-Surface Soil Sample Locations
- D3 Drawing CPS-TI-0108H Grid Cell Averages and Maximum Depths
- D4 Bore Hole Measurements and Static Measurements
- D5 Grid Cell Averages
- D6 Massachusetts Grid System Reference Coordinates

**Appendix E: Building 12 Airline Debris**

- E1 Sub-Surface Soil Sampling Data
- E2 Drawing CPS-TI-0107A Sub-Surface Soil Sample Locations
- E3 Drawing CPS-TI-0107H Grid Cell Averages and Maximum Depths
- E4 Bore Hole Measurements and Static Measurements
- E5 Grid Cell Averages
- E6 Massachusetts Grid System Reference Coordinates

**Appendix F: Unaffected Area Survey**

- F1 Sub-Surface Soil Sampling Data
- F2 Drawing CPS-TI-0101E Sub-Surface Soil Sample Locations
- F3 Massachusetts Grid System Reference Coordinates

**Appendix G: Alpha Spectroscopy and Gamma Spectroscopy Results**

**Attachment 1: Bore Hole Data Sheets**

**Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas**

## **1.0 Executive Summary**

Texas Instruments Incorporated has undertaken a comprehensive approach in the identification of potential contaminants at the Attleboro facility. This approach is presented in detail within the "Supplement to the 1992 Remediation Plan" (Supplement Plan) submitted in December 1994 to the U.S. Nuclear Regulatory Commission. This document presents information related to the radiological surveys of the open land areas conducted in accordance with the Supplement Plan. Information related to building structures will be presented within future reports. As stated within the "Supplement Plan", the Texas Instruments Incorporated site located within Attleboro, Massachusetts is an extensive site incorporating 250 acres (Figure 1). Not all of this area has been used or developed, and in fact, only 60% of the site has been developed.

The open land area surveys and the methodologies for the conduct of these surveys are presented within the "Supplement to the 1992 Remediation Plan". These open land area surveys are defined as affected (Figure 2) or unaffected (Figure 3) areas for the purposes of this report. Unaffected area surveys included 100% walk over scans and random subsurface soil samples. In addition, any area which demonstrated itself as an anomaly defined by an elevated response while conducting walk-over scans was subject to surface and/or subsurface soil sampling.

Likewise, affected areas included 100% walkover scans, but also included systematic subsurface soil sampling. While conducting affected area systematic subsurface soil sampling, static measurements were obtained at each grid intersection and borehole logging was performed for each subsurface soil sample location.

This report presents survey results for affected and unaffected areas. The affected areas are separated into six survey locations rather than the ten (10) presented within the "Supplement to the 1992 Remediation Plan" since many of the areas were in close proximity to each other resulting in an overlap of survey areas. These areas include the Stockade Area and Railroad Spur, Building 10 Perimeter and Building 10 Alleged Zinc Burning Area, Building 12 South Lawn and Building 11 Drainage Ditch, Building 12 North and West Sides, the Hill South of Building 17, and the Building 12 Airline Debris Hill. Grid patterns established for this survey were standardized to 10 meter by 10 meter grids designated by distance from a convenient benchmark along compass directions. The convenient benchmark for the areas were generally building references or referenced to past survey origins.

The affected area surveys spanned an area in excess of 63,000 m<sup>2</sup> exclusive of the Materials Recovery Area which will be addressed within a separate report. These surveys resulted in over 1600 subsurface soil locations of varying depth which resulted in the collection of 5865 soil samples for analysis. These samples indicated that a total of 161 grid cells (10m x 10m cells)



Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

had sample(s) in excess of  $30 \text{ pCi g}^{-1}$  resulting in 85 grid cells ( $8500 \text{ m}^2$ ) which will require evaluation and resolution.

Unaffected open land area surveys were conducted in a manner similar to that described for the affected areas, except that grids were not established (Figure 3). The unaffected area 100% walk over scans resulted in no anomalies. The random (30) subsurface soil sampling program resulted in all soil samples having concentrations below the criteria with the exception of one subsurface sample. The location of this one elevated soil sample was in close proximity to the "Stockade" area north of building 11 and resulted in the extension of the "Stockade" area to include the area about this sample location. In addition, biased sample locations will be chosen for further subsurface soil sampling but was not completed at the time of this report.

## 2.0 Affected Areas

### 2.1 Overview of Affected Areas

#### 2.1.1 Description of Areas

The affected areas (Figure 2) as defined within the "Supplement Plan" have been surveyed and the results of this survey are presented. The affected areas are separated into six survey locations rather than the ten (10) presented within the "Supplement Plan" since many of the areas were in close proximity to each other resulting in an overlap of survey areas. These areas are presented as separate sections within this report as follows: Stockade Area and Railroad Spur, Building 10 Perimeter and Building 10 Alleged Zirc Burning Area, Building 12 South Lawn and Building 11 Drainage Ditch, Building 12 North and West Sides, the Hill South of Building 17, and the Building 12 Airline Debris Hill.

The affected area surveys spanned an area in excess of  $63,000 \text{ m}^2$  exclusive of the Metals Recovery Area which will be addressed within a separate report. These surveys resulted in over 1600 subsurface soil locations of varying depth which resulted in the collection of 5865 soil samples for analysis. These samples indicated that a total of 161 grid cells ( $10\text{m} \times 10\text{m}$  cells) had sample(s) in excess of  $30 \text{ pCi g}^{-1}$  resulting in 85 grid cells ( $8500 \text{ m}^2$ ) which will require evaluation and resolution.

### 2.1.2 Survey Methods

Grid patterns selected for this survey were standardized to 10 meter by 10 meter grids designated by distance from a convenient benchmark along compass directions. In all cases, the benchmark for the areas was either a building reference or referenced to a past survey origin. Each benchmark origin is specified for the six affected areas presented.

Within the grid system identified for each affected area, 100% surface scans were performed. These scans were made using a standard 1" by 1" NaI(Tl) detector coupled to a rate meter with an audio output. Head phones were used as a sensitive method to determine the presence of elevated readings. The scanning rate did not exceed 0.5 m/s. Elevated readings were identified as values exceeding 1.5 to 2.0 times nominal background readings. Elevated readings were referenced to a facility map.

Direct measurements were performed as static measurements at locations chosen for the subsurface soil samples. These measurements were also performed using a standard 1" by 1" NaI (Tl) detector coupled to a rate meter.

Subsurface soil samples were also obtained throughout the affected area. The use of systematic subsurface soil samples provided greater sensitivity than surface surveys since activity deposited at depth would not be readily identified by surface scans or static measurements due to shielding from overburden (if present) and self shielding provided by the soils. Subsurface soil samples were obtained using split spoon sampling methods. The number of split spoon samples was established as 5 per grid cell, one at each corner and one in the center of the grid. Specific areas that were addressed as affected areas are depicted in Figure 2.

### 2.1.3 Survey Results

For each area, maps have been provided that show the extent of sampling and the grid cell averages for areas which included any sample greater than 30 pCi g<sup>-1</sup>. The grid cell averages were determined by averaging the alpha screening results at each depth (i.e., 0-1', 1'-2', etc.). The grid cell averages are summarized on maps for each area and the grid cell average calculations are included within the Appendices. The grid cell averages recorded on each map indicate the highest average (pCi g<sup>-1</sup>) from any depth. In addition, each map indicates the range of depths for which calculated averages exceed 30 pCi g<sup>-1</sup> total Uranium.

The soil sample results presented within this report were obtained by using the field alpha counting technique previously described within the "Final Report for the Remediation of the Former Radioactive Waste Burial Site, September 1993". Past established correlations have

demonstrated that the gross counts obtained in a 10 minute count with the alpha counting technique are equivalent, for the situation at hand, to the total Uranium concentration in the sample (pCi g<sup>-1</sup>). Alpha screening results of less than 15 counts/ 10 minutes have been shown to be equivalent to approximately 2 pCi/g total Uranium and therefore these results have been treated accordingly for purposes of determining grid cell averages. In addition to the results obtained from this field technique, 5% of the samples are being analyzed by gamma spectroscopy and 1% of the samples are being analyzed by alpha spectroscopy using an independent laboratory. Past reference samples (from the Former Burial Area) are also being selected for independent analysis as a quality assurance measure. These results were not available at the time this report was written.

## **2.2 Stockade Area and Railroad Spur**

### **2.2.1 Description of Area**

The stockade area is located on the south side of Willard Road between Buildings 10 and 11 about 50 meters south of Building 10 and encompassing part of Parking Lot "K". The Railroad spur is located near the southern property boundary south of Willard Road and situated between the Metals Recovery Area and Parking Lot "K". These two areas are immediately adjacent to each other, and for purposes of this report, are included together.

The Stockade Area was designated as a storage facility for waste wash-water and pickling acid solutions. It was previously enclosed by a stockade fence. The railroad spur is considered to be a transition area between the Metals Recovery Area and the Stockade Area at which soil contamination could have originated from either area.

This area is complicated by a preponderance of underground and above-ground utilities and systems. Underground utilities in this area include: electrical duct banks feeding the Switchgear yard area, electrical feeds to the various buildings, fire mains, communications duct banks, process water supply and returns, cooling water feeds to the cooling towers and storm water drains. Overhead obstacles included electrical utilities and liquid process systems extending from the south-east side of Building 10 to Building 11.

Surveys conducted around the Switchgear Building will be included as part of the Metals Recovery Area (Building 5) Final Report.

### **2.2.2 Scope of Survey**

The grid system that was established for this survey is a system of intersecting lines established at 10 meter intervals with the origin established 20 meters south and 30 meters west of the

Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

south-west corner of Building 10. The area defined by the coordinate system for purposes of this survey encompassed an area of approximately 10,800 m<sup>2</sup> (Figure 4). Within this area 199 subsurface soil sample locations were identified representing approximately 700 samples.

The process of obtaining the subsurface soil samples required various depths due to various site conditions which included a vast array of underground utilities, particularly electric. The sample depths ranged from 0.61 meters (2 feet) in 0.30 meter (1 foot) increments in the vicinity of the railhead to 3.05 meters (10 feet) in 0.30 meter (1 foot) increments in the former stockade area.

### 2.2.3 Survey Results

The walkover survey performed within the Stockade Area indicated a few isolated elevated readings in the Northeast side of the area and the Northwest portion of the site near the Railroad Spur. Surface soil samples were not obtained in this case since much of the area was covered with asphalt and the systematic subsurface soil sampling was used to identify soil contamination for these areas.

Of the 700 subsurface soil samples, 68 were identified as exceeding 30 pCi g<sup>-1</sup> total Uranium (Figure 4). Within the 107 grid cells sampled, 44 grid cells had all samples below the criteria, whereas the remaining 63 grid cells had samples in excess of the criteria (Figure 5).

Table I gives a summary of the sample results and grid cell averages for this area. A complete set of the alpha screening data along with large format ("D" size) drawings are provided within Appendix A. The bore hole data are included in Attachment 1.

## **2.3 Building 10 Perimeter and Building 10 Alleged Zirconium Burning Area**

### 2.3.1 Description of Area

The Building 10 Perimeter survey was conducted since most of the nuclear manufacturing operations occurred in this building. The loading ramp on the west side was the site of earlier remediation efforts during the closure of the HI-IR project. In addition, past surveys including those of ORA's surveys in 1984 had indicated the presence of elevated survey results (direct gamma measurements and some surface soil contamination).

In close proximity and southeast of Building 10, a portion of unspecified size within Parking Lot "M" was identified as suspect because of alleged burning of zirconium chips. Since the extent of this area was not very well identified, it was decided conservatively to extend the bounds of

Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

this survey area to the building 10 perimeter survey.

Together, these areas will be generically identified as the building 10 perimeter survey.

### 2.3.2 Scope of Survey

The grid system that was established for this survey is a system of intersecting lines established at 10 meter intervals with the origin established 20 meters south and 30 meters west of the southwest corner of Building 10. The area defined by the coordinate system for purposes of this survey encompasses an area of approximately 17,800 m<sup>2</sup>.

Depths of subsurface sampling ranged from 0.91 meters (3 feet) to 1.83 meters (6 feet). Each grid cell is defined by a 10m by 10m area (100 m<sup>2</sup>) and within the 17,800 m<sup>2</sup> area 360 subsurface sample locations were identified representing approximately 1300 soil samples (Figure 6). Of the 360 sub surface soil sample locations 119 were to a 0.91 meter (3 foot) depth in 0.30 meter (1 foot) increments and 241 sample locations were to a depth of 1.83 meters (6 feet) in either 0.30 meter (1 foot) or 0.61 meter (two foot) increments. The deeper sampling was performed principally in the area of the suspected zirconium burning area and towards Willard Road where the Building 10 Perimeter meets the Stockade Area. The shallower sampling (0.91 meters) was performed around the building perimeter since it was suspected that this area had the greatest potential for near surface contamination (refer to "Supplement Plan").

### 2.3.3 Survey Results

The walkover survey performed in this area indicated no areas in excess of 1.5 times nominal background. Static measurements performed in this area were also all less than 1.5 times nominal background levels.

Of the 1300 subsurface soil samples obtained, only 5 samples indicated activity concentrations in excess of the criteria. These samples had concentrations of 32, 39, 46, 100, and 172 pCi g<sup>-1</sup> for grid coordinates 0 N x 160 E, 15 S x 145 E, 5 S x 115 E, 142.5 N x 122.5 E, and 150 N x 120 E respectively (Figure 6).

One grid along the east side of Building 10 in the Northeast corner below the lab wing yielded a grid cell average in excess of the criteria (Figure 7). This area was recently remediated (December 1994).

Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

Table II gives a summary of the sample results and grid cell averages for this area. A complete set of the alpha screening data along with large format ("D" size) drawings are provided within Appendix B. The bore hole data are included in Attachment 1.

## **2.4 Building 12 South Lawn and Building 11 Drainage Ditch**

### **2.4.1 Description of Area**

Located in the landscaped lawn area south of Building 12, this area was identified during survey activities of Oak Ridge Associated Universities in 1984 which identified a few isolated areas exhibiting elevated radiation levels. It is presumed that final grading operations at the conclusion the construction of Building 12 led to this contamination. Presumably contaminants were spread from the former burial area to the subject area. To properly address this area, it was decided to treat this area as an affected area for the purposes of conducting surveys. In addition, a former drainage ditch originating from Building 11 and traversing the southern section of the lawn was included in this survey.

### **2.4.2 Scope of Survey**

The coordinate system for this reference grid was based on compass direction and distance with a reference established at the northwest corner (Mechanical Room) of Building 12 having coordinates 160 N and 180 E. The area defined by the coordinate system for purposes of this survey encompasses an area of approximately 21,400 m<sup>2</sup>.

Each grid cell was defined by a 10m by 10m area (100 m<sup>2</sup>) and within the 21,400 m<sup>2</sup> area 663 subsurface soil sample locations were identified representing approximately 2000 samples (Figure 8).

One area worthy of note in the Building 12 South Lawn area was defined by the grid coordinates 80 to 120 North by 130 to 310 East which had a number of soil samples which were marginally above the criteria. This area was subject to further sampling to ascertain whether a 13 location sampling scheme would result in favorable grid cell averages. This was achieved to a limited extent along the eastern boundary of this area (Figure 9).

### **2.4.3 Survey Results**

This area included a walkover survey which indicated no areas greater than 1.5 times nominal background. Static measurements performed in this area were also all less than 1.5 times nominal background levels.

Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

Of the 663 subsurface soil sample locations, 116 locations were identified which had samples in excess of the criteria. Within the 215 grid cells sampled, 154 grid cells had all samples below the criteria, whereas the remaining 61 grid cells had samples in excess of the criteria. Of these 61 grid cells, 28 grid cells had averages less than the criteria (Figure 10).

Table III gives a summary of the sample results and grid cell averages for this area. A complete set of the alpha screening data along with large format ("D" size) drawings are provided within Appendix C. The bore hole data are included in Attachment 1.

## **2.5 Building 12 North and West Side**

### **2.5.1 Description of Area**

This area is described as being located at the lawns and under parking lots and driveways on the North and West Sides of Building 12. The northern border extends up to an undeveloped area and the western border extends as far as the east side of Building 11. Excluded from this survey, is an area described as the former Building 12 Burial Site which has been previously remediated.

### **2.5.2 Scope of Survey**

The coordinate system for this reference grid was based on compass direction and distance with a reference established at the northwest corner (Mechanical Room) of Building 12 having coordinates 160 N and 180 E. The area defined by the coordinate system for purposes of this survey encompasses an areas of approximately 11,100 m<sup>2</sup>.

Each grid cell is defined by a 10m by 10m area (100 m<sup>2</sup>) and within the 11,100 m<sup>2</sup> area 272 subsurface soil sample locations were identified resulting in approximately 1400 samples (Figure 11). Depths of the subsurface soil sampling ranged from 1.83 meters (6 feet) to 3.05 meters (10 feet) in 0.61 meter (two foot) increments. Areas which had evidence of contamination in excess of 1.83 meters (6 feet) were extended to 3.05 meters (10 feet). In some areas, samples could not be readily obtained due to underground utilities. Areas which had interference from underground utilities were compensated to the extent possible by shifting the location of the sample slightly.

Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

### 2.5.3 Survey Results

This area included a walkover survey which did not indicate any anomalies throughout the area, and therefore, surface soil samples were not obtained. However, this area was designated for systematic subsurface soil sampling in order to identify any potential soil contamination in this area. Static measurements performed in this area were also all less than 1.5 times nominal background levels.

Of the 272 sub surface soil sample locations, 31 locations were identified which had samples in excess of the criteria. Within the 113 grid cells sampled, 87 grid cells had all samples below the criteria, whereas the remaining 26 grid cells had samples in excess of the criteria. Of these 26 grid cells, 19 grid cells had averages less than the criteria (Figure 12).

Table IV gives a summary of the sample results and grid cell averages for this area. A complete set of the alpha screening data along with large format ("D" size) drawings are provided within Appendix C. The bore hole data are included in Attachment 1.

## **2.6 Hill South of Building 17**

### 2.6.1 Description of Area

During the construction of the connecting building between Building 4 and Building 10 it was alleged, through employee interviews, that excavated material was translocated to an area south of Building 17. This area is identified as a hill south of Building 17. Since this material was recovered from an area in close proximity to the nuclear operations it was deemed prudent to classify this area as affected and sample accordingly.

### 2.6.2 Scope of Survey

The coordinate system for this reference grid is based on compass direction and distance and is extended from the Building 12 coordinate system. The area defined by the coordinate system for purposes of this survey encompasses an area of approximately 1,800 m<sup>2</sup>.

Since this area was an overburden hill the split spoon samples were obtained to a depth of 4.6 meters (15 feet) in two foot increments to approximately original grade. Each grid cell is defined by a 10 m x 10 m area (100 m<sup>2</sup>) and within the 1,800 m<sup>2</sup> area 55 split spoon locations were identified representing a approximately 275 samples for analysis (Figure 13).



Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

### 2.6.3 Survey Results

This area included a walkover survey which indicated elevated readings in a small area described by coordinates 30-40 South by 130-140 East. Walkover scans and static measurements performed in the remainder of the area were found to be less than 1.5 times nominal background. Surface soil samples were obtained in the area identified as elevated during the walkover yielding an average of 175 pCi g<sup>-1</sup>.

Of the 275 subsurface soil samples, 10 samples were identified in excess of the criteria. Fourteen grid cells (1400 m<sup>2</sup>) were found to have all samples less than the criteria. Four grid cells (400 m<sup>2</sup>) were identified as having samples in excess of the criteria. Two of these cells had averages less than the criteria and the other two remaining cells had averages exceeding the criteria with one grid cell having an activity concentration average of 175 pCi g<sup>-1</sup>. The maximum depth for this cell was 0.15 meters (0.5 feet) (i.e., surface samples) whereas the other grids had contamination at depths of 1.2 meters (4 feet) for two grids and 1.83 meters (6 feet) for 1 grid (Figure 14). This area was recently remediated (December 1994).

Table V gives a summary of the sample results and grid cell averages for this area. A complete set of the alpha screening data along with large format ("D" size) drawings are provided within Appendix D. The bore hole data are included in Attachment 1.

## **2.7 Building 12 Airline Debris**

### 2.7.1 Description of Area

During installation of buried, compressed-air utility lines between Buildings 11 and 12 in 1980, excavated material/debris was translocated to an area on the eastern boundary of the developed portion of the Attleboro site. Since some of this excavated material originated from the former burial area, this area was classified as an affected area.

### 2.7.2 Scope of Survey

The coordinate system for this reference grid is based on compass direction and distance and is extended from the Building 12 coordinate system. The area defined by the coordinate system for purposes of this survey encompasses an areas of approximately 400 m<sup>2</sup>.

Since this area was an overburden hill, the split spoon samples were obtained to a depth of 4.6 meters (15 feet) and 7.62 meters (25 feet) in 0.61 meters (2 foot) increments to approximately 3.05 meters (10 feet) below original grade. Each grid cell is defined by a 10m by 10m area

Texas Instruments Incorporated  
Radiological Surveys of Open Land Areas

(100 m<sup>2</sup>) and within the 400 m<sup>2</sup> area 55 split spoon locations were identified resulting in approximately of 190 samples (Figure 15).

### 2.7.3 Survey Results

This area included a walkover survey which did not indicate any anomalies throughout the area, and therefore, surface soil samples were not obtained. However, this area was designated for systematic subsurface soil sampling in order to identify any potential soil contamination in this area. Static measurements performed in this area were also all less than 1.5 times nominal background levels.

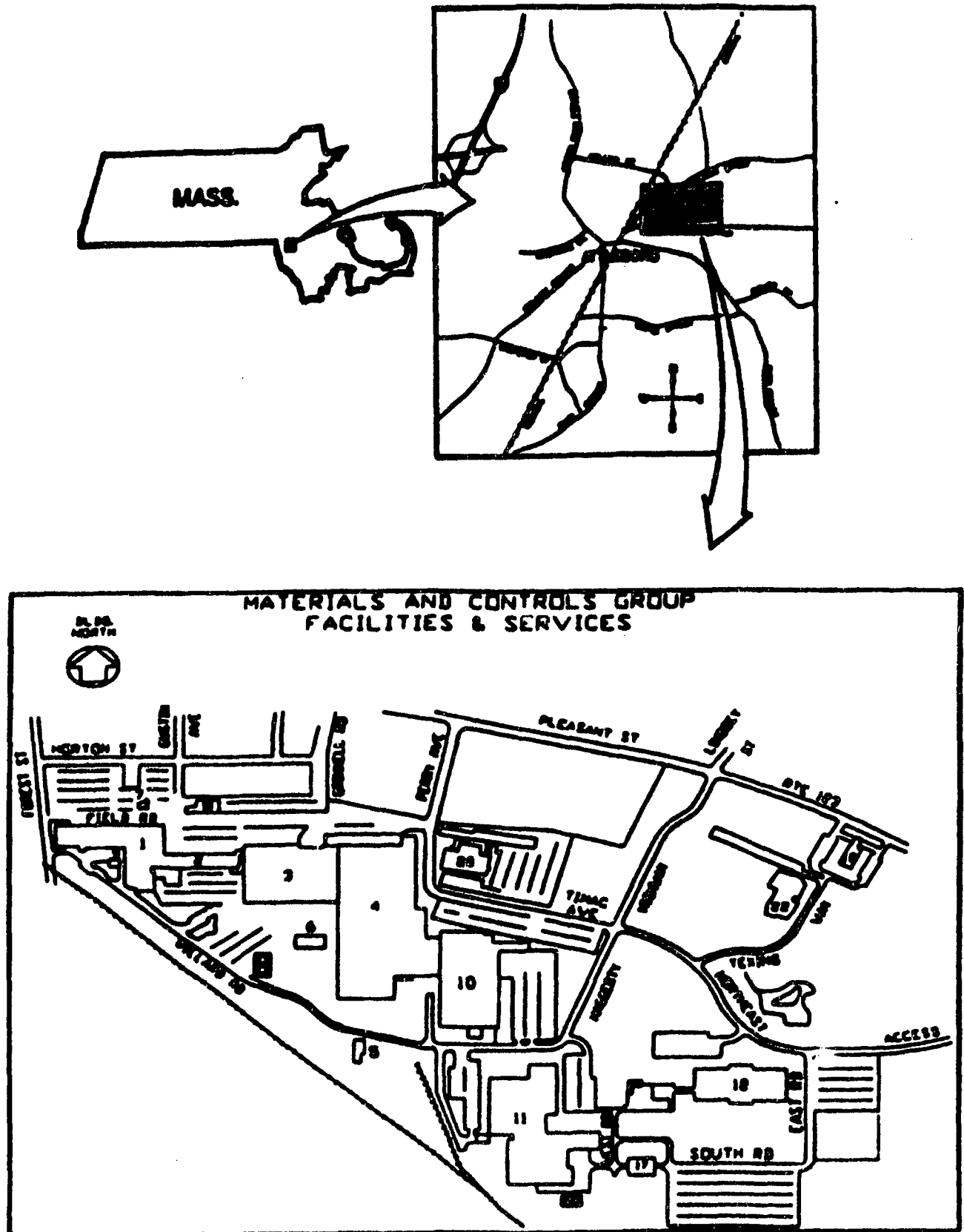
Of the 190 samples only one was identified in excess of the criteria. Three grid cells (900 m<sup>2</sup>) were found to have all samples less than the criteria. The remaining one grid cell area (100 m<sup>2</sup>), was identified as having a sample (42 pCi g<sup>-1</sup>) in excess of the criteria. However this grid cell resulted in an average of 15 pCi g<sup>-1</sup>. Since this sample was the only sample with activity concentrations in excess of the criteria and located at 4.6 meters (15 feet), an additional 5 subsurface soil samples locations from a depth of 4.6 meters (15 feet) to a depth of 7.62 meters (25 feet) in 0.61 meter increments were obtained. All additional samples were below the criteria. (Figure 16).

The total affected area described as the Airline Debris Hill resulted in all grid cell averages being below the criteria. The only subsurface soil sample location which had activity concentration in excess of the criteria was the result of a single sample of only 42 pCi g<sup>-1</sup> at a depth of 4.6 meters (15 feet). Data and large format ("D" size) drawings are provided within Appendix E. The bore hole data are included in Attachment 1.

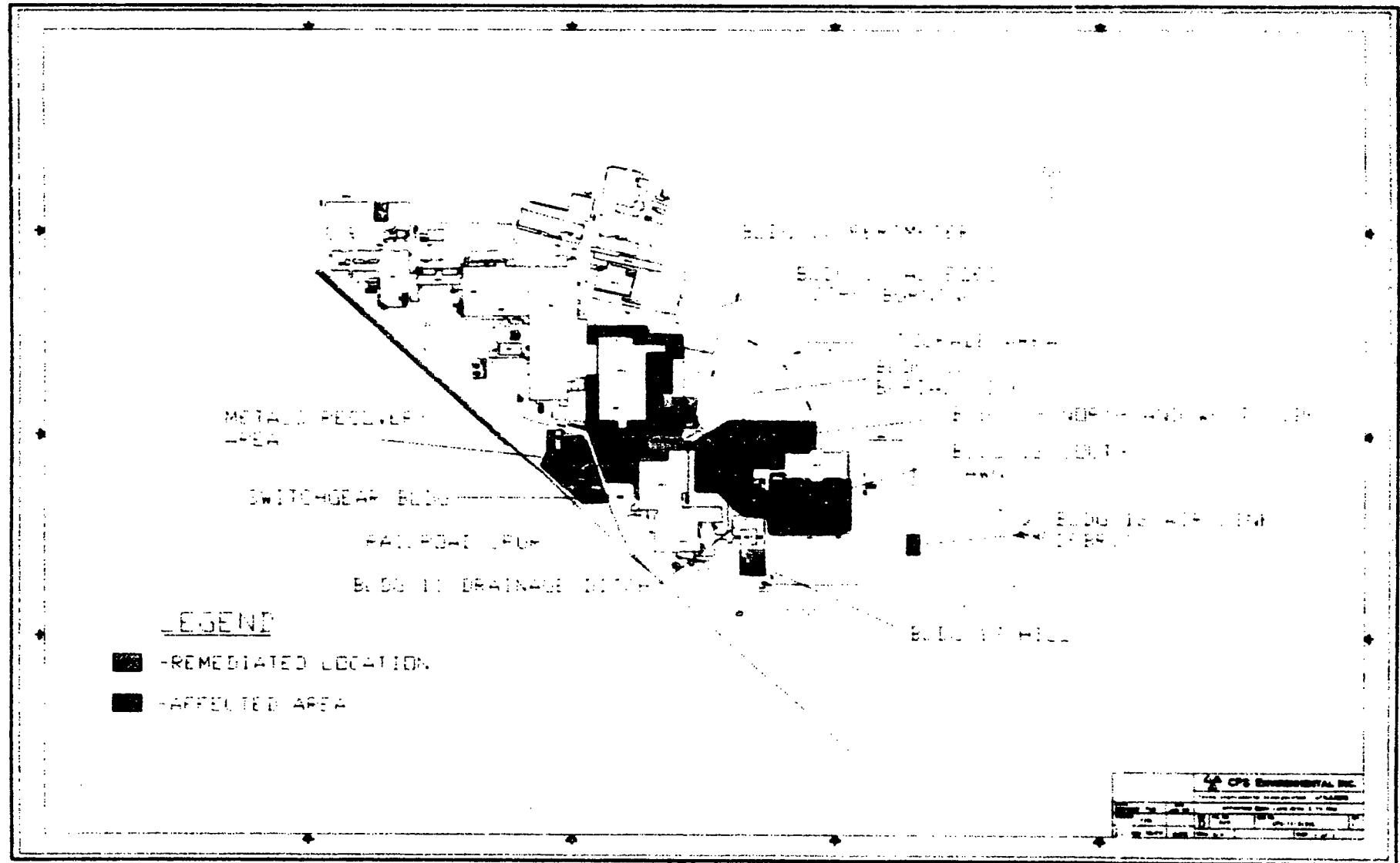
## **3.0 Unaffected Area Survey Results**

Unaffected open land area surveys were conducted in a manner similar to that described for the affected areas, except that grids were not established (Figure 3). The unaffected area 100% walk over scans resulted in no anomalies. The random (30) subsurface soil sampling program resulted in all soil samples having concentrations below the criteria with the exception of one subsurface sample (Appendix F). The location of this one elevated soil sample was in close proximity to the "Stockade" area north of building 11 and resulted in the extension of the "Stockade" area to include the area about this sample location. The locations of the random samples (Figure 17) were referenced to the Massachusetts coordinate system and the exact coordinates are shown in Appendix F.

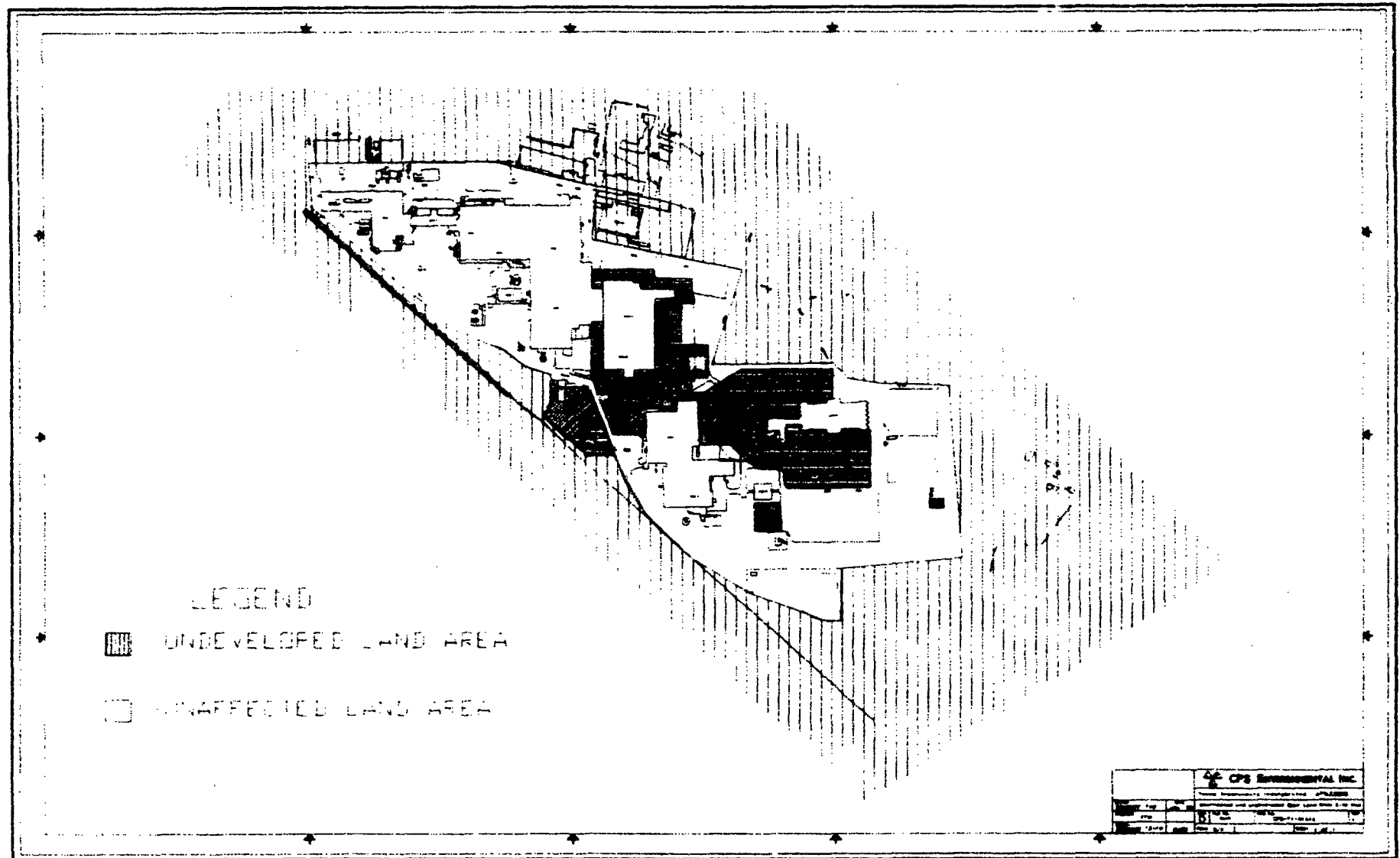
**Figure 1**  
**Site Plan**



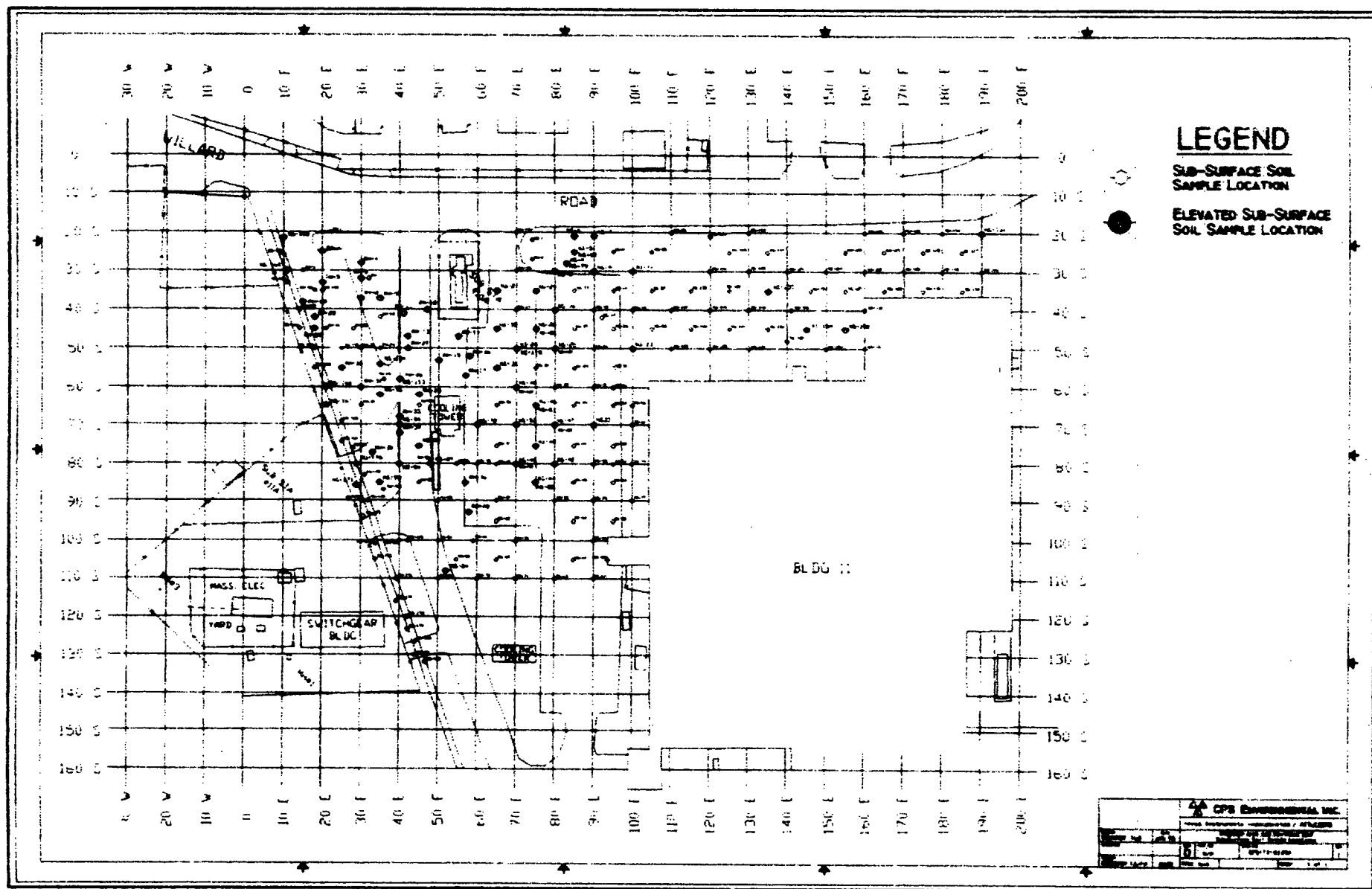
**Figure 2**  
**Affected Open Land Area Site Map**



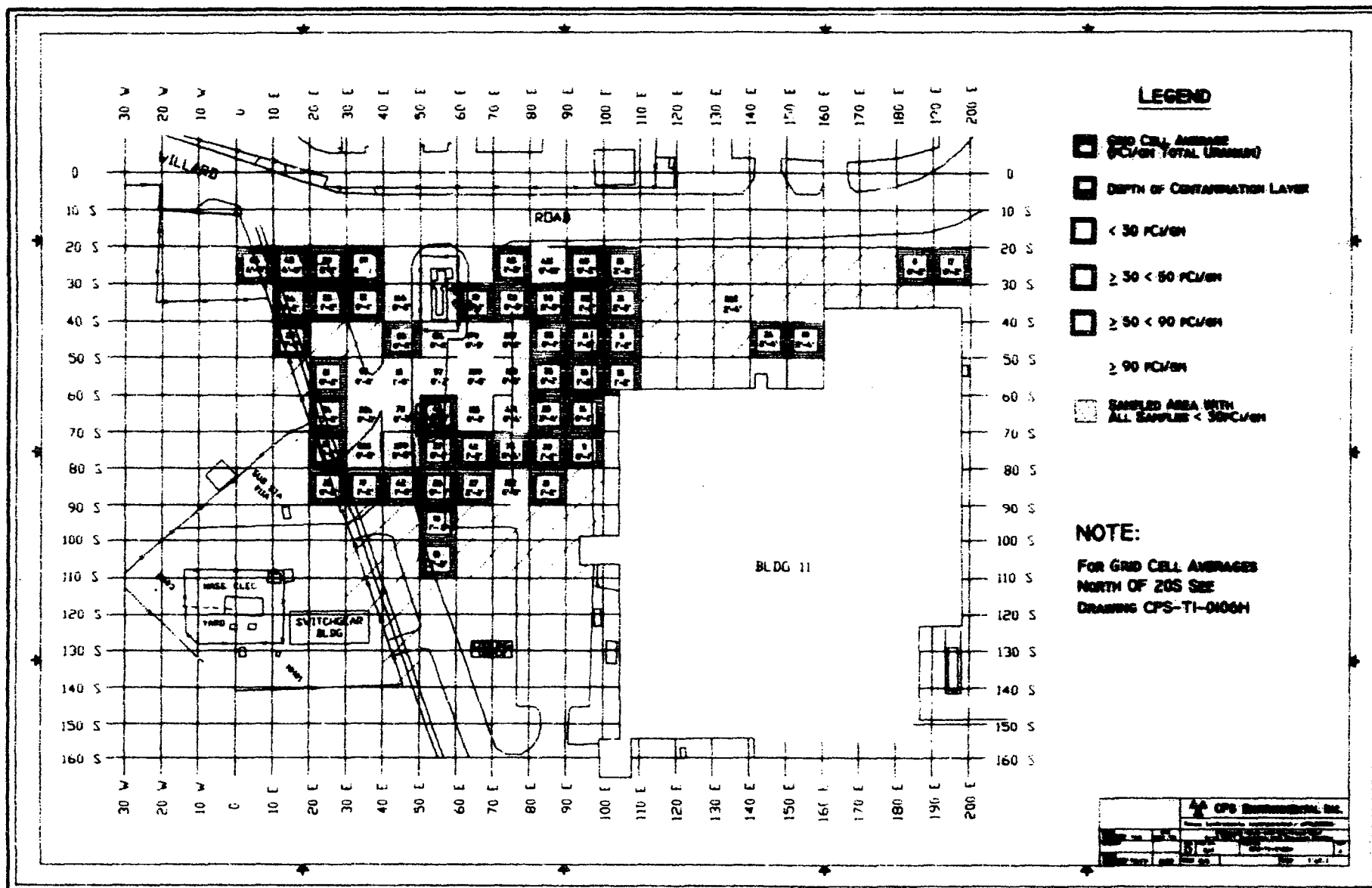
**Figure 3**  
**Unaffected and Undeveloped Open Land Area Site Map**



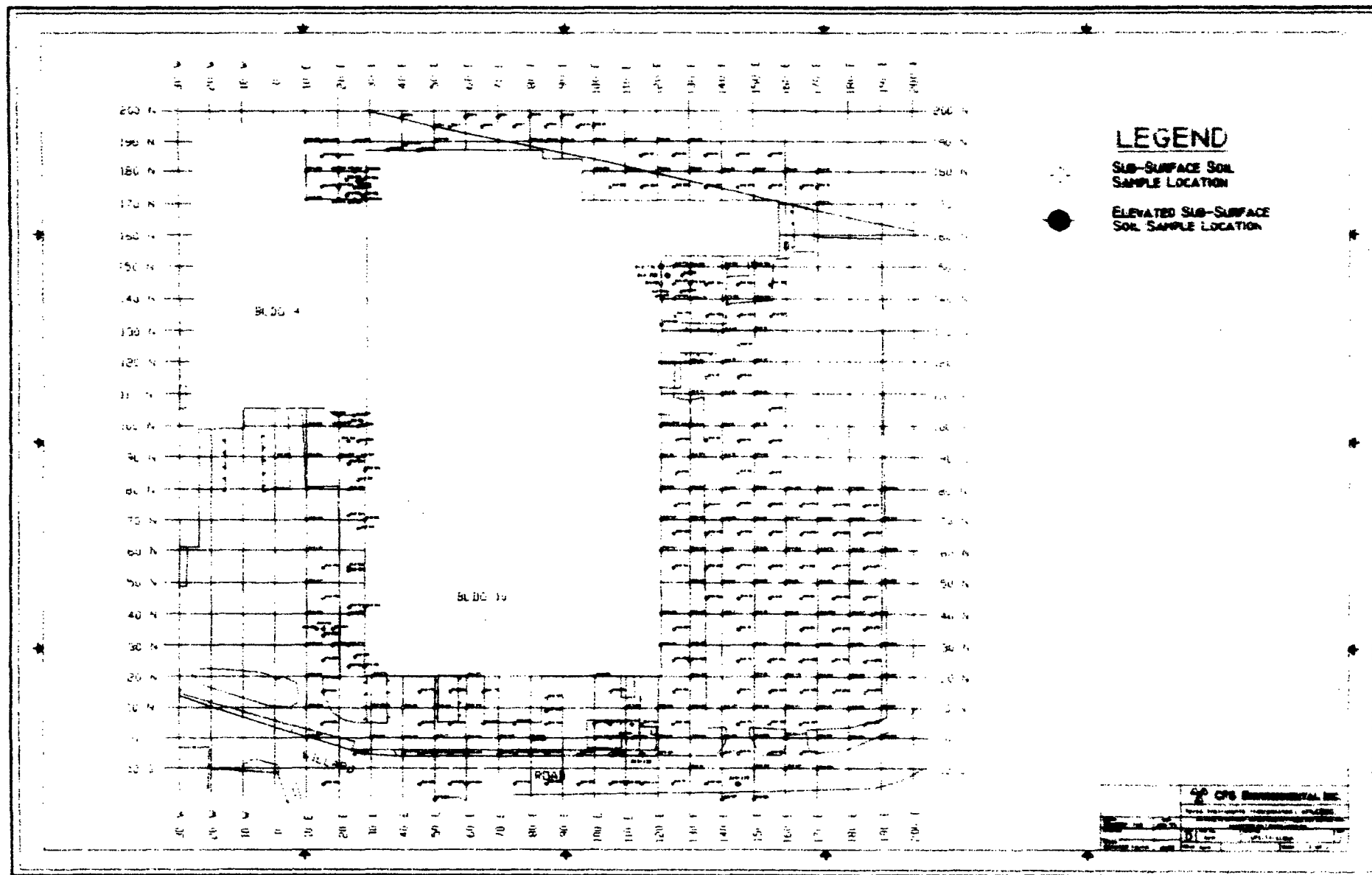
**Figure 4**  
**Stockade Area and Railroad Spur : Sub-Surface Soil Sample Locations**



**Figure 5**  
**Stockade Area and Railroad Spur Grid Cell Averages and Maximum Depths**

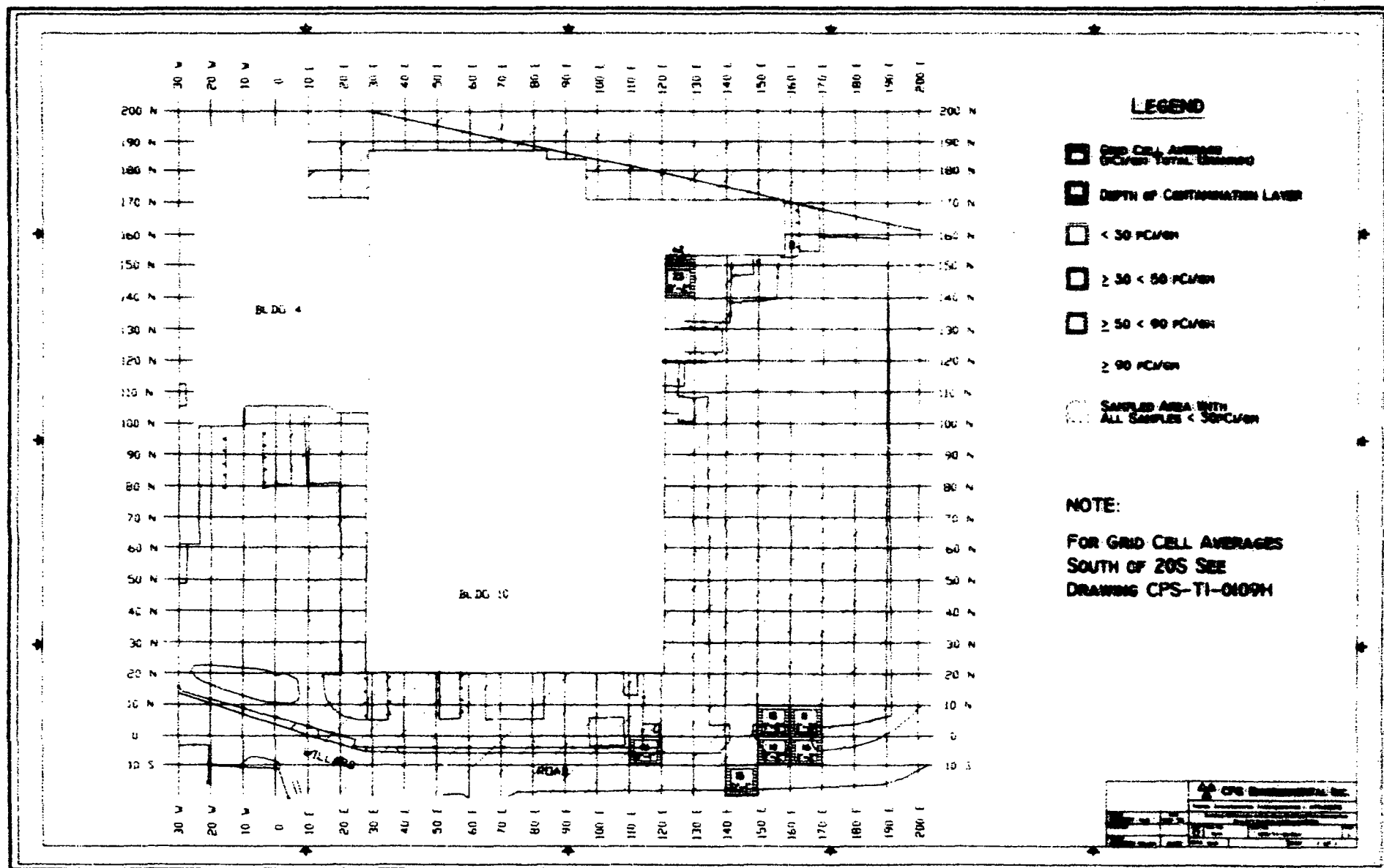


**Figure 6**  
**Building 10 Perimeter and Building 10 Alleged Zirc Burning Area : Sub-Surface Soil Sample Locations**

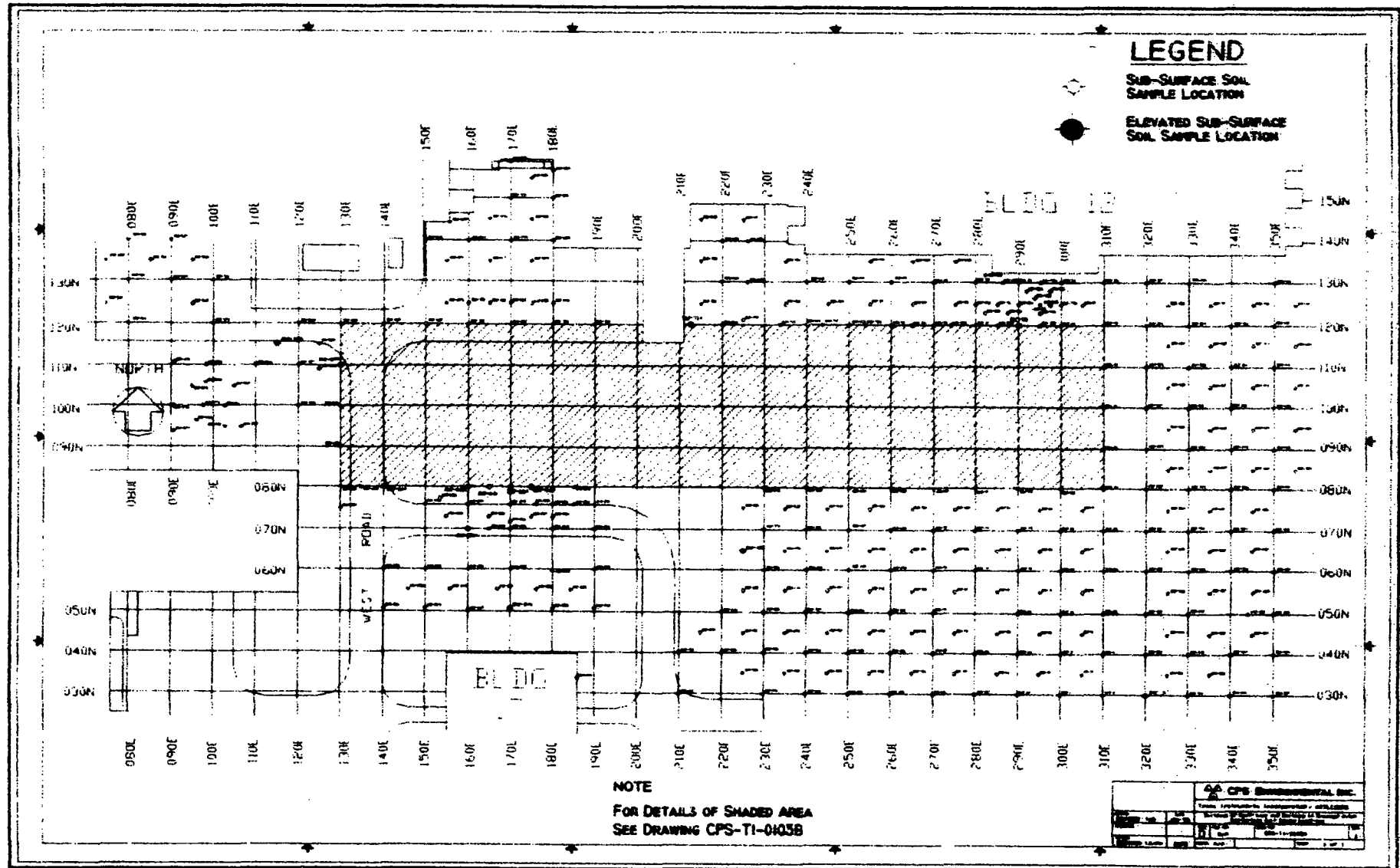




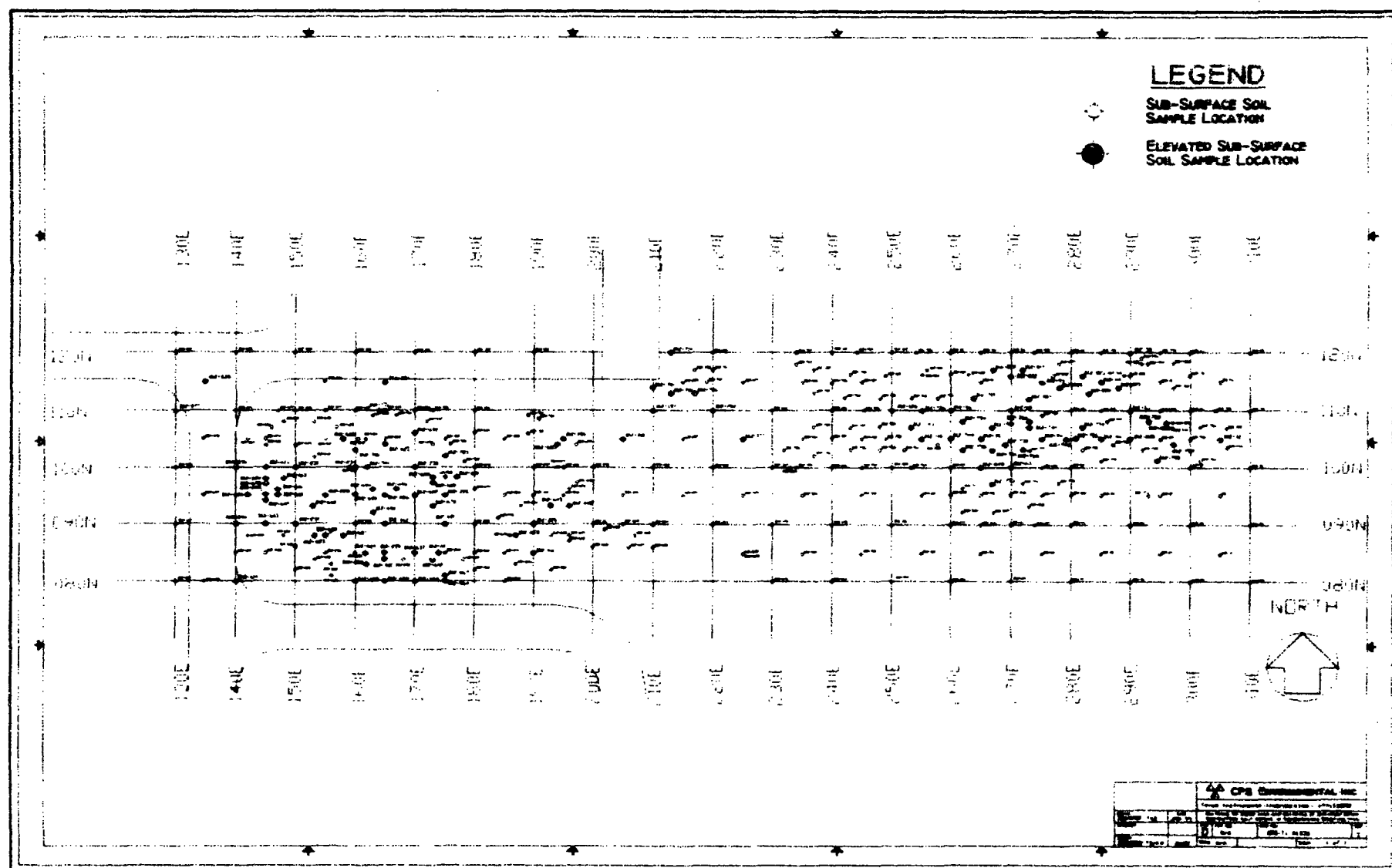
**Figure 7**  
**Building 10 Perimeter and Building 10 Alleged Zirc Burning Area Grid Cell Averages and Maximum Depths**



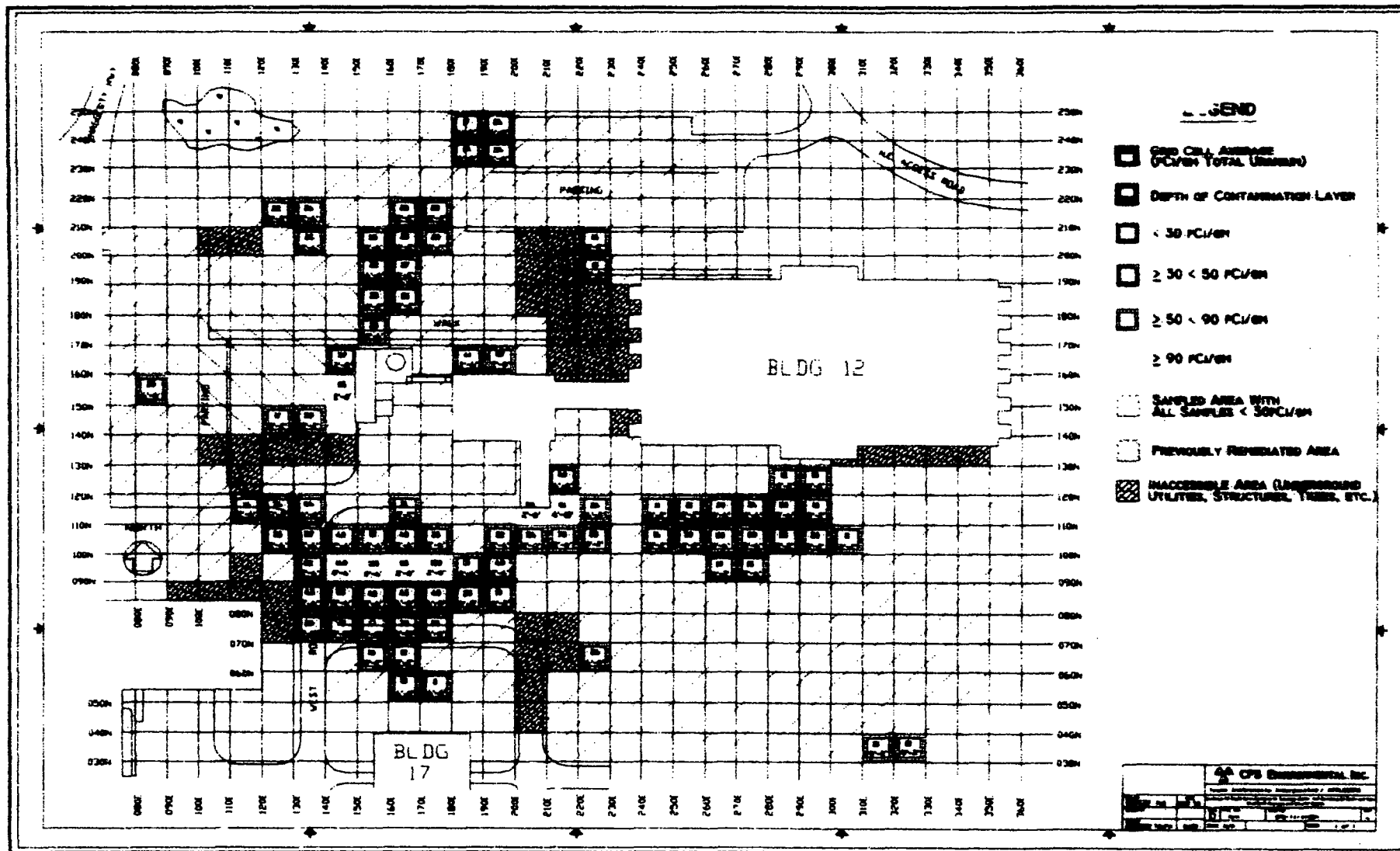
**Figure 8**  
**Building 12 South Lawn and Building 11 Drainage Ditch : Sub-Surface Soil Sample Locations**



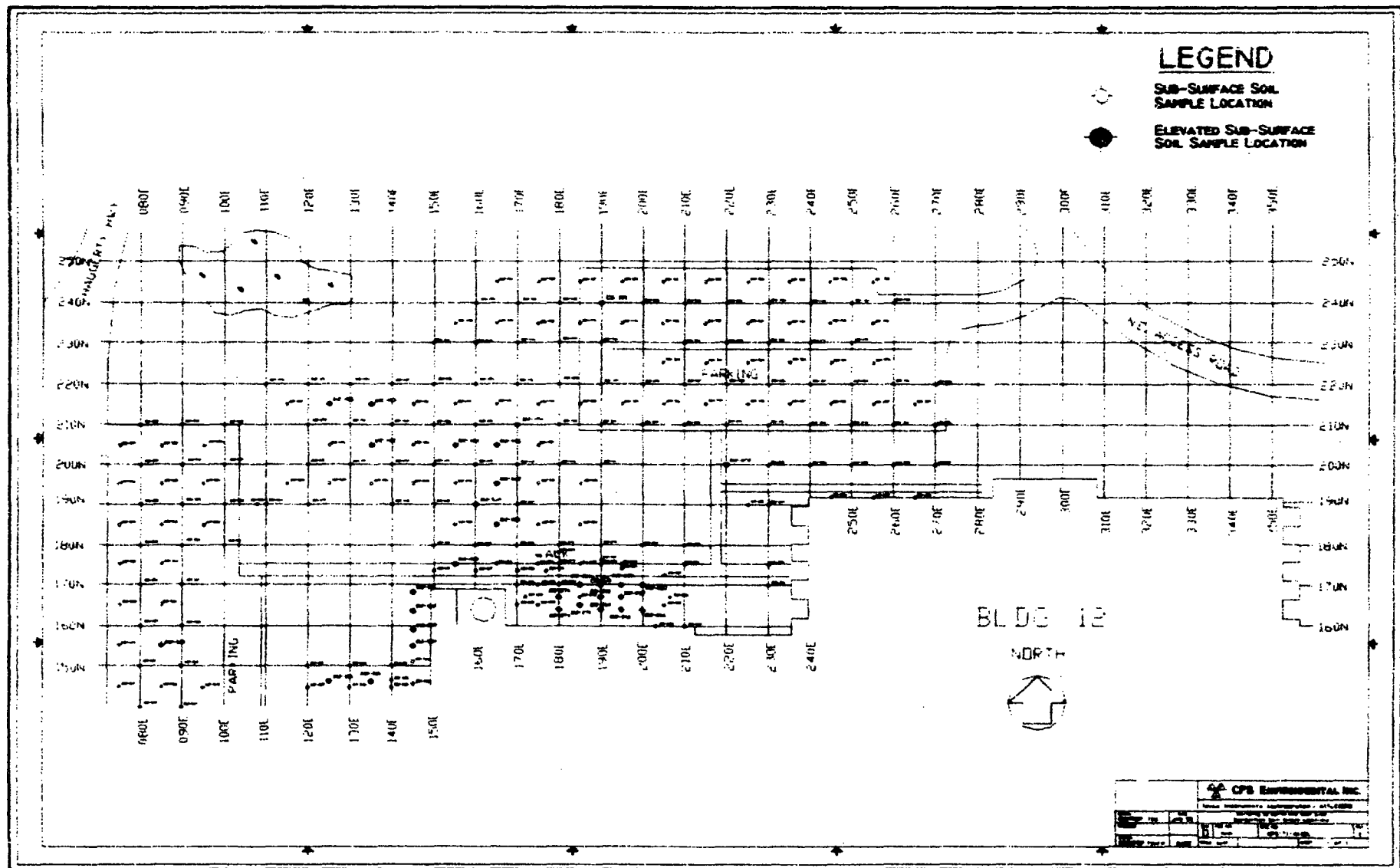
**Figure 9**  
**Building 12 South Lawn, Building 11 Drainage Ditch : Sub-Surface Soil Sample Locations in Concentrated Sampling Area**



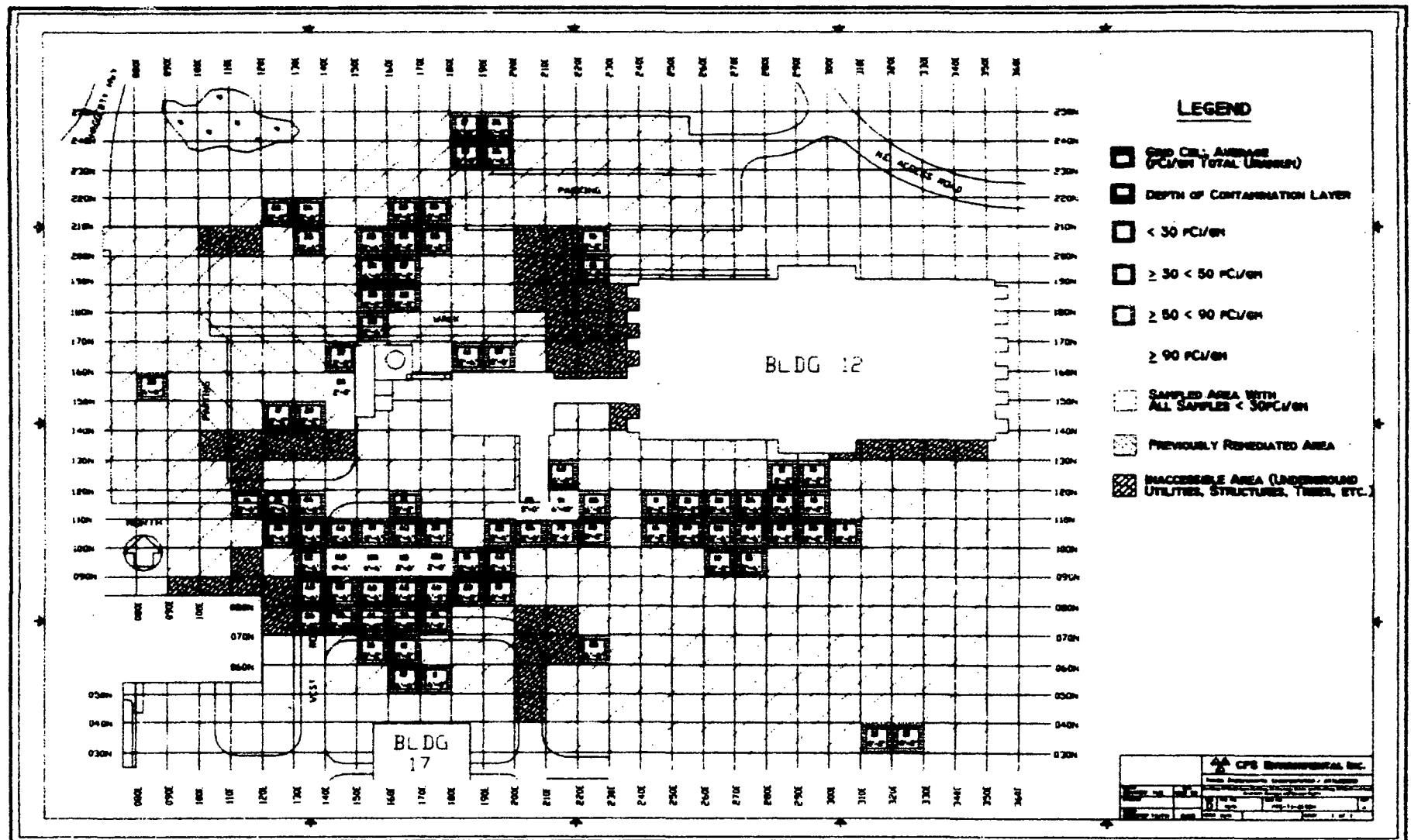
**Figure 10**  
**Building 12 Grid Cell Averages and Maximum Depths**



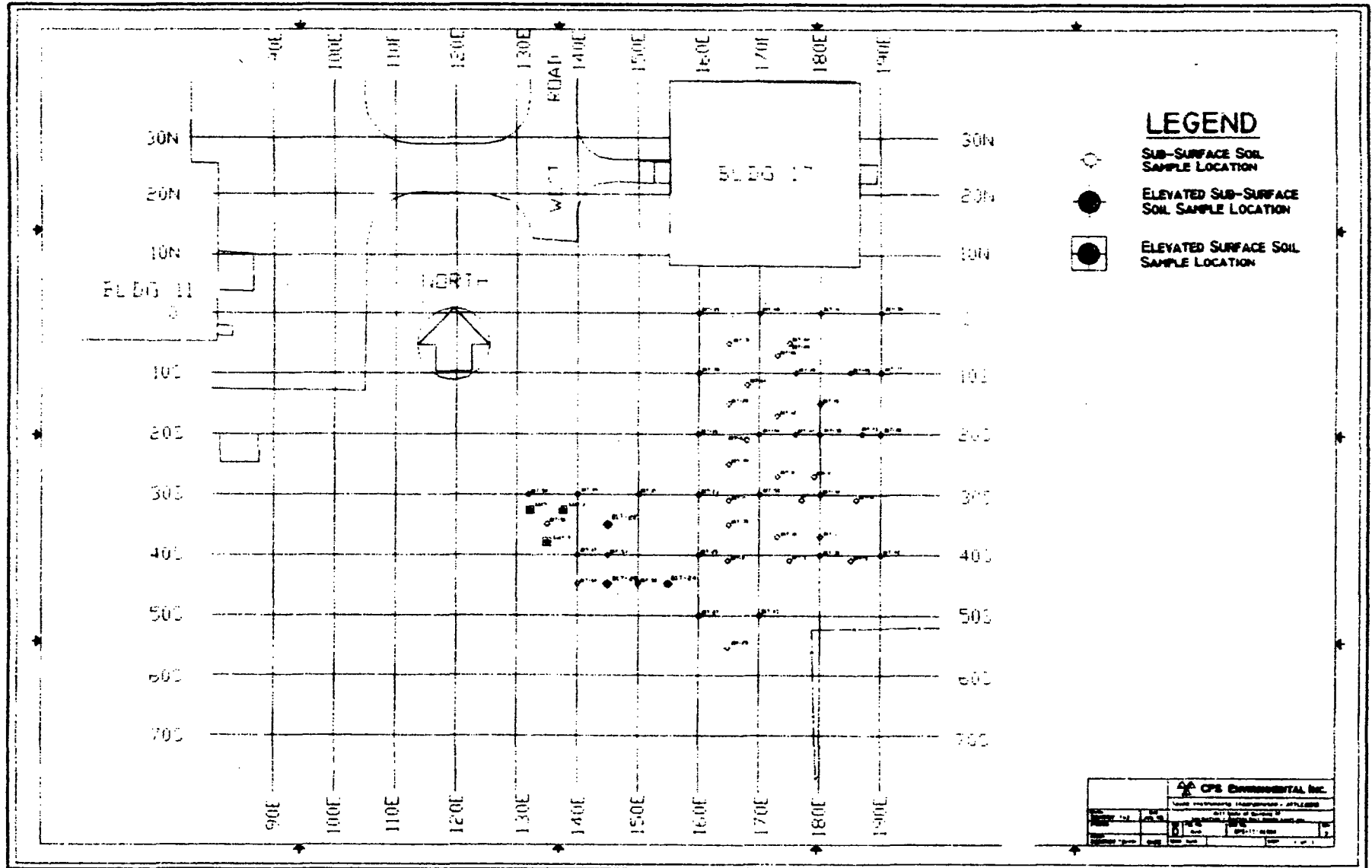
**Figure 11**  
**Building 12 North and West Side : Sub-Surface Soil Sample Locations**



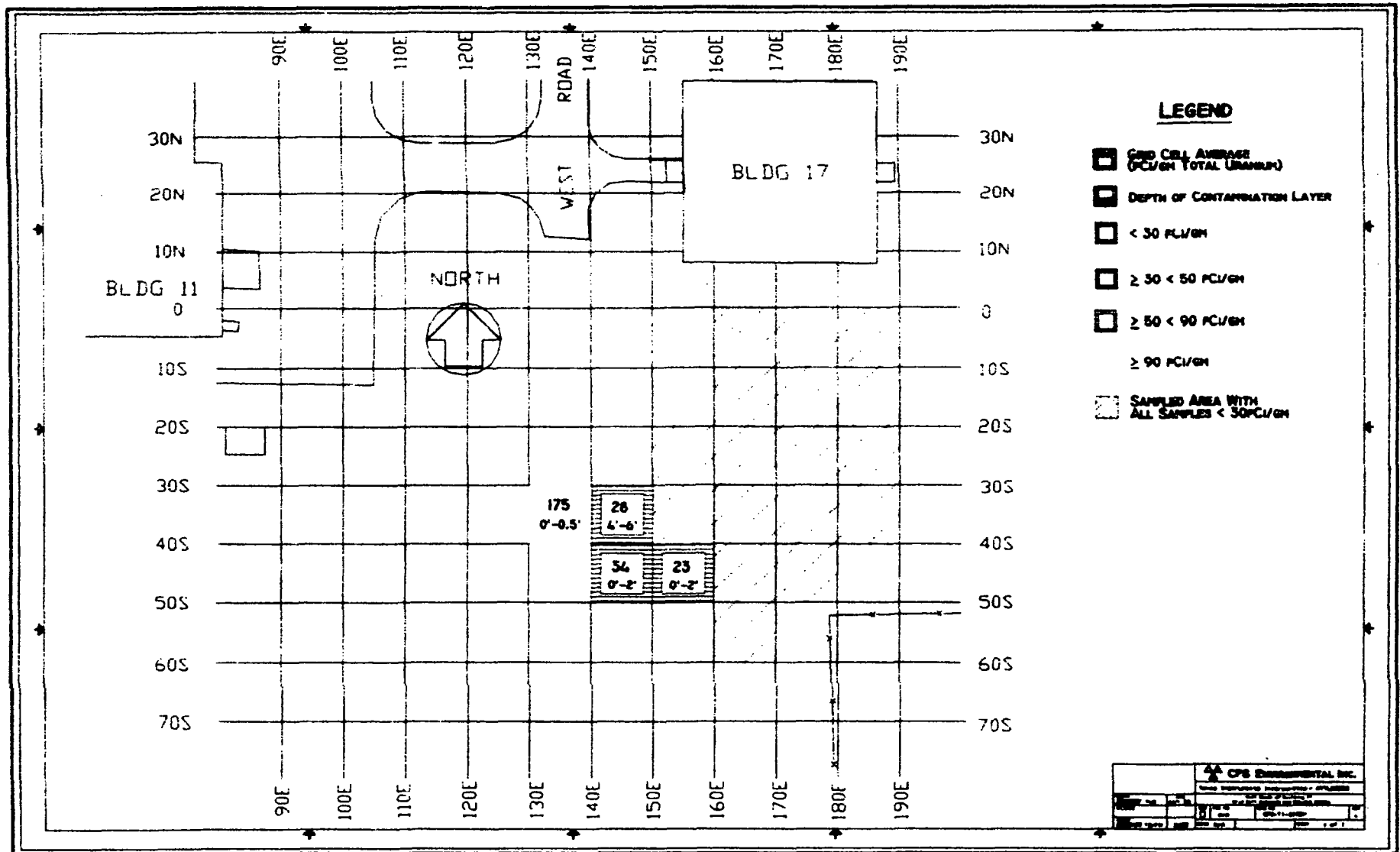
**Figure 12**  
**Building 12 Grid Cell Averages and Maximum Depths**



**Figure 13**  
**Hill South of Building 17 : Sub-Surface/Surface Soil Sample Locations**

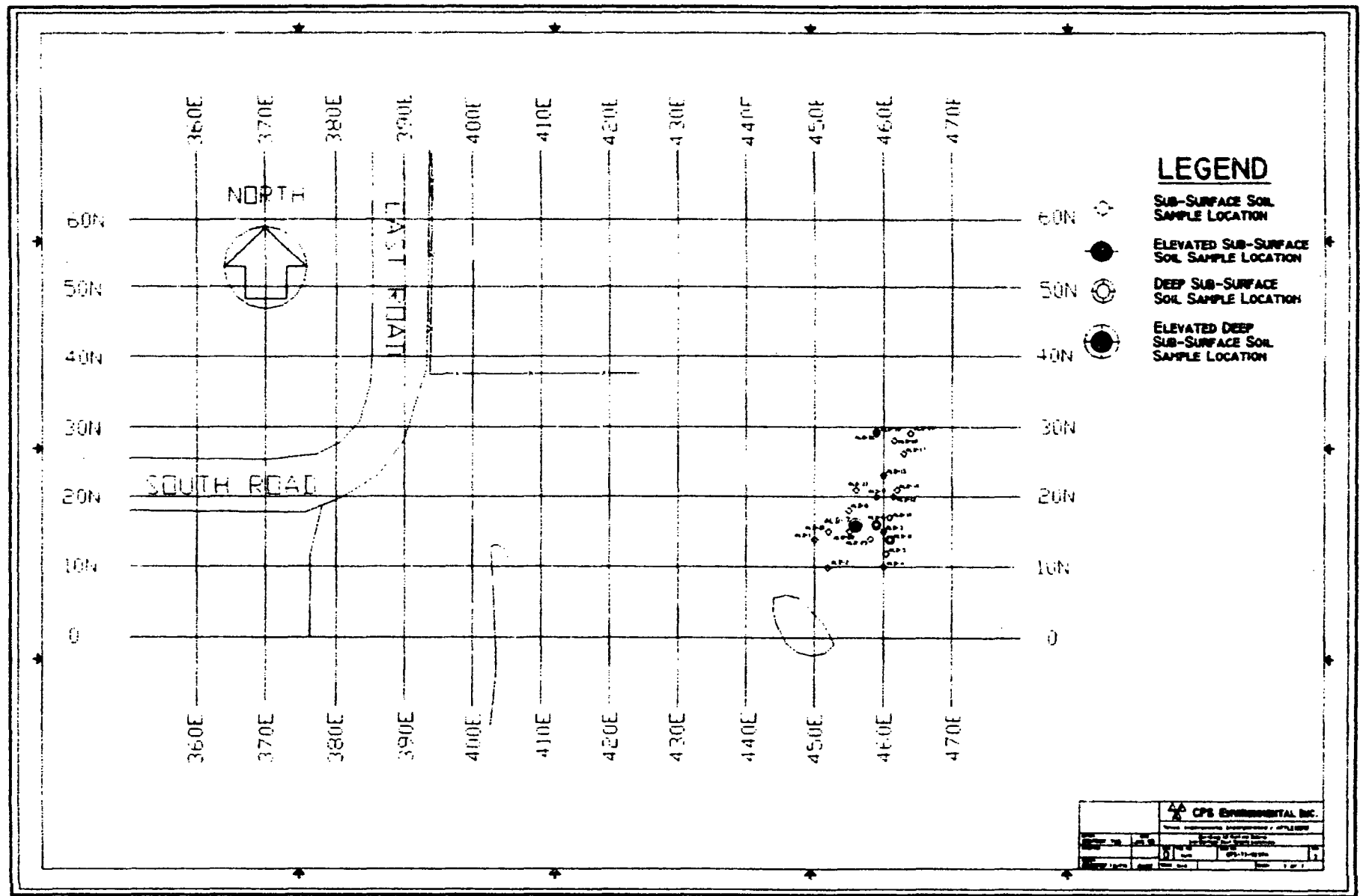


**Figure 14**  
**Hill South of Building 17 Grid Cell Averages and Maximum Depths**

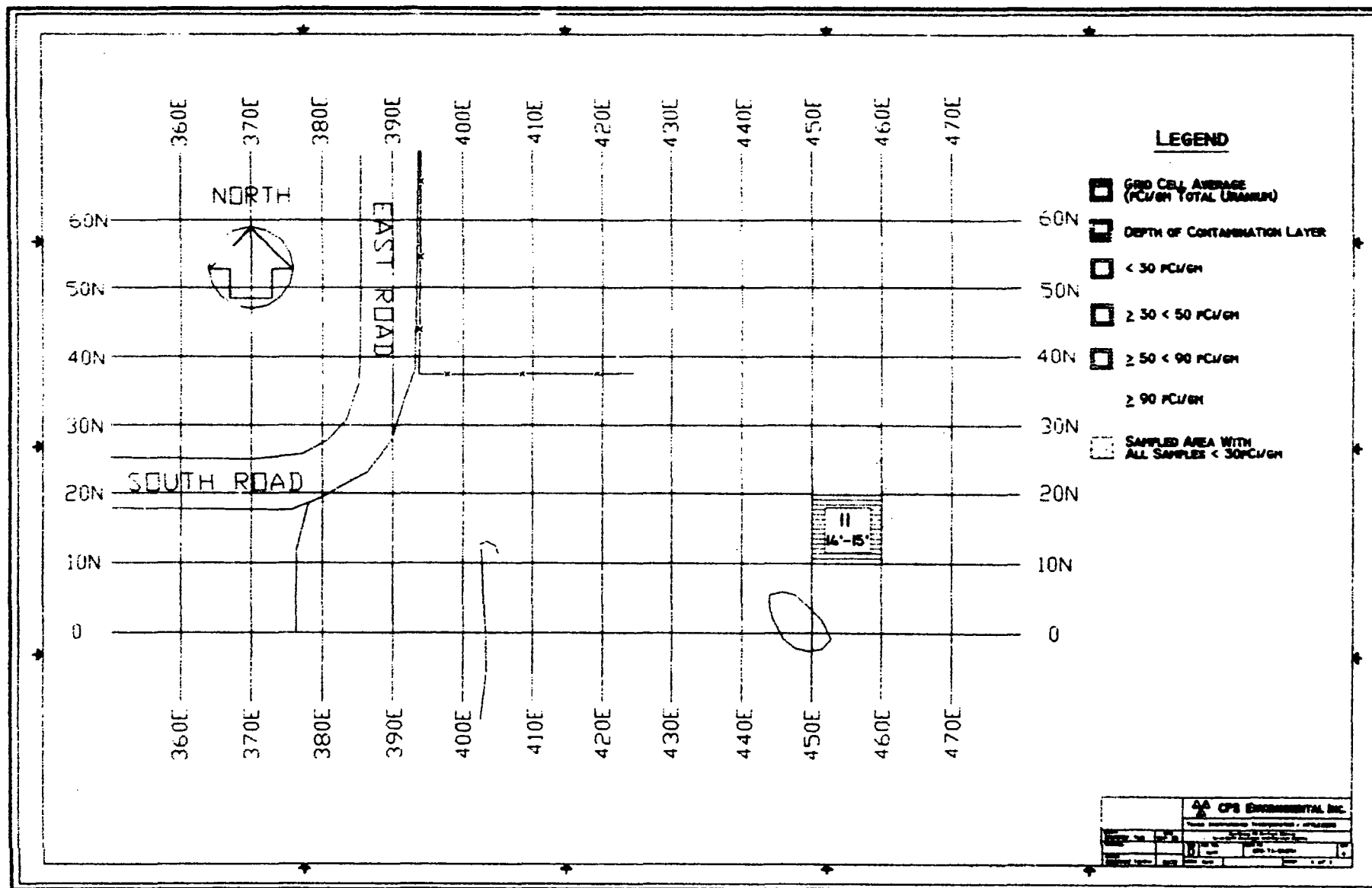




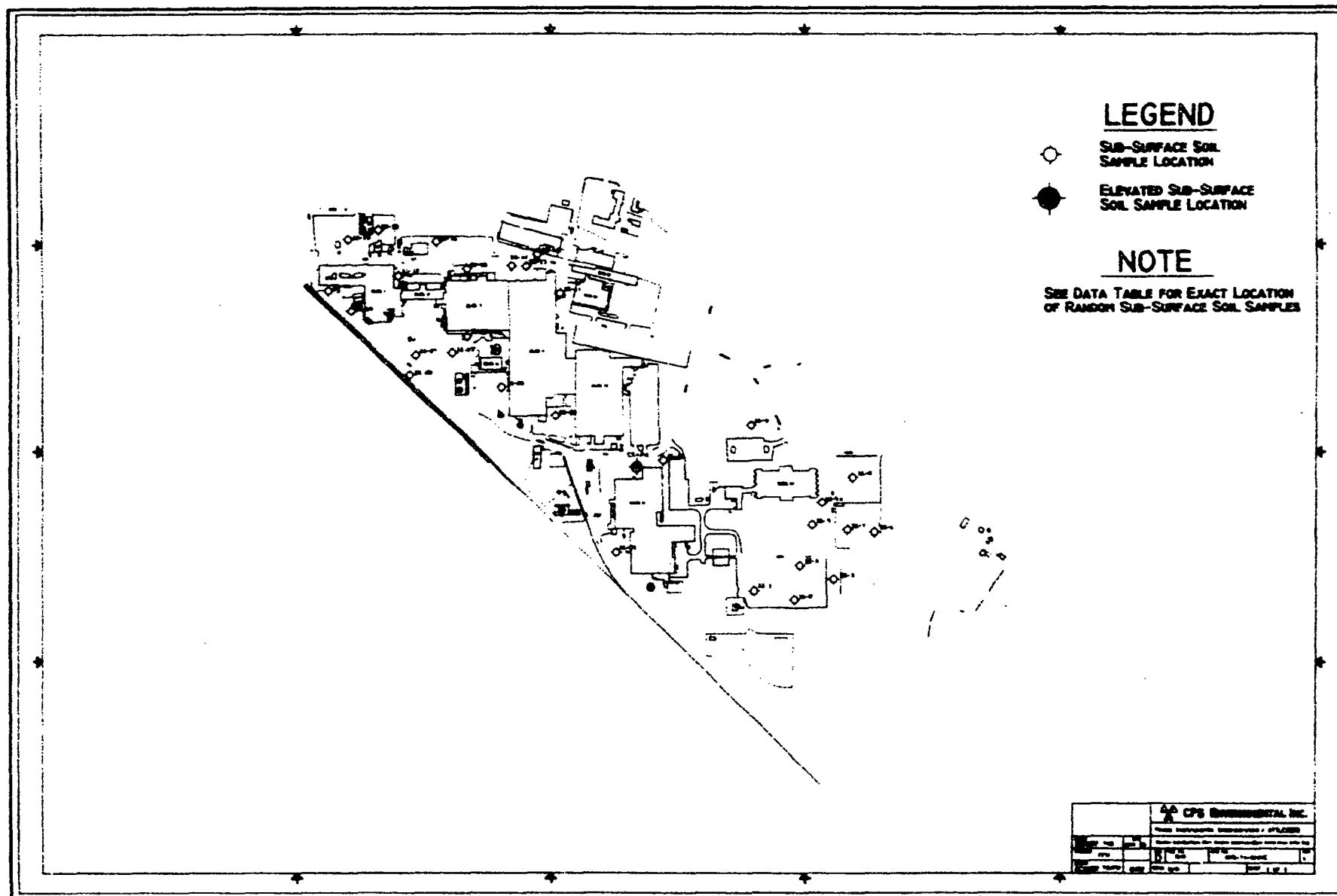
**Figure 15**  
**Building 12 Airline Debris : Sub-Surface Soil Sample Locations**



**Figure 16**  
**Building 12 Airline Debris Grid Cell Averages and Maximum Depths**



**Figure 17**  
**Open Land Area Site Map : Random Sub-Surface Soil Sample Locations**



**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix A**

**Stockade Area and Railroad Spur**

## **Appendix A: Stockade Area and Railroad Spur**

- A1 Sub-Surface Soil Sampling Data**
- A2 Drawing CPS-TI-0109A Sub Surface soil Sample Locations**
- A3 Drawing CPS-TI-0109H Grid Cell Averages and Maximum Depths**
- A4 Bore Hole Measurements and Static Measurements**
- A5 Grid Cell Averages**
- A6 Massachusetts Grid System Reference Coordinates**

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix A1**

**Stockade Area and Railroad Spur**

**Sub-Surface Soil Sampling Data**

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0804-1362 | NS-1    | 22 S X 74 E     | 0-1'  | 22        |
| TI-NS-SSS-0804-1363 |         |                 | 1'-2' | 14        |
| TI-NS-SSS-0804-1364 |         |                 | 2'-3' | 8         |
| TI-NS-SSS-0804-1365 |         |                 | 3'-4' | 12        |
| TI-NS-SSS-0804-1366 | NS-2    | 27 S X 74 E     | 0-1'  | 13        |
| TI-NS-SSS-0804-1367 |         |                 | 1'-2' | 22        |
| TI-NS-SSS-0804-1368 |         |                 | 2'-3' | 16        |
| TI-NS-SSS-0804-1369 |         |                 | 3'-4' | 8         |
| TI-NS-SSS-0805-1370 | NS-3    | 30 S X 80 E     | 0-1'  | 25        |
| TI-NS-SSS-0805-1371 |         |                 | 1'-2' | 116       |
| TI-NS-SSS-0805-1372 |         |                 | 2'-3' | 204       |
| TI-NS-SSS-0805-1373 |         |                 | 3'-4' | 29        |
| TI-NS-SSS-0805-1374 | NS-4    | 28 S X 83 E     | 0-1'  | 110       |
| TI-NS-SSS-0805-1375 |         |                 | 1'-2' | 66        |
| TI-NS-SSS-0805-1376 |         |                 | 2'-3' | 138       |
| TI-NS-SSS-0805-1377 |         |                 | 3'-4' | 237       |
| TI-NS-SSS-0805-1378 | NS-5    | 25 S X 85 E     | 0-1'  | 18        |
| TI-NS-SSS-0805-1379 |         |                 | 1'-2' | 104       |
| TI-NS-SSS-0805-1380 |         |                 | 2'-3' | 115       |
| TI-NS-SSS-0805-1381 |         |                 | 3'-4' | 1228      |
| TI-NS-SSS-0805-1382 | NS-6    | 21 S X 85 E     | 0-1'  | 60        |
| TI-NS-SSS-0805-1383 |         |                 | 1'-2' | 23        |
| TI-NS-SSS-0805-1384 |         |                 | 2'-3' | 26        |
| TI-NS-SSS-0805-1385 |         |                 | 3'-4' | 27        |
| TI-NS-SSS-0805-1386 | NS-7    | 20 S X 90 E     | 0-1'  | 113       |
| TI-NS-SSS-0805-1387 |         |                 | 1'-2' | 35        |
| TI-NS-SSS-0805-1388 |         |                 | 2'-3' | 47        |
| TI-NS-SSS-0805-1389 |         |                 | 3'-4' | 9         |
| TI-NS-SSS-0805-1390 | NS-8    | 25 S X 95 E     | 0-1'  | 12        |
| TI-NS-SSS-0805-1391 |         |                 | 1'-2' | 17        |
| TI-NS-SSS-0805-1392 |         |                 | 2'-3' | 14        |
| TI-NS-SSS-0805-1393 |         |                 | 3'-4' | 17        |
| TI-NS-SSS-0808-1394 | NS-9    | 30 S X 90 E     | 0-1'  | 21        |
| TI-NS-SSS-0808-1395 |         |                 | 1'-2' | 129       |
| TI-NS-SSS-0808-1396 |         |                 | 2'-3' | 18        |
| TI-NS-SSS-0808-1397 |         |                 | 3'-4' | 14        |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0808-1398 | NS-10   | 35 S X 85 E     | 0-1'  | 26        |
| TI-NS-SSS-0808-1399 |         |                 | 1'-2' | 12        |
| TI-NS-SSS-0808-1400 |         |                 | 2'-3' | 21        |
| TI-NS-SSS-0808-1401 |         |                 | 3'-4' | 10        |
| TI-NS-SSS-0807-1402 | NS-11   | 30 S X 100 E    | 0-1'  | 18        |
| TI-NS-SSS-0807-1403 |         |                 | 1'-2' | 16        |
| TI-NS-SSS-0807-1404 |         |                 | 2'-3' | 48        |
| TI-NS-SSS-0807-1405 |         |                 | 3'-4' | 16        |
| TI-NS-SSS-0808-1406 | NS-12   | 30 S X 70 E     | 0-1'  | 14        |
| TI-NS-SSS-0808-1407 |         |                 | 1'-2' | 15        |
| TI-NS-SSS-0808-1408 |         |                 | 2'-3' | 10        |
| TI-NS-SSS-0808-1409 |         |                 | 3'-4' | 12        |
| TI-NS-SSS-0808-1410 | NS-13   | 42 S X 92 E     | 0-1'  | 10        |
| TI-NS-SSS-0808-1411 |         |                 | 1'-2' | 6         |
| TI-NS-SSS-0808-1412 |         |                 | 2'-3' | 7         |
| TI-NS-SSS-0808-1413 |         |                 | 3'-4' | 8         |
| TI-NS-SSS-0808-1414 | NS-14   | 35 S X 95 E     | 0-1'  | 18        |
| TI-NS-SSS-0808-1415 |         |                 | 1'-2' | 18        |
| TI-NS-SSS-0808-1416 |         |                 | 2'-3' | 21        |
| TI-NS-SSS-0808-1417 |         |                 | 3'-4' | 15        |
| TI-NS-SSS-0808-1418 | NS-15   | 40 S X 100 E    | 0-1'  | 24        |
| TI-NS-SSS-0808-1419 |         |                 | 1'-2' | 9         |
| TI-NS-SSS-0808-1420 |         |                 | 2'-3' | 15        |
| TI-NS-SSS-0808-1421 |         |                 | 3'-4' | 15        |
| TI-NS-SSS-0808-1422 | NS-16   | 40 S X 80 E     | 0-1'  | 95        |
| TI-NS-SSS-0808-1423 |         |                 | 1'-2' | 9         |
| TI-NS-SSS-0808-1424 |         |                 | 2'-3' | 13        |
| TI-NS-SSS-0808-1425 |         |                 | 3'-4' | 5         |
| TI-NS-SSS-0808-1426 | NS-17   | 40 S X 70 E     | 0-1'  | 22        |
| TI-NS-SSS-0808-1427 |         |                 | 1'-2' | 5         |
| TI-NS-SSS-0808-1428 |         |                 | 2'-3' | 8         |
| TI-NS-SSS-0808-1429 |         |                 | 3'-4' | 3         |
| TI-NS-SSS-0808-1430 | NS-18   | 40 S X 90 E     | 0-1'  | 17        |
| TI-NS-SSS-0808-1431 |         |                 | 1'-2' | 11        |
| TI-NS-SSS-0808-1432 |         |                 | 2'-3' | 12        |
| TI-NS-SSS-0808-1433 |         |                 | 3'-4' | 9         |



**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0809-1434 | NS-19   | 20 S X 70 E     | 0-1'  | 3         |
| TI-NS-SSS-0809-1435 |         |                 | 1'-2' | 17        |
| TI-NS-SSS-0809-1436 |         |                 | 2'-3' | 17        |
| TI-NS-SSS-0809-1437 |         |                 | 3'-4' | 19        |
| TI-NS-SSS-0809-1438 | NS-20   | 35 S X 75 E     | 0-1'  | 49        |
| TI-NS-SSS-0809-1439 |         |                 | 1'-2' | 20        |
| TI-NS-SSS-0809-1440 |         |                 | 2'-3' | 39        |
| TI-NS-SSS-0809-1441 |         |                 | 3'-4' | 10        |
| TI-NS-SSS-0809-1442 | NS-21   | 35 S X 65 E     | 0-1'  | 33        |
| TI-NS-SSS-0809-1443 |         |                 | 1'-2' | 19        |
| TI-NS-SSS-0809-1444 |         |                 | 2'-3' | 16        |
| TI-NS-SSS-0809-1445 |         |                 | 3'-4' | 11        |
| TI-NS-SSS-0809-1446 | NS-22   | 45 S X 75E      | 0-1'  | 186       |
| TI-NS-SSS-0809-1447 |         |                 | 1'-2' | 1310      |
| TI-NS-SSS-0809-1448 |         |                 | 2'-3' | 53        |
| TI-NS-SSS-0809-1449 |         |                 | 3'-4' | 11        |
| TI-NS-SSS-0809-1450 | NS-23   | 50 S X 100 E    | 0-1'  | 17        |
| TI-NS-SSS-0809-1451 |         |                 | 1'-2' | 33        |
| TI-NS-SSS-0809-1452 |         |                 | 2'-3' | 16        |
| TI-NS-SSS-0809-1453 |         |                 | 3'-4' | 11        |
| TI-NS-SSS-0809-1454 | NS-24   | 50 S X 70 E     | 0-1'  | 387       |
| TI-NS-SSS-0809-1455 |         |                 | 1'-2' | 44        |
| TI-NS-SSS-0809-1456 |         |                 | 2'-3' | 33        |
| TI-NS-SSS-0809-1457 |         |                 | 3'-4' | 10        |
| TI-NS-SSS-0809-1458 | NS-25   | 50 S X 80 E     | 0-1'  | 151       |
| TI-NS-SSS-0809-1459 |         |                 | 1'-2' | 75        |
| TI-NS-SSS-0809-1460 |         |                 | 2'-3' | 31        |
| TI-NS-SSS-0809-1461 |         |                 | 3'-4' | 8         |
| TI-NS-SSS-0809-1462 | NS-26   | 50 S X 90 E     | 0-1'  | 10        |
| TI-NS-SSS-0809-1463 |         |                 | 1'-2' | 7         |
| TI-NS-SSS-0809-1464 |         |                 | 2'-3' | 6         |
| TI-NS-SSS-0809-1465 |         |                 | 3'-4' | 8         |
| TI-NS-SSS-0811-1466 | NS-27   | 45 S X 85 E     | 0-1'  | 5         |
| TI-NS-SSS-0810-1467 |         |                 | 1'-2' | 10        |
| TI-NS-SSS-0811-1468 |         |                 | 2'-3' | 10        |
| TI-NS-SSS-0810-1469 |         |                 | 3'-4' | 10        |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0811-1470 | NS-28   | 45 S X 95 E     | 0-1'  | 6         |
| TI-NS-SSS-0810-1471 |         |                 | 1'-2' | 8         |
| TI-NS-SSS-0811-1472 |         |                 | 2'-3' | 15        |
| TI-NS-SSS-0810-1473 |         |                 | 3'-4' | 15        |
| TI-NS-SSS-0811-1474 | NS-29   | 55 S X 85 E     | 0-1'  | 9         |
| TI-NS-SSS-0810-1475 |         |                 | 1'-2' | 11        |
| TI-NS-SSS-0810-1476 |         |                 | 2'-3' | 11        |
|                     |         |                 | 3'-4' | R         |
| TI-NS-SSS-0811-1477 | NS-30   | 55 S X 95 E     | 0-1'  | 11        |
| TI-NS-SSS-0810-1478 |         |                 | 1'-2' | 26        |
| TI-NS-SSS-0810-1479 |         |                 | 2'-3' | 21        |
| TI-NS-SSS-0811-1480 |         |                 | 3'-4' | 8         |
| TI-NS-SSS-0811-1481 | NS-31   | 60 S X 90 E     | 0-1'  | 16        |
| TI-NS-SSS-0810-1482 |         |                 | 1'-2' | 7         |
| TI-NS-SSS-0810-1483 |         |                 | 2'-3' | 12        |
| TI-NS-SSS-0811-1484 |         |                 | 3'-4' | 9         |
| TI-NS-SSS-0812-1485 | NS-32   | 90 S X 80 E     | 0-1'  | 15        |
| TI-NS-SSS-0812-1486 |         |                 | 1'-2' | 10        |
| TI-NS-SSS-0812-1487 |         |                 | 2'-3' | 22        |
| TI-NS-SSS-0812-1488 |         |                 | 3'-4' | 6         |
| TI-NS-SSS-0812-1489 | NS-33   | 70 S X 90 E     | 0-1'  | 31        |
| TI-NS-SSS-0812-1490 |         |                 | 1'-2' | 16        |
| TI-NS-SSS-0812-1491 |         |                 | 2'-3' | 14        |
| TI-NS-SSS-0812-1492 |         |                 | 3'-4' | 18        |
| TI-NS-SSS-0812-1493 | NS-34   | 55 S X 75 E     | 0-1'  | 18        |
| TI-NS-SSS-0812-1494 |         |                 | 1'-2' | 18        |
| TI-NS-SSS-0812-1495 |         |                 | 2'-3' | 16        |
| TI-NS-SSS-0812-1496 |         |                 | 3'-4' | 22        |
| TI-NS-SSS-0817-1497 | NS-35   | 45 S X 65 E     | 0-1'  | 128       |
| TI-NS-SSS-0817-1498 |         |                 | 1'-2' | 8         |
| TI-NS-SSS-0817-1499 |         |                 | 2'-3' | 13        |
| TI-NS-SSS-0817-1500 |         |                 | 3'-4' | 8         |
| TI-NS-SSS-0817-3100 | NS-36   | 55 S X 65 E     | 0-1'  | 47        |
| TI-NS-SSS-0817-3101 |         |                 | 1'-2' | 34        |
|                     |         |                 | 2'-3' | R         |
| TI-NS-SSS-0817-3102 |         |                 | 3'-4' | 30        |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0817-3103 | NS-37   | 75 S X 65 E     | 0-1'  | 12        |
| TI-NS-SSS-0817-3104 |         |                 | 1'-2' | 9         |
| TI-NS-SSS-0817-3105 |         |                 | 2'-3' | 8         |
| TI-NS-SSS-0817-3106 |         |                 | 3'-4' | 17        |
| TI-NS-SSS-0817-3107 | NS-38   | 65 S X 65 E     | 0-1'  | 21        |
| TI-NS-SSS-0817-3108 |         |                 | 1'-2' | 9         |
| TI-NS-SSS-0817-3109 |         |                 | 2'-3' | 23        |
| TI-NS-SSS-0817-3110 |         |                 | 3'-4' | 3         |
| TI-NS-SSS-0822-3111 | NS-39   | 80 S X 65 E     | 0-1'  | 9         |
| TI-NS-SSS-0822-3112 |         |                 | 1'-2' | 7         |
| TI-NS-SSS-0822-3113 |         |                 | 2'-3' | 8         |
| TI-NS-SSS-0822-3114 |         |                 | 3'-4' | 8         |
| TI-NS-SSS-0822-3115 | NS-40   | 80 S X 70 E     | 0-1'  | 63        |
| TI-NS-SSS           |         |                 | 1'-2' | 49        |
| TI-NS-SSS-0822-3117 |         |                 | 2'-3' | 78        |
| TI-NS-SSS-0822-3118 |         |                 | 3'-4' | 55        |
| TI-NS-SSS-0822-3119 | NS-41   | 75 S X 85 E     | 0-1'  | 18        |
| TI-NS-SSS-0822-3120 |         |                 | 1'-2' | 19        |
| TI-NS-SSS-0822-3121 |         |                 | 2'-3' | 9         |
| TI-NS-SSS-0822-3125 |         |                 | 3'-4' | 4         |
| TI-NS-SSS-0822-3122 | NS-42   | 80 S X 80 E     | 0-1'  | 36        |
| TI-NS-SSS           |         |                 | 1'-2' | 79        |
| TI-NS-SSS-0822-3124 |         |                 | 2'-3' | 43        |
| TI-NS-SSS-0822-3123 |         |                 | 3'-4' | 22        |
| TI-NS-SSS-0822-3126 | NS-43   | 65 S X 85 E     | 0-1'  | 6         |
| TI-NS-SSS-0822-3127 |         |                 | 1'-2' | 5         |
| TI-NS-SSS-0822-3128 |         |                 | 2'-3' | 10        |
| TI-NS-SSS-0822-3129 |         |                 | 3'-4' | 8         |
| TI-NS-SSS-0822-3130 | NS-44   | 85 S X 75 E     | 0-1'  | 57        |
| TI-NS-SSS-0822-3131 |         |                 | 1'-2' | 125       |
| TI-NS-SSS-0822-3132 |         |                 | 2'-3' | 208       |
| TI-NS-SSS-0822-3133 |         |                 | 3'-4' | 5         |
|                     | NS-45   | 75 S X 75 E     | 0-1'  | 48        |
|                     |         |                 | 1'-2' | 45        |
|                     |         |                 | 2'-3' | R         |
|                     |         |                 | 3'-4' | R         |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0823-3135 | NS-46   | 65 S X 75 E     | 0-1'  | 15        |
| TI-NS-SSS           |         |                 | 1'-2' | 2878      |
| TI-NS-SSS-0823-3136 |         |                 | 2'-3' | 722       |
| TI-NS-SSS-0823-3137 |         |                 | 3'-4' | 277       |
| TI-NS-SSS           | NS-47   | 70 S X 80 E     | 0-1'  | 40        |
| TI-NS-SSS-0823-3187 |         |                 | 1'-2' | 29        |
| TI-NS-SSS-0823-3138 |         |                 | 2'-3' | R         |
| TI-NS-SSS-0823-3139 |         |                 | 3'-4' | 75        |
| TI-NS-SSS-0823-3140 | NS-48   | 85 S X 85 E     | 0-1'  | 8         |
| TI-NS-SSS-0823-3141 |         |                 | 1'-2' | 18        |
| TI-NS-SSS-0824-3142 |         |                 | 2'-3' | 2         |
| TI-NS-SSS-0824-3143 |         |                 | 3'-4' | 11        |
| TI-NS-SSS-0824-3144 | NS-49   | 60 S X 70 E     | 0-1'  | 282       |
| TI-NS-SSS-0823-3185 |         |                 | 1'-2' | 225       |
| TI-NS-SSS-0823-3186 |         |                 | 2'-3' | 102       |
| TI-NS-SSS-0824-3145 |         |                 | 3'-4' | 28        |
| TI-NS-SSS-0902-3146 | NS-50   | 80 S X 90 E     | 0-1'  | 8         |
| TI-NS-SSS-0902-3147 |         |                 | 1'-2' | 13        |
| TI-NS-SSS           |         |                 | 2'-3' | 8         |
| TI-NS-SSS-0902-3148 |         |                 | 3'-4' | 4         |
| TI-NS-SSS           | NS-51   | 70 S X 70 E     | 0-1'  | 44        |
| TI-NS-SSS           |         |                 | 1'-2' | 162       |
|                     |         |                 | 2'-3' | R         |
|                     |         |                 | 3'-4' | R         |
| TI-NS-SSS-0823-3149 | NS-52   | 60 S X 80 E     | 0-1'  | 14        |
| TI-NS-SSS-0823-3150 |         |                 | 1'-2' | 10        |
| TI-NS-SSS-0823-3151 |         |                 | 2'-3' | 14        |
| TI-NS-SSS-0823-3152 |         |                 | 3'-4' | 16        |
| TI-NS-SSS-0824-3153 | NS-53   | 65 S X 95 E     | 0-1'  | 18        |
| TI-NS-SSS-0824-3154 |         |                 | 1'-2' | 7         |
| TI-NS-SSS-0824-3155 |         |                 | 2'-3' | 17        |
| TI-NS-SSS-0824-3156 |         |                 | 3'-4' | 15        |
| TI-NS-SSS-0824-3157 | NS-54   | 60 S X 95 E     | 0-1'  | 17        |
| TI-NS-SSS-0824-3158 |         |                 | 1'-2' | 18        |
| TI-NS-SSS-0824-3159 |         |                 | 2'-3' | 18        |
| TI-NS-SSS-0824-3160 |         |                 | 3'-4' | 6         |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0824-3161 | NS-55   | 90 S X 90 E     | 0-1'  | 11        |
| TI-NS-SSS-0824-3162 |         |                 | 1'-2' | 8         |
| TI-NS-SSS-0824-3163 |         |                 | 2'-3' | 12        |
| TI-NS-SSS-0824-3164 |         |                 | 3'-4' | 13        |
| TI-NS-SSS-0824-3165 | NS-56   | 65 S X 100 E    | 0-1'  | 12        |
| TI-NS-SSS-0824-3166 |         |                 | 1'-2' | 6         |
| TI-NS-SSS-0824-3167 |         |                 | 2'-3' | 16        |
| TI-NS-SSS-0824-3168 |         |                 | 3'-4' | 5         |
| TI-NS-SSS-0824-3169 | NS-57   | 80 S X 95 E     | 0-1'  | 12        |
| TI-NS-SSS-0824-3170 |         |                 | 1'-2' | R         |
| TI-NS-SSS-0824-3171 |         |                 | 2'-3' | 14        |
| TI-NS-SSS-0824-3172 |         |                 | 3'-4' | 11        |
| TI-NS-SSS-0824-3173 | NS - 58 | 75 S X 95 E     | 0-1'  | 6         |
| TI-NS-SSS-0824-3174 |         |                 | 1'-2' | 11        |
| TI-NS-SSS-0824-3175 |         |                 | 2'-3' | 16        |
| TI-NS-SSS-0824-3176 |         |                 | 3'-4' | 16        |
| TI-NS-SSS-0824-3177 | NS-59   | 95 S X 95 E     | 0-1'  | 11        |
| TI-NS-SSS-0824-3178 |         |                 | 1'-2' | 9         |
| TI-NS-SSS-0824-3179 |         |                 | 2'-3' | 8         |
| TI-NS-SSS-0824-3180 |         |                 | 3'-4' | 18        |
| TI-NS-SSS-0824-3181 | NS-60   | 85 S X 95 E     | 0-1'  | 16        |
| TI-NS-SSS-0824-3182 |         |                 | 1'-2' | 9         |
| TI-NS-SSS-0824-3183 |         |                 | 2'-3' | 9         |
| TI-NS-SSS-0824-3184 |         |                 | 3'-4' | 21        |
| TI-NS-SSS-0824-3188 | NS-61   | 70 S X 100 E    | 0-1'  | 10        |
| TI-NS-SSS-0824-3189 |         |                 | 1'-2' | 12        |
| TI-NS-SSS-0824-3190 |         |                 | 2'-3' | 18        |
| TI-NS-SSS-0824-3191 |         |                 | 3'-4' | 12        |
| TI-NS-SSS-0825-3192 | NS-62   | 95 S X 85 E     | 0-1'  | 17        |
| TI-NS-SSS-0825-3193 |         |                 | 1'-2' | 14        |
|                     |         |                 | 2'-3' | R         |
| TI-NS-SSS-0825-3194 |         |                 | 3'-4' | 6         |
| TI-NS-SSS-0825-3195 | NS-63   | 110 S X 80 E    | 0-1'  | 7         |
| TI-NS-SSS-0825-3196 |         |                 | 1'-2' | 8         |
| TI-NS-SSS-0825-3197 |         |                 | 2'-3' | 11        |
| TI-NS-SSS-0825-3198 |         |                 | 3'-4' | 15        |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0825-3199 | NS-64   | 105 S X 85 E    | 0-1'  | 11        |
| TI-NS-SSS-0825-3200 |         |                 | 1'-2' | 14        |
| TI-NS-SSS-0825-3201 |         |                 | 2'-3' | 11        |
| TI-NS-SSS-0825-3202 |         |                 | 3'-4' | 7         |
| TI-NS-SSS-0825-3203 | NS-65   | 105 S X 95 E    | 0-1'  | 11        |
| TI-NS-SSS-0825-3204 |         |                 | 1'-2' | 9         |
| TI-NS-SSS-0825-3205 |         |                 | 2'-3' | 14        |
| TI-NS-SSS-0825-3206 |         |                 | 3'-4' | 9         |
| TI-NS-SSS-0825-3207 | NS-66   | 100 S X 90 E    | 0-1'  | 10        |
| TI-NS-SSS-0825-3208 |         |                 | 1'-2' | 12        |
|                     |         |                 | 2'-3' | R         |
| TI-NS-SSS-0825-3209 |         |                 | 3'-4' | 12        |
| TI-NS-SSS-0825-3210 | NS-67   | 110 S X 90 E    | 0-1'  | 10        |
| TI-NS-SSS-0825-3211 |         |                 | 1'-2' | 8         |
| TI-NS-SSS-0825-3212 |         |                 | 2'-3' | 11        |
| TI-NS-SSS-0825-3213 |         |                 | 3'-4' | 3         |
| TI-NS-SSS-0825-3214 | NS-68   | 95 S X 65 E     | 0-1'  | 15        |
| TI-NS-SSS-0825-3215 |         |                 | 1'-2' | 15        |
| TI-NS-SSS-0825-3216 |         |                 | 2'-3' | 12        |
| TI-NS-SSS-0825-3217 |         |                 | 3'-4' | 6         |
| TI-NS-SSS-0825-3218 | NS-69   | 105 S X 85 E    | 0-1'  | 13        |
| TI-NS-SSS-0825-3219 |         |                 | 1'-2' | 10        |
| TI-NS-SSS-0825-3220 |         |                 | 2'-3' | 10        |
| TI-NS-SSS-0825-3221 |         |                 | 3'-4' | 3         |
| TI-NS-SSS-0829-3222 | NS - 70 | 100 S X 70 E    | 0-1'  | 14        |
| TI-NS-SSS-0829-3223 |         |                 | 1'-2' | 7         |
| TI-NS-SSS-0829-3224 |         |                 | 2'-3' | 7         |
|                     |         |                 | 3'-4' | R         |
| TI-NS-SSS-0829-3225 | NS-71   | 110 S X 70 E    | 0-1'  | 13        |
| TI-NS-SSS-0829-3226 |         |                 | 1'-2' | 6         |
| TI-NS-SSS-0829-3227 |         |                 | 2'-3' | 14        |
| TI-NS-SSS-0829-3228 |         |                 | 3'-4' | 8         |
| TI-NS-SSS-0829-3229 | NS - 72 | 110 S X 60 E    | 0-1'  | 12        |
| TI-NS-SSS-0829-3230 |         |                 | 1'-2' | 19        |
| TI-NS-SSS-0829-3231 |         |                 | 2'-3' | 14        |
| TI-NS-SSS-0829-3232 |         |                 | 3'-4' | 12        |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0902-3236 | NS-74   | 80 S X 100E     | 0-1'  | 3         |
| TI-NS-SSS-0902-3237 |         |                 | 1'-2' | 18        |
| TI-NS-SSS-0902-3238 |         |                 | 2'-3' | 9         |
| TI-NS-SSS-0902-3239 |         |                 | 3'-4' | 10        |
| TI-NS-SS-0902-3240  | NS - 75 | 80 S X 60 E     | 0-1'  | 21        |
| TIONS-SSS-0902-3241 |         |                 | 1'-2' | 9         |
| TI-NS-SSS-0902-3242 |         |                 | 2'-3' | 7         |
| TI-NS-SSS-0902-3243 |         |                 | 3'-4' | 19        |
| TI-NS-SSS-0902-3244 | NS-76   | 80 S X 55 E     | 0-1'  | 15        |
| TI-NS-SSS-0902-3245 |         |                 | 1'-2' | 19        |
| TI-NS-SSS-0902-3246 |         |                 | 2'-3' | 18        |
| TI-NS-SSS-0902-3247 |         |                 | 3'-4' | 8         |
| TI-NS-SSS-0902-3248 | NS-77   | 90 S X 100 E    | 0-1'  | 11        |
| TI-NS-SSS-0902-3249 |         |                 | 1'-2' | 17        |
| TI-NS-SSS-0902-3250 |         |                 | 2'-3' | 4         |
| TI-NS-SSS-0902-3251 |         |                 | 3'-4' | 11        |
| TI-NS-SSS           | NS-78   | 70 S X 60 E     | 0-1'  | 44        |
| TI-NS-SSS-0902-3252 |         |                 | 1'-2' | 32        |
| TI-NS-SSS-0902-3253 |         |                 | 2'-3' | 26        |
| TI-NS-SSS-0902-3254 |         |                 | 3'-4' | 9         |
| TI-NS-SSS-0915-2179 | NS-79   | 28 S X 83 E     | 4'-5' | 42        |
| TI-NS-SSS-0915-2180 |         |                 | 5-6'  | 20        |
| TI-NS-SSS-0915-2181 |         |                 | 6-7'  | 25        |
| TI-NS-SSS-0915-2182 |         |                 | 7-8'  | 62        |
| TI-NS-SSS-0916-2183 |         |                 | 8-9'  | 26        |
| TI-NS-SSS-0916-2184 |         |                 | 9-10' | 18        |
| TI-NS-SSS-0915-2185 | NS-80   | 25 S X 85 E     | 4'-5' | 799       |
| TI-NS-SSS-091502186 |         |                 | 5-6'  | 26        |
| TI-NS-SSS-0915-2187 |         |                 | 6-7'  | 26        |
| TI-NS-SSS-0915-2188 |         |                 | 7-8'  | 51        |
| TI-NS-SSS-0916-2189 |         |                 | 8-9'  | 263       |
| TI-NS-SSS-0916-2190 |         |                 | 9-10' | 59        |
| TI-NS-SSS-0915-2191 | NS-81   | 65S X 75 E      | 4'-5' | 72        |
| TI-NS-SSS-0915-2192 |         |                 | 5-6'  | 6         |
| TI-NS-SSS-0915-2193 |         |                 | 6-7'  | 8         |
| TI-NS-SSS-0915-2194 |         |                 | 7-8'  | 5         |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0915-2195 | NS-82   | 85 S X 75 E     | 4'-5' | 261       |
| TI-NS-SSS-0915-2196 |         |                 | 5-6'  | 10        |
| TI-NS-SSS-0915-2197 |         |                 | 6-7'  | 13        |
| TI-NS-SSS-0915-2198 |         |                 | 7-8'  | 9         |
| TI-NS-SSS-0928-2199 | NS-83   | 90 S X 50 E     | 0-1   | 21        |
| TI-NS-SSS-0928-2200 |         |                 | 1-2'  | 8         |
| TI-NS-SSS-0928-2201 |         |                 | 2-3'  | 10        |
| TI-NS-SSS-0928-2202 |         |                 | 3-4'  | 8         |
| TI-NS-SSS-0928-2203 | NS-84   | 108 S X 52E     | 0-1   | 7         |
| TI-NS-SSS-0928-2204 |         |                 | 1-2'  | 14        |
| TI-NS-SSS-0928-2205 |         |                 | 2-3'  | 43        |
| TI-NS-SSS-0928-2206 |         |                 | 3-4'  | 6         |
| TI-NS-SSS-0928-2207 |         |                 | 4-5'  | 4         |
| TI-NS-SSS-0928-2208 |         |                 | 5-6'  | 6         |
|                     |         |                 |       |           |
|                     | NS-85   | 85 S X 45 E     | 0-1   | R         |
|                     |         |                 | 1-2'  | R         |
| TI-NS-SSS-0928-2209 |         |                 | 2-3'  | 11        |
| TI-NS-SSS-0928-2210 |         |                 | 3-4'  | 6         |
|                     |         |                 | 4-5'  | R         |
|                     |         |                 | 5-6'  | R         |
| TI-NS-SSS-0928-2211 | NS-86   | 100 S X 40 E    | 0-1   | 6         |
| TI-NS-SSS-0928-2212 |         |                 | 1-2'  | 17        |
| TI-NS-SSS-0928-2213 |         |                 | 2-3'  | 10        |
| TI-NS-SSS-0928-2214 |         |                 | 3-4'  | 8         |
| TI-NS-SSS-0928-2115 |         |                 | 4-5'  | 20        |
| TI-NS-SSS-0928-2116 |         |                 | 5-6'  | 15        |
| TI-NS-SSS-0928-2117 | NS-87   | 80 S X 48 E     | 0-1'  | 35        |
| TI-NS-SSS-0928-2118 |         |                 | 1-2'  | 88        |
| TI-NS-SSS-0928-2119 |         |                 | 2-3'  | 17        |
|                     |         |                 | 3-4'  | R         |
|                     |         |                 | 4-5'  | R         |
|                     |         |                 | 5-6'  | R         |
| TI-NS-SSS-0928-2220 | NS-88   | 65 S X 45 E     | 0-1'  | 16        |
|                     |         |                 | 1-2'  | R         |
|                     |         |                 | 2-3'  | R         |
|                     |         |                 | 3-4'  | R         |
|                     |         |                 | 4-5'  | R         |
|                     |         |                 | 5-6'  | R         |



**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0928-2221 | NS-89   | 105 S X 55 E    | 0-1'  | 11        |
| TI-NS-SSS-0928-2222 |         |                 | 1-2'  | 15        |
|                     |         |                 | 2-3'  | R         |
|                     |         |                 | 3-4'  | R         |
| TI-NS-SSS-0928-2223 |         |                 | 4-5'  | 13        |
| TI-NS-SSS-0928-2224 |         |                 | 5-6'  | 14        |
| TI-NS-SSS-0928-2225 | NS-90   | 70 S X 40 E     | 0-1'  | 100       |
| TI-NS-SSS-0928-2226 |         |                 | 1-2'  | 288       |
| TI-NS-SSS-0928-2227 |         |                 | 2-3'  | 711       |
| TI-NS-SSS-0928-2228 | NS-91   | 100 S X 50E     | 0-1'  | 10        |
| TI-NS-SSS-0928-2229 |         |                 | 1-2'  | 12        |
| TI-NS-SSS-0928-2230 |         |                 | 2-3'  | 6         |
| TI-NS-SSS-0928-2231 |         |                 | 3-4'  | 14        |
| TI-NS-SSS-0928-2232 |         |                 | 4-5'  | 12        |
| TI-NS-SSS-0928-2233 |         |                 | 5-6'  | 14        |
| TI-NS-SSS-0928-2234 |         |                 |       |           |
| TI-NS-SSS-0928-2235 | NS-92   | 75 S X 45 E     | 0-1'  | 30        |
| TI-NS-SSS-0928-2236 |         |                 | 1-2'  | 37        |
| TI-NS-SSS-0928-2237 |         |                 | 2-3'  | 168       |
| TI-NS-SSS-0928-2238 |         |                 | 3-4'  | 132       |
| TI-NS-SSS-0928-2239 |         |                 | 4-5'  | 125       |
| TI-NS-SSS-0928-2240 |         |                 | 5-6'  | 9         |
| TI-NS-SSS-0929-2241 | NS-93   | 25 S X 105 E    | 0-1'  | 10        |
| TI-NS-SSS-0929-2242 |         |                 | 1-2'  | 24        |
|                     |         |                 | 2-3'  | 12        |
|                     |         |                 | 3-4'  | R         |
| TI-NS-SSS-0928-2243 | NS-94   | 80 S X 40 E     | 0-1'  | 15        |
| TI-NS-SSS-0928-2244 |         |                 | 1-2'  | 12        |
| TI-NS-SSS-0928-2245 |         |                 | 2-3'  | R         |
| TI-NS-SSS-0928-2246 |         |                 | 3-4'  | 35        |
| TI-NS-SSS-0928-2247 |         |                 | 4-5'  | 42        |
| TI-NS-SSS-0929-2248 | NS-95   | 20 S X 110E     | 0-1'  | 15        |
| TI-NS-SSS-0929-2249 |         |                 | 1-2'  | 15        |
| TI-NS-SSS-0929-2250 |         |                 | 2-3'  | 13        |
| TI-NS-SSS-0929-2251 |         |                 | 3-4'  | 12        |
| TI-NS-SSS-0929-2252 |         |                 | 4-5'  | 11        |
| TI-NS-SSS-0929-2253 |         |                 | 5-6'  | 12        |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0929-2254 | NS-96   | 62 S X 35 E     | 0-1'  | 128       |
| TI-NS-SSS-0929-2255 |         |                 | 1-2'  | 94        |
| TI-NS-SSS-0929-2256 |         |                 | 2-3'  | 57        |
| TI-NS-SSS-0929-2257 |         |                 | 3-4'  | 29        |
| TI-NS-SSS-0929-2258 |         |                 | 4-5'  | 13        |
| TI-NS-SSS-0929-2259 |         |                 | 5-6'  | 10        |
| TI-NS-SSS-0929-2260 |         |                 | 6-7'  | 8         |
| TI-NS-SSS-0929-2261 |         |                 | 7-8'  | 13        |
| TI-NS-SSS-0929-2262 | NS-97   | 35S X 105 E     | 0-1'  | 3         |
| TI-NS-SSS-0929-2263 |         |                 | 1-2'  | 9         |
| TI-NS-SSS-0929-2264 |         |                 | 2-3'  | 19        |
| TI-NS-SSS-0928-2265 |         |                 | 3-4'  | 9         |
| TI-NS-SSS-0928-2266 |         |                 | 4-5'  | 18        |
| TI-NS-SSS-0929-2267 |         |                 | 5-6'  | 13        |
| TI-NS-SSS-0929-2268 | NS-98   | 85 S X 35E      | 0-1'  | 12        |
| TI-NS-SSS-0929-2269 |         |                 | 1-2'  | 85        |
| TI-NS-SSS-0929-2270 |         |                 | 2-3'  | 25        |
| TI-NS-SSS-0929-2271 |         |                 | 3-4'  | 14        |
| TI-NS-SSS-0929-2272 |         |                 | 4-5'  | 21        |
| TI-NS-SSS-0929-2273 |         |                 | 5-6'  | 3         |
| TI-NS-SSS-0929-2274 | NS-99   | 45 S X 105 E    | 0-1'  | 10        |
| TI-NS-SSS-0929-2275 |         |                 | 1-2'  | 17        |
| TI-NS-SSS-0929-2276 |         |                 | 2-3'  | 6         |
| TI-NS-SSS-0929-2277 |         |                 | 3-4'  | 9         |
| TI-NS-SSS-0929-2278 |         |                 | 4-5'  | 6         |
| TI-NS-SSS-0929-2279 |         |                 | 5-6'  | 8         |
| TI-NS-SSS-0929-2426 | NS-100  | 90 S X 32 E     | 0-1'  | 10        |
| TI-NS-SSS-0929-2427 |         |                 | 1-2'  | 14        |
| TI-NS-SSS-0929-2428 |         |                 | 2-3'  | 10        |
| TI-NS-SSS-0929-2429 |         |                 | 3-4'  | 7         |
| TI-NS-SSS-0929-2430 |         |                 | 4-5'  | 9         |
| TI-NS-SSS-0929-2431 |         |                 | 5-6'  | 8         |
| TI-NS-SSS-0929-2280 | NS-101  | 40 S X 110E     | 0-1'  | 10        |
| TI-NS-SSS-0929-2281 |         |                 | 1-2'  | 6         |
| TI-NS-SSS-0929-2282 |         |                 | 2-3'  | 11        |
| TI-NS-SSS-0929-2283 |         |                 | 3-4'  | 13        |
| TI-NS-SSS-0929-2284 |         |                 | 4-5'  | 10        |
| TI-NS-SSS-0929-2285 |         |                 | 5-6'  | 14        |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0929-2432 | NS-102  | 83 S X 31 E     | 0-1'  | 18        |
| TI-NS-SSS-0929-2433 |         |                 | 1-2'  | 20        |
| TI-NS-SSS-0929-2434 |         |                 | 2-3'  | 6         |
| TI-NS-SSS-0929-2435 |         |                 | 3-4'  | 13        |
| TI-NS-SSS-0929-2436 |         |                 | 4-5'  | 10        |
| TI-NS-SSS-0929-2437 |         |                 | 5-6'  | 14        |
| TI-NS-SSS-0929-2286 | NS-103  | 50 S X 110E     | 0-1'  | 8         |
| TI-NS-SSS-0929-2287 |         |                 | 1-2'  | 7         |
| TI-NS-SSS-0929-2288 |         |                 | 2-3'  | 11        |
| TI-NS-SSS-0929-2289 |         |                 | 3-4'  | 8         |
| TI-NS-SSS-0929-2290 |         |                 | 4-5'  | 4         |
| TI-NS-SSS-0929-2291 |         |                 | 5-6'  | 5         |
| TI-NS-SSS-0929-2438 | NS-104  | 54 S X 35 E     | 0-1'  | 139       |
| TI-NS-SSS-0929-2439 |         |                 | 1-2'  | 83        |
|                     |         |                 | 2-3'  | R         |
|                     |         |                 | 3-4'  | R         |
|                     |         |                 | 4-5'  | R         |
|                     |         |                 | 5-6'  | R         |
| TI-NS-SSS-0930-2292 | NS-105  | 45 S X 75 E     | 4-5'  | 9         |
| TI-NS-SSS-0930-2293 |         |                 | 5-6'  | 10        |
| TI-NS-SSS-0930-2294 |         |                 | 6-7'  | 8         |
| TI-NS-SSS-0930-2295 |         |                 | 7-8'  | 11        |
| TI-NS-SSS-0929-2296 | NS-106  | 50 S X 25 E     | 0-1'  | 13        |
| TI-NS-SSS-0929-2297 |         |                 | 2-3'  | 12        |
|                     |         |                 | 3-4'  | R         |
| TI-NS-SSS-0929-2298 |         |                 | 4-5'  | R         |
| TI-NS-SSS-0929-2299 |         |                 | 5-6'  | 10        |
| TI-NS-SSS-0929-2300 |         |                 | 6-7'  | 7         |
| TI-NS-SSS-0929-2301 |         |                 | 7-8'  | 11        |
|                     |         |                 | 8-9'  | 16        |
| TI-NS-SSS-0930-2302 | NS-107  | 50 S X 80 E     | 4-5'  | 8         |
| TI-NS-SSS-0930-2303 |         |                 | 5-6'  | 9         |
| TI-NS-SSS-0930-2304 |         |                 | 6-7'  | 7         |
| TI-NS-SSS-0930-2305 |         |                 | 7-8'  | 13        |
| TI-NS-SSS-0930-2440 | NS-108  | 35 S X 20 E     | 4-5'  | 13        |
| TI-NS-SSS-0930-2441 |         |                 | 5-6'  | 9         |
| TI-NS-SSS-0930-2442 |         |                 | 6-7'  | 6         |
| TI-NS-SSS-0930-2443 |         |                 | 7-8'  | 11        |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-0930-2306 | NS-109  | 70 S X 80 E     | 4-5'  | 4         |
| TI-NS-SSS-0930-2307 |         |                 | 5-6'  | 17        |
| TI-NS-SSS-0930-2308 |         |                 | 6-7'  | 9         |
| TI-NS-SSS-0930-2309 |         |                 | 7-8'  | 12        |
| TI-NS-SSS-0930-2310 | NS-110  | 50 S X 70 E     | 4-5'  | 59        |
| TI-NS-SSS-0930-2311 |         |                 | 5-6'  | R         |
| TI-NS-SSS-0930-2312 |         |                 | 6-7'  | 13        |
|                     |         |                 | 7-8'  | 7         |
| TI-NS-SSS-0930-2313 | NS-111  | 80 S X 70E      | 4-5'  | 9         |
| TI-NS-SSS-0930-2314 |         |                 | 5-6'  | 4         |
| TI-NS-SSS-0930-2315 |         |                 | 6-7'  | 11        |
| TI-NS-SSS-0930-2316 |         |                 | 7-8'  | 7         |
| TI-NS-SSS-0930-2317 | NS-112  | 60 S X 70 E     | 4-5'  | 17        |
| TI-NS-SSS-0930-2318 |         |                 | 5-6'  | 8         |
| TI-NS-SSS-0930-2319 |         |                 | 6-7'  | 10        |
| TI-NS-SSS-0930-2320 |         |                 | 7-8'  | 6         |
|                     | NS-113  | 58 S X 40 E     | 0-1'  | R         |
|                     |         |                 | 1-2'  | R         |
| TI-NS-SSS-0930-2321 |         |                 | 2-3'  | 29        |
| TI-NS-SSS-0930-2322 |         |                 | 3-4'  | 31        |
| TI-NS-SSS-0930-2323 |         |                 | 4-5'  | 33        |
| TI-NS-SSS-0930-2324 |         |                 | 5-6'  | 11        |
| TI-NS-SSS-0930-2325 |         |                 | 6-7'  | 10        |
| TI-NS-SSS-0930-2326 |         |                 | 7-8'  | 7         |
| TI-NS-SSS-1003-2327 | NS-114  | 97 S X 36 E     | 0-1'  | 9         |
| TI-NS-SSS-1003-2328 |         |                 | 1-2'  | 9         |
| TI-NS-SSS-1003-2329 |         |                 | 2-3'  | 6         |
|                     |         |                 | 3-4'  | R         |
| TI-NS-SSS-1003-2444 | NS-115  | 110S X 42 E     | 0-1'  | 16        |
| TI-NS-SSS-1003-2445 |         |                 | 1-2'  | 5         |
| TI-NS-SSS-1003-2446 |         |                 | 2-3'  | 12        |
| TI-NS-SSS-1123-5642 | NS-116  | 30 S X 190 E    | 0-2'  | 12        |
| TI-NS-SSS-1123-5643 |         |                 | 2'-4' | 8         |
| TI-NS-SSS-1123-5644 |         |                 | 4'-6' | 4         |
| TI-NS-SSS-1123-5645 | NS-117  | 25 S X 185 E    | 0-2'  | 10        |
| TI-NS-SSS-1123-5646 |         |                 | 2'-4' | 12        |
| TI-NS-SSS-1123-5647 |         |                 | 4'-6' | 4         |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-1123-5648 | NS-118  | 30 S X 180 E    | 0-2'  | 8         |
| TI-NS-SSS-1123-5649 |         |                 | 2'-4' | 12        |
| TI-NS-SSS-1123-5650 |         |                 | 4'-6' | 6         |
| TI-NS-SSS-1123-5651 | NS-119  | 25 S X 175 E    | 0-2'  | 10        |
| TI-NS-SSS-1123-5652 |         |                 | 2'-4' | 8         |
| TI-NS-SSS-1123-5653 |         |                 | 4'-6' | 4         |
| TI-NS-SSS-1123-5654 | NS-120  | 30 S X 170E     | 0-2'  | 5         |
| TI-NS-SSS-1123-5655 |         |                 | 2'-4' | 16        |
| TI-NS-SSS-1123-5656 |         |                 | 4'-6' | 12        |
| TI-NS-SSS-1123-5657 | NS-121  | 25 S X 165 E    | 0-2'  | 10        |
| TI-NS-SSS-1123-5658 |         |                 | 2'-4' | 14        |
| TI-NS-SSS-1123-5659 |         |                 | 4'-6' | 6         |
| TI-NS-SSS-1123-5660 | NS-122  | 30 S X 160 E    | 0-2'  | 11        |
| TI-NS-SSS-1123-5661 |         |                 | 2'-4' | 6         |
| TI-NS-SSS-1123-5662 |         |                 | 4'-6' | 8         |
| TI-NS-SSS-1123-5663 | NS-123  | 25 S X 165 E    | 0-2'  | 20        |
|                     |         |                 | 2'-4' | R         |
|                     |         |                 | 4'-6' | R         |
| TI-NS-SSS-1123-5664 | NS-124  | 30 S X 150 E    | 0-2'  | 7         |
| TI-NS-SSS-1123-5665 |         |                 | 2'-4' | 6         |
| TI-NS-SSS-1123-5666 |         |                 | 4'-6' | 8         |
| TI-NS-SSS-1123-5667 | NS-125  | 20 S X 160 E    | 0-2'  | 24        |
| TI-NS-SSS-1123-5668 |         |                 | 2'-4' | 6         |
| TI-NS-SSS-1123-5669 |         |                 | 4'-6' | 8         |
| TI-NS-SSS-1123-5670 | NS-126  | 30 S X 140 E    | 0-2'  | 10        |
| TI-NS-SSS-1123-5671 |         |                 | 2'-4' | 7         |
| TI-NS-SSS-1123-5672 |         |                 | 4'-6' | 5         |
| TI-NS-SSS-1123-5673 | NS-127  | 35 S X 155 E    | 0-2'  | 16        |
| TI-NS-SSS-1123-5674 |         |                 | 2'-4' | 10        |
|                     |         |                 | 4'-6' |           |
| TI-NS-SSS-1123-5675 | NS-128  | 20 S X 170 E    | 0-2'  | 12        |
| TI-NS-SSS-1123-5676 |         |                 | 2'-4' | 8         |
| TI-NS-SSS-1123-5677 |         |                 | 4'-6' | 5         |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-1123-5678 | NS-129  | 35 S X 165 E    | 0-2'  | 18        |
| TI-NS-SSS-1123-5679 |         |                 | 2'-4' | 20        |
| TI-NS-SSS-1123-5680 |         |                 | 4'-6' | 17        |
| TI-NS-SSS-1123-5681 | NS-130  | 20 S X 180 E    | 0-2'  | 13        |
| TI-NS-SSS-1123-5682 |         |                 | 2'-4' | 11        |
|                     |         |                 | 4'-6' | R         |
| TI-NS-SSS-1123-5683 | NS-131  | 20 S X 190 E    | 0-2'  | 31        |
| TI-NS-SSS-1123-5684 |         |                 | 2'-4' | 9         |
| TI-NS-SSS-1123-5685 |         |                 | 4'-6' | 10        |
| TI-NS-SSS-1123-5686 | NS-132  | 35 S X 175 E    | 0-2'  | 10        |
| TI-NS-SSS-1123-5687 |         |                 | 2'-4' | 6         |
| TI-NS-SSS-1123-5688 |         |                 | 4'-6' | 11        |
| TI-NS-SSS-1128-5689 | NS-133  | 35 S X 135 E    | 0-2'  | 18        |
| TI-NS-SSS-1128-5690 |         |                 | 2'-4' | 1028      |
| TI-NS-SSS-1128-5691 |         |                 | 4'-6' | 17        |
| TI-NS-SSS-1128-5692 | NS-134  | 35 S X 185 E    | 0-2'  | 6         |
| TI-NS-SSS-1128-5693 |         |                 | 2'-4' | 9         |
| TI-NS-SSS-1128-5694 |         |                 | 4'-6' | 13        |
| TI-NS-SSS-1128-5695 | NS-135  | 40 S X 160 E    | 0-2'  | 5         |
| TI-NS-SSS-1128-5696 |         |                 | 2'-4' | 6         |
| TI-NS-SSS-1128-5697 |         |                 | 4'-6' | 6         |
| TI-NS-SSS-1128-5698 | NS-136  | 45 S X 135 E    | 0-2'  | 12        |
| TI-NS-SSS-1128-5699 |         |                 | 2'-4' | 8         |
| TI-NS-SSS-1128-5700 |         |                 | 4'-6' | 28        |
| TI-NS-SSS-1128-5701 | NS-137  | 50 S X 130 E    | 0-2'  | 12        |
|                     |         |                 | 2'-4' | R         |
|                     |         |                 | 4'-6' | R         |
| TI-NS-SSS-1128-5702 | NS-138  | 50 S X 120 E    | 0-2'  | 12        |
| TI-NS-SSS-1128-5703 |         |                 | 2'-4' | 17        |
| TI-NS-SSS-1128-5704 |         |                 | 4'-6' | 14        |
| TI-NS-SSS-1130-5705 | NS-139  | 35 S X 115 E    | 0-2'  | 11        |
|                     |         |                 | 2'-4' | R         |
|                     |         |                 | 4'-6' | R         |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-1130-5706 | NS-140  | 45 S X 115 E    | 0-2'  | 8         |
| TI-NS-SSS-1130-5707 |         |                 | 2'-4' | 18        |
| TI-NS-SSS-1130-5708 |         |                 | 4'-6' | 10        |
| TI-NS-SSS-1130-5709 | NS-141  | 45 S X 125 E    | 0-2'  | 8         |
| TI-NS-SSS-1130-5710 |         |                 | 2'-4' | 19        |
| TI-NS-SSS-1130-5711 |         |                 | 4'-6' | 15        |
| TI-NS-SSS-1130-5712 | NS-142  | 35 S X 125 E    | 0-2'  | 9         |
| TI-NS-SSS-1130-5713 |         |                 | 2'-4' | 12        |
| TI-NS-SSS-1130-5714 |         |                 | 4'-6' | 8         |
| TI-NS-SSS-1130-5715 | NS-143  | 25 S X 125 E    | 0-2'  | 6         |
| TI-NS-SSS-1130-5716 |         |                 | 2'-4' | 24        |
| TI-NS-SSS-1130-5717 |         |                 | 4'-6' | 16        |
| TI-NS-SSS-1130-5718 | NS-144  | 40 S X 120 E    | 0-2'  | 6         |
| TI-NS-SSS-1130-5719 |         |                 | 2'-4' | 15        |
|                     |         |                 | 4'-6' | R         |
| TI-NS-SSS-1130-5720 | NS-145  | 40 S X 130 E    | 0-2'  | 8         |
| TI-NS-SSS-1130-5721 |         |                 | 2'-4' | 13        |
| TI-NS-SSS-1130-5722 |         |                 | 4'-6' | 16        |
| TI-NS-SSS-1130-5723 | NS-146  | 30 S X 120 E    | 0-2'  | 10        |
| TI-NS-SSS-1130-5724 |         |                 | 2'-4' | 26        |
|                     |         |                 | 4'-6' | R         |
| TI-NS-SSS-1201-5725 | NS-147  | 25 S X 135 E    | 0-2'  | 23        |
| TI-NS-SSS-1201-5726 |         |                 | 2'-4' | 11        |
| TI-NS-SSS-1201-5727 |         |                 | 4'-6' | 6         |
| TI-NS-SSS-1201-5728 | NS-148  | 30 S X 130 E    | 0-2'  | 26        |
| TI-NS-SSS-1201-5729 |         |                 | 2'-4' | 16        |
|                     |         |                 | 4'-6' | R         |
| TI-NS-SSS-1201-5730 | NS-149  | 21 S X 120 E    | 0-2'  | 14        |
| TI-NS-SSS-1201-5731 |         |                 | 2'-4' | 25        |
| TI-NS-SSS-1201-5732 |         |                 | 4'-6' | 17        |
| TI-NS-SSS-1201-5733 | NS-150  | 20 S X 130 E    | 0-2'  | 10        |
| TI-NS-SSS-1201-5734 |         |                 | 2'-4' | 8         |
| TI-NS-SSS-1201-5735 |         |                 | 4'-6' | 8         |

# Stockade Split Spoon Sampling Alpha Screening Results

| Archive Number      | Spoon # | Sample Location | Depth | cts/10min |
|---------------------|---------|-----------------|-------|-----------|
| TI-NS-SSS-1201-5736 | NS-151  | 50 S X 160 E    | 0-2'  | 14        |
| TI-NS-SSS-1201-5737 |         |                 | 2'-4' | 7         |
| TI-NS-SSS-1201-5738 |         |                 | 4'-6' | 6         |
| TI-NS-SSS-1201-5739 | NS-152  | 45 S X 155 E    | 0-2'  | 11        |
| TI-NS-SSS-1201-5740 |         |                 | 2'-4' | 34        |
| TI-NS-SSS-1201-5741 |         |                 | 4'-6' | 10        |
| TI-NS-SSS-1201-5742 | NS-153  | 50 S X 150 E    | 0-2'  | 24        |
| TI-NS-SSS-1201-5743 |         |                 | 2'-4' | 9         |
| TI-NS-SSS-1201-5744 |         |                 | 4'-6' | 8         |
| TI-NS-SSS-1201-5745 | NS-154  | 45 S X 145 E    | 0-2'  | 9         |
| TI-NS-SSS-1201-5746 |         |                 | 2'-4' | 56        |
| TI-NS-SSS-1201-5747 |         |                 | 4'-6' | 15        |
| TI-NS-SSS-1201-5748 | NS-155  | 48 S X 140 E    | 0-2'  | 9         |
|                     |         |                 | 2'-4' | R         |
| TI-NS-SSS-1201-5749 |         |                 | 4'-6' | 22        |
| TI-NS-SSS-1201-5750 | NS-156  | 40 S X 141 E    | 0-2'  | 10        |
| TI-NS-SSS-1201-5751 |         |                 | 2'-4' | 15        |
| TI-NS-SSS-1201-5752 |         |                 | 4'-6' | 9         |
| TI-NS-SSS-1201-5753 | NS-157  | 35 S X 146 E    | 0-2'  | 16        |
| TI-NS-SSS-1201-5754 |         |                 | 2'-4' | 9         |
| TI-NS-SSS-1201-5755 |         |                 | 4'-6' | 12        |
|                     | RH-1    | 20 S X 22 E     | 0-1'  | 14        |
|                     |         |                 | 1'-2' | 10        |
|                     | RH-2    | 25 S X 20 E     | 0-1'  | 48        |
|                     |         |                 | 1'-2' | 14        |
|                     | RH-3    | 30 S X 15 E     | 0-1'  | 16        |
|                     |         |                 | 1'-2' | 20        |
|                     | RH-4    | 28 S X 30 E     | 0-1'  | 38        |
|                     |         |                 | 1'-2' | 24        |
|                     | RH-5    | 33 S X 20 E     | 0-1'  | 17        |
|                     |         |                 | 1'-2' | 81        |
|                     | RH-6    | 32 S X 30 E     | 0-1'  | 16        |
|                     |         |                 | 1'-2' | 32        |



**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number | Spoon # | Sample Location | Depth | cts/10min |
|----------------|---------|-----------------|-------|-----------|
|                | RH-7    | 32 S X 32 E     | 0-1'  | 16        |
|                |         |                 | 1'-2' | 10        |
|                |         |                 | 2'-3' | 8         |
|                | RH-8    | 37 S X 30 E     | 0-1'  | 56        |
|                |         |                 | 1'-2' | 14        |
|                | RH-9    | 37 S X 35 E     | 0-1'  | 36        |
|                |         |                 | 1'-2' | 30        |
|                | RH-10   | 42 S X 35 E     | 0-1'  | 14        |
|                |         |                 | 1'-2' | 12        |
|                |         |                 | 2'-3' | 18        |
|                | RH-11   | 41 S X 41 E     | 0-1'  | 36        |
|                |         |                 | 1'-2' | 30        |
|                | RH-12   | 40 S X 47 E     | 0-1'  | 122       |
|                |         |                 | 1'-2' | 146       |
|                | RH-13   | 47 S X 42 E     | 0-1'  | 40        |
|                |         |                 | 1'-2' | 22        |
|                | RH-14   | 45 S X 55 E     | 0-1'  | 54        |
|                |         |                 | 1'-2' | 154       |
|                | RH-15   | 53 S X 50 E     | 0-1'  | 17        |
|                |         |                 | 1'-2' | 81        |
|                | RH-16   | 52 S X 58 E     | 0-1'  | 32        |
|                |         |                 | 1'-2' | 122       |
|                | RH-17   | 57 S X 57 E     | 0-1'  | 112       |
|                |         |                 | 1'-2' | 88        |
|                | RH-18   | 35 S X 18 E     | 0-1'  | 10        |
|                |         |                 | 1'-2' | 28        |
|                | RH-19   | 38 S X 15 E     | 0-1'  | 92        |
|                |         |                 | 1'-2' | 174       |
|                | RH-20   | 42 S X 18 E     | 0-1'  | 24        |
|                |         |                 | 1'-2' | 42        |
|                | RH-21   | 45 S X 21 E     | 0-1'  | 18        |
|                |         |                 | 1'-2' | 12        |
|                |         |                 | 2'-3' |           |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number | Spoon # | Sample Location | Depth | cts/10min |
|----------------|---------|-----------------|-------|-----------|
|                | RH-22   | 45 S X 28 E     | 0-1'  | 16        |
|                |         |                 | 1'-2' | 4         |
|                | RH-23   | 50 S X 30 E     | 0-1'  | 18        |
|                |         |                 | 1'-2' | 12        |
|                | RH-24   | 50 S X 35 E     | 0-1'  | 26        |
|                |         |                 | 1'-2' | 12        |
|                | RH-25   | 58 S X 36 E     | 0-1'  | 18        |
|                |         |                 | 1'-2' | 14        |
|                | RH-26   | 58 S X 40 E     | 0-1'  | 38        |
|                |         |                 | 1'-2' | 234       |
|                |         |                 | 2'-3' | 164       |
|                | RH-27   | 50 S X 42 E     | 0-1'  | 18        |
|                |         |                 | 1'-2' | 32        |
|                | RH-28   | 62 S X 45 E     | 0-1'  | 24        |
|                |         |                 | 1'-2' | 42        |
|                | RH-29   | 45 S X 18 E     | 0-1'  | 34        |
|                |         |                 | 1'-2' | 34        |
|                | RH-30   | 55 S X 25 E     | 0-1'  | 12        |
|                |         |                 | 1'-2' | 32        |
|                | RH-31   | 60 S X 30 E     | 0-1'  | 314       |
|                |         |                 | 1'-2' | 102       |
|                | RH-32   | 65 S X 30 E     | 0-1'  | 20        |
|                |         |                 | 1'-2' |           |
|                | RH-33   | 68 S X 40 E     | 0-1'  | 115       |
|                |         |                 | 1'-2' | 110       |
|                | RH-34   | 72 S X 40 E     | 0-1'  | 94        |
|                |         |                 | 1'-2' | 10        |
|                | RH-35   | 78 S X 48 E     | 0-1'  | 12        |
|                |         |                 | 1'-2' | 25        |
|                | RH-36   | 85 S X 57 E     | 0-1'  | 48        |
|                |         |                 | 1'-2' | 26        |

**Stockade Split Spoon Sampling  
Alpha Screening Results**

| Archive Number | Spoon # | Sample Location | Depth | cts/10min |
|----------------|---------|-----------------|-------|-----------|
|                | RH-37   | 90 S X 65 E     | 0-1'  | 18        |
|                |         |                 | 1'-2' | 6         |
|                | RH-38   | 76 S X 28 E     | 0-1'  | 14        |
|                |         |                 | 1'-2' | 30        |
|                | RH-39   | 77 S X 34 E     | 0-1'  | 234       |
|                |         |                 | 1'-2' | 3000      |
|                | RH-40   | 93 S X 58 E     | 0-1'  | 10        |
|                |         |                 | 1'-2' | 32        |
|                | RH-41   | 100 S X 59 E    | 0-1'  | 10        |
|                |         |                 | 1'-2' | 6         |
|                | RH-42   | 110 S X 50 E    | 0-1'  | 12        |
|                |         |                 | 1'-2' | 10        |

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix A2**

**Stockade Area and Railroad Spur**

**Drawing CPS-TI-0109A Sub Surface Soil Sample Locations**

# OVERSIZE DOCUMENT PAGE(S) PULLED

-----  
**SEE APERTURE CARD FILES**

APERTURE CARD/PAPER COPY AVAILABLE THROUGH NRC FILE CENTER

\*\*\*\*\*

NUMBER OF OVERSIZE PAGES FILMED ON APERTURE CARD(S) 1

\*\*\*\*\*

ACCESSION NUMBERS OF OVERSIZE PAGES.

9709160168-13

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix A3**

**Stockade Area and Railroad Spur**

**Drawing CPS-TI-0109H Grid Cell Averages and Maximum Depths**

**APERTURE CARD/PAPER COPY AVAILABLE THROUGH NRC FILE CENTER**

**ACCESSION NUMBERS OF OVERSIZE PAGES:**

9709160168-14

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix A4**

**Stockade Area and Railroad Spur**

**Bore Hole Measurements and Static Measurements**



# Stockade Borehole Gamma Logging

## NaI Results

| SAMPLE |       | LOCATION |      | Depth | NaI (cpm)    |
|--------|-------|----------|------|-------|--------------|
| North  | South | East     | West |       |              |
|        | 25    | 85       |      | 1'    | NO READ      |
|        |       |          |      | 2'    | DUE TO DEPTH |
|        |       |          |      | 3'    | SHORT CORD   |
|        | 28    | 83       |      | 1'    | "            |
|        |       |          |      | 2'    | "            |
|        |       |          |      | 3'    | "            |
|        | 108   | 52       |      | 1'    | 10,000       |
|        |       |          |      | 2'    | 9,000        |
|        |       |          |      | 3'    | 9,000        |
|        | 90    | 50       |      | 1'    | 10,000       |
|        |       |          |      | 2'    | 10,000       |
|        |       |          |      | 3'    | 10,000       |
|        | 100   | 40       |      | 1'    | 10,000       |
|        |       |          |      | 2'    | 11,000       |
|        |       |          |      | 3'    | 11,000       |
|        | 85    | 45       |      | 1'    | 9,000        |
|        |       |          |      | 2'    | 10,000       |
|        |       |          |      | 3'    | 10,000       |
|        | 65    | 45       |      | 1'    | 8,000        |
|        |       |          |      | 2'    | R            |
|        |       |          |      | 3'    | R            |
|        | 70    | 40       |      | 1'    | 11,000       |
|        |       |          |      | 2'    | 13,000       |
|        |       |          |      | 3'    | 25,000       |
|        | 80    | 48       |      | 1'    | 9,000        |
|        |       |          |      | 2'    | 10,000       |
|        |       |          |      | 3'    | 10,000       |
|        | 105   | 55       |      | 1'    | 9,000        |
|        |       |          |      | 2'    | 10,000       |
|        |       |          |      | 3'    | 10,000       |
|        | 100   | 50       |      | 1'    | 10,000       |
|        |       |          |      | 2'    | H2O          |
|        |       |          |      | 3'    | H2O          |

**Stockade Borehole Gamma Logging  
Nal Results**

| SAMPLE |       | LOCATION |      | Depth | Nal (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
|        | 75    | 45       |      | 1'    | 11,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 11,000    |
|        | 80    | 40       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 11,000    |
|        | 50    | 70       |      | 1'    | 11,000    |
|        |       |          |      | 2'    | 13,000    |
|        |       |          |      | 3'    | 12,000    |
|        | 45    | 75       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 12,000    |
|        |       |          |      | 3'    | 6,000     |
|        | 50    | 80       |      | 1'    | 7,000     |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 11,000    |
|        | 70    | 80       |      | 1'    | 7,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | H2O       |
|        | 80    | 70       |      | 1'    | 8,000     |
|        |       |          |      | 2'    | 11,000    |
|        |       |          |      | 3'    | 6,000     |
|        | 60    | 70       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 12,000    |
|        |       |          |      | 3'    | 8,000     |
|        | 58    | 40       |      | 1'    | 8,000     |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 12,000    |
|        | 97    | 36       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
|        | 110   | 42       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 10,000    |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

**Stockade Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NaI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
|        | 30    | 190      |      | 1'    | 5000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 4000      |
|        | 25    | 185      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 5000      |
|        | 30    | 180      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 25    | 175      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
|        | 30    | 170      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 25    | 165      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 30    | 160      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 25    | 165      |      | 1'    | 3500      |
|        |       |          |      | 2'    | R         |
|        |       |          |      | 3'    | R         |
|        | 30    | 150      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 20    | 160      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 30    | 140      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |

**Stockade Borehole Gamma Logging**  
**NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NaI (cpm)     |
|--------|-------|----------|------|-------|---------------|
| North  | South | East     | West |       |               |
|        | 35    | 155      |      | 1'    | 3500          |
|        |       |          |      | 2'    | 3500          |
|        |       |          |      | 3'    | 4000          |
|        | 20    | 170      |      | 1'    | 3500          |
|        |       |          |      | 2'    | 3500          |
|        |       |          |      | 3'    | 4000          |
|        | 35    | 165      |      | 1'    | 4000          |
|        |       |          |      | 2'    | 4000          |
|        |       |          |      | 3'    | 4500          |
|        | 20    | 180      |      | 1'    | 4000          |
|        |       |          |      | 2'    | 4000          |
|        |       |          |      | 3'    | 4500          |
|        | 20    | 190      |      | 1'    | 3500          |
|        |       |          |      | 2'    | 4000          |
|        |       |          |      | 3'    | 4000          |
|        | 35    | 175      |      | 1'    | 3500          |
|        |       |          |      | 2'    | 4000          |
|        |       |          |      | 3'    | 4000          |
|        | 35    | 135      |      | 1'    | NO READ DUE   |
|        |       |          |      | 2'    | TO HEAVY RAIN |
|        |       |          |      | 3'    | "             |
|        | 35    | 185      |      | 1'    | "             |
|        |       |          |      | 2'    | "             |
|        |       |          |      | 3'    | "             |
|        | 40    | 160      |      | 1'    | "             |
|        |       |          |      | 2'    | "             |
|        |       |          |      | 3'    | "             |
|        | 45    | 135      |      | 1'    | "             |
|        |       |          |      | 2'    | "             |
|        |       |          |      | 3'    | "             |
|        | 50    | 130      |      | 1'    | H2O           |
|        |       |          |      | 2'    | R             |
|        |       |          |      | 3'    | R             |
|        |       |          |      |       |               |
|        |       |          |      |       |               |
|        |       |          |      |       |               |

NaI Results

| SAMPLE |       | LOCATION |      | Depth | NaI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
|        | 50    | 120      |      | 1'    | H2O       |
|        |       |          |      | 2'    | "         |
|        |       |          |      | 3'    | "         |
|        | 35    | 115      |      | 1'    | 4000      |
|        |       |          |      | 2'    | R         |
|        |       |          |      | 3'    | R         |
|        | 45    | 115      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 400       |
|        |       |          |      | 3'    | 4000      |
|        | 45    | 125      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
|        | 35    | 125      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
|        | 25    | 125      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 4000      |
|        | 40    | 120      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 40    | 130      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 4000      |
|        | 30    | 120      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 4000      |
|        | 25    | 135      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
|        | 30    | 130      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |

**Stockade Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NaI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
|        | 21    | 120      |      | 1'    | 3000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 20    | 130      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 50    | 160      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 4500      |
|        | 45    | 155      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 50    | 150      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 45    | 145      |      | 1'    | 4500      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 5000      |
|        | 48    | 140      |      | 1'    | 3000      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 4000      |
|        | 40    | 141      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
|        | 35    | 146      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
|        | 22    | 10       |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 6000      |
|        | 60    | 21       |      | 1'    | 5500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

**Stockade Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NaI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
|        | 28    | 10       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 3500      |
|        | 55    | 18       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 4500      |
|        | 30    | 11       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 4000      |
|        | 65    | 21       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 5000      |
|        |       |          |      | 3'    | 4000      |
|        | 33    | 11       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 4000      |
|        | 94    | 31       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 3500      |
|        | 123   | 42       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 3500      |
|        | 132   | 46       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 4000      |
|        | 130   | 44       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 3500      |
|        | 105   | 34       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 3500      |
|        | 45    | 14       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 3500      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

# Stockade Borehole Gamma Logging NaI Results

| SAMPLE |       | LOCATION |      | Depth | NaI (cpm)      |
|--------|-------|----------|------|-------|----------------|
| North  | South | East     | West |       |                |
|        | 74    | 25       |      | 1'    | 4000           |
|        |       |          |      | 2'    | 4000           |
|        |       |          |      | 3'    | 3500           |
|        | 80    | 29       |      | 1'    | 5000           |
|        |       |          |      | 2'    | 4000           |
|        |       |          |      | 3'    | 4000           |
|        | 86    | 29       |      | 1'    | 5000           |
|        |       |          |      | 2'    | 4500           |
|        |       |          |      | 3'    | 4500           |
|        | 116   | 39       |      | 1'    | 4000           |
|        |       |          |      | 2'    | 4000           |
|        |       |          |      | 3'    | 3000           |
|        | 40    | 14       |      | 1'    | HOLE FILLED IN |
|        |       |          |      | 2'    | "              |
|        |       |          |      | 3'    | "              |
|        | 50    | 18       |      | 1'    | HOLE FILLED IN |
|        |       |          |      | 2'    | "              |
|        |       |          |      | 3'    | "              |
|        | 69    | 25       |      | 1'    | 3500           |
|        |       |          |      | 2'    | h2o            |
|        |       |          |      | 3'    | h2o            |
|        | 90    | 31       |      | 1'    | 3500           |
|        |       |          |      | 2'    | caved in       |
|        |       |          |      | 3'    | caved in       |
|        | 101   | 34       |      | 1'    | 4000           |
|        |       |          |      | 2'    | h2o            |
|        |       |          |      | 3'    | h2o            |
|        | 110   | 39       |      | 1'    | 3000           |
|        |       |          |      | 2'    | h2o            |
|        |       |          |      | 3'    | h2o            |
|        | 120   | 42       |      | 1'    | 4000           |
|        |       |          |      | 2'    | caved in       |
|        |       |          |      | 3'    | caved in       |



**Stockade Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NaI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
|        | 126   | 44       |      | 1'    | 3500      |
|        |       |          |      | 2'    | h2o       |
|        |       |          |      | 3'    | h2o       |
| 120    |       | 150      |      | 1'    | 3000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
| 120    |       | 140      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 4500      |
| 120    |       | 130      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
| 140    |       | 150      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
| 115    |       | 155      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 4500      |
| 115    |       | 125      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
| 120    |       | 120      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
| 115    |       | 135      |      | 1'    | 4500      |
|        |       |          |      | 2'    | 6000      |
|        |       |          |      | 3'    | 6000      |

# Stockade Area: Grid Intersection Static Surface Measurements

|       | SAMPLE | LOCATION |      | Nal (cpm) |
|-------|--------|----------|------|-----------|
| North | South  | East     | West |           |
|       |        |          |      |           |
|       | 20     | 170      |      | 2200      |
|       | 20     | 176      |      | 2000      |
|       | 20     | 190      |      | 2200      |
|       | 20     | 130      |      | 2100      |
|       | 20     | 150      |      | 2000      |
|       | 20     | 140      |      | 2200      |
|       | 20     | 120      |      | 2300      |
|       | 20     | 110      |      | 2000      |
|       | 20     | 90       |      | 2300      |
|       | 20     | 100      |      | 2300      |
|       | 20     | 80       |      | 2500      |
|       | 20     | 60       |      | 2800      |
|       | 20     | 150      |      | 2100      |
|       | 20     | 140      |      | 2200      |
|       | 20     | 160      |      | 2100      |
|       | 20     | 170      |      | 2100      |
|       | 20     | 180      |      | 2200      |
|       | 20     | 190      |      | 2100      |
|       | 25     | 185      |      | 2000      |
|       | 25     | 135      |      | 2200      |
|       | 25     | 155      |      | 2200      |
|       | 25     | 145      |      | 2300      |
|       | 25     | 125      |      | 2100      |
|       | 25     | 95       |      | 2200      |
|       | 25     | 105      |      | 2000      |
|       | 25     | 85       |      | 2300      |
|       | 25     | 65       |      | 2700      |
|       | 25     | 75       |      | 2100      |
|       | 25     | 125      |      | 2400      |
|       | 25     | 185      |      | 2100      |
|       | 25     | 175      |      | 2200      |
|       | 25     | 165      |      | 2100      |
|       | 25     | 165      |      | 2200      |
|       | 30     | 190      |      | 2100      |
|       | 30     | 150      |      | 2100      |
|       | 30     | 140      |      | 2200      |
|       | 30     | 130      |      | 2100      |
|       | 30     | 120      |      | 2000      |
|       | 30     | 90       |      | 2600      |
|       | 30     | 100      |      | 2200      |
|       | 30     | 80       |      | 2300      |
|       | 30     | 70       |      | 2800      |
|       | 30     | 60       |      | 2200      |
|       | 30     | 120      |      | 2100      |
|       | 30     | 190      |      | 2500      |
|       | 30     | 180      |      | 2100      |

**Stockade Area: Grid Intersection Static Surface Measurements**

|              | <b>SAMPLE</b> | <b>LOCATION</b> |             | <b>Nal (cpm)</b> |
|--------------|---------------|-----------------|-------------|------------------|
| <b>North</b> | <b>South</b>  | <b>East</b>     | <b>West</b> |                  |
|              |               |                 |             |                  |
|              | 30            | 170             |             | 2300             |
|              | 30            | 160             |             | 2100             |
|              | 30            | 150             |             | 2000             |
|              | 30            | 140             |             | 2000             |
|              | 35            | 155             |             | 2100             |
|              | 35            | 145             |             | 2100             |
|              | 35            | 135             |             | 2000             |
|              | 35            | 125             |             | 2000             |
|              | 35            | 115             |             | 2000             |
|              | 35            | 95              |             | 2400             |
|              | 35            | 105             |             | 1800             |
|              | 35            | 85              |             | 2600             |
|              | 35            | 65              |             | 2600             |
|              | 35            | 75              |             | 2500             |
|              | 35            | 115             |             | 2100             |
|              | 35            | 125             |             | 2300             |
|              | 35            | 135             |             | 2100             |
|              | 35            | 185             |             | 2100             |
|              | 35            | 155             |             | 2000             |
|              | 35            | 165             |             | 2200             |
|              | 35            | 175             |             | 2100             |
|              | 40            | 150             |             | 2000             |
|              | 40            | 140             |             | 2000             |
|              | 40            | 130             |             | 2100             |
|              | 40            | 120             |             | 2000             |
|              | 40            | 110             |             | 2200             |
|              | 40            | 90              |             | 2500             |
|              | 40            | 100             |             | 2300             |
|              | 40            | 80              |             | 2100             |
|              | 40            | 70              |             | 2600             |
|              | 40            | 60              |             | 2300             |
|              | 40            | 120             |             | 2300             |
|              | 40            | 130             |             | 2200             |
|              | 40            | 160             |             | 2200             |
|              | 45            | 155             |             | 2100             |
|              | 45            | 145             |             | 2100             |
|              | 45            | 135             |             | 2000             |
|              | 45            | 125             |             | 2100             |
|              | 45            | 115             |             | 2300             |
|              | 45            | 95              |             | 3500             |
|              | 45            | 105             |             | 1900             |
|              | 45            | 85              |             | 2400             |
|              | 45            | 65              |             | 2400             |
|              | 45            | 75              |             | 6000             |
|              | 45            | 115             |             | 2100             |
|              | 45            | 125             |             | 2200             |

# Stockade Area: Grid Intersection Static Surface Measurements

| North | SAMPLE | LOCATION | West | Nel (cpm) |
|-------|--------|----------|------|-----------|
|       | South  | East     |      |           |
|       |        |          |      |           |
|       | 45     | 135      |      | 2300      |
|       | 50     | 150      |      | 2300      |
|       | 50     | 140      |      | 2000      |
|       | 50     | 130      |      | 2200      |
|       | 50     | 120      |      | 2200      |
|       | 50     | 110      |      | 2100      |
|       | 50     | 90       |      | 2400      |
|       | 50     | 100      |      | 2200      |
|       | 50     | 80       |      | 2700      |
|       | 50     | 60       |      | 2500      |
|       | 50     | 70       |      | 2600      |
|       | 50     | 130      |      | 2100      |
|       | 50     | 120      |      | 2000      |
|       | 55     | 135      |      | 2100      |
|       | 55     | 125      |      | 2100      |
|       | 55     | 95       |      | 2500      |
|       | 55     | 145      |      | 2400      |
|       | 55     | 115      |      | 2300      |
|       | 55     | 105      |      | 2100      |
|       | 55     | 85       |      | 2400      |
|       | 55     | 65       |      | 2600      |
|       | 55     | 75       |      | 2400      |
|       | 60     | 90       |      | 2600      |
|       | 60     | 100      |      | 2100      |
|       | 60     | 80       |      | 2300      |
|       | 60     | 70       |      | 2500      |
|       | 60     | 60       |      | 2500      |
|       | 65     | 105      |      | 2700      |
|       | 65     | 95       |      | 2200      |
|       | 65     | 85       |      | 2400      |
|       | 65     | 75       |      | 2500      |
|       | 65     | 65       |      | 2400      |
|       | 70     | 100      |      | 2300      |
|       | 70     | 90       |      | 2300      |
|       | 70     | 80       |      | 2300      |
|       | 70     | 60       |      | 2400      |
|       | 70     | 70       |      | 2400      |
|       | 75     | 105      |      | 2300      |
|       | 75     | 95       |      | 2400      |
|       | 75     | 85       |      | 2500      |
|       | 75     | 75       |      | 2300      |
|       | 75     | 65       |      | 2600      |
|       | 80     | 100      |      | 2300      |
|       | 80     | 90       |      | 2400      |
|       | 80     | 80       |      | 2200      |
|       | 80     | 60       |      | 2500      |

# Stockade Area: Grid Intersection Static Surface Measurements

|       | SAMPLE | LOCATION |      | Nal (cpm) |
|-------|--------|----------|------|-----------|
| North | South  | East     | West |           |
|       |        |          |      |           |
|       | 80     | 70       |      | 2500      |
|       | 85     | 105      |      | 2400      |
|       | 85     | 95       |      | 2500      |
|       | 85     | 85       |      | 2700      |
|       | 85     | 75       |      | 2400      |
|       | 85     | 65       |      | 2700      |
|       | 90     | 100      |      | 2500      |
|       | 90     | 90       |      | 2400      |
|       | 90     | 80       |      | 2200      |
|       | 90     | 70       |      | 2600      |
|       | 90     | 60       |      | 2500      |
|       | 95     | 95       |      | 3500      |
|       | 95     | 105      |      | 2500      |
|       | 95     | 85       |      | 2600      |
|       | 95     | 65       |      | 2400      |
|       | 95     | 75       |      | 2600      |
|       | 100    | 100      |      | 2400      |
|       | 100    | 90       |      | 2500      |
|       | 100    | 80       |      | 2400      |
|       | 100    | 70       |      | 2000      |
|       | 100    | 60       |      | 2300      |
|       | 105    | 95       |      | 2400      |
|       | 105    | 85       |      | 2500      |
|       | 105    | 65       |      | 2100      |
|       | 105    | 75       |      | 2100      |
|       | 110    | 90       |      | 2500      |
|       | 110    | 80       |      | 2200      |
|       | 110    | 70       |      | 2200      |
|       | 110    | 60       |      | 2100      |
|       | 115    | 95       |      | 2600      |
|       | 115    | 85       |      | 2500      |
|       | 115    | 75       |      | 2100      |
|       | 115    | 65       |      | 2100      |
|       | 120    | 90       |      | 2500      |
|       | 125    | 145      |      | 2300      |

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix A5**

**Stockade Area and Railroad Spur**

**Grid Cell Averages**

| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1' | 1-2' | 2-3'  | 3-4'  | 4-5' | 5-6' | 6-7' | 7-8' | 8-9' | 9-10' |
|------------------|--------------------|----------------|------|------|-------|-------|------|------|------|------|------|-------|
| 20S x 0          | 22Sx10E            | NS-158         | 2    | 2    | 2     | 2     | 126  | 126  | 2    | 2    |      | 2     |
|                  | 26Sx10E            | NS-159         | 2    | 2    | 2     | 2     | 2    | 2    | 2    | 2    |      | 2     |
| Average          |                    |                | 2    | 2    | 2     | 2     | 64   | 64   | 2    | 2    |      | 2     |
| 20S x 10E        | 22Sx10E            | NS-158         | 2    | 2    | 2     | 2     | 126  | 126  | 2    | 2    |      | 2     |
|                  | 26Sx10E            | NS-159         | 2    | 2    | 2     | 2     | 2    | 2    | 2    | 2    |      | 2     |
|                  | 30SX11E            | NS-160         | 2    | 2    | 26    | 26    | 2    | 2    | 35   | 35   |      | 2     |
|                  | 25SX20E            | RH-2           | 48   | 2    |       |       |      |      |      |      |      |       |
|                  | 30SX15E            | RH-3           | 16   | 20   |       |       |      |      |      |      |      |       |
| Average          |                    |                | 14   | 6    | 10    | 10    | 43   | 43   | 13   | 13   |      | 2     |
| 20S x 20E        | 20S x 22E          | RH-1           | 2    | 2    |       |       |      |      |      |      |      |       |
|                  | 25S x20E           | RH-2           | 48   | 2    |       |       |      |      |      |      |      |       |
|                  | 28S x30E           | RH-4           | 38   | 24   |       |       |      |      |      |      |      |       |
| Average          |                    |                | 29   | 9    |       |       |      |      |      |      |      |       |
| 20S x 30E        | 28S x 30E          | RH-4           | 38   | 24   |       |       |      |      |      |      |      |       |
| 30S x 10E        | 30SX11E            | NS-160         | 2    | 2    | 26    | 26    | 2    | 2    | 35   | 35   |      | 2     |
|                  | 33SX11E            | NS-161         | 2    | 2    | 2     | 2     | 2    | 2    | 2    | 2    |      | 2     |
|                  | 30SX15E            | RH-3           | 16   | 20   |       |       |      |      |      |      |      |       |
|                  | 33SX20E            | RH-5           | 17   | 81   |       |       |      |      |      |      |      |       |
|                  | 38SX15E            | RH-19          | 92   | 174  |       |       |      |      |      |      |      |       |
|                  | 40SX14E            | NS-162         | 2    | 2    | 2     | 2     | 2    | 2    | 2    | 2    |      | 2     |
|                  | 35SX20E            | NS-108         |      |      |       |       | 2    | 2    | 2    | 2    |      |       |
|                  | 35SX18E            | RH-18          | 2    | 28   |       |       |      |      |      |      |      |       |
| Average          |                    |                | 19   | 44   | 10    | 10    | 2    | 2    | 10   | 10   | #### | 2     |
| 30S x 20E        | 33SX20E            | RH-5           | 17   | 81   |       |       |      |      |      |      |      |       |
|                  | 32SX30E            | RH-6           | 16   | 32   |       |       |      |      |      |      |      |       |
|                  | 35SX20E            | NS-108         |      |      |       |       | 2    | 2    | 2    | 2    |      |       |
|                  | 37SX30E            | RH-8           | 56   | 2    |       |       |      |      |      |      |      |       |
| Average          |                    |                | 30   | 38   | ##### | ##### | 2    | 2    | 2    | 2    |      |       |
| 30S x 30E        | 32SX30E            | RH-6           | 16   | 32   |       |       |      |      |      |      |      |       |
|                  | 37SX30E            | RH-8           | 56   | 2    |       |       |      |      |      |      |      |       |
|                  | 32SX32E            | RH-7           | 16   | 2    | 2     |       |      |      |      |      |      |       |
|                  | 37SX35E            | RH-9           | 36   | 30   |       |       |      |      |      |      |      |       |
| Average          |                    |                | 31   | 17   | 2     |       |      |      |      |      |      |       |
| 40S x 10E        | 40SX14E            | NS-162         | 2    | 2    | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2     |
|                  | 42SX18E            | RH-20          | 24   | 42   |       |       |      |      |      |      |      |       |
|                  | 45SX18E            | RH-29          | 34   | 34   |       |       |      |      |      |      |      |       |
|                  | 45SX14E            | NS-163         | 20   | 20   | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2     |
|                  | 50SX18E            | NS-164         | 17   | 17   | 2     | 2     | 15   | 15   | 2    | 2    | 2    | 2     |
| Average          |                    |                | 19   | 23   | 2     | 2     | 6    | 6    | 2    | 2    | 2    | 2     |

| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1' | 1-2' | 2-3' | 3-4' | 4-5' | 5-6' | 6-7' | 7-8' | 8-9' | 9-10' |
|------------------|--------------------|----------------|------|------|------|------|------|------|------|------|------|-------|
| 40S x 40E        | 41SX41E            | RH-11          | 38   | 30   |      |      |      |      |      |      |      |       |
|                  | 40SX47E            | RH-12          | 122  | 146  |      |      |      |      |      |      |      |       |
|                  | 47SX42E            | RH-13          | 40   | 22   |      |      |      |      |      |      |      |       |
|                  | 50SX42E            | RH-27          | 18   | 32   |      |      |      |      |      |      |      |       |
|                  | Average            |                | 54   | 58   |      |      |      |      |      |      |      |       |
| 50S x 20E        |                    | NS-106         | 2    |      | 2    | R    | R    | 2    | 2    | 2    | 16   |       |
|                  | 50SX30E            | RH-23          | 18   | 2    |      |      |      |      |      |      |      |       |
|                  | 55SX25E            | RH-30          | 2    | 32   |      |      |      |      |      |      |      |       |
|                  | 60SX21E            | NS-166         | 67   | 67   | 2    | 2    | 16   | 16   | 17   | 17   | 2    | 2     |
|                  | 60SX30E            | RH-31          | 314  | 102  |      |      |      |      |      |      |      |       |
|                  | Average            |                | 81   | 51   | 2    | 2    | 16   | 9    | 10   | 10   | 9    | 2     |
| 60S x 20E        | 60SX21E            | NS-166         | 67   | 67   | 2    | 2    | 16   | 16   | 17   | 17   | 2    | 2     |
|                  | 65SX21E            | NS-167         | 17   | 17   | 31   | 31   | 2    | 2    | 16   | 16   | 2    | 2     |
|                  | 30SX15E            | RH-31          | 314  | 102  |      |      |      |      |      |      |      |       |
|                  | 65SX30E            | RH-32          | 20   |      |      |      |      |      |      |      |      |       |
|                  | 69SX25E            | NS-168         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     |
|                  | Average            |                | 64   | 47   | 12   | 12   | 7    | 7    | 12   | 12   | 2    | 2     |
| 70S x 20E        | 74SX25E            | NS-169         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     |
|                  | 76SX28E            | RH-38          | 2    | 30   |      |      |      |      |      |      |      |       |
|                  | 80SX29E            | NS-170         | 32   | 32   | 15   | 15   | NR   | NR   | 2    | 2    | 2    | 2     |
|                  | Average            |                | 12   | 21   | 9    | 9    | 2    | 2    | 2    | 2    | 2    | 2     |
| 80S x 20E        | 80SX29E            | NS-170         | 32   | 32   | 15   | 15   | NR   | NR   | 2    | 2    | 2    | 2     |
|                  | 86SX29E            | NS-171         | 33   | 33   | 34   | 34   | 28   | 28   | R    | R    | R    | R     |
|                  | Average            |                | 33   | 33   | 25   | 25   | 28   | 28   | 2    | 2    | 2    | 2     |
| 80S x 30E        |                    | NS-94          | 15   | 2    | R    | 35   | 42   |      |      |      |      |       |
|                  |                    | NS-102         | 18   | 20   | 2    | 2    | 2    | 2    |      |      |      |       |
|                  |                    | NS-98          | 2    | 85   | 25   | 2    | 21   | 2    |      |      |      |       |
|                  |                    | NS-114         | 2    | 2    | 2    | R    |      |      |      |      |      |       |
|                  |                    | NS-100         | 2    | 2    | 2    | 2    | 2    | 2    |      |      |      |       |
|                  | 90SX31E            | NS-172         | 2    | 2    | 2    | 2    | R    | R    | R    | R    | R    | R     |
|                  | Average            |                | 7    | 19   | 7    | 9    | 17   | 2    | ###  | #### | #### | ###   |
| 80S x 40E        |                    | NS-94          | 15   | 2    | R    | 35   | 42   |      |      |      |      |       |
|                  |                    | NS-87          | 35   | 88   | 17   | R    | R    | R    |      |      |      |       |
|                  |                    | NS-85          | R    | R    | 2    | 2    | R    | R    |      |      |      |       |
|                  |                    | NS-83          | 21   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  | Average            |                | 24   | 31   | 7    | 13   | 42   |      |      |      |      |       |
| 80S x 60E        |                    | NS-76          | 15   | 19   | 18   | 8    |      |      |      |      |      |       |
|                  |                    | NS-75          | 21   | 2    | 2    | 19   |      |      |      |      |      |       |
|                  |                    | NS-83          | 21   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  | 85SX57E            | RH-36          | 48   | 26   |      |      |      |      |      |      |      |       |
|                  | Average            |                | 26   | 12   | 7    | 10   |      |      |      |      |      |       |



| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1' | 1-2' | 2-3' | 3-4' | 4-5' | 5-6' | 6-7' | 7-8' | 8-9' | 9-10' |
|------------------|--------------------|----------------|------|------|------|------|------|------|------|------|------|-------|
| 90S X 50E        |                    | NS-83          | 21   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-91          | 2    | 2    | 2    | 2    | 2    | 2    |      |      |      |       |
|                  | 93SX50E            | RH-40          | 2    | 32   |      |      |      |      |      |      |      |       |
|                  | 100SX50E           | RH-41          | 2    | 2    |      |      |      |      |      |      |      |       |
|                  | Average            |                | 7    | 10   | 2    | 2    | 2    | 2    |      |      |      |       |
| 100S X 50E       |                    | NS-91          | 2    | 2    | 2    | 2    | 2    | 2    |      |      |      |       |
|                  |                    | NS-89          | 2    | 15   | R    | R    | 2    | 2    |      |      |      |       |
|                  |                    | NS-84          | 2    | 2    | 43   | 2    | 2    | 2    |      |      |      |       |
|                  | 110SX50E           | RH-42          | 2    | 2    |      |      |      |      |      |      |      |       |
|                  | 100SX50E           | RH-41          | 2    | 2    |      |      |      |      |      |      |      |       |
|                  |                    | NS-72          | 2    | 19   | 2    | 2    |      |      |      |      |      |       |
|                  | Average            |                | 2    | 7    | 16   | 2    | 2    | 2    |      |      |      |       |
| 20S x 100E       |                    | NS-11          | 18   | 16   | 48   | 16   |      |      |      |      |      |       |
|                  |                    | NS-93          | 2    | 24   | 2    | R    |      |      |      |      |      |       |
|                  |                    | NS-95          | 15   | 15   | 2    | 2    | 2    | 2    |      |      |      |       |
|                  | Average            |                | 12   | 18   | 17   | 9    | 2    | 2    |      |      |      |       |
| 30S x 100E       |                    | NS-11          | 18   | 16   | 48   | 16   |      |      |      |      |      |       |
|                  |                    | NS-15          | 24   | 2    | 15   | 15   |      |      |      |      |      |       |
|                  |                    | NS-97          | 2    | 2    | 19   | 2    | 18   | 2    |      |      |      |       |
|                  |                    | NS-101         | 2    | 2    | 2    | 2    | 2    | 2    |      |      |      |       |
|                  | Average            |                | 12   | 6    | 21   | 9    | 10   | 2    |      |      |      |       |
| 40S x 90E        |                    | NS-23          | 17   | 33   | 16   | 2    |      |      |      |      |      |       |
|                  |                    | NS-26          | 2    | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-28          | 2    | 2    | 15   | 15   |      |      |      |      |      |       |
|                  |                    | NS-13          | 2    | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-18          | 17   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-15          | 24   | 2    | 15   | 15   |      |      |      |      |      |       |
|                  | Average            |                | 11   | 7    | 9    | 6    |      |      |      |      |      |       |
| 40S x 100E       |                    | NS-15          | 24   | 2    | 15   | 15   |      |      |      |      |      |       |
|                  |                    | NS-101         | 2    | 2    | 2    | 2    | 2    | 2    |      |      |      |       |
|                  |                    | NS-99          | 2    | 17   | 2    | 2    | 2    | 2    |      |      |      |       |
|                  |                    | NS-23          | 17   | 33   | 16   | 2    |      |      |      |      |      |       |
|                  |                    | NS-103         | 2    | 2    | 11   | 2    | 2    | 2    |      |      |      |       |
|                  | Average            |                | 9    | 11   | 9    | 6    | 2    | 2    |      |      |      |       |
| 50S x 90E        |                    | NS-31          | 16   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-54          | 17   | 18   | 18   | 2    |      |      |      |      |      |       |
|                  |                    | NS-30          | 2    | 26   | 21   | 2    |      |      |      |      |      |       |
|                  |                    | NS-23          | 17   | 33   | 16   | 2    |      |      |      |      |      |       |
|                  |                    | NS-26          | 2    | 2    | 2    | 2    |      |      |      |      |      |       |
|                  | Average            |                | 11   | 16   | 12   | 2    |      |      |      |      |      |       |

# Stockade Area: Grid Cell Averages

| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1' | 1-2' | 2-3' | 3-4' | 4-5' | 5-6' | 6-7' | 7-8' | 8-9' | 9-10' |
|------------------|--------------------|----------------|------|------|------|------|------|------|------|------|------|-------|
| 50S x 100E       |                    | NS-23          | 17   | 33   | 16   | 2    |      |      |      |      |      |       |
|                  |                    | NS-103         | 2    | 2    | 2    | 2    | 2    | 2    |      |      |      |       |
|                  | Average            |                | 10   | 18   | 9    | 2    | 2    | 2    |      |      |      |       |
| 60S x 80E        |                    | NS-52          | 2    | 2    | 2    | 16   |      |      |      |      |      |       |
|                  |                    | NS-31          | 16   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-43          | 2    | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-47\109      | 40   | 29   | R    | 75   | 2    | 17   | 2    | 2    |      |       |
|                  |                    | NS-33          | 31   | 16   | 2    | 18   |      |      |      |      |      |       |
|                  | Average            |                | 18   | 10   | 2    | 23   | 2    | 17   | 2    | 2    |      |       |
| 60S x 90E        |                    | NS-33          | 31   | 16   | 2    | 18   |      |      |      |      |      |       |
|                  |                    | NS-61          | 2    | 2    | 18   | 2    |      |      |      |      |      |       |
|                  |                    | NS-56          | 2    | 2    | 16   | 2    |      |      |      |      |      |       |
|                  |                    | NS-53          | 18   | 2    | 17   | 16   |      |      |      |      |      |       |
|                  |                    | NS-54          | 17   | 18   | 18   | 2    |      |      |      |      |      |       |
|                  |                    | NS-31          | 16   | 2    | 2    | 2    |      |      |      |      |      |       |
| 70S x 90E        |                    | NS-33          | 31   | 16   | 2    | 18   |      |      |      |      |      |       |
|                  |                    | NS-61          | 2    | 2    | 18   | 2    |      |      |      |      |      |       |
|                  |                    | NS-58          | 2    | 2    | 16   | 16   |      |      |      |      |      |       |
|                  |                    | NS-50          | 2    | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-57          | 2    | R    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-74          | 2    | 16   | 2    | 2    |      |      |      |      |      |       |
| 80S x 80E        |                    | NS-42          | 36   | 79   | 43   | 22   |      |      |      |      |      |       |
|                  |                    | NS-32          | 15   | 2    | 22   | 6    |      |      |      |      |      |       |
|                  |                    | NS-48          | 2    | 18   | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-50          | 2    | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-55          | 2    | 2    | 2    | 2    |      |      |      |      |      |       |
|                  | Average            |                | 11   | 21   | 14   | 7    |      |      |      |      |      |       |
| 40S X 140E       |                    | NS-156         | 2    | 2    | 15   | 15   | 2    | 2    |      |      |      |       |
|                  |                    | NS-154         | 2    | 2    | 56   | 56   | 15   | 15   |      |      |      |       |
|                  |                    | NS-155         | 2    | 2    | R    | R    | 22   | 22   |      |      |      |       |
|                  |                    | NS-153         | 24   | 24   | 2    | 2    | 2    | 2    |      |      |      |       |
|                  | Average            |                | 8    | 8    | 24   | 24   | 10   | 10   |      |      |      |       |
| 40S x 150E       |                    | NS-153         | 24   | 24   | 2    | 2    | 2    | 2    |      |      |      |       |
|                  |                    | NS-152         | 2    | 2    | 34   | 34   | 2    | 2    |      |      |      |       |
|                  |                    | NS-151         | 2    | 2    | 2    | 2    | 2    | 2    |      |      |      |       |
|                  |                    | NS-135         | 2    | 2    | 2    | 2    | 2    | 2    |      |      |      |       |
|                  | Average            |                | 8    | 8    | 10   | 10   | 2    | 2    |      |      |      |       |

**Stockpue Area: Grid Cell Averages**

| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1'       | 1-2'       | 2-3'       | 3-4'      | 4-5'      | 5-6'      | 6-7' | 7-8' | 8-9' | 9-10' |
|------------------|--------------------|----------------|------------|------------|------------|-----------|-----------|-----------|------|------|------|-------|
| 20S x 180E       |                    | NS-130         | 2          | 2          | 2          | 2         | R         | R         |      |      |      |       |
|                  |                    | NS-116         | 2          | 2          | 2          | 2         | 2         | 2         |      |      |      |       |
|                  |                    | NS-117         | 2          | 2          | 2          | 2         | 2         | 2         |      |      |      |       |
|                  |                    | NS-118         | 2          | 2          | 2          | 2         | 2         | 2         |      |      |      |       |
|                  |                    | NS-131         | 31         | 31         | 2          | 2         | 2         | 2         |      |      |      |       |
| <b>Average</b>   |                    |                | <b>8</b>   | <b>8</b>   | <b>2</b>   | <b>2</b>  | <b>2</b>  | <b>2</b>  |      |      |      |       |
| 20S x 190E       |                    | NS-131         | 31         | 31         | 2          | 2         | 2         | 2         |      |      |      |       |
|                  |                    | NS-116         | 2          | 2          | 2          | 2         | 2         | 2         |      |      |      |       |
| <b>Average</b>   |                    |                | <b>17</b>  | <b>17</b>  | <b>2</b>   | <b>2</b>  | <b>2</b>  | <b>2</b>  |      |      |      |       |
| 70 x 30E         |                    | NS-90          | 100        | 288        | 711        |           |           |           |      |      |      |       |
|                  |                    | RH-34          | 94         | 2          |            |           |           |           |      |      |      |       |
|                  |                    | RH-39          | 234        | 3000       |            |           |           |           |      |      |      |       |
|                  |                    | NS-94          | 15         | 2          |            | 35        | 42        |           |      |      |      |       |
| <b>Average</b>   |                    |                | <b>111</b> | <b>823</b> | <b>711</b> | <b>35</b> | <b>42</b> |           |      |      |      |       |
| 70S x 40E        |                    | NS-90          | 100        | 288        | 711        |           |           |           |      |      |      |       |
|                  |                    | RH-34          | 94         | 2          |            |           |           |           |      |      |      |       |
|                  |                    | NS-92          | 30         | 37         | 168        | 132       | 125       | 2         |      |      |      |       |
|                  |                    | NS-94          | 15         | 2          |            | 35        | 42        |           |      |      |      |       |
|                  |                    | NS-87          | 35         | 88         | 17         |           |           |           |      |      |      |       |
|                  |                    | RH-35          | 2          | 25         |            |           |           |           |      |      |      |       |
| <b>Average</b>   |                    |                | <b>46</b>  | <b>74</b>  | <b>299</b> | <b>84</b> | <b>84</b> | <b>2</b>  |      |      |      |       |
| 70S x 50E        |                    | NS-78          | 44         | 32         | 26         | 2         |           |           |      |      |      |       |
|                  |                    | NS-76          | 15         | 19         | 18         | 2         |           |           |      |      |      |       |
|                  |                    | NS-75          | 21         | 9          | 2          | 19        |           |           |      |      |      |       |
| <b>Average</b>   |                    |                | <b>27</b>  | <b>20</b>  | <b>15</b>  | <b>8</b>  |           |           |      |      |      |       |
| 70S x 60E        |                    | NS-78          | 44         | 32         | 26         | 2         |           |           |      |      |      |       |
|                  |                    | NS-51          | 44         | 162        |            |           |           |           |      |      |      |       |
|                  |                    | NS-37          | 2          | 2          | 2          | 17        |           |           |      |      |      |       |
|                  |                    | NS-75          | 21         | 2          | 2          | 19        |           |           |      |      |      |       |
|                  |                    | NS-39          | 2          | 2          | 2          | 2         |           |           |      |      |      |       |
|                  |                    | NS-40          | 63         | 49         | 78         | 55        |           |           |      |      |      |       |
| <b>Average</b>   |                    |                | <b>29</b>  | <b>42</b>  | <b>22</b>  | <b>19</b> |           |           |      |      |      |       |
| 70S x 70E        |                    | NS-51          | 44         | 162        |            |           |           |           |      |      |      |       |
|                  |                    | NS-47/109      | 40         | 29         |            | 75        | 2         | 17        | 2    | 2    |      |       |
|                  |                    | NS-45          | 48         | 45         |            |           |           |           |      |      |      |       |
|                  |                    | NS-40          | 63         | 49         | 78         | 55        |           |           |      |      |      |       |
|                  |                    | NS-42          | 36         | 79         | 43         | 22        |           |           |      |      |      |       |
| <b>Average</b>   |                    |                | <b>46</b>  | <b>73</b>  | <b>61</b>  | <b>51</b> | <b>2</b>  | <b>17</b> |      |      |      |       |

**Stockpile Area: Grid Cell Averages**

| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1'       | 1-2'       | 2-3'       | 3-4'      | 4-5'     | 5-6'      | 6-7'     | 7-8'     | 8-9' | 9-10' |
|------------------|--------------------|----------------|------------|------------|------------|-----------|----------|-----------|----------|----------|------|-------|
| 70S x 80E        |                    | NS-47          | 40         | 29         | R          | 75        |          |           |          |          |      |       |
|                  |                    | NS-33          | 31         | 16         | 2          | 18        |          |           |          |          |      |       |
|                  |                    | NS-109         |            |            |            |           | 2        | 17        | 2        | 2        |      |       |
|                  |                    | NS-41          | 18         | 19         | 2          | 2         |          |           |          |          |      |       |
|                  |                    | NS-42          | 36         | 79         | 43         | 22        |          |           |          |          |      |       |
|                  |                    | NS-50          | 2          | 2          | 2          |           |          |           |          |          |      |       |
| <b>Average</b>   |                    |                | <b>25</b>  | <b>29</b>  | <b>12</b>  | <b>29</b> | <b>2</b> | <b>17</b> | <b>2</b> | <b>2</b> |      |       |
| 70S x 90E        |                    | NS-33          | 31         | 16         | 2          | 18        |          |           |          |          |      |       |
|                  |                    | NS-61          | 2          | 2          | 18         | 2         |          |           |          |          |      |       |
|                  |                    | NS-58          | 2          | 2          | 16         | 16        |          |           |          |          |      |       |
|                  |                    | NS-50          | 2          | 2          | 2          | 2         |          |           |          |          |      |       |
|                  |                    | NS-57          | 2          |            | 2          | 2         |          |           |          |          |      |       |
|                  |                    | NS-74          | 2          | 18         | 2          | 2         |          |           |          |          |      |       |
| <b>Average</b>   |                    |                | <b>7</b>   | <b>8</b>   | <b>7</b>   | <b>7</b>  |          |           |          |          |      |       |
| 80S x 30E        |                    | RH-31          | 314        | 102        |            |           |          |           |          |          |      |       |
|                  |                    | NS-96          | 128        | 94         | 57         | 29        | 2        | 2         | 2        | 2        |      |       |
|                  |                    | RH-32          | 20         |            |            |           |          |           |          |          |      |       |
|                  |                    | RH-33          | 115        | 110        |            |           |          |           |          |          |      |       |
|                  |                    | NS-90          | 100        | 288        | 711        |           |          |           |          |          |      |       |
| <b>Average</b>   |                    |                | <b>135</b> | <b>149</b> | <b>384</b> | <b>29</b> | <b>2</b> | <b>2</b>  | <b>2</b> | <b>2</b> |      |       |
| 80S x 40E        |                    | RH-28          | 24         | 42         |            |           |          |           |          |          |      |       |
|                  |                    | NS-88          | R          | R          | R          | R         | R        | R         |          |          |      |       |
|                  |                    | RH-33          | 115        | 110        |            |           |          |           |          |          |      |       |
|                  |                    | NS-90          | 100        | 288        | 711        |           |          |           |          |          |      |       |
| <b>Average</b>   |                    |                | <b>80</b>  | <b>147</b> | <b>711</b> |           |          |           |          |          |      |       |
| 80S x 50E        |                    | NS-78          | 44         | 32         | 26         | 2         |          |           |          |          |      |       |
| <b>Average</b>   |                    |                | <b>44</b>  | <b>32</b>  | <b>26</b>  | <b>2</b>  |          |           |          |          |      |       |
| 80S x 60E        |                    | NS-78          | 44         | 32         | 26         | 2         |          |           |          |          |      |       |
|                  |                    | NS-49          | 282        | 225        | 102        | 28        |          |           |          |          |      |       |
|                  |                    | NS-38          | 21         | 2          | 23         | 2         |          |           |          |          |      |       |
|                  |                    | NS-51          | 44         | 162        | R          | R         |          |           |          |          |      |       |
| <b>Average</b>   |                    |                | <b>98</b>  | <b>105</b> | <b>50</b>  | <b>11</b> |          |           |          |          |      |       |
| 80S x 70E        |                    | NS-49          | 282        | 225        | 102        | 28        |          |           |          |          |      |       |
|                  |                    | NS-112         | 17         | 2          | 2          | 2         |          |           |          |          |      |       |
|                  |                    | NS-52          | 2          | 2          | 2          | 16        |          |           |          |          |      |       |
|                  |                    | NS-46          | 15         | 2878       | 722        | 277       |          |           |          |          |      |       |
|                  |                    | NS-81          | 72         | 2          | 2          | 2         |          |           |          |          |      |       |
|                  |                    | NS-51          | 44         | 162        | R          | R         |          |           |          |          |      |       |
|                  |                    | NS-47/109      | 40         | 29         | R          | 75        | 2        | 17        | 2        | 2        |      |       |
| <b>Average</b>   |                    |                | <b>67</b>  | <b>471</b> | <b>166</b> | <b>67</b> | <b>2</b> | <b>17</b> | <b>2</b> | <b>2</b> |      |       |

Storage Area: Grid Cell Averages

| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1' | 1-2' | 2-3' | 3-4' | 4-5' | 5-6' | 6-7' | 7-8' | 8-9' | 9-10' |
|------------------|--------------------|----------------|------|------|------|------|------|------|------|------|------|-------|
| 50S x 30E        |                    | RH-26          | 38   | 234  | 164  |      |      |      |      |      |      |       |
|                  |                    | RH-23          | 18   | 2    |      |      |      |      |      |      |      |       |
|                  |                    | RH-24          | 26   | 2    |      |      |      |      |      |      |      |       |
|                  |                    | NS-104         | 139  | 83   |      | R    |      |      |      |      |      |       |
|                  |                    | RH-25          | 18   | 2    |      |      |      |      |      |      |      |       |
|                  |                    | RH-31          | 314  | 102  |      |      |      |      |      |      |      |       |
|                  |                    | NS-113         |      |      | 29   | 31   | 33   | 2    | 2    | 2    |      |       |
| Average          |                    |                | 92   | 71   | 97   | 31   | 33   | 2    | 2    | 2    |      |       |
| 50S x 40E        |                    | RH-26          | 38   | 234  | 164  |      |      |      |      |      |      |       |
|                  |                    | RH-27          | 32   | 18   |      |      |      |      |      |      |      |       |
|                  |                    | RH-15          | 17   | 81   |      |      |      |      |      |      |      |       |
|                  |                    | NS-113         |      |      | 29   | 31   | 33   | 2    | 2    | 2    |      |       |
| Average          |                    |                | 29   | 111  | 97   | 31   | 33   | 2    | 2    | 2    |      |       |
| 50S x 50E        |                    | RH-15          | 17   | 81   |      |      |      |      |      |      |      |       |
|                  |                    | RH-16          | 32   | 122  |      |      |      |      |      |      |      |       |
|                  |                    | RH-17          | 112  | 88   |      |      |      |      |      |      |      |       |
| Average          |                    |                | 54   | 97   |      |      |      |      |      |      |      |       |
| 50S x 60E        |                    | NS-24          | 387  | 44   | 33   | 2    |      |      |      |      |      |       |
|                  |                    | NS-110         |      |      |      |      | 59   |      | 2    | 2    |      |       |
|                  |                    | NS-36          | 47   | 34   |      | 30   |      |      |      |      |      |       |
|                  |                    | NS-49/112      | 282  | 225  | 102  | 28   | 17   | 2    | 2    | 2    |      |       |
| Average          |                    |                | 239  | 101  | 68   | 20   | 38   | 2    | 2    | 2    |      |       |
| 50S x 70E        |                    | NS-24/110      | 387  | 44   | 33   | 2    | 59   |      | 2    | 2    |      |       |
|                  |                    | NS-25/107      | 151  | 75   | 31   | 2    | 8    | 2    | 2    | 2    |      |       |
|                  |                    | NS-34          | 18   | 18   | 16   | 22   |      |      |      |      |      |       |
|                  |                    | NS-49/112      | 282  | 225  | 102  | 28   | 17   | 2    | 2    | 2    |      |       |
|                  |                    | NS-52          | 2    | 2    | 2    | 16   |      |      |      |      |      |       |
| Average          |                    |                | 168  | 73   | 37   | 14   | 28   | 2    | 2    | 2    |      |       |
| 50S x 80E        |                    | NS-25          | 151  | 75   | 31   | 2    |      |      |      |      |      |       |
|                  |                    | NS-107         |      |      |      |      | 2    | 9    | 2    | 2    |      |       |
|                  |                    | NS-26          | 2    | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-29          | 2    | 2    | 2    |      |      |      |      |      |      |       |
|                  |                    | NS-52          | 2    | 2    | 2    | 16   |      |      |      |      |      |       |
|                  |                    | NS-31          | 16   | 2    | 2    | 2    |      |      |      |      |      |       |
| Average          |                    |                | 35   | 17   | 8    | 6    | 2    | 9    | 2    | 2    |      |       |
| 40S x 50E        |                    | RH-14          | 54   | 154  |      |      |      |      |      |      |      |       |
| Average          |                    |                | 54   | 154  |      |      |      |      |      |      |      |       |
| 40S x 60E        |                    | NS-17          | 22   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-35          | 128  | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-24/110      | 387  | 44   | 33   | 2    | 59   |      | 2    | 2    |      |       |
| Average          |                    |                | 179  | 16   | 12   | 2    | 59   |      | 2    | 2    |      |       |

# Stockade Area: Grid Cell Averages

| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1' | 1-2' | 2-3' | 3-4' | 4-5' | 5-6' | 6-7' | 7-8' | 8-9' | 9-10' |
|------------------|--------------------|----------------|------|------|------|------|------|------|------|------|------|-------|
| 40S x 70E        |                    | NS-17          | 22   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-16          | 95   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-22          | 186  | 1310 | 53   | 2    |      |      |      |      |      |       |
|                  |                    | NS-105         |      |      |      |      | 2    | 2    | 2    | 2    |      |       |
|                  |                    | NS-24          | 387  | 44   | 33   | 2    |      |      |      |      |      |       |
|                  |                    | NS-25          | 151  | 75   | 31   | 2    |      |      |      |      |      |       |
| Average          |                    |                | 168  | 287  | 24   | 2    | 2    | 2    | 2    | 2    |      |       |
| 30 S X 130 E     |                    | NS-133         | 18   | 18   | 1028 | 1028 | 17   | 17   |      |      |      |       |
|                  |                    | NS-148         | 26   | 26   | 16   | 16   |      |      |      |      |      |       |
|                  |                    | NS-126         | 2    | 2    | 2    | 2    | 2    | 2    |      |      |      |       |
|                  |                    | NS-145         | 2    | 2    | 2    | 2    | 16   | 16   |      |      |      |       |
|                  | Average            |                | 12   | 12   | 262  | 262  | 12   | 12   |      |      |      |       |
| 30 S X 40 E      |                    | RH-12          | 122  | 146  |      |      |      |      |      |      |      |       |
| Average          |                    |                | 122  | 146  |      |      |      |      |      |      |      |       |
| 30 S X 60 E      |                    | NS-21          | 33   | 19   | 16   | 2    |      |      |      |      |      |       |
|                  |                    | NS-12          | 2    | 15   | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-17          | 22   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  | Average            |                | 19   | 12   | 7    | 2    |      |      |      |      |      |       |
| 30 S X 70 E      |                    | NS-12          | 2    | 15   | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-3           | 25   | 116  | 204  | 29   |      |      |      |      |      |       |
|                  |                    | NS-20          | 49   | 29   | 39   | 2    |      |      |      |      |      |       |
|                  |                    | NS-17          | 22   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-16          | 95   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  | Average            |                | 39   | 33   | 50   | 7    |      |      |      |      |      |       |
| 30 S X 80 E      |                    | NS-3           | 25   | 116  | 204  | 29   |      |      |      |      |      |       |
|                  |                    | NS-9           | 21   | 129  | 18   | 2    |      |      |      |      |      |       |
|                  |                    | NS-10          | 26   | 2    | 21   | 2    |      |      |      |      |      |       |
|                  |                    | NS-16          | 95   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-18          | 17   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  | Average            |                | 37   | 50   | 49   | 7    |      |      |      |      |      |       |
| 30 S X 90 E      |                    | NS-15          | 24   | 2    | 15   | 15   |      |      |      |      |      |       |
|                  |                    | NS-18          | 17   | 2    | 2    | 2    |      |      |      |      |      |       |
|                  |                    | NS-14          | 18   | 18   | 21   | 15   |      |      |      |      |      |       |
|                  |                    | NS-9           | 21   | 129  | 18   | 2    |      |      |      |      |      |       |
|                  |                    | NS-11          | 18   | 16   | 48   | 16   |      |      |      |      |      |       |
|                  | Average            |                | 20   | 33   | 21   | 10   |      |      |      |      |      |       |

**Stockade Area: Grid Cell Averages**

| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1'      | 1-2'      | 2-3'      | 3-4'       | 4-5'       | 5-6'      | 6-7'      | 7-8'      | 8-9'       | 9-10'     |
|------------------|--------------------|----------------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|-----------|
| 40 S X 80 E      |                    | NS-16          | 95        | 2         | 2         | 2          |            |           |           |           |            |           |
|                  |                    | NS-18          | 17        | 2         | 2         | 2          |            |           |           |           |            |           |
|                  |                    | NS-27          | 2         | 2         | 2         | 2          |            |           |           |           |            |           |
|                  |                    | NS-25          | 151       | 75        | 31        | 2          |            |           |           |           |            |           |
|                  |                    | NS-107         |           |           |           |            | 2          | 2         | 2         | 2         |            |           |
|                  |                    | NS-26          | 10        | 2         | 2         | 2          |            |           |           |           |            |           |
| <b>Average</b>   |                    |                | <b>55</b> | <b>17</b> | <b>8</b>  | <b>2</b>   | <b>2</b>   | <b>2</b>  | <b>2</b>  | <b>2</b>  |            |           |
| 20 S X 90 E      |                    | NS-9           | 21        | 129       | 18        | 2          |            |           |           |           |            |           |
|                  |                    | NS-11          | 18        | 16        | 48        | 16         |            |           |           |           |            |           |
|                  |                    | NS-8           | 2         | 17        | 2         | 17         |            |           |           |           |            |           |
|                  |                    | NS-7           | 113       | 35        | 47        | 2          |            |           |           |           |            |           |
| <b>Average</b>   |                    |                | <b>39</b> | <b>49</b> | <b>29</b> | <b>9</b>   |            |           |           |           |            |           |
| 20 S X 80 E      |                    | NS-6           | 60        | 23        | 26        | 27         |            |           |           |           |            |           |
|                  |                    | NS-7           | 113       | 35        | 47        | 2          |            |           |           |           |            |           |
|                  |                    | NS-5           | 18        | 104       | 115       | 1228       |            |           |           |           |            |           |
|                  |                    | NS-80          |           |           |           |            | 799        | 26        | 26        | 51        | 263        | 59        |
|                  |                    | NS-79          |           |           |           |            | 42         | 20        | 25        | 62        | 261        | 18        |
|                  |                    | NS-3           | 25        | 116       | 204       | 29         |            |           |           |           |            |           |
|                  |                    | NS-9           | 21        | 129       | 18        | 2          |            |           |           |           |            |           |
| <b>Average</b>   |                    |                | <b>47</b> | <b>81</b> | <b>82</b> | <b>258</b> | <b>421</b> | <b>23</b> | <b>26</b> | <b>57</b> | <b>262</b> | <b>39</b> |
| 20 S X 70 E      |                    | NS-19          | 2         | 17        | 17        | 19         |            |           |           |           |            |           |
|                  |                    | NS-1           | 22        | 2         | 2         | 2          |            |           |           |           |            |           |
|                  |                    | NS-2           | 2         | 22        | 16        | 2          |            |           |           |           |            |           |
|                  |                    | NS-3           | 25        | 116       | 204       | 29         |            |           |           |           |            |           |
|                  |                    | NS-12          | 2         | 15        | 2         | 2          |            |           |           |           |            |           |
| <b>Average</b>   |                    |                | <b>11</b> | <b>34</b> | <b>48</b> | <b>11</b>  |            |           |           |           |            |           |
| 80 S X 60 E      |                    | NS-75          | 21        | 2         | 2         | 19         |            |           |           |           |            |           |
|                  |                    | NS-39          | 2         | 2         | 2         | 2          |            |           |           |           |            |           |
|                  |                    | NS-40          | 63        | 49        | 78        | 55         |            |           |           |           |            |           |
|                  |                    | NS-111         |           |           |           |            | 2          | 2         | 2         | 2         |            |           |
|                  |                    | RH-37          | 18        | 2         |           |            |            |           |           |           |            |           |
| <b>Average</b>   |                    |                | <b>26</b> | <b>14</b> | <b>27</b> | <b>25</b>  |            |           |           |           |            |           |
| 90 S X 70 E      |                    | NS-111         |           |           |           |            | 2          | 2         | 2         | 2         |            |           |
|                  |                    | NS-40          | 63        | 49        | 78        | 55         |            |           |           |           |            |           |
|                  |                    | NS-42          | 36        | 79        | 43        | 22         |            |           |           |           |            |           |
|                  |                    | NS-32          | 15        | 2         | 22        | 2          |            |           |           |           |            |           |
|                  |                    | NS-44          | 57        | 125       | 208       | 2          |            |           |           |           |            |           |
|                  |                    | NS-82          |           |           |           |            | 261        | 2         | 2         | 2         |            |           |
| <b>Average</b>   |                    |                | <b>43</b> | <b>64</b> | <b>88</b> | <b>20</b>  | <b>132</b> | <b>2</b>  | <b>2</b>  | <b>2</b>  |            |           |

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix A6**

**Stockade Area and Railroad Spur**

**Massachusetts Grid System Reference Coordinates**





**E. OTIS DYER**

368 FAIRVIEW AVENUE  
BOX 5  
REHOBOTH, MASS. 02769  
Telephone: (508) 252-4363

*Registered Professional Engineer and Land Surveyor  
in Massachusetts, Rhode Island and North Carolina*

**MARCH 28, 1995  
TEXAS INSTRUMENTS, INC.  
IN ATTLEBORO, MASSACHUSETTS  
BUILDING 10 GRID  
ON MASSACHUSETTS GRID COORDINATES**

**IN METERS**

**IN FEET**

|             |              |             |
|-------------|--------------|-------------|
| 120S, 120 E | 345, 285.40, | 663, 316.79 |
| 60 S, 120 E | 345, 430.32, | 663, 183.55 |
| 0S, 120E    | 345, 575.24, | 663, 050.31 |
| 60N, 120E   | 345, 720.16, | 662, 917.07 |
| 120N, 120E  | 345, 865.07, | 662, 783.83 |
| 180N, 120E  | 346, 009.99, | 662, 650.59 |

---

|              |              |             |
|--------------|--------------|-------------|
| 120 S, 150E  | 345, 352.02, | 663, 389.25 |
| 60 S, 150E   | 345, 496.94, | 663, 256.01 |
| 0N, 150E     | 345, 641.86, | 663, 122.77 |
| 60N, 150E    | 345, 786.77, | 662, 989.53 |
| 120 N, 150 E | 345, 931.69, | 662, 856.29 |
| 180 N, 150E  | 346, 076.61, | 662, 723.05 |

---

|              |              |             |
|--------------|--------------|-------------|
| 120 S, 180 E | 345, 418.64, | 663, 461.70 |
| 60 S, 180 E  | 345, 563.56, | 663, 328.47 |
| 0N, 180 E    | 345, 708.48, | 663, 195.23 |
| 60N, 180 E   | 345, 853.39, | 663, 061.99 |
| 120N, 180E   | 345, 998.31, | 662, 928.75 |
| 180 N, 180 E | 346, 143.23, | 662, 795.51 |

**T.I.**  
**BUILDING 10 GRID**  
**PAGE 2 OF 2**

**IN METERS**

**IN FEET**

|              |                          |
|--------------|--------------------------|
| 120 S, 210 E | 345, 485.26, 663, 534.16 |
| 60 S, 210 E  | 345, 630.17, 663, 400.92 |
| 0N, 240 E    | 345, 775.10, 663, 267.68 |
| 60N, 210 E   | 345, 920.01, 663, 134.44 |
| 120 N, 210 E | 346, 064.93, 663, 001.20 |
| 180 N, 210 E | 346, 209.84, 662, 867.96 |

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix B**

**Building 10 Perimeter and Building 10 Alleged Zirc Burning Area**

## **Appendix B: Building 10 Perimeter and Building 10 Alleged Zirc Burning Area**

- B1 Sub-Surface Soil Sampling Data**
- B2 Drawing CPS-TI-0106A Sub Surface soil Sample Locations**
- B3 Drawing CPS-TI-0106H Grid Cell Averages and Maximum Depths**
- B4 Bore Hole Measurements and Static Measurements**
- B5 Grid Cell Averages**
- B6 Massachusetts Grid System Reference Coordinates**

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix B1**

**Building 10 Perimeter and Building 10 Alleged  
Zirc Burning Area**

**Sub-Surface Soil Sampling Data**

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive #            | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0829-1135 | B10-1   | 198 N X 70 E    | 0-1'  | 8          |
| TI-B10-SSS-0829-1136 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0829-1137 |         |                 | 2'-3' | 13         |
| TI-B10-SSS-0829-1138 | B-10-2  | 195 N X 65 E    | 0-1'  | 7          |
| TI-B10-SSS-0829-1139 |         |                 | 1'-2' | 18         |
| TI-B10-SSS-0829-1140 |         |                 | 2'-3' | R          |
| TI-B10-SSS-0829-1141 | B-10-3  | 198 N X 60 E    | 0-1'  | 9          |
| TI-B10-SSS-0829-1142 |         |                 | 1'-2' | 15         |
| TI-B10-SSS-0829-1143 |         |                 | 2'-3' | 12         |
| TI-B10-SSS-0829-1144 | B10-4   | 195 N X 55 E    | 0-1'  | 17         |
| TI-B10-SSS-0829-1145 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-0829-1146 |         |                 | 2'-3' | 21         |
| TI-B10-SSS-0829-1147 | B10-5   | 198 N X 50 E    | 0-1'  | 11         |
| TI-B10-SSS-0829-1148 |         |                 | 1'-2' | 14         |
| TI-B10-SSS-0829-1149 |         |                 | 2'-3' | 16         |
| TI-B10-SSS-0829-1150 | B10-6   | 198 N X 40 E    | 0-1'  | 12         |
| TI-B10-SSS-0829-1151 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0829-1152 |         |                 | 2'-3' | 14         |
| TI-B10-SSS-0830-1153 | B10-7   | 195 N X 75 E    | 0-1'  | 12         |
| TI-B10-SSS-0830-1154 |         |                 | 1'-2' | R          |
| TI-B10-SSS-0830-1155 |         |                 | 2'-3' | R          |
| TI-B10-SSS-0830-1156 | B10-8   | 198 N X 80 E    | 0-1'  | 8          |
| TI-B10-SSS-0830-1157 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0830-1158 |         |                 | 2'-3' | 8          |
| TI-B10-SSS-0830-1159 | B10-9   | 195 N X 85 E    | 0-1'  | 11         |
| TI-B10-SSS-0830-1160 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-0830-1161 |         |                 | 2'-3' | 5          |
| TI-B10-SSS-0830-1162 | B10-10  | 190 N X 80 E    | 0-1'  | 9          |
| TI-B10-SSS-0830-1163 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-0830-1164 |         |                 | 2'-3' | 8          |
| TI-B10-SSS-0830-1165 | B10-11  | 190 N X 85 E    | 0-1'  | 10         |
| TI-B10-SSS-0830-1166 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0830-1167 |         |                 | 2'-3' | 10         |
|                      | B10-12  | 190 N X 90 E    | 0-1'  | R          |
| TI-B10-SSS-0830-1168 |         |                 | 1'-2' | 8          |
| TI-B10-SSS-0830-1169 |         |                 | 2'-3' | 17         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0830-1170 | B10-13  | 198 N X 90 E    | 0-1'  | 6          |
| TI-B10-SSS-0830-1171 |         |                 | 1'-2' | 14         |
| TI-B10-SSS-0830-1172 |         |                 | 2'-3' | R          |
| TI-B10-SSS-0830-1173 | B10-14  | 195 N X 95 E    | 0-1'  | 12         |
| TI-B10-SSS-0830-1174 |         |                 | 1'-2' | 12         |
|                      |         |                 | 2'-3' | R          |
| TI-B10-SSS-0831-1175 | B10-15  | 195 N X 100 E   | 0-1'  | 9          |
| TI-B10-SSS-0831-1176 |         |                 | 1'-2' | 2          |
| TI-B10-SSS-0831-1176 |         |                 | 2'-3' | 12         |
| TI-B10-SSS-0831-1177 | B10-16  | 190 N X 100 E   | 0-1'  | 8          |
| TI-B10-SSS-0831-1178 |         |                 | 1'-2' | 21         |
| TI-B10-SSS-0831-1179 |         |                 | 2'-3' | 14         |
| TI-B10-SSS-0831-1180 | B10-17  | 190 N X 110 E   | 0-1'  | 14         |
| TI-B10-SSS-0831-1181 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-0831-1182 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0831-1183 | B10-18  | 190 N X 120 E   | 0-1'  | 8          |
| TI-B10-SSS-0831-1184 |         |                 | 1'-2' | 9          |
|                      |         |                 | 2'-3' | R          |
| TI-B10-SSS-0831-1185 | B10-19  | 185 N X 115 E   | 0-1'  | 15         |
| TI-B10-SSS-0831-1186 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0831-1187 |         |                 | 2'-3' | 8          |
| TI-B10-SSS-0831-1188 | B10-20  | 180 N X 120 E   | 0-1'  | 11         |
| TI-B10-SSS-0831-1189 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0831-1190 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0831-1191 | B10-21  | 180 N X 130 E   | 0-1'  | 10         |
| TI-B10-SSS-0831-1192 |         |                 | 1'-2' | 21         |
| TI-B10-SSS-0831-1193 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0831-1194 | B10-22  | 185 N X 125 E   | 0-1'  | 8          |
| TI-B10-SSS-0831-1195 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0831-1196 |         |                 | 2'-3' | 11         |
| TI-B10-SSS-0831-1197 | B10-23  | 190 N X 130 E   | 0-1'  | 12         |
| TI-B10-SSS-0831-1198 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0831-1199 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0831-1200 | B10-24  | 185 N X 135 E   | 0-1'  | 3          |
| TI-B10-SSS-0831-1201 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-0831-1202 |         |                 | 2'-3' | 12         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0831-1203 | B10-25  | 180 N X 140E    | 0-1'  | 11         |
| TI-B10-SSS-0831-1204 |         |                 | 1'-2' | 16         |
| TI-B10-SSS-0831-1205 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0901-1206 | B10-26  | 185 N X 145 E   | 0-1'  | 16         |
| TI-B10-SSS-0901-1207 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-0901-1208 |         |                 | 2'-3' | 14         |
| TI-B10-SSS-0901-1209 | B10-27  | 180 N X 150 E   | 0-1'  | 8          |
| TI-B10-SSS-0901-1210 |         |                 | 1'-2' | 13         |
| TI-B10-SSS-0901-1211 |         |                 | 2'-3' | 6          |
| TI-B10-SSS-0901-1212 | B10-28  | 185 N X 155 E   | 0-1'  | 8          |
| TI-B10-SSS-0901-1213 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0901-1214 |         |                 | 2'-3' | 11         |
| TI-B10-SSS-0901-1215 | B10-29  | 180 N X 160 E   | 0-1'  | 7          |
| TI-B10-SSS-0901-1216 |         |                 | 1'-2' | 15         |
| TI-B10-SSS-0901-1217 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0901-1218 | B10-30  | 175 N X 155 E   | 0-1'  | 8          |
| TI-B10-SSS-0901-1219 |         |                 | 1'-2' | 18         |
| TI-B10-SSS-0901-1220 |         |                 | 2'-3' | 9          |
| TI-B10-SSS-0901-1221 | B10-31  | 175 N X 165 E   | 0-1'  | 9          |
| TI-B10-SSS-0901-1222 |         |                 | 1'-2' | 16         |
| TI-B10-SSS-0901-1223 |         |                 | 2'-3' | 5          |
| TI-B10-SSS-0901-1224 | B10-32  | 180 N X 170 E   | 0-1'  | 8          |
| TI-B10-SSS-0901-1225 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-0901-1226 |         |                 | 2'-3' | 19         |
| TI-B10-SSS-0901-1227 | B10-33  | 175 N X 170 E   | 0-1'  | 11         |
| TI-B10-SSS-0901-1228 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-0901-1229 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0901-1230 | B10-34  | 170 N X 170 E   | 0-1'  | 14         |
| TI-B10-SSS-0901-1231 |         |                 | 1'-2' | 16         |
| TI-B10-SSS-0901-1232 |         |                 | 2'-3' | 18         |
| TI-B10-SSS-0906-1233 | B10-35  | 130 N X 150 E   | 0-1'  | 6          |
| TI-B10-SSS-0906-1234 |         |                 | 1'-2' | 13         |
| TI-B10-SSS-0906-1235 |         |                 | 2'-3' | 9          |
| TI-B10-SSS-0906-1236 | B10-36  | 125 N X 145 E   | 0-1'  | 13         |
| TI-B10-SSS-0906-1237 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0906-1238 |         |                 | 2'-3' | 11         |



**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0906-1239 | B10-37  | 120 N X 150 E   | 0-1'  | 14         |
| TI-B10-SSS-0906-1240 |         |                 | 1'-2' | 20         |
|                      |         |                 | 2'-3' | 8          |
| TI-B10-SSS-0906-1241 | B10-38  | 130 N X 140 E   | 0-1'  | 10         |
|                      |         |                 | 1'-2' | R          |
|                      |         |                 | 2'-3' | R          |
| TI-B10-SSS-0906-1242 | B10-39  | 120 N X 140 E   | 0-1'  | 13         |
| TI-B10-SSS-0906-1243 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0906-1244 |         |                 | 2'-3' | 11         |
| TI-B10-SSS-0906-1245 | B10-40  | 115 N X 145 E   | 0-1'  | 14         |
| TI-B10-SSS-0906-1246 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0906-1247 |         |                 | 2'-3' | 17         |
| TI-B10-SSS-0906-1248 | B10-41  | 110 N X 140 E   | 0-1'  | 14         |
| TI-B10-SSS-0906-1249 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0906-1250 |         |                 | 2'-3' | 12         |
| TI-B10-SSS-0906-1251 | B10-42  | 115 N X 135 E   | 0-1'  | 13         |
| TI-B10-SSS-0906-1252 |         |                 | 1'-2' | 16         |
| TI-B10-SSS-0906-1253 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0906-1254 | B10-43  | 120 N X 130 E   | 0-1'  | 8          |
| TI-B10-SSS-0906-1255 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0906-1256 |         |                 | 2'-3' | 11         |
| TI-B10-SSS-0906-1257 | B10-44  | 110 N X 130 E   | 0-1'  | 8          |
| TI-B10-SSS-0906-1258 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0906-1259 |         |                 | 2'-3' | 15         |
| TI-B10-SSS-0906-1260 | B10-45  | 110 N X 150 E   | 0-1'  | 12         |
| TI-B10-SSS-0906-1261 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0906-1262 |         |                 | 2'-3' | 8          |
|                      | B10-46  |                 | 0-1'  | R          |
|                      |         |                 | 1'-2' | R          |
|                      |         |                 | 2'-3' | R          |
| TI-B10-SSS-0907-1263 | B10-47  | 100 N X 140 E   | 0-1'  | 5          |
| TI-B10-SSS-0907-1264 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0907-1265 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0907-1266 | B10-48  | 95 N X 145 E    | 0-1'  | 4          |
| TI-B10-SSS-0907-1267 |         |                 | 1'-2' | 8          |
| TI-B10-SSS-0907-1268 |         |                 | 2'-3' | 15         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0907-1269 | B10-49  | 90 N X 140 E    | 0-1'  | 15         |
| TI-B10-SSS-0907-1270 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0907-1271 |         |                 | 2'-3' | 12         |
| TI-B10-SSS-0907-1272 | B10-50  | 85 N X 145 E    | 0-1'  | 10         |
| TI-B10-SSS-0907-1273 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0907-1274 |         |                 | 2'-3' | 15         |
| TI-B10-SSS-0907-1275 | B10-51  | 80 N X 150 E    | 0-1'  | 9          |
| TI-B10-SSS-0907-1276 |         |                 | 1'-2' | 8          |
| TI-B10-SSS-0907-1277 |         |                 | 2'-3' | 23         |
| TI-B10-SSS-0907-1278 | B10-52  | 80 N X 140 E    | 0-1'  | 13         |
| TI-B10-SSS-0907-1279 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0907-1280 |         |                 | 2'-3' | 20         |
| TI-B10-SSS-0907-1281 | B10-53  | 75 N X 145 E    | 0-1'  | 8          |
| TI-B10-SSS-0907-1282 |         |                 | 1'-2' | 13         |
| TI-B10-SSS-0907-1283 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0907-1284 | B10-54  | 80 N X 130 E    | 0-1'  | 7          |
| TI-B10-SSS-0907-1285 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0907-1286 |         |                 | 2'-3' | 11         |
| TI-B10-SSS-0907-1287 | B10-55  | 80 N X 120 E    | 0-1'  | 8          |
| TI-B10-SSS-0907-1288 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-0907-1289 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0907-1290 | B10-56  | 85 N X 125 E    | 0-1'  | 5          |
| TI-B10-SSS-0907-1291 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-0907-1292 |         |                 | 2'-3' | 11         |
| TI-B10-SSS-0907-1293 | B10-57  | 90 N X 130 E    | 0-1'  | 13         |
| TI-B10-SSS-0907-1294 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0907-1295 |         |                 | 2'-3' | 13         |
| TI-B10-SSS-0907-1296 | B10-58  | 95 N X 125 E    | 0-1'  | 11         |
| TI-B10-SSS-0907-1297 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-0907-1298 |         |                 | 2'-3' | 16         |
| TI-B10-SSS-0907-1299 | B10-59  | 90 N X 120 E    | 0-1'  | 9          |
| TI-B10-SSS-0907-1300 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-0907-1301 |         |                 | 2'-3' | 8          |
| TI-B10-SSS-0907-1302 | B10-60  | 100 N X 120 E   | 0-1'  | 11         |
| TI-B10-SSS-0907-1303 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-0907-1304 |         |                 | 2'-3' | 11         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0908-1305 | B10-61  | 100 N X 130 E   | 0-1'  | 12         |
| TI-B10-SSS-0908-1306 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-0908-1307 |         |                 | 2'-3' | 4          |
| TI-B10-SSS-0908-1308 | B10-62  | 95N X 135 E     | 0-1'  | 12         |
| TI-B10-SSS-0908-1309 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-0908-1310 |         |                 | 2'-3' | 6          |
| TI-B10-SSS-0908-1311 | B10-63  | 75 N X 135 E    | 0-1'  | 7          |
| TI-B10-SSS-0908-1312 |         |                 | 1'-2' | 18         |
| TI-B10-SSS-0908-1313 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0908-1314 | B10-64  | 75 N X 125 E    | 0-1'  | 11         |
| TI-B10-SSS-0908-1315 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0908-1316 |         |                 | 2'-3' | 2          |
| TI-B10-SSS-0908-1317 | B10-65  | 70 N X 140 E    | 0-1'  | 9          |
| TI-B10-SSS-0908-1318 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-0908-1319 |         |                 | 2'-3' | 17         |
| TI-B10-SSS-0908-1320 | B10-66  | 65 N X 145 E    | 0-1'  | 4          |
| TI-B10-SSS-0908-1321 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-0908-1322 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0908-1323 | B10-67  | 60 N X 140 E    | 0-1'  | 9          |
| TI-B10-SSS-0908-1324 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0908-1325 |         |                 | 2'-3' | 4          |
| TI-B10-SSS-0908-1326 | B10-68  | 55 N X 145 E    | 0-1'  | 10         |
| TI-B10-SSS-0908-1327 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-0908-1328 |         |                 | 2'-3' | 9          |
| TI-B10-SSS-0908-1329 | B10-69  | 50 N X 140 E    | 0-1'  | 15         |
| TI-B10-SSS-0908-1330 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0908-1331 |         |                 | 2'-3' | 15         |
| TI-B10-SSS-0908-1332 | B10-70  | 45 N X 145 E    | 0-1'  | 9          |
| TI-B10-SSS-0908-1333 |         |                 | 1'-2' | 2          |
| TI-B10-SSS-0908-1334 |         |                 | 2'-3' | 17         |
| TI-B10-SSS-0909-1335 | B10-71  | 40 N X 140 E    | 0-1'  | 14         |
| TI-B10-SSS-0909-1336 |         |                 | 1'-2' | 17         |
| TI-B10-SSS-0909-1337 |         |                 | 2'-3' | 14         |
| TI-B10-SSS-0909-1338 | B10-72  | 35 N X 145 E    | 0-1'  | 7          |
| TI-B10-SSS-0909-1339 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0909-1340 |         |                 | 2'-3' | 9          |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0909-1341 | B10-73  | 25 N X 145 E    | 0-1'  | 9          |
| TI-B10-SSS-0909-1342 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0909-1343 |         |                 | 2'-3' | 12         |
| TI-B10-SSS-0909-1344 | B10-74  | 15 N X 145 E    | 0-1'  | 7          |
| TI-B10-SSS-0909-1345 |         |                 | 1'-2' | 13         |
| TI-B10-SSS-0909-1346 |         |                 | 2'-3' | 18         |
| TI-B10-SSS-0909-1347 | B10-75  | 5 N X 145 E     | 0-1'  | 4          |
| TI-B10-SSS-0909-1348 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-0909-1349 |         |                 | 2'-3' | 3          |
| TI-B10-SSS-0909-1350 | B10-76  | 5 S X 145 E     | 0-1'  | 7          |
| TI-B10-SSS-0909-1351 |         |                 | 1'-2' | 8          |
| TI-B10-SSS-0909-1352 |         |                 | 2'-3' | 16         |
| TI-B10-SSS-0909-1353 | B10-77  | 5 S X 140 E     | 0-1'  | 12         |
| TI-B10-SSS-0909-1354 |         |                 | 1'-2' | 16         |
| TI-B10-SSS-0909-1355 |         |                 | 2'-3' | 11         |
| TI-B10-SSS-0909-1356 | B10-78  | 15 S X 125 E    | 0-1'  | 12         |
| TI-B10-SSS-0909-1357 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0909-1358 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0909-1359 | B10-79  | 10 S X 130 E    | 0-1'  | 14         |
| TI-B10-SSS-0909-1360 |         |                 | 1'-2' | 18         |
| TI-B10-SSS-0909-1361 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0912-1503 | B10-80  | 105N X 155 E    | 0-1'  | 7          |
| TI-B10-SSS-0912-1504 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0912-1505 |         |                 | 2'-3' | 25         |
| TI-B10-SSS-0912-1506 | B10-81  | 85 N X 155 E    | 0-1'  | 15         |
| TI-B10-SSS-0912-1507 |         |                 | 1'-2' | 14         |
| TI-B10-SSS-0912-1508 |         |                 | 2'-3' | 17         |
| TI-B10-SSS-0912-1509 | B10-82  | 95 N X 155 E    | 0-1'  | 7          |
| TI-B10-SSS-0912-1510 |         |                 | 1'-2' | 14         |
| TI-B10-SSS-0912-1511 |         |                 | 2'-3' | 13         |
| TI-B10-SSS-0912-1512 | B10-83  | 75 N X 155 E    | 0-1'  | 9          |
| TI-B10-SSS-0912-1513 |         |                 | 1'-2' | 13         |
| TI-B10-SSS-0912-1514 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0912-1515 | B10-84  | 65 N X 155 E    | 0-1'  | 5          |
| TI-B10-SSS-0912-1516 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0912-1517 |         |                 | 2'-3' | 13         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0912-1518 | B10-85  | 55 N X 155 E    | 0-1'  | 6          |
| TI-B10-SSS-0912-1519 |         |                 | 1'-2' | 13         |
|                      |         |                 | 2'-3' | R          |
| TI-B10-SSS-0912-1520 | B10-86  | 60 N X 150 E    | 0-1'  | 11         |
| TI-B10-SSS-0912-1521 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0912-1522 |         |                 | 2'-3' | 3          |
| TI-B10-SSS-0912-1523 | B10-87  | 70 N X 150 E    | 0-1'  | 15         |
| TI-B10-SSS-0912-1524 |         |                 | 1'-2' | 17         |
| TI-B10-SSS-0912-1525 |         |                 | 2'-3' | 12         |
| TI-B10-SSS-0912-1526 | B10-88  | 50 N X 150 E    | 0-1'  | 4          |
| TI-B10-SSS-0912-1527 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0912-1528 |         |                 | 2'-3' | 16         |
| TI-B10-SSS-0912-1529 | B10-89  | 90 N X 150 E    | 0-1'  | 13         |
|                      |         |                 | 1'-2' | R          |
|                      |         |                 | 2'-3' | R          |
| TI-B10-SSS-0912-1530 | B10-90  | 40 N X 150 E    | 0-1'  | 9          |
| TI-B10-SSS-0912-1531 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-0912-1532 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0912-1533 | B10-91  | 100 N X 150 E   | 0-1'  | 14         |
| TI-B10-SSS-0912-1534 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-0912-1535 |         |                 | 2'-3' | 13         |
| TI-B10-SSS-0912-1536 | B10-92  | 45 N X 155 E    | 0-1'  | 9          |
| TI-B10-SSS-0912-1537 |         |                 | 1'-2' | 15         |
|                      |         |                 | 2'-3' | R          |
| TI-B10-SSS-0912-1538 | B10-93  | 50 N X 160 E    | 0-1'  | 8          |
| TI-B10-SSS-0912-1539 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-0912-1540 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0912-1541 | B10-94  |                 | 0-1'  | 8          |
| TI-B10-SSS-0912-1542 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-0912-1543 |         |                 | 2'-3' | 8          |
| TI-B10-SSS-0912-1544 | B10-95  | 45 N X 165 E    | 0-1'  | 10         |
| TI-B10-SSS-0912-1545 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-0912-1546 |         |                 | 2'-3' | 6          |
| TI-B10-SSS-0913-1547 | B10-96  | 30 N X 150 E    | 0-1'  | 8          |
| TI-B10-SSS-0913-1548 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0913-1549 |         |                 | 2'-3' | 11         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0912-1550 | B10-97  | 40 N X 160 E    | 0-1'  | 9          |
| TI-B10-SSS-0912-1551 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-0912-1552 |         |                 | 2'-3' | 17         |
| TI-B10-SSS-0913-1553 | B10-98  | 20 N X 150 E    | 0-1'  | 12         |
| TI-B10-SSS-0913-1554 |         |                 | 1'-2' | 8          |
| TI-B10-SSS-0913-1555 |         |                 | 2'-3' | 12         |
| TI-B10-SSS-0912-1556 | B10-99  | 35N X 165 E     | 0-1'  | 11         |
| TI-B10-SSS-0912-1557 |         |                 | 1'-2' | 14         |
| TI-B10-SSS-0912-1558 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0913-1559 | B10-100 | 10 N X 150 E    | 0-1'  | 13         |
| TI-B10-SSS-0913-1560 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0913-1561 |         |                 | 2'-3' | 9          |
| TI-B10-SSS-0913-1562 | B10-101 | 30 N X 160 E    | 0-1'  | 9          |
| TI-B10-SSS-0913-1563 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0913-1564 |         |                 | 2'-3' | 3          |
| TI-B10-SSS-0913-1565 | B10-102 | 5 N X 155 E     | 0-1'  | 5          |
| TI-B10-SSS-0913-1566 |         |                 | 1'-2' | 13         |
| TI-B10-SSS-0913-1567 |         |                 | 2'-3' | 13         |
| TI-B10-SSS-0913-1568 | B10-103 | 25 N X 165 E    | 0-1'  | 10         |
| TI-B10-SSS-0913-1569 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0913-1570 |         |                 | 2'-3' | 9          |
| TI-B10-SSS-0913-1571 | B10-104 | 15 N X 155 E    | 0-1'  | 7          |
| TI-B10-SSS-0913-1572 |         |                 | 1'-2' | 13         |
| TI-B10-SSS-0913-1573 |         |                 | 2'-3' | 12         |
| TI-B10-SSS-0913-1574 | B10-105 | 15 N X 165 E    | 0-1'  | 8          |
| TI-B10-SSS-0913-1575 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-0913-1576 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0913-1577 | B10-106 | 25 N X 155 E    | 0-1'  | 4          |
| TI-B10-SSS-0913-1578 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0913-1579 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0913-1580 | B10-107 | 5 N X 165 E     | 0-1'  | 13         |
| TI-B10-SSS-0913-1581 |         |                 | 1'-2' | 13         |
| TI-B10-SSS-0913-1582 |         |                 | 2'-3' | 6          |
| TI-B10-SSS-0913-1583 | B10-108 | 10 N X 120 E    | 0-1'  | 22         |
| TI-B10-SSS-0913-1584 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0913-1585 |         |                 | 2'-3' | 13         |

**Building 10 Spill Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0913-1586 | B10-109 | 10 N X 170 E    | 0-1'  | 7          |
| TI-B10-SSS-0913-1587 |         |                 | 1'-2' | 8          |
| TI-B10-SSS-0913-1588 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0913-1917 | B10-110 | 10 N X 140 E    | 0-1'  | 18         |
| TI-B10-SSS-0913-1918 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0913-1919 |         |                 | 2'-3' | 18         |
| TI-B10-SSS-0913-1920 | B10-111 | 10 N X 160 E    | 0-1'  | 3          |
| TI-B10-SSS-0913-1921 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0913-1916 |         |                 | 2'-3' | 11         |
| TI-B10-SSS-0913-1922 | B10-112 | 0 X 140 E       | 0-1'  | 10         |
| TI-B10-SSS-0913-1923 |         |                 | 1'-2' | 15         |
| TI-B10-SSS-0913-1924 |         |                 | 2'-3' | 12         |
| TI-B10-SSS-0913-1925 | B10-113 | 5 S X 165 E     | 0-1'  | 8          |
| TI-B10-SSS-0913-1926 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0913-1927 |         |                 | 2'-3' | R          |
| TI-B10-SSS-0913-1928 | B10-114 | 15 S X 115 E    | 0-1'  |            |
| TI-B10-SSS-0913-1929 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-0913-1930 |         |                 | 2'-3' | 15         |
| TI-B10-SSS-0913-1931 | B10-115 | 20 N X 160 E    | 0-1'  | 12         |
| TI-B10-SSS-0913-1932 |         |                 | 1'-2' | 17         |
| TI-B10-SSS-0913-1933 |         |                 | 2'-3' | 7          |
| TI-B10-SSS-0914-1934 | B10-116 | 15 S X 85 E     | 0-1'  | 12         |
| TI-B10-SSS-0914-1935 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-0914-1936 |         |                 | 2'-3' | 10         |
| TI-B10-SSS-0913-1937 | B10-117 | 0 X 160 E       | 0-1'  | 6          |
| TI-B10-SSS-0913-1938 |         |                 | 1'-2' | 32         |
| TI-B10-SSS-0913-1939 |         |                 | 2'-3' | 13         |
| TI-B10-SSS-0914-1940 | B10-118 | 15 S X 75 E     | 0-1'  | 10         |
| TI-B10-SSS-0914-1941 |         |                 | 1'-2' | 18         |
| TI-B10-SSS-0914-1942 |         |                 | 2'-3' | 9          |
| TI-B10-SSS-0914-1943 |         |                 | 3-4'  | 9          |
| TI-B10-SSS-0914-1944 |         |                 | 4'-6' | 5          |
| TI-B10-SSS-0913-1945 | B10-119 | 15 S X 145 E    | 0-1'  | 39         |
| TI-B10-SSS-0913-1946 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-0913-1947 |         |                 | 2'-3' | 16         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0914-1948 | B10-120 | 5 S X 50 E      | 0-2'  | 8          |
| TI-B10-SSS-0914-1949 |         |                 | 2'-4' | 15         |
| TI-B10-SSS-0914-1950 |         |                 | 4'-6' | 12         |
| TI-B10-SSS-0913-1951 | B10-121 | 15 S X 135 E    | 0-2'  | 7          |
| TI-B10-SSS-0913-1952 |         |                 | 2'-4' | 6          |
| TI-B10-SSS-0913-1953 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0914-1954 | B10-122 | 5 S X 60 E      | 0-2'  | 11         |
| TI-B10-SSS-0914-1955 |         |                 | 2'-4' | 16         |
| TI-B10-SSS-0914-1956 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0914-1957 | B10-123 | 15 S X 105 E    | 0-2'  | 12         |
| TI-B10-SSS-0914-1958 |         |                 | 2'-4' | 18         |
| TI-B10-SSS-0914-1959 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0914-1960 | B10-124 | 5 S X 70 E      | 0-2'  | 7          |
| TI-B10-SSS-0914-1961 |         |                 | 2'-4' | 10         |
| TI-B10-SSS-0914-1962 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0914-1963 | B10-125 | 15 S X 95 E     | 0-2'  | 19         |
| TI-B10-SSS-0914-1964 |         |                 | 2'-4' | 27         |
| TI-B10-SSS-0914-1965 |         |                 | 4'-6' | 14         |
| TI-B10-SSS-0914-1966 | B10-126 | 5 S X 120 E     | 0-2'  | 10         |
| TI-B10-SSS-0914-1967 |         |                 | 2'-4' | 14         |
| TI-B10-SSS-0915-1968 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0914-1969 | B10-127 | 0 X 10 E        | 0-2'  | 12         |
| TI-B10-SSS-0914-1970 |         |                 | 2'-4' | 8          |
| TI-B10-SSS-0914-1971 |         |                 | 4'-6' | 17         |
| TI-B10-SSS-0914-1972 | B10-128 | 5 S X 110 E     | 0-2'  | 9          |
| TI-B10-SSS-0914-1973 |         |                 | 2'-4' | 8          |
| TI-B10-SSS-0914-1974 |         |                 | 4'-6' | R          |
| TI-B10-SSS-0914-1975 | B10-129 | 15 S X 15 E     | 0-2'  | 14         |
| TI-B10-SSS-0914-1976 |         |                 | 2'-4' | R          |
| TI-B10-SSS-0914-1977 |         |                 | 4'-6' | 15         |
| TI-B10-SSS-0915-1978 | B10-130 | 5 S X 115 E     | 0-2'  | 46         |
| TI-B10-SSS-0915-1979 |         |                 | 2'-4' | 17         |
| TI-B10-SSS-0915-1980 |         |                 | 4'-6' | 7          |
| TI-B10-SSS-0914-1981 | B10-131 | 5 S X 25 E      | 0-2'  | 6          |
| TI-B10-SSS-0914-1982 |         |                 | 2'-4' | 7          |
| TI-B10-SSS-0914-2820 |         |                 | 4'-6' | R          |



**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0915-1983 | B10-132 | 5 S X 105 E     | 0-2'  | 15         |
| TI-B10-SSS-0915-1984 |         |                 | 2'-4' | 18         |
| TI-B10-SSS-0915-1985 |         |                 | 4'-6' | 12         |
| TI-B10-SSS-0914-1986 | B10-133 | 5 S X 40 E      | 0-2'  | 7          |
| TI-B10-SSS-0914-1987 |         |                 | 2'-4' | 5          |
| TI-B10-SSS-0914-1988 |         |                 | 4'-6' | 7          |
| TI-B10-SSS-0915-1989 | B10-134 | 5 S X 85 E      | 0-2'  | 7          |
| TI-B10-SSS-0915-1990 |         |                 | 2'-4' | 8          |
| TI-B10-SSS-0915-1991 |         |                 | 4'-6' | 5          |
| TI-B10-SSS-0914-1992 | B10-135 | 5 S X 80 E      | 0-2'  | 3          |
| TI-B10-SSS-0914-1993 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0914-1994 |         |                 | 4'-6' | R          |
| TI-B10-SSS-0915-1995 | B10-136 | 20 N X 130 E    | 0-2'  | 11         |
| TI-B10-SSS-0915-1996 |         |                 | 2'-4' | 6          |
| TI-B10-SSS-0915-1997 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0914-1998 | B10-137 | 5 S X 95 E      | 0-2'  | 10         |
| TI-B10-SSS-0914-1999 |         |                 | 2'-4' | 16         |
| TI-B10-SSS-0914-2000 |         |                 | 4'-6' | 19         |
| TI-B10-SSS-0915-2001 | B10-138 | 30 N X 130 E    | 0-2'  | 11         |
| TI-B10-SSS-0915-2002 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0915-2003 |         |                 | 4'-6' | R          |
| TI-B10-SSS-0914-2004 | B10-139 | 5 S X 105 E     | 0-2'  | 14         |
| TI-B10-SSS-0914-2005 |         |                 | 2'-4' | 22         |
| TI-B10-SSS-0914-2006 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0915-2007 | B10-140 | 40 N X 130 E    | 0-2'  | 10         |
| TI-B10-SSS-09-2013   |         |                 | 2'-4' | 13         |
| TI-B10-SSS-09-2008   |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0915-2014 | B10-141 | 0 X 120 E       | 0-2'  | 6          |
| TI-B10-SSS-0915-2009 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0915-2015 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0916-2010 | B10-142 | 50 N X 130 E    | 0-2'  | 10         |
| TI-B10-SSS-0916-2011 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0916-2016 |         |                 | 4'-6' | 4          |
| TI-B10-SSS-0915-2012 | B10-143 | 5 N X 125 E     | 0-2'  | 17         |
| TI-B10-SSS-0916-2017 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0916-2018 |         |                 | 4'-6' | 5          |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0916-2019 | B10-144 | 60 N X 130 E    | 0-2'  | 8          |
| TI-B10-SSS-0916-2020 |         |                 | 2'-4' | 19         |
| TI-B10-SSS-0916-2021 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0915-2022 | B10-145 | 5 N X 115 E     | 0-2'  | 6          |
| TI-B10-SSS-0916-2024 |         |                 | 2'-4' | 14         |
| TI-B10-SSS-0915-2023 |         |                 | 4'-6' | 3          |
| TI-B10-SSS-0916-2025 | B10-146 | 70 N X 130 E    | 0-2'  | 11         |
| TI-B10-SSS-0916-2026 |         |                 | 2'-4' | 14         |
| TI-B10-SSS-0916-2027 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0915-2028 | B10-147 | 10 N X 130 E    | 0-2'  | 9          |
| TI-B10-SSS-0915-2029 |         |                 | 2'-4' | 10         |
| TI-B10-SSS-0915-2030 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0916-2031 | B10-148 | 65 N X 135 E    | 0-2'  | 11         |
| TI-B10-SSS-0916-2032 |         |                 | 2'-4' | 10         |
| TI-B10-SSS-0916-2033 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0915-2034 | B10-149 | 0 X 130 E       | 0-2'  | 21         |
| TI-B10-SSS-0915-2035 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0915-2036 |         |                 | 4'-6' | 7          |
| TI-B10-SSS-0916-2037 | B10-150 | 45 N X 135 E    | 0-2'  | 10         |
| TI-B10-SSS-0916-2038 |         |                 | 2'-4' | 6          |
| TI-B10-SSS-0916-2039 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0915-2040 | B10-151 | 15 N X 125 E    | 0-2'  | 21         |
| TI-B10-SSS-0915-2041 |         |                 | 2'-4' | 10         |
| TI-B10-SSS-0915-2042 |         |                 | 4'-6' | 6          |
| TI-B10-SSS-0916-2043 | B10-152 | 25 N X 130 E    | 0-2'  | 7          |
| TI-B10-SSS-0916-2044 |         |                 | 2'-4' | 20         |
|                      |         |                 | 4'-6' | R          |
| TI-B10-SSS-0915-2045 | B10-153 | 25 N X 125 E    | 0-2'  | 7          |
| TI-B10-SSS-0915-2046 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0915-2047 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0917-2048 | B10-154 | 5 N X 85 E      | 0-2'  | 14         |
| TI-B10-SSS-0917-2049 |         |                 | 2'-4' | 14         |
| TI-B10-SSS-0917-2050 |         |                 | 4'-6' | 20         |
| TI-B10-SSS-0915-2051 | B10-155 | 30 N X 120 E    | 0-2'  | 9          |
| TI-B10-SSS-09152052  |         |                 | 2'-4' | 7          |
| TI-B10-SSS-0915-2053 |         |                 | 4'-6' | 11         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS           | B10-156 | 0 X 80 E        | 0-2'  | 19         |
| TI-B10-SSS-0917-2054 |         |                 | 2'-4' | 17         |
|                      |         |                 | 4'-6' | R          |
| TI-B10-SSS-0915-2055 | B10-157 | 35 N X 125 E    | 0-2'  | 7          |
| TI-B10-SSS-0915-2056 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0915-2057 |         |                 | 4'-6' | 15         |
| TI-B10-SSS-0917-2058 | B10-158 | 5 N X 75 E      | 0-2'  | 11         |
| TI-B10-SSS-0917-2059 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0917-2060 |         |                 | 4'-6' | 14         |
| TI-B10-SSS-0916-2061 | B10-159 | 40 N X 120 E    | 0-2'  | 18         |
| TI-B10-SSS-0916-2062 |         |                 | 2'-4' | 22         |
| TI-B10-SSS-0916-2063 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0917-2064 | B10-160 | 0 N X 70 E      | 0-2'  | 9          |
| TI-B10-SSS-0917-2065 |         |                 | 2'-4' | 7          |
| TI-B10-SSS-0917-2066 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0916-2067 | B10-161 | 55 N X 125 E    | 0-2'  | 6          |
| TI-B10-SSS-0916-2068 |         |                 | 2'-4' | 13         |
|                      |         |                 | 4'-6' | R          |
| TI-B10-SSS-0917-2069 | B10-162 | 0 X 60 E        | 0-2'  | 10         |
| TI-B10-SSS-0917-2070 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0917-2071 |         |                 | 4'-6' | 13         |
| TI-B10-SSS-0916-2072 | B10-163 | 60 N X 120 E    | 0-2'  | 12         |
| TI-B10-SSS-0916-2073 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0916-2074 |         |                 | 4'-6' | 13         |
| TI-B10-SSS-0917-2075 | B10-164 | 5 N X 55 E      | 0-2'  | 16         |
| TI-B10-SSS-0917-2076 |         |                 | 2'-4' | 10         |
| TI-B10-SSS-0917-2077 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0916-2078 | B10-165 | 65 N X 125 E    | 0-2'  | 18         |
| TI-B10-SSS-0916-2079 |         |                 | 2'-4' | 7          |
| TI-B10-SSS-0916-2080 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0917-2081 | B10-166 | 0 X 40 E        | 0-2'  | 12         |
| TI-B10-SSS-0917-2082 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0917-2083 |         |                 | 4'-6' | 14         |
| TI-B10-SSS-0916-2084 | B10-167 | 70 N X 120 E    | 0-2'  | 13         |
| TI-B10-SSS-0916-2085 |         |                 | 2'-4' | 8          |
| TI-B10-SSS-0916-2086 |         |                 | 4'-6' | 13         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0919-2087 | B10-168 | 132 N X 120 E   | 0-2'  | 15         |
| TI-B10-SSS-0919-2088 |         |                 | 2'-4' | 14         |
| TI-B10-SSS-0919-2089 |         |                 | 4'-6' | R          |
| TI-B10-SSS-0916-2090 | B10-169 | 55 N X 135 E    | 0-2'  | 13         |
| TI-B10-SSS-0916-2091 |         |                 | 2'-4' | 15         |
|                      |         |                 | 4'-6' | R          |
| TI-B10-SSS-0919-2092 | B10-170 | 135 N X 125 E   | 0-2'  | 27         |
| TI-B10-SSS-0919-2093 |         |                 | 2'-4' | 22         |
| TI-B10-SSS-0919-2094 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0917-2095 | B10-171 | 20 N X 60 E     | 0-2'  | 10         |
| TI-B10-SSS-0917-2096 |         |                 | 2'-4' | 10         |
| TI-B10-SSS-0917-2097 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0919-2098 | B10-172 | 140 N X 120 E   | 0-2'  | 7          |
| TI-B10-SSS-0919-2099 |         |                 | 2'-4' | 16         |
| TI-B10-SSS-0919-2100 |         |                 | 4'-6' | R          |
| TI-B10-SSS-0917-2101 | B10-173 | 15 N X 65E      | 0-2'  | 11         |
| TI-B10-SSS-0917-2102 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0917-2103 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0919-2104 | B10-174 | 145 N X 125 E   | 0-2'  | 27         |
| TI-B10-SSS-0919-2105 |         |                 | 2'-4' | 16         |
| TI-B10-SSS-0919-2106 |         |                 | 4'-6' | R          |
| TI-B10-SSS-0917-2107 | B10-175 | 10 N X 60 E     | 0-2'  | 12         |
| TI-B10-SSS-0917-2108 |         |                 | 2'-4' | 12         |
| TI-B10-SSS-0917-2109 |         |                 | 4'-6' | 13         |
| TI-B10-SSS           | B10-176 | 150N X 120E     | 0-2'  | 122        |
| TI-B10-SSS-0919-2110 |         |                 | 2'-4' | 20         |
| TI-B10-SSS-0919-2111 |         |                 | 4'-6' | 18         |
| TI-B10-SSS-0917-2112 | B10-177 | 0 NX 50 E       | 0-2'  | 7          |
| TI-B10-SSS-0917-2113 |         |                 | 2'-4' | 17         |
| TI-B10-SSS-0917-2114 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0919-2115 | B10-178 | 140 N X 130 E   | 0-2'  | 15         |
| TI-B10-SSS-0919-2116 |         |                 | 2'-4' | 7          |
| TI-B10-SSS-0919-2117 |         |                 | 4'-6' | R          |
| TI-B10-SSS-0917-2118 | B10-179 | 15 N X 45 E     | 0-2'  | 12         |
| TI-B10-SSS-0917-2119 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0917-2120 |         |                 | 4'-6' | 10         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0919-2121 | B10-180 | 135 N X 135 E   | 0-2'  | 11         |
| TI-B10-SSS-0919-2122 |         |                 | 2'-4' | 12         |
| TI-B10-SSS-0919-2123 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0917-2124 | B10-181 | 10 N X 40 E     | 0-2'  | 24         |
| TI-B10-SSS-0917-2125 |         |                 | 2'-4' | 21         |
| TI-B10-SSS-0917-2126 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0919-2127 | B10-182 | 150 N X 130 E   | 0-2'  | 13         |
| TI-B10-SSS-0919-2128 |         |                 | 2'-4' | 14         |
| TI-B10-SSS-0919-2129 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0917-2130 | B10-183 | 10 N X 50 E     | 0-2'  | 29         |
| TI-B10-SSS-0917-2131 |         |                 | 2'-4' | 12         |
| TI-B10-SSS-0917-2132 |         |                 | 4'-6' | 15         |
| TI-B10-SSS-0919-2133 | B10-184 | 150 N X 140 E   | 0-2'  | 7          |
| TI-B10-SSS-0919-2134 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0919-2135 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0920-2136 | B10-185 | 135 N X 145 E   | 0-2'  | 11         |
| TI-B10-SSS-0920-2137 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0920-2138 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0920-2174 | B10-186 | 145 N X 145 E   | 0-2'  | 13         |
| TI-B10-SSS-0920-2175 |         |                 | 2'-4' | 14         |
| TI-B10-SSS-0920-2139 |         |                 | 4'-6' | 13         |
| TI-B10-SSS-0920-2140 | B10-187 | 135 N X 155 E   | 0-2'  | 19         |
| TI-B10-SSS-0920-2141 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0920-2142 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0920-2143 | B10-188 | 150 N X 150 E   | 0-2'  | 20         |
| TI-B10-SSS-0920-2144 |         |                 | 2'-4' | 16         |
| TI-B10-SSS-0920-2145 |         |                 | 4'-6' | 19         |
| TI-B10-SSS-0920-2176 | B10-189 | 140 N X 140 E   | 0-2'  | 20         |
| TI-B10-SSS-0920-2177 |         |                 | 2'-4' | 7          |
| TI-B10-SSS-0920-2146 |         |                 | 4'-6' | 16         |
| TI-B10-SSS-0920-2147 | B10-190 | 145 N X 155 E   | 0-2'  | 13         |
| TI-B10-SSS-0920-2148 |         |                 | 2'-4' | 12         |
|                      |         |                 | 4'-6' | R          |
| TI-B10-SSS-0920-2178 | B10-191 | 145 N X 135 E   | 0-2'  | 5          |
| TI-B10-SSS-0920-2149 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0920-2150 |         |                 | 4'-6' | 6          |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0920-2151 | B10-192 | 140 N X 150 E   | 0-2'  | 14         |
|                      |         |                 | 2'-4' | R          |
| TI-B10-SSS-0920-2152 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0920-2153 | B10-193 | 70 N X 10 E     | 0-2'  | 18         |
| TI-B10-SSS-0920-2154 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0920-2155 |         |                 | 4'-6' | 16         |
| TI-B10-SSS-0920-2156 | B10-194 | 55 N X 15 E     | 0-2'  | 6          |
| TI-B10-SSS-0920-2157 |         |                 | 2'-4' | 7          |
| TI-B10-SSS-0920-2158 |         |                 | 4'-6' | 4          |
| TI-B10-SSS-0920-2159 | B10-195 | 60 N X 10 E     | 0-2'  | 10         |
| TI-B10-SSS-0920-2160 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0920-2161 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0920-2162 | B10-196 | 45 N X 15 E     | 0-2'  | 13         |
| TI-B10-SSS-0920-2163 |         |                 | 2'-4' | 15         |
| TI-B10-SSS-0920-2164 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0920-2165 | B10-197 | 50 N X 10 E     | 0-2'  | 16         |
| TI-B10-SSS-0920-2166 |         |                 | 2'-4' | 6          |
| TI-B10-SSS-0920-2167 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0920-2168 | B10-198 | 35 N X 15 E     | 0-2'  | 7          |
| TI-B10-SSS-0920-2169 |         |                 | 2'-4' | 15         |
| TI-B10-SSS-0920-2170 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0920-2171 | B10-199 | 40 N X 10 E     | 0-2'  | 10         |
| TI-B10-SSS-0920-2172 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0920-2173 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0920-2447 | B10-200 | 30 N X 10 E     | 0-2'  | 16         |
| TI-B10-SSS-0920-2448 |         |                 | 2'-4' | 4          |
| TI-B10-SSS-0920-2449 |         |                 | 4'-6' | 6          |
| TI-B10-SSS-0920-2450 | B10-201 | 15 N X 15 E     | 0-2'  | 17         |
| TI-B10-SSS-0920-2451 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0920-2452 |         |                 | 4'-6' | 16         |
| TI-B10-SSS-0920-2453 | B10-202 | 25 N X 15 E     | 0-2'  | 10         |
| TI-B10-SSS-0920-2454 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0920-2455 |         |                 | 4'-6' | 2          |
| TI-B10-SSS-0920-2456 | B10-203 | 10 N X 10 E     | 0-2'  | 7          |
| TI-B10-SSS-0920-2457 |         |                 | 2'-4' | 11         |
|                      |         |                 | 4'-6' | R          |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0920-2458 | B10-204 | 20 N X 10 E     | 0-2'  | 7          |
| TI-B10-SSS-0920-2459 |         |                 | 2'-4' | 14         |
| TI-B10-SSS-0920-2460 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0920-2461 | B10-205 | 5 N X 15 E      | 0-2'  | 14         |
| TI-B10-SSS-0920-2462 |         |                 | 2'-4' | 17         |
| TI-B10-SSS-0920-2463 |         |                 | 4'-6' | 12         |
| TI-B10-SSS-0921-2464 | B10-206 | 45 N X 175 E    | 0-2'  | 17         |
| TI-B10-SSS-0921-2465 |         |                 | 2'-4' | 16         |
| TI-B10-SSS-0921-2466 |         |                 | 4'-6' | 13         |
| TI-B10-SSS-0921-2467 | B10-207 | 50 N X 180 E    | 0-2'  | 10         |
| TI-B10-SSS-0921-2468 |         |                 | 2'-4' | 16         |
| TI-B10-SSS-0921-2469 |         |                 | 4'-6' | 4          |
| TI-B10-SSS-0921-2470 | B10-208 | 50 N X 170 E    | 0-2'  | 6          |
| TI-B10-SSS-0921-2471 |         |                 | 2'-4' | 17         |
| TI-B10-SSS-0921-2472 |         |                 | 4'-6' | 14         |
| TI-B10-SSS-0921-2473 | B10-209 | 50 N X 190 E    | 0-2'  | 7          |
| TI-B10-SSS-0921-2474 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0921-2475 |         |                 | 4'-6' | 6          |
| TI-B10-SSS-0921-2476 | B10-210 | 35 N X 175 E    | 0-2'  | 4          |
| TI-B10-SSS-0921-2477 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0921-2478 |         |                 | 4'-6' | 15         |
| TI-B10-SSS-0921-2479 | B10-211 | 45 N X 185 E    | 0-2'  | 8          |
| TI-B10-SSS-0921-2480 |         |                 | 2'-4' | 8          |
| TI-B10-SSS-0921-2481 |         |                 | 4'-6' | 7          |
| TI-B10-SSS-0921-2482 | B10-212 | 40 N X 170 E    | 0-2'  | 9          |
| TI-B10-SSS-0921-2483 |         |                 | 2'-4' | 8          |
| TI-B10-SSS-0921-2484 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0921-2485 | B10-213 | 40 N X 187 E    | 0-2'  | 14         |
| TI-B10-SSS-0921-2486 |         |                 | 2'-4' | 15         |
| TI-B10-SSS-0921-2487 |         |                 | 4'-6' | 6          |
| TI-B10-SSS-0921-2488 | B10-214 | 30 N X 170 E    | 0-2'  | 10         |
| TI-B10-SSS-0921-2489 |         |                 | 2'-4' | 24         |
| TI-B10-SSS-0921-2490 |         |                 | 4'-6' | 13         |
| TI-B10-SSS-0921-2491 | B10-215 | 35 N X 185 E    | 0-2'  | 5          |
| TI-B10-SSS-0921-2492 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0921-2493 |         |                 | 4'-6' | 23         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0921-2494 | B10-216 | 25 N X 175 E    | 0-2'  | 7          |
| TI-B10-SSS-0921-2495 |         |                 | 2'-4' | 6          |
| TI-B10-SSS-0921-2496 |         |                 | 4'-6' | 14         |
| TI-B10-SSS-0921-2497 | B10-217 | 40 N X 180 E    | 0-2'  | 5          |
| TI-B10-SSS-0921-2498 |         |                 | 2'-4' | 10         |
| TI-B10-SSS-0921-2499 |         |                 | 4'-6' | 13         |
| TI-B10-SSS-0921-2500 | B10-218 | 20 N X 170 E    | 0-2'  | 6          |
| TI-B10-SSS-0921-2501 |         |                 | 2'-4' | 8          |
| TI-B10-SSS-0921-2502 |         |                 | 4'-6' | 6          |
| TI-B10-SSS-0921-2503 | B10-219 | 30 N X 190 E    | 0-2'  | 6          |
| TI-B10-SSS-0921-2504 |         |                 | 2'-4' | 5          |
| TI-B10-SSS-0921-2505 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0921-2506 | B10-220 | 15 N X 175 E    | 0-2'  | 3          |
| TI-B10-SSS-0921-2507 |         |                 | 2'-4' | 8          |
| TI-B10-SSS-0921-2508 |         |                 | 4'-6' | 13         |
| TI-B10-SSS-0921-2509 | B10-221 | 30 N X 180 E    | 0-2'  | 12         |
| TI-B10-SSS-0921-2510 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0921-2511 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0921-2512 | B10-222 | 20 N X 180 E    | 0-2'  | 12         |
| TI-B10-SSS-0921-2513 |         |                 | 2'-4' | 10         |
| TI-B10-SSS-0921-2514 |         |                 | 4'-6' | 14         |
| TI-B10-SSS-0921-2515 | B10-223 | 25 N X 185 E    | 0-2'  | 10         |
| TI-B10-SSS-0921-2516 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0921-2517 |         |                 | 4'-6' | 7          |
| TI-B10-SSS-0922-2518 | B10-224 | 5 N X 175 E     | 0-2'  | 14         |
| TI-B10-SSS-0922-2519 |         |                 | 2'-4' | 12         |
| TI-B10-SSS-0922-2520 |         |                 | 4'-6' | 4          |
| TI-B10-SSS-0921-2521 | B10-225 | 20 N X 190 E    | 0-2'  | 8          |
| TI-B10-SSS-0921-2522 |         |                 | 2'-4' | 10         |
| TI-B10-SSS-0921-2523 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0922-2524 | B10-226 | 0 X 180 E       | 0-2'  | 10         |
| TI-B10-SSS-0922-2525 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0922-2526 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0921-2527 | B10-227 | 10 N X 190 E    | 0-2'  | 8          |
| TI-B10-SSS-0921-2528 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0921-2529 |         |                 | 4'-6' | 7          |



**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0922-2530 | B10-228 | 105 N X 25 E    | 0-2'  | 7          |
| TI-B10-SSS-0922-2531 |         |                 | 2'-4' | 12         |
| TI-B10-SSS-0922-2532 |         |                 | 4'-6' | 6          |
| TI-B10-SSS-0921-2533 | B10-229 | 15 N X 185 E    | 0-2'  | 14         |
| TI-B10-SSS-0921-2534 |         |                 | 2'-4' | 12         |
| TI-B10-SSS-0921-2535 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-0922-2536 | B10-230 | 100 N X 20 E    | 0-2'  | 12         |
| TI-B10-SSS-0922-2537 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0922-2538 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0922-2539 | B10-231 | 5 N X 185 E     | 0-2'  | 10         |
| TI-B10-SSS-0922-2540 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0922-2541 |         |                 | 4'-6' | 10         |
| TI-B10-SSS-0922-2542 | B10-232 | 90 N X 20 E     | 0-2'  | 12         |
| TI-B10-SSS-0922-2543 |         |                 | 2'-4' | 5          |
| TI-B10-SSS-0922-2544 |         |                 | 4'-6' | 11         |
| TI-B10-SSS-0922-2545 | B10-233 | 0 X 190 E       | 0-2'  | 12         |
| TI-B10-SSS-0922-2546 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0922-2547 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0922-2548 | B10-234 | 105 N X 20 E    | 0-2'  | 6          |
| TI-B10-SSS-0921-2549 |         |                 | 2'-4' | 4          |
| TI-B10-SSS-0922-2550 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0922-2551 | B10-235 | 10 N X 180 E    | 0-2'  | 9          |
| TI-B10-SSS-0922-2552 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-0922-2553 |         |                 | 4'-6' | 9          |
| TI-B10-SSS-0922-2554 | B10-236 | 90 N X 10 E     | 0-2'  | 22         |
| TI-B10-SSS-0922-2555 |         |                 | 2'-4' | 18         |
| TI-B10-SSS-0922-2556 |         |                 | 4'-6' | 20         |
| TI-B10-SSS-0922-2557 | B10-237 | 10 N X 110 E    | 0-2'  | 15         |
|                      |         |                 | 2'-4' | R          |
|                      |         |                 | 4'-6' | R          |
| TI-B10-SSS-0923-2558 | B10-238 | 100 N X 10 E    | 0-2'  | 7          |
|                      |         |                 | 2'-4' | R          |
|                      |         |                 | 4'-6' | R          |
| TI-B10-SSS-0922-2559 | B10-239 | 15 N X 105 E    | 0-2'  | 5          |
| TI-B10-SSS-0922-2560 |         |                 | 2'-4' | 14         |
| TI-B10-SSS-0922-2561 |         |                 | 4'-6' | 10         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-0923-2562 | B10-240 | 80 N X 10 E     | 0-2'  | 17         |
| TI-B10-SSS-0923-2563 |         |                 | 2'-4' | 15         |
| TI-B10-SSS-0923-2564 |         |                 | 4'-6' | 20         |
| TI-B10-SSS-0922-2565 | B10-241 | 0 X 110 E       | 0-2'  | 12         |
| TI-B10-SSS-0922-2566 |         |                 | 2'-4' | 8          |
|                      |         |                 | 4'-6' | R          |
| TI-B10-SSS-0923-2567 | B10-242 | 5 N X 45 E      | 0-2'  | 20         |
| TI-B10-SSS-0923-2568 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-0923-2569 |         |                 | 4'-6' | 12         |
| TI-B10-SSS-0922-2570 | B10-243 | 0 X 90 E        | 0-2'  | 10         |
| TI-B10-SSS-0922-2571 |         |                 | 2'-4' | 8          |
| TI-B10-SSS-0922-2572 |         |                 | 4'-6' | 15         |
| TI-B10-SSS-0923-2573 | B10-244 | 0 X 30 E        | 0-2'  | 13         |
| TI-B10-SSS-0923-2574 |         |                 | 2'-4' | 11         |
| TI-B10-SSS-0923-2575 |         |                 | 4'-6' | 12         |
| TI-B10-SSS-0922-2576 | B10-245 | 20 N X 100 E    | 0-2'  | 12         |
| TI-B10-SSS-0922-2577 |         |                 | 2'-4' | 6          |
| TI-B10-SSS-0922-2578 |         |                 | 4'-6' | 8          |
| TI-B10-SSS-1004-2579 | B10-246 | 5 S X 75 E      | 0-1'  | 15         |
| TI-B10-SSS-1004-2580 |         |                 | 1-2'  | 18         |
| TI-B10-SSS-1004-2581 |         |                 | 2-3'  | 6          |
| TI-B10-SSS-1004-2582 |         |                 | 3-4'  | 9          |
| TI-B10-SSS-1004-2583 |         |                 | 4-5'  | 12         |
| TI-B10-SSS-1004-2584 |         |                 | 5-6'  | 7          |
| TI-B10-SSS-0923-2585 | B10-247 | 5 N X 65 E      | 0-2'  | 11         |
| TI-B10-SSS-0923-2586 |         |                 | 2'-4' | 17         |
| TI-B10-SSS-0923-2587 |         |                 | 4-6'  | 10         |
| TI-B10-SSS-1004-2588 | B10-248 | 5 S X 55 E      | 0-1'  | 6          |
| TI-B10-SSS-1004-2589 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1004-2590 |         |                 | 2-3'  | 17         |
| TI-B10-SSS-1004-2591 |         |                 | 3-4'  | 14         |
| TI-B10-SSS-1004-2592 |         |                 | 4-5'  | 16         |
| TI-B10-SSS-1004-2593 |         |                 | 5-6'  | 8          |
| TI-B10-SSS-1004-2597 | B10-250 | 5 S X 45 E      | 0-1'  | 8          |
| TI-B10-SSS-1004-2598 |         |                 | 1-2'  | 8          |
| TI-B10-SSS-1004-2599 |         |                 | 2-3'  | 6          |
| TI-B10-SSS-1004-2600 |         |                 | 3-4'  | 21         |
| TI-B10-SSS-1004-2601 |         |                 | 4-5'  | 9          |

**During 10 Spill Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1004-2602 | B10-250 | 5 S X 45 E      | 5-6'  | 10         |
| TI-B10-SSS-0923-2603 | B10-251 | 15 S X 55 E     | 0-2'  | 17         |
| TI-B10-SSS-0923-2604 |         |                 | 2-4'  | 14         |
| TI-B10-SSS-0923-2605 |         |                 | 4-6'  | 10         |
| TI-B10-SSS-1004-2606 | B10-252 | 80 N X 180 E    | 0-1'  | 12         |
| TI-B10-SSS-1004-2607 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1004-2608 |         |                 | 2-3'  | 11         |
| TI-B10-SSS-1004-2609 |         |                 | 3-4'  | 13         |
| TI-B10-SSS-1004-2610 |         |                 | 4-5'  | 11         |
| TI-B10-SSS-1004-2611 |         |                 | 5-6'  | 10         |
| TI-B10-SSS-0923-2612 | B10-253 | 15 S X 60 E     | 0-2'  | 9          |
| TI-B10-SSS-0923-2613 |         |                 | 2-4'  | 10         |
| TI-B10-SSS-0923-2614 |         |                 | 4-6'  | 5          |
| TI-B10-SSS-1004-2615 | B10-254 | 75 N X 175 E    | 0-1'  | 9          |
| TI-B10-SSS-1004-2616 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1004-2617 |         |                 | 2-3'  | 9          |
| TI-B10-SSS-1004-2618 |         |                 | 3-4'  | 13         |
| TI-B10-SSS-1004-2619 |         |                 | 4-5'  | 11         |
| TI-B10-SSS-1004-2620 |         |                 | 5-6'  | 13         |
| TI-B10-SSS-0923-2621 | B10-255 | 15 S X 45 E     | 0-2'  | 12         |
| TI-B10-SSS-0923-2622 |         |                 | 2-4'  | 15         |
| TI-B10-SSS-0923-2623 |         |                 | 4-6'  | 8          |
| TI-B10-SSS-1004-2624 | B10-256 | 75 N X 185 E    | 0-1'  | 7          |
| TI-B10-SSS-1004-2625 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-1004-2626 |         |                 | 2-3'  | 12         |
| TI-B10-SSS-1004-2627 |         |                 | 3-4'  | 13         |
| TI-B10-SSS-1004-2628 |         |                 | 4-5'  | 13         |
| TI-B10-SSS-1004-2629 |         |                 | 5-6'  | 10         |
| TI-B10-SSS-0923-2630 | B10-257 | 20 S X 50 E     | 0-2'  | 26         |
| TI-B10-SSS-0923-2631 |         |                 | 2-4'  | 16         |
| TI-B10-SSS-0923-2632 |         |                 | 4-6'  | 8          |
| TI-B10-SSS-1004-2633 | B10-258 | 70 N X 180 E    | 0-1'  | 5          |
| TI-B10-SSS-1004-2634 |         |                 | 1'-2' | 14         |
| TI-B10-SSS-1004-2635 |         |                 | 2-3'  | 8          |
| TI-B10-SSS-1004-2636 |         |                 | 3-4'  | 9          |
| TI-B10-SSS-1004-2637 |         |                 | 4-5'  | 6          |
|                      |         |                 | 5-6'  | R          |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1004-2638 | B10-259 | 55 N X 185 E    | 0-1'  | 13         |
| TI-B10-SSS-1004-2639 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-1004-2640 |         |                 | 2-3'  | 10         |
| TI-B10-SSS-1004-2641 |         |                 | 3-4'  | 8          |
| TI-B10-SSS-1004-2642 |         |                 | 4-5'  | 18         |
| TI-B10-SSS-1004-2643 |         |                 | 5-6'  | 4          |
| TI-B10-SSS-1005-2644 | B10-260 | 80 N X 190 E    | 0-1'  | 12         |
| TI-B10-SSS-1005-2645 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-1005-2646 |         |                 | 2-3'  | 6          |
| TI-B10-SSS-1005-2647 |         |                 | 3-4'  | 7          |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1004-2648 | B10-261 | 65 N X 185 E    | 0-1'  | 6          |
| TI-B10-SSS-1004-2649 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-1004-2650 |         |                 | 2-3'  | 16         |
| TI-B10-SSS-1004-2651 |         |                 | 3-4'  | 10         |
| TI-B10-SSS-1004-2652 |         |                 | 4-5'  | 12         |
| TI-B10-SSS-1004-2653 |         |                 | 5-6'  | 14         |
| TI-B10-SSS-1005-2654 | B10-262 | 55 N X 185 E    | 0-1'  | 16         |
| TI-B10-SSS-1005-2655 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1005-2656 |         |                 | 2-3'  | 5          |
| TI-B10-SSS-1005-2657 |         |                 | 3-4'  | 4          |
| TI-B10-SSS-1005-2658 |         |                 | 4-5'  | 12         |
| TI-B10-SSS-1005-2659 |         |                 | 5-6'  | 17         |
| TI-B10-SSS-1004-2660 | B10-263 | 70 N X 190 E    | 0-1'  | 10         |
| TI-B10-SSS-1004-2661 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-1004-2662 |         |                 | 2-3'  | 3          |
| TI-B10-SSS-1004-2663 |         |                 | 3-4'  | 10         |
| TI-B10-SSS-1004-2664 |         |                 | 4-5'  | 9          |
| TI-B10-SSS-1004-2665 |         |                 | 5-6'  | 9          |
| TI-B10-SSS-1005-2666 | B10-264 | 70 N X 170 E    | 0-1'  | 5          |
| TI-B10-SSS-1005-2667 |         |                 | 1'-2' | 8          |
| TI-B10-SSS-1005-2668 |         |                 | 2-3'  | 15         |
| TI-B10-SSS-1005-2669 |         |                 | 3-4'  | 18         |
| TI-B10-SSS-1005-2670 |         |                 | 4-5'  | 14         |
| TI-B10-SSS-1005-2671 |         |                 | 5-6'  | 15         |
| TI-B10-SSS-1004-2672 | B10-265 | 60 N X 190 E    | 0-1'  | 15         |
| TI-B10-SSS-1004-2673 |         |                 | 1'-2' | 4          |
| TI-B10-SSS-1004-2674 |         |                 | 2-3'  | 11         |
| TI-B10-SSS-1004-2675 |         |                 | 3-4'  | 11         |
| TI-B10-SSS-1004-2676 |         |                 | 4-5'  | 12         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1004-2677 | B10-265 | 60 N X 190 E    | 5-6'  | 9          |
| TI-B10-SSS-1005-2678 | B10-266 | 60 N X 160 E    | 0-1'  | 6          |
| TI-B10-SSS-1005-2679 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-1005-2680 |         |                 | 2-3'  | 3          |
| TI-B10-SSS-1005-2681 |         |                 | 3-4'  | 14         |
| TI-B10-SSS-1005-2682 |         |                 | 4-5'  | 17         |
| TI-B10-SSS-1005-2683 |         |                 | 5-6'  | 14         |
| TI-B10-SSS-1004-2684 | B10-267 | 60 N X 180 E    | 0-1'  | 18         |
| TI-B10-SSS-1004-2685 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1004-2686 |         |                 | 2-3'  | 16         |
| TI-B10-SSS-1004-2687 |         |                 | 3-4'  | 10         |
| TI-B10-SSS-1004-2688 |         |                 | 4-5'  | 16         |
| TI-B10-SSS-1004-2689 |         |                 | 5-6'  | 9          |
| TI-B10-SSS-1005-2690 | B10-268 | 80 N X 170 E    | 0-1'  | 10         |
| TI-B10-SSS-1005-2691 |         |                 | 1'-2' | 15         |
| TI-B10-SSS-1005-2692 |         |                 | 2-3'  | 13         |
| TI-B10-SSS-1005-2693 |         |                 | 3-4'  | 8          |
| TI-B10-SSS-1005-2694 |         |                 | 4-5'  | 6          |
|                      |         |                 | 5-6'  | CO         |
| TI-B10-SSS-1005-2695 | B10-269 | 65 N X 175 E    | 0-1'  | 13         |
| TI-B10-SSS-1005-2696 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1005-2697 |         |                 | 2-3'  | 14         |
| TI-B10-SSS-1005-2698 |         |                 | 3-4'  | 11         |
| TI-B10-SSS-1005-2699 |         |                 | 4-5'  | 10         |
| TI-B10-SSS-1005-2700 |         |                 | 5-6'  | 7          |
| TI-B10-SSS-1005-2701 | B10-270 | 65 N X 165 E    | 0-1'  | 10         |
| TI-B10-SSS-1005-2702 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1005-2703 |         |                 | 2-3'  | 9          |
| TI-B10-SSS-1005-2704 |         |                 | 3-4'  | 11         |
| TI-B10-SSS-1005-2705 |         |                 | 4-5'  | 9          |
| TI-B10-SSS-1005-2706 |         |                 | 5-6'  | 5          |
| TI-B10-SSS-1004-2707 | B10-271 | 55 N X 175 E    | 0-1'  | 11         |
| TI-B10-SSS-1004-2708 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1004-2709 |         |                 | 2-3'  | 6          |
| TI-B10-SSS-1004-2710 |         |                 | 3-4'  | 7          |
| TI-B10-SSS-1004-2711 |         |                 | 4-5'  | 7          |
| TI-B10-SSS-1004-2712 |         |                 | 5-6'  | 10         |
| TI-B10-SSS-1005-2713 | B10-272 | 80 N X 160 E    | 0-1'  | 18         |
| TI-B10-SSS-1005-2714 |         |                 | 1'-2' | 15         |
| TI-B10-SSS-1005-2715 |         |                 | 2-3'  | 13         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1005-2716 | B10-272 | 80 N X 160 E    | 3-4'  | 12         |
| TI-B10-SSS-1005-2717 |         |                 | 4-5'  | 11         |
| TI-B10-SSS-1005-2718 |         |                 | 5-6'  | 10         |
| TI-B10-SSS-1005-2719 | B10-273 | 70 N X 160 E    | 0-1'  | 14         |
| TI-B10-SSS-1005-2720 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1005-2721 |         |                 | 2-3'  | 11         |
| TI-B10-SSS-1005-2722 |         |                 | 3-4'  | 12         |
| TI-B10-SSS-1005-2723 |         |                 | 4-5'  | 12         |
| TI-B10-SSS-1005-2724 |         |                 | 5-6'  | 11         |
| TI-B10-SSS-1005-2725 | B10-274 | 75 N X 165 E    | 0-1'  | 12         |
| TI-B10-SSS-1005-2726 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1005-2727 |         |                 | 2-3'  | 12         |
| TI-B10-SSS-1005-2728 |         |                 | 3-4'  | 9          |
| TI-B10-SSS-1005-2729 |         |                 | 4-5'  | 12         |
| TI-B10-SSS-1005-2730 |         |                 | 5-6'  | 5          |
| TI-B10-SSS-1005-2731 | B10-275 | 60 N X 170 E    | 0-1'  | 15         |
| TI-B10-SSS-1005-2732 |         |                 | 1'-2' | 3          |
| TI-B10-SSS-1005-2733 |         |                 | 2-3'  | 25         |
| TI-B10-SSS-1005-2734 |         |                 | 3-4'  | 8          |
| TI-B10-SSS-1005-2735 |         |                 | 4-5'  | 14         |
| TI-B10-SSS-1005-2736 |         |                 | 5-6'  | 9          |
| TI-B10-SSS-1006-2737 | B10-276 | 170 N X 20 E    | 0-1'  | 14         |
| TI-B10-SSS-1006-2738 |         |                 | 1'-2' | 8          |
| TI-B10-SSS-1006-2739 |         |                 | 2-3'  | 21         |
| TI-B10-SSS-1006-2740 |         |                 | 3-4'  | 7          |
| TI-B10-SSS-1006-2741 |         |                 | 4-5'  | 16         |
| TI-B10-SSS-1006-2742 |         |                 | 5-6'  | 5          |
| TI-B10-SSS-1006-2743 | B10-277 | 170 N X 10 E    | 0-1'  | 8          |
| TI-B10-SSS-1006-2744 |         |                 | 1'-2' | 4          |
| TI-B10-SSS-1006-2745 |         |                 | 2-3'  | 12         |
| TI-B10-SSS-1006-2746 |         |                 | 3-4'  | 13         |
| TI-B10-SSS-1006-2747 |         |                 | 4-5'  | 17         |
| TI-B10-SSS-1006-2748 |         |                 | 5-6'  | 8          |
| TI-B10-SSS-1006-2749 | B10-278 | 175 N X 25 E    | 0-1'  | 7          |
| TI-B10-SSS-1006-2750 |         |                 | 1'-2' | 13         |
| TI-B10-SSS-1006-2751 |         |                 | 2-3'  | 5          |
|                      |         |                 | 3-4'  | R          |
| TI-B10-SSS-1006-2752 |         |                 | 4-5'  | 17         |
| TI-B10-SSS-1006-2753 |         |                 | 5-6'  | 5          |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1006-2754 | B10-279 | 175 N X 15 E    | 0-1'  | 9          |
| TI-B10-SSS-1006-2755 |         |                 | 1'-2' | 14         |
| TI-B10-SSS-1006-2756 |         |                 | 2-3'  | 8          |
| TI-B10-SSS-1006-2757 |         |                 | 3-4'  | 18         |
| TI-B10-SSS-1006-2758 |         |                 | 4-5'  | 17         |
| TI-B10-SSS-1006-2759 |         |                 | 5-6'  | 14         |
| TI-B10-SSS-1006-2760 | B10-280 | 180 N X 10 E    | 0-1'  | 13         |
| TI-B10-SSS-1006-2761 |         |                 | 1'-2' | 12         |
|                      |         |                 | 2-3'  | R          |
| TI-B10-SSS-1006-2762 |         |                 | 3-4'  | 13         |
| TI-B10-SSS-1006-2763 |         |                 | 4-5'  | 10         |
| TI-B10-SSS-1006-2764 |         |                 | 5-6'  | 11         |
| TI-B10-SSS-1006-2765 | B10-281 | 180 N X 30 E    | 0-1'  | 15         |
| TI-B10-SSS-1006-2766 |         |                 | 1'-2' | 17         |
| TI-B10-SSS-1006-2767 |         |                 | 2-3'  | 14         |
| TI-B10-SSS-1006-2768 |         |                 | 3-4'  | 23         |
| TI-B10-SSS-1006-2769 |         |                 | 4-5'  | 14         |
| TI-B10-SSS-1006-2770 |         |                 | 5-6'  | 20         |
| TI-B10-SSS-1006-2771 | B10-282 | 185 N X 20 E    | 0-1'  | 10         |
| TI-B10-SSS-1006-2772 |         |                 | 1'-2' | 13         |
|                      |         |                 | 2-3'  | R          |
|                      |         |                 | 3-4'  | R          |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1006-2773 | B10-283 | 180 N X 20 E    | 0-1'  | 12         |
|                      |         |                 | 1'-2' | R          |
|                      |         |                 | 2-3'  | R          |
|                      |         |                 | 3-4'  | R          |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1006-2774 | B10-284 | 185 N X 15 E    | 0-1'  | 11         |
| TI-B10-SSS-1006-2775 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1006-2776 |         |                 | 2-3'  | 9          |
| TI-B10-SSS-1006-2777 |         |                 | 3-4'  | 12         |
| TI-B10-SSS-1006-2778 |         |                 | 4-5'  | 14         |
| TI-B10-SSS-1006-2779 |         |                 | 5-6'  | 7          |
| TI-B10-SSS-1006-2780 | B10-285 | 190 N X 25 E    | 0-1'  | 19         |
| TI-B10-SSS-1006-2781 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1006-2782 |         |                 | 2-3'  | 12         |
| TI-B10-SSS-1006-2783 |         |                 | 3-4'  | 6          |
| TI-B10-SSS-1006-2784 |         |                 | 4-5'  | 10         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1006-2785 | B10-285 | 190 N X 25 E    | 5-6'  | 11         |
| TI-B10-SSS-1006-2786 | B10-286 | 185 N X 35 E    | 0-1'  | 9          |
| TI-B10-SSS-1006-2787 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-1006-2788 |         |                 | 2-3'  | 18         |
| TI-B10-SSS-1006-2789 |         |                 | 3-4'  | 15         |
| TI-B10-SSS-1006-2790 |         |                 | 4-5'  | 8          |
| TI-B10-SSS-1006-2791 |         |                 | 5-6'  | 7          |
| TI-B10-SSS-1006-2792 | B10-287 | 190 N X 10 E    | 0-1'  | 11         |
| TI-B10-SSS-1006-2793 |         |                 | 1'-2' | 10         |
|                      |         |                 | 2-3'  | R          |
|                      |         |                 | 3-4'  | R          |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1006-2794 | B10-288 | 190 N X 15E     | 0-1'  | 12         |
| TI-B10-SSS-1006-2795 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1006-2796 |         |                 | 2-3'  | 11         |
| TI-B10-SSS-1006-2797 |         |                 | 3-4'  | 3          |
| TI-B10-SSS-1006-2798 |         |                 | 4-5'  | 8          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1006-2799 | B10-289 | 185 N X 45 E    | 0-1'  | 28         |
| TI-B10-SSS-1006-2800 |         |                 | 1'-2' | 5          |
| TI-B10-SSS-1006-2801 |         |                 | 2-3'  | 19         |
| TI-B10-SSS-1006-2802 |         |                 | 3-4'  | 4          |
| TI-B10-SSS-1006-2803 |         |                 | 4-5'  | 13         |
| TI-B10-SSS-1006-2804 |         |                 | 5-6'  | 8          |
| TI-B10-SSS-1006-2805 | B10-290 | 170 N X 30 E    | 0-1'  | 6          |
| TI-B10-SSS-1006-2806 |         |                 | 1'-2' | 16         |
| TI-B10-SSS-1006-2807 |         |                 | 2-3'  | 13         |
| TI-B10-SSS-1006-2808 |         |                 | 3-4'  | 11         |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1006-2809 | B10-291 | 190 N X 50E     | 0-1'  | 23         |
| TI-B10-SSS-1006-2810 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-1006-2811 |         |                 | 2-3'  | 10         |
| TI-B10-SSS-1006-2812 |         |                 | 3-4'  | 8          |
| TI-B10-SSS-1006-2813 |         |                 | 4-5'  | 18         |
| TI-B10-SSS-1006-2814 |         |                 | 5-6'  | 6          |
| TI-B10-SSS-1006-2815 | B10-292 | 189 N X 41 E    | 0-1'  | 14         |
| TI-B10-SSS-1006-2816 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-1006-2817 |         |                 | 2-3'  | 14         |



**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1006-2818 | B10-292 | 189 N X 41 E    | 3-4'  | 16         |
| TI-B10-SSS-1006-2819 |         |                 | 4-5'  | 12         |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1008-2821 | B10-293 | 20 N X 30 E     | 0-1'  | 14         |
| TI-B10-SSS-1008-2822 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1008-2823 |         |                 | 2-3'  | 14         |
| TI-B10-SSS-1008-2824 |         |                 | 3-4'  | 13         |
| TI-B10-SSS-1008-2825 |         |                 | 4-5'  | 13         |
| TI-B10-SSS-1008-2826 |         |                 | 5-6'  | 8          |
| TI-B10-SSS-1008-2827 | B10-294 | 40 N X 23 E     | 0-1'  | 12         |
| TI-B10-SSS-1008-2828 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1008-2829 |         |                 | 2-3'  | 15         |
| TI-B10-SSS-1008-2830 |         |                 | 3-4'  | 8          |
| TI-B10-SSS-1008-2831 |         |                 | 4-5'  | 12         |
| TI-B10-SSS-1008-2832 |         |                 | 5-6'  | 3          |
| TI-B10-SSS-1008-2833 | B10-295 | 33 N X 25 E     | 0-1'  | 12         |
| TI-B10-SSS-1008-2834 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-1008-2835 |         |                 | 2-3'  | 16         |
| TI-B10-SSS-1008-2836 |         |                 | 3-4'  | 18         |
| TI-B10-SSS-1008-2837 |         |                 | 4-5'  | 13         |
| TI-B10-SSS-1008-2838 |         |                 | 5-6'  | 15         |
| TI-B10-SSS-1008-2839 | B10-296 | 10 N X 30 E     | 0-1'  | 18         |
| TI-B10-SSS-1008-2840 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-1008-2841 |         |                 | 2-3'  | 7          |
| TI-B10-SSS-1008-2842 |         |                 | 3-4'  | 5          |
| TI-B10-SSS-1008-2843 |         |                 | 4-5'  | 9          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1008-2844 | B10-297 | 35 N X 23 E     | 0-1'  | 12         |
| TI-B10-SSS-1008-2845 |         |                 | 1'-2' | 16         |
| TI-B10-SSS-1008-2846 |         |                 | 2-3'  | 10         |
| TI-B10-SSS-1008-2847 |         |                 | 3-4'  | 8          |
| TI-B10-SSS-1008-2848 |         |                 | 4-5'  | 14         |
| TI-B10-SSS-1008-2849 |         |                 | 5-6'  | 6          |
| TI-B10-SSS-1008-2850 | B10-298 | 30 N X 28 E     | 0-1'  | 14         |
| TI-B10-SSS-1008-2851 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-1008-2852 |         |                 | 2-3'  | 15         |
| TI-B10-SSS-1008-2853 |         |                 | 3-4'  | 9          |
| TI-B10-SSS-1008-2854 |         |                 | 4-5'  | 12         |
| TI-B10-SSS-1008-2855 |         |                 | 5-6'  | 9          |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1008-2856 | B10-299 | 35 N X 28 E     | 0-1'  | 12         |
| TI-B10-SSS-1008-2857 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1008-2858 |         |                 | 2-3'  | 4          |
| TI-B10-SSS-1008-2859 |         |                 | 3-4'  | 13         |
| TI-B10-SSS-1008-2860 |         |                 | 4-5'  | 2          |
| TI-B10-SSS-1008-2861 |         |                 | 5-6'  | 4          |
| TI-B10-SSS-1008-2862 | B10-300 | 15 N X 55 E     | 0-1'  | 10         |
| TI-B10-SSS-1008-2863 |         |                 | 1'-2' | 15         |
|                      |         |                 | 2-3'  | R          |
|                      |         |                 | 3-4'  | R          |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1008-2864 | B10-301 | 26 N X 25 E     | 0-1'  | 15         |
| TI-B10-SSS-1008-2865 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-1008-2866 |         |                 | 2-3'  | 15         |
| TI-B10-SSS-1008-2867 |         |                 | 3-4'  | 8          |
| TI-B10-SSS-1008-2868 |         |                 | 4-5'  | 7          |
| TI-B10-SSS-1008-2869 |         |                 | 5-6'  | 5          |
| TI-B10-SSS-1008-2870 | B10-302 | 23 N X 28 E     | 0-1'  | 26         |
| TI-B10-SSS-1008-2871 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-1008-2872 |         |                 | 2-3'  | 12         |
| TI-B10-SSS-1008-2873 |         |                 | 3-4'  | 14         |
| TI-B10-SSS-1008-2874 |         |                 | 4-5'  | 4          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS           | B10-303 | 5 N X 105 E     | 0-1'  | 7          |
| TI-B10-SSS           |         |                 | 1'-2' | 7          |
| TI-B10-SSS           |         |                 | 2-3'  | 5          |
| TI-B10-SSS           |         |                 | 3-4'  | 5          |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1008-2877 | B10-304 | 0 X 80 E        | 0-1'  | 20         |
| TI-B10-SSS-1008-2878 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1008-2879 |         |                 | 2-3'  | 22         |
|                      |         |                 | 3-4'  | R          |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1008-2880 | B10-305 | 5 N X 100 E     | 0-1'  | 18         |
| TI-B10-SSS-1008-2881 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-1008-2882 |         |                 | 2-3'  | 20         |
| TI-B10-SSS-1008-2883 |         |                 | 3-4'  | 12         |
| TI-B10-SSS-1008-2884 |         |                 | 4-5'  | 5          |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1008-2885 | B10-305 | 5 N X 100 E     | 5-6'  | 11         |
| TI-B10-SSS-1008-2886 | B10-306 | 23 N X 23 E     | 0-1'  | 10         |
| TI-B10-SSS-1008-2887 |         |                 | 1'-2' | 8          |
| TI-B10-SSS-1008-2888 |         |                 | 2-3'  | 9          |
| TI-B10-SSS-1008-2889 |         |                 | 3-4'  | 6          |
| TI-B10-SSS-1008-2890 |         |                 | 4-5'  | 14         |
| TI-B10-SSS-1008-2891 |         |                 | 5-6'  | 11         |
| TI-B10-SSS-1008-2892 | B10-307 | 13 N X 85 E     | 0-1'  | 5          |
| TI-B10-SSS-1008-2893 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-1008-2894 |         |                 | 2-3'  | 16         |
| TI-B10-SSS-1008-2895 |         |                 | 3-4'  | 20         |
| TI-B10-SSS-1008-2896 |         |                 | 4-5'  | 14         |
| TI-B10-SSS-1008-2897 |         |                 | 5-6'  | 18         |
| TI-B10-SSS-1008-2898 | B10-308 | 0 X 100 E       | 0-1'  | 14         |
| TI-B10-SSS-1008-2899 |         |                 | 1'-2' | 16         |
| TI-B10-SSS-1008-2900 |         |                 | 2-3'  | 14         |
| TI-B10-SSS-1008-2901 |         |                 | 3-4'  | 21         |
| TI-B10-SSS-1008-2902 |         |                 | 4-5'  | 17         |
| TI-B10-SSS-1008-2903 |         |                 | 5-6'  | 15         |
| TI-B10-SSS-1008-2904 | B10-309 | 0 X 105E        | 0-1'  | 14         |
| TI-B10-SSS-1008-2905 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1008-2906 |         |                 | 2-3'  | 17         |
| TI-B10-SSS-1008-2907 |         |                 | 3-4'  | 11         |
| TI-B10-SSS-1008-2908 |         |                 | 4-5'  | 20         |
| TI-B10-SSS-1008-2909 |         |                 | 5-6'  | 6          |
| TI-B10-SSS-1008-2910 | B10-310 | 30 N X 23 E     | 0-1'  | 18         |
| TI-B10-SSS-1008-2911 |         |                 | 1'-2' | 7          |
| TI-B10-SSS-1008-2912 |         |                 | 2-3'  | 10         |
| TI-B10-SSS-1008-2913 |         |                 | 3-4'  | 7          |
| TI-B10-SSS-1008-2914 |         |                 | 4-5'  | 14         |
| TI-B10-SSS-1008-2915 |         |                 | 5-6'  | 11         |
| TI-B10-SSS-1008-2916 | B10-311 | 42 N X 23 E     | 0-1'  | 18         |
| TI-B10-SSS-1008-2917 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1008-2918 |         |                 | 2-3'  | 6          |
| TI-B10-SSS-1008-2919 |         |                 | 3-4'  | 11         |
| TI-B10-SSS-1008-2920 |         |                 | 4-5'  | 13         |
| TI-B10-SSS-1008-2921 |         |                 | 5-6'  | 10         |
| TI-B10-SSS-1008-2922 | B10-312 | 9 N X 85 E      | 0-1'  | 11         |
| TI-B10-SSS-1008-2923 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1008-2924 |         |                 | 2-3'  | 7          |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1008-2925 | B10-312 | 9 N X 85 E      | 3-4'  | 13         |
| TI-B10-SSS-1008-2926 |         |                 | 4-5'  | 19         |
| TI-B10-SSS-1008-2927 |         |                 | 5-6'  | 12         |
| TI-B10-SSS-1008-4034 | B10-313 | 42 N X 28 E     | 0-1'  | 6          |
| TI-B10-SSS-1008-4035 |         |                 | 1'-2' | 13         |
| TI-B10-SSS-1008-4036 |         |                 | 2-3'  | 15         |
|                      |         |                 | 3-4'  | R          |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1008-4037 | B10-314 | 5 N X 112 E     | 0-1'  | 9          |
| TI-B10-SSS-1008-4038 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1008-4039 |         |                 | 2-3'  | 14         |
| TI-B10-SSS-1008-4040 |         |                 | 3-4'  | 12         |
| TI-B10-SSS-1008-4041 |         |                 | 4-5'  | 7          |
| TI-B10-SSS-1008-4042 |         |                 | 5-6'  | 13         |
| TI-B10-SSS-1008-4043 | B10-315 | 0 X 112 E       | 0-1'  | 23         |
| TI-B10-SSS-1008-4044 |         |                 | 1'-2' | 6          |
| TI-B10-SSS-1008-4045 |         |                 | 2-3'  | 10         |
| TI-B10-SSS-1008-4046 |         |                 | 3-4'  | 13         |
| TI-B10-SSS-1008-4047 |         |                 | 4-5'  | 9          |
| TI-B10-SSS-1008-4048 |         |                 | 5-6'  | 13         |
| TI-B10-SSS-1009-4049 | B10-316 | 54 N X 23 E     | 0-1'  | 12         |
| TI-B10-SSS-1009-4050 |         |                 | 1'-2' | 14         |
| TI-B10-SSS-1009-4051 |         |                 | 2-3'  | 9          |
| TI-B10-SSS-1009-4052 |         |                 | 3-4'  | 14         |
| TI-B10-SSS-1009-4053 |         |                 | 4-5'  | 12         |
| TI-B10-SSS-1008-4054 |         |                 | 5-6'  | 7          |
| TI-B10-SSS-1009-4055 | B10-317 | 72 N X 23 E     | 0-1'  | 13         |
| TI-B10-SSS-1009-4056 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-1009-4057 |         |                 | 2-3'  | 10         |
| TI-B10-SSS-1009-4058 |         |                 | 3-4'  | 6          |
| TI-B10-SSS-1009-4059 |         |                 | 4-5'  | 9          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1009-4060 | B10-318 | 67 N X 26 E     | 0-1'  | 8          |
| TI-B10-SSS-1009-4061 |         |                 | 1'-2' | 21         |
| TI-B10-SSS-1009-4062 |         |                 | 2-3'  | 9          |
|                      |         |                 | 3-4'  | R          |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1009-4063 | B10-319 | 80 N X 23 E     | 0-1'  | 10         |
| TI-B10-SSS-1009-4064 |         |                 | 1'-2' | 5          |
| TI-B10-SSS-1009-4065 |         |                 | 2-3'  | 4          |
| TI-B10-SSS-1009-4066 |         |                 | 3-4'  | 8          |
| TI-B10-SSS-1009-4067 |         |                 | 4-5'  | 14         |
| TI-B10-SSS-1009-4068 |         |                 | 5-6'  | 13         |
| TI-B10-SSS-1009-4069 | B10-320 | 70 N X 28 E     | 0-1'  | 11         |
| TI-B10-SSS-1009-4070 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1009-4071 |         |                 | 2-3'  | 9          |
| TI-B10-SSS-1009-4072 |         |                 | 3-4'  | 9          |
| TI-B10-SSS-1009-4073 |         |                 | 4-5'  | 18         |
| TI-B10-SSS-1009-4074 |         |                 | 5-6'  | 18         |
| TI-B10-SSS-1009-4075 | B10-321 | 88 N X 23 E     | 0-1'  | 6          |
| TI-B10-SSS-1009-4076 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1009-4077 |         |                 | 2-3'  | 16         |
| TI-B10-SSS-1009-4078 |         |                 | 3-4'  | 11         |
| TI-B10-SSS-1009-4079 |         |                 | 4-5'  | 14         |
| TI-B10-SSS-1009-4080 |         |                 | 5-6'  | 12         |
| TI-B10-SSS-1009-4081 | B10-322 | 95 N X 23 E     | 0-1'  | 7          |
| TI-B10-SSS-1009-4082 |         |                 | 1'-2' | 9          |
| TI-B10-SSS-1009-4083 |         |                 | 2-3'  | 6          |
| TI-B10-SSS-1009-4084 |         |                 | 3-4'  | 16         |
| TI-B10-SSS-1009-4085 |         |                 | 4-5'  | 8          |
| TI-B10-SSS-1009-4086 |         |                 | 5-6'  | 15         |
| TI-B10-SSS-1009-4087 | B10-323 | 100 N X 26 E    | 0-1'  | 16         |
| TI-B10-SSS-1009-4088 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1009-4089 |         |                 | 2-3'  | 5          |
| TI-B10-SSS-1009-4090 |         |                 | 3-4'  | 13         |
| TI-B10-SSS-1009-4091 |         |                 | 4-5'  | 12         |
| TI-B10-SSS-1009-4092 |         |                 | 5-6'  | 7          |
| TI-B10-SSS-1009-4093 | B10-324 | 55 N X 23 E     | 0-1'  | 8          |
| TI-B10-SSS-1009-4094 |         |                 | 1'-2' | 6          |
|                      |         |                 | 2-3'  | R          |
|                      |         |                 | 3-4'  | R          |
|                      |         |                 | 4-5'  | R          |
|                      |         |                 | 5-6'  | R          |
| TI-B10-SSS-1009-4095 | B10-325 | 86 N X 28 E     | 0-1'  | 9          |
| TI-B10-SSS-1009-4096 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-1009-4097 |         |                 | 2-3'  | 12         |
| TI-B10-SSS-1009-4098 |         |                 | 3-4'  | 11         |
| TI-B10-SSS-1009-4099 |         |                 | 4-5'  | 10         |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location | Depth | cts/10 min |
|----------------------|---------|-----------------|-------|------------|
| TI-B10-SSS-1009-4100 | B10-325 | 86 N X 28 E     | 5-6'  | 10         |
| TI-B10-SSS-1009-4101 | B10-326 | 101 N X 23 E    | 0-1'  | 12         |
| TI-B10-SSS-1009-4102 |         |                 | 1'-2' | 12         |
| TI-B10-SSS-1009-4103 |         |                 | 2-3'  | 20         |
| TI-B10-SSS-1009-4104 |         |                 | 3-4'  | 25         |
| TI-B10-SSS-1009-4105 |         |                 | 4-5'  | 8          |
| TI-B10-SSS-1009-4106 |         |                 | 5-6'  | 14         |
| TI-B10-SSS-1009-4107 | B10-237 | 83 N X 26 E     | 0-1'  | 14         |
| TI-B10-SSS-1009-4108 |         |                 | 1'-2' | 8          |
| TI-B10-SSS-1009-4109 |         |                 | 2-3'  | 12         |
| TI-B10-SSS-1009-4110 |         |                 | 3-4'  | 11         |
| TI-B10-SSS-1009-4111 |         |                 | 4-5'  | 12         |
| TI-B10-SSS-1009-4112 |         |                 | 5-6'  | 7          |
| TI-B10-SSS-1009-4113 | B10-328 | 95 N X 26 E     | 0-1'  | 12         |
| TI-B10-SSS-1009-4114 |         |                 | 1'-2' | 10         |
| TI-B10-SSS-1009-4115 |         |                 | 2-3'  | 11         |
| TI-B10-SSS-1009-4116 |         |                 | 3-4'  | 12         |
| TI-B10-SSS-1009-4117 |         |                 | 4-5'  | 8          |
| TI-B10-SSS-1009-4118 |         |                 | 5-6'  | 6          |
| TI-B10-SSS-1009-4119 | B10-329 | 90 N X 26 E     | 0-1'  | 10         |
| TI-B10-SSS-1009-4120 |         |                 | 1'-2' | 11         |
| TI-B10-SSS-1009-4121 |         |                 | 2-3'  | 12         |
| TI-B10-SSS-1009-4122 |         |                 | 3-4'  | R          |
| TI-B10-SSS-1009-4123 |         |                 | 4-5'  | 11         |
| TI-B10-SSS-1009-4124 |         |                 | 5-6'  | 5          |
| TI-B10-SSS-1019-4255 | B10-330 | 10 S X 170 E    | 0-2'  | 26         |
| TI-B10-SSS-1019-4256 |         |                 | 2'-4' | 6          |
| TI-B10-SSS-1019-4257 |         |                 | 4'-6' | 12         |
| TI-B10-SSS-1019-4258 | B10-331 | 10 S X 160 E    | 0-2'  | 10         |
| TI-B10-SSS-1019-4259 |         |                 | 2'-4' | R          |
| TI-B10-SSS-1019-4260 |         |                 | 4'-6' | 13         |
| TI-B10-SSS-1019-4261 | B10-332 | 0 X 170 E       | 0-2'  | 17         |
| TI-B10-SSS-1019-4262 |         |                 | 2'-4' | 9          |
| TI-B10-SSS-1019-4263 |         |                 | 4'-6' | 6          |
| TI-B10-SSS-1019-4264 | B10-333 | 0 X 150 E       | 0-2'  | 11         |
| TI-B10-SSS-1019-4265 |         |                 | 2'-4' | 13         |
| TI-B10-SSS-1019-4266 |         |                 | 4'-6' | 15         |
|                      |         |                 |       |            |
|                      |         |                 |       |            |

**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location   | Depth | cts/10 min |
|----------------------|---------|-------------------|-------|------------|
| TI-B10-SSS-1019-4267 | B10-334 | 10 S X 150 E      | 0-2'  | 8          |
| TI-B10-SSS-1019-4268 |         |                   | 2'-4' | 15         |
| TI-B10-SSS-1019-4269 |         |                   | 4'-6' | 19         |
| TI-B10-SSS-1019-4270 | B10-335 | 5 S X 155 E       | 0-2'  | 7          |
| TI-B10-SSS-1019-4271 |         |                   | 2'-4' | 9          |
| TI-B10-SSS-1019-4272 |         |                   | 4'-6' | 4          |
| TI-B10-SSS-1020-4273 | B10-336 | 20 S X 150 E      | 0-2'  | 11         |
| TI-B10-SSS-1020-4274 |         |                   | 2'-4' | 26         |
| TI-B10-SSS-1020-4275 |         |                   | 4'-6' | 15         |
| TI-B10-SSS-1020-4276 | B10-337 | 20 S X 140 E      | 0-2'  | 16         |
| TI-B10-SSS-1020-4277 |         |                   | 2'-4' | 7          |
| TI-B10-SSS-1020-4278 |         |                   | 4'-6' | 13         |
| TI-B10-SSS-1020-4279 | B10-338 | 142.5 N X 122.5 E | 0-2'  | 100        |
| TI-B10-SSS-1020-4280 |         |                   | 2'-4' | 19         |
|                      |         |                   | 4'-6' | R          |
| TI-B10-SSS-1020-4281 | B10-339 | 145 N X 120 E     | 0-2'  | 7          |
| TI-B10-SSS-1020-4282 |         |                   | 2'-4' | 16         |
| TI-B10-SSS-1020-4283 |         |                   | 4'-6' | 24         |
| TI-B10-SSS-1020-4284 | B10-340 | 150 N X 125 E     | 0-2'  | 13         |
| TI-B10-SSS-1020-4285 |         |                   | 2'-4' | 8          |
| TI-B10-SSS-1020-4286 |         |                   | 4'-6' | 19         |
| TI-B10-SSS-1020-4287 | B10-341 | 147.5 N X 127.5 E | 0-2'  | 7          |
| TI-B10-SSS-1020-4288 |         |                   | 2'-4' | 17         |
| TI-B10-SSS-1020-4289 |         |                   | 4'-6' | 17         |
| TI-B10-SSS-1020-4290 | B10-342 | 145 N X 130 E     | 0-2'  | 18         |
|                      |         |                   | 2'-4' | R          |
|                      |         |                   | 4'-6' | R          |
| TI-B10-SSS-1020-4291 | B10-343 | 142.5 N X 127.5 E | 0-2'  | 13         |
| TI-B10-SSS-1020-4292 |         |                   | 2'-4' | 19         |
| TI-B10-SSS-1020-4293 |         |                   | 4'-6' | 14         |
| TI-B10-SSS-1020-4294 | B10-344 | 147.5 N X 122.5 E | 0-2'  | 14         |
| TI-B10-SSS-1020-4295 |         |                   | 2'-4' | 12         |
| TI-B10-SSS-1020-4296 |         |                   | 4'-6' | 14         |
| TI-B10-SSS-1020-4297 | B10-345 | 140 N X 125 E     | 0-2'  | 12         |
| TI-B10-SSS-1020-4298 |         |                   | 2'-4' | 14         |
|                      |         |                   | 4'-6' | R          |

**Building 10 Spill Spoon Sampling  
Alpha Screening Results**

| Archive Number       | Spoon # | Sample Location  | Depth | cts/10 min |
|----------------------|---------|------------------|-------|------------|
| TI-B10-SSS-1020-4299 | B10-346 | 177 N X 26 E     | 0-2'  | 11         |
| TI-B10-SSS-1020-4300 |         |                  | 2'-4' | 24         |
| TI-B10-SSS-1020-4301 |         |                  | 4'-6' | 7          |
| TI-B10-SSS-1022-4302 | B10-347 | 175 N X 135 E    | 0-2'  | 16         |
| TI-B10-SSS-1022-4303 |         |                  | 2'-4' | 12         |
| TI-B10-SSS-1022-4304 |         |                  | 4'-6' | 12         |
| TI-B10-SSS-1022-4305 | B10-348 | 175 N X 145 E    | 0-2'  | 20         |
| TI-B10-SSS-1022-4306 |         |                  | 2'-4' | 7          |
| TI-B10-SSS-1022-4307 |         |                  | 4'-6' | 16         |
| TI-B10-SSS-1022-4308 | B10-349 | 175 N X 125 E    | 0-2'  | 17         |
| TI-B10-SSS-1022-4309 |         |                  | 2'-4' | 17         |
| TI-B10-SSS-1022-4310 |         |                  | 4'-6' | 21         |
| TI-B10-SSS-1022-4311 | B10-350 | 175 N X 115E     | 0-2'  | 17         |
| TI-B10-SSS-1022-4312 |         |                  | 2'-4' | 9          |
| TI-B10-SSS-1022-4313 |         |                  | 4'-6' | 12         |
| TI-B10-SSS-1022-4314 | B10-351 | 180 N X 110 E    | 0-2'  | 23         |
| TI-B10-SSS-1022-4315 |         |                  | 2'-4' | 7          |
|                      |         |                  | 4'-6' | R          |
| TI-B10-SSS-1022-4316 | B10-352 | 180 N X 100 E    | 0-2'  | 15         |
| TI-B10-SSS-1022-4317 |         |                  | 2'-4' | 16         |
| TI-B10-SSS-1022-4318 |         |                  | 4'-6' | 6          |
| TI-B10-SSS-1022-4319 | B10-353 | 175 N X 105 E    | 0-2'  | 16         |
| TI-B10-SSS-1022-4320 |         |                  | 2'-4' | 13         |
|                      |         |                  | 4'-6' | NA         |
| TI-B10-SSS-1022-4321 | B10-354 | 175 N X 20 E     | 0-2'  | 20         |
|                      |         |                  | 2'-4' | NA         |
|                      |         |                  | 4'-6' | NA         |
| TI-B10-SSS-1022-4322 | B10-355 | 177.5N X 22.5 E  | 0-2'  | 18         |
|                      |         |                  | 2'-4' | NA         |
|                      |         |                  | 4'-6' | NA         |
| TI-B10-SSS-1023-4333 | B10-356 | 172.5 N X 22.5 E | 0-2'  | 17         |
|                      |         |                  | 2'-4' | NA         |
|                      |         |                  | 4'-6' | NA         |
| TI-B10-SSS-1023-4334 | B10-357 | 170 N X 25 E     | 0-2'  | 8          |
|                      |         |                  | 2'-4' | NA         |
|                      |         |                  | 4'-6' | NA         |



**Building 10 Split Spoon Sampling  
Alpha Screening Results**

| <b>Archive Number</b> | <b>Spoon #</b> | <b>Sample Location</b> | <b>Depth</b> | <b>cts/10 min</b> |
|-----------------------|----------------|------------------------|--------------|-------------------|
| TI-B10-SSS-1023-4335  | B10-358        | 172.5 N X 27.5 E       | 0-2'         | 20                |
|                       |                |                        | 2'-4'        | NA                |
|                       |                |                        | 4'-6'        | NA                |
| TI-B10-SSS-1023-4336  | B10-359        | 177.5 N X 27.5 E       | 0-2'         | 9                 |
|                       |                |                        | 2'-4'        | NA                |
|                       |                |                        | 4'-6'        | NA                |
|                       | B10-360        | 180 N X 25 E           | 0-2'         | 15                |
|                       |                |                        | 2'-4'        | NA                |
|                       |                |                        | 4'-6'        | NA                |

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix B2**

**Building 10 Perimeter and Building 10 Alleged  
Zirc Burning Area**

**Drawing CPS-TI-0106A Sub Surface Soil Sample Locations**

# DOCUMENT PAGE(S) PULLED

-----  
**SEE APERTURE CARD FILES**

APERTURE CARD/PAPER COPY AVAILABLE THROUGH NRC FILE CENTER

\*\*\*\*\*

NUMBER OF OVERSIZE PAGES FILMED ON APERTURE CARD(S) \_\_\_\_\_

\*\*\*\*\*

ACCESSION NUMBERS OF OVERSIZE PAGES:

9709160168-15

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix B3**

**Building 10 Perimeter and Building 10 Alleged  
Zirc Burning Area**

**Drawing CPS-TI-0106H Grid Cell Averages and Maximum Depths**

**DATE** \_\_\_\_\_

APERTURE CARD/PAPER COPY AVAILABLE THROUGH NRC FILE CENTER  
\*\*\*\*\*

\*\*\*\*\*

9709160168-16

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix B4**

**Building 10 Perimeter and Building 10 Alleged  
Zirc Burning Area**

**Bore Hole Measurements and Static Measurements**

**Building 10 Borehole Gamma Logging  
NaI Results**

| North | SAMPLE | LOCATION |      |    | Depth | NAI (cpm) |
|-------|--------|----------|------|----|-------|-----------|
|       | South  | East     | West |    |       |           |
| 110   |        | 140      |      | 1' | 3800  |           |
|       |        |          |      | 2' | 4500  |           |
|       |        |          |      | 3' | 4400  |           |
| 115   |        | 145      |      | 1' | 4100  |           |
|       |        |          |      | 2' | 4300  |           |
|       |        |          |      | 3' | 4300  |           |
| 120   |        | 140      |      | 1' | 4200  |           |
|       |        |          |      | 2' | 4200  |           |
|       |        |          |      | 3' | 4000  |           |
| 130   |        | 140      |      | 1' | 4000  |           |
|       |        |          |      | 2' | 3900  |           |
|       |        |          |      | 3' | n/a   |           |
| 120   |        | 130      |      | 1' | 3800  |           |
|       |        |          |      | 2' | 4200  |           |
|       |        |          |      | 3' | 3800  |           |
| 110   |        | 130      |      | 1' | 3800  |           |
|       |        |          |      | 2' | 4200  |           |
|       |        |          |      | 3' | 4600  |           |
| 110   |        | 150      |      | 1' | 4100  |           |
|       |        |          |      | 2' | 4500  |           |
|       |        |          |      | 3' | 4300  |           |
| 100   |        | 140      |      | 1' | 4200  |           |
|       |        |          |      | 2' | 4300  |           |
|       |        |          |      | 3' | 4500  |           |
| 95    |        | 145      |      | 1' | 3700  |           |
|       |        |          |      | 2' | 4100  |           |
|       |        |          |      | 3' | 4100  |           |
| 90    |        | 140      |      | 1' | 4500  |           |
|       |        |          |      | 2' | 4500  |           |
|       |        |          |      | 3' | 4600  |           |
| 85    |        | 145      |      | 1' | 3800  |           |
|       |        |          |      | 2' | 4000  |           |
|       |        |          |      | 3' | 4200  |           |
|       |        |          |      |    |       |           |
|       |        |          |      |    |       |           |
|       |        |          |      |    |       |           |

**Bunding 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 80     |       | 150      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4300      |
| 80     |       | 140      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4300      |
| 75     |       | 145      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4400      |
| 80     |       | 130      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4300      |
| 80     |       | 120      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4400      |
| 85     |       | 125      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 4200      |
| 90     |       | 130      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4200      |
| 90     |       | 120      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4300      |
|        |       |          |      | 3'    | 4300      |
| 100    |       | 120      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4500      |
| 95     |       | 125      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4400      |
| 100    |       | 130      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4000      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |



# Building 10 Borehole Gamma Logging

## NaI Results

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 95     |       | 135      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4100      |
| 75     |       | 135      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4500      |
| 75     |       | 125      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4100      |
| 70     |       | 140      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4500      |
| 65     |       | 145      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 4300      |
|        | 40    | 100      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 3800      |
| 55     |       | 145      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4500      |
| 60     |       | 140      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4200      |
| 50     |       | 140      |      | 1'    | 4000      |
|        |       |          |      | 2     | 4300      |
|        |       |          |      | 3'    | 4500      |
| 45     |       | 145      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4300      |
|        |       |          |      | 3'    | 4300      |
| 40     |       | 140      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 4500      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 35     |       | 145      |      | 1'    | 3100      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
| 25     |       | 145      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4200      |
| 15     |       | 145      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4400      |
| 5      |       | 145      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4400      |
|        | 5     | 145      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 3800      |
|        | 6     | 140      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
| 4b     |       | 155      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4300      |
| 45     |       | 165      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4200      |
| 40     |       | 150      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4400      |
| 40     |       | 160      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4400      |
| 35     |       | 155      |      | 1'    | 3400      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 4200      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

## NaI Results

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 35     |       | 165      |      | 1'    | 3400      |
|        |       |          |      | 2'    | 3600      |
|        |       |          |      | 3'    | 3900      |
| 105    |       | 155      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3900      |
| 95     |       | 155      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4100      |
| 85     |       | 155      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4200      |
| 75     |       | 155      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4100      |
| 65     |       | 155      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4000      |
| 55     |       | 155      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | refusal   |
| 60     |       | 150      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4500      |
| 70     |       | 150      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 4300      |
|        |       |          |      | 3'    | 4500      |
| 90     |       | 150      |      | 1'    | 3900      |
|        |       |          |      | 2'    | refusal   |
|        |       |          |      | 3'    | refusal   |
| 100    |       | 150      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4400      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

# Building 10 Borehole Gamma Logging

## NaI Results

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 50     |       | 150      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4100      |
| 50     |       | 160      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4200      |
| 30     |       | 150      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4400      |
| 30     |       | 160      |      | 1'    | 3400      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4400      |
| 25     |       | 155      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4200      |
| 25     |       | 165      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4100      |
| 20     |       | 150      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4400      |
| 20     |       | 160      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4500      |
| 15     |       | 155      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4000      |
| 15     |       | 165      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4000      |
| 10     |       | 150      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4200      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 10     |       | 180      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4100      |
| 5      |       | 155      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 4000      |
| 5      |       | 185      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4100      |
| 10     |       | 170      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4100      |
| 10     |       | 120      |      | 1'    | 3200      |
|        |       |          |      | 2'    | 3300      |
|        |       |          |      | 3'    | 3500      |
|        | 5     | 185      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4100      |
| 0      |       | 180      |      | 1'    | 3400      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3900      |
| 10     |       | 140      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4000      |
| 0      |       | 140      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4100      |
|        | 15    | 145      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3800      |
|        | 15    | 115      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4500      |

**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
|        | 15    | 135      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3     | 4500      |
|        | 5     | 120      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4000      |
|        | 5     | 95       |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3600      |
|        |       |          |      | 3     | 4000      |
|        | 5     | 110      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4200      |
|        | 5     | 105      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4500      |
|        | 15    | 105      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4300      |
|        | 15    | 85       |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 4000      |
|        | 15    | 75       |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4300      |
|        | 15    | 95       |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4400      |
|        | 0     | 10       |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3800      |
|        | 5     | 15       |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3900      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

**NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
|        | 5     | 50       |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4300      |
|        | 5     | 25       |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4100      |
|        | 5     | 60       |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4200      |
|        | 5     | 40       |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4100      |
|        | 5     | 70       |      | 1'    | 3400      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 3700      |
|        | 5     | 80       |      | 1'    | 3400      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 3900      |
|        | 25    | 95       |      | 1'    | 7000      |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 15,000    |
|        | 28    | 83       |      | 1'    | 4500      |
|        |       |          |      | 2'    | 6000      |
|        |       |          |      | 3'    | 7000      |
|        | 85    | 75       |      | 1'    | 3200 (6") |
|        |       |          |      | 2'    | H2O       |
|        |       |          |      | 3'    | H2O       |
|        | 65    | 75       |      | 1'    | 6000      |
|        |       |          |      | 2'    | H2O       |
|        |       |          |      | 3'    | H2O       |
|        | 5     | 115      |      | 1'    | 6000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 3700      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

**Building 10 Borehole Gamma Logging  
Nal Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 0      |       | 120      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4100      |
| 5      |       | 125      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3600      |
|        |       |          |      | 3'    | 4000      |
|        | 5     | 105      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4400      |
| 5      |       | 115      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4000      |
| 10     |       | 130      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3900      |
|        | 5     | 85       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | refusal   |
| 0      |       | 130      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3900      |
| 15     |       | 125      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3900      |
| 20     |       | 130      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4000      |
| 25     |       | 125      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3900      |
| 30     |       | 130      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4500      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |



**Building 10 Borehole Gamma Logging  
NaI Results**

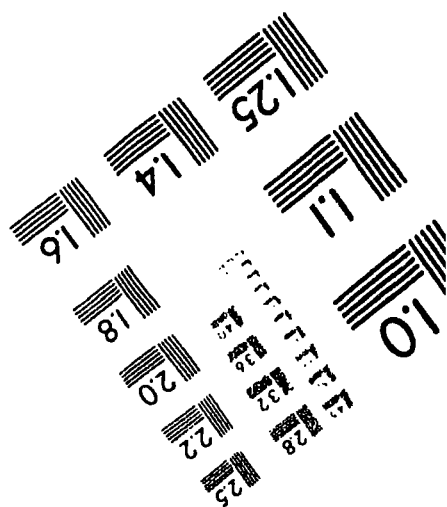
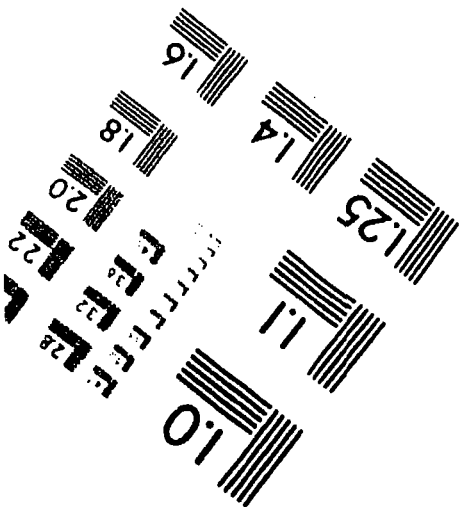
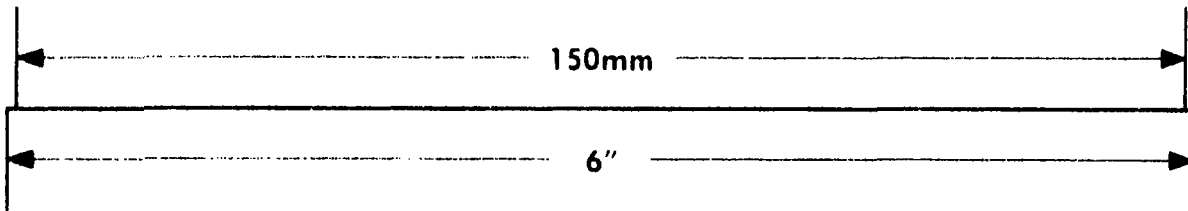
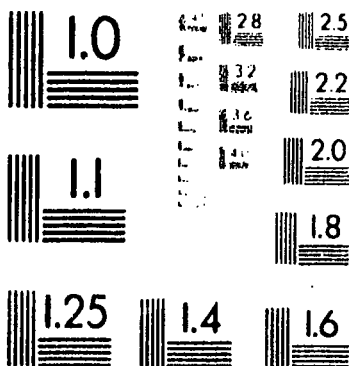
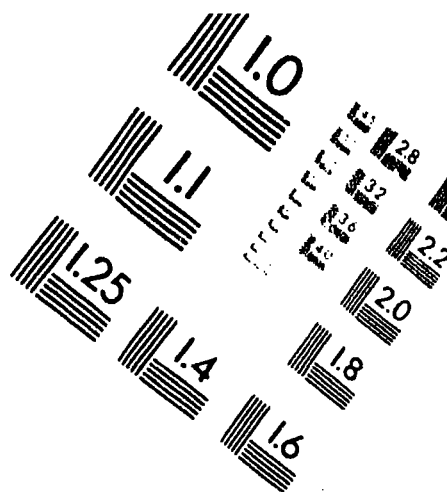
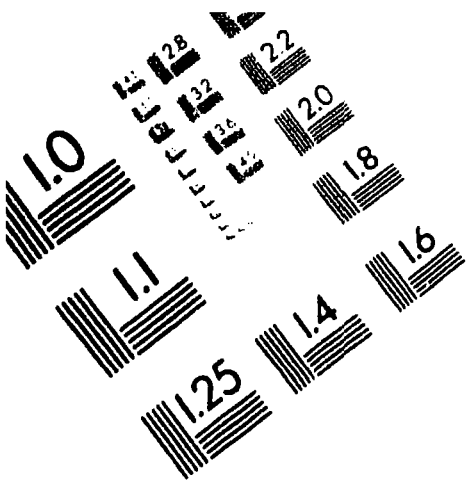
| North | SAMPLE | LOCATION |      | Depth | NAI (cpm) |
|-------|--------|----------|------|-------|-----------|
|       | South  | East     | West |       |           |
| 30    |        | 120      |      | 1'    | 3800      |
|       |        |          |      | 2'    | 3800      |
|       |        |          |      | 3'    | 4000      |
| 35    |        | 125      |      | 1'    | 3800      |
|       |        |          |      | 2'    | 4000      |
|       |        |          |      | 3'    | 4400      |
| 40    |        | 130      |      | 1'    | 3900      |
|       |        |          |      | 2'    | 4200      |
|       |        |          |      | 3'    | 4500      |
| 40    |        | 120      |      | 1'    | 3500      |
|       |        |          |      | 2'    | 3800      |
|       |        |          |      | 3'    | 4000      |
| 50    |        | 130      |      | 1'    | 3600      |
|       |        |          |      | 2'    | 3800      |
|       |        |          |      | 3'    | 4200      |
| 55    |        | 125      |      | 1'    | 3800      |
|       |        |          |      | 2'    | 4100      |
|       |        |          |      | 3'    | refusal   |
| 60    |        | 130      |      | 1'    | 3800      |
|       |        |          |      | 2'    | 4100      |
|       |        |          |      | 3'    | 4300      |
| 60    |        | 120      |      | 1'    | 3800      |
|       |        |          |      | 2'    | 4000      |
|       |        |          |      | 3'    | 4200      |
| 70    |        | 130      |      | 1'    | 3900      |
|       |        |          |      | 2'    | 3900      |
|       |        |          |      | 3'    | 4200      |
| 65    |        | 125      |      | 1'    | 4000      |
|       |        |          |      | 2'    | 4100      |
|       |        |          |      | 3'    | 4300      |
| 65    |        | 135      |      | 1'    | 3900      |
|       |        |          |      | 2'    | 4000      |
|       |        |          |      | 3'    | 4100      |
|       |        |          |      |       |           |
|       |        |          |      |       |           |
|       |        |          |      |       |           |

**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm)  |
|--------|-------|----------|------|-------|------------|
| North  | South | East     | West |       |            |
| 70     |       | 120      |      | 1'    | 3800       |
|        |       |          |      | 2'    | 4100       |
|        |       |          |      | 3'    | 4200       |
| 45     |       | 135      |      | 1'    | 3900       |
|        |       |          |      | 2'    | 4000       |
|        |       |          |      | 3'    | 4200       |
| 55     |       | 135      |      | 1'    | 3800       |
|        |       |          |      | 2'    | 4100       |
|        |       |          |      | 3'    | 4400       |
| 25     |       | 130      |      | 1'    | 3900       |
|        |       |          |      | 2'    | 4000       |
|        |       |          |      | 3'    | 4300       |
| 5      |       | 85       |      | 1'    | 4000       |
|        |       |          |      | 2'    | 4300       |
|        |       |          |      | 3'    | 4600       |
| 20     |       | 60       |      | 1'    | 4000       |
|        |       |          |      | 2'    | 4100       |
|        |       |          |      | 3'    | 4500       |
| 0      |       | 80       |      | 1'    | 7,000 /12" |
|        |       |          |      | 2'    | 3800       |
|        |       |          |      | 3'    | 4400       |
| 15     |       | 65       |      | 1'    | 3900       |
|        |       |          |      | 2'    | 3600       |
|        |       |          |      | 3'    | 3600       |
| 5      |       | 75       |      | 1'    | 3700       |
|        |       |          |      | 2'    | 3700       |
|        |       |          |      | 3'    | 3800       |
| 10     |       | 60       |      | 1'    | 3500       |
|        |       |          |      | 2'    | 3800       |
|        |       |          |      | 3'    | 3800       |
| 0      |       | 70       |      | 1'    | 3700       |
|        |       |          |      | 2'    | 3700       |
|        |       |          |      | 3'    | WATER      |
|        |       |          |      |       |            |
|        |       |          |      |       |            |
|        |       |          |      |       |            |



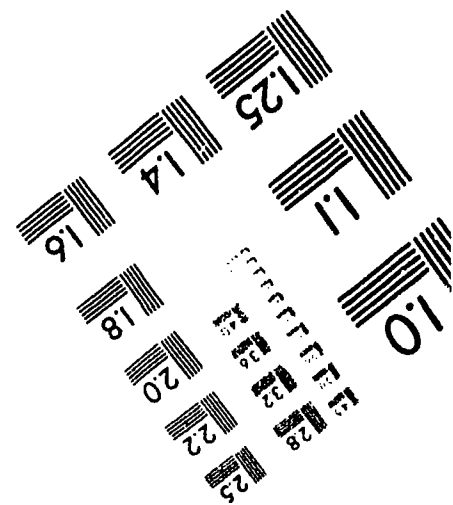
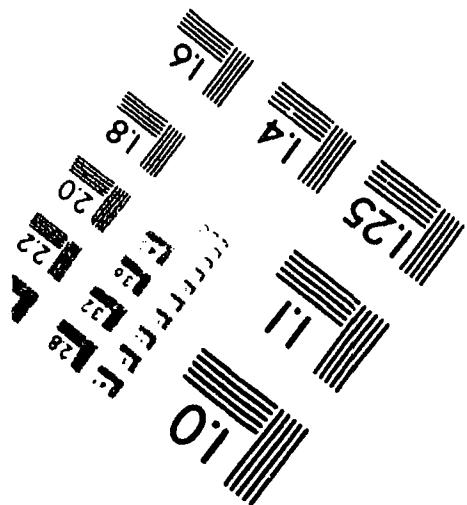
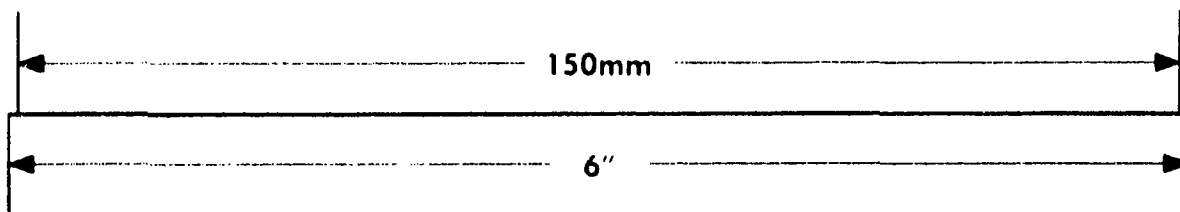
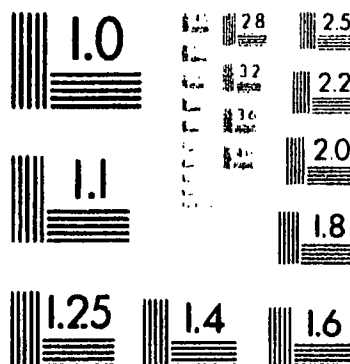
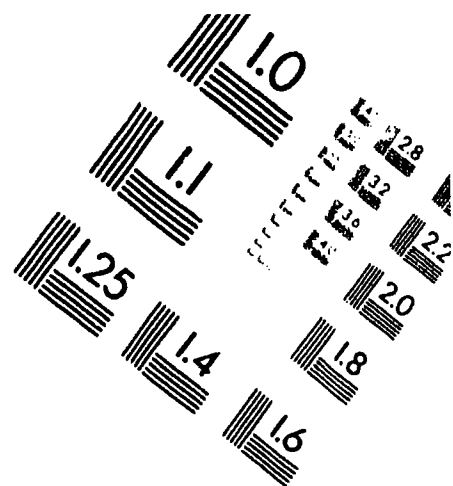
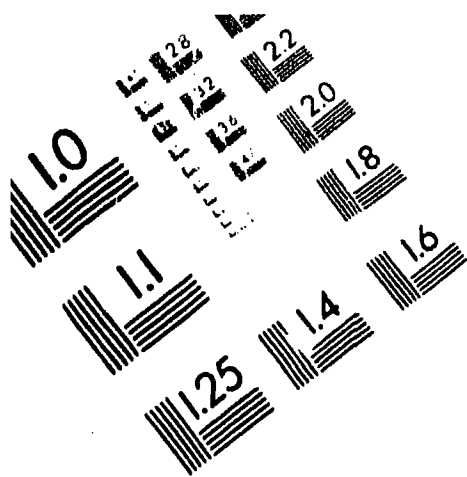
**IMAGE EVALUATION  
TEST TARGET (MT-3)**



**PHOTOGRAPHIC SCIENCES CORPORATION**  
770 BASKET ROAD  
P.O. BOX 338  
WEBSTER, NEW YORK 14580  
(716) 265-1600



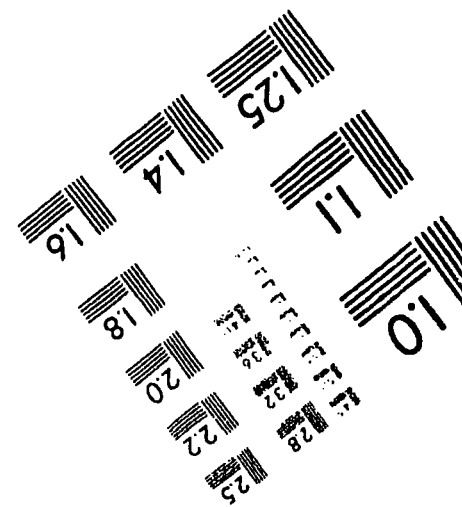
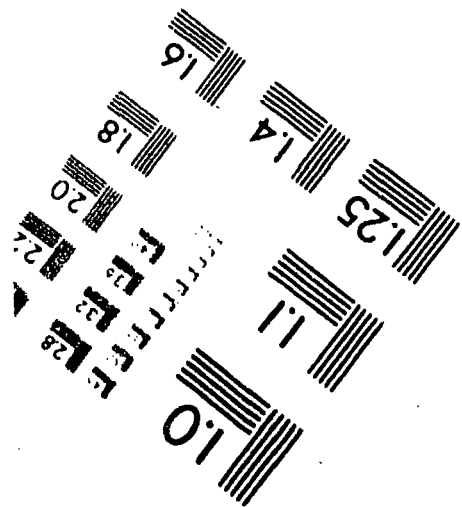
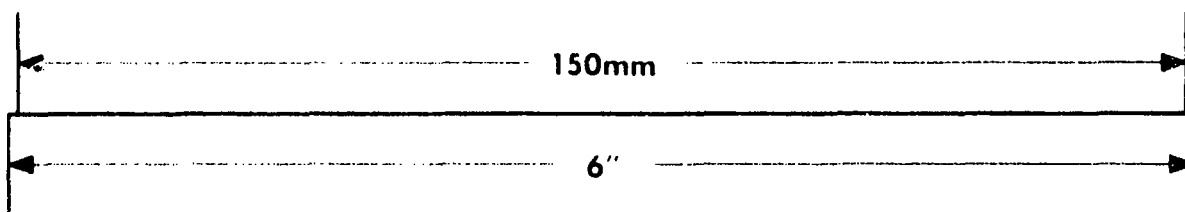
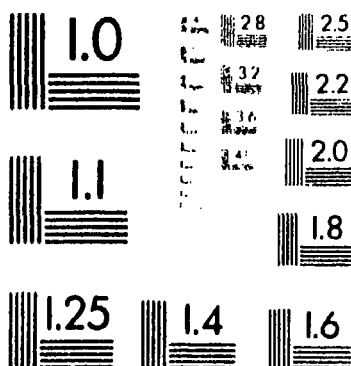
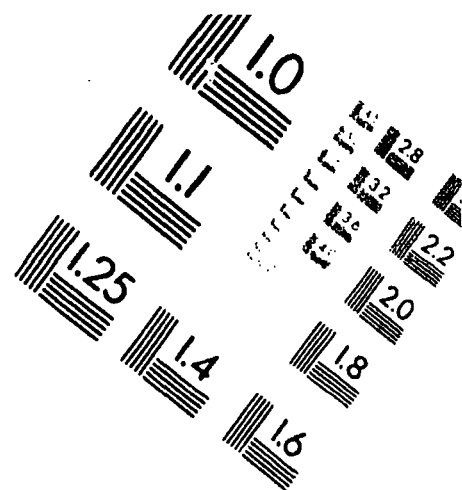
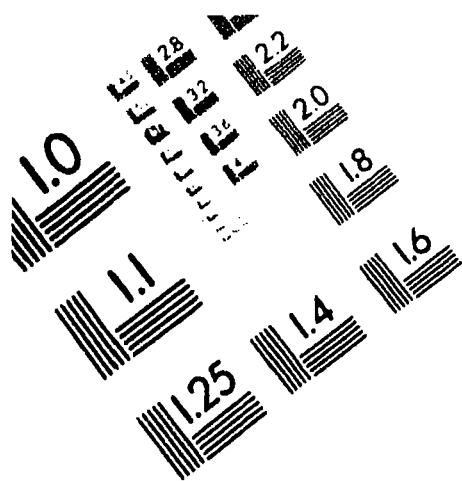
# IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION  
770 BASKET ROAD  
P.O. BOX 338  
WEBSTER, NEW YORK 14580  
(716) 265-1600



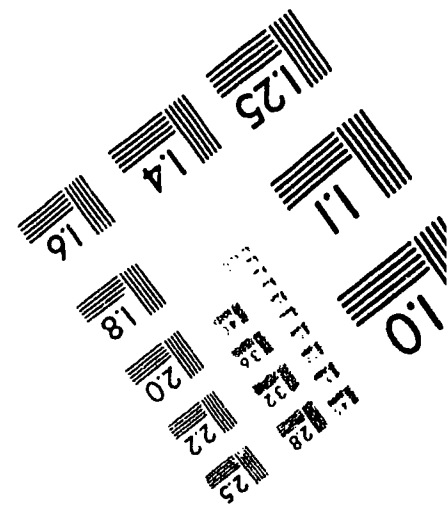
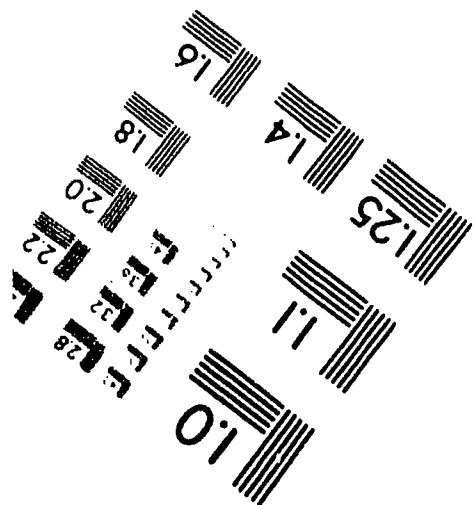
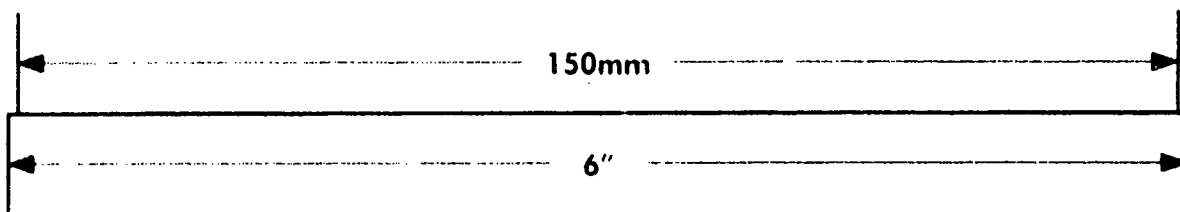
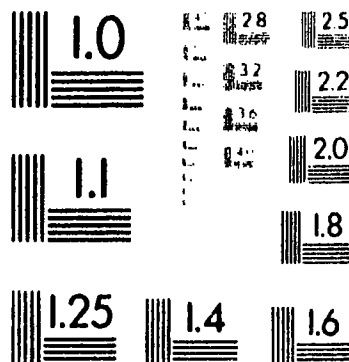
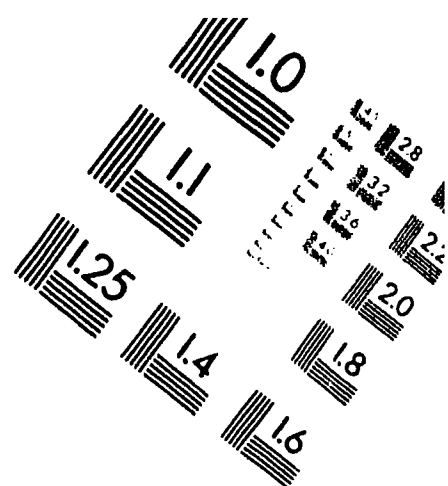
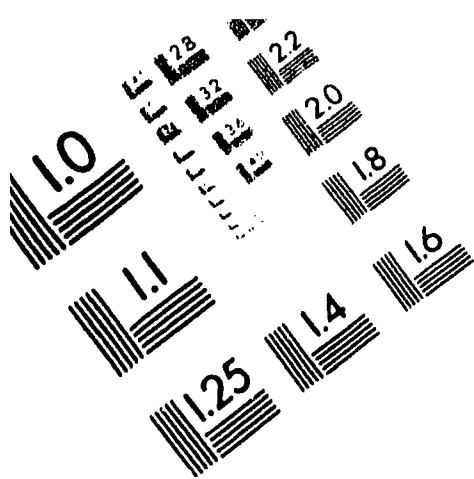
# IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION  
770 BASKET ROAD  
P.O. BOX 338  
WEBSTER, NEW YORK 14580  
(716) 265-1600



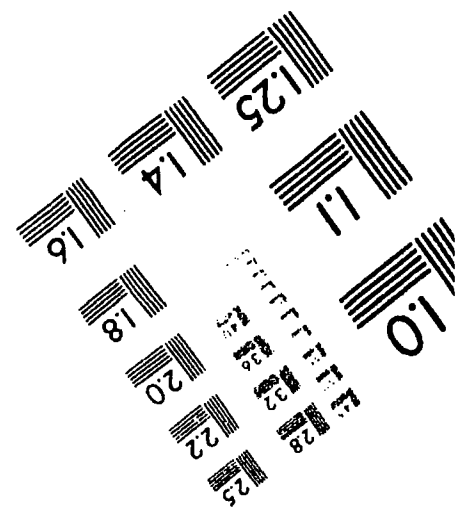
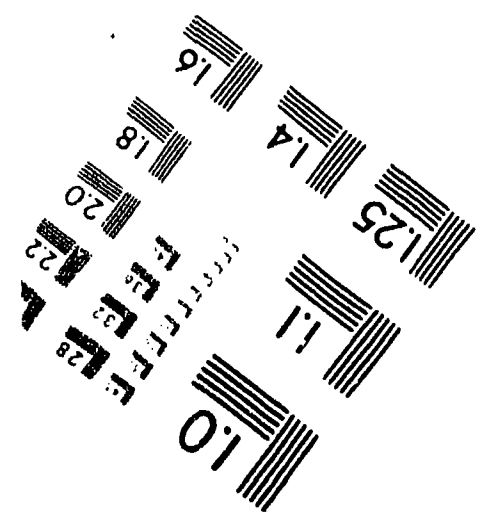
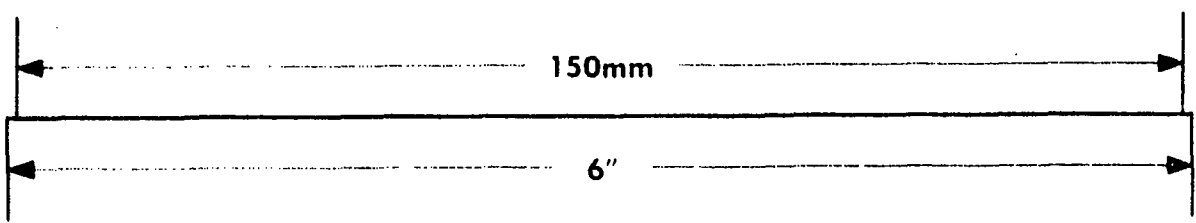
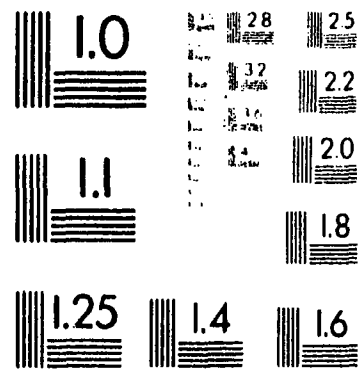
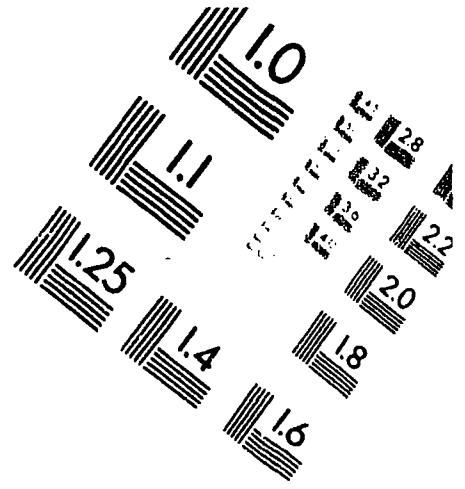
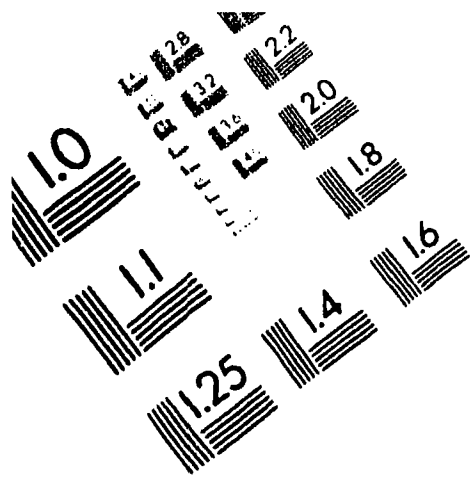
# IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION  
770 BASKET ROAD  
P.O. BOX 338  
WEBSTER, NEW YORK 14580  
(716) 265-1600



# IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION  
770 BASKET ROAD  
P.O. BOX 338  
WEBSTER, NEW YORK 14580  
(716) 265-1600

**Building 10 Borehole Gamma Logging  
Nal Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 0      |       | 50       |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3900      |
| 0      |       | 60       |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3900      |
| 15     |       | 45       |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4300      |
| 5      |       | 55       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4100      |
| 10     |       | 40       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4100      |
| 0      |       | 40       |      | 1'    | 4500      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4100      |
| 10     |       | 50       |      | 1'    | 4800      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4000      |
| 132    |       | 120      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3500      |
| 135    |       | 125      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3700      |
| 140    |       | 120      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | refusal   |
| 150    |       | 120      |      | 1'    | 6,000 8"  |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4000      |



# **Building 10 Borehole Gamma Logging Nal Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 140    |       | 130      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4000      |
| 145    |       | 125      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4000      |
| 135    |       | 135      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4600      |
| 150    |       | 130      |      | 1'    | 4200      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4100      |
| 150    |       | 140      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 3900      |
| 145    |       | 145      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4000      |
| 135    |       | 145      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3900      |
| 150    |       | 150      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4100      |
| 135    |       | 155      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4000      |
| 145    |       | 155      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4100      |
| 140    |       | 140      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4200      |

**Building 10 Borehole Gamma Logging  
NAI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 145    |       | 135      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 4200      |
| 140    |       | 150      |      | 1'    | 3400      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 4000      |
| 70     |       | 10       |      | 1'    | 3800      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4400      |
| 60     |       | 10       |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 3600      |
| 55     |       | 15       |      | 1'    | 3300      |
|        |       |          |      | 2'    | 3400      |
|        |       |          |      | 3'    | 3400      |
| 50     |       | 10       |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 3400      |
| 45     |       | 15       |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3500      |
| 40     |       | 10       |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3600      |
| 35     |       | 15       |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3600      |
| 15     |       | 15       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3700      |
| 30     |       | 10       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3600      |

**Building 10 Borehole Gamma Logging  
Nal Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 10     |       | 10       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3800      |
| 20     |       | 10       |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3700      |
| 5      |       | 15       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3600      |
| 45     |       | 175      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 3800      |
| 50     |       | 180      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3900      |
| 50     |       | 170      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3500      |
| 50     |       | 190      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3500      |
| 35     |       | 175      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3500      |
| 45     |       | 185      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3600      |
| 40     |       | 170      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3600      |
|        |       |          |      | 3'    | 3600      |
| 40     |       | 187      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3800      |

**Building 10 Borehole Gamma Logging  
Nal Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 35     |       | 185      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3600      |
|        |       |          |      | 3'    | 3500      |
| 30     |       | 170      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3800      |
| 40     |       | 180      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3700      |
| 25     |       | 175      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3800      |
| 30     |       | 190      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3600      |
|        |       |          |      | 3'    | 3500      |
| 20     |       | 170      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3500      |
| 30     |       | 180      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3700      |
| 15     |       | 175      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 3700      |
| 25     |       | 185      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3700      |
| 20     |       | 190      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3400      |
| 20     |       | 180      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3700      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

**Building 10 Borehole Gamma Logging  
Nal Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 10     |       | 190      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 3800      |
| 15     |       | 185      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3800      |
| 5      |       | 175      |      | 1'    | 3500      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3800      |
| 0      |       | 180      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3700      |
| 5      |       | 185      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3700      |
| 0      |       | 190      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3600      |
| 10     |       | 180      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3600      |
| 105    |       | 25       |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3500      |
| 10     |       | 180      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3600      |
| 10     |       | 110      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3600      |
| 100    |       | 20       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3600      |
|        |       |          |      |       |           |
|        |       |          |      |       |           |
|        |       |          |      |       |           |

**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 15     |       | 105      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3800      |
| 90     |       | 20       |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3700      |
| 0      |       | 110      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3600      |
|        |       |          |      | 3'    | 3600      |
| 105    |       | 20       |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3500      |
|        |       |          |      | 3'    | 3500      |
| 0      |       | 90       |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3600      |
| 90     |       | 10       |      | 1'    | 4200      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 3900      |
| 20     |       | 100      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3700      |
| 5      |       | 65       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3700      |
| 100    |       | 10       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3800      |
|        | 15    | 65       |      | 1'    | H20       |
|        |       |          |      | 2'    | H20       |
|        |       |          |      | 3'    | H20       |
|        | 15    | 55       |      | 1'    | 3900 6"   |
|        |       |          |      | 2'    | H20       |
|        |       |          |      | 3'    | H20       |

**Building 10 Borehole Gamma Logging  
Nal Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 80     |       | 10       |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3600      |
|        |       |          |      | 3'    | 3500      |
|        | 15    | 45       |      | 1'    | H20       |
|        |       |          |      | 2'    | H20       |
|        |       |          |      | 3'    | H20       |
| 5      |       | 45       |      | 1'    | H20       |
|        |       |          |      | 2'    | H20       |
|        |       |          |      | 3'    | H20       |
| 0      |       | 30       |      | 1'    | H20       |
|        |       |          |      | 2'    | H20       |
|        |       |          |      | 3'    | H20       |
|        | 20    | 60       |      | 1'    | H20       |
|        |       |          |      | 2'    | H20       |
|        |       |          |      | 3'    | H20       |
|        | 20    | 50       |      | 1'    | H20       |
|        |       |          |      | 2'    | H20       |
|        |       |          |      | 3'    | H20       |
|        | 62    | 35       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 11,000    |
|        |       |          |      | 3'    | NA        |
| 1      | DIRT  |          |      | 1'    | 10,000    |
| 2      |       |          |      | 2'    | 10,000    |
| 3      |       |          |      | 3'    | 11,000    |
| 25N    |       | 105      |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 11,000    |
|        |       |          |      | 3'    | 12,000    |
|        | 20    | 110      |      | 1'    | 8,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | NA        |
| 35     |       | 115      |      | 1'    | 7,000     |
|        |       |          |      | 2'    | 8,000     |
|        |       |          |      | 3'    | 10,000    |

**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm)     |
|--------|-------|----------|------|-------|---------------|
| North  | South | East     | West |       |               |
| 45     |       | 105      |      | 1'    | 6,000         |
|        |       |          |      | 2'    | 6,000         |
|        |       |          |      | 3'    | 7,000         |
|        | 54    | 35       |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 10,000        |
|        |       |          |      | 3'    | 10,000        |
|        | 50    | 25       |      | 1'    | 9,000         |
|        |       |          |      | 2'    | H2O           |
|        |       |          |      | 3'    | H2O           |
| 40     |       | 110      |      | 1'    | 6,000         |
|        |       |          |      | 2'    | 6,000         |
|        |       |          |      | 3'    | 7,000         |
|        | 50    | 110      |      | 1'    | 7,000         |
|        |       |          |      | 2'    | 8,000         |
|        |       |          |      | 3'    | 10,000        |
|        | 35    | 20       |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 10,000        |
|        |       |          |      | 3'    | WATER         |
|        | 5     | 75       |      | 1'    | 10,000        |
|        |       |          |      | 2'    | no read probe |
|        |       |          |      | 3'    | no read probe |
|        | 5     | 55       |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 10,000        |
|        |       |          |      | 3'    | no read probe |
|        | 5     | 45       |      | 1'    | 11,000        |
|        |       |          |      | 2'    | 10,000        |
|        |       |          |      | 3'    | 9,000         |
| 65     |       | 185      |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 8,000         |
|        |       |          |      | 3'    | 8,000         |
| 55     |       | 185      |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 8,000         |



**Building 10 Borehole Gamma Logging  
NAI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm)     |
|--------|-------|----------|------|-------|---------------|
| North  | South | East     | West |       |               |
| 70     |       | 190      |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 8,000         |
| 80     |       | 180      |      | 1'    | 11,000        |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |
| 60     |       | 190      |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |
| 75     |       | 175      |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | NO READ       |
| 60     |       | 180      |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 8,000         |
| 75     |       | 185      |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |
| 65     |       | 175      |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |
| 70     |       | 180      |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 8,000         |
|        |       |          |      | 3'    | no read probe |
| 55     |       | 175      |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 8,000         |
|        |       |          |      | 3'    | 8,000         |
| 80     |       | 190      |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 8,000         |
| 55     |       | 165      |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |

**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 70     |       | 170      |      | 1'    | 11,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 9,000     |
| 60     |       | 160      |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 80     |       | 170      |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 65     |       | 165      |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 70     |       | 160      |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 10,000    |
| 80     |       | 160      |      | 1'    | 11,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 10,000    |
| 60     |       | 170      |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 8,000     |
| 75     |       | 165      |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 170    |       | 10       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 175    |       | 25       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 175    |       | 15       |      | 1'    | 11,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 9,000     |

**Building 10 Borehole Gamma Logging  
Nal Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm)     |
|--------|-------|----------|------|-------|---------------|
| North  | South | East     | West |       |               |
| 180    |       | 10       |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |
| 180    |       | 30       |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |
| 185    |       | 20       |      | 1'    | 8,000 6"      |
|        |       |          |      | 2'    | REFUSAL       |
|        |       |          |      | 3'    | REFUSAL       |
| 180    |       | 20       |      | 1'    | 9,000 6"      |
|        |       |          |      | 2'    | REFUSAL       |
|        |       |          |      | 3'    | REFUSAL       |
| 185    |       | 15       |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |
| 190    |       | 25       |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |
| 185    |       | 35       |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |
| 190    |       | 10       |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 10,000        |
|        |       |          |      | 3'    | no read probe |
| 190    |       | 15       |      | 1'    | 8,000         |
|        |       |          |      | 2'    | no read probe |
|        |       |          |      | 3'    | no read probe |
| 170    |       | 20       |      | 1'    | 10,000        |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 9,000         |
| 185    |       | 45       |      | 1'    | 9,000         |
|        |       |          |      | 2'    | 9,000         |
|        |       |          |      | 3'    | 8,000         |

**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 170    |       | 30       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 9,000     |
| 190    |       | 50       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 189    |       | 41       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 9,000     |
| 20     |       | 30       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 40     |       | 23       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 33     |       | 25       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 9,000     |
| 10     |       | 30       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 9,000     |
| 35     |       | 23       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 30     |       | 28       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 15     |       | 55       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | REFUSAL   |
| 35     |       | 28       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |

**Building 10 Borehole Gamma Logging  
Nal Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 5      |       | 105      |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 9,000     |
| 26     |       | 25       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 23     |       | 28       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 0      |       | 80       |      | 1'    | 15,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 10,000    |
| 5      |       | 100      |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 10,000    |
| 23     |       | 23       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 8,000     |
| 13     |       | 85       |      | 1'    | 8,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 10,000    |
| 0      |       | 100      |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,500    |
|        |       |          |      | 3'    | 10,000    |
| 0      |       | 105      |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 10,000    |
| 30     |       | 23       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 7,000     |
| 42     |       | 23       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 8,000     |

**Building 10 Borehole Gamma Logging  
NAI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 9      |       | 85       |      | 1'    | 10,000    |
|        |       |          |      | 2'    | 10,000    |
|        |       |          |      | 3'    | 10,000    |
| 42     |       | 28       |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 4      |       | 112      |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 8,000     |
|        |       |          |      | 3'    | 7,000     |
|        | 2     | 112      |      | 1'    | 9,000     |
|        |       |          |      | 2'    | 9,000     |
|        |       |          |      | 3'    | 9,000     |
| 54     |       | 23       |      | 1'    | 3,700     |
|        |       |          |      | 2'    | 3,900     |
|        |       |          |      | 3'    | 4,000     |
| 72     |       | 23       |      | 1'    | 4,000     |
|        |       |          |      | 2'    | 4,000     |
|        |       |          |      | 3'    | 3,900     |
| 67     |       | 26       |      | 1'    | 3,900     |
|        |       |          |      | 2'    | 4,000     |
|        |       |          |      | 3'    | 3,800     |
| 80     |       | 23       |      | 1'    | 3,900     |
|        |       |          |      | 2'    | 3,700     |
|        |       |          |      | 3'    | 3,700     |
| 70     |       | 28       |      | 1'    | 3,900     |
|        |       |          |      | 2'    | 3,900     |
|        |       |          |      | 3'    | 3,900     |
| 88     |       | 23       |      | 1'    | 3,800     |
|        |       |          |      | 2'    | 3,900     |
|        |       |          |      | 3'    | 4,000     |
| 55     |       | 23       |      | 1'    | 3,600 6"  |
|        |       |          |      | 2'    | REFUSAL   |
|        |       |          |      | 3'    | REFUSAL   |

# **Building 10 Borehole Gamma Logging Nal Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 95     |       | 23       |      | 1'    | 3,800     |
|        |       |          |      | 2'    | 3,800     |
|        |       |          |      | 3'    | 4,000     |
| 100    |       | 26       |      | 1'    | 3,800     |
|        |       |          |      | 2'    | 3,800     |
|        |       |          |      | 3'    | 3,700     |
| 86     |       | 28       |      | 1'    | 4,000     |
|        |       |          |      | 2'    | 3,900     |
|        |       |          |      | 3'    | 3,900     |
| 101    |       | 23       |      | 1'    | 3,900     |
|        |       |          |      | 2'    | 3,900     |
|        |       |          |      | 3'    | 3,900     |
| 83     |       | 26       |      | 1'    | 4,000     |
|        |       |          |      | 2'    | 3,900     |
|        |       |          |      | 3'    | 3,900     |
| 0      |       | 170      |      | 1'    | 4300      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 3900      |
|        | 10    | 170      |      | 1'    | 5000      |
|        |       |          |      | 2'    | 4500      |
|        |       |          |      | 3'    | 3900      |
|        | 10    | 160      |      | 1'    | 4300      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4000      |
| 0      |       | 150      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3800      |
|        | 10    | 150      |      | 1'    | 3800      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3700      |
|        | 5     | 155      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 3800      |

**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 95     |       | 26       |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | R         |
| 90     |       | 26       |      | 1'    | 3700      |
|        |       |          |      | 2'    | H2O       |
|        |       |          |      | 3'    | H2O       |
|        | 20    | 150      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4300      |
|        | 20    | 140      |      | 1'    | 3600      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4300      |
| 147.5  |       | 122.5    |      | 1'    | 4800      |
|        |       |          |      | 2'    | 4700      |
|        |       |          |      | 3'    | 3900      |
| 145    |       | 120      |      | 1'    | 4300      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4000      |
| 147.5  |       | 127.5    |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
| 150    |       | 125      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4000      |
| 145    |       | 130      |      | 1'    | 4200      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | R         |
| 142.5  |       | 127.5    |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4000      |
|        |       |          |      | 3'    | 4200      |
| 142.5  |       | 122.5    |      | 1'    | 4100      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4200      |



**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 140    |       | 125      |      | 1'    | 4100      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4300      |
| 177    |       | 26       |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3900      |
|        |       |          |      | 3'    | 3900      |
| 180    |       | 100      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4500      |
| 180    |       | 110      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4400      |
|        |       |          |      | 3'    | R         |
| 175    |       | 105      |      | 1'    | 4000      |
|        |       |          |      | 2'    | 4200      |
|        |       |          |      | 3'    | 4500      |
| 175    |       | 115      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 4100      |
|        |       |          |      | 3'    | 4500      |
| 175    |       | 125      |      | 1'    | 3700      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 4000      |
| 175    |       | 135      |      | 1'    | 4300      |
|        |       |          |      | 2'    | 4300      |
|        |       |          |      | 3'    | 4600      |
| 175    |       | 145      |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | 3500      |
| 175    |       | 20       |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3700      |
| 177.5  |       | 22.5     |      | 1'    | 3900      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | 3800      |

**Building 10 Borehole Gamma Logging  
NaI Results**

| SAMPLE |       | LOCATION |      | Depth | NAI (cpm) |
|--------|-------|----------|------|-------|-----------|
| North  | South | East     | West |       |           |
| 172.5  |       | 22.5     |      | 1'    | 2500      |
|        |       |          |      | 2'    | R         |
|        |       |          |      | 3'    | R         |
| 170    |       | 25       |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | H2O       |
| 172.5  |       | 27.5     |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3700      |
|        |       |          |      | 3'    | H2O       |
| 177.5  |       | 27.5     |      | 1'    | 3200      |
|        |       |          |      | 2'    | 3400      |
|        |       |          |      | 3'    | H2O       |
| 180    |       | 25       |      | 1'    | 3600      |
|        |       |          |      | 2'    | 3800      |
|        |       |          |      | 3'    | H2O       |

# Building 10: Grid Intersection Static Surface Measurements

| North | Sample<br>South | Location<br>East | West | Nal (cpm) |
|-------|-----------------|------------------|------|-----------|
| 0     |                 | 170              |      | 2300      |
| 0     |                 | 130              |      | 2000      |
| 0     |                 | 120              |      | 2100      |
| 0     |                 | 150              |      | 2000      |
| 0     |                 | 140              |      | 1900      |
| 0     |                 | 160              |      | 3600      |
| 0     |                 | 170              |      | 2100      |
| 0     |                 | 180              |      | 2200      |
| 0     |                 | 190              |      | 2500      |
| 0     |                 | 40               |      | 2200      |
| 0     |                 | 50               |      | 2800      |
| 0     |                 | 60               |      | 2500      |
| 0     |                 | 70               |      | 2400      |
| 0     |                 | 90               |      | 2200      |
| 0     |                 | 80               |      | 2400      |
| 0     |                 | 10               |      | 2200      |
| 0     |                 | 30               |      | 2000      |
| 0     |                 | 20               |      | 2300      |
| 0     |                 | 110              |      | 2000      |
| 0     |                 | 170              |      | 2100      |
| 0     |                 | 150              |      | 2200      |
| 0     |                 | 105              |      | 6000*     |
| 0     |                 | 100              |      | 6000*     |
| 5     |                 | 125              |      | 2100      |
| 5     |                 | 135              |      | 2100      |
| 5     |                 | 145              |      | 2200      |
| 5     |                 | 165              |      | 2200      |
| 5     |                 | 175              |      | 2300      |
| 5     |                 | 185              |      | 2400      |
| 5     |                 | 155              |      | 2000      |
| 5     |                 | 15               |      | 2400      |
| 5     |                 | 45               |      | 2500      |
| 5     |                 | 25               |      | 2000      |
| 5     |                 | 65               |      | 2600      |
| 5     |                 | 75               |      | 2500      |
| 5     |                 | 85               |      | 2100      |
| 5     |                 | 105              |      | 5500*     |
| 5     |                 | 100              |      | 6000*     |
| 10    |                 | 130              |      | 1900      |
| 10    |                 | 120              |      | 1900      |
| 10    |                 | 150              |      | 2200      |
| 10    |                 | 140              |      | 2100      |
| 10    |                 | 170              |      | 2400      |
| 10    |                 | 160              |      | 2800      |
| 10    |                 | 170              |      | 2300      |
| 10    |                 | 160              |      | 2100      |

# Building 10: Grid Intersection Static Surface Measurements

|       | Sample | Location |      | Nel (cpm) |
|-------|--------|----------|------|-----------|
| North | South  | East     | West |           |
|       |        |          |      |           |
| 10    |        | 190      |      | 2300      |
| 10    |        | 180      |      | 2300      |
| 10    |        | 110      |      | 2200      |
| 10    |        | 30       |      | 2100      |
| 10    |        | 40       |      | 2100      |
| 10    |        | 50       |      | 2300      |
| 10    |        | 60       |      | 1900      |
| 10    |        | 10       |      | 2400      |
| 10    |        | 20       |      | 2300      |
| 10    |        | 100      |      | 2100      |
| 10    |        | 90       |      | 1800      |
| 15    |        | 175      |      | 2400      |
| 15    |        | 165      |      | 2300      |
| 15    |        | 145      |      | 2100      |
| 15    |        | 135      |      | 2000      |
| 15    |        | 165      |      | 2300      |
| 15    |        | 175      |      | 2100      |
| 15    |        | 185      |      | 2300      |
| 15    |        | 155      |      | 2000      |
| 15    |        | 25       |      | 2000      |
| 15    |        | 45       |      | 2100      |
| 15    |        | 65       |      | 2000      |
| 15    |        | 85       |      | 1800      |
| 15    |        | 95       |      | 1900      |
| 15    |        | 15       |      | 2300      |
| 15    |        | 105      |      | 2000      |
| 15    |        | 125      |      | 1700      |
| 20    |        | 150      |      | 2100      |
| 20    |        | 140      |      | 1900      |
| 20    |        | 180      |      | 2200      |
| 20    |        | 170      |      | 2200      |
| 20    |        | 160      |      | 2200      |
| 20    |        | 160      |      | 2000      |
| 20    |        | 170      |      | 1900      |
| 20    |        | 180      |      | 2300      |
| 20    |        | 190      |      | 2000      |
| 20    |        | 20       |      | 1900      |
| 20    |        | 40       |      | 2500      |
| 20    |        | 50       |      | 2500      |
| 20    |        | 60       |      | 2200      |
| 20    |        | 90       |      | 1800      |
| 20    |        | 10       |      | 2300      |
| 20    |        | 110      |      | 2100      |
| 20    |        | 100      |      | 1800      |
| 20    |        | 120      |      | 1900      |
| 20    |        | 130      |      | 1800      |

# Building 10: Grid Intersection Static Surface Measurements

| North | Sample<br>South | Location<br>East | West | Nal (cpm) |
|-------|-----------------|------------------|------|-----------|
|       |                 |                  |      |           |
| 25    |                 | 145              |      | 2100      |
| 25    |                 | 175              |      | 2100      |
| 25    |                 | 165              |      | 2100      |
| 25    |                 | 165              |      | 2300      |
| 25    |                 | 175              |      | 2200      |
| 25    |                 | 185              |      | 2300      |
| 25    |                 | 155              |      | 2000      |
| 25    |                 | 15               |      | 2100      |
| 25    |                 | 25               |      | 2100      |
| 25    |                 | 125              |      | 2100      |
| 30    |                 | 140              |      | 2100      |
| 30    |                 | 150              |      | 1900      |
| 30    |                 | 180              |      | 2300      |
| 30    |                 | 170              |      | 2200      |
| 30    |                 | 160              |      | 2200      |
| 30    |                 | 170              |      | 2200      |
| 30    |                 | 160              |      | 2100      |
| 30    |                 | 190              |      | 2200      |
| 30    |                 | 180              |      | 2600      |
| 30    |                 | 20               |      | 2100      |
| 30    |                 | 10               |      | 2100      |
| 30    |                 | 130              |      | 2100      |
| 30    |                 | 120              |      | 2200      |
| 35    |                 | 145              |      | 2200      |
| 35    |                 | 165              |      | 2400      |
| 35    |                 | 175              |      | 2100      |
| 35    |                 | 185              |      | 2600      |
| 35    |                 | 155              |      | 1900      |
| 35    |                 | 25               |      | 2500      |
| 35    |                 | 15               |      | 1900      |
| 35    |                 | 125              |      | 1900      |
| 40    |                 | 140              |      | 2000      |
| 40    |                 | 150              |      | 2000      |
| 40    |                 | 160              |      | 2100      |
| 40    |                 | 170              |      | 1900      |
| 40    |                 | 180              |      | 2400      |
| 40    |                 | 190              |      | 2100      |
| 40    |                 | 20               |      | 2100      |
| 40    |                 | 10               |      | 2100      |
| 40    |                 | 120              |      | 2100      |
| 40    |                 | 130              |      | 1900      |
| 45    |                 | 145              |      | 2200      |
| 45    |                 | 185              |      | 2300      |
| 45    |                 | 165              |      | 2300      |
| 45    |                 | 175              |      | 2200      |
| 45    |                 | 155              |      | 2000      |

# Building 10: Grid Intersection Static Surface Measurements

| North | Sample<br>South | Location<br>East | West | Nal (cpm) |
|-------|-----------------|------------------|------|-----------|
|       |                 |                  |      |           |
| 45    |                 | 25               |      | 2700      |
| 45    |                 | 15               |      | 2200      |
| 50    |                 | 140              |      | 2000      |
| 50    |                 | 150              |      | 2000      |
| 50    |                 | 170              |      | 2100      |
| 50    |                 | 180              |      | 2200      |
| 50    |                 | 190              |      | 2200      |
| 50    |                 | 180              |      | 2200      |
| 50    |                 | 10               |      | 2400      |
| 55    |                 | 145              |      | 2000      |
| 55    |                 | 185              |      | 2100      |
| 55    |                 | 185              |      | 2300      |
| 55    |                 | 175              |      | 2100      |
| 55    |                 | 155              |      | 2100      |
| 55    |                 | 25               |      | 2100      |
| 55    |                 | 15               |      | 2200      |
| 60    |                 | 140              |      | 2000      |
| 60    |                 | 150              |      | 2100      |
| 60    |                 | 210              |      | 1900      |
| 60    |                 | 130              |      | 1900      |
| 60    |                 | 120              |      | 2000      |
| 60    |                 | 160              |      | 2100      |
| 60    |                 | 170              |      | 2100      |
| 60    |                 | 180              |      | 2100      |
| 60    |                 | 190              |      | 2100      |
| 60    |                 | 20               |      | 1900      |
| 60    |                 | 10               |      | 2600      |
| 65    |                 | 145              |      | 2200      |
| 65    |                 | 185              |      | 2400      |
| 65    |                 | 135              |      | 1900      |
| 65    |                 | 125              |      | 1800      |
| 65    |                 | 165              |      | 2200      |
| 65    |                 | 175              |      | 2100      |
| 65    |                 | 155              |      | 2000      |
| 65    |                 | 25               |      | 2000      |
| 70    |                 | 180              |      | 2200      |
| 70    |                 | 190              |      | 2100      |
| 70    |                 | 140              |      | 2200      |
| 70    |                 | 130              |      | 2000      |
| 70    |                 | 150              |      | 2000      |
| 70    |                 | 120              |      | 2100      |
| 70    |                 | 170              |      | 2000      |
| 70    |                 | 180              |      | 2300      |
| 70    |                 | 190              |      | 2000      |
| 70    |                 | 180              |      | 2300      |
| 70    |                 | 220              |      | 2100      |

# Building 10: Grid Intersection Static Surface Measurements

| North | Sample<br>South | Location<br>East | West | Nal (cpm) |
|-------|-----------------|------------------|------|-----------|
| 70    |                 | 20               |      | 2000      |
| 70    |                 | 10               |      | 2500      |
| 75    |                 | 145              |      | 2200      |
| 75    |                 | 135              |      | 2000      |
| 75    |                 | 125              |      | 2500      |
| 75    |                 | 185              |      | 2400      |
| 75    |                 | 165              |      | 2300      |
| 75    |                 | 175              |      | 2200      |
| 75    |                 | 155              |      | 2000      |
| 75    |                 | 25               |      | 2200      |
| 75    |                 | 15               |      | 2200      |
| 80    |                 | 120              |      | 1900      |
| 80    |                 | 130              |      | 1900      |
| 80    |                 | 150              |      | 2000      |
| 80    |                 | 140              |      | 2100      |
| 80    |                 | 150              |      | 2100      |
| 80    |                 | 160              |      | 2100      |
| 80    |                 | 170              |      | 2000      |
| 80    |                 | 180              |      | 2200      |
| 80    |                 | 190              |      | 2000      |
| 80    |                 | 220              |      | 2000      |
| 80    |                 | 20               |      | 2100      |
| 80    |                 | 10               |      | 2000      |
| 85    |                 | 145              |      | 2100      |
| 85    |                 | 125              |      | 2000      |
| 85    |                 | 185              |      | 2400      |
| 85    |                 | 135              |      | 1900      |
| 85    |                 | 165              |      | 2300      |
| 85    |                 | 175              |      | 2100      |
| 85    |                 | 215              |      | 2000      |
| 85    |                 | 205              |      | 2100      |
| 85    |                 | 155              |      | 2100      |
| 85    |                 | 15               |      | 1900      |
| 87    |                 | 25               |      | 2600      |
| 90    |                 | 140              |      | 2400      |
| 90    |                 | 150              |      | 2000      |
| 90    |                 | 130              |      | 1900      |
| 90    |                 | 120              |      | 1900      |
| 90    |                 | 150              |      | 2100      |
| 90    |                 | 170              |      | 2400      |
| 90    |                 | 160              |      | 2300      |
| 90    |                 | 190              |      | 2100      |
| 90    |                 | 180              |      | 2400      |
| 90    |                 | 220              |      | 2000      |
| 90    |                 | 200              |      | 2200      |
| 90    |                 | 210              |      | 2100      |

# **Building 10: Grid Intersection Static Surface Measurements**

|       | Sample | Location |      | Nal (cpm) |
|-------|--------|----------|------|-----------|
| North | South  | East     | West |           |
|       |        |          |      |           |
| 90    |        | 20       |      | 2200      |
| 90    |        | 20       |      | 2100      |
| 90    |        | 10       |      | 2200      |
| 95    |        | 145      |      | 2300      |
| 95    |        | 125      |      | 1900      |
| 95    |        | 185      |      | 2500      |
| 95    |        | 195      |      | 2300      |
| 95    |        | 205      |      | 2000      |
| 95    |        | 135      |      | 2500      |
| 95    |        | 165      |      | 2200      |
| 95    |        | 175      |      | 2200      |
| 95    |        | 215      |      | 2000      |
| 95    |        | 155      |      | 2000      |
| 95    |        | 25       |      | 2300      |
| 95    |        | 15       |      | 2200      |
| 100   |        | 140      |      | 2800      |
| 100   |        | 130      |      | 2000      |
| 100   |        | 150      |      | 2000      |
| 100   |        | 120      |      | 2000      |
| 100   |        | 150      |      | 2000      |
| 100   |        | 160      |      | 2200      |
| 100   |        | 170      |      | 2200      |
| 100   |        | 180      |      | 2500      |
| 100   |        | 190      |      | 2300      |
| 100   |        | 220      |      | 2000      |
| 100   |        | 210      |      | 2100      |
| 100   |        | 200      |      | 2200      |
| 100   |        | 20       |      | 2200      |
| 100   |        | 10       |      | 2300      |
| 105   |        | 145      |      | 2300      |
| 105   |        | 190      |      | 2600      |
| 105   |        | 180      |      | 2500      |
| 105   |        | 185      |      | 2300      |
| 105   |        | 175      |      | 2200      |
| 105   |        | 165      |      | 2200      |
| 105   |        | 195      |      | 2100      |
| 105   |        | 225      |      | 2000      |
| 105   |        | 215      |      | 2300      |
| 105   |        | 205      |      | 2000      |
| 105   |        | 155      |      | 2100      |
| 105   |        | 135      |      | 2400      |
| 105   |        | 25       |      | 2500      |
| 110   |        | 140      |      | 2200      |
| 110   |        | 130      |      | 2200      |
| 110   |        | 150      |      | 2100      |
| 110   |        | 190      |      | 2000      |



# Building 10: Grid Intersection Static Surface Measurements

| North | Sample South | Location East | West | Nel (cpm) |
|-------|--------------|---------------|------|-----------|
|       |              |               |      |           |
| 110   |              | 160           |      | 2200      |
| 110   |              | 190           |      | 2200      |
| 110   |              | 180           |      | 2300      |
| 110   |              | 200           |      | 2000      |
| 110   |              | 220           |      | 2100      |
| 110   |              | 210           |      | 2000      |
| 110   |              | 170           |      | 2000      |
| 115   |              | 135           |      | 2200      |
| 115   |              | 175           |      | 2000      |
| 115   |              | 165           |      | 2300      |
| 115   |              | 185           |      | 2400      |
| 115   |              | 195           |      | 1900      |
| 115   |              | 205           |      | 1900      |
| 115   |              | 215           |      | 2200      |
| 115   |              | 155           |      | 2200      |
| 120   |              | 130           |      | 1900      |
| 120   |              | 150           |      | 2300      |
| 120   |              | 160           |      | 2300      |
| 120   |              | 120           |      | 1900      |
| 120   |              | 180           |      | 2400      |
| 120   |              | 190           |      | 2200      |
| 120   |              | 210           |      | 2000      |
| 120   |              | 200           |      | 2000      |
| 120   |              | 220           |      | 2000      |
| 120   |              | 170           |      | 2100      |
| 125   |              | 175           |      | 2100      |
| 125   |              | 165           |      | 2400      |
| 125   |              | 195           |      | 2000      |
| 125   |              | 185           |      | 2300      |
| 125   |              | 205           |      | 2000      |
| 125   |              | 215           |      | 2000      |
| 125   |              | 155           |      | 2200      |
| 130   |              | 150           |      | 2000      |
| 130   |              | 160           |      | 2200      |
| 130   |              | 170           |      | 2000      |
| 130   |              | 190           |      | 2300      |
| 130   |              | 180           |      | 2300      |
| 130   |              | 220           |      | 2100      |
| 130   |              | 200           |      | 2100      |
| 130   |              | 210           |      | 2100      |
| 135   |              | 165           |      | 2100      |
| 135   |              | 155           |      | 2300      |
| 135   |              | 175           |      | 2300      |
| 135   |              | 145           |      | 2300      |
| 135   |              | 165           |      | 2200      |
| 135   |              | 195           |      | 2000      |

# Building 10: Grid Intersection Static Surface Measurements

|       | Sample | Location |      | Nal (cpm) |
|-------|--------|----------|------|-----------|
| North | South  | East     | West |           |
|       |        |          |      |           |
| 135   |        | 185      |      | 2300      |
| 135   |        | 205      |      | 2200      |
| 135   |        | 215      |      | 1900      |
| 140   |        | 160      |      | 2300      |
| 140   |        | 170      |      | 2200      |
| 140   |        | 180      |      | 2400      |
| 140   |        | 190      |      | 2200      |
| 140   |        | 210      |      | 2200      |
| 140   |        | 220      |      | 2300      |
| 140   |        | 200      |      | 1900      |
| 140   |        | 125      |      | 2000      |
| 142   |        | 122      |      | 2100      |
| 142   |        | 127      |      | 2200      |
| 145   |        | 175      |      | 2300      |
| 145   |        | 165      |      | 2200      |
| 145   |        | 195      |      | 1900      |
| 145   |        | 185      |      | 2200      |
| 145   |        | 235      |      | 1900      |
| 145   |        | 225      |      | 2000      |
| 145   |        | 215      |      | 2200      |
| 145   |        | 205      |      | 2100      |
| 145   |        | 120      |      | 2100      |
| 145   |        | 130      |      | 2100      |
| 147   |        | 122      |      | 2000      |
| 147   |        | 127      |      | 2100      |
| 150   |        | 170      |      | 2200      |
| 150   |        | 160      |      | 2200      |
| 150   |        | 190      |      | 2100      |
| 150   |        | 180      |      | 2300      |
| 150   |        | 200      |      | 2000      |
| 150   |        | 220      |      | 1900      |
| 150   |        | 240      |      | 2400      |
| 150   |        | 210      |      | 2100      |
| 150   |        | 230      |      | 2200      |
| 150   |        | 125      |      | 2200      |
| 155   |        | 185      |      | 2500      |
| 155   |        | 165      |      | 2000      |
| 155   |        | 175      |      | 2400      |
| 155   |        | 195      |      | 2300      |
| 155   |        | 205      |      | 1900      |
| 155   |        | 215      |      | 2000      |
| 155   |        | 185      |      | 2100      |
| 160   |        | 170      |      | 2300      |
| 160   |        | 180      |      | 2100      |
| 170   |        | 25       |      | 2100      |
| 170   |        | 170      |      | 2100      |

# Building 10: Grid Intersection Static Surface Measurements

| North | Sample<br>South | Location<br>East | West | Nal (cpm) |
|-------|-----------------|------------------|------|-----------|
| 170   |                 | 20               |      | 2700      |
| 170   |                 | 10               |      | 5500*     |
| 170   |                 | 20               |      | 5500*     |
| 170   |                 | 30               |      | 5000*     |
| 172.5 |                 | 22.5             |      | 2000      |
| 172.5 |                 | 27.5             |      | 2200      |
| 175   |                 | 115              |      | 2400      |
| 175   |                 | 185              |      | 2300      |
| 175   |                 | 155              |      | 2800      |
| 175   |                 | 25               |      | 6000*     |
| 175   |                 | 15               |      | 6000*     |
| 175   |                 | 105              |      | 2400      |
| 175   |                 | 115              |      | 2300      |
| 175   |                 | 125              |      | 2200      |
| 175   |                 | 135              |      | 2400      |
| 175   |                 | 145              |      | 2300      |
| 177   |                 | 26               |      | 1900      |
| 177.5 |                 | 27.5             |      | 2300      |
| 180   |                 | 25               |      | 2200      |
| 180   |                 | 100              |      | 2200      |
| 180   |                 | 110              |      | 2200      |
| 180   |                 | 120              |      | 2000      |
| 180   |                 | 130              |      | 2200      |
| 180   |                 | 140              |      | 2300      |
| 180   |                 | 150              |      | 2200      |
| 180   |                 | 170              |      | 2200      |
| 180   |                 | 160              |      | 2400      |
| 180   |                 | 10               |      | 5500*     |
| 180   |                 | 30               |      | 5000*     |
| 180   |                 | 20               |      | 5500*     |
| 180   |                 | 100              |      | 2200      |
| 180   |                 | 110              |      | 2300      |
| 185   |                 | 125              |      | 2100      |
| 185   |                 | 115              |      | 2300      |
| 185   |                 | 135              |      | 2200      |
| 185   |                 | 145              |      | 2400      |
| 185   |                 | 165              |      | 2100      |
| 185   |                 | 20               |      | 6000*     |
| 185   |                 | 15               |      | 5500*     |
| 185   |                 | 35               |      | 5500*     |
| 185   |                 | 45               |      | 6000*     |
| 189   |                 | 41               |      | 6000*     |
| 190   |                 | 120              |      | 2100      |
| 190   |                 | 110              |      | 2400      |
| 190   |                 | 100              |      | 2400      |
| 190   |                 | 90               |      | 2300      |

# **Building 10: Grid Intersection Static Surface Measurements**

| North | Sample<br>South | Location<br>East | West | Nal (cpm) |
|-------|-----------------|------------------|------|-----------|
| 190   |                 | 70               |      | 2100      |
| 190   |                 | 60               |      | 2200      |
| 190   |                 | 50               |      | 2300      |
| 190   |                 | 40               |      | 2200      |
| 190   |                 | 160              |      | 2200      |
| 190   |                 | 130              |      | 2100      |
| 190   |                 | 25               |      | 5000*     |
| 190   |                 | 10               |      | 6000*     |
| 190   |                 | 15               |      | 5500*     |
| 190   |                 | 50               |      | 5500*     |
| 195   |                 | 35               |      | 2200      |
| 195   |                 | 65               |      | 2400      |
| 195   |                 | 55               |      | 2700      |
| 195   |                 | 165              |      | 2200      |
| 200   |                 | 60               |      | 2300      |
| 200   |                 | 50               |      | 2300      |
|       | 5               | 175              |      | 2300      |
|       | 5               | 135              |      | 2100      |
|       | 5               | 165              |      | 2600      |
|       | 5               | 175              |      | 3500      |
|       | 5               | 185              |      | 2500      |
|       | 5               | 155              |      | 2200      |
|       | 5               | 145              |      | 2300      |
|       | 5               | 125              |      | 2200      |
|       | 5               | 115              |      | 2200      |
|       | 5               | 105              |      | 2500      |
|       | 5               | 115              |      | 2200      |
|       | 5               | 95               |      | 3400      |
|       | 5               | 85               |      | 2400      |
|       | 5               | 155              |      | 2100      |
|       | 10              | 185              |      | 2100      |
|       | 10              | 130              |      | 2100      |
|       | 10              | 150              |      | 2100      |
|       | 10              | 140              |      | 2300      |
|       | 10              | 120              |      | 2300      |
|       | 10              | 110              |      | 2200      |
|       | 10              | 110              |      | 2300      |
|       | 10              | 90               |      | 2200      |
|       | 10              | 100              |      | 2200      |
|       | 10              | 80               |      | 2000      |
|       | 10              | 60               |      | 2400      |
|       | 10              | 70               |      | 2500      |
|       | 10              | 170              |      | 2000      |
|       | 10              | 160              |      | 2200      |
|       | 10              | 150              |      | 2100      |
|       | 15              | 135              |      | 2200      |

# **Building 10: Grid Intersection Static Surface Measurements**

| North  | Sample | Location |      | Nal (cpm) |
|--|--------|----------|------|-----------|
|  | South  | East     | West |           |
|  |        |          |      |           |
|  | 15     | 145      |      | 2500      |
|  | 15     | 125      |      | 2200      |
|  | 15     | 115      |      | 2200      |
|  | 15     | 155      |      | 2400      |
|  | 15     | 95       |      | 2400      |
|  | 15     | 105      |      | 2600      |
|  | 15     | 85       |      | 2400      |
|  | 15     | 65       |      | 2500      |
|  | 15     | 75       |      | 2500      |
|  |        |          |      |           |
|  |        |          |      |           |
| * -- Measurements performed with a Nal 2" x 2" detector; nominal background approximately 5500 cpm |        |          |      |           |
|  |        |          |      |           |

**Radiological Surveys of Open Land Areas**

**Texas Instruments Incorporated  
Attleboro, Massachusetts**

**Appendix B5**

**Building 10 Perimeter and Building 10 Alleged  
Zirc Burning Area**

**Grid Cell Averages**

**Building 10 Perimeter and Building 10 Alleged Zirconium Burning Area: Grid Cell Averages**

| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1'      | 1-2'      | 2-3'      | 3-4'      | 4-5'      | 5-6'      |
|------------------|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 160 N X 120 E    |                    | B10-176        | 122       | 122       | 20        | 20        | 18        | 18        |
|                  |                    | B10-340        | 2         | 2         | 2         | 2         | 19        | 19        |
|                  |                    | B10-182        | 2         | 2         | 2         | 2         | 2         | 2         |
|                  | <b>Average</b>     |                | <b>42</b> | <b>42</b> | <b>8</b>  | <b>8</b>  | <b>13</b> | <b>13</b> |
| 150 N X 120 E    |                    | B10-176        | 122       | 122       | 20        | 20        | 18        | 18        |
|                  |                    | B10-340        | 2         | 2         | 2         | 2         | 19        | 19        |
|                  |                    | B10-182        | 2         | 2         | 2         | 2         | 2         | 2         |
|                  |                    | B10-338        | 100       | 100       | 19        | 19        |           |           |
|                  |                    | B10-341        | 2         | 2         | 17        | 17        | 17        | 17        |
|                  |                    | B10-342        | 18        | 18        |           |           |           |           |
|                  |                    | B10-174        | 27        | 27        | 16        | 16        |           |           |
|                  |                    | B10-339        | 2         | 2         | 16        | 16        | 24        | 24        |
|                  |                    | B10-334        | 2         | 2         | 15        | 15        | 19        | 19        |
|                  |                    | B10-172        | 2         | 2         | 16        | 16        |           |           |
|                  |                    | B10-343        | 2         | 2         | 19        | 19        | 2         | 2         |
|                  |                    | B10-345        | 2         | 2         | 2         | 2         |           |           |
|                  |                    | B10-178        | 15        | 15        | 2         | 2         |           |           |
|                  | <b>Average</b>     |                | <b>23</b> | <b>23</b> | <b>12</b> | <b>12</b> | <b>14</b> | <b>14</b> |
| 10 N X 150 E     |                    | B10-100        | 2         | 2         | 9         |           |           |           |
|                  |                    | B10-111        | 2         | 2         | 2         |           |           |           |
|                  |                    | B10-102        | 2         | 2         | 2         |           |           |           |
|                  |                    | B10-117        | 2         | 32        | 13        |           |           |           |
|                  |                    | B10-333        | 11        | 2         | 2         | 2         | 15        |           |
|                  | <b>Average</b>     |                | <b>4</b>  | <b>8</b>  | <b>6</b>  | <b>2</b>  | <b>15</b> |           |
| 10 N X 160 E     |                    | B10-111        | 2         | 2         | 2         |           |           |           |
|                  |                    | B10-109        | 2         | 2         | 2         |           |           |           |
|                  |                    | B10-107        | 2         | 2         | 2         |           |           |           |
|                  |                    | B10-117        | 2         | 32        | 2         |           |           |           |
|                  |                    | B10-332        | 17        | 17        | 2         | 2         | 2         |           |
|                  | <b>Average</b>     |                | <b>5</b>  | <b>11</b> | <b>2</b>  | <b>2</b>  | <b>2</b>  |           |
| 0 X 150 E        |                    | B10-117        | 2         | 32        | 2         |           |           |           |
|                  |                    | B10-331        | 2         | 2         |           |           | 2         |           |
|                  |                    | B10-333        | 2         | 2         | 2         | 2         | 15        |           |
|                  |                    | B10-334        | 8         | 2         | 15        | 15        | 19        |           |
|                  |                    | B10-335        | 2         | 2         | 2         | 2         | 2         |           |
|                  | <b>Average</b>     |                | <b>3</b>  | <b>8</b>  | <b>5</b>  | <b>6</b>  | <b>10</b> |           |

# **Building 10 Perimeter and Building 10 Alleged Zirconium Burning Area: Grid Cell Averages**

| Location<br>Grid | Location<br>Sample | Sample<br>I.D. | 0-1'      | 1-2'      | 2-3'      | 3-4'      | 4-5'      | 5-6'      |
|------------------|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|
| O X 160 E        |                    | B10-113        | 2         | 2         |           |           |           |           |
|                  |                    | B10-117        | 2         | 32        | 2         |           |           |           |
|                  |                    | B10-330        | 26        | 26        | 2         | 2         | 2         |           |
|                  |                    | B10-331        | 2         | 2         |           |           | 2         |           |
|                  |                    | B10-332        | 17        | 17        | 2         | 2         | 2         |           |
|                  | <b>Average</b>     |                | <b>10</b> | <b>16</b> | <b>2</b>  | <b>2</b>  | <b>2</b>  |           |
| O X 110 E        |                    | B10-126        | 2         | 2         | 2         | 2         | 2         | 2         |
|                  |                    | B10-130        | 46        | 46        | 17        | 17        | 2         | 2         |
|                  |                    | B10-141        | 2         | 2         | 2         | 2         | 2         | 2         |
|                  |                    | B10-241        | 2         | 2         | 2         | 2         |           |           |
|                  |                    | B10-315        | 23        | 2         | 2         | 2         | 2         | 2         |
|                  | <b>Average</b>     |                | <b>15</b> | <b>11</b> | <b>5</b>  | <b>5</b>  | <b>2</b>  |           |
| 10 S X 140 E     |                    | B10-119        | 39        | 2         | 16        |           |           |           |
|                  |                    | B10-334        | 2         | 2         | 15        | 15        | 19        | 19        |
|                  |                    | B10-336        | 2         | 2         | 26        | 26        | 15        | 15        |
|                  |                    | B10-337        | 16        | 16        | 2         | 2         | 2         | 2         |
|                  | <b>Average</b>     |                | <b>15</b> | <b>6</b>  | <b>15</b> | <b>14</b> | <b>12</b> | <b>12</b> |